

INEQUALITY IN EDUCATION

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CERC Studies in Comparative Education 24

INEQUALITY IN EDUCATION

**Comparative and International
Perspectives**

**Edited by
Donald B. Holsinger &
W. James Jacob**



**Comparative Education Research Centre
The University of Hong Kong**



Springer

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Cover

The image on the front cover is a water colour painting by artist Natalie Jacob, titled *The Delicate Balance of Education Equality*.

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AEM	African Educational Movement (South Africa)
AIDS	Acquired Immune Deficiency Syndrome
AIPEBM	Area Intensive Programme for Educationally Backward Minorities (India)
ALS	Allocations de Logement Social (France)
ANC	African National Congress (South Africa)
APS	aide personnalisée au logement (France)
ASP	Afro-Shirazi Party (Tanzania)
BYU	Brigham Young University
CABE	Central Advisory Board of Education (India)
CASAS	The Centre for Advanced Studies of African Society
CATA	Cape African Teachers' Association (South Africa)
CCDC	Community and Child Development Centre (South Africa)
CCM	Chama cha Mapinduzi (Tanzania)
CCP	Chinese Communist Party
CCT	Conditional cash transfer
CDE	Consejo Directivo Escolar (Nicaragua)
CIDE	Center for International & Development Education (USA)
CNE	Christian National Education (South Africa)
CPPCC	Chinese People's Political Consultative Conference
DEP	Prospective de L'Education Nationale (France)
DFID	Department for International Development (UK)
DHS	Demographic and Health Survey
DISTAT	Disabilities Statistics Database (United Nations)
DNIS	Disability News and Information Service (India)
DPEP	District Primary Education Programme (India)
DPOs	Disabled People's Organizations
DREM	Disability Rights in Education Model
EC	European Commission

EDA	Exploratory data analysis
EDUCO	Educacion con Participacion de la Comunidad (El Salvador)
EFA	Education for All
ENA	l'Ecole Normale d'Administration (France)
ENAHO	Encuesta Nacional de Hogares (Peru)
ENEU	National Urban Employment Survey (Mexico)
ENIGH	National Household and Income Survey (Mexico)
ESCAP	Economic and Social Development in Asia and the Pacific (United Nations)
ESR	Education for Self Reliance (South Africa)
EU	European Union
FPE	Free Primary Education (Kenya)
FSLN	Frente Sandinista de Liberación Nacional (Nicaragua)
FTI	EFA Fast Track Initiative
GAD	Gender and Development
GATS	General Agreement of Trade in Services
GCE	General Certificate of Education (England)
GCSE	General Certificate of Secondary Education (England)
GDI	Gender Development Index
GDP	Gross Domestic Product
GE	General Entropy
GEAR	Growth, Employment and Redistribution Program (South Africa)
GEI	Gender Equality Index
GEEI	Gender Equality in Education Index
GEM	Girls' Education Movement (Uganda)
GEM	Gender Empowerment Measure
GER	Gross Enrollment Ratio
GNI	Gross National Income
GPI	Gender Parity Index
HDI	Human Development Index
HEFCE	Higher Education Funding Council for England

HEI	Higher education institution/s
HIV	Human Immunodeficiency Virus
ICF	International Classification of Functioning, Disability and Health (World Health Organization)
IEA	International Association for the Evaluation of Educational Achievement
IEDC	Integrated Education for Disabled Children (India)
IEP	Institut d'Etudes Politiques (France)
INEGI	National Institute of Statistics and Geography of Mexico
IIEP	International Institute for Educational Planning (UNESCO)
IFC	International Finance Corporation
IHF	International Helsinki Foundation
ILO	International Labour Organization
IMF	International Monetary Fund
ISESCO	Islamic Organization for Education, Science and Culture
IUP	Instituts Universitaires Professionalisés (France)
IUT	University Institutes of Technology (France)
KGSV	Kasturba Gandhi Swantantra Vidyalaya (India)
KMEST	Kenya Ministry of Education, Science and Technology
KNSO	Korea National Statistical Office
LANGTAG	Language Plan Task Group (South Africa)
LEA	Local Education Authority (UK)
LIS	Luxemburg Income Study
LOITASA	Language of Instruction in Tanzania and South Africa
LSE	Lower secondary education
MDGs	Millennium Development Goals
MET	Ministry of Education and Training (Iran)
MHRD	Ministry of Human Resources Development (India)
MME	Modernisation of Madrasa Education (India)
MOES	Ministry of Education and Sports (Uganda)
MOIME	Ministry of Industry, Mines and Energy (Cambodia)

MoEYS	Ministry of Education, Youth and Sports (Cambodia)
MWCD	Ministry of Women and Child Development (India)
NAFTA	North Atlantic Free Trade Agreement
NCERT	National Council of Educational Research & Training (India)
NEP	National Education Plan (India)
NER	Net Enrollment Rate
NPC	National People's Congress (China)
NPE	National Policy on Education (India)
NPEGEL	National Programme for the Education of Girls at the Elementary Level (India)
NTD	New Taiwan Dollar
NTU	National Taiwan University
OBC	Other backward castes (India)
OECD	Organisation for Economic Co-operation and Development
OFFA	Office for Fair Access (UK)
OP	Orçamento Participativo (Brazil)
OREALC	Regional Office for Latin America and the Caribbean
OSAGI	Office of the Special Adviser on Gender Issues (United Nations)
PCESE	President's Commission on Excellence in Special Education (USA)
PIRLS	Progress in International Reading Literacy Study
PISA	Programme for International Student Assessment
POA	Plan of Action (India)
PTR	Pupil-to-teacher ratio
RDP	Reconstruction and Development Program (South Africa)
RI	Representation Index
RME	Rede Municipal de Educação (Brazil)
RSG	Reinforcing Study Groups
RU	Restaurants Universitaires (France)

SACMEQ	Southern and Eastern Africa Consortium for Monitoring Educational Quality
SADC	Southern Africa Development Community
SAGE	Strategies for Advancing Girls' Education (USA)
SC	Scheduled Castes (India)
SEC	State Education Commission (China)
SEE/MG	Secretaria Estadual de Educacion (Brazil)
SEN	Special education needs
SES	Socioeconomic Status
SIL	Summer Institute of Linguistics
SSA	Sub-Saharan Africa
SST	Stolper-Samuelson-Type effect
ST	Scheduled Tribes (India)
TANU	Tanganyika National Union (Tanzania)
TATA	Transvaal African Teachers Association (South Africa)
TFYP	Tenth Five Year Plan (India)
TIMSS	Trends in International Mathematics and Science Study
TLSA	Teachers' League of South Africa
UCLA	University of California, Los Angeles (USA)
UEE	Universal Elementary Education
UEM	Universidade Eduardo Mondlane (Mozambique)
USAID	United States Agency for International Development
USE	Upper secondary education
UN	United Nations
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations Children's Fund
UNIDIR	United Nations Institute for Disarmament Research
UNFPA	United Nations Population Fund
UPE	Universal Primary Education
UTs	Union Territory (India)

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UV	Unité de Valeur (France)
WDR	World Development Report
WFP	World Food Program
WHO	World Health Organization
WID	Women in Development
WTO	World Trade Organization

Series Editor's Foreword

The question of inequality is one of the most important in education, as apparently intractable as it is morally critical. Inequality in education is a question at the heart of the endeavors of social theorists, sociologists, policy makers and practitioners committed to equitable distributions of educational and other social goods and to education development as a moral, social and political goal. It is in that sense that I am proud to welcome this volume to the *CERC Studies in Comparative Education* series. It is a volume that enhances the quality and strength of the series still further, and one that we hope will become essential reading for all in the field.

Why a book on inequality in education in a series in comparative education? I have defended elsewhere my view that comparative education is less a substantively distinct field, and more a methodologically defined subset of the broader field of education studies. To hold that comparative education is a method and not a field is on the face of it perhaps a rather heretical position for the editor of one of the field's leading book series to hold. My response would be in terms of the purposes of research in comparative and international education, and this volume, as I indicate here in introducing it, lies at the core of those purposes.

One might ask, if comparative education is a methodologically defined field, then to what end is the method employed? Bray and Thomas's 'cube' (1995) provides a very helpful analytical tool for clear identification of methodological questions relating to the *what*, the *who*, and the *where* of comparative education research. Sweeting (2007), in Bray, Adamson and Mason's *Comparative Education Research: Approaches and Methods* (2007, Number 19 in the *CERC Studies in Comparative Education* series), addresses questions relating to the *when*, as in historical comparisons. Other chapters in that volume address further 'how' questions of comparative education methodology: how to compare education systems, or policies; how to compare education across cultures; and so on. But if, as I have suggested, there is no field substantively distinct from the field of education studies that structures what comparative education researchers do, then the *why* question remains, which can perhaps be addressed by asking what values might best inform research in comparative education. From my perspective as editor of this series, an important answer lies in questions of educational equity, equality, and justice.

Let me explore further a response to this question by referring to UNESCO's Educational Equity Project in South and East Asia. A short while ago I was asked to contribute to a UNESCO meeting in Bangkok with the brief to offer a conceptual and methodological critique of the framework that

UNESCO's Institute for Statistics is using in assessing the extent of educational equity within countries in Asia. The review opened up some interesting methodological issues in comparative education research.

It was the geographical unit of comparison that proved to be a particularly thorny issue. Representatives from the Philippines reported that the more they disaggregated their regions (and the Philippines does have a rather large number of different regional educational jurisdictions), the more inequality was revealed. This came as no surprise to anyone, of course, but raised the issue of whether we would find the axis along which educational goods were distributed simply by disaggregating along regional or geographical lines. Interestingly enough, the case of Australia, although the odd one out in many respects in the group of countries participating, was also considered, and proved instructive in this regard. If one were to divide Australia into its constituent states and territories, very little educational inequality would probably be revealed. This is because educational goods in that country are unevenly distributed less along the axis of regional educational jurisdiction (in this case states and territories) than along the axis of ethnicity. Aboriginal children do far less well than white children do in Australian schools. Disaggregating by region would not reveal this, because the different educational outcomes registered by Aboriginal and white children respectively in Sydney in New South Wales would be balanced and thus hidden by similar disparities in Brisbane in Queensland. Further disaggregation by region might still not reveal this, unless the researcher happened to cut a particular area or city into districts along lines that happened to coincide with the racial boundaries in that particular area.

What emerged from this is the point that comparative education researchers cannot hope, in their assessments of educational equality and equity in a particular country, for example, to find the axis along which educational goods are differentially distributed simply by disaggregating that country along regional lines – an obvious point for the obvious reason that educational goods may not be differentially distributed along regional lines in that country.

Eight chapters in this volume consider the education Gini coefficient as a means for measuring educational attainment, thus providing a unique comparative perspective on inequality in national education systems. The education Gini coefficient measures the distribution of education and calculates an index of educational inequality in a particular jurisdiction. Several of the book's chapters disaggregate what is revealed by the education Gini coefficient to provincial and district levels, thereby offering insights into the various causes of inequality and inequity in education.

My view is that the most morally worthwhile purposes of comparative education research lie in these questions of educational equity, equality, and justice – the questions, in other words, of educational development – and that a critical challenge for comparative education researchers is to identify what I

have referred to here as *the axis along which educational goods are differentially distributed*, and to conduct their research along and across that axis. Inequities, inequalities and injustices of every hue – not only the ‘big four’ of socioeconomic status (SES, or what in classic Marxist terms was associated with the concept of ‘class’), ethnicity (previously discussed under the rubric of ‘race’), gender, and geographic location (space, place, or more specifically, urban/rural divides) – are surely to be found in every one of the cells of the Bray and Thomas ‘cube,’ and it is these that comparative education researchers should be concerned to explore, to analyze, to understand, and to expose. The aims and purposes of those social theorists, sociologists, policy makers and practitioners committed to a more humane world include distributions of educational and other social goods that are more equitable, equal, and just. These purposes, and this reminder that these inequities, inequalities and injustices lie in every domain of education, take us to the heart of this new volume in the *CERC Studies in Comparative Education* series.

Don Holsinger and James Jacob, and the authors who have contributed chapters to this volume, have chosen to work with and for the poor, the excluded, the marginalized. They have chosen to work in that critical field associated with comparative and international education – education development – against inequity, inequality, and injustice. It’s in that domain where the editors and contributing authors will make a substantial difference with the publication of this volume.

Inequality in Education: Comparative and International Perspectives is a compilation of conceptual chapters and national case studies that includes a series of methods for measuring education inequalities. The book provides up-to-date scholarly research on global trends in the distribution of formal schooling in national populations. It also offers a strategic comparative and international education policy statement on recent shifts in education inequality, and new approaches to explore, develop and improve comparative education and policy research globally. Contributing authors examine how education as a process interacts with government finance policy to form patterns of access to education services. In addition to case perspectives from 18 countries across six geographic regions, the volume includes six conceptual chapters on topics that influence education inequality, such as gender, disability, language, and economics, and a summary chapter that presents new evidence on the pernicious consequences of inequality in the distribution of education. The book offers a better and more holistic understanding of ways to measure education inequalities and, more than this, strategies for facing the challenge of inequality in education in the processes of policy formation, planning and implementation at the local, regional, national and global levels.

As I indicated above, it is our hope in publishing this volume that it becomes a, if not the, leading text in education development – a field, in turn,

whose moral, social, and political importance should not, in an increasingly unequal world, be under-estimated.

Mark MASON

Editor

CERC Studies in Comparative Education Series

Director

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Inequality in Education: A Critical Analysis

W. James JACOB & Donald B. HOLSINGER

Introduction

Several leading development agencies had posited education and equity as key themes at the onset of the 21st century. The United Nation's Millennium Development Goal (MDG) No.2 "Achieve Universal Primary Education" and MDG No.3 "Promote Gender Equality and Empower Women" are devoted to educational attainment and equity on a global level. UNESCO's Institute for Statistics (Sherman & Poirier 2007) recently published a book that compares education equity among 16 of the world's largest countries. Although the focus of this UNESCO volume was limited—using access to formal schooling and allocated resources to education as operational definitions of equity in the case countries—the selection of this topic by UNESCO emphasizes the urgency of education inequality analysis by and for educators, researchers, and policy makers. The World Bank's *World Development Report* (WDR) features a global development issue thought to be especially timely. The WDRs are generously funded and typically of high professional rigor. The discipline of economics is always well reported as expected. The WDR for 2006, in a line of such reports dating back to 1978, is titled *Equity and Development*. Equity or equality and its ubiquitously maligned antonym, inequality, is a theme that appears with uniform regularity in the publications of major development agencies as well as finding a home in the development prospectus of the smallest nongovernmental organizations. Linking equity to development in the title of the WDR 2006 will provide grist for the mill of only the most hardened of World Bank critics. Like us, many development professionals recognize the World Bank, with its enormous reach and prestige, for placing equity front and center on the development stage.

But why the urgency now? And, in any case, should our concern with equity go beyond the ideal of social justice to the heart of a development agenda? What is the known relationship, if any, between equity and development? And what role, if any, does inequality in educational attainment or learning achievement play in a nation's development ranking?

We take up most of these issues in this volume. Our concern is with one kind of inequality, namely, education inequality. The WDR for the first time

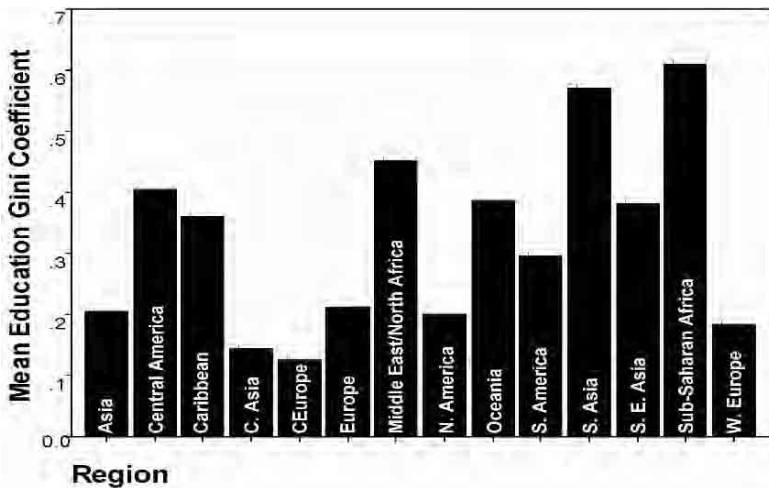
moved beyond the question of the inequality of wealth, to the significance of inequality in the production of human capital.

Table 1.1 draws from data in the WDR's Table A4 (pp.284-285) and is of immediate interest in this respect. The table shows a new data set assembled from individual-level records of various household surveys across 124 countries, showing various measures of inequality in educational attainment in the labor force, that is, among the population past school age. The major headings of Table A4 demonstrate an analytical approach to the topic and also reveal the expected co-variants of education inequality. These headings include:

- Share of the population with no schooling, 1-6 years, 7-12 years, or 13 or more years of schooling.
- Mean years of schooling among urban vs. rural residents, and among men vs. women.
- Two statistical measures of inequality in schooling attainment, including the Gini index or Gini coefficient which measures the gap between the actual distribution of education attainment and full equality.

As we begin our introduction, we ask the reader to examine Figure 1.1 below which is our reconstruction of data from the WDR graphically depicting the worldwide distribution of the education Gini coefficient.

Figure 1.1: Distribution of the Education Gini Coefficient



The figure leaves little doubt that education inequality is highly variable in today's world, thus inviting an explanation to account for this variation. We obtain some clues as to the range of possible explanations from this figure and other data in Table A4 where striking patterns may be observed:

Table 1.1: Global Education Statistics and Inequality Measurements, Select Countries

Survey Year	Share of total population by years of schooling				Mean years of schooling				Education Inequality Measures			Share of Inequality Attributable		
	0	1-6 years	7-12 years	13 or above	By location		By gender		Gini Index	GE (0.5)	To location	To gender		
					Total	Urban	Rural	Male						Female
Brazil	2001	0.20	0.21	0.23	0.36	8.38	8.67	6.61	8.44	8.32	0.39	0.53	0.01	0.00
Cambodia	1999	0.00	0.63	0.36	0.01	5.70	7.12	5.52	6.35	5.15	0.28	0.12	0.04	0.04
Cameroun	1998	0.32	0.29	0.30	0.08	5.32	7.58	4.14	6.54	4.27	0.50	0.84	0.05	0.03
China	2000	0.07	0.33	0.55	0.05	6.54	8.53	5.18	7.22	5.82	0.37	0.35	0.08	0.02
Egypt, Arab Rep.	2000	0.35	0.19	0.28	0.17	6.60	8.60	4.83	7.90	5.28	0.51	0.90	0.95	0.02
France	1994	0.20	0.12	0.48	0.20	8.26	8.58	7.36	8.24	8.28	0.37	0.49	0.00	0.00
Ghana	1998/1999	0.31	0.14	0.41	0.14	6.62	8.79	5.39	8.31	5.22	0.46	0.78	0.04	0.04
India	1998/2000	0.41	0.20	0.31	0.08	5.03	7.78	3.93	6.50	3.57	0.56	1.02	0.05	0.04
Kenya	1999	0.20	0.26	0.52	0.02	6.26	8.05	5.48	7.01	5.56	0.38	0.51	0.03	0.01
Lesotho	2000	0.15	0.39	0.42	0.03	5.82	...	...	...	...	...	...	...	...
Malawi	2000	0.30	0.40	0.30	0.01	4.23	7.67	3.60	5.46	3.08	0.52	0.80	0.06	0.05
Mexico	1999	0.08	0.41	0.37	0.14	7.78	8.63	4.67	8.10	7.49	0.34	0.30	0.09	0.00
Mozambique	1997	0.48	0.43	0.08	0.00	2.24	4.64	1.54	3.2	1.45	0.65	1.27	0.11	0.06
Namibia	2000	0.20	0.23	0.53	0.04	6.65	8.29	5.35	6.73	6.57	0.38	0.52	0.05	0.00
Nicaragua	2001	0.23	0.41	0.26	0.10	5.57	7.28	2.91	5.54	5.99	0.49	0.67	0.13	0.00
Nigeria	1999	0.39	0.23	0.28	0.11	5.77	8.06	4.77	7.06	4.61	0.53	0.97	0.03	0.02
Peru	2000	0.08	0.32	0.39	0.21	8.76	10.24	5.56	9.51	8.03	0.30	0.26	0.14	0.01
Sierra Leone	2000	0.74	0.04	0.19	0.03	2.44	...	...	...	...	...	...	...	...
South Africa	1998	0.74	0.14	0.09	0.03	1.95	3.93	0.58	2.72	1.33	0.79	2.10	0.19	0.11
Swaziland	2000	0.20	0.24	0.52	0.04	6.78	...	...	...	...	...	...	...	...
Taiwan, China	2000	0.05	0.22	0.47	0.26	9.48	9.74	7.03	10.15	8.84	0.30	0.24	0.02	0.01
Tanzania	1999	0.30	0.19	0.50	0.01	4.58	6.03	4.05	5.36	3.93	0.41	0.74	0.02	0.00
United Kingdom	1999	0.00	0.00	0.68	0.31	12.16	12.31	11.98	12.21	12.11	0.11	0.02	0.00	0.00
United States	2000	0.00	0.02	0.42	0.55	13.83	13.96	13.37	13.85	13.80	0.13	0.04	0.00	0.00
Uganda	1995	0.32	0.39	0.27	0.03	4.23	7.53	3.71	5.46	3.12	0.50	0.82	0.05	0.05
Vietnam	2000	0.06	0.34	0.57	0.02	6.96	8.48	6.44	7.43	6.53	0.28	0.22	0.04	0.01
Zambia	1992	0.16	0.30	0.49	0.06	6.26	8.45	4.91	7.41	5.14	0.37	0.44	0.08	0.94
Zimbabwe	1999	0.10	0.21	0.62	0.07	7.57	9.52	6.22	8.41	6.81	0.30	0.30	0.08	0.02

Source: The World Bank, World Development Report 2006: Equity and Development (New York: Oxford University Press, 2006, pp. 284-285).

- The first nine most unequally distributed countries are all in Sub-Saharan Africa (SSA); the 21 most unequally distributed are all in either SSA or Asia-Near East. The most unequally distributed countries among Latin American countries, Haiti and Guatemala, come in at 21st and 25th in this global ranking.
- In general, overall inequality in education is highly correlated ($r = -.93$) with low overall school attainment, or number of years of education completed. In the most unequally distributed country, Burkina Faso, 86% of the population beyond the usual school age had no schooling at all. Many of the countries for which no data were available on schooling inequality also had very low levels of overall attainment.
- The range of inequality in schooling attainment across countries is much greater than the range of inequality in income or consumption (not shown). Burkina Faso has the greatest inequality in schooling, with a Gini coefficient of 0.90; at the low end, the US and several countries in Western and Eastern Europe have schooling Ginis in the 0.10-0.13 range. In contrast, the Gini Index for income inequality is much more compressed, ranging from 0.59 in a notoriously unequal country like Brazil [and a bit higher in Haiti (0.68) and Botswana (0.63)], down to a minimum of 0.25 in Sweden.
- The table contains a statistical decomposition of schooling inequality into the portions attributable to rural vs. urban residence, and that portion attributable to gender. In general, the rural-urban portion is substantially higher than the gender gap. Just as striking, the share of both these attributes in total schooling inequality tends to be rather small, suggesting that the main factors explaining schooling inequality lie elsewhere (e.g., in household income and other measures of socioeconomic inequality).

Defining Equity and Equality

At the outset of this book, it is important to define the key and underlying terms interwoven throughout the volume. While contributing authors provide multiple and, in some cases differing or conflated definitions, we want to provide in this introductory chapter distinctions as we view them between the terms *equity* and *equality*. We thus define equality as the state of being equal in terms of quantity, rank, status, value, or degree. Equity considers the social justice ramifications of education in relation to the fairness, justness, and impartiality of its distribution at all levels or educational subsectors. Both terms are the focus of this book and are examined under multiple and sometimes comparative international contexts.

A review of prominent historical equality and equity works include the

writings of James S. Coleman (1966, 1968); Martin Bronfenbrenner (1973); Aletta Grisay (1984); Gewirtz, Ball, and Bowe (1995); and Joseph P. Farrell (1999). Five definitional types of inequality are identified by Coleman (1968) in his *Harvard Educational Review* article: (1) differences of the communities inputs to the school; (2) racial composition of the school; (3) various intangible characteristics of the school; (4) consequences of the school for individuals with equal backgrounds and abilities; and (5) consequences of the school for individuals of unequal backgrounds and abilities (pp.16-17). Bronfenbrenner (1973) notes that equality refers to quantity and equity refers to the fairness or social justice of the distribution of education. Grisay (1984) discusses five principles of educational equality: natural equality principle, equality of access principle, equality of treatment principle, equality of achievement principle, and the post-modern principle. Gewirtz et al. make a distinction between these two terms and define equality as a matter of education based on facts and equity as a matter of education based on values. Farrell (1999) largely supports Bronfenbrenner's definitions yet also recognizes that these definitions may very well differ depending on individual, subgroup, or group perspectives.

Scholars have identified factors that lead to or perpetuate inequalities in education, including but not limited to opportunities for educational attainment (Breen & Jonsson 2005; Connolly 2006; Shavit & Blossfeld 1993), culture (Bourdieu 1977; Reagan 2005; Reay 2004), disabilities (Carrier 1986; Peters 2003), gender (Stromquist 2005; UNICEF 2007), globalization (Carnoy 1999; Rambla 2006), HIV/AIDS (Jacob & Collins 2008; UNAIDS/UNESCO 2005), language (Brock-Utne 2007; Hungwe 2007), natural disasters (Gitter & Barham 2007; Skoufias 2003), neoliberalism (Apple 2001, 2005; Colclough 1996; Hershock, Mason & Hawkins 2007), political economy (Collins 2004; Holsinger 2005), politics (Dale 1989; Marginson & Mollis 2002), poverty (Narayan 2000; Reimers 2000), privatization (Belfield & Levin 2002; Geo-JaJa 2004; Torche 2005), race or ethnicity (Ogbu 1988; Persell, Arum & Seufert 2004; Phalet, Deboosere & Bastiaenssen 2007), religion (Driessen 2002; Mehrotra & Panchamukhi 2006), social class (Erikson & Goldthorpe 1992; Jonsson, Mills & Müller 1996; Persell 1977; Stromquist 2004), societal values and norms (Foster, Gomm & Hammersley 2000; Goddard 2003), socioeconomic status (Ellwood & Jencks 2001; Filmer & Pritchett 1999; Treiman & Yip 1989), standardized tests (Baker, Goesling & LeTendre 2002; Freeman 2004; Reimers 2000), and war (Davies 2005; Nafziger & Auvinen 2002; Stewart, Humphreys & Lea 1997). The chapters appearing in this volume do not address all these factors and the myriad issues arising from them. They do touch on many of them, however. Our conclusion is that no single factor can ultimately explain the local, regional, or national disparities associated with education in a given country and in most cases a multivariate explanation is required to portray the complexities associated with the inequalities of education.

Several methods are employed in this volume for measuring education equality and equity, including the measurement of educational attainment, distribution, planning, and stratification. In addition to this initial chapter, seven others include the education Gini coefficient¹ as a means for measuring attainment, giving the volume a unique and comparative look at national education systems. In addition, several chapters disaggregate the education Gini findings to county and province levels, which provide insights into the various causes of existing and projected inequalities in education. The education Gini coefficient measures the distribution of education and calculates an index of educational inequality. The larger the Gini coefficient, the less equal the distribution; that is, the Gini coefficient ranges from 0 (perfect equality) to 1 (perfect inequality). The education Gini coefficient can be graphically displayed using a Lorenz curve.² In addition to the education Gini coefficient, Thomas, Wang, and Fan's Chapter 2 also uses the education Theil index for comparing the distribution of educational attainment across countries over time.³

While quantitative findings are helpful and shed light on national education contexts, an overemphasis on statistics limits scopol analysis. We agree with John W. Tukey (1977) who recognizes that an over reliance on statistical hypothesis testing often conceals underlying or hidden variables in an analysis, particularly relevant while examining the inequalities in education. Rather, additional methods of triangulation or support (e.g., by employing exploratory data analysis [EDA]) are needed to provide qualitative description based on contextualization of the educational phenomenon. Many of the chapters in this volume provide examples of triangulation and multivariate analysis to examine the dynamics and variations of education within and between countries. These methods of measuring the inequalities in education have theoretical underpinnings which is the focus of the next section of this chapter.

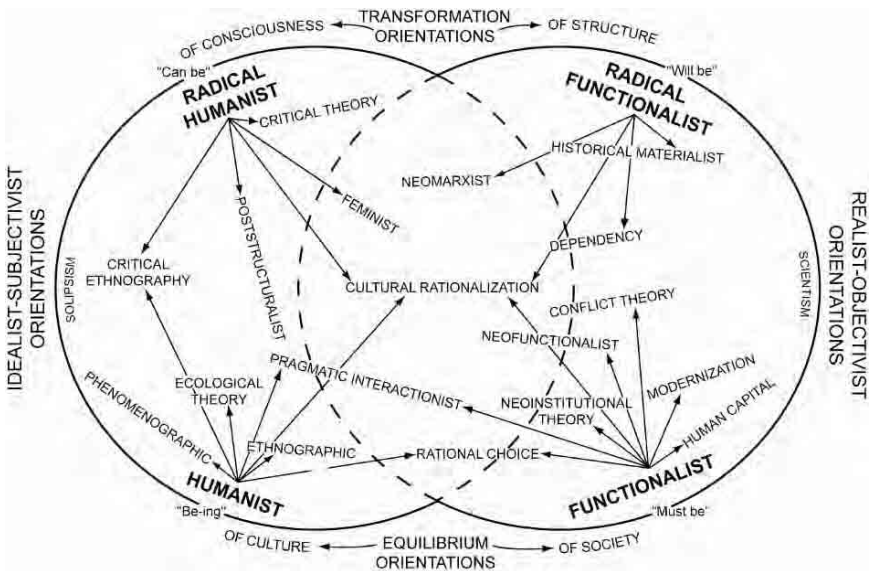
Setting the Theoretical Stage for the Inequalities of International Education

Theoretical frameworks for mapping societal phenomena and change are as diverse as the factors that lead or contribute to the inequalities in education. Rooted in the social sciences, several founding theorists and scholars have contributed to this theoretical cartography (Paulston 1996). We would like to identify several of the major theoretical paradigms used by scholars, including the contributors to this volume, as a means of introduction rather than advocacy. In providing this theoretical introduction, we recognize both the strengths and weaknesses of various theoretical perspectives and ultimately take more of an eclectic theoretical stance that is largely determined by the dynamic education needs or topic of study associated with local, national, or international context/s (i.e., taking into account cultural, economic, historical, political, and social circumstances).

We also feel it necessary to provide a framework of theoretical dialectics that rise in opposition to one another, highlighting the ability of the examination of inequalities from a number of theoretical lenses. Paulston (1994, 1996, 2000), along with Jacob and Cheng (2005), examined social theories in relation to the field of comparative, international, and development education from dialectical and hemispherical perspectives that follow both linear (two-dimensional) and circular (three-dimensional) patterns or maps. Figure 1.2 portrays the dialectical subjective (solipsism) and objective (scientism) theoretical hemispheres along the x-axis and the equilibrium and transformation orientations along the y-axis.

Figure 1.2: A Macromapping of Paradigms and Theories in the Comparative, International, and Development Education Field

Adapted from Paulston (1994, p.931).



By linear pattern we mean that the theoretical landscape has evolved over time with a theoretical nexus forming after World War II in the area of international and development education. Framed largely within a Cold War context, the development education theories that arose during this period corresponded in many ways with political and economic ideologies advocated by the super-powers of that era. Steeped in the “development” rhetoric of the Cold War Era, functionalist theories (modernization and human capital) prevailed in the general international development arena in the 1950s and increased in momentum over the next quarter century (Collins 1971; Inkeles & Holsinger 1973; Inkeles & Smith 1974; Parsons 1959; Shultz 1961). Almost from the onset, functionalist theorists began

facing increasing opposition from scholars and policy makers who offered counterbalance perspectives as a response to what the functionalist critics viewed as the emergence of a primarily neoliberal theoretical framework. Functionalist critics were supported by decades of limited international development education success stories and failed education efforts in other national contexts. This paradigm shift fueled the rise of conflict, dependency, world systems, and neo-Marxist theories in the Radical Functionalist quadrant of Figure 1.2 (see Cardoso & Faletto 1979; dos Santos 1976; Frank 1975; Ritzer & Schubert 1991; So 1990; Vengroff 1977; Wallerstein 1974). The Radical Humanist Quadrant, with its multiple critical theories (including critical literacy, critical race, feminist, and postmodernist theories), came to the forefront of international development education theories in the 1980s but has roots in much earlier works (Freire 1970; Giroux 1983; Habermas & Ben-Habib 1981; Harding 1998; Kellner 2000; Solorzano 1998). Finally, the Humanist Quadrant of Figure 1.2 contains current theories associated with ecology, ethnography, and phenomenology (Bronfenbrenner 1976 and 1979; Geertz 1988; Hammersley 1992; Hamrick 1985). Neoinstitutional theory, as advocated by John Meyer and others (Meyer, Boli, Thomas & Ramirez 1997; Schofer, Ramirez & Meyer 2000), joined the Functionalist Quadrant in the 1990s and provided assistance in examining other factors that may temporarily hinder economic development in the short run (such as advocacy for human rights and social justice) but recognized its importance in sustainable development.

By circular pattern we offer an alternative to the linear or chronological development education theories that are largely rooted in traditionally Western or dominant societies. This circular pattern also allows researchers to examine an educational phenomenon from a three-dimensional, spherical standpoint where any number of qualitative perspectives from different standpoints along a spherical surface can examine the educational phenomenological core. Theories that fit within this circular cartography include critical theories, ethnography, ecological theory, and phenomenology.

Organization of This Book

In addition to some new materials of our own, the purpose of this chapter is to introduce the balance of the volume and to direct the reader to topics of greatest interest. As is appropriate in edited works, this one has an organizational logic. We present chapters both by region and by themes. While the regional organization is self-explanatory, the thematic aspects are perhaps less so.

We have grouped the chapters into two primary sections: conceptual issues and geographic regions. Six chapters address specific conceptual issues that range from global trends and comparisons of inequality to specific topics such as how capitalism, gender, disabilities, and language influence and affect overall education inequalities. Sixteen chapters are arranged into five major geographic

regions: Asia, Europe, North Africa and the Middle East, North and South America, and SSA. These chapters provide national case studies that address a number of issues relating to education and inequality. Five chapters provide comparative studies between two or more nations. In this introductory chapter, we have identified several education inequality themes that have emerged over the conceptualization process of this volume which are detailed in this section.

Theme 1: The Concept of Inequality as Applied to Education

Education is often viewed as a key catalyst for overall individual, community, and national development (see for instance, Sen 2000; Bowles & Gintis 1976). Human capital theory was based on this notion and was critiqued through countless studies over the past half century (Baker & Holsinger 1996; Diener & Dweck 1978; Harber 2002; Lane 2001). Achieving equity in education quality, opportunities, and outcomes have long been objectives of national governments and donor agencies. Billions of dollars have been committed to helping the world's poor help themselves. Organisation for Economic Co-operation and Development (OECD) countries devote large amounts of public and private funds to local and national education efforts in all education subsectors. However, development education efforts have often been unsuccessful and lead to unforeseen repercussions including the paradoxes of underdevelopment or de-development. These repercussions inevitably harbor countless inequalities; hence, this volume discusses many of these paradoxes in multiple national settings and geographic regions. Inequalities in terms of educational opportunities and attainment, both within and among countries are examined.

Theme 2: The Measurement of Education Inequality

Measuring education inequality is not an easy task; scholars have attempted to do this for many years. In this volume, contributors provide multiple methods for measuring education inequality. These methods range from qualitative studies with students and teachers to economic analysis of attainment through the Theil index or education Gini coefficient. While no one method is recognized as the end-all solution to measuring education inequalities, these methods do provide us with a starting point for a sound foundation. We also recognize that there are multiple ways of viewing education and the inequalities of education. It is not the intention of this volume to advocate one method of measurement over another; rather we are set on highlighting a variety of measurement possibilities for educators, researchers, and policy makers in examining blatant and, in many cases, hidden inequalities associated with education. It is thus our explicit intent to include differing methodological approaches for examining educational inequalities. We feel that rather than detracting from a singular measurement medium, these multiple approaches strengthen the overall volume.

Several chapters examine differing methods for measuring education inequality. Thomas, Wang, and Fan (Chapter 2), Wu (Chapter 4), Collins (Chapter 8), Rew (Chapter 13), Crouch, Gustafsson, and Lavado (Chapter 20), and Unterhalter and Oommen (Chapter 23) contribute conceptual chapters and case studies through measuring education inequality on national, regional, and global levels. Others, such as Deer (Chapter 14), Johnson and Howard (Chapter 19), and Meek and Meek (Chapter 22) provide descriptive critiques of education inequality based on the literature and governmental policy analysis. Still others examine one, overarching issue—such as capitalism (Chapter 3), gender (Chapter 5), disabilities (Chapter 6), or language (Chapter 7)—from an education inequality lens. Several chapters also offer qualitative or mixed-methods analyses, including Megahed and Ginsburg's Chapter 16 and Kheiltash and Rust's Chapter 17.

Theme 3: The Relationship between Education Inequality and Economic Growth

There is a striking relationship between the education Gini and GDP per capita growth from 1990 to 1999. The table below illustrates this relationship by comparing fifteen Western European Countries with 36 SSA countries. The mean education Gini for Western Europe in 1999 was .18 whereas for Sub-Saharan African that same distributional figure was a very unequal .61. For the same decade the per capita income growth in Western Europe was a low but steady 2%. But in Sub-Saharan Africa the decade saw slightly negative (-0.41) per capita growth. Of course, we do not argue that the mere fact of the relationship is proof of a causal connection. Nevertheless, neither do we believe that this is a random phenomenon. Countries that have highly equitable distribution of human capital in their labor force are countries whose per capita incomes grow. High birth rates in Sub-Saharan Africa of course make it difficult to achieve equitable distributions of education and, at the same time, contribute to each individual having a smaller share of national wealth. The relationship around the globe between the education Gini and per capita income (1999) is also very high ($r = -.47$).

Theme 4: The Relationship between Inequality and Per Capita Income

The relationship around the globe between the education Gini and per capita income (1999) is also very high ($r = -.67$). Countries comprising the lowest tenth of all countries whose GDP per capita ranges from US\$100 (in Burundi and Ethiopia) to US\$220 (in Rwanda) have a very unequal distribution of education in their respective labor forces (.71). Sharply contrasting with these are the countries in the top tenth whose education Gini is a very equal .13. Again, while we are in no position to say that this relationship is causal, we are reminded that all causal relationships are highly correlated. This degree of association is well beyond a chance expectation. What is it then that is at work here? Does the relationship

Table 1.2: Relationship of Education Gini to GDP Per Capita Growth

Western European Countries				
Country	Education Gini		GDP per capita growth 1990-1999	
	Coef.	Rank in 128	Rate	Rank in 128
Austria	.14	16.0	1.4	54.0
Belgium	.22	38.5	1.4	54.0
Denmark	.11	4.0	2.0	39.0
Finland	.15	19.5	2.0	39.0
France	.37	66.0	1.1	61.5
Germany	.25	47.5	1.0	64.5
Ireland	.11	4.0	6.1	3.0
Italy	.23	41.0	1.2	58.5
Luxembourg	.21	35.5	3.8	12.5
Netherlands	.13	12.0	2.1	35.0
Norway	.11	4.0	3.2	17.5
Spain	.31	57.5	2.0	39.0
Sweden	.16	22.5	1.2	58.5
Switzerland	.13	12.0	-.1	78.5
United Kingdom	.11	4.0	2.1	35.0
(mean)	.18	25.6	2.0	43.3
Sub-Saharan African Countries				
Country	Education Gini		GDP per capita growth	
Angola	NA	NA	-2.8	102.0
Benin	.75	103.0	1.8	44.0
Burkina	.90	111.0	1.4	54.0
Burundi	NA	NA	-5.0	110.0
Cameroon	.50	81.5	-1.5	98.0
Central	.66	95.0	-.3	84.0
Chad	.86	108.0	-.9	94.5
Comoros	.71	99.0	-3.1	105.5
Congo, DR	NA	NA	-8.1	114.0
Côte d'Ivoire	.68	96.0	.6	71.5
Ethiopia	.83	105.5	2.4	28.0
Gabon	.39	73.5	.6	71.5
Gambia	NA	NA	-.6	92.0
Ghana	.46	78.5	1.6	47.5
Guinea	.84	NA	1.5	99.0
Guinea-Bissau	NA	107.0	-1.9	50.0
Kenya	.38	70.0	-.3	84.0

Table 1.2: Relationship of Education Gini to GDP Per Capita Growth (Continued)

Sub-Saharan African Countries				
Country	Education Gini		GDP per capita growth	
Lesotho	NA	NA	2.1	35.0
Madagascar	.31	57.5	-1.2	97.0
Malawi	.52	84.0	.9	67.0
Mali	.87	109.0	1.1	61.5
Mozambique	.65	94.0	3.8	12.5
Namibia	.38	70.0	.8	69.0
Niger	.88	110.0	-1.0	96.0
Nigeria	.53	85.5	-5	88.5
Rwanda	.55	88.0	-3.0	104.0
São Tome	NA	NA	-9	94.5
Senegal	.83	105.5	.6	71.5
Sierra L	NA	NA	-7.0	113.0
South Africa	.79	104.0	-.2	81.0
Swaziland	NA	NA	-.2	81.0
Tanzania	.41	75.0	-.1	78.5
Togo	.62	92.0	-.5	88.5
Uganda	.50	81.5	4.0	9.5
Zambia	.37	66.0	-2.4	101.0
Zimbabwe	.30	54.0	.6	71.5
(average rank)	.61	89.0	-0.41	76.9

work the other way? That is, are wealthy countries more able to afford the delivery of education services to all their citizens than poor countries, which are forced to decide among competing demands on the national treasury? Or are countries like Vietnam, for example, that are poor but have nevertheless made equal education access a high national priority, experiencing more productive labor forces that lead inexorably to higher per capita wealth? Or, are both directions simultaneously at play?

Theme 5: Changes and Trends in Education Inequality

More people gaining access to primary, secondary, and higher education that should translate into greater educational equality and equity is not necessarily the case. Critiques often describe educational advances as perpetuating a vicious cycle of education inequalities (Hershock, Mason & Hawkins 2007). David Hill and colleagues in Chapter 3 of this volume address the issue whether capitalism ultimately leads to greater inequality. While evidence can be found in favor of and against this argument in the academic literature, our concluding chapter

highlights recent trends that support the view that inequality in the distribution of education (number of years of completed schooling, or, attainment) is correlated with inequality of student learning achievement. We argue in our concluding chapter that inequality in education leads to inequality in material well-being or, perhaps more precisely, the maintenance of existing income inequality.

Table 1.3: Relationship between Per Capita Income (2001) and Education Inequality

GDP capita range 2001 (USD)	Number of countries	Mean Ed Gini	SD of Ed Gini
0 – 219	9	.71	.24
219 – 318	11	.51	.14
318 – 448	9	.53	.23
448 – 642	10	.51	.24
642 – 1,190	11	.38	.15
1,190 – 1,750	12	.34	.18
1,750 – 3,097	12	.27	.13
3,097 – 5,566	11	.24	.07
5,566 – 26,297	12	.20	.08
26,297 – 46,000	11	.13	.03

Great strides have been made in eliminating some forms of education inequalities; however, many others remain. Income disparities, opportunity differences available to dominant and minority races and ethnic groups, and disabilities continue as limiting factors of educational progress in rural and urban settings (Goesling 2001; Reay 2004). Where achieving universal primary education eliminating illiteracy were once dual goals for many developing countries, a primary and, in many cases, a secondary-level graduation certificate is no longer sufficient to secure employment in an increasingly globalized work environment (Altbach & Peterson 2007; Döbert 2004; Haveman & Smeeding 2006). The horrific HIV and AIDS trend in Sub-Saharan Africa and elsewhere has left millions of children orphaned spans both genders, social classes, and ethnic groups (Morisky, Jacob, Nsubuga & Hite 2006). The MDGs were established to help realize education equality on a global scale and provide a benchmark for educational standards. Yet, in a world that revolves around a predominantly knowledge-based economy, education systems of yesteryear were not sufficient for the social needs and employment demands of today and in the future. The future of education requires what Hawkins (2007) calls a paradigmatic shift away from the negative aspects of neoliberal politics and economics and toward positive social change.

Theme 6: Race, Social Class, Disability, and Gender

Cross-cutting factors like race, social class, disability, and gender seem inevitably linked to the inequalities in education. Ever widening gaps between dominant and minority racial and ethnic⁴ groups continue to surface as contributors to education injustices and disparities (Aguolu 1979; Frisbie & Parker 1977; Gibson 1997). Politics is often at the root of racial tension, nurturing countless ethnic inequalities in developing countries' lengthy colonial histories and reverberating in most contemporary nation states (Blanton, Mason & Athow 2001). Linguistic genocide, loss of indigenous cultures, limited access to secondary and higher education, educational attainment, detribalization, and eventual assimilation into the dominant or hegemonic ethnic groups are among the many race-associated education inequalities that are discussed in this volume.

Closely linked to race and ethnicity is the term *social class*, another theme interwoven throughout this volume. We define social class in the traditional sociological manner as a grouping mechanism for which the basis of group membership is usually an ascribed or inherited characteristic that cannot easily be altered by the group member. Status, on the other hand, is an achieved characteristic that can be lost, gained, or modified within an individual's lifetime. Education status, for example, refers to the number of years of schooling completed, the final degree conferred, or the prestige of the degree-granting institution.⁵ Mary Ann Maslak's Chapter 10 examines distinctions in social classifications which is in part due to the imbedded and immutable caste system in many ways unique to the Indian case. Tyrone Howard and Eric Johnson critique the role of social class within the US education in Chapter 19. They focus on the negative aspects of a neoliberal system that permeates the US economy and which is supported by an education system that perpetuates social class inequalities.

An often neglected and marginalized factor associated with the inequalities of education is *disability*. While an entire chapter is devoted to this topic (Chapter 6), this is an area of significant dearth in the academic literature. Disability is a broad and overarching term that encompasses physical, mental, emotional, and spiritual disadvantages. Too often stigma and discrimination are among the inequalities associated with disabilities in education (Bagenstos 2000; Nsubuga & Jacob 2006).

Gender is a frequent topic of discussion within this volume and is examined from a variety of lenses. Contributing authors look at the trends of education inequalities between males and females in relation to educational attainment, access to higher education, and compounded with the disparities of minority ethnic status. Karen Hyer and colleagues examine multiple gender discrepancies as they relate to education on a global scale in Chapter 5 and offer suggestions for impacting policy and practice. Like race, social class, and disability, gender inequalities remain at the forefront of social justice in education debates at local,

national, and global levels (Seidman 1999; Shu 2004; Stromquist 1995). Where race and gender tend to be what Farrell (1999) considers “immutable and identifiable characteristics,” disabilities and social class are generally much less identifiable characteristics (p.158).

Summary of Book Chapters

The book opens with the authors’ seminal work, a continuation of their previous research that addresses education inequality (see for instance Thomas, Wang & Fan 2001, 2003). They, as much or more than any authors in the past decade, have contributed sound, economic justification for calling the distribution of opportunities the “key to development.” We lead with this piece because of its several foundational contributions to critical assumptions and factual arguments located throughout the balance of the volume, to wit: the concept of education inequality is explicated and methods for measuring it are reviewed and evaluated; the empirical case for a plausible causal connection between education inequality and economic growth is laid out; empirical evidence is provided for Amartya Sen’s now famous contention that is more the opportunities than resources or public expenditures that need to be equalized to produce optimal conditions for human progress and poverty reduction. The careful reader as well as the casual peruser of this volume would be well advised to pay attention to the section dealing with the analysis and measurement of education inequality because in these measures are buried the analytical tools that will help unpack the message found in later chapters. For example, the authors take pains to show how the education Gini can be estimated from the Lorenz Curve even for countries with large proportions of their populations with zero schooling. The reader is provided with a strong section on historical trends in education inequality but the major contribution may well be the concluding discussion concerning the role that the distribution of education may play in the contentious argument relating national education levels to economic growth and long-term poverty reduction.

For many readers, the answer to the question posed in the title of Chapter 3 is obvious and affirmative. For others, they hope that it is not true: they may even cite illustrations where countries with capitalist economies have made progress in flattening the education Lorenz Curve. Regardless of initial persuasion, David Hill, Alpesh Maisuria, and Nigel M. Greaves provide us with an opportunity to revisit a question that has been debated intensively in the past century. The leftist critique of education systems in capitalist societies maintains the central importance of social class and that case is laid out in Chapter 3. Hill and other authors maintain that Marxist thinkers have both the epistemic and explanatory advantage when analyzing modern social structures. The claim that education in the form of schooling as we know it today is functional to capitalism is sustained with two contentions. The first is that formal schooling ulti-

mately sorts children in a manner that is consistent with the hierarchical stratification of labor and the needs of employers. Individual needs are subordinated in this process. Second, schooling conditions the child to accept passively a lifetime of exploitation, differential treatment along ascribable lines and conformity. The conclusion, while not surprising, is cogently argued and forms an essential part of the discussion concerning education and inequality. Even if, as Hill et al. maintain, in the long term and in macro-political terms capitalism has led to increasing education inequality, we need to continually nudge ourselves to keep front and center the question whether this is an invariant relationship, or whether the advantages of capitalism can through the democratic political process produce more equal education outcomes.

Wu Kin Bing, an experienced World Bank education professional, drawing on data resources from around the world that are not available to most university academics, offers an extraordinary insight in Chapter 4 into the state of education worldwide with particular reference to inequality measures and trends. She begins by drawing attention to the large between-country variation in average years of schooling of the adult populations of several countries and causes us to consider the economic and social implications of such stark inequalities. This chapter goes beyond the empirical demonstration of inequality to a cogent discussion of its causes and in this sense makes a contribution not found elsewhere in this volume. Wu identifies, discusses, and provides evidence and relevant citations for a variety of factors affecting attainment outcomes including high inequality: out-of-pocket and often hidden costs of schooling, the discrimination and social exclusion found in class and caste systems, demand for child labor, parental education and the value parents place on education, gender and ethnic composition of schools, supply of classrooms, teacher knowledge of subject matter, female menarche, presence of toilet facilities in schools, tuition fees, and many others. The careful reader of this chapter will enjoy an up-to-date review of research findings dealing with the general problem of bringing education to all of the world's children and a careful elucidation of the factors that are keeping us from reaching this goal.

In Chapter 5, Karen E. Hyer, Bonnie Ballif-Spanvill, Susan Peters, Yodit Solomon, Heather Thomas, and Carol Ward address gender inequalities in educational participation. This chapter is the culmination of a gender equity conference that brought scholars together to discuss access to education, jobs, and political power, especially as they relate to the Millennium Development Goals and EFA initiative. The authors recognize that achieving gender parity remains a key education development issue. Hyer et al. highlight continuing education disparity: roughly two-thirds of the world's 862 million illiterates are female; and of the 150 million students enrolled in the primary subsector that will drop out, two-thirds will be girls. While female enrollments have increased over the years they are still far behind male enrollments in many regions. The authors contend

that the focus on enrollments alone provides a much too narrow assessment for reaching educational parity in future endeavors.. The second primary section of Chapter 5 provides a discourse analysis and critique of the progress of the two MDGs that deals specifically with education: to achieve universal primary education (Goal 2) and to promote gender equality and empower women (Goal 3). Hyer et al. give countless examples of verbal institutional and governmental commitments to achieving gender education equality, but the capacity for reaching these end goals is far from being realized. The authors conclude that while steps have been made in the right direction, much remains to be done.

In Chapter 6, Susan J. Peters draws our attention poignantly to the global agenda encompassed in EFA initiatives by demonstrating that the goals of poverty reduction and increased access to education cannot be achieved without addressing the education rights of 600 million disabled people worldwide, fully 70% of whom reside in poor countries. People with disabilities may account for as many as one in five of the world's poorest people. Peters describes the barriers confronting disabled and frequently poor people in achieving equitable access to education. Despite these barriers, a growing number of programs in countries of the South have begun to address effectively exclusion from education for disabled people. More importantly she systematically details the approaches adopted in many societies that include improvement in the rights of disabled people in mainstream development work. In particular, she outlines five principles that characterize effective approaches. The importance of this chapter lies not least in the obvious fact that the topic is too frequently overlooked or marginalized. The historical, cultural, economic and sociopolitical dimensions of exclusion and marginalization of persons with disabilities are staggering. Peters nevertheless remains optimistic and challenges the development community to examine her proposed way forward, a clear, achievable, holistic approach that builds capacities directed at both policy and practice.

In Chapter 7, Birgit Brock-Utne provides a critique of how European languages continue to pervade postcolonial African education systems and societies, leaving these nations in a perpetual "intellectual dependency" on their former European colonizers. Her argument—that the influences of an increasingly global economy and powerful bi- and multilateral donor agencies are the primary catalysts in the continued use of European languages in African education systems—is supported by a lifetime of personal experience (see for instance Brock-Utne 2000) and is grounded in a rich literature base of African language scholars. Language is at the heart of Africa's inequality, she contends. Approximately 90% of Africans have only cursory knowledge of their "official" national European language, "even though it is presumed to be the vehicle of communication between the government and its citizens," (p.173). Those who do gain mastery of European languages generally come from financially well-off families who can afford to send their children to private schools where the best

teachers and educational opportunities exist. This of course creates a great disparity and equity gap between the elite and the great majority of citizens. In addition, while many African languages are used in the primary education sector, most are not included in national curricula in the secondary subsector. The promulgation of indigenous African languages is accordingly stifled by the lack of government support and donor agency funding. Brock-Utne concludes that democracy in African societies cannot be achieved without leveling the language playing field.

Part II of this volume is constituted by six chapters which provide national case studies on six Asian countries: Cambodia, China, India, Republic of Korea, Taiwan, and Vietnam. In Chapter 8, John M. Collins addresses how access to the primary education sector has changed from 1998 to 2003 in Cambodia. Drawing upon data collected by the Ministry of Education, Youth, and Sports, Collins uses the education Gini coefficients of enrollment formula for analyzing education attainment for all 24 provinces and municipalities of Cambodia. Collins' findings indicate that challenges in achieving educational attainment parity remain, specifically with respect to issues of gender, urban-rural divide, and ethnic minorities.

In Chapter 9, John N. Hawkins, W. James Jacob, and Li Wenli provide an examination of subtle but persistent change involving a range of decentralization policies; a strengthening of legal foundations; improvements to governance at the center and institution levels and in between; questions about what to standardize and accredit (or legitimate) while leaving room for some regional and even institutional-level autonomy and creativity; and above all how to deal with the vast rural-urban divide. In presenting China's approach to its daunting education issues, this chapter contributes to an understanding of higher education in that country. This is, of course, a story in the making. Important decisions must still be made. How will China respond to pressure to vocationalize higher education? How will the country handle the inevitable question of naturally occurring variation in human abilities? Will Chinese higher education become increasingly elitist with a well-crafted façade hiding an elitist agenda? How will mass higher education be financed?

Mary Ann Maslak's Chapter 10 on enrollment and attainment in India provides a historical overview of that country's education sector and an education policy analysis based on a literature review. Maslak identifies a gap in the scholarly literature on Indian secondary and tertiary education subsector enrollment and attainment where a disproportionate number of studies target only the primary subsector as is the case in many developing country contexts. Groups who are particularly discriminated against in India include the aged, disabled, rural students, scheduled castes, scheduled tribes, and females. Based on 1991 and 2001 census data, Maslak provides a descriptive analysis of educational attainment, as determined by literacy and enrollment, and examines the data using a

gender parity index. She provides both a conceptual and an operational definition of educational equity. By conceptual educational equity Maslak notes that male and female students have equal opportunities for enrollment and completion. Operational educational equity refers to the planning, delivery, and evaluation of education services to “offer equivalent opportunities and experiences for males and females to meet educational goals” (p.255). Maslak’s findings identify multiple reasons for the under-enrollment of females at the secondary and tertiary levels. She concludes by challenging policy makers, educators, and scholars to reexamine the past in terms of gender and social constructivism and how these issues remain at the center of education inequality in India.

In Chapter 11, Matthew E. Burt and Park Namgi analyze the distribution of human capital in South Korea from 1970 to 2000 by calculating education Gini coefficients for each province and metropolis and each city, county, and ward. In doing so, the authors make a contribution to the literature dealing with human capital formation in that country. For reasons not difficult to imagine, South Korea has long been the object of inquiry by social scientists of various persuasions eager to uncover the secrets of its remarkable social and economic successes in such a short time. Burt and Park’s contribution consists in part in their use of the education Gini coefficient to measure the level of inequality in the distribution of human capital, as indicated by levels of educational attainment. They find that the aggregate national level of education inequality has fallen over the past 30 years. However, national indicators provide little or no practical insight into the important within-country differences that exist at lower levels of administrative division. Here the authors make their second contribution.

Burt and Park report for the first time that the level of education inequality in South Korea, as measured by the education Gini coefficient, fell significantly in all areas of the country between 1970 and 2000. The most significant decreases in most areas occurred between 1970 and 1980 between 1980 and 1990, and between 1990 and 2000 when a slowing down began as the Gini coefficients approached zero. Nevertheless, while inequality fell for both female and male populations in all areas of the country, Burt and Park find a clear advantage for males. The authors thus provide a fascinating historical overview of the development of education in Korea, detailing its remarkable success in increasing equality in the distribution of education during its period of extraordinary economic growth. In which direction does the causal arrow point? Burt and Park do not try to make this case. Rather they are content to conclude that educational policies in less-developed countries should focus resources in such a manner as to bring the entire school-age population into increasingly higher levels of educational attainment equally distributed among all subsets of the national population.

In Chapter 12, Hung Chih-Cheng and Cheng Sheng Yao tackle the issue of social justice in Taiwan’s rapidly growing higher education subsector. Along with this rapid growth come challenges in the nation’s stretch goal to provide

higher education for all those who are interested in attending. The authors identify factors that limit the participation of students from certain ethnic, gender, socioeconomic, and geographic backgrounds in Taiwan's elite higher education institutions. Hung and Cheng also provide definitions of equity and equality. Data for the authors' findings come from a questionnaire administered nationwide among higher education freshman students ($n = 33,959$, with a 68.5% response rate). These data enabled Hung and Cheng to examine the correlation between enrollment at the nation's top universities and student SES background, parental education level, ethnicity, gender, and geographic origins (whether they were from rural or urban settings).

An unequal distribution of formal education typically indicates that the enfranchised elite typically capture the benefits of education such as superior occupations and higher incomes. These are franchises that until recently all citizens of socialist Vietnam assumed they owned. W. Joshua Rew sets out to examine educational attainment in Vietnam in Chapter 13. In doing so, he provides us with insight into the economic and social context of Vietnam after several decades of post-American war economic growth and poverty reduction. Rew finds that while Vietnam as a national aggregate has a reasonably equal distribution of educational attainment, a considerable education inequality exists within and among provinces as well as ethnic and gender groups. The Vietnamese province with the highest Gini coefficient (i.e., the most unequal distribution of educational attainment) is Lai Chau (.53), whereas the province with the most equal distribution of educational attainment and the lowest Gini coefficient is Thai Binh (.18). Lai Chau's Gini coefficient is nearly three times the size of that of Thai Binh. This example alongside many others presented by Rew, provides ample reason to take national level education Ginis with some skepticism as to what they really tell us about the distribution of education within national boundaries.

Two chapters offer comparative education inequality studies in Part III on Europe. Cécile Deer's Chapter 14 provides a glimpse into one of the most enduring problems of modern European societies, namely, how centuries of social inheritance based on conditions conferred at birth or social class be overcome through modern egalitarian social policy. A central argument regarding the role of higher education has been to recommend that higher education be allowed to expand on the basis of academic performance. That argument is of course flawed in its assumption that the achievements of pre-university students do not depend on their social origins. The argument claims that allocating university places on the basis of secondary school performance is meritocratic and non-exclusionary. Deer points to several problems with this policy formulation. She contends that in England, relative success at upper secondary school level is in fact related to social position and, moreover, does not mean entitlement to a place at university as each institution of higher education remains free to select its students. The issues are as complex as the remedies proposed. Deer guides readers through the full

range of proposed reforms. These include those for vocationalization of the curriculum and academic specialization or streaming that aims to allow academic talent to be rewarded and university administrations to maintain control over their coveted role as guardians of scholarship while democratic social forces press inexorably for more egalitarian admissions policies. As Deer succinctly puts it, it is essentially the argument between the dons at Oxford and Cambridge and the Labour government. There are no easy answers to these vexing policy questions and centuries of a mentality of social entitlement based on family position.

Holger Daun provides the only contribution in this volume that addresses the relationship between religion and education inequality. Unlike earlier eras when each country could deal with its own education issues in something of a closed system, Daun argues that today education must be viewed in an increasing global context. This, he suggests, is certainly the case with religious education. Moral education is at the root of the contemporary trend toward religious demands for private education opportunities. In Chapter 15, Daun reviews the education context of 19 countries in the European Union (EU) both before and after the transition of national education systems into their current regional and global contexts. While the chapter discusses private and religious education, it details how the original Christian underpinnings of national education systems are giving way to institutions based in social imaginaries of economic competitiveness and human capital formation. Daun argues that one of the primary reasons behind the religious private school movement is a felt need to include morals and values in the curriculum. In an increasingly secular EU context, this curricular debate lies at the heart of European education. It also provides added support of the private school movement, especially in terms of private religious education. Considerable variance among European countries as to what can and cannot be taught in the national curricula largely determines what types of private schools can be established in the different EU countries. Daun notes how Muslim private schools do not always receive the same level of governmental support as other religious schools. Immigration is an important factor in achieving greater government support for Muslim private schools.

In Part IV on the Middle East and North Africa, two chapters discuss education inequalities in Egypt (Chapter 16) and Iran (Chapter 17). Nagwa M. Megahed and Mark B. Ginsburg's Chapter 16 offers a mixed-methods look at education inequality and attainment in Egypt. The authors' quantitative analysis draws on government and World Bank data sets as well as global Demographic and Health Surveys for comparative purposes. Stark differences are identified between urban and rural students and among differing family income groups. These two factors (urban location and socioeconomic status) prove to be critical in students' gaining access to academic secondary schools and eventually the higher education subsector. Qualitative interviews were conducted with 40 secondary school teachers from six randomly selected secondary schools in the Giza

governorate in 2000-2001. Teachers differed in their responses and presented both functionalist and conflict perspectives (as described by Paulston 1996 and Jacob & Cheng 2005) to describe education inequalities in Egypt. Megahed and Ginsburg's examination of education inequality in Egypt is strengthened by their combination of both qualitative and quantitative datasets and from contrasting insights from teacher perspectives assessing existing and future inequalities.

In Chapter 17, Omid Kheiltash and Val D. Rust take a very different methodological approach to issues of education equity to that taken by Rew and others who measure the education Gini index. Their country focus is Iran and the authors explore issues related to education equity with respect to gender, socioeconomic status, and religious and ethnic minorities. This they do by drawing on rich historical, political, and sociological evidence. Their treatment covers a range of education policies and practices such as the language of instruction, national curricula, and textbook content which the authors use as measures of educational opportunity provided to less-privileged and minority groups within Iran. They also explore the degree to which curricular content and pedagogy differ by minority and less-privileged groups. Among many reasons for the significance of this chapter is the fact that in Iran, as elsewhere in the contemporary Muslim world, the current educational system is a result of the transformation efforts of the theocratic regime that came to power following the Islamic Revolution of 1979. What followed was the intent to instill Islam as the national religion into every aspect of society including schooling. A major conclusion supported by the authors is that postrevolution educational policies are themselves instruments of certain kinds of social inequalities in that by purportedly treating everyone in the same manner, policies (unwittingly or not) advantage those whose language, gender, ethnicity, social class, and religion correspond to the Iranian ideal valued by the central government.

Four national and comparative case studies from North and South America comprise Part V of this volume, considering education inequality in Mexico (Chapter 18), the United States (Chapter 19), Peru (Chapter 20), and Brazil and Nicaragua (Chapter 21). Chapter 20 spans both Parts V and VI of this volume as it compares countries from both regions: Peru and South Africa.

Gladys Lopez-Acevedo's national case study on Mexico examines the evolution of education and inequality over the past two decades. From an earnings inequality perspective, Acevedo argues that while much has been achieved in terms of overall enrollment and attainment levels, wage disparity remains. Several measures were used including the Gini coefficient and $R_{10/20}$ and Theil T indexes. Findings from her study note that the gap between the rich and poor is increasing, as is education inequality. Globalization and its inevitable free trade agreements have taken their toll in increasing wage disparities. Lopez-Acevedo asserts that much of this disparity is the result of educational attainment levels, in that more highly educated workers tend increasingly to make more than less

educated workers.

From a critical social theory perspective, Eric Johnson and Tyrone Howard examine issues associated with education inequality in the United States in Chapter 19. Rather than focusing purely on outcomes, the authors consider the sources of education inequality by critiquing unequal institutional policies and structures. Johnson and Howard also critique the term *difference* and its relation to education inequality, especially how this concept changes to perpetuate social hegemonic status among groups. Marginalized groups that the authors argue are frequently affected by education inequality, including those identified by particular attributes of race, gender, ethnicity, sexual orientation, and class. When special attention, resources, and/or policy foci are diverted to one particular marginalized group (e.g., resources devoted to support students of Hispanic origins), other groups tend to become further marginalized or suffer from greater neglect. This notion creates a vicious cycle that the authors refer to as an *Oppression Olympics*, first coined by Elizabeth Martinez (see, for instance, Martinez 1993). The Oppression Olympics too often positions marginalized groups against one another. Underrepresented and marginalized groups need to work alongside and with each other and the dominant group/s to realize sustainable change in the US education system toward greater equity.

In their innovative analytical approach to education inequality, Luis Crouch, Martin Gustafsson, and Pablo Lavado focus on two societies located geographically at great distance from each other but each with long histories of statutory and nonstatutory apartheid. Moreover, while they draw on newly introduced inequality measurement methods, their application is also innovative in that they focus on the distribution of education outcomes such as learning achievement rather than on the final number of years of schooling completed. Among many novel approaches is the focus on the anomalous concept of government policy being characterized as “pro-poor” (i.e., in South Africa) even when government spending is 29% higher for wealthier families. In acknowledging a trend toward equalization of “input” resources for schooling, the authors are quick to draw attention to a troubling pattern of ever diverging schooling outputs. Still, the good news is that school outputs as measured by standardized achievement tests are more equal than the income distribution of South Africa giving rise to a more hopeful future for its society as a whole. Although the education expenditure equalization in South Africa is truly remarkable in both extent and in the short amount of time being taken to achieve it, the equalization of physical capital is a much more problematic issue. In the case of Peru, the authors analyze inequality of student learning achievement by reference to scores achieved in a national fourth grade examination of Spanish language. Like South Africa, in Peru there appears to have been in recent years a gradual decrease in regional learning disparities. But far more than in South Africa, wealthy Peruvian parents are likely to opt out of the public education system altogether. Household expenditure on

education is much higher in Peru than in South Africa. Crouch, Gustafsson, and Lavado's main finding is that learning achievement is far more unequally distributed than the distribution of inputs to schooling. Further, in both countries, learning is more equally distributed than income, a factor that the authors believe may bode well for the future.

In Chapter 21, Silvina Gvirtz and Lucila Minvielle's thesis—that civil society participation is a fundamental aspect in achieving democratic or equal education opportunities—suggests what is necessary yet insufficient to eliminate education inequality in Brazil and Nicaragua. Three case study locations are examined where government reforms are detailed as precursors to greater participation and democracy. Governance is also essential in realizing more democratic education systems. Gvirtz and Minvielle define three key aspects of school governance: *who* holds decision-making power, *what* issues are addressed and later established as policy, and *how* implementation of these decisions is achieved. These three aspects are used in Gvirtz and Minvielle's analytic framework for examining the effectiveness of democratic participation and governance in the three case study locations.

The final section of this volume, Part VI on SSA, includes one national case study on South Africa (Chapter 22) and another comparative case study of 19 Commonwealth countries in SSA. The second contribution dealing with South Africa (Chapter 22) offers a less technical treatment of the various forms of social inequality historically characteristic of that country. Christopher B. Meek and Joshua Y. Meek begin with the broadly shared hope that a postapartheid government would quickly move to put right past wrongs, particularly those dealing with equality of education opportunity. The reader is quickly led to face the unfortunate reality that although the structure of education has changed dramatically the fundamental facts of privilege based on race has been replaced with privilege based on relative wealth. Socioeconomic status has replaced race; the question remains whether that is a step in the right direction. After all, western scholars who pay attention to their own countries probably see much the same. The authors probe deeper, offering an interesting perspective on the practice and social impact of generations of apartheid policy in South Africa. They begin by telling the story of precolonial indigenous education. We are offered a rare glimpse into the structure and functioning of education before Europeans imposed a different formal education system that is just unlike the first. The former system had, after all, failed to prepare young Black children to serve the personal, familiar and financial interests of the new White colonial masters. Nowhere more so than in school financing was the nature of the new social order made clearer. Schooling for White youth was both compulsory and free, paid for entirely from the public treasury. Schooling for Black youth was not compulsory and, although infrastructure costs were funded by the government, the source of recurrent funding was strictly from a poll tax required to be paid first by every

Black adult male and later assessed on all Black females as well. Since the formal end of apartheid in 1994, overt racism has declined as a sorting mechanism socioeconomic status has emerged as a substitute for exploitative and discriminatory treatment. In the end, the authors find little reason for optimism about the prospects for decreasing inequality in the short-term future.

Chapter 23 draws on the earlier findings of Elaine Unterhalter, and other authors on the Gender Equality and Education Index (GEEI; see for instance Unterhalter, Kioko-Echessa, Pattman, Rajagopalan & N’Jai 2005). Elaine Unterhalter and Mora Oommen include data from 19 Commonwealth countries in SSA and advocate additional means of measuring gender education inequalities, as existing measures are simply inadequate. Use of the GEEI helps offset these deficiencies by including an attempt at examining people’s quality of life; however, the authors also recognize several limitations of the GEEI. The index takes into account primary subsector enrollment rates, grade-level retention levels (referred to by the authors as the “survival rate”), secondary level net enrollment ratio (NER), and a country’s gender development index (GDI). Recognizing these inherent measurement deficiencies, the authors identify several areas that need development in the future measurement of education inequalities, especially as they relate to gender.

Conclusion

The underlying themes of this book address the most significant issues facing education systems today, namely equality and equity of educational opportunities and outcomes. In this introductory chapter, we have provided a review of the literature and a definitional distinction between educational equality and equity. A review of the major theoretical frameworks in comparative, international and development education has been presented along with a critique of the negative and sometimes inevitable consequences of neoliberal-oriented politics, economies, and education systems. This emphasis on theory from the onset is supported by Kurt Lewin’s claim that “there is nothing so practical as a good theory” (1951, p.169). Six themes addressed in this volume were introduced along with some examples on a global scale followed by a summary of each chapter contribution.

Compiling the 22 core chapters of this volume was an immense undertaking that culminated with the collective efforts of some 41 international scholars and professionals. The authors’ commitments to analyzing and ultimately reducing the inequalities of education exemplify the importance of the book’s underlying themes, especially in relation to social justice issues in international education. This volume was not intended to be comprehensive, with respect to every aspect of education inequality—probably, no volume ever could be. Nevertheless, its intent is to provide an in-depth examination of key theoretical concepts,

measurement, and policy debate with conceptual and country case study examples. We hope that the chapters in this volume will provide educators, policy makers, and scholars with insights and examples in a global effort to overcome the inequalities in education.

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Notes

¹ Corrado Gini developed the coefficient that bears his name as a measure of variability of any statistical distribution or probability distribution (see Gini 1912, 1921; Dorfman 1979). Robert Dorfman (1979) documents the historical evolution and multiple use of the Gini coefficient and recognizes its most common use as a coefficient to measure income inequality. Chapters 2, 3, 8, 11, 14, 18, and 20 all provide definitions of the education Gini coefficient in relation to their respective chapters in this volume.

² The Lorenz curve is a graphical way to display the education Gini coefficient. If all individuals have hypothetically equal educational attainment, the Lorenz curve is a straight diagonal line (where x% of the population has reached x% level of educational attainment). This is called the line of equality. On the y-axis (vertical axis) it shows the cumulative percentages of the educational attainment held by the relevant percentage of the population that lie on the x-axis (horizontal axis). The more the curve diverges from the line of equality the more education inequality exists within the society. For more information on the Lorenz curve, its origins, and various uses, see M.O. Lorenz (1905) and Joseph L. Gatswirth (1971, 1972). Crouch, Gustafsson, and Lavado provide a sound definition of the Lorenz curve in Chapter 20 of this volume.

³ The education Theil index, originating from econometrician Henri Theil, is a statistic used to measure economic inequality. One of the advantages of the Theil index is that it is a weighted average of inequality within subgroups, plus inequality among those subgroups. For example, inequality within the People's Republic of China is the average inequality within each province, weighted by provincial income, plus the inequality among provinces. For more information on the Theil index, see Gary Fields (1980).

⁴ While the terms race and ethnicity are often used interchangeably, as is the case in several chapters of this book, we realize that several scholars maintain differing definitions unique to each term (see for instance Downey & Torrecilha 1994; Oppenheimer 2001; Paulston 1976; Sankar & Cho 2002; Singleton 1977). Generally speaking race is defined as a group of persons related by common descent or heredity. Ethnicity, at least in its original, anthropological definition, encompasses a much broader definition that includes the social and historical factors as explanations of group variations (Montague 1942).

⁵ Studies examining education and social class are in abundance in the comparative, international, and development education literature (see for instance Apple 2001; Burns 1963; Cox 1944; Osborn, Broadfoot, Planel & Pollard 1997; Sochet 1964).

2

Distribution of Opportunities Key to Development

Vinod THOMAS & WANG Yan¹

As human capital is one of the precious assets that the poor may possess, its distribution among the population matters a great deal for human welfare and economic growth. This chapter provides an overview of the literature and a framework for analyzing and measuring the inequality of education. It reviews the current state of inequality of education in the world and the association between the distribution of education and economic growth. Based on our studies in 1998-2002, we introduce the concept of education Gini coefficient and measure the inequality in educational attainment for 140 countries between 1960 and 2000. Using the education Gini we are able to compare the distribution of educational attainment across countries and over time. Empirical evidence, albeit limited, suggests that the distribution of education matters significantly for economic growth. Much work remains to be done to investigate the determinants of inequality in education and policy options to improve the access to education and reduce inequalities.

Introduction

Poverty and inequality are multidimensional concepts, including aspects not only of income but also of education, health, and other social dimensions. There is also a renewed concern over unequal opportunities as both the UNDP (2005) and the World Bank (2006) argue that the distribution of opportunities is key to development. The distribution of social attributes (e.g., health and education) is a crucial link in consideration of the distribution of opportunities. However, there have been very limited measurements for inequalities in these social attributes.

The vital role of the distribution of human characteristics in development is intuitively evident. The World Bank (2006) clarifies that “by equity we mean that individuals should have equal opportunities to pursue a life of their choosing and be spared from extreme deprivation in outcomes” (p.2). This concept draws heavily on the seminal works of John Rawls (1971), Amartya K. Sen (1985), Ronald Dworkin (1981), and John Roemer (1998). But there are vast differences in opportunities available to each individual within and across countries. Inequalities in infant mortality rates, nutrition status, as well as access to education

and school attainment are enormous due to race, caste, gender, location, and natural endowments (e.g., Birdsall & Londoño 1997; Filmer & Pritchett 1999; López, Thomas & Wang 1998; Thomas et al. 2000a; Araujo, Ferreira & Schady 2004; Bourguignon, Ferreira & Menendez 2005; UNDP 2005; World Bank 2006). Moreover, existing institutions and policies seem to have created an inequality trap, re-producing and perpetuating the existing inequalities in outcomes. This inequality trap frustrates the poverty reduction efforts by reducing the poverty reduction impact of growth (see Ravallion 1998, 2001; Ravallion & Datt 2002; Chen & Ravallion 2004; Ravallion & Chen 2005) and becomes a source of crime and social instability.

In this interlinked setting of social and economic dimensions, concerns and emphasis vary. In a debate on “Equity of What?” Sen (1980) sees an individual’s level of functioning (i.e., in literacy and nutrition) as status to be equalized. Sen (1992) further argues that “comparisons in the functioning space may be more relevant for the analysis of well-being than in the spaces of incomes, primary goods, or resources” (p.88). Others emphasize the opportunities people encounter as the attributes to be equalized (Arneson 1989; Cohen 1989; Roemer 1993, 1998). Nonetheless, others focus on the amount of resources as the attribute to be equalized (Dworkin 1981). There are clear, albeit complex, interlinkages among these concepts and points of emphasis.

To most people, it seems only logical and socially just to provide equal opportunities and to try to provide a level playing field for each individual in achieving the aforementioned key attributes. On one hand, inequalities of opportunities due to ascribed factors beyond the individual’s control (e.g., race, caste, gender, location, and inborn disability) would be considered unfair and unjust. On the other hand, the distribution of income is a result of many of these elements of opportunities, as well as personal efforts, risk taking, and other external factors such as policies and pure luck.

The significance of human development has long been recognized, but it is the focus on its distribution, in addition to its average level, that is at issue. On the welfare side, education and good health improve people’s capability to shape their lives—strengthening their functioning in society and contributing to their well-being directly. However, inequality starts at birth, as reflected in the infant mortality rates along with stunting and nutrition levels (World Bank 2006, Chapter 2). Poor health can directly affect an individual’s ability to attain education and obtain a job that boosts his or her earning potentials. Related and in addition to health gaps, the educational gaps are staggering between gender, race, and between the rich and the poor segments within a country and across countries. If poverty is seen as the “deprivation of some minimum fulfillment of elementary capacities” (Sen 1992, p.9), then inequality in well-being must include measures of distribution of basic element of capacities such as nutrition and literacy.

On the efficiency side, aggregate production and growth are affected by the

level and the distribution of natural capital, land, and other physical assets. The distribution of wealth is often proxied by land Gini coefficients (see, for example, Li, Squire & Zou 1998; Lundberg & Squire 1999; World Bank 2006). Nevertheless, human capital is one of the most important assets of human societies. Measures of distribution of human capital also need to be incorporated in the analysis of growth and development. If an asset (e.g., physical capital) is freely traded in a competitive environment, its marginal product tends to be equalized through the market mechanism, and its contribution to output is not affected by its distribution. If an asset is not completely tradable, however, its marginal product is not equalized, and the aggregate production function would also depend on its distribution. For the reason that education and skills are only partially tradable, variables reflecting the distribution of education need to be incorporated in the analysis.

Brazil illustrates why we should care about the inequality in education. With respect to income distribution, Brazil is among the ten most unequal countries in the world. This income inequality has frustrated the efforts to reduce poverty. For every one percentage of growth, poverty incidence is reduced by less than a percent, whereas in countries such as China and India, a similar percent increase in GDP growth would reduce poverty by 2% or more (depending on specific time period). “The 95% confidence interval of the last estimate above of the growth elasticity implies that a 1% rate of growth in average household income or consumption will bring anything from a modest drop in the poverty rate of 0.6% to a more dramatic 3.5% annual decline” (Chen & Ravallion 2004, p.1807). Brazil’s Gini coefficient of income inequality is about 0.59 compared with about 0.45 in China and about 0.38 in India (World Bank 2006). A recent study (World Bank 2003) complements what others have found about the factors explaining this phenomenon. Three prominent reasons are the inequality in education, the high wage differential for skilled workers, and the regressive nature of public transfers. Of the 18 percentage-point difference in the income Gini coefficient between Brazil and the United States, 29% is accounted for by the large inequality in education, 32% by the wage differentials stemming from skill differences, and 39% by the more regressive nature of public transfers.

Brazil has made progress in the past two decades in improving equality of opportunities. Primary enrollments have risen rapidly, as have secondary enrollment rates. Bourguignon, Ferreira, and Menendez (2005) find that the share of inequality of opportunity in total inequality has been falling. As a result, inequality has begun to fall among the younger generations. Continuing to push on this frontier would allow Brazil to share the benefit of growth more equally over time (Thomas 2006).

This chapter provides an overview of the literature and a framework for the analysis and measurement of inequality of education. It reviews the current status of, and trends in, inequality of education in the world and the association

between the distribution of education and development. Based on our studies conducted in the period 1998-2002, we introduce the concept of education inequality, measuring the variations in education attainment for 140 countries between 1960 and 2000. Using education Gini and Theil indices, we are able to compare the distribution of education attainment across countries and over time. Other new indices such as the Generalized Entropy (GE) introduced by World Bank 2005/6 are also briefly introduced.

Section 2 discusses the analytical framework and measurement of inequality in education, section 3 examines the current status of, and trends in, inequality in education in the world, and section 4 looks into the behaviors of education Gini and Theil indices when average years of schooling approaches zero. Section 5 reviews some empirical evidence that the distribution of education matters for development. Section 6 presents our conclusions.

A Framework for Analysis and Measurement of Inequality in Educational Attainment

Broadly speaking, a country has at least three types of assets that matter for production and welfare: physical capital, human capital, and natural capital. Technological progress and the policy environment affecting the use of these assets matter as well. In discussions of economic growth, much attention has traditionally been given to the accumulation of physical and financial capital. But for poverty reduction, other key assets deserve greater attention—human (and social) capital as well as natural (and environmental) capital, as these are the primary assets possessed by the poor.

Physical capital contributes to welfare through economic growth. Human (and social) capital and natural (and environmental) capital not only contribute to growth; they are also direct components of welfare. Human capital and natural capital also help to increase the investment returns, thereby attracting more capital and making all investments more productive. Accumulation of all three types of capital is crucial for a balanced and sustainable growth but not sufficient. In many countries, there are market failures hurting human capital and natural capital; there is therefore an underinvestment of human capital and overexploitation of natural capital. There are also market failures hurting certain types of physical capital such as those with characteristics of public goods. In many countries, governments have failed to provide adequate basic health and education services as well as basic sanitation and water to the poor and disadvantaged. Thus, policy reforms that promote openness to international trade and investment, improve governance and enhance macroeconomic stability, correct market failures deleterious to human and natural capital that would contribute to a more balanced asset accumulation and facilitate a more productive use of those assets, thereby boosting growth and welfare.

More formally, we define an additive and separable welfare function, U , for a society that consists of N individuals

$$(1) \quad U = \sum_{i=1}^N u(c_i) + \sum_{i=1}^N v(h_i; R),$$

where c_i is the consumption of individual i , h_i is the human capital of individual i , and R is the (aggregate) level of environmental assets. R is assumed to be a pure public good; hence, its distribution among the population is irrelevant. Also, $u(\cdot)$ and $v(\cdot)$ are increasing and strictly concave in their arguments. A second-order approximation of U evaluated at the mean or average values of c and h yields

$$(2) \quad U \approx Nu(\bar{c}) + \sum_{i=1}^N u'(\bar{c})(c_i - \bar{c}) + \frac{1}{2} \sum_{i=1}^N u''(\bar{c})(c_i - \bar{c})^2 \\ + Nv(\bar{h}; R) + \sum_{i=1}^N v'(\bar{h}; R)(h_i - \bar{h}) + \frac{1}{2} \sum_{i=1}^N v''(\bar{h}; R)(h_i - \bar{h})^2,$$

where \bar{c} is average or per capita consumption, \bar{h} is average or per capita human capital, $u'(\bar{c})$, $v'(\bar{h}; R)$ are first derivatives with respect to c and h , respectively, evaluated at mean values \bar{c} and \bar{h} and $u''(\bar{c})$, and $v''(\bar{h}; R)$ are second derivatives. Taking expectations, we obtain the average welfare per individual i ,

$$(3) \quad E(U) \approx u(\bar{c}) + \frac{1}{2} u''(\bar{c}) \sigma_c^2 + v(\bar{h}; R) + \frac{1}{2} v''(\bar{h}; R) \sigma_h^2,$$

where σ_c^2 is the variance of consumption across the population and σ_h^2 is the variance of the distribution of human capital across the population. By strict concavity of $u(\cdot)$ and $v(\cdot)$, we have that $u'' < 0$ and $v''(\cdot) < 0$. Thus, aggregate or expected welfare is increasing in \bar{c} and \bar{h} and decreasing in σ_c^2 and σ_h^2 . Moreover, because $v(\cdot)$ is increasing in R , $\partial v'' / \partial R \approx 0$ is sufficient to obtain that $E(U)$ is also increasing in R .

To maximize welfare, a desirable growth pattern requires that the expansion of physical capital through time be accompanied by positive growth of human capital without worsening its distribution. Also, desirable growth is likely to diminish poverty and is unlikely to worsen income distribution. This desirable and equitable growth pattern increases \bar{c} and \bar{h} , and reduces, or at least does not increase, σ_c^2 and σ_h^2 . Thus, the desirable and equitable growth is likely to increase welfare, $E(U)$ in equation (3), as long as R does not fall or falls at a sufficiently slow pace.

Measurements of Inequality in Educational Attainment

There is a small but growing literature that measures schooling inequality using the standard deviation of school attainment (see, for example, Londoño 1990; Ram 1990; Lam & Levinson 1991). Birdsall and Londoño (1997) found a significant negative correlation between education dispersion and income growth. Ram (1990) used the standard deviations of schooling to illustrate the existence of an education Kuznets curve.² Londoño (1990) also used the same method. However, the standard deviation of schooling attainment is an absolute measure of dispersion. It is not a rigorous measure of inequality, as it does not control for differences in the mean value. To measure the relative inequality of schooling distribution, other indicators must be used.

Four previous studies had used Gini coefficients for measuring the inequality of education before ours. Maas and Criel (1982) estimated Gini coefficients based on enrollment data for 16 East African countries. Rosthal (1978) summarized four indicators for the distribution of education estimated for the United States, and Gini coefficient was one of them. Sheret (1988) estimated the Gini coefficient of enrollment for Papua New Guinea. However, no previous study had constructed education Gini coefficients using school attainment data for a large number of countries, as we did.

Our work on the education Gini index started in 1997 (López, Thomas & Wang 1998). We then expanded the dataset to 85 countries (Thomas, Wang & Fan 2001) and used it for analysis underlying the chapter on human capital in our work on *Quality of Growth* (Thomas, et al. 2000). Currently, our dataset includes the Gini and Theil indices of inequality of educational attainment and a few other indices for 140 countries over 1960-2000 (Thomas, Wang & Fan 2003).³ Our work was feasible, thanks to the painstaking efforts made by a group of pioneers including Barro and Lee (1993, 1997, 2001), Psacharopoulos and Arriagada (1986), and Nehru, Swanson and Dubey (1995). See also Behrman and Rosenzweig (1994) on the quality issues of these data.

The education Gini is similar to the Gini coefficients widely used to measure distributions of income and land. It ranges from 0 which represents perfect equality, to 1 which represents perfect inequality. More formally, the education Gini measures the ratio to the mean (average years of schooling) of half of the average schooling deviations between all possible pairs of people. The education Gini could be used to complement other indicators for well-being, in particular, indicators of access, average levels, and the quality of education. There are two ways to calculate an income Gini: the direct method (Deaton 1997) and the indirect method based on Lorenz curve. See Annex 2.1 for several measurements and their definitions.

Another class of measures for inequality is Generalized Entropy (GE). The idea is that occurrences that differ greatly from what was expected (such as the

mean income or mean years of education) should receive more weight than events that conform to prior expectations. GE's value ranges from 0 to infinity; with zero representing an equal distribution and higher value represent higher level of inequality. The parameter c in the GE formula represents the weight given to distances between incomes at different parts of the income/asset distribution; it can take any real value. For lower value of c , GE is more sensitive to changes in the lower tail of the distribution; and for higher values, GE is more sensitive to changes that affect the upper tail. These measures have only recently been applied to education. Araujo, Ferreira, and Schady (2004) were the first to use a large number of household surveys in calculating the education Gini and GE. This invaluable dataset on inequality in education provides several indicators of inequality including Gini and GE (with parameter $c = 0.5$) for education, which was based on household survey of 124 countries (World Bank 2006, pp.284-285). On the definition of GE, see Annex 2.1.

Without having access to household surveys in 1998-1999, we had to use the Barro and Lee data on international education. The advantage of our dataset is that it is a panel of quinquennial data from 1960-2000, showing the historical development over 40 years. The Barro and Lee (2001) data have the following characteristics. First, years of schooling is a discrete variable, and as a result, the education Lorenz curve is a kinked line with several kink points. Second, the education Lorenz curve is truncated along the horizontal axis. In many developing countries a big proportion of the population has no schooling.

Some may well argue that there is a problem in measuring inequality where a large proportion of the population has no schooling. This issue can be resolved straightforwardly by using the indirect method of calculating the Gini from the Lorenz curve. The indirect method first constructs the Lorenz curve with the cumulative percentage of total number of year of education on the vertical axis and the cumulative percentage of the population on the horizontal axis. The 45-degree line is called the egalitarian line. The Gini coefficient is then calculated as the ratio of two areas, with the area of the egalitarian triangle as the denominator and the area between the Lorenz curve and the egalitarian line as the numerator.⁴ This can be illustrated by the cases of India and Korea.

Education Lorenz Curves for India and Korea

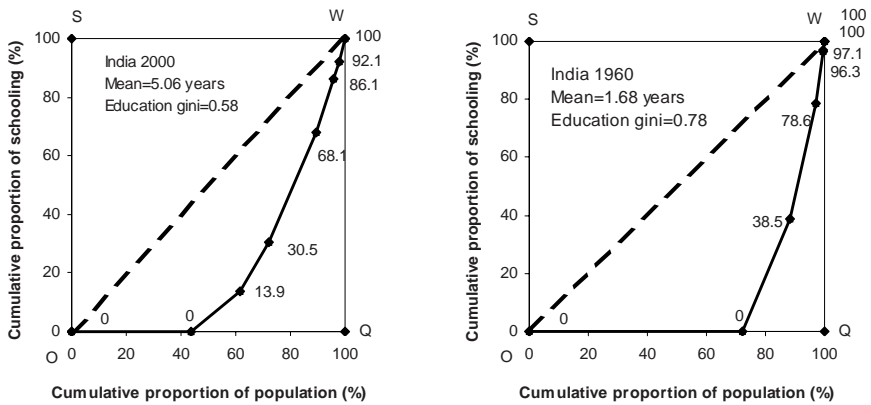
An examination of education Lorenz curves for India and Korea in 1990 shows a significant difference in the distribution of education between these two developing countries. It also shows that the improvement of education equality can be shown by the shifting of a country's education Lorenz curve over time.

The Case of India. Despite progress in expanding primary and secondary enrollment in the recent years, more than 40% of the population (aged 15 and older)

received no schooling in 2000. While this represents a great progress compared with 40 years ago when 70% of the population had no schooling, 10% of the population received 32% of the total cumulated years of schooling in the whole country. This made India's education Lorenz curve steep, located far away from the egalitarian line, leading to a large education Gini (see Figure 2.1).

A distribution of education as skewed as that of India implies a huge social loss from the underutilization of potential human capital. Needless to say, human ability to absorb knowledge is different across individuals. However, inequality in education reflects not only uneven abilities but also uneven opportunities (i.e., access to schooling). Assuming that ability or talent is normally distributed across population groups, production increases to its optimum when the dispersion of education matches the distribution of human ability. When the distribution of education is too skewed to match the distribution of ability, there is an absolute loss to the society of underdeveloped and underutilized talent. In this case, India would be better off to expand basic education massively, especially by improving access to education for the poor.

Figure 2.1: Education Lorenz Curves, India, 1960 and 2000

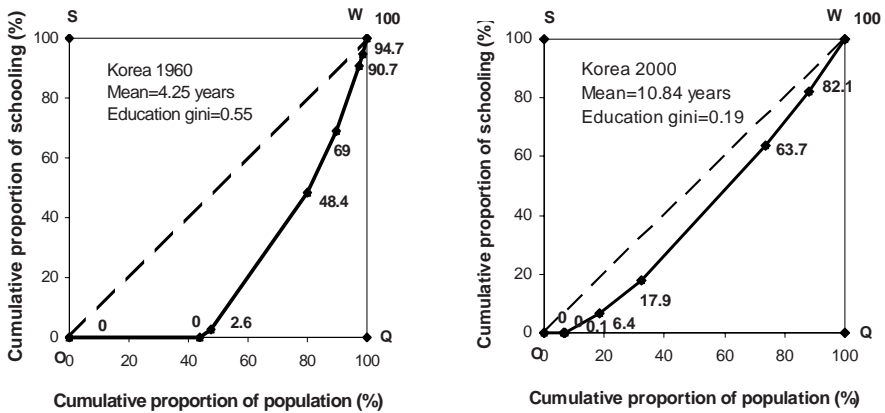


Source: Authors' calculations.

The Case of Korea. Korea expanded primary and secondary education rapidly and eliminated illiteracy successfully. In the early 1960s and 1970s, over two-thirds of government expenditure on education was concentrated on primary and secondary schooling. Over the four decades from 1960 to 2000, the mean years of schooling more than doubled and illiteracy was eliminated. Compared to India, Korea's education Lorenz curve has shifted much closer toward the 45-degree egalitarian line (see Figure 2.2).

Compared to India, Korea had a more equitable distribution of education as indicated by a flatter Lorenz curve and a smaller Gini coefficient. Even in 1960, when Korea’s per capita income was similar to that of India, Korea’s education Gini coefficient was 0.55, lower than that of India in 2000. It is interesting to note that the distribution of education in Korea was more equitable than that of income, whereas, the distribution of education in India was much more skewed than that of income. In the 1990s, Korea’s income Gini, stood at 0.29, higher than its education Gini of 0.19. By contrast, India’s income Gini was 0.38 in 1997 but its education Gini was much higher at 0.58 in 2000. The relationship between income Gini and education Gini is an interesting topic for future research.⁵

Figure 2.2: Education Lorenz Curves, Korea, 1960 and 2000

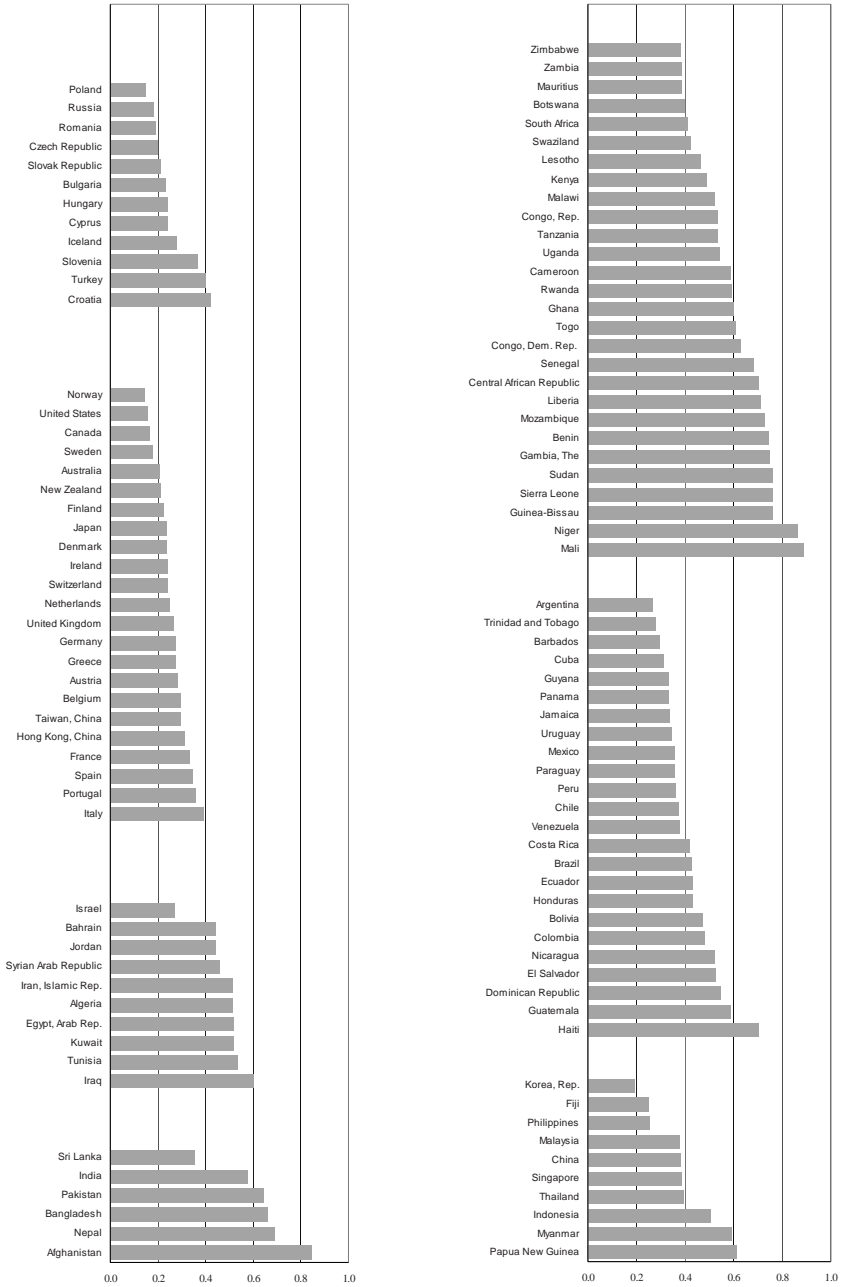


Source: Authors’ calculations.

Trends in Education Inequality Measured by Education Gini

The education Gini coefficient allows us to observe the differences in the distribution of education by country and by region in different years. Figure 2.3 shows the education Gini coefficients by country and region in 2000. Figure 2.4 shows the average years of schooling for population (aged 15 and above), also in 2000. Norway, the United States, Canada, and Sweden are industrial countries with the lowest inequality in education, with education Gini coefficients between 0.14 and 0.20. It is interesting to note that even among OECD countries there was a big variation in average attainment and distribution. The gaps in average school attainment were as big as four years among the United States, France, and Italy, with

Figure 2.3: Education Gini Coefficients, 2000



Note: For population aged 15 and over. Source: Thomas, Wang & Fan (2003).

Figure 2.4: Average Years of Schooling, 2000



Source: For population aged 15 and above (Barro and Lee 2001).

the education Gini ranging from 0.16 for the United States to 0.33 for France and 0.39 for Italy. In the middle-income group, Korea, Poland, and Russia are countries where education displays the most equal distribution.

Sub-Saharan Africa, South Asia, and the Middle-East are regions with startling inequality in education. Mali, Niger, and Afghanistan are among the countries with the most unequal distribution in education. In these three countries, the inequality in education ranged from 0.8-0.9, much higher than that of their income distribution. In general there is a negative correlation between the education Gini and the average years of schooling—countries with the lowest average schooling also have the highest inequality. This is a nice consistency feature which indicates that the education Gini is sensitive to the changes at the lower end of school attainment.

On the other hand, East Asia, Latin America, Europe, and Central Asia are regions where education attainment is more equally distributed, with most education Gini coefficients below 0.4, and average years of schooling above 6 years. In particular, the transition economies in Europe and Central Asia all had average years of schooling above 8, and Gini of around 0.2, in 2000.

The education Gini index also allows us to observe how education inequality in various countries has changed between 1960 and 2000. Figure 2.5 shows that education inequality, as measured by the education Gini, has been declining, albeit slowly, for most countries. Inequality has worsened only in a small number of countries during specific periods. From 1960 to 2000, the education Gini coefficients were declining rapidly in some countries, such as Korea, Tunisia, and China, but slowly in other cases such as Mali and Pakistan.

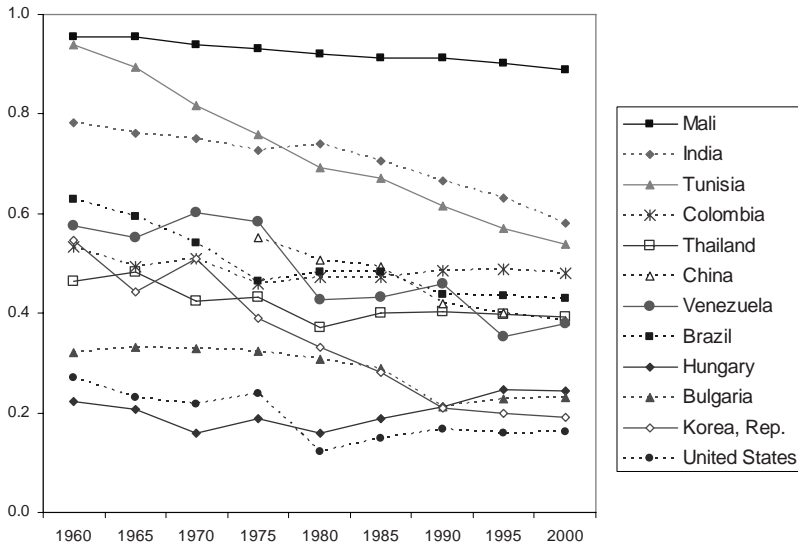
Korea had the fastest expansion in education coverage and correspondingly the fastest decline in the education Gini coefficient; it dropped from 0.55 to 0.19 in 40 years. Tunisia also had a rapid improvement in the distribution of education, with its Gini index declining from 0.94 in 1960 to 0.54 in 2000. India's education Gini coefficient declined first slowly from 0.79 in 1960 to 0.69 in 1990 and then rather rapidly to 0.58 in 2000. Brazil was among the top ten countries that had achieved the greatest increase in primary school enrollment since 1980; thus, its education Gini has declined substantially in the last two decades. The education Gini coefficients for Colombia, Hungary, and Venezuela had some fluctuations, showing inequality on the rise for one period and declining in another (see Figure 2.5). In Hungary and the United States where the education inequality was quite low, we can see that the education Gini had been slowly rising the 1980s.

Relationship between Education Inequality and Average Schooling

Examining the cross-country pattern of the distribution of education, we found that education Gini coefficients decline as the average education levels increase. In addition to the industrial countries, Hungary, Poland, and Ireland had rela-

tively low education Gini coefficients over 1960 to 2000.

Figure 2.5: Trends of Education Gini, Selected Countries



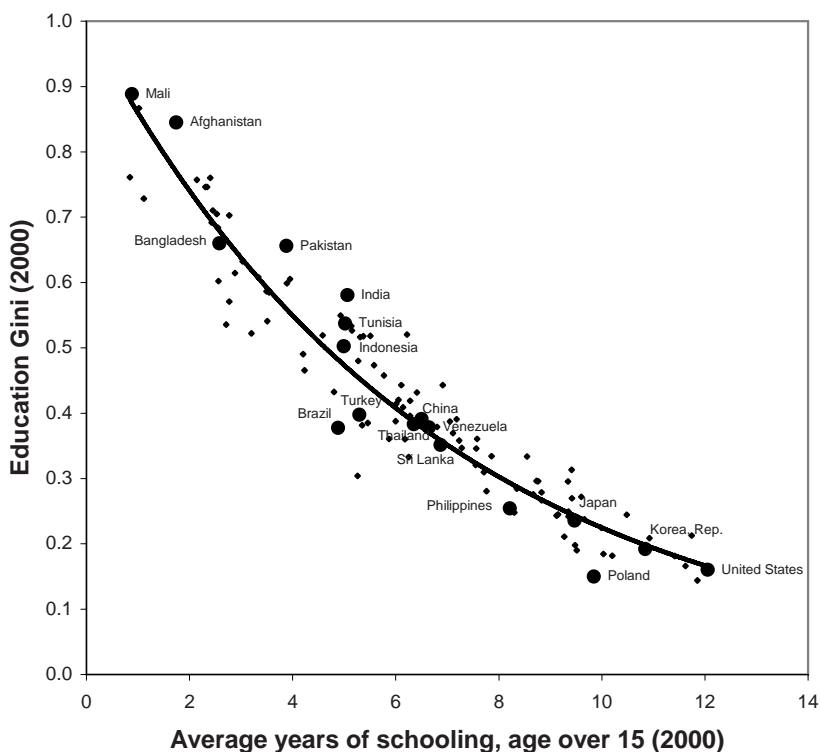
Source: Authors' calculation.

Countries with higher average years of schooling are more likely to achieve equity in education than those with a lower number of average years of schooling (see Figure 2.6). This is a nice feature showing the education Gini has a consistent relationship with the average years of schooling. If one improves, so does the other. Using the Gini does not shift the attention away from the issue of access or levels of schooling. Using other indicators of dispersion such as the standard deviation, however, this nice and consistent feature does not necessarily hold.

The Myth of the Education Kuznets Curve

Does the distribution of education have to worsen before it improves? As suggested by Londoño (1990) and Ram (1990), there is a “Kuznetsian tale” with regard to distribution of education. Using standard deviation of schooling as a measure of inequality, Ram (1990) concludes that “as the average level of schooling rises, educational inequality first increases, and after reaching a peak, starts to decline. The turning point is about seven years of education.” However, the data do not show a Kuznets curve pattern when we use education Gini and Theil indices to measure inequality. The data exhibit such a pattern only when standard deviation is used to measure inequality.

Figure 2.6: Education Gini and Average School Attainment, 2000



Source: Education Gini: authors' calculations; average years of schooling: Barro and Lee (2001).

The Expected Behavior of Gini and Their Indices

There has been some debate on the behavior of Gini and Theil indices when the basic variable (i.e., years of schooling) approaches 0. Moreover, the debate on the existence of the Kuznets curve for education has been going on for years. We use a simple binary case to facilitate understanding. To simplify the matter, we assume that there are two groups in the population: one group, with a population proportion of p_1 , has no schooling and the other, with a proportion of p_2 , obtains all the schooling in the society. And $p_1 = (1 - p_2)$.

Define y_1 as the number of years of schooling for the first group and y_2 as the number of years of schooling received by an educated individual in the second group. Then the average years of schooling (μ) becomes, $\mu = (p_1 y_1 + p_2 y_2) = p_2 y_2$ as $y_1 = 0$. The education Gini can be calculated as $EGini = (1/\mu) [p_2 (y_2 - y_1) p_1] = (1 - \mu / y_2)$

As the average years of schooling moves toward zero, the education Gini moves asymptotically toward 1, as shown in (4).

$$(4) \quad \lim_{\mu \rightarrow 0} EGini = \lim_{\mu \rightarrow 0} \left(1 - \frac{\mu}{y_2} \right) = 1$$

In other words, when nearly no one has the opportunity to obtain education, the society is the most unequal one.

At the other extreme, when almost everyone has the opportunity of obtaining education, and has indeed done so, the society is a perfectly equitable one in regard to the distribution of schooling. As shown in equation (5) below, as the average years of education moves to a maximum, e.g. $y_2 = 16$ years (or any positive number), the education Gini moves asymptotically toward 0.

$$(5) \quad \lim_{\mu \rightarrow y_2} EGini = \lim_{\mu \rightarrow y_2} \left(1 - \frac{\mu}{y_2} \right) = 0$$

This also implies that insofar as a country offers a package of uniform education (e.g., basic minimum education for everyone), there is no Kuznets curve with the education Gini, as the relationship between the average schooling and education Gini index is clearly negative. Based on equations (4) and (5), and assuming $y_2 = 16$ years, we get a downward sloping curve in Figure 2.7. This is empirically verified by Figure 2.8.

Figure 2.7: Education Gini and Average Years of Schooling

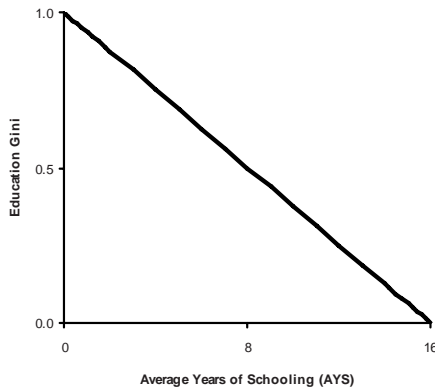
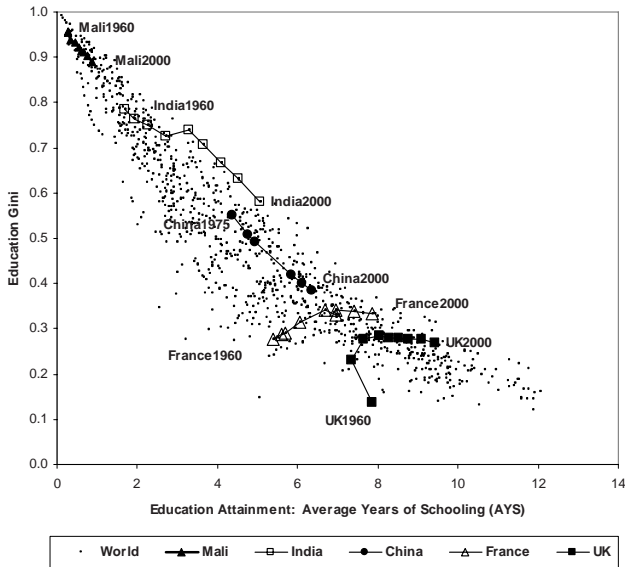


Figure 2.8: Education Gini in Selected Countries against the Rest, 1960-2000



Source: Education Gini: authors' calculations; average years of schooling: Barro and Lee (2001).

Education Gini: Checking the Historic Trends and Cross Country Patterns

In order to check the behavior of education Gini as illustrated above, we generate the time-and-space, two-dimensional diagram for the education Gini versus average years of schooling for various countries and years. Figure 2.8 shows that, first, the education Gini is well behaved as number of years of schooling approaches zero, just as we expected in Figure 2.7. Given any level of average schooling, there is a big variation in education Gini coefficients. For instance, taking the average years of schooling at four years, the education Gini ranges from 0.7 to 0.3. It would be interesting to determine precisely which socio-economic, institutional, and political factors influence the education Gini coefficients. Second, the relationship between the education Gini and the average years of schooling is distinctly different across countries. For most countries, it is a downward sloping curve with different slopes. However, the patterns over time are significantly different. Some show a steep decline, as in Tunisia, Korea, India, and China. Others show a flat curve, and still others show increases for one period or another.

China's progress was impressive but there have been reports showing a slowdown in the expansion of average attainment and widening regional dispari-

ties (Wang & Yao 2003). One of the underlying factors is that in recent years, the public expenditure for education has been stagnant at 2.4% to 2.8% of GDP and unevenly distributed. Public investment for primary education has been inadequate, especially in rural and poor regions where the possibility of private funding was limited (World Bank 2003).

In the case of India, the progress in the average attainment and distribution of education was initially slow in the period 1960 through early 1980s. After 1985, there was rapid progress in both the average level of schooling and distribution, as shown by the downward sloping curve. The education Gini in India, however, is still the highest among developing countries with similar levels of school attainment. Given the average level of schooling, educational attainments are still unequally distributed in India (0.58 in 2000), more so than Tunisia (0.53), and much more than China (0.38). Improving the access to primary education by the poor remains the key challenges and priorities for the country.

The curves for other countries look different from those mentioned above. For example, Mali made small progress in both the average attainment and the distribution of education. For France, where the educational opportunities have been equally distributed since the 1960s, the curve is flat, showing some progress in average attainment. For the United Kingdom, the curve is an inverted *U* shape, showing a worsening in the distribution of education. This is consistent with the careful analysis on UK's income distribution, showing that income distribution has worsened since the 1980s (Atkinson 2003).

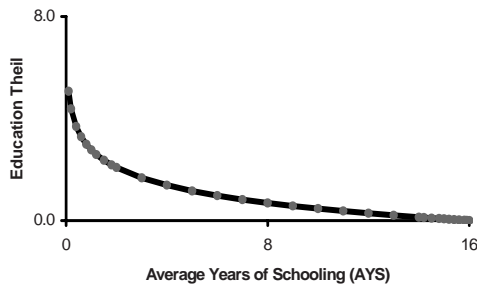
Behavior of Education Theil Index

The Theil index is well defined as the basic variable (schooling) for a large proportion of the population approaches zero. The binary case, with $y_1 = 0$, is shown by the following equation.

$$(6) \quad T = -\log(\mu) + \frac{1}{\mu}[p_1 y_1 \log(y_1) + p_2 y_2 \log(y_2)] = \log(y_2) - \log(\mu)$$

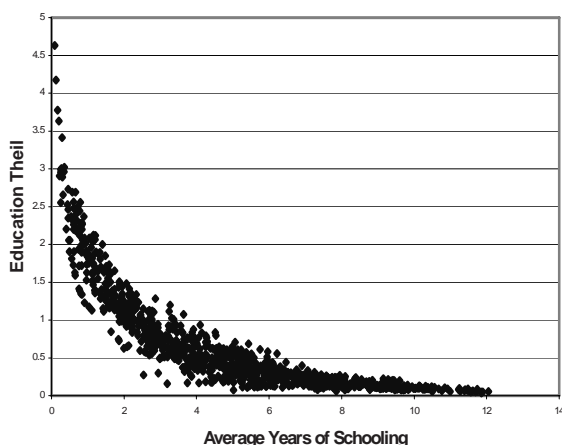
Assuming $y_2 = 16$ years, we get Figure 2.9.

Figure 2.9: Education Theil and Average Years of Schooling (Binary Case)



Similar to the education Gini, the Theil index behaves consistently and is well defined even when the basic variable (schooling) approaches zero, as shown below in Figure 2.10.

Figure 2.10: Education Theil Index and Average Years of Schooling, 1960-2000



Source: Authors' calculations.

Equality of Opportunities Key to Development

Economic theories suggest a strong causal link between education and economic growth, but the empirical evidence has been mixed. Fewer studies have examined the specific link between the distribution of education and economic growth. This section reviews recent studies that have done so with cross-country data.

In the first study, López, Thomas, and Wang (1998), focused on two factors that may explain why the empirical studies have not overwhelmingly supported the theoretical link between the average level of education and growth. First, the distribution of education is not typically considered and may affect economic growth. Second, the economic policy environment greatly affects the impact of education on growth by determining what people can do with their education. Reforms of trade, investment, and labor policies can increase the returns from education.

We used a model in which physical capital is fully tradable while human capital is not.⁶ The level as well as the distribution of human capital enters the aggregate production function. If the dispersion of education matches the dispersion of ability, the marginal effect of education distribution on income vanishes. If the dispersion of education is greater than the dispersion of ability, the per capita income can be increased by reducing the dispersion increasing the equality of education. However, if the dispersion of education is less skewed than

ability, then governments should concentrate investment on a few people with greater ability to learn and to innovate.

Using quinquennial data from 20 mostly middle-income countries, aggregate production functions were estimated. We reported (see Tables A3.2 and A3.3 in Thomas et al. 2000) four estimates of the aggregate per capita production function for 1970-1994, using various specifications. Columns 2-4 show the fixed effect model in log-linear form, allowing the distribution of education to play a role. In these cases, the coefficients of average education become positive and statistically significant at 5%. The effects of education distribution on the production function are statistically different across countries. This diversity of the effect of education dispersion is consistent with the idea that the *effect of education dispersion is likely to vary and change signs according to whether it is below or above its optimal level*. The third column presents the results obtained by allowing for country-specific effects of education distribution. The coefficients of variability of education for various countries are jointly significant at 1%. The last column uses the standard deviation in logs as another measure of dispersion of education. This measure of dispersion exerts a much greater effect on per capita GDP. Most of these country specific coefficients are negative, and 8 out of 20 coefficients are highly significant.

Castelló and Doménech (2002) provided stronger evidence on the association between the distribution of human capital and economic growth. They computed Gini coefficients and the distribution of education by quintiles for 108 countries based on Barro and Lee's (2001) data on school attainment. Using this cross-country data on human capital inequality in a growth framework, they find that while the negative effect of income inequality on economic growth is not robust, the cross-country and pooled regressions suggest that there is a negative effect of human capital inequality on economic growth rates. This result is robust to changes in the explanation variables, the exclusion of atypical observations, the use of instrumental variables to control for endogeneity problems, and the utilization of different measures of human capital inequality.

In short, their findings indicate that education inequality is associated with lower investment rates and, consequently, lower income growth. Countries that in 1960 showed greater inequality in the distribution of education have experienced lower investment in physical capital than countries which showed less inequality. These lower investment rates have in turn led to lower income growth rates. They conclude that policies conducted to promote growth should not only take into account the level but also the distribution of education, expanding the access to formal education at different stages to a wider section of population.

Summary and Conclusion

Our results show, first, that average levels of schooling improved dramatically

while the inequality in school attainment declined in most countries during the four decades between 1960 and 2000. Education inequality as measured by the education Gini is negatively associated with the average years of schooling. Lifting any person out of illiteracy through schooling improves the society's education Gini and at the same time increases the country's level of educational attainment.

Over time, the patterns of change in education Gini are distinctly different across countries, some sloping downward and others flat. This suggests a significant role for public policies that could facilitate investment in the human capital of the poor and promote pro-poor growth. Empirical evidence based on cross-country and time-series data also suggests that there is a negative association between education inequality and investment rates as well as economic growth rates.

Country cases of Brazil, China, India, and Korea show that attention to the distribution of education and other social aspects is key to achieving a more equitable growth and large scale poverty reduction. On average, a one percentage point additional growth would lead to two percentage reduction in poverty, whereas in an unequal situation, the poverty reduction impact of growth would be much smaller.

Measures of inequality in educational attainment need to complement other aspects, in particular, enrollment, completion rates, and the quality of education as proxied by student-learning achievement. The distribution of education as measured by Gini and Theil indices is closely correlated with enrollment and sensitive to changes in the proportion of population with no schooling. Thus, it does not shift attention away from access to basic education; rather, it directs attention to the need for investments in basic education.

The measurement of inequality in education is still in its infancy. Ideally, inequality of educational outcomes would be a result variable, combining access to schooling, quality aspects, ability, and personal efforts. The inequality of education as we measure it here falls short of this ideal measure. But the consideration of education inequality using education Gini or Theil indices is an improvement over the traditional focus on income inequality alone. Providing an improved measure of the differences in opportunities and incorporating learning achievement aspects into the present measure of educational attainment inequality would be a good next step. Along with that it would be extremely interesting to look into the determinants of inequality in education, as other country chapters seek to do.

Annex 2.1

Definitions of E-Gini, E-Theil, and Generalized Entrophy (GE)

The following formula is developed to accommodate the special features of the

schooling distribution data. The education Gini index for a large population is shown in equation (A1).

$$(A1) \quad EGini_L = \left(\frac{1}{\mu}\right) \sum_{i=2}^n \sum_{j=1}^{i-1} p_i |y_i - y_j| p_j$$

where, $EGini_L$ is the education Gini based on educational attainment distribution, large population; μ is the average years of schooling for the concerned population; p_i and p_j stand for the proportions of population with certain levels of schooling; y_i and y_j are the years of schooling at different educational attainment levels; n is the number of levels/categories in attainment data, and $n = 7$ in this paper, according to Barro and Lee's (1993) classification. y_i and y_j depend on length of schooling cycles (C_p , C_s , C_t) which are obtained from Psacharopoulos and Arriagada (1986) and UNESCO yearbook. People who receive partial education are assumed to get half of the schooling cycle in their years of schooling.

The value of Gini is sensitive to population size N if the population size is too small. The sensitivity is reflected by a factor of $[N/(N-1)]$. The education Gini formula for a small population is shown in equation (A2).

$$(A2) \quad EGini_s = \left(\frac{N}{N-1}\right) * \left[\left(\frac{1}{\mu}\right) \sum_{i=2}^n \sum_{j=1}^{i-1} p_i |y_i - y_j| p_j\right] = \left(\frac{N}{N-1}\right) * EGini_L$$

where $EGini_s$ is the education Gini for a small population; and N is the number of individuals in the concerned population. When population size N approaches infinite, $[N/(N-1)] = 1$, the second formula converges to the first formula. Practically, when population size is large enough, the first formula is good enough to achieve a high level of accuracy. The advantage of the first formula is that the exact number of the population size is irrelevant to the value of Gini as long as we know the concerned country has a large population.

The education Theil formula being used in this chapter is rather straightforward as shown in equation (A3). See Fields (1980).

$$(A3) \quad T = \sum_{i=1}^n p_i \left(\frac{y_i}{\mu}\right) \log\left(\frac{y_i}{\mu}\right) = \left[\left(\frac{1}{\mu}\right) \sum_{i=1}^n p_i y_i \log(y_i)\right] - \log(\mu)$$

Generalized Entropy (GE) indexes provide an alternative class of income/consumption or education inequalities, given by the following formula⁷

$$(A4) \quad GE_c = \frac{1}{c^2 - c} \left[\frac{1}{n} \sum_{i=1}^n \left(\frac{y_i}{\bar{y}}\right)^c - 1 \right]$$

The value of GE ranges from zero to infinity with zero representing an equal distribution (all income/consumption/education identical) and higher values represent higher levels of inequality. The parameter c in the GE class repre-

sents the weight given to distances between incomes at different parts of the income/asset distribution which can take any real value. For lower value of c , GE is more sensitive to changes in the lower tail of the distribution, and for higher values GE is more sensitive to changes that affect the upper tail. The most commonly used value of c are 0, 1, and 2—a value of $c = 0$ gives more weight to distances between incomes in the lower tail; $c = 1$ gives equal weights across the distribution; and $c = 2$ gives more weight to gaps in the upper tail. The GE measures with parameters 0 and 1 become, with l'Hopital's rule, two of Theil's (1967) measures of inequality, the mean log deviation and the *Theil-T index* respectively, as shown below

$$(A5) \quad GE(0) = \frac{1}{n} \sum_{i=1}^n \log \frac{\bar{y}}{y_i}$$

$$(A6) \quad GE(1) = \frac{1}{n} \sum_{i=1}^n \frac{y_i}{\bar{y}} \log \frac{y_i}{\bar{y}}$$

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Notes

¹ This chapter builds on the authors' initial work in their 1998-1999 papers, "Addressing the Education Puzzle" and "Measuring Education Inequality: Gini Coefficients of Educa-

tion.” The authors are grateful to Ramón E. López and Xibo Fan for collaborating on earlier papers, the two editors of the book, and Ashok Dhareshwar for comments and suggestions. The views presented here are those of the authors, and do not necessarily represent the views of the World Bank. Dataset is available upon request. Comments and questions on the data should be sent to Yan Wang at ywang2@worldbank.org.

² Kuznets (1955) argues that income inequality would first increase in the early stage of development, followed by a subsequent decline as a country develops. He explains that the inverted-U pattern in income inequality was caused by the transfer of workers from the rural sector to the urban sector where there was greater income dispersion. On education for Kuznets curve, see a subsection below.

³ Checchi (2001) as well as Castelló and Doménech (2002) also calculated the education Gini based on Barro and Lee’s (2001) data. Araujo, Ferreira, and Schady (2004) used household surveys to calculate education Gini, GE, and other indicators.

⁴ We are not able to control for differences in the quality of education in constructing these variables. Controlling for quality here is difficult mainly because quality indicators themselves are problematic. For example, cognitive test scores are not comparable over time and their availability is limited; moreover, using input indicators (such as expenditures or teacher-pupil-ratios) to measure quality is misleading.

⁵ Checchi (2001) looked into this issue using cross-country data.

⁶ We assume that education and skills are partially tradable, only certain services of these skilled are traded. Health status, however, is the least tradable and it affects school attainment and earning potentials significantly.

⁷ For completeness, this part draws from the World Bank (2006, p.287). Araujo, Ferreira, and Schady (2004) put together an invaluable dataset of Gini and GE for education based on household surveys in 124 countries (see World Bank, 2006, pp.284-285).

3

Does Capitalism Inevitably Increase Inequality?¹

Dave HILL, Nigel M. GREAVES & Alpesh MAISURIA

In this chapter, we explore educational inequality through a theoretical and empirical analysis. We use classical Marxian scholarship and class-based analyses to theorize the relationship between education and the inequality in society that is an inevitable feature of capitalist society and economy. The relationship between social class and the process of capitalization of education in the United States and the United Kingdom is identified, where neo-liberal drivers are working to condition the education sector more tightly to the needs of capital. The empirical evidence is utilized to show how capital accumulation is the principal objective of national and international government policy, and of global capitalist organizations such as the World Trade Organization (WTO). The key ontological claim of Marxist education theorists is that education serves to complement, regiment, and replicate the dominant-subordinate nature of class relations upon which capitalism depends, the labor-capital relation. Through these arguments we show that education services the capitalist economy, helps reproduce the necessary social, political, ideological and economic conditions for capitalism, and therefore, reflects and reproduces the organic inequalities of capitalism originating in the relations of production. We also note that education is a site of cultural contestation and resistance. We conclude that, whether in terms of attainment, selection, or life chances, it is inevitable that education systems reflect and express the larger features of capitalist inequality.

Introduction

This chapter examines the relationship between capitalism and educational inequality. From a Marxist perspective, inequality is a long-term and inevitable consequence of the capitalist system. Education does not stand alone and it is not remote from the practices and thought processes of society in general; moreover, it reflects and supports the social inequalities of capitalist culture. The “education industry” is a significant state apparatus in the reproduction and replication of the capitalist social form necessary for the continuation of “surplus value” extraction and economic inequality. Hence, Marxists argue that there are material linkages between educational inequality and exploitation with capitalist ine-

qualities in general. This has been brought into much sharper relief during the current reactionary phase of neoliberal capitalism in such countries as Thatcherite/post-Thatcherite Britain and Reaganite/post-Reaganite United States.

The question as to whether the development of a capitalist society inevitably increases inequality in education will be explored in two ways. In Section One, the enquiry is addressed through the lens of Marxist theoretical analysis. Capitalism is a particular economic form driven by a relentless profit motive in which exploitation and inequality (e.g., income) of life chances are built-in features. This section will explain why, therefore, we might expect to find evidence for a relationship between education and class inequality.

In Section Two, the question of capitalism and inequality is investigated by drawing *inter alia* on recent empirical research and the near-universal agreement among a wide range of national, international, and comparative studies examining the impacts of neoliberal capitalist policies for education (such as pre-privatization, privatization, commercialization, commodification, and marketization of schools and universities).

The conclusion attempts a synthesis of the empirical and theoretical concerns of the chapter. As confirmation of the key substantive concern of Marxist education theorists, a distinct correlation between capitalist economic inequality and educational inequality is revealed. Our analysis is that this relationship is causal and reciprocal. Capitalism causes and increases economic and education inequalities which in turn become functional to capitalist production and culture. This effect is evident in the long term. Short-term snapshots of certain instances and conjunctures (such as in the case of South Korea in this volume) do not tend to reveal the full historical picture. (For a discussion of “termism,” long and short-term policy, and their impacts, see Hill 2001, 2005a).

Section One: Marxist Analysis of the Relationship between Capital and Education—A Conceptual Approach

Renaissance of Marxist Education Theory

Marxist educational theory, research, and writing reached its last peak in the late-1970s and early-1980s (Rikowski 2006), building on the work of Althusser (1971), Bowles and Gintis (1976), Sarup (1978), and Willis (1977), and the Marxist inspired work of Bourdieu (1976). With a few historically significant exceptions (such as Callinicos 1991; Morton & Zavarzadeh 1991; Ahmad 1992), the rest of the 1980s and the early-1990s witnessed a failure to develop this first wave of Marxist educational theory and research. Instead, Marxists and neo-Marxists interested in education typically found themselves shoring up and/or critiquing the many problems and weaknesses inherent in the first wave work or giving a culturalist post-Gramscian spin on the earlier “reproductionist” analysis of

Althusser, Bowles and Gintis, and Bourdieu. (Giroux 1983 is an example.)

However, by the mid-1990s Marxist educational theory and research re-emerged from a moribund period characterized by internal degeneration and hyper-defensiveness in the face of external criticism (Rikowski 1996, 1997, 2006). In the past two decades and in opposition to escalating capitalist class practices that increase exploitation of the many by the few in order to raise the rate of profit, works from Richard Brosio (1994), Kevin Harris (1994), and Michael Neary (1997) have signalled a renewed period of development and experimentation in Marxist educational research, theory, and radical pedagogy—one that puts the focus on the classical Marxist understanding of class as a binary relation to the means of production and as a social relation that decisively shapes social practices. In the last few years, Marxist educational theory and research and radical pedagogy have opened up a second wave of development following the mini-renaissance of the mid-1990s. Works by Paula Allman (1999, 2001), Richard Brosio (2000), Peter McLaren (2000, 2005a, 2005b), McLaren and Farahmandpur, (2005), Bertell Ollman (2001), Carmel Borg, Joseph Buttigieg, and Peter Mayo (2002), Dave Hill et al. (2002) have gained international acclaim. Furthermore, many others are expanding Marxist analysis and are encompassing an increasing range of education policy issues and theoretical concerns, such as lifelong learning, mentoring, the learning society, social justice, globalization, educational marketization, and many other areas.

The second wave has generated renewed interest in theorizing and researching issues of class, gender, and race in education from within “orthodox” Marxism: the understanding of Marxism that bases its critiques on a theorization of class as a binary and determinant relation (see Hill 1999; Hill & Cole 2001; Kelsh & Hill 2006). Furthermore, many are pushing out developing Marxist binary class analysis to address an increasing range of education policy issues and theoretical concerns, such as lifelong learning, mentoring, the learning society, social justice, globalization, educational marketization, and the business takeover of education (see Rikowski 2001, 2002, 2003, 2005; Saltman 2005; Saltman & Gabbard 2003) and on public services related to education, such as libraries (Rikowski 2005).

Many neo-Marxists have definitely rejected class as a binary relation that decisively shapes social practices. These theorists understand class as Max Weber theorized it, as myriad cultural strata that are effects rather than causes of social inequity. Weberian class, however, can only describe inequity but fail to explain it. As descriptive rather than explanatory, neo-Weberian formulations of class are unlikely to serve as a reliable guide to praxis (see Kelsh & Hill 2006 for an elaboration of this). Against the epistemological instability caused by the insertion of pluralist, non-essentialist (such as postmodernist), and Weberian-type schemata into leftist theoretical frameworks, an insertion that displaces the explanatory Marxist concept of class, a vigorous contestation has developed over

the concept of class (Rikowski 2001; Kelsh & Hill 2006; Paraskeva 2006). Take as an example of “revisionist left” writers the prominent writer, Michael W. Apple. Apple writes prolifically and influentially among left educators against neoliberal and neoconservative ideological and political hegemony in the United States. His analyses and political objectives are that there is, and should be, an alliance of political interests in which the triptych of social class, “race” and gender have equal importance as *both* explanatory and as organizing principles (e.g., Apple 2005, p.392; 2006, p.116). However, race, class, and gender are not co-primary while they invariably intersect and interact. This “triplet” approximates what the “philosophers might call a category mistake.” On the surface, the triplet may be convincing—some people are oppressed because of their race, others as a result of their gender, yet others because of their class—but this “is grossly misleading” for it is not that “some individuals manifest certain characteristics known as ‘class’ which then results in their oppression; on the contrary, to be a member of a social class just *is* to be oppressed” and in this regard class is “a wholly social category” (Eagleton 1998, p.289). Furthermore, even though “class” is usually invoked as part of the aforementioned and much vaunted triptych, it is usually gutted of its practical, social dimension or treated solely as a cultural phenomenon—as just another form of “difference.” In these instances, class is transformed from an economic and, indeed, social category to an exclusively cultural or discursive one or one in which class merely signifies a “subject position” (p.186 cited in Scatamburlo-D’Annibale & McLaren 2004).

The introduction of extra-class determinants of social inequality follows a Weberian-derived notion of class as a tool of classification useful only to describe *strata* of people, as they appear at the level of culture and in terms of status derived from various possessions, economic, political, or cultural.

However, as a tool of *class* categorization, Weberian-derived classifications of social strata cannot provide reliable knowledge to guide transformative praxis—that is, a guide to action that will result in the replacement of capitalism by socialism (a system whereby the means of production, distribution and exchange, are collectively, rather than privately, owned). In Weberian classifications, there is no capitalist class, and no working class; just myriad strata. Similar assumptions surface in anti-essentialist, post-modernist approaches (for a critique, see Cole 2007; Hill 2001, 2005a; Hill, Sanders & Hankin 2002; Scatamburlo-D’Annibale & McLaren 2004). Such classification systems substituted for Marxist class theory fuel the ideological notion that “class is dead” (Pakulski & Waters 1996).

It is interesting, and rarely remarked upon, that arguments about “the death of class” are not advanced regarding the capitalist class. Despite their horizontal and vertical cleavages (Dumenil & Levy 2004), they appear to know very well who they are. Nobody is denying capitalist class consciousness. They are rich. They are powerful. And they are transnational as well as national. They exercise

(contested) control over the lives of worker-laborers and worker-subjects.

Marxists agree that class is not the only form of oppression in contemporary society; however, it is also a fact that class is central to the social relations of production and essential for producing and reproducing the cultural and economic activities of humans under a capitalist mode of production. Whereas the abolition of racism and sexism does not guarantee the abolition of capitalist social relations of production, the abolition of class inequalities, by definition, denotes the abolition of capitalism. As Marx argues in *Wage-Labour and Capital* (1933), “capital . . . without wage-labour, ceases to be capital” (p.46).

Hickey (2006, p.196), for example, points to the functionality of various oppressions in dividing the working class and securing the reproduction of capital; constructing social conflict between men and women, or Black and White, or skilled and unskilled, thereby tending to dissolve the conflict between capital and labor. While Apple’s “parallelist,” or equivalence model of exploitation (equivalence of exploitation based on “race,” class and gender, his “tryptarch” (or tripartite) model of inequality produces valuable data and insights into aspects of gender oppression and “race” oppression in capitalist US, such analyses serve, as Hickey (2006), Gimenez (2001), and Kelsh and Hill (2006) suggest, to occlude the class-capital relation, the class struggle, and to obscure the essential and defining nature of capitalism, the labor-capital relation and its attendant class conflict. With respect to one aspect of structural inequalities reproduced within the education system in England and Wales, that is, educational attainment, Gillborn and Mirza (2000), supplemented by Dehal (2006) themselves using the “official” (British government census classification) Weberian derived categorizations of social strata, show very clearly that it is the difference between social strata that is the fundamental and stark feature of the education system, rather than “race” or gender. While this would seem to suggest the usefulness of Weberian-based understandings of class, our point is that this is a descriptive understanding of inequity, not an explanatory one, and that only a binary understanding of class can explain inequity and thus point to what must be done to restructure society so that inequity is not built into it.

In sum, there is a recognized need among Marxists: firstly, to restate the epistemic foundation of Marxism; and, in so doing, secondly, to reclaim the authentic voice of the left-wing critique of capitalist education practices and their ideological justification though a class-based ontology (Hill 2008; Kelsh & Hill 2006).

Restating Class

For Marxists, class is not an arbitrary or abstract concept. Rather, it is a verifiable feature of certain human life processes. According to *The German Ideology*, written by Marx and Engels in 1845-6, human society passed through different

productive epochs and in each there were opposing groups of people defined according to the objectively different relationships they had to the means and products of material production. That is, in every epoch, economic practices structure human society into “classes” with diametrically opposed interests rooted in relations of ownership to the means of production. These relations of ownership to the means of production constitute what Marx calls the “relations of production” and this is an arena of perpetual tension and struggle (1977, p.179). When the relations of production are combined with the “forces of production” (factories, workplaces, plant, equipment and tools, and knowledge of their use) we arrive at a “mode of production” or “economic base” (Marx 1977, pp.161, 168). This productive “infrastructure” forms the organizational rationale and dynamic for society in general and these are reflected in the social institutions (e.g., the state) that spring up and become established in accordance with the needs of productive relations.

However, the techniques and technologies of production under capitalism always dictate new working practices which exert pressure for change. The institutions which attempt to guard the existing relations of production from crises (principally the state) then begin, precisely and contradictorily by attempting to guard those relations from crises to obstruct the further development of the forces of production and eventually the pressure of contradictions rooted in the class contradiction becomes too great and the established institutions are transformed by revolution. At that point, new social and political institutions appropriate to new relations of production are developed, and these must accord with the further free development of the material forces of production. *The German Ideology* constitutes Marx’s attempt to depart from the metaphysical abstraction of the Hegelian idealist method and locate the motor of historical change in living, human society and its sensuous processes.

For later thinkers, such as Lenin, the significance of Marx’s transformation of dialectics is the identification of the concept of “class struggle” as the essential historical dynamic. In any era, and most certainly in the capitalist, society is locked in conflict, while the needs of a certain group in the productive process are always subordinated to another. Marxists hold that this social conflict cannot be truly reconciled with the source of its economic causation, and this perpetual tension is the seedbed of revolution.

The capitalist era is both typical of human history and at the same time unique. It is typical in that its production techniques involve the exploitation of one human being by another; nonetheless, it is unique in history in terms of its advancing this principle to unprecedented levels of efficiency and ruthlessness. For Marx, writing in the Preface to *A Critique of Political Economy* of 1859, known simply as the “*Preface*,” the capitalist era marks the zenith of class struggle in history and human exploitation cannot be taken further (1977, p.390). The only redeeming feature of capitalism is its assembling its own social antithesis in

the “proletariat” or “working class” which is destined to rise up against the bourgeoisie (profiteering or ruling class) and abolish class and exploitation and thus bring “the prehistory of human society to a close” (1977, p.390).

What do Marxists mean by capitalist “exploitation”? In the first volume of *Capital*, Marx argues that workers are the primary producers of wealth due to the expenditure of their labor in the production of commodities. However, the relationship between the owners of the means of production (the employers) and the workers is fundamentally exploitative since the full value of the workers’ labor power is unreflected in the wages they receive. The difference between the value of the labor expenditure and the sum the worker receives is known as “surplus value,” and this is pocketed by the employer as profit.

Marx saw surplus value as the distinguishing characteristic and ultimate source of class and class conflict within the capitalist system (Cuneo 1982, p.378). However, for Marx, surplus value is not merely an undesirable side-effect of the capitalist economy; it is its motive force and the entire system would readily collapse without it. Technically, while surplus value extraction is not wholly unique, historically, all capitalist systems are characterized by it. Marx is thus able to offer a “scientific” and objective definition of class in the capitalist epoch based on which side of the social equation of surplus value one stands and to show, moreover, that this economic arrangement is the fundamental source of all human inequality.

Class is therefore absolutely central to Marxist ontology. Ultimately, it is economically induced and it conditions and permeates all social reality in capitalist systems. Marxists therefore critique postmodern and post-structural arguments that class is, or ever can be, “constructed extra-economically,” or equally that it can be “deconstructed politically”—an epistemic position which has underwritten in the previous two decades numerous so-called “death of class” theories—arguably the most significant of which are Laclau & Mouffe (1985) and Laclau (1996).

Capital, Immiseration, Education, and Ideology

Marx’s views on education, rarely expressed, tend toward an articulation of its “commodifying” properties in relation to both teachers and pupils. In other words, education is assessed according to its practical or “use value” for capital. Marx writes:

[i]f we may take an example from outside the sphere of production of material objects, a schoolmaster is a productive labourer, when, in addition to be-labouring the heads of his scholars, he works like a horse to enrich the school proprietor. That the latter has laid out his capital in a teaching factory, instead of in a sausage factory, does not alter the relation. (Marx 1867, p.477)

As a “sausage factory” in itself, the school is unlikely to hold out much prospect

that pupils could be geared for anything other than the interests of capital. Marx would certainly have scoffed at the humanist notion that education is geared to the interests of the child, although “resistance theorists” (such as Willis, Giroux, McLaren) and critical pedagogues such as Freire and McLaren assert the possibilities for teachers and students challenging the capitalist system within schools, and, in the case of Giroux, Freire, and McLaren, engaging in liberatory and transformative education. However, as far as capital is concerned, education is merely instrumental in providing and setting a pupil’s future “use value” in production. The importance of this is that there is no other standard to which to aspire, other than that defined by capital, for the purposes of capital.

More subtly perhaps, though no less crucially, education has a role in conditioning and institutionalizing children not only for exploitation at work but toward an acceptance of their future life conditions and expectations. This is as true of the supposedly broad liberal arts education of today in the US, or the purportedly “broad” national curriculum for schools in England, as of more obviously utilitarian vocational models such as Soviet technical and vocational schooling. In any case, Marxists seek the explanation of this phenomenon in the processes of what Marx in the *Preface* called the “superstructure” (1977, p.389).

The dynamics of production permeate all other activities in society such that there arises a vast complementary superstructure on the level of human thought or “ideology.” The superstructure—consisting of all those elements widely understood as “culture” and “politics”—becomes simultaneously a product and necessary agency of the economic base. It is the cauldron in which thoughts, opinions, biases, and outlooks—rooted in and expressing class positions and interests—are formulated and exchanged and become, due to the power and control exerted by the ruling class, broadly supportive of existing economic practices. In other words, the superstructure because it is conditioned by the binary class relations of production that constitute the base, reproduces in the ideological field class differentials by either (re)presenting these as legitimate somehow; as “natural” (simply the way things are); or by covering up and disguising the original source of class inequality.

The superstructure has, therefore, a vital concrete function. In a negative sense, it protects the dominant economic group by deflecting and disguising the adverse sensations of production.

For example, during the period in which Marx and Engels wrote, Europe was rife with social criticism. For example, the literary works of Charles Dickens (1812-1870) in England and Victor Hugo (1802-1885) in France are replete with moral outrage. However, much of it tended to reflect disgust that the major privileges of liberal philosophy, such as “individual empowerment,” “self-ownership,” and so forth, were contradicted by the extant material conditions of the poorest members of society. In other words, such liberal social critics tended to assume that the liberal revolutions, those that had accompanied transitions to

capitalist modes of production throughout Europe, were incomplete or that their highest ideals had been subsequently betrayed somehow.

In fact, many 19th century social critics exposed a fundamental internal paradox of liberal philosophy. On the one hand, freedom is sacrosanct and there should be minimal interference in individual choice and behavior, on the one hand, the activation and preservation of freedom requires social intervention or “big government.” We find this theme, for example, in the political theories of the Philosophic Radicals, Jeremy Bentham (1748-1832) and James Mill (1773-1836) who, along with their fellow critics in literature, assumed that what was required to meet dire social need was in effect more liberalism or indeed the “right kind.”

Marx, however, raises the stakes of social criticism beyond liberalism; an ideology which he believed had largely run its course. For Marx, what was required was socialism, but this was not so much an “idea” as an entirely new social form in which capitalist economic practices and corresponding state support had been swept away by proletarian revolution.

Marx believed he had every reason to be confident. In *The Communist Manifesto* and elsewhere, and derived in part from his earlier humanist writings on alienation, Marx saw the increasing “immiseration” of the workers as a vital revolutionary factor. From a series of articles written in 1849 for the journal *Neue Rheinische Zeitung* and later in the first volumes of *Capital*, Marx’s idea of immiseration is that as capitalism develops its cost in human terms would increase proportionately. Workers are singularly vulnerable since their only resource is their labor power, and they are dependent for their subsistence on selling this power to someone else, as we have seen, always for less (exchange value) than its true value. The workers have, therefore, limited material resources and ability to control the processes of capitalism and its long-term tendencies to drive workers’ wages down.

In effect, the workers shoulder the cost of an inherently unstable system. For example, the uptake of labor by capital periodically falls short of labor availability. This leads to unemployment, the creation of a (“raced” and gendered) reserve army of labor, and competition for jobs. Sometimes the reserve army is over the border in *maquiladoras*, sometimes far away in colonies and neo-colonies, sometimes through the importation of formerly subject peoples into the colonial/imperial “motherland,” sometimes through the simple “free movement” of labor, as in the newly enlarged European Union, sometimes through bringing more women-laborers into the paid economy. On the other hand, the downward pressure on wages relates directly to downward pressure on commodity prices—labor being a commodity itself.

Subject to stiff market competition, capitalists act on labor as an immediate and malleable factor in the pricing of the commodity. Capitalists are compelled to reduce their overhead costs and are ever vigilant in their bid to gain an advantage over their competitors. Many variables are beyond the capacity of the capi-

talist to control, such as the price of raw commodities which, Marx assumed, will be roughly the same for all capitalists, but this is not necessarily the case for the variable labor. Here, the capitalist exerts some measure of control. Indeed, the demands of competition result in the general trend for downward pressure on labor costs.

Of course, this pressure clashes fundamentally with the interests of those whose sole means of subsistence is their labor power. The capitalist's ability to compete will therefore depend upon the self-organization and interest-recognition of a given labor force. For Marx, such recognition was inevitable. But not mechanistically so. For Marx, many people would certainly recognize their needs; however, owing to ideological forces, they would likely *not* attribute their need to capitalist class practices. Indeed, these people would likely attribute their need elsewhere (e.g., to a drought, war, caste system, or whatever the capitalist class ideologues were offering as “reasons” for immiseration). This is why Marxists must engage in ideology critique that shows class interestedness of dominant ideas. Some persons certainly would recognize that their needs were not being met owing to capitalist class practices. These would be, for example, the “small section of the ruling class [that] cuts itself adrift, and joins the revolutionary class, the class that holds the future in its hands,” those who “have raised themselves to the level of comprehending theoretically the historical movement as a whole” (Marx & Engels 1985, p.91). And, there might be others. There would have to be some, since if (as Marxist theory argues) ideas are a reflection of the binary class relations of the base, there would have to be ideas that represent the workers, not just the capitalists. Indeed, this is the basis for resistance theory— hegemony leaks! Therefore, while recognition of need was inevitable, *how* one would understand that need, its causes, would vary according to the dominant ideas in circulation and the “gaps” in them, and whether there were sufficient numbers of educated persons who would break from the ruling ideas because they were educated enough to “see” the arc of history. It would prove difficult to disguise from all workers the source of their misery and alienation and the appeal of socialism. However, the growth of superstructures in terms of democratic enfranchisement, “bourgeois democracy,” trade unionism, and welfare states resulted in what Marxists dub as the “embourgeoisement” of the working class or what Marshall (1990, p.31) calls the pressure for “upward mobility.” Abrams and Rose (1960) considered, for example, how the Conservative Party in Britain was able to command a broad appeal and concluded that an important factor was the increasing association of workers with the values of the middle class. Similarly, analysis can be made of other advanced capitalist countries such as the US, France, Germany, and indeed, of developing countries such as India. Embourgeoisement results, subjectively, if not objectively, in a blurring of the distinction between classes and the deradicalization of the workers. Patently, this effect is attributable to the superstructure while it is related to the economy *per se* since the superstructure reflects the

interests of the dominant class but only because the dominant class owns the means of production and has the money (congealed and stolen labor power) to flood culture with its ideas.

Analysis of the role of the superstructure in the process of deradicalization was initiated in large part by the Italian Marxist Antonio Gramsci (1891-1937). He argued from a fascist prison cell in the 1930s that the superstructure has a constructive (rather than exclusively negative) dimension—emphasizing an aspect of Marxist theory that had always been at its core but which, owing to the historical material conditions of the time Marx and Engels made their key arguments, remained de-emphasized in their works, as Engels was later to argue (Engels, Letter to Joseph Bloch (1890). Therefore, Marxists should take the initiative and become more positively engaged in the life of the superstructure. It is, he wrote, “the terrain on which men move, acquire consciousness of their position, struggle, etc” (Gramsci 1971, p.377). As a consequence, the idea of education in Gramsci’s thinking is similar to his views on ideology. Education in the widest sense is a vital tool for the advancement of civilization to a necessary level to meet with productive need. For Gramsci, ideology becomes a force for the advancement of the interests of one class over another by its presenting its viewpoints as fair, moral, just, and so forth as just “plain common sense.” Gramsci calls this force “hegemony” that represents a particular account of reality which promotes both its own advancement throughout society and the suppression of rival accounts. Of course, equally, Gramsci offers the prospect of turning the tables on the capitalist class by encouraging the proletariat to throw off its ideological subordination and to cultivate its own version of reality as the first stage in revolutionary preparation (Greaves 2005). This is the classic task of Marxist and communist educators, to transform the working class from an objective “class in itself,” into a “class for itself”—a class with class consciousness, aware of its political project to replace capitalism.

Gramsci (1971) perceived that in capitalist systems the task of permeating society with a particular version of reality is given over to the capitalist’s “chiefs of staff,” or dominant “intellectuals,” that is, rather than capitalists themselves. School is, therefore, an obvious locus of intellectual recruitment and hegemonic exchange. As Gramsci puts it: “[s]chool is the instrument through which intellectuals of various levels are elaborated” (p.10) “[and part of an] overall framework of a policy for forming modern intellectual cadres” (p.26). Firstly, children learn at school the prevailing mores of society and adopt the conditions of “good citizenship.” Secondly, children are selected for a future role in production either as producers themselves or as the intellectual legitimizing agents of productive logic in the superstructure.

Gramsci’s ideas on the pedagogic and reproducing nature of the superstructure have been influential within the Marxist tradition. They are explored by Althusser (1971) and Bowles and Gintis (1972, 1976, 1988). For Althusser, the

needs of capital are reproduced ideologically by replicating capitalist practices and conditions at multiple social levels. Children are structuralized by education because the education system is part of a state apparatus that *cannot do otherwise* than work in the interests of capital. A state contrived in accordance with the dictates of a given economic form cannot be brought to perform in ways that are at odds with its structural character. One effect of this is that education systems of capitalist societies become inherently hierarchical and elitist.

This process prepares the student for passive acceptance of the inequalities in expectation and reward that will be faced in the world of capitalist production. Indeed, education is preparation for future market evaluation and the process of commodification through which capitalism assesses human value and worth. Bowles and Gintis (1988) track this analysis. They write:

[t]he hierarchical order of the school system, admirably geared towards preparing students for their future positions in the hierarchy of production, limits the development of those personal capacities . . . and reinforces social inequality by legitimating of students to inherently unequal “slots” in the social hierarchy. (p.18)

Bowles and Gintis (1988) recognize that over and above the interest of the child and the free development of its faculties lies a “hidden curriculum.” Education transmits a curriculum to students that is conditioned to the needs of both the forces of production (skills, techniques, know-how) and the relations of production (class, class differentials, inequality). In catering to the needs of the productive forces and the acquisition of skill, the curriculum is open in the sense that the purpose of education is fully apparent. However, Bowles and Gintis (1972) argue that a hidden message is smuggled into education alongside the dissemination of vocational know-how that serves to justify social relations.

The school is a bureaucratic order, with hierarchical authority, rule orientation, stratification by “ability” as well as by age, role differentiation by sex (physical education) . . . etc., and a system of external incentives (marks, promises of promotion, and threat of failure) much like pay and status in the sphere of work. (p.87)

Section One has offered a synopsis of the Marxist analysis of education and its *a priori* assumptions on education in capitalist systems. We now turn to provide supporting empirical data.

Section Two: Capital and Education— An Empirical Analysis

Turning the Screw: Neo-liberalism and Fiscal Inequality

The introduction and extension of neoliberal social policies in Britain, the US after the New Right reactionary movements of the 1980s, and more globally (notably in Chile under Pinochet, elsewhere in Latin America under an assortment of generals and “big business” control) offers fertile ground for Marxist analysis since economic inequality and class division has sharpened markedly (Dumenil & Levy 2004; Global Policy Forum 2006; Harvey 2005). The immiseration of the worker that superstructures and state activities had done much to ameliorate since Marx’s time might be making a comeback (Brennan 2003; Glyn 2006).

Therefore, with the economic gains of the thirty-year post-war “boom,” from the 1940s to the 1970s, when (in advanced capitalist countries) real wages of the working classes and standards of living improved, (as did the “social wage” welfare and social benefits) the theory of immiseration went into decline. However, following the hidden economic depression of the 1970s (“hidden” because it was compensated for in the west by the large-scale drafting of women into the workforce), Marx’s theory of immiseration has regained validity. Since 1970, especially in the case of the United States, real wages have fallen dramatically. However, real family income has remained relatively stable as women entered the workforce. Families have the same amount of money to spend as before, but a lot more hours are being worked. Recent research (Dumenil & Levy 2004; Harvey 2005; Hill 2004, 2005b; Hill et al. 2006) testifies that the “class war from above” is in full swing, characterized by the increase in the rate of extraction of surplus value, in advanced capitalist and in developing countries with the rich getting richer, the poor poorer, and workers and trade union rights and liberties under attack.

Currently there is a “race to the bottom” in which worldwide wages and conditions of labor are being held down by neo-liberal national and global policies such as the structural readjustment programmes of the World Bank and the International Monetary Fund, and the “liberalisation” of trade agenda of the World Bank’s General Agreement of Trade in Services ([GATS] 2002, 2003; Hill 2005b; Hill et al. 2006). Together with competition from the substantially lower-wage economies such as India and China, we see Marx’s rising rate of exploitation re-emerging, a century and a half after he first predicted it (Glyn 2006). In justifying the intensification of labor, the ideological state apparatuses such as education and the media and of the repressive state apparatuses of the laws, army, and police (Althusser 1971; Hill 2004) play a full role in trying to “manage” citizens and workers into accepting the “common sense” of an individualistic, consumerist, and hierarchically stratified society.

Dumenil and Levy (2004) highlight the increasing inequality in the US. Those in the highest tax bracket are paying tax at a rate around half that of the 1920s, whereas the current tax rate for those in the lowest tax bracket are more than double of what it was then. In a forerunner of George W. Bush's "trillion dollar tax giveaway to the rich," Reagan cut the top rate of personal tax from 70% to 28%. The results can be seen most starkly in CEO remuneration packages whose income soared by 25% in 2005 to US\$17.9 million, with six CEOs who accumulating between US\$100-US\$280 million that year (Strass & Hansen 2006). This compares with the average worker in the US gaining a meager 3.1% increase which is below inflation. Real-term wages are in decline and the wealth of the nation is being transferred to the few in the capitalist oligarchy class (Strass & Hansen 2006). In addition, both the US administration and the British government have also dramatically cut taxes on businesses and multinational corporations inflating profits.

Similarly, in Britain, the working class is paying more tax. The richest groups are paying a smaller proportion of their income in taxes in comparison to 1949 and to the late 1970s. These dates were both in the closing stages, at the end of two periods, of what might be termed "Old Labour," or social democratic governments (in ideological contradistinction to the primarily neo-liberal policies of "New Labour"). As a percentage of income, middle and high earners in Britain pay less tax in 2003 than at any time for 30 years. It is the poorest, the lowest paid (1/3 of the population are paid below the EU decency threshold of the minimum wage) who are paying more despite the economy having doubled since the 1950s (Toynbee 2003). In comparison with the late 1970s, the "fat cats" are now paying around half as much tax (income tax and insurance contribution rate). These people are paying less income tax and national insurance as a percentage of their earned income than in 1949. Johnson and Lynch (2004) specify that "a percentage of income, middle and high earners pay less tax now than at any time in the past thirty years." In contrast, the average tax rate for "the low paid" is roughly double that of the early 1970s—and nearly twice as much as in 1949 (Johnson & Lynch 2004). The subtitle for Johnson and Lynch's article is, appropriately, "sponging off the poor."

The encroachment of capital into state/public education has intensified because of a decline in the rate of capital accumulation. New markets outside of the traditional private sector domain were needed (Hursh & Martina 2003), especially to take advantage of economies of scale. In order to accommodate the business imperative, the US and British governments opened up and continue to liberalize the public sector services including education.

In Britain, New Labour's neo-liberalizing policies aimed at deregulating educational provisions are potentially paving the way for the private sector to take a stranglehold of state services (Hill 2006). The private sector is involved in almost every element of the British education services with activities ranging

from selling services to educational institutions to managing and owning schools as well as other facilities. Education ancillary services such as cleaning, catering, security, and reprographics have been outsourced to private sector companies. On a national scale, functions such as inspection, student fees, and loans handling, and record keeping, are increasingly run by private corporations rather than by the Local Education Authority (LEA) or the national government. Moreover the current pre-privatization of state schooling in England and Wales (Rikowski 2005) could well see a system of publicly funded privately controlled schooling.

The “Sausage Factory” in Action: Standardization and Centralization of Education

It should not be thought that the struggle between classes, in part, played out in education can be eradicated by state provision and such measures as standardized national curricula. For Marxists, the state can never be neutral while serving a capitalist economy, even though it can be used as a site of struggle and can affect reforms. State involvement in education represents the attempt at regulation, harmonization, and rationalization. The standardizing and centralizing powers of the state allow for a practical and ideological correlation between national educational provision and national economic need. The state turns the interests of capital into national educational strategies. Of course, the rhetoric of government policies such as that of *No Child Left Behind* in the US and the rhetoric of the Blair government, for example in its 2006 Education Bill for England and Wales do not solely advance a vocational or human capital rationale. (But is it remarkable how demoted or absent, relative to the 1960s, are rationales based on liberal-progressivist child-centered ideology, or social democratic redistributionist ideology). There are other rationales, such as political competitive vote-winning, and considerations. There is also the legitimacy question. In societies, such as Britain, the US, and other liberal democratic polities where economic inequality is high and growing, upward mobility between social classes has to be seen to be attainable. The message is “work hard and you’ll be rewarded.” If these messages permeate the masses who do not enjoy much of the spoils, then they are more likely to tolerate the riches that few enjoy within that society. However, if these meritocratic messages of attainable riches and advancement through a meritocratic education system are widely unacceptable, then this poses legitimacy—and political survival problems—for political and economic elites.

As part of a strategic state objective, education is driven by the need and desire of capital for capital accumulation. Currently, in advanced capitalist countries education has a particular, distinctive economic and business orientation: it seeks a specialist workforce, whether by a dual-track system such as in Germany, or through supposedly single track, more “comprehensive” or “common school” (as it is known in India) systems, as in the United States. Both types of systems

and hybrid types are specialized in that they are both designed to train or educate for the purposes of capital. In both types, students are differentially and hierarchically trained and/or educated (Hirtt 2004, 2008) to maximize economic return in the development of a “knowledge economy.” In the world-wide division of labor, other education systems and the economies they serve have different functions. In some historic-geographical spaces these include the production of raw materials and/or low-skilled factory assembly work, together with supervisory capacity. This has the effect of stratifying children into crude (gendered and “raced”) class strata categories. One result is the failure to provide a holistic educational experience aiming to enrich pupils’ personal developments and talents.

The state allows for and encourages, therefore, the harmonizing and standardizing of education provision toward the needs of capital. As McNeil (2000) observes, state standardization and centralization nevertheless replicates capitalist social relations in that it: “creates inequities, widening the gap between the quality of education for poor and minority youth and that of more privileged students” (p.3).

The state is a key agency for the defence of extant relations of production. Hence, Marxists would point to the anti-radicalizing effect of education through the smothering of creativity, imagination, and critical thought. By this is meant, radical political creativity, imagination, and political thought. Rikowski (2001) suggests that the State needs to control the social production of labour power for two reasons. First to try to ensure that *the social production of labor-power*, equipping students with skills, competences, occurs. Secondly, to try to ensure that modes of pedagogy that are antithetical to labour-power production *do not and cannot exist*. In particular, it becomes clear on this analysis that the capitalist State will seek to destroy any forms of pedagogy *that attempt to educate students regarding their real predicament—to create an awareness of themselves as future labour-powers and to underpin this awareness with critical insight that seeks to undermine the smooth running of the social production of labour-power*. This fear entails strict control, for example, of the curriculum for teacher education and training, of schooling, and of educational research. Hill (2003, 2004, 2007) argues that neoliberal capital and governments stifle critical thought by compressing and repressing critical space in education today, with capital and neoliberal ideology and policy seeking to neutralize and destroy potential pockets of resistance to global corporate expansion and neoliberal capital.

A historic example of this is the smothering and incorporation of independent working class educational provision (such as in nineteenth century Germany and Britain). National “homogenization” given over to “task-related knowledge” approaches of capitalized education systems (Kimbell & Perry 2001; Maisuria 2005) is a destructive as well as in some respects constructive process because it creates robotic people less able to *think* beyond the scope of their function in society. Creativity, imagination, and critical thought are of course valued

within education systems but primarily insofar as they are constrained within a capitalist framework, focussed on the development of relatively compliant human capital. A restrictive educational experience limits cognitive emancipation and empowerment by limiting human horizons to the requirements of capital.

Of course, there are some differences among capitalist countries. Social democratic countries have a low coefficient (i.e., relatively lower levels of inequality resulting from decades of social democratic rule and reforms). This is exemplified by Sweden, a country with a large state, impressive welfare policies, and nationalized public services. Sweden's Gini coefficient increased from 0.215 in 1975 to 0.252 in 2000. During this period the US Gini went from 0.301 in 1979 to 0.368 in 2000, and the UK increased to 0.345 in 1999 from 0.270 in 1979 (Hopkin & Blyth 2004; these figures are also given by other commentators, for example Luxembourg Income Study 2000; Smeeding & Gottschalk 1999). In the Gini index, the value 1 means absolute inequality in which one person gets everything and all others nothing, and the value 0 means absolute equality in which everyone gets exactly the same. These Ginis come from the Luxembourg Income Study (LIS). They cover for after-tax household income adjusted for household size, and LIS imposes a uniform top code to maintain cross-national comparability. LIS Ginis are substantially lower than Ginis for pretax income unadjusted for household size, which are what the United States Census Bureau, and other writers, report (see Clarkwest & Jenks 2003).

Sweden's levels of inequality has barely increased (from a relatively low baseline) in the last 30 years. In addition, Sweden in the 21st century is significantly more equal than the UK was 30 years ago. However, whether social democratic, redistributionist governments will continue to limit the intrusion of capitalist interests into state provision, against the backdrop of increasingly globalized neo-liberalism, remains to be seen. Where in "the balance of class forces," the class struggle is sufficiently strong with millions pouring onto the streets in defence of their pensions, public utilities, and services, labor-rights, then neoliberal capital can be thwarted. And, with a rise in class consciousness nationally and globally, be replaced.

Choice and Inequality

In the UK, while in government from 1979 to 1997, the Conservatives established a *competitive market* for consumers (children and their parents) by setting up new types of schools in addition to the local (State, i.e., public) primary school or the local secondary comprehensive school.

Empirical evidence by Hoxby (2000, 2003a, 2003b) shows that the result of this "school choice" is that inequalities between schools increased because in many cases the "parental choice" of schools has become the "schools choice" of the most desirable parents and children and rejection of others. In the UK, pa-

rental social class and income is the most important factor affecting educational attainment.

Choice means that so-called “sink schools” have become more “sink-like” as more favored schools have picked the children they think are likely to be successful. Where selection exists the sink schools just sink further and the privileged schools just become more privileged (this is particularly pertinent in England and Wales, in the wake of the 2006 Education Bill by the New Labour government, which proposes to permit increased selection “by aptitude” in schools). The Association of Teachers and Lecturers lambasts marketization in education: “The trouble with choice is that those least able to choose find that, if the market rules, it tends to prioritise those customers which do not take up too much of its resources” (Bousted 2006).

Teachers in these “ghetto schools for the underclass” (Bousted 2006) are publicly pilloried, and, under New Labour the schools “named and shamed” as “Failing Schools,” and, in some cases either re-opened with a new “Superhead” as a “Fresh Start School” (with dismissals of “failing” teachers) or shut down (see, for example, Hill 1997; Whitty, Power & Halpin 1998). Similar policies and effects are seen in the US as a result of the *No Child Left Behind* legislation of the American congress (Hursh & Martina 2003).

Hierarchical differentiation is the consequence of experiments with choice. This is so of the tripartite system in the US—private, suburban, and urban schooling—and in Britain, with the tripartite system of private fee-paying schools, schools (such as Academies) opted out of local authority/school district control, and working class local council and authority schools. Further differentiation is spurred on by the publication of various test results such as SATS.

Differentiation is being formally replicated in higher education (Machin & Vignoles 2006). This is easily understood in the US where elite universities charge student fees many times those of lower status universities. In the United States, university fees are assessed on a need/income basis for each student, with many poor and needs-based students paying little or nothing for fees at institutions like Harvard, Yale. This has, however led to comments such as in order to attend an expensive university, one has to be “either very rich, or very poor.” Overall, the correlation between size of fees and size of working class attendance at universities in the US is marked. In the UK, the turn-of-the-millennium differentiation between Oxbridge and the elite “Russell Group” of universities, the other “old” universities; the “new” (i.e., ex-polytechnic) universities and the institutes/colleges of higher education is formalized. It is widely expected that elitist universities will be permitted to charge higher fees. (Until 2006 all universities in Britain charged the same fees, indeed, until the late 1990s the government paid all university fees for all citizens). Now there is the further development of a (“racialized”) class-based hierarchicalization of universities entry, essentially pricing the poor out of the system, or at least into the lower divisions of higher education.

Research by the Centre for Economics of Education at the London School of Economics found that “poorer students are [in 2006] more likely to go to higher education than they were in the past, [however] the likelihood of them doing so relative to their richer peers is actually lower than it was the case in earlier decades” (Machin & Vignoles 2006, p.14).

Markets have exacerbated existing inequalities in education. There is considerable data, most notably Whitty, Power, and Halpin (1998) along with Machin and Vignoles (2006), on how poor schools have become poorer (in terms of relative education results, retention of students, and in terms of total income) and how elitist rich schools (in the same terms) have got richer through marketization in the US, Sweden, England and Wales, Australia, and New Zealand.

In order to foresee the future, there is some worth in looking at prescriptions and structural readjustment programmes of the World Bank, the International Monetary Fund, and other agencies of international capital, which “often push highly controversial economic policy reforms on poor countries, like trade liberalization and privatisation of essential services” (Eurodad 2006; see also Schugurensky & Davidson-Harden 2003; Hill 2005b; Hill et al. 2006; Rosskam 2006; Tomasevski 2006a, 2006b). The 2006 Eurodad report continues,

Our research found that 18 out of the 20 poor countries we assessed had privatization related conditions attached to their development finance from the World Bank or IMF. And the number of ‘aggregate’ privatisation-related conditions that the World Bank and IMF impose on developing countries has risen between 2002 and 2006. For many countries privatisation-related conditions make up a substantial part of their overall conditions from the World Bank and IMF. (p.3)

Increasing the role of the private sector (including *for-profit*) organizations at primary, secondary and tertiary levels create unequal access to schooling based on social class, despite compensatory measures, such as subsidies, intended to limit the stratifying effects of capitalization. Private schools cherry-pick or “cream off” the children of wealthier families who are more equipped to succeed at school, leaving the public school system to admit more challenging students with greater needs. Furthermore, state schools generally have fewer resources than private schools, and therefore need the “investments” from pupils from wealthier backgrounds to replenish books, furniture, and materials.

Ironically, but not unexpectedly, the World Bank’s corporate lending arm, the International Finance Corporation ([IFC] 2001), has claimed that fee-paying educational institutions can “improve” equity:

[p]rivate education can indirectly benefit the lowest socio-economic groups by attracting families who can afford some level of fee away from the public system, thereby increasing capacity and per student spending for the

students who remain in the public system. Similarly, the emergence of private tertiary institutions allows governments to reduce funding in such institutions and instead to invest in lower levels of education, thus improving distributive efficiency. (p.5)

The idea that the siphoning off “education investments” from wealthier pupils away from the public system actually increases equity is based on a highly contestable argument. Reimers (2000, p.55) notes that:

[t]he poor have less access to preschool, secondary, and tertiary education; they also attend schools of lower quality where they are socially segregated. Poor parents have fewer resources to support the education of their children, and they have less financial, cultural, and social capital to transmit. Only policies that explicitly address inequality, with a major redistributive purpose, therefore, could make education an equalizing force in social opportunity.

Indeed, principles of universal access, for example, as enshrined in international covenants such as the United Nations convention on economic, social and cultural rights, reflect a quite different notion of educational equity than that based on “choice” promoted by the World Bank and the IFC (Schugurensky & Davidson-Harden 2003) and subscribed to by successive governments in the US and Britain. The arguments about inequality in this section are succinctly articulated by a Council’s Director of Education in the North-East of England.

Everything is to be done to keep middle England happy, to give them their choice of school—so they don’t have to pay for private schools—to guarantee them the places that other children ought to have and, worst of all, to give their schools the powers to keep out those other children they don’t want their own children to mix with.

Conclusion: How Capitalism (Exaggerated by Neoliberalism) Inevitably Increases Educational Inequality

In Section One, it was suggested that class should remain central to the leftist critique of capitalist education systems and that Karl Marx and subsequent Marxist thinkers possess the epistemic and explanatory upper hand over pluralist, Weberian, and deconstructionist (such as postmodernist) accounts of society.

Section Two reinforced the theoretical claim that education is functional to capitalism in two essential ways. Firstly, education imposes division among children in preparation for the stratification of labor within the labor process. Suitably selected for tasks in production, the child is then educated and skilled to the level deemed suitable by capital for work. The child’s individual needs are deemed secondary to the needs of production by capital and the governments funded and supported by capital despite the best will and effort of many teachers.

Secondly, education conditions the child for a career of exploitation, inequality and differentials, conformity and passivity. For the majority, education, despite the best will and efforts of many teachers, lowers expectation, and confines and fragments outlooks into myriad specialist skills that block the attainment of the bigger life picture. In short, education prepares and cultivates future workers to become both useful and productive and obedient and docile.

Section Two located empirically the actual linkage between the capitalist economy and educational outcome by examining neoliberal policy, the role of the state and the effect of the commodification of education by its increasing exposure to market ethics and practices. The evidence tended to support the Marxist claim that in capitalism a sector such as education is tightly controlled in the interests of capital, despite the resistant and counter-hegemonic efforts of students, teachers and communities. Education is embedded in class relations and reflects, reinforces and replicates the tendency of capital to produce and reproduce inequality.

Capital leads to capitalization of education, and the principal capitalist objective then is to accumulate value and surplus-value in order to make profits. Capitalism is ambivalent to the obvious inequalities, disadvantage, and discrimination they perpetuate, for them the end (profit making) justifies the means. The upshot is clear then: in the long-term and in macro-political terms, capitalism does indeed lead to increasing education inequality.

In many countries, capitalism has been fairly successfully regulated, the Gini co-efficient depicting levels of inequality in the distribution of education in the labor force, diminished. However, when the crunch comes of declining capital accumulation, then capitalists do not abolish themselves. They turn to Nazism or Fascism, or to a permanent “war on terror,” taking away rights of protest and dissent. Or, as in the UK, the party that was formerly the party of the working class, the Labour Party, that did, through most of the twentieth century, pursue social democratic policies, along with pro-capitalist policies, has become transformed, under “New Labour,” into another capitalist party, no longer even with a mass working class membership, adopting neoliberal policies that lead to greater inequalities.

The inequalities documented in this chapter can be eradicated. Working class consciousness, and class struggles, can and do resist. This can be through resistance by parliamentary reformist means, for example, in the social democratic states of northwest Europe. These are not socialist, in the sense that socialism wishes to replace capitalism. Social democrats, however, wish to make capitalism more benign. Social democracy is a contradictory form of resistance to capital—or at least to its wider and wilder depredations—and educational inequalities. Social Democrats not only seek to advance workers’ rights and to reduce inequality but also to maintain capitalism. As Luxemburg (1899/1970)

explained, the core aim of the revisionist left is the “bettering of the situation of the workers and . . . the conservation of the middle classes” (p.60).

In contrast to social democracy, socialist forms of resistance to capitalism take either revolutionary means (as seen in Russia, Cuba, and China) or evolutionary means, such as through the parliamentary/democratic processes as witnessed in Nicaragua in the 1980s or in the 21st century in Venezuela under Hugo Chavez. Both are responses to the increasing inequalities under capitalism. Both are responses to the choice offered by Rosa Luxemburg, the choice between (capitalist) barbarism on the one hand, or, on the other, socialism.

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Notes

- ¹ We would like to thank Deborah Kelsh for her comments on this chapter.

4

Education and Inequality in the Developing World

WU Kin Bing

This chapter surveys the trends in educational development in the world and examines how supply and demand factors affect education. It looks at three large-scale interventions to extend access and improve equity in education: Education for All Fast Track Initiatives, India's National Program for Universal Elementary Education, and China's recent policy to provide free compulsory education. It also reviews the literature on strategies to improve quality of education.

Status of Education in the World

Although unprecedented advancement in human development has been achieved,¹ progress is uneven and, even more so, the distribution of the benefits of economic growth. Stark inequality is reflected in the huge range of countries' annual gross national income (GNI) per capita,² from about US\$100 in Burundi to over US\$65,000 in Luxembourg in 2005 (World Bank 2007a). At the turn of the 21st century, 10 million children still died of readily preventable diseases each year (World Bank 2006a). About 100 million children of primary school age were out of school worldwide, 59% of them being girls (UNESCO 2007). At least about 600 million students lack adequate textbooks and other learning materials, nor did they benefit from high-quality teaching, leading to dropout and underachievement, reflecting the disparity in conditions promotive of reasonable levels of learning achievement.

Dire human conditions in many parts of the world propelled all members of the United Nations to agree in 2000 on a set of Millennium Development Goals (MDGs) and to pledge to meet the targets explicit in these goals by 2015 (World Bank 2006a). The MDGs pursue eight goals: eradicate extreme poverty; achieve universal primary education; promote gender equity and empower women; reduce child mortality; improve maternal health; combat HIV/AIDS, malaria, and other diseases; ensure environmental sustainability, and develop a global partnership for development.

With only eight years to go before the target year, progress has been uneven (World Bank 2007b). East Asia has made the speediest advance in poverty reduction by cutting the percentage of population living on less than US\$1 a day

from about 30% to 9% between 1990 and 2004 (see Table 4.1). South Asia, Latin America and the Caribbean Region, and the Middle East and North Africa have also made improvements and are likely to exceed the target by 2015. However, in Sub-Saharan Africa (SSA), the percentage of the population living in poverty between 1990 and 2004 declined only modestly, from 47% to 41%. If the current trend continues, 35% of the people in SSA would still be living under extreme poverty by 2015 (see Table 4.1).

Table 4.1: Percentage of Population Living on Less than US\$1 a Day by Region, 1990-2004; Forecasts to 2015 (Purchase Price Parity)

	1990	2004	Forecasts for 2015 based on the trend	MDG of cutting the 1990 percentage by half in 2015
East Asia and Pacific	29.8	9.1	2.4	14.8
Europe and Central Asia	0.5	0.9	0.5	0.3
Latin America and the Caribbean	11.3	8.6	6.0	6.2
Middle East and North Africa	2.3	1.5	0.8	1.2
South Asia	41.3	32.0	18.0	20.7
Sub-Saharan Africa	44.6	41.1	35.4	22.3

Source: World Bank (2006b, 2007b).

The education targets of the MDG goals are that boys and girls worldwide will be able to complete a full course of primary schooling by 2015, and that gender disparity in primary and secondary education will be eliminated, preferably by 2005, and at all levels of education no later than 2015. Since education is central to poverty alleviation and economic development, success in meeting these education targets would help achievement of other MDG goals (World Bank 2006a).

Education imparts skills and knowledge, which augments productivity and yields high economic returns to individuals. Overall, returns are high in all countries and are higher in developing countries than developed countries because educated workers are scarcer in the former (see Table 4.2). In the time of rapid technological change and globalization, the earning differentials between workers with an additional level of education and those with less rise with the levels of education and increase over time. This phenomenon is experienced by many countries, particularly those with an open economy where the demand for skills grows rapidly.

Table 4.2: Private Returns to Education and Mean Years of Education

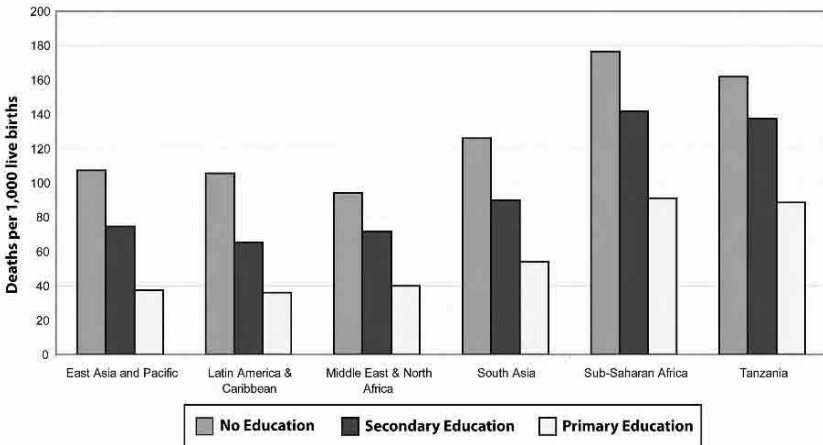
	Number of Countries for which estimates are available	Average Years of schooling	Private Rates of Returns to Education		
			Primary	Secondary	Tertiary
Developed Economies	14	9.5	9.5	9.5	11.5
Developing Economies	38	6.1	23.0	17.9	21.1
Transitional Economies	8	11.3	7.2	3.8	11.0

Note: *N* refers to the number of countries for which we have estimates. Latest year estimates for each country; the data points range from 1958 to 2002.

Source: Patrinos (2007).

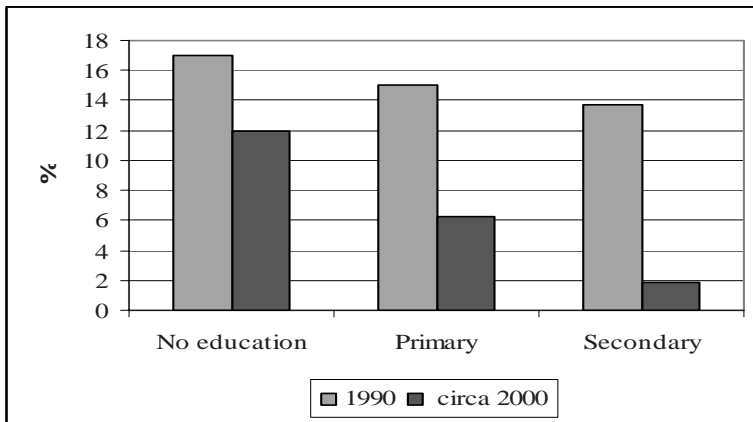
The benefits of education transcend the individual and accrue to society in the form of better health outcomes and intergenerational mobility (Becker 1964; Schultz 1961). Figure 4.1 shows that better-educated mothers in all regions of the world have lower child mortality. Figure 4.2 shows that HIV prevalence in Uganda between 1990 and 2000 declined much faster among better-educated young people between the ages of 18 and 29. These examples demonstrate the enormous social benefits of education, particularly educating girls.

Figure 4.1: Under-Five Mortality Rates by Mother’s Educational Level, circa 1998



Source: Mahy (2003).

Figure 4.2: HIV Prevalence by Educational Attainment (ages 18-29) in Rural Uganda, 1990 and 2000



Source: De Walque (2004).

MDG significantly emphasizes school completion and not just enrollment because the former is a better proxy of skill acquisition. Basic literacy and numeracy, imparted during primary education, provide the foundation for learning more advanced cognitive and technical skills in the future. Thus quality matters and is a key determinant of economic growth (Hanushek & Kimko 2000; Hanushek & Wossmann 2007). However, ensuring school completion, particularly in SSA, is no less challenging than reaching universal access.

Successful education policy can address the inherent inequality in human society. Due to enormous efforts in the post-war decades to extend schooling, the correlation between the net enrollment ratio (NER) and country income level in primary education is lower than that at the secondary and tertiary levels. It is worth noting that countries in the middle-range of the low income category, such as India and Bangladesh as well as post-conflict Cambodia, have higher NER than their country income level would predict. Changing the constraints imposed by the initial conditions through education can break the cycle of poverty and attain sustainable development in the world. The following sections examine the constraints to extend access and improve quality, review successful policies to address these constraints, and discuss three large-scale interventions that aim to tackle inequity in education.

Constraints to Extend Access

Access to education is affected by both supply-side and demand-side factors (Alderman & Gertler 1997; Gertler & Glewwe 1992; King & Hill 1993; Lloyd 2005). Supply constraints are due to fiscal constraints; insufficient supply of

schools, qualified teachers and teaching and learning materials; and the lack of incentives and accountability for better quality of service delivery. Demand constraints are attributable to households' inability to bear the direct cost of schooling (tuition fees, textbooks, writing materials, and uniforms) and the opportunity cost of schooling (due to the need for the child's labor); language barrier (due to the language of instruction being different from the child's mother tongue); discrimination; parental attitude toward girls' education; and the child's own motivation.

Supply Constraints

Public expenditure on education ranges from under 3% of Gross Domestic Product (GDP) in East Asia and the Pacific and South Asia about 6% among high-income countries (World Bank 2007a; see Table 4.3). Household expenditure on education could contribute another 1 to 2% of GDP. On average, low-income countries spend about US\$48 per primary school student per year from the public coffer, compared with US\$3,263 in high-income countries (see Table 4.4). Although the use of purchase price parity has reduced the disparity to some extent, uneven allocation of public resources remains stark.

Table 4.3: Net Primary Enrollment Rate, Primary Completion Rate and Public Spending on Education by Region, 1991-2005

	Net Primary Enrollment Rate		Primary Completion Rate 2005		Public spending on Education as % of GDP
	1991	2005	Male	Female	
World	83	--	87	83	4.7
High Income	95	94	98	97	5.9
East Asia & the Pacific	96	93	98	98	2.7
Eastern European and Central Asia	90	91	93	91	4.4
Latin America and the Caribbean	85	95	98	99	4.3
Middle East and North Africa	84	90	92	86	--
South Asia	--	86	86	77	2.9
Sub-Saharan Africa	50	66	63	53	3.9

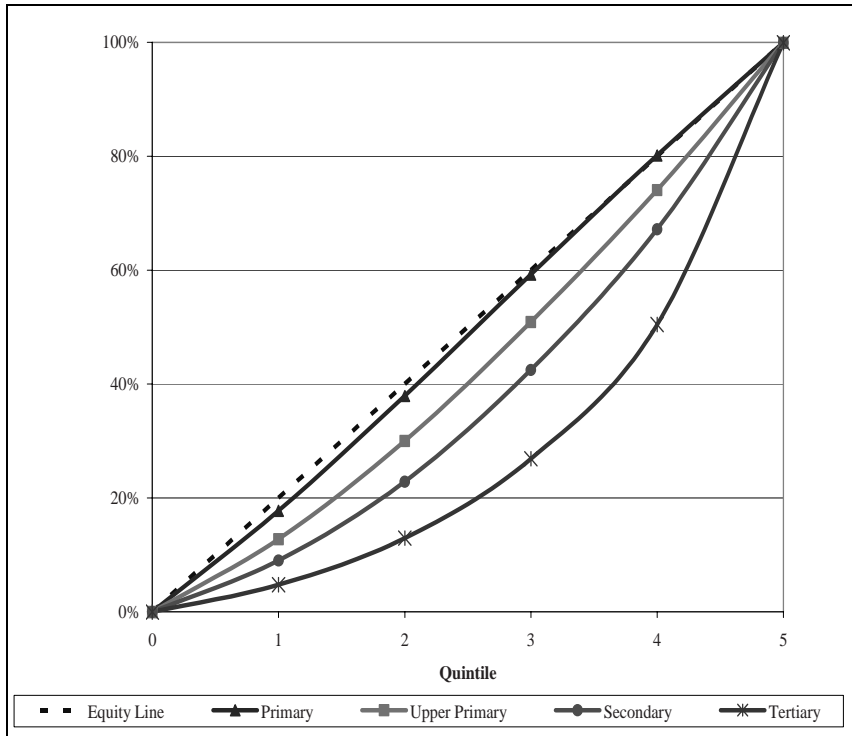
Source: World Bank (2007a).

Table 4.4: Per Student Public Expenditure on Education

Per Student Public Expenditure on Education as Percentage of Per Capita GDP				
Country Income Level	Primary		Secondary	
Low-Income	7		17	
Middle-Income	13		16	
High-Income	19		22	
Per Student Public Expenditure on Education in Dollars				
Country Income Level	US Dollars (\$)		Purchase Price Parity (\$)	
	Primary	Secondary	Primary	Secondary
Low-Income	48	87	202	366
Middle-Income	555	660	833	1013
High-Income	3263	4279	3059	3915

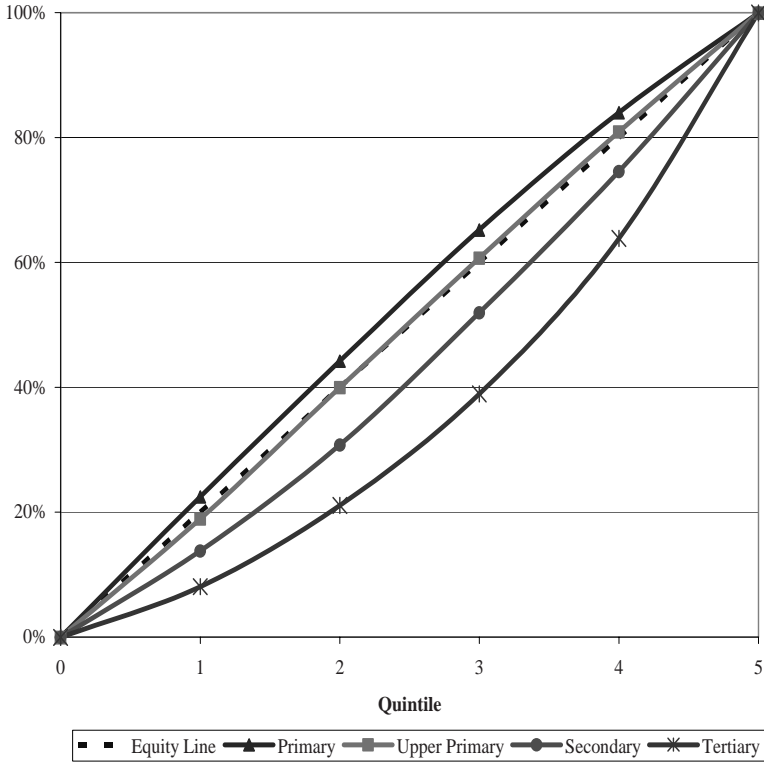
Source: World Bank (2003a).

Figure 4.3a: Lorenz Curve—Distribution of Public Expenditure on Education in India by Level and by Quintile, 1987



Source: Analysis of India’s National Sample Surveys, 43rd and 61st rounds by the Author and Mehtabul Azam.

Figure 4.3b: Lorenz Curve—Distribution of Public Expenditure on Education in India by Level and by Quintile, 2004



Source: Analysis of India’s National Sample Surveys, 43rd and 61st rounds by the Author.

Governments often have to prioritize public spending between sectors and within each sector. In general, public spending on basic education is pro-poor. The Lorenz curves, presented in Figures 4.3a and 4.3b, measure whether public subsidies are distributed equitably. The 45-degree line of equity in these two graphs represents equal distribution of public spending on education to students in each of the five household per capita consumption quintiles. The closer the Lorenz curve to the line of equity, the more equitably spending is distributed. A curve above the line of equity indicates that more public spending is distributed to the poorer households. Figure 4.3a illustrates that in India in 1987, public subsidies on all levels of education were below the equity line, suggesting that the wealthier households captured much of the public subsidies. Figure 4.3b shows that by 2004, due to enrollment expansion in primary and upper primary government

schools, public spending in India on these levels has benefited the poor more than the rich, as shown by these curves representing these levels of education were above the equity line.

Ideally, policy decision on both inter-sectoral and intra-sectoral allocation should be based on evidence, taking into consideration equity, cost and benefits, efficiency, and effectiveness of interventions. However, more often than not, decisions are influenced by political considerations and social attitudes. The most vocal constituencies often get the lion's share of resources and attention. The needs of the poor, the rural areas, and the ethnic or religious minorities are seldom on the top priority of government because they are powerless. Rural, remote, and isolated regions are often underserved not only because it is much more expensive to provide schooling in areas with sparse population but also because they tend to be inhabited by minorities. Even in urban areas, slums are underserved, although the concentration of people would make it quite cost-efficient to provide service.

Insufficient supply of schools and teachers has led schools to operate in two to three shifts or having very high pupil-to-teacher ratios (PTR) in many countries. Multiple shifts could reduce school hours, thus reducing the opportunity to learn. In Vietnam 90% of rural children attend schools with multiple shifts, which offer about three hours of instruction in each shift. High PTR would make it difficult for teachers to address the needs of all students, specially the first generation learners. High PTR also becomes a disincentive for teachers to teach and for students to attend. In India, despite the national norm of a PTR of 40:1, in the state of Bihar, the average PTR in 2005 was 78:1, with a minimum of 58:1 and a maximum of 208:1. Bihar also has the highest teacher absence rate in India, at 39%, and student absence rate, at 61% (World Bank 2004a).

The distance from home to school is a major deterrent to enrollment or regular attendance. While transport in rural areas is often poor, rural children tend to enter school around age 7 or as late as age 9, as they must be strong enough to walk the distance. However, by the time they are old enough to earn income or strong enough to help in the farm, they start dropping out. There is an added concern for girls in their puberty. Insecurity on the road to school deters enrollment; the lack of girls' toilets in schools adversely affects attendance. The combination of late entry and early dropout leads to fewer years of schooling on average for rural children.

Teacher salary is the largest component of public expenditure on education, often accounting from 90% or more of the total public spending on education. Resource constraints often lead countries' investing very little on other recurrent, but educationally important inputs, such as textbooks, notebooks, teaching and learning materials, and resources. However, without these resources, learning can hardly take place, leading to low achievement, high repetition, and dropout.

Teacher management (including recruitment and deployment) is perhaps the most challenging of all supply-related factors. Developing countries with low gross enrollment ratios in secondary and tertiary education typically lack a large stock of well-prepared teachers. This constrains the ability of the system to scale up to universalize basic education. In recent years, HIV/AIDS takes a toll on teachers in high prevalence countries, so much so that education planning has to factor teacher replacement rates into account. Even under normal circumstances, few qualified teachers like to serve in the countryside where there are limited education and health services for their families. Qualified teachers from minority or tribal community are scarcer. Few teachers deployed to serve these communities are able to speak the language of the students or can relate to their experience to make lessons relevant to them.

Even in a regular education system, the quality of service delivery leaves much to be desired. A World Bank sponsored, multi-country survey found an unacceptable high level of teacher absence (World Bank 2003b). On repeated unannounced visits to sample schools, the survey found an absence rate as high as 27% in Uganda, 25% in India, 17% in Zambia, and 19% in Indonesia. This raises the question as to whether providing inputs to schools alone, without addressing accountability and incentives within the system and empowering parents to supervise or choose the schools, could result in better service delivery. Institutional constraints need to be addressed in order to have a functioning education system.

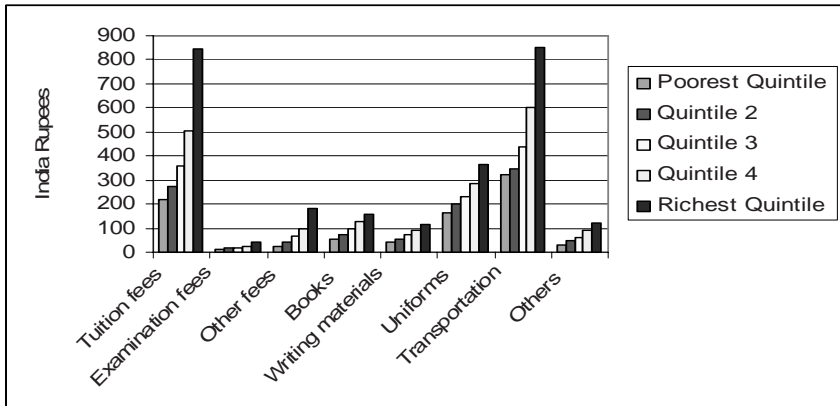
Demand Constraints

The poor often have to make a trade off between spending their meager income to meet the immediate needs for food and housing, and the future benefits that come with education. In large families, parent often must decide who should get priority of the household resources for education. Often, the decision is to educate the sons whose future income constitutes a form of old-age security especially in countries where pension and social assistance are unavailable. Thus, impact of the direct cost of school on the poor is high and immediate. Even if primary education is tuition free, parents still have to pay for their children's school uniform, books, meals, and transport (Lloyd 2005; Sen 1992). Figure 4.4 shows that in 1996, the richest quintile in India spent 6.4 times as much as the poorest quintile (World Bank 2004a).

A recent study on the effects of charging tuition fees found negative effects on enrollment (Wilson 2006). In 1984, Southern Nigeria's primary enrollment fell from 90 to 60% in a period of 18 months after the re-introduction of school fees. In Tajikistan, increasing costs to parents have led to students' irregular attendance and dropping out, particularly among girls. Overall, in the urban areas, three times more girls than boys dropped out and twice as many girls as boys

dropped out in the rural areas. In Vietnam, families in the lowest income quintile had to spend 22% of their non-food income on education, twice as much as the percentage spent by the richest quintile.

Figure 4.4: Out-of-Pocket Expenditures on Primary Education in India, 1996



Source: Analysis of India's National Sample Survey 52nd round by Deepa Sankar in World Bank (2004a).

The need of the child's labor has contributed to either non-enrollment or early dropout. In Brazil in the early 1990s, 27% of 10-to-14-year-old children in the poorest quintile worked. Approximately 74% of children from the poor households failed to complete Grade 4 and 90% who attended high school failed to graduate. Working during the first 12 years of life would reduce completed years of education by almost three years, which impact on their wages as an adult. Child labor in Brazil in the 1990s reduced lifetime earnings by 13% to 17% overall, and raised the probability of being poor as an adult by almost 8%. Policies that delay age of entry into the labor market will significantly reduce adult poverty incidence through the indirect effect of increasing years of schooling (World Bank 2001a).

In Indonesia, in 1996, the percentage of youths aged 15-17 who failed to complete primary education was only 5% in urban areas but 13% in rural areas. Intra-regional variation is large, ranging from 3% in Jakarta to 21% in rural South Sumatra and 45% in rural East Timor (Lanjouw et al. 2000).

In patriarchal societies, a strong male preference tends to result in gender disparity in child survival, literacy, school enrollment, attendance, dropout, and school completion rates. Worldwide, 60 million girls are not in school (Lewis & Lockheed 2007). Discrimination against girls often leads to abortion, infanticide,

and neglect in rearing girls which contribute to a skewed gender ratio. Parents' belief that their sons will take care of them in their old age whereas girls will be married off has led to neglect of girls' education. Parental higher expectation for boys has also contributed to the lower achievement and attainment of girls (Hannum & Adams 2007). Sibling care is another factor that affects girls' school enrollment and regular attendance. About 54% of girls in India could not attend school because of sibling care, far higher than 8% of boys (PROBE Team 1999). Policy to provide early childhood education could enable older siblings to attend school. Underinvestment in girls' education by parents affects their achievement, future job prospects, and income-generating ability.

Social exclusion plays a key role in constraining both supply of and demand for education. In India, in spite of the legal abolition of castes and protection by the Constitution, subtle discrimination continues to affect teachers' and other students' attitudes toward the former "untouchables," low-caste groups, and tribal groups. Hoff and Pandey (2004) tested the effects of castes on students' performance by asking 624 students from different castes in the state of Uttar Pradesh to play in a group and perform a task under incentives. The castes of the children in the experimental group were revealed but those in the control group were not. The performance of low-caste children in the experimental group declined after their castes were revealed, but there was no difference in performance between castes in the control group. This experiment confirmed how stigma of caste reduces the motivation of children.

Minorities or indigenous population usually suffer the most extensive discrimination. Guatemala, which has the highest percentage of indigenous population in Latin America (over 40%), also has the second lowest social indicators in the Western Hemisphere, after Haiti. In 2000, 56% of the population of Guatemalan population lived in poverty, 44% of its children were malnourished, the average years of schooling of the adult population is 3.5, and NER in primary education was 79 (World Bank 2004c). Although Guatemala is a middle-income country, with a per capita GDP of about US\$1,700, it spent only 2.6% of its GDP on education. In 2000, only 50% of Guatemalan students ever completed the full course of education, compared with Nicaragua's 65% and Honduras' 72%, both of which have much lower income levels. Indigenous children are much less likely to reach Grade 6 and indigenous girls, the least likely (Edwards 2002). The dropout rate from Grade 1 alone was 27% overall and was as high as 44% among indigenous children. Girls had much higher dropout rates than boys, particularly in upper primary education.

Strategies to Extend Access

Successful policies to address inequity in education have approached both supply- and demand-side constraints with five effective strategies: (1) bringing schools

to the children in rural areas by building small schools with multi-grade teaching and high-quality, relevant learning materials; (2) use of instructional technology to overcome the challenges of distance, insufficiently prepared teachers, and the lack of educational materials; (3) elimination of user fees; (4) information campaign and social mobilization; and (5) providing stipend and conditional cash transfer to offset the direct and indirect cost of schooling for poor household and to provide incentives for students to complete their studies.

Increasing supply, particularly in remote areas, often entails building small schools closer to population clusters, hiring local teachers who may not be well qualified but will stay the course, and provision of multi-grade classrooms. Rural schools are often associated with lower student achievement. However, improvements to rural schools can be made and multi-grade classrooms need not be uniformly associated with poor-quality education. Colombia's *Escuela Nueva* (new school) has developed a model that provides high-quality education through a combination of using special texts developed for multigrade classrooms, teacher training designed for that type of setting, and parental and community involvement to improve accountability (Kline 2002). The success of *Escuela Nueva* has led to other Central American countries adopting similar strategies.

Interactive radio is very cost-effective to reach rural communities and has been in use since the 1960s in various regions in the world. With the advance of information and communication technology, the options are wider. Launched in 2004, India education satellite could reach millions by providing connectivity to schools and higher levels of educational institutions. China increasingly uses computers, DVDs, and educational television to supplement and complement face-to-face instruction. Many Chinese rural schools have internet access for both teachers and students. Russia uses e-learning for small schools in remote and rural areas, particularly in sparsely populated Siberia (World Bank 2004d). User-friendly e-learning courses were developed for upper secondary students in different curriculum areas. The teachers in remote schools have been trained to help students organize themselves as independent learners. Teachers can access high-quality teaching materials through a national library of digital learning resources. Provision of these services was not cheap but more cost-effective than placing additional subject specialist in small schools.

A key demand-side intervention is the elimination of user fees such as tuition payments, examination charges, and other school-related charges (Wilson 2006). The effects have been immediate and large, particularly in poor countries. Lesotho in 2000 introduced Free Primary Education on a phased basis. Enrollment increased from 61% to 85% by 2002 and the gap between boys and girls narrowed. Tanzania abolished school fees in 2001 and its primary enrollment grew by 50%, from 4.4 million in 2000 to 6.6 million in 2003. Madagascar in 2002 removed all fees for public and private primary schools, resulting in a 20% increase of enrollment within a year. Timor-Leste exempted school fees, imme-

diately after secession from Indonesia and under the United Nations' administration. Enrollment increased rapidly, and most of the new enrollees were girls, the poor, and rural children (World Bank 2004b).

Abolition of fees alone is not sufficient to get the poorest families to enroll their children. Madagascar, besides abolishing fees, also strengthened community links to schools, provided more and better instructional materials for students and teachers, made cash payments to Community Associations for pedagogic improvement, assisted children from the poorest families, reorganized district management, recruited competitively on a contract basis to promote accountability and efficient decision-making), and improved monitoring and evaluation mechanisms.

Information campaign, social mobilization, and education of parents about the benefits of education, particularly of girls' education and about the need for social inclusion, are needed to change attitude and stimulate demand. Many successful initiatives to expand education are often accompanied by community outreach and information campaigns.

Providing information to the civil society is also necessary to strengthen accountability. In the 1990s, a public expenditure tracking survey conducted in Uganda found that the schools only received 13% of total funds. This led to a reform of the education sector. Records of the monthly disbursements of grants to districts were published in the main newspapers. As a result, the leakage of funds fell to 20% in 2001. Students' test scores are also disclosed (Reinikka & Svensson 2005). Currently, the program is being implemented in all the districts of Uganda and is considered to be functioning well. Tanzania introduced a similar program in 2002.

Stipends have proven to be highly effective in reaching the poor or under-served groups, such as girls. The Bangladesh girls' stipend program is notable for its success in reaching gender parity in secondary education (World Bank 2002). Under the program, any girl attending Grades 6-10 in a rural secondary school is eligible to apply; however, she must meet three eligibility criteria: (1) an attendance rate of at least 75%; (2) scoring in annual examinations at least above 45%; and (3) remaining unmarried until completing Grade 10. The stipend is deposited directly into the girls' bank accounts every six months. Participating schools also receive a grant based on her enrollment. In addition, schools also provide latrines and access to safe drinking water. Since the inception of the program in 1993, girls' enrollment in secondary education increased from under one-third of total enrollment to 54%, exceeding boys' enrollment. A significant percentage of students also delay their marriage age. However, fewer than 30% of girls in Grade 10 pass the standardized Grade 10 examinations. The government has recently started a systemic reform of secondary education, emphasizing teacher education, training, and support as well as providing incentives to well-performing schools and students.

Conditional cash transfer (CCT) is another powerful instrument to increase educational attainment, decrease child labor by requiring minimum attendance at school; and reduce current poverty by providing income support to poor families (Rawlings 2004). Brazil launched *Bolsa Escola* (school grants) in 1995 to give cash grants to poor families on the condition that their children attend school at least 90% of the required number of school hours. The school grant was set to be sufficient to provide at least as much income as potential child labor income. The cash transfer would stop if the required attendance fell short. The payment is resumed once school attendance is satisfactory. Evaluation found that 60% of the 10-to-15-year-olds who live in poverty responded to the program, and that the program reduces poverty rate to some extent (Bourguignon, Ferreira & Leite 2003).

In 2003, *Bolsa Escola* was absorbed by *Bolsa Familia* (Family Grant Program) which merged several CCTs in other social sectors. It is now the largest CCT in the developing world, reaching about 11 million families (roughly a quarter of Brazil's population) in 2006. It provides cash transfers to poor families conditional on the children's enrollment in school and undertakes nutritional and health actions. It is an integrating force for social policy, both within the federal government and vertically across levels of government (federal, state, and municipal [*The Economist* 2006, 2007]).

Similar CCTs have been adopted all over Latin America and the Caribbean Region, including Mexico's hugely successful *Oportunidades* (previously known as *Progresá* [Schultz 2000]), Honduras' *Programa de Asignación Familiar*, Argentina's *Siempre*, and Ecuador's *Beca Escolar* (Wu 2004). CCT has proved an effective means of breaking one of the most pervasive mechanisms for reproducing and legitimizing inequalities: early exclusion from school. However, to have an impact on raising school achievement, supply-side investment in school quality, extra-curricular activities and teacher training as well as improving school accountability need to be made to complement demand-side interventions.

Three Case Studies of Successful Initiatives to Address Inequity in Access

The number of out-of-school children of primary school age declined from 100 million in 1999 to 72 million by 2005 (World Bank 2007b; see Table 4.5). The most notable progress is in South and West Asia. Although most regions make progress in reducing the absolute number of out-of-school children, SSA still accounts for the largest share of them in the world.

This section presents three large scale interventions in the 21st century to address inequity in education: Education for All Fast Track Initiatives; India's National Program for Elementary Education, and China's Rural Compulsory Education Finance Reform.

Table 4.5: Distribution of Out-of-School Children by Region, 1999 and 2004

	Total		Female as % of Total	
	1999	2004	1999	2004
Arab countries	7%	9%	58%	59%
Eastern Europe	3%	3%	53%	55%
Central Asia	1%	0.5%	54%	54%
East Asia and the Pacific	15%	13%	50%	51%
Latin America & the Caribbean	2%	4%	59%	56%
North America and West. Europe	2%	2%	45%	63%
South and West Asia	30%	20%	58%	69%
Sub-Saharan Africa	40%	49%	55%	53%
World	100%	100%	59%	57%
Number of Children (in Million)	99.9	76.8	57.5	43.6

Source: UNESCO (2007).

Education for All Fast Track Initiatives (EFA FTI)

The major bilateral donors such as the World Bank, UNESCO, and other United Nations agencies (known collectively as development partners) launched EFA FTI in 2002 to accelerate the educational efforts of low-income countries. The purpose is to stimulate country reforms, enhance the effectiveness of education spending, and galvanize development partners to provide grants and long-term credits to developing countries and achieve the education targets of the MDGs. FTI aims to strengthen policy, improve monitoring and evaluation, build capacity to enhance performance, train teachers, supply books and learning materials, build affordable schools, and establish accountability mechanisms. To stimulate household demand for education, FTI supports abolition of school fees, provision of stipends to the poor or to girls, campaigns to change social attitudes, and provision of school meals, books, and school health interventions (World Bank 2006b, 2007b).

FTI establishes a compact between participating countries and development partners, based on an accepted poverty reduction strategy, a credible education sector plan, and an agreed set of measurable benchmarks to track progress. Participating countries would commit political and financial support for implementation, while development partners would commit long-term financing, and harmonize with other development partners in support of country efforts.³ Table 4.6 presents the EFA FTI results framework—the key indicative benchmarks for primary education performance.

Table 4.6: Results Framework: Key Indicative Benchmarks for Primary Education Performance

	Sample of 55 low-income countries (2000)		2015 Indicative benchmarks
	Range	Average for the highest completion countries	
Outcome measures (%)			
Primary completion rate, girls	13-103	74	100
Primary completion rate, boys	20-102	79	100
Gross intake rate, girls	35-184	116	100
Gross intake rate, boys	49-178	122	100
Service delivery indicators			
Average teacher salary (as a multiple of GDP per capita)	0.6-9.6	3.3	3.5
Pupil-teacher ratio	13.1-79.1	39.1	40:1
Nonteacher salary share of recurrent spending (%)	0.1-45.0	26	33
Repeaters (%)	0-36	9.5	10 or lower
Domestic resource mobilization			
Government revenues as percent of GDP	8-56	21	14-18
Education spending as percent of recurrent budget	3-33	18	20
Primary percent of recurrent education spending ^b	26-66	48	42-64

^a The impact assessment focuses on a selection of indicators from the FTI Indicative Framework to assess progress.

^b This benchmark is pro-rated to the nationally defined length of the primary cycle

Note: Primary school gross enrollment rates may exceed 100% in countries with excessive numbers of over-age students or unreliable population estimates. At the launch of FTI, these indicators were agreed upon; subsequently, measures that capture learning outcomes have been considered.

Source: Bruns, Mingat & Rakotomalala (2003).

Between 2002 and 2007, development partners have supported 36 countries. An additional seven countries are expected to join in 2008, accounting for nearly a quarter of the countries in the world. Table 4.7 presents the list of FTI countries endorsed by development partners for support.

FTI has enabled countries with some of the lowest enrollment ratios to extend access rapidly, particularly for girls. Between 2000 and 2005, enrollment in 32 of 36 countries increased by 26% to 60 million. Progress has been made in increasing Grade 1 in-take rate, reduction of repetition and dropout, and increasing primary completion rates.

Table 4.7: Current and Potential FTI Countries

Endorsed Countries (32+4)			Countries expected in 2008 (7)	Countries expected in 2009 (13)	Other Eligible Countries (12)	Countries where Universal Primary Education is achieved (14)
2002	Burkina Faso	Mauritania	Central African Rep.	Angola	Afghanistan	Armenia
	Guinea	Nicaragua					Chad	Bangladesh	Côte d'Ivoire	Azerbaijan
2003	Guyana	Niger	Haiti	Comoros	India	Bolivia
	Honduras		Malawi	Congo, Dem. Rep. of	Indonesia	Bosnia & Herzegovina
2004	The Gambia	Vietnam	Papua New Guinea	Congo, Rep. of	Kiribati	Cape Verde
	Mozambique	Yemen, Rep. of	Uganda	Eritrea	Myanmar	Dominica
2005	Ghana	Ethiopia	Vanuatu	Guinea-Bissau	Nepal	Grenada
2005	Kenya	Moldova		Lao PDR	Nigeria (other states)	Maldives
	Lesotho	Tajikistan		Nigeria (3-4 states)	Pakistan	Montenegro
2006	Madagascar	Timor-Leste		Solomon Islands	Somalia	Samoa
	Albania	Mali		Tanzania	Sri Lanka	Serbia
2007	Cambodia	Mongolia		Togo	Sudan	St. Lucia
	Cameroon	Rwanda		Tonga	Zimbabwe	St. Vincent
2007	Djibouti	Senegal				Uzbekistan
	Kyrgyz Rep.					
2007	Benin	Liberia				
	Georgia	Sierra Leone				
2007	Bhutan *	São Tomé & Príncipe*				
	Burundi *	Zambia *				

Note: The (*) indicates pending endorsements for 2007.

Source: World Bank (2007b).

^a These countries were the earliest to join FTI and are included in the analyses presented in this paper along with the initial seven countries in column 1.

Source: FTI Secretariat.

With respect to quality, countries that perform well have focused on increasing the supply of trained teachers and keeping the pupil-teacher ratios stable as enrollment expands. At the same time, there are also concomitant efforts to improve the capacity to assess learning outcomes. Most of the FTI countries have

begun to assess student achievement through participation in international, regional, and national testing exercises. Seven countries joined the Trends in International Mathematics and Science Studies (TIMSS), Progress in International Reading Literacy Study (PIRLS), and Program for International Student Assessment (PISA). Twelve countries took part in regional testing initiatives such as Programme of Analysis of Education Systems (PASEC) or Southern and Eastern African Consortium for Monitoring Education Quality (SACMEQ). Participation in these studies also helped build the capacity to systematically monitor learning at the national level.

One of the biggest challenges to FTI is the shortfall in long term predictable and adequate development assistance. The annual external financing required to achieve universal primary education is estimated to range from US\$3.7 billion (Bruns, Mingat & Rakotomalala 2003) to US\$10 billion (DFID 2005). SSA accounts for about 75% of external assistance. If the external finance is US\$9 billion per year, it would amount to US\$15 per primary student. However, disbursement is only about US\$5 per child annually. Although a Catalytic Fund was created to provide grant funding to countries, it faces a looming shortfall. Thus, unless development partners live up to their promises, fast track may become a normal or slow track to realizing EFA.

India

India, one of the fastest growing economies in recent years, is home to one billion people. It has a gross national income per capita of US\$820 in 2006 (World Bank At-A-Glance Table, latest year). About 29% of its population lived on less than US\$1 a day (at purchase price parity) in 2004 (World Bank 2007a). Its gross enrollment ratio is about 94% in elementary education (Grades 1-8), 40% in secondary education (Grades 9-12) and 10% in tertiary education (World Bank 2006c). Net enrollment in primary education was 89% in 2006 (World Bank 2007a). Enrollment in elementary education covers over 170 million students in various types of schools.

At the turn of the 21st century, India accounted for nearly one quarter of the world's out-of-school children. By 2005, the number of out-of-school 6-to-13-year-olds declined from roughly 25 million, approximately 13% of the age cohort to about 13 million, 6% of the age cohort (Social and Rural Research Institute of IMRB 2005). The rapid extension of access in India has contributed to the numerical progress worldwide.

The following series of graphs present the enrollment trends based on the analysis of a time series of India's National Sample Surveys by the author and Mehtabul Azam (Wu, Goldschmidt, Boscardin & Azam 2007). While boys' enrollment rates increased between 1987 and 2004, the magnitude of increase was higher among girls, scheduled castes⁴ (formerly known as "untouchables"), and

scheduled tribes (see Figures 4.5a, 4.5b, 4.6a, and 4.6b). More children of all social groups entered school earlier and stayed longer. Children from the poorest quintile were catching up with those from the top quintile, as were rural children with urban children (see Figures 4.7a and 4.7b).

Figure 4.5a: Males' Age-Specific Enrollment Rates, 1987 and 2004

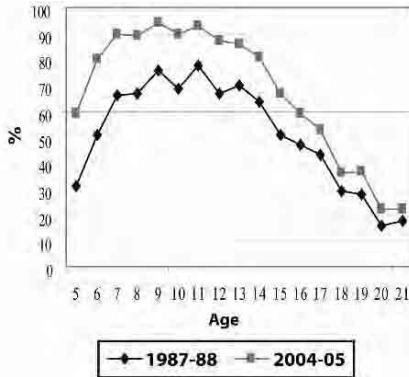
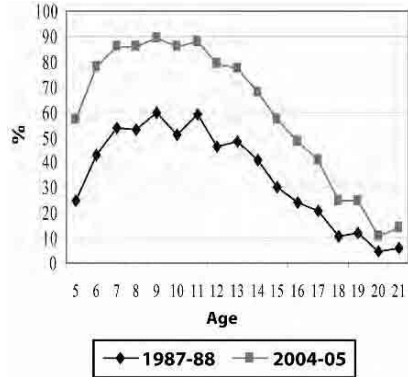


Figure 4.5b: Females' Age-Specific Enrollment Rates, 1987 and 2004



Source: Analysis of India's National Sample Surveys, 43rd and 61st rounds by the Author and Mehtabul Azam in Wu, Goldschmidt, Boscardin & Azam (2007).

Figure 4.6a: Scheduled Castes' Age-Specific Enrollment Rates, 1987 and 2004

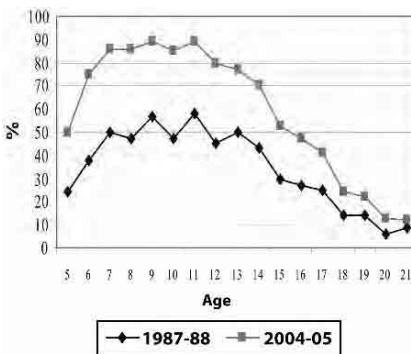
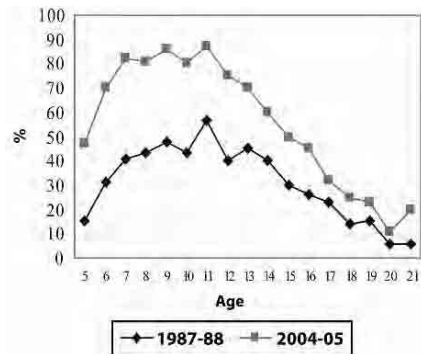


Figure 4.6b: Scheduled Tribes' Age-Specific Enrollment Rates, 1987 and 2004



Source: Analysis of India's National Sample Surveys, 43rd and 61st rounds by the Author and Mehtabul Azam in Wu, Goldschmidt, Boscardin & Azam (2007).

Figure 4.7a: Age-Specific Enrollment Rates of the Richest and Poorest Quintiles by Year, 1987 and 2004

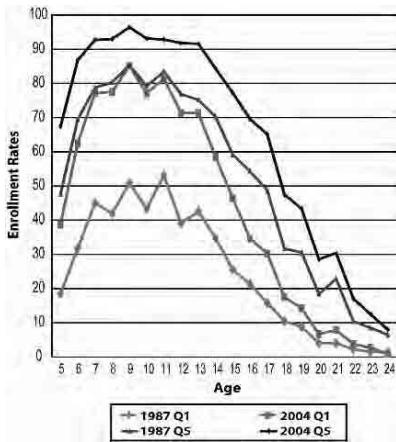
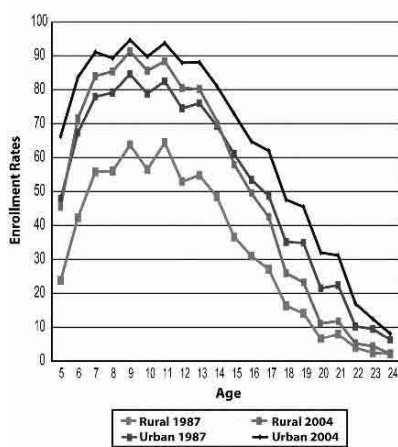


Figure 4.7b: Age-Specific Enrollment Rates by Rural and Urban Areas by Year, 1987 and 2004



Source: Analysis of India's National Sample Surveys, 43rd and 61st rounds by the Author and Mehtabul Azam in Wu, Goldschmidt, Boscardin & Azam (2007).

However, significant gaps still remain today, between the general Hindu population on the one hand, and scheduled castes (SC) and scheduled tribes (ST), and Muslims on the other hand. These gaps are by far bigger among girls than boys, with ST girls being the worst off among all groups (see Figures 4.8a and 4.8b; Chapter 10 for Indian education).

Figure 4.8a: Males' Age-Specific Enrollment Rates by Social and Minority Groups, 2004

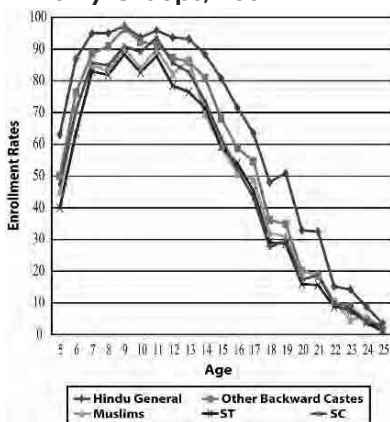
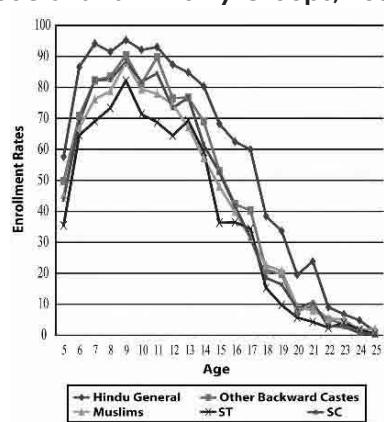


Figure 4.8b: Females' Age-Specific Enrollment Rates by Social and Minority Groups, 2004



In India, which has a federal government structure, state governments bear the main responsibilities for public provision and financing of education. As states' economic and social conditions vary, so does their educational status. Social movements since the 1980s have been successful in advocating for policy interventions to address the inequity in education. A series of increasingly large scale and successful interventions since the 1980s culminated in the National Program for Universal Elementary Education of the 21st century.

Launched in 2001, the program aims to enable *all* children aged 6-14 to *complete* eight years of elementary education of satisfactory quality by 2010. The Constitution was amended to make it a right of every child to have this education. The Central Government provides additional funding, over and above the existing public expenditures on education, in a cost sharing arrangement of 75-90% from the Center and 25-10% from the states. The additional funds amount to about 10% of public spending on education. The Central Government sets clear and time-bound targets as well as norms for planning and costing. Planning was done from the village level upward and implementation was carried out by the states and districts with community oversight (Wu, Kaul & San- kar 2005).

The program funds school and classroom construction, establishment of alternative learning centers, grants to all schools for repair and maintenance, and for equipment and supplies, grants to all teachers for teaching and learning materials, teacher in-service training, learning resources centers, salaries of new teachers, funds for innovations, grants to support children with special needs, management, monitoring and evaluation (Government of India 2001). In addition, it provides free textbooks to all girls, scheduled castes, and scheduled tribe students to offset the household cost of schooling; building toilets in schools for girls; hiring female teachers to provide role models. Public education campaigns, community mobilization and oversight are an integral part of the strategies to change social attitude. Concurrent schemes that reinforce the program includes the Mid-Day Meal Scheme in all government primary schools, expansion of early childhood development centers to lighten sibling care of older children and to improve school readiness, school health programs, and stipend for tribal students in some states.

As education is extended to many underprivileged children, there is also a corresponding increase in enrollment in private schooling. This could be due to the perceived lowering of quality in government schools by parents. Enrollment in private schools accounts for about 20% of students.

Enrollment expansion, however, is not always followed by provision of necessary inputs. Hiring of teachers often lags behind the student in-take, resulting in very high PTR in some districts. The influx of first generation learners in school presents a challenge to teachers who are unprepared to address their special learning needs through different pedagogical strategies. Improving learning

outcomes remain a challenge. In 2005, citizen action groups tested some 600,000 children in 240,000 rural households in 525 districts (out of a total of nearly 600 districts) and found that a substantial percentage of children in their teens still cannot read and solve numerical problems that they are supposed to master in the early primary grades. The exercise was repeated in 2006 and will continue to be implemented to monitor learning outcomes (India Together 2006). The dismal results of 2005 galvanized state governments into focusing interventions toward improving student achievements. The state of Madhya Pradesh introduced “learning to read” activities, supplied reading materials to teachers, taught mothers to help children’s learning, and mobilized youth groups to help teachers, mothers, and children. The percentage of children in Standard 1-2 who could read letters, words or more increased from 57 to 87% between 2005 and 2006, and those who can recognize numbers or more increased from 49 to 84%.

Other randomized experiments on remedial education in urban slums in Mumbai and Vadodara, India find that changing the pedagogical approach for low-performing students not only can improve outcomes but also be affordable and scalable (Banerjee, Cole, Duflo & Linden 2004). Individualized remedial education in literacy and mathematics and computer-assisted learning lessons raised literacy score and mathematics score in consecutive years. These and other studies point to promising direction for improving service delivery and raising student outcomes.

China

With a sustained annual growth rate of about 10% for several decades, China has lifted hundreds of millions of its 1.3 billion people out of poverty. In 2006, China’s gross national income per capita was US\$2,040, over four times that in the early 1980s (World Bank At-A-Glance Table, latest year). However, 10% of its population still lived on less than US\$1 a day at purchase price parity in 2004 (World Bank 2007a). The focus on growth in the last two decades has led to uneven development and rising income inequity in the country—between the coastal, interior and western regions; across provinces, within provinces; and between rural and urban areas (See Chapter 9 in this book for a discussion of the geographic and spatial differences; Hannum & Kong 2007). Inequality in education reflects social inequality. This case study will look at the challenges and discuss the policy of the Government of China to reform rural education finance in 2006 and to make compulsory education free to all children, including those in the urban areas.

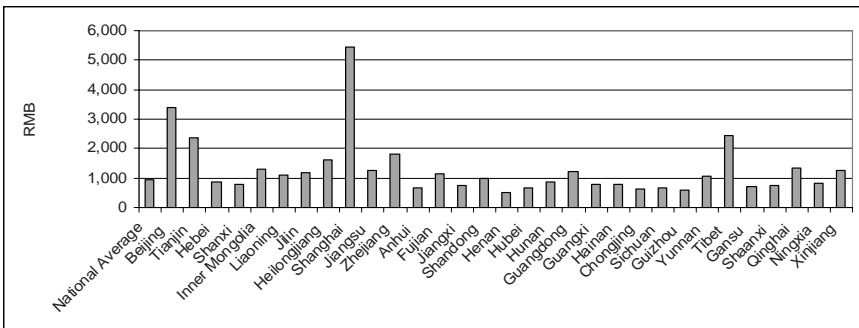
In 1985, China made nine years of basic education compulsory. Currently about 170 million students enroll in Grades 1-9, of whom about 85% are in the rural areas. In 2006, net enrollment ratio (NER) reached 99% in primary education, 97% in junior secondary 59% in senior secondary education, and 22% in

tertiary education (Ministry of Education 2006). However, the high enrollment ratios masked uneven access, transition rates, dropout rates, and school completion rates.

Part of this inequality is rooted in the 1986 policy to decentralize education finance and provision (World Bank 2007d). In 1994, guidelines had been assigned: (1) to the central government the responsibility for policymaking, standard setting, and quality assurance; (2) to the provincial governments the responsibility for formulating the development plan for basic education and providing assistance to lower-level governments to the provincial governments; (3) to the municipality governments or district governments within large cities the responsibility for financing and provision of basic education in urban areas; and (4) to township government (the lowest level) before 2001 and to county governments after 2001 the responsibility for financing and providing education in rural areas.

As the resource base of local governments differs, the capacity to finance basic education also varies. Local governments were authorized to levy education surcharges and schools, charge fees, engage in income-generating activities, and accept donation from society in order to generate extra-budgetary resources to supplement the budgetary allocation. In 2004, extra-budgetary expenditure still accounted for 20% of the total expenditure in primary education and nearly 30% in junior secondary education (Ministry of Education data presented in a workshop in Beijing, November 2006). In 2004, the variation in budgetary expenditure ranged from 5,000 Yuan (about US\$610) in Shanghai to 590 Yuan (about US\$72) in Guizhou per pupil in primary education across provinces and municipalities (see Figure 4.9). Even these average expenditure figures have significantly understated the disparity between rural and urban areas within these provinces (Fock & Wong 2005).

Figure 4.9: Budgeted Expenditure per Primary School Student by Province and Municipality, 2004

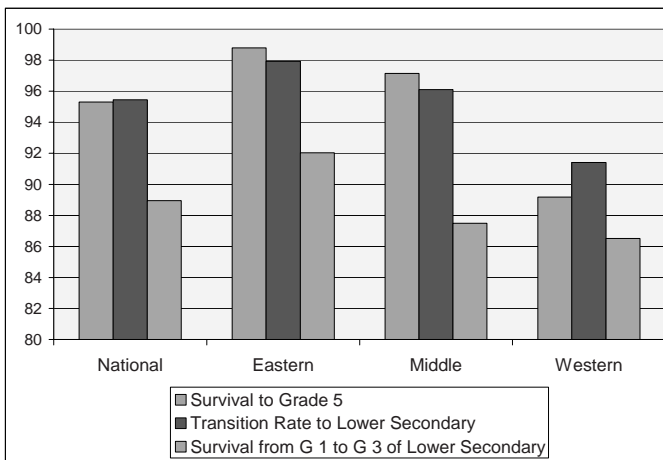


Source: China Educational Finance Statistical Yearbook (2004).

The disparity in financing contributed to the disparity in teacher salaries. The salary of urban teachers can be two to four times higher than that in rural areas. The total remuneration to teachers has three components: basic salary, subsidies (on health care and pension), and bonus. Although teachers with the same qualification and experience have the same basic salary and subsidies, their “bonus” which came mainly from fees, varies. There has been a strong built-in incentive for teachers to work in non-poor areas. Remote places, particularly in minority inhabited areas in the western region, have difficulty recruiting and retaining qualified teachers. Substitute teachers who are less qualified have been recruited to do the job. In 2004, substitute teachers accounted for between 12 and 29% of total teachers in western and central regions (Shi 2006). This eventually translates into disparity in education quality.

On the demand side, income level, gender, ethnicity, and linguistic affiliation all play a significant role in determining educational access and achievement. The inability to pay school fees leads to early dropout, resulting in inequitable outcomes. Figure 4.10 illustrates disparity in school survival rates across regions.

Figure 4.10: Inequities in School Survival Rates across Regions, 2001



Source: Shanghai Academy for Education Research (2003).

In 2006, the Government of China launched an ambitious policy to abolish all miscellaneous fees in compulsory education in the rural areas in a phased manner (Xinhua News Agency 2006). The reform increases fiscal transfers from the central government to subnational governments to finance rural compulsory education. The Government commits US\$29 billion (218 billion Yuan) during the 11th Five-Year Plan (2006-2010), over and above the existing public expenditure on compulsory education. The new money is used to compensate rural

schools for the abolition of miscellaneous fees for all students, provide free textbooks to children in need, subsidize boarding fees, support essential non-personnel cost, support school maintenance and reconstruction, and contribute to the payment of teacher salaries in poor counties (World Bank 2007c).

The additional resources to fund this scheme are shared between the central and provincial governments. In the western region, which is the poorest, the central government provides 80% of the additional funds, while the provincial and county governments contribute 20%. In the central region, the center covers 60% and the provinces or counties, the rest. The reform took immediate effect in the spring semester of 2006 in 12 provinces in the western region. It was extended in the spring semester of 2007, in 10 provinces in the central region. The coastal provinces are generally wealthier and are expected to fund free, compulsory education by themselves. The central government still provides funding to support reconstruction of dilapidated buildings in poor areas in the coastal provinces. The reform also envisages setting and implementing new a national basic public expenditure per pupil standard for rural education by the end of the 11th Five-Year Plan. This massive investment in compulsory education aims to support China's goal to build a harmonious society (World Bank 2007c).

In urban areas, a different set of challenges has emerged centering around education of migrant children. As China's rapid growth creates a huge demand for labor, the last two decades saw massive rural-to-urban migration, both within province and across provinces. Migrants working in urban areas increased from 6.6 million in 1982 to 21 million in 1990 and 144 million in 2000, according to the Population Census of these years (Center for Educational Research 2006). Over the same period, urbanization has increased from about 20% of the total population to 42%. About 14 million of the migrants (roughly 10% of all migrants) were children under the age of 14 in need of schooling.

Until recently, opportunities for children to attend public school in urban areas were provided in accordance with children's residence status. The Residence Registration System, which has been implemented since the 1950s, would register those born in rural areas as rural residents and those born in urban areas as urban residents. People's rural or urban status define their legal obligations and rights to access social services and welfare. Although the system has been liberalized in recent years, migrants from the rural areas still need a work permit in order to work and live legally in the city. Public schools in the cities could refuse migrant children for admission because of the residence system. A lot of privately operated schools catering specifically for migrant children sprang up to fill the gap.

In 2001, the Chinese government announced the principle of having primarily local public schools provide education, including migrant children. In 2003, the government further required that migrant children be given "equal treatment" as those urban residents and that no additional fees were allowed to

collect from migrant students. However, implementation has met with varying degrees of success (World Bank 2007d).

In November 2007, the Chinese government announced a new policy to address inequity in urban compulsory education. Starting in the spring semester of 2008, school fees will be abolished in urban areas as well. This could mean a saving of 250 Yuan (US\$33) per child for the family. The new policy is designed to benefit migrant children. The government has asked all local governments to prepare and mobilize funding to implement the policy. Since the Rural Compulsory Education Finance Reform of 2006 aims to take care of rural education, the new policy for urban compulsory education is expected to benefit poor urban households and migrant children. In combination, these new policies will take a step forward towards free compulsory education for every child in the country.

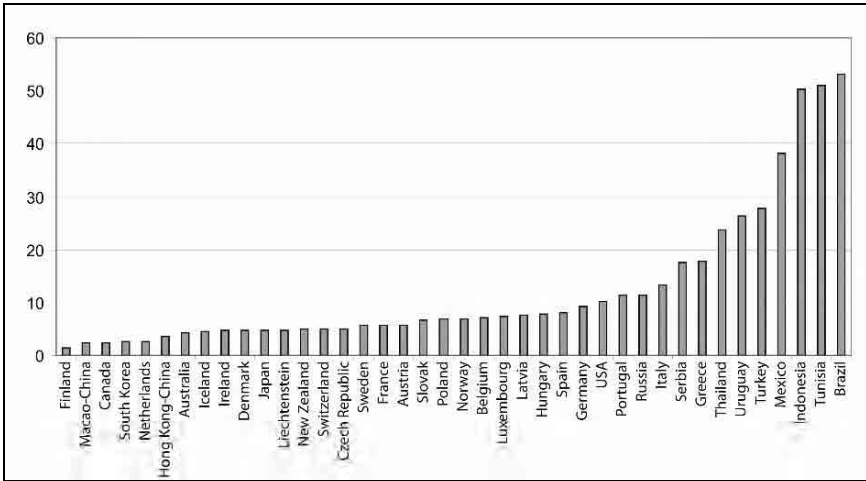
Strategies to Improve Quality

International studies on student achievement, which have increasing participation of developing countries in the 2000s, provide emerging evidence on how large the disparity is in learning outcomes. The most well known of these studies are TIMSS, and PIRLS, which are organized by International Association for the Evaluation of Educational Achievement (IEA), and, PISA, which is coordinated by OECD. TIMSS is conducted every four years, PIRLS every five years, and PISA every three years. TIMSS are curriculum-based and has three populations students in Grades 4, 8 and 12, although not every test covers all three populations. PISA tests mathematics, science and reading skills of 15-year-olds, irrespective of which grade they are studying in. Figure 4.11 shows that the percentage of 15-year-olds who scored below mathematics proficiency level in PISA 2003 ranges from 1.5% in Finland to over 50% in Tunisia and Brazil. The PISA 2006 results (OECD 2007) shows that science score ranges from the high of 563 of Finland to the low of 322 in Kyrgyzstan. The difference could be as large as two years' learning.

Student achievement is influenced by the student-related factors, school-related factors, and broader systemic policy. Student factors include student characteristics (such as gender, social status, ethnicity, age, disability, innate ability), family background (parental educational attainment, involvement and expectation, home resources, and availability of textbooks and learning materials), and schooling and working experience (pre-school enrollment, repetition, drop-out, absence, prior learning, private tutoring, child labor). School factors include teacher characteristics (gender, age, ethnicity, socioeconomic status, academic qualifications and professional experience, terms and conditions of service, content knowledge and pedagogical practices), school characteristics (private or public schools, school size, pupil-to-teacher ratios, class size, socioeconomic composition of students, school resources and facilities, language of instruction;

management practices, time on task and opportunity to learn [Jimerson 1999; Lloyd 2005; Raudenbush & Bryk 2002; Rumberger 1995]). With respect to broader systemic policy, school quality is influenced by the presence or absence of standard-based external examination, school autonomy, and institutional differentiation (including tracking into general and vocational stream and ability grouping).

Figure 4.11: Percentage of 15-year-olds Who Scored below Mathematics Proficiency Level in PISA 2003



Source: OECD (2004).

In developing countries, the vast majority of parents lack very high educational attainment. Table 4.8 shows that the average year of schooling for the adult population aged 25 and above in the developing world is roughly half of that in the developed world. The variation across countries is even bigger: the adult population in the USA has an average of 12 years of education, whereas that of Nepal has only two years. Under these circumstances, the vast majority of parents have limited ability to help their children meet their learning needs. The school must bear a much heavier responsibility of educating.

The key policy raises a question: How can schools mitigate the inherent inequality that comes with birth in order to ensure that all students have acquired the requisite skills so that they can continue to improve their lots? Different schools of thought offer different answers which can be broadly grouped into four categories: school choice, performance-based incentives, effective school approach, and systemic policy that centers on standards and school autonomy.

Table 4.8: Educational Attainment of Adult Population Aged 25 and Over, circa 2000

Region	Highest level attained (Percentage of Population)			
	Average years of school	Primary		
		No Schooling	Total	Completed The cycle
Developing	4.9	37.2	35.9	12.8
Developed	9.8	4.1	27.4	14.4
Transitional	10.0	1.5	33.0	20.5
Latin America	5.7	17.7	50.6	14.4
Middle-East & N. Africa	5.4	32.0	29.6	10.2
East Asia	6.5	22.8	37.7	19.3
South Asia	4.2	48.4	30.6	11.0
Sub-Sahara Africa	3.8	43.5	34.2	7.7

Region	Highest level attained (Percentage of Population)					
	Average years of school	No Schooling	Secondary		Tertiary	
			Total	Completed the cycle	Total	Completed the cycle
Developing	4.9	37.2	19.7	8.8	7.2	4.9
Developed	9.8	4.1	39.4	18.4	29.1	16.8
Transitional	10.0	1.5	49.1	19.3	16.4	14.1
Latin America	5.7	17.7	19.9	8.4	11.8	7.7
Middle-East & N. Africa	5.4	32.0	29.5	10.2	8.8	3.4
East Asia	6.5	22.8	27.4	15.6	12.1	8.1
South Asia	4.2	48.4	16.7	6.5	4.3	3.0
Sub-Sahara Africa	3.8	43.5	19.2	6.6	3.0	2.4

Source: Barro and Lee (2000).

The proponents of school choice consider that the public school system is a large monopoly, that quality will improve only if parents are given a voucher to send their children to private schools, and that competition between public and private schools eventually would shape up the public system (Hanushek 2003; Pritchett 2004). A variant within this school is to contract out through the creation of charter schools within the public system. Another school of thought believes that incentives need to be introduced in the public school system in order to improve service delivery and student performance; however, the effectiveness of incentives varies depending on how they are structured (Banerjee & Duflo 2006; Ve-

gas 2005). The third one is concerned about providing the enabling environment to ensure that school becomes effective and to take a whole school approach through a quality assurance mechanism to effect sustainable improvement (Levin & Lockheed 1993; Fullan 2001, 2004). Empirical evidence provides information on the feasibility and effectiveness of each of these approaches.

About 10 countries in the world have voucher programs, including the Netherlands, Sweden, Ireland, United Kingdom (for pre-school education), United States, Hong Kong-China (for pre-school education), China (to subsidize school fees in government schools in Zhejiang province), Chile, and Colombia. In the US, most of the government-funded voucher programs have been used to help students in failing schools to attend private schools, including religious schools. Milwaukee, Wisconsin's parental choice program is the first of its kind that started in 1990. Cleveland, Ohio launched its own program in 1995, using lottery to select students for attending private schools. Florida in 1999 launched its statewide scholarship program but the State Supreme Court struck it down on constitutional grounds. Washington DC's school choice incentive program, launched in 2005, offers scholarship to poor students to attend private schools and is funded by the federal government for demonstration effectiveness. Utah plans to introduce a non-targeted, statewide voucher program.

In the developing world, Chile and Colombia offer two large-scale natural experiments in voucher. The former is a national program and the latter is targeted to low-income students. In 1981, Chile introduced a voucher program nationwide which allows parents to send their children to any school of their choice, including private schools. This program is still in effect today. The government transfers funds to the schools based on the number of students enrolled and their daily attendance. Unannounced inspection is conducted to check on attendance; schools will be subject to penalty for misreporting. The voucher program has induced over 1,000 private schools to enter the market and has boosted enrollment in private schools by 20%. McEwan and Carnoy (2000) found no significant difference in performance between public and private schools once student background is controlled for. Evaluation by Hsieh and Urquiola (2006) using panel data in 150 municipalities, however, found no evidence that choice improved student test scores, repetition rates, and years of schooling. On the contrary, they found evidence that the Chilean program has induced the best public school students to leave for private schools.

Introduced in 1992, the Colombia program aimed to expand access to secondary schools for poor students. To be eligible for the voucher, students had to be residents in a low-income neighborhood, had attended a public primary school, and had been admitted to a participating private secondary school. Vouchers were assigned on a lottery basis and were renewable annually. Impact evaluation comparing lottery winners with similar students who missed out the lottery finds that lottery winners attended better private schools and had lower

repetition rates (as failing a grade leads to ineligibility), higher educational attainment, and higher academic achievement (Angrist, Bettinger & Kremer 2005). Although the program in the original form was terminated, another program has been introduced in Bogota to enable students from poor families to attend “concession schools” which are private. Vigorous evaluation also shows lower drop-out rates and higher test scores in concession schools than comparators’ positive results (Barrera-Osorio 2007).

The aforementioned voucher programs fail to effect system-wide improvement on student performance even if they have positive impact on the intended beneficiaries. This strengthens the argument for using incentives to improve accountability and outcomes within the public system. Various models of incentives have been tried, including using external monitoring, beneficiary monitoring, and performance-based incentives which award teachers or schools for meeting pre-defined student outcomes. The trend is to design randomized evaluation as an integral part of the intervention in order to assess the effectiveness of the incentives schemes (Banerjee & Duflo 2006; Duflo 2006).

External monitoring under incentives was tried with much success in tribal villages in rural Udaipur of India where teacher absence rate was as high as 44%. Teachers in the experimental group were given a camera with a tamper-proof date and time to photograph themselves with their students every day at the beginning and end of the day. They received a bonus based on the number of days of proven presence and with at least a minimum number of students. Teachers in the control group were told that they could be dismissed if they were absent; nonetheless, there was no requirement of proof of presence. Unannounced visits were made to verify the results. The multi-year randomized evaluation by Duflo and Hanna (2005) found that teacher absence rate was dramatically cut in the treatment group—36% of teachers were present at least 90% of the time, in contrast to less than 1% in the control group. Student test scores in the treatment group increased because once teachers were present in school, they also tend to teach.

The World Bank has advocated beneficiary monitoring as a way to improve service delivery (World Bank 2003b). It is exemplified by *Educacion con Participacion de la Comunidad* (EDUCO) in El Salvador (Jiménez & Sawada 1999). It is a community-managed school program created in 1991 to meet the country’s post-civil war need for education in poor rural areas. The strategy was to decentralize the management of public education by increasing parents’ involvement in and responsibility for the running of these schools. The school-community association consists of elected community members who are often parents of the students and are responsible for managing school budget and personnel, including hiring and dismissal of teachers. Evaluation shows that EDUCO schools have expanded access, increased beneficiary participation, and improve school quality. However, other beneficiary-monitored programs fail to

yield positive results because the opportunity cost (in terms of time and lost income-generating activities) for the beneficiaries are high and there is also the possibility of political capture by local elite (Banerjee & Duflo 2006).

The notion of using performance-based incentives to improve outcomes has gained increasing popularity. Chile initiated a school-based performance award in 1996 to provide cash to top-performing schools, based on the results of standardized tests in Spanish and Mathematics in Grades 4, 8, and 10 (World Bank 2003b). The results take into account rural/urban location, educational level, and the socioeconomic status of parents. The program awards 90% of the cash to the teachers of winning schools and 10% to the schools. Over time, more schools perform better. This program, however, has not been carefully evaluated to assess the impact. Moreover, Chilean student performance in the Third International Mathematics and Science Studies in 1999 and 2003 remained in the rank of low-performing countries and showed no improvement over time.

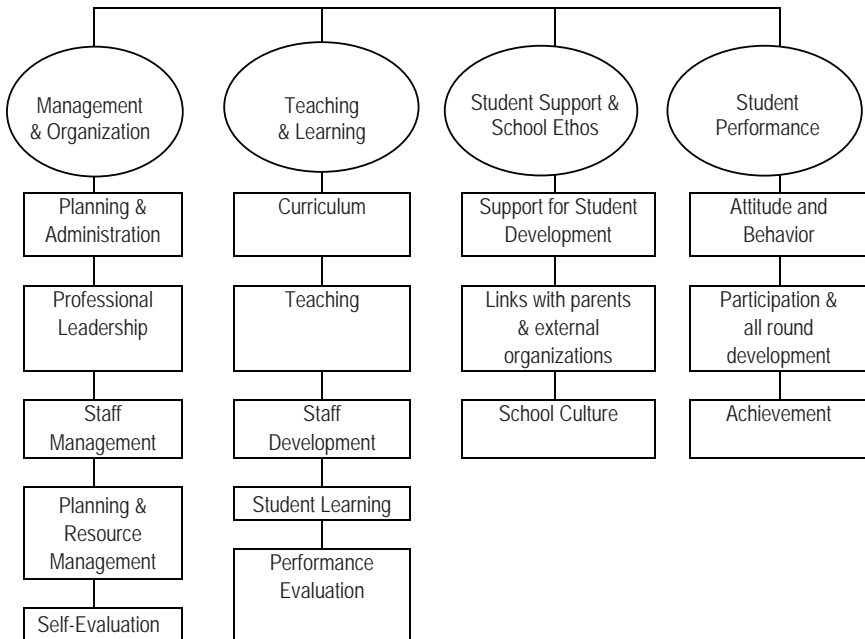
Performance-based incentive programs that have been carefully evaluated yielded mixed results. Lavy's (2002) study on Israeli school-level group incentives found positive effects on student outcomes. Glewwe, Ilias, and Kremer's (2003) randomized trial of a performance-based incentive in Kenya found that test scores improved because teachers taught to the test, but there was no effect on teacher absence. Murnane and Cohen (1986) identify two frequent distortions associated with merit pay: teaching only the materials measured in the test and selecting to teach only to those students most likely to improve test scores. Given the high fiscal and administrative costs of incentive programs, impact evaluation needs to be integrated with the design to assess whether the incentives produce the intended outcomes and whether the improvement in performance can be sustained without the incentive.

The "effective school" approach finds that successful schools display certain common characteristics and to improve quality, it is necessary to enable these characteristics to flourish (Fullan 2001, 2004). The school's mission, vision, policies, and procedures are clear and widely shared. The school is centered on teaching and learning with a strong focus on time on task. Teamwork between teachers and school management coalesces around goals. There is space for autonomy. Evaluation, supervision, feedback, and improvement are frequent and continuous. Teachers cooperate in planning and exchange information and techniques. Principals or head teachers combine supervision with technical and moral support. Positive reinforcement is used for both teachers and students. Teachers have high expectations for all, value students' all-round development, and provide support to under-performers. Teachers and parents share a close relationship.

The concept of effective schools has been drawn upon to develop school quality assurance criteria in order to improve quality and for accountability purposes (see Figure 4.12). Singapore and Hong Kong-China both started to implement quality assurance programs since the late 1990s. Singapore adapted busi-

ness quality assurance models whereas Hong Kong learned from Scotland, Australia and Canada. The principles applied are similar although implementation is different between these two education systems. Hong Kong schools are given block grants (excluding salary) based on a three-year school development plan. They are required to use evidence to analyze their own performance in management and organization, learning and teaching, student support and school ethos, and student performance, and to develop strategies for improvement. Schools' self-evaluation is validated by an external panel, which comprises education officers and a principal or teacher from another school. All schools will be visited within a given cycle. The panel inspects facilities; observes learning activities inside and outside the classrooms; interviews the school management council, teachers, staff, parents and students; collects data through stakeholders' questionnaires; scrutinizes students' homework, assignments and projects; and reviews school documents, records, teacher performance assessment, correspondence with parents, and library borrowing. Annual reports of overall quality assurance are published and presented to the legislature. Over time, more schools have improved their performance in the categories rated.

Figure 4.12: Framework for Assessing School Performance



Source: Hong Kong Department of Education (2002).

Quality assurance is being implemented in some low-income countries as well. Uganda has developed a cost-effective method for quality assurance and public accountability (Ward, Penny & Read 2005). In 2003, Uganda set up an Education Standards Authority with 20 inspectors that aim to inspect all schools in the country within a three-year cycle. The Authority sets aside six weeks each year to inspect one-third of the schools. University lecturers, principals, and teachers are invited to inspect schools outside their own district. A team of two professionals visit a school for a day to observe classes and interact with the principal, teachers, students, and the community. They prepare a report, which is presented to the school for discussion, on how to improve school management and quality. Reports at various levels of aggregation are made public.

An international comparative study in Latin America provides evidence to support the notion of effective schools. In 1997, a UNESCO Regional Office for Latin America and the Caribbean (OREALC) sponsored study on primary school student achievement in 14 Latin American and Caribbean countries found that Cuba was the highest-scoring country in both reading and mathematics. The median scores of Cuba were about two standard deviations in Grade 3 language and mathematics above Argentina, which was the richest country in Latin America at the time (UNESCO-OREALC 2001).

A study on Cuban education (Carnoy, Gove & Marshall 2007) found that child-centered education, coherent curriculum, highly trained teachers, and principals that focus on instruction, supportive social environment, and centralized management account for high student outcomes. A study by Gasperini (2000) also has similar findings: high government financial commitment to education (twice as much in terms of public spending as a percentage of GDP as the average of Latin America), adequate teaching and learning resources, highly qualified teachers whose professional education and training had emphasized instructional skills and action research and life-long professional development, close supervision and periodic evaluation of teachers by the school and community, universal early childhood education to ensure school readiness, high time on task, school and community health programs, no malnutrition, and no difference in learning achievement between rural and urban areas.

International studies, such as TIMSS, PIRLS, and PISA, are increasingly driving educational research and policy debates because of the evidence yielded from the results. Also, as these international studies have built up times trends, it is possible to see what policies countries have pursued that lead to improvement or decline of student achievement. Finland is consistently a top European and world performer in reading and science in PISA. East Asian countries (South Korea, Hong Kong-China, Chinese Taipei, and Singapore) have consistently performed well. Canada in the Western Hemisphere is among the top performers. The five top performing countries in PISA mathematics, reading, and science are presented in Table 4.9. Latin American countries, however, consistently performed

rather poorly (IEA 2004a, 2004b; OECD 2004, 2007). Countries that do well in PISA also tend to do well in TIMSS or PIRLS. Russian Federation, Hong Kong-China, Canada (Alberta), Singapore, and Canada (British Columbia) are the top five performers in PIRLS 2006 which tested students in Grade 4 (IEA 2006).

Table 4.9: The Top Five Performers in PISA

Science	Reading	Mathematics
Finland	Korea	Chinese Taipei
Hong Kong-China	Finland	Finland
Canada	Hong Kong-China	Hong Kong-China
Chinese Taipei	Canada	Korea
Estonia	New Zealand	Netherlands

Source: OECD (2007).

PISA 2006 has found a clear association of high performance on one hand, and the existence of standard based external examination and school autonomy on the other hand, among its 57 participating countries. While money matters in so far as ensuring an adequate supply of teachers and quality educational resources at school, policies are even more so. Externally tested standards help focus efforts for which to strive, enable monitoring of outcomes, and enhance accountability. Schools' autonomy in formulating the budget and deciding on allocations within the school is also associated with high performance. However, private schooling is not a critical factor in improving outcomes. Although students in private schools outperformed those in public schools in 20 countries in PISA 2006, once the socio-economic background of students and schools are taken into account, students in public schools outperformed those in private schools. PISA 2006 also found that differentiation or tracking at an early age damages equity without improving quality. Poland disbanded tracking and saw an increase in 29 score points between 2000 and 2006. In high performing countries like Finland, between-school difference accounts for very little variance in achievement; it is able to achieve both equity and quality (OECD 2007).

Participating in international comparative studies also offers effective mechanism for countries to measure its performance against an international benchmark and to diagnose the areas of strengths and weaknesses in skill domains as well as to identify the potential determinants of achievement. Countries that use the benchmark to embark on reform in education do make progress. For example, between PISA 2000 and 2003, countries that made a statistically significant improvement in the space and shape scale are Belgium, Czech Republic, Italy, Poland, Brazil, Indonesia, Litvia, and Thailand, while countries that improved on change and relationship scale are Belgium, Canada, Liechtenstein, Czech Republic, Finland, Germany, Hungary, South Korea, Poland, Portugal,

and Spain (OECD 2004). In PISA 2006, Korea and Poland both showed a remarkable increase in reading scores, compared with their performance in 2000. Mexico and Greece also saw significant improvements in mathematics scores between 2003 and 2006 (OECD 2007).

In TIMSS 2003, the Philippines and Jordan were able to raise the science test scores of their lower performing junior secondary students over the level of 1999 (IEA 2004a). The Philippines identified low-achieving students and gave them remedial education in separate classes until their achievement had reached the level of other students. It then mainstreamed them again. Jordan undertook a comparative study on the performance level of 8th graders in mathematics and science with respect to availability of educational resources. It developed teachers' guides to improve teaching methods, based on diagnosis of student errors and misconceptions, and for teacher training. It also performed an analysis of the obstacles to science teaching that negatively affect student performance and conducted a similar study on the personal and family factors that negatively impact achievement. It also undertook an education reform for the knowledge economy, using TIMSS 2003 as a baseline and measured change by reference to scores from its subsequent participation in TIMSS 2007. These efforts yielded substantial insights and demonstrated conclusively that comparison and benchmarking with international practices could inform curriculum design, standard setting, examination setting, teacher training, and school accountability.

Conclusion and Summary

This chapter begins by reviewing education and inequality in the world and explores the supply-side and demand-side factors that have contributed to inequity. It then examines three large scale interventions of how inequality can be tackled. The initial success of EFA FTI, India's National Program for Universal Elementary Education, and China's compulsory education finance reform indicate that it takes political will, commitment of major resources, right policy, and sustained efforts to reduce inequity of access on a large scale. The last 5% of out-of-school children will be the hardest to reach, physically and metaphysically, and also will be the most costly. That is why the efforts must be sustained until the last one is in school and remain so until completion of a given cycle.

Bridging the learning gap between the rich and the poor and among different ethnic groups is likely to remain the key challenge in the 21st century. Using standard-based external examinations and providing schools with greater autonomy could make a big difference. Offering school choice to low-income students, providing well-structured incentives to reward performance without distorting effects, taking a whole school approach with quality assurance mechanism to support an enabling environment could be effective. Randomized evaluations could identify effective strategies to improve service delivery and

raise performance. Measuring progress in natural experiment is equally important. Using international comparative test for benchmarking can provide powerful information to guide policy direction and resource allocation.

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Notes

¹ For example, the average life expectancy of Chilean females increased from 33 years in 1909 to 78 years in 1999. Physical growth (height for age) of 10-year-old Norwegian females grew from 130.2 cm in 1920 to 139.6 cm in 1990. Cognitive growth of Dutch males, as measured by IQ relative to that of their own fathers, rose from 100 in 1952 to 121 in 1982 (Ruger, Jamison & Canning 2006).

² Countries can be divided into low income (with GNI per capita roughly below US\$1,000), middle income (with GNI per capita roughly between US\$1000 and US\$11,000) and high income (with GNI per capita roughly over US\$11,000). According to the World Bank's World Development Indicators Database, in 2005, the average per capita income of low-income countries was US\$580, that of lower middle income countries, US\$1,918, that of upper middle-income country, US\$5,625, and that of high income countries, US\$31,914.

³ Development partners are aligning their ongoing funding with the countries' endorsed plans, pooling funding for education at the country level, adopting single reporting arrangements to reduce transactions costs, and raising their spending on education.

⁴ The "scheduled caste" and "scheduled tribes" are known as such because they are listed in the Schedule of the constitution for affirmative action. Places or quota, proportion to their share in the population, are set aside to employ them in the public sector and to admit them in tertiary education institutions.

5

Gender Inequalities in Educational Participation

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Introduction

Social development indicators reveal that most developing countries are on trajectories that will result in failure to achieve the United Nations Millennium Development Goals (MDGs) by the targeted date (UNDP 2003). In fact, 50 countries are regressing on at least one of the goals, while another 65 countries in all probability will fail to reach one of the MDGs until after 2040 (UNDP 2005). This raises some important questions about the challenges in meeting these goals, and about what needs to be done to narrow the divergence between the stated objectives and reality.

During October 5-6, 2005, a group of experienced scholars¹ met at the Sundance Resort in Utah to discuss issues on women's and girls' access to education, labor markets, and political power as it related to the MDGs. The meeting was sponsored by the Women's Research Institute at Brigham Young University with the intent to discuss and produce some recommendations for further research and policy advocacy. Nelly P. Stromquist initiated the discussion and delivered an address entitled "Global Policies, Local Realities: The Increasing Distance between Educational Policy and Social Transformation." Stromquist provided a framework for analyzing current trends and policies promulgated by the United Nations' MDGs and UNESCO's Education for All (EFA) goals. Participants discussed the range of core issues and discrepancies between the UN goals and women's realities and debated ways to promote evidence-based discussions that would impact policy and practice. The ideas generated and outlined during this workshop form the foundation of this chapter.

A brief overview of women's current status in education sets the stage for discussing the challenges associated with achieving gender equity and avenues for further research. This is followed by a detailed critique of prevailing conceptions of gender that shape educational policies and determine women's social and political opportunities. Central to this discussion is contrasting two MDGs

on education with current trends and identifying additional indicators that would provide a more comprehensive assessment. Next, several intersecting research areas related to gender and education are summarized. The analysis is presented in two parts: first, key problems in implementing solutions suggested by the research findings are identified. An outline of potential solutions that will ensure equal and equitable education for women in a manner that promotes sustainable societal transformation concludes the chapter.

Gender and the Education System

More than six years ago, the UN made an unprecedented move to comprehensively address the issues of peace and development by formulating eight goals for the new Millennium. Two of these goals were dedicated to achieving gender equality in education globally. While neither of these goals was accomplished by the target year of 2005, they have encouraged governments and non-governmental organizations to confront the cultural and social norms and practices that curtail women's educational opportunities.

Despite the recognition and hope these goals have brought to the international community, the UN asserts that women and girls persist in a state of double jeopardy caught in a constant cycle of poverty and illiteracy. Reports show that of the 862 million illiterate people in the world, two-thirds (600 million) are women, and 60 million girls between the ages of 6-11 are out of school (United Nations 2005). Another study estimates that 150 million children currently enrolled in school will drop out before they complete primary school and at least 100 million of them will be girls (Herz & Sperling 2004). Although all regions of the world have increased their overall school enrollments, the figures prove to be poor indicators of gender parity because completion rates for girls at 76% lag significantly behind that of boys at 85% (UNICEF 2004a).

This obvious lack of equality has spawned numerous policies designed to improve women's participation at all levels of education; however, these efforts have had minimal success in closing the gender gap. Out of 65 developing countries, 50% have achieved gender parity in primary education, only 20% in secondary education, and a mere 8% (only five countries) at the higher levels. Only 13 out of 80 countries have reduced gender inequalities at the primary subsector level at all (Swainson 2003). Gender disparities are even more pronounced at the secondary level with only half of the girls in developing countries continuing beyond primary education (Sub-Saharan Africa has only one out of five girls enrolled in secondary school).

Even encouraging statistics that appear to indicate that women are gaining more access to education, such as the fact that 72% of teachers world-wide are female and are misleading. While women assume the majority of teaching positions, their representation in school administration is nominal at best (UNESCO

2003/2004). Additional evidence of women's unequal status in society is their exclusion from decision-making processes. Women hold only 17% of all parliamentary seats worldwide, and their access to paid employment is lower than men's thereby increasing their chance of living in poverty (UNICEF 2007). As a result, women are also more likely to experience poorer health and live with mental and physical disabilities; 75% of all people with disabilities in low- and middle-income countries are women. These inequalities are evident as well in the extremely low literacy rates among people with disabilities (3% worldwide) and especially among disabled girls and women (1%) (UNESCO 2003/2004).

These figures reveal that the world is far from achieving the gender parity in education outlined by the MDGs. Only 91 developing and 34 industrialized nations are presently on track for meeting the goal of equal access to universal primary education (United Nations 2005). In order to eliminate these wide disparities, the education of women must be viewed as an innate human right inextricably linked to the social and economic development of nations.

Summary of Summit Discussions

Critique of Conceptions of Gender in Educational Policies

The following section points out several criticisms about the way gender is presently conceptualized and its implications for educational policies pertaining to women and girls. The narrative utilizes examples from two countries to highlight the narrow definition of MDGs for girls' education and the need for more contextualized and broader indicators.

Gender is Vaguely or Seldom Defined

Too often gender conceptions tend to be simplistic and narrowly focused on the socio-cultural interpretation of sex as expressed by behavioral practices associated with masculinity and femininity. The UN Office of the Special Adviser on Gender Issues (OSAGI), on the other hand, defines gender in broader terms encompassing not only social attributes but also socially constructed and time specific opportunities and relationships associated with being male and female which are learned through established socialization processes (United Nations 2002). Stromquist (1995) also suggests that gender implies the interconnections among social and cultural structures on which inequalities between women and men are built. The compound effect of multiple axes of discrimination, such as patriarchal gender relations and racial and class hierarchies, creates unequal access to the means of production, distribution, and communication making women the most deprived group.

Gender is Not a Priority in Education Policies

A major assumption in educational policies is that gender is not an essential consideration. Many policies are based on the premise that if more boys attend primary school, female enrollments will naturally increase as well. However, evidence (USAID 2000) suggests that focusing just on boys or children, in general, tends to perpetuate traditional stereotypes, leading to the exclusion of girls from educational opportunities.

The Role of Power and Context in the Construction of Gender is Overlooked

Fundamental differences in the power of men and women affect conceptions of gender in educational policies. OSAGI has identified several broad considerations concerning gender differences and inequalities in power that affect gender conceptions in education policy (United Nations 2002).

Political inequality: Gender inequalities in political power such as the lack of access by women to decision making or political representation results in disregard for the priorities, needs, and interests of women.

Household inequality: Domestic patriarchal power relationships reinforce women's dependent status and supports the perspective that educating female children is not in the economic interest of the family (Fraser 1989).

Legal inequality: There are many instances in which equal rights to personal status, security, land, inheritance, and employment opportunities are denied to women by law or practice, notwithstanding national constitutions and international instruments that proclaim equal rights for women and men.

Economic inequality: Gendered divisions of labor within an economy have created situations where women are more likely than men to be in low-paid jobs and nonstandard, temporary or home-based work. Women also have less access to productive assets such as education, financial skills, property, and credit.

Security and status inequality: Violence not only prevents women and girls from living normal lives, it deprives them of educational opportunities. Indeed, education may safeguard women and girls from these dangers since perpetrators often prey on a victim's inexperience and lack of basic skills.

Religious inequality: In some areas of the world, dominant religious views prescribe that women and girls do not receive the same educational advantages of males.

Prevailing Conceptions of Gender View Women as a Homogeneous Category

While there are some underlying conditions that maybe applicable to all members of a given gender, the diversity of needs and perspectives within gender groups creates difficulties in developing gender sensitive educational policies.

Thus, policymakers have typically viewed women as a homogeneous group and failed to address such differences as social class, race and ethnicity, religion, language, residence status, age, or disability factors that affect women's access to educational opportunities.

Assumptions that the Education System is Gender Neutral

By presupposing that the educational system is gender neutral, policies often create environments that are hostile and pose obstacles to girls' abilities to learn and complete school. In addition to poverty, unsafe school facilities, parental objections and rigid social norms for participation in schooling, an important contextual factor is that classrooms and teachers generally provide a more positive learning environment for males than females.

Narrow Definition of Women's Empowerment

Merely focusing on equality in education by incorporating gender in policies and increasing the number of girls in school does not constitute meaningful empowerment. An emphasis on equity and not just equality ensures that all women have the same opportunities to learn and succeed. An equity-based approach requires that women assume appropriate roles in decision making and contribute to educational policy formation. Equity as a means to equality provides a broader definition of women's empowerment that is inclusive of all women regardless of their race, ethnicity, social class, or disability (Stromquist 2005).

Case Study: Millennium Development Goals, Education Focus

The United Nations MDGs are one example of how a focus solely on equality without consideration for equity issues produces policies that are weak and unsustainable. The measurement tools utilized to assess education and empowerment rely primarily on enrollment rates and gender ratios in school. The target indicators for education identified in the MDGs are:

Goal 2: Achieve universal primary education

1. Net enrollment ratios in primary education
2. Proportion of pupils starting grade 1 who reach grade 5
3. Illiteracy rate of 15-24 year olds

Goal 3: Promote gender equality and empower women

1. Ratio of girls to boys in primary, secondary and tertiary education
2. Ratio of literate females to males of 15-24 year olds
3. Ratio of women to men in wage employment in the non-agricultural sector
4. Proportion of seats held by women in national parliament

These indicators have been influential in directing education policies, and many countries have been making significant advances toward ensuring women's equal participation in education. For example, Morocco has made important changes to the curriculum, infrastructure, and teaching approach that has made access to and participation in education more realistic and attainable for girls. Similarly, the Dominican Republic has dramatically increased the percentage of girls enrolled in school (95%) and has even achieved a one-to-one ratio of girls to boys in primary education (WomenStats 2005). Morocco and Dominican Republic are not isolated cases and, in fact, several other countries have experienced comparable success in improving enrollment rates and gender parity in education.

Although the MDG indicators can serve as an entry point in determining progress towards gender parity, they are inadequate in their capacity to produce an accurate picture of women's participation and achievement in education. In order to determine whether the overall situation of women as it relates to education is improving, critical indicators must augment existing MDGs measures. For instance, the MDG indicators outlined for education merely examine the net enrollment rates of boys and girls in school but neglect completion or attainment rates. The UN goals emphasize getting girls in school but pay little attention to whether the schooling context provides a supportive environment for girls to complete their schooling and their ability to retain and utilize this knowledge. The MDG indicators also do not allow for the provision of data that are disaggregated by race, age, ethnicity, or disability factors. Prevailing conceptions and accompanying data tend to distort the reality of the situation by overlooking the diversity of women and the varying needs that emerge from these differences.

According to the MDG standards for gender parity in education, Morocco is doing fairly well with 83% of girls enrolled in primary school and a 0.79-to-1 ratio of women to men in literacy attainment for those between the ages of 15-24 (WomenStats 2005). Morocco has also attempted to remove barriers to girls' schooling by making primary education mandatory for all children, providing free public education and improving school infrastructures to make them more girl-friendly. A closer look at these figures on Morocco, however, shows that despite these structural improvements, little has been done to transform prejudices and attitudes about women's roles in society. For example, the underlying cultural belief that education is more important for boys than for girls has not been addressed. As a result, although more and more girls are enrolling in school, few of them actually remain in school. The few who stay in school are tracked into areas of study that are considered compatible with traditional female roles such as nursing and teaching.

In a similar manner, MDG measures for women's civic participation involves looking at the percentage of women holding seats in parliament. On the surface, a country like the Dominican Republic appears to be making progress in increasing women's participation in civic affairs. For example, the Dominican

Republic has established a 33% quota for women candidates, and 17% of all parliament seats are held by women (WomenStats 2005). However, further examination reveals that despite their greater civic participation, women are relegated to the lower echelons of the government.

The data from Morocco and the Dominican Republic illustrate that these countries are doing the bare minimum to comply with the MDGs. In many cases, the actions taken to improve women's educational and social opportunities do not reflect a shift in paradigms to value women's right to education but are motivated by the potential for increased foreign investment.

Overall, the MDGs and related indicators only provide a superficial and deficient view of the progress, or lack thereof, of women's economic, social, and political conditions. Thus, MDGs for education must be reframed to effectively incorporate the range of indicators needed to assess equality and equity issues in schooling. Additional critical indicators needed to provide a broader perspective on gender and education include provision of compulsory primary education indicators (data by country); completion of six levels of education disaggregated by sub-groups (race, gender, ethnicity, and individuals with disability); provision of free or reduced cost education (data by country); incentives available for girls to achieve higher education; literacy rates for women across the life span; data on women working in the informal sector; use of political rights (voter registration); and proportion of women elected in local and national government as well as judiciary positions.

Impact of Flawed Gender Conceptions on Women's Education

Public policies, such as, the EFA and the MDGs, are based on the premise that access to education, regardless of content or quality, directly translates into empowerment for women. By and large, educational policies intended to enhance gender parity are typically poorly planned and seldom evaluated. Thus, these policies tend to represent a symbolic gesture of the democratic process rather than a real intent to create true societal transformation (Stromquist 2005).

Due to flawed conceptions of gender, efforts by governments to institute gender-based policies do not necessarily benefit women. Most nations are weak in their implementation of gender policies, parsimonious in their allocation of resources, and more importantly, unwilling to address attitudes and practices that further entrench and widen gender inequalities (Stromquist 2004). Public educational policies that stem from erroneous assumptions render attempts at gender parity and empowerment ineffectual and inconsequential. Following are specific impacts in terms of policies on women's education.

Emphasis on Enrollment and Not on Completion Rates as Well as Attainment of Knowledge and Educational Experience

Concentrating on access without ensuring that the content, environment, and educational experience are supportive of girls' achievement, and performance is a misguided approach to addressing gender inequalities.

Focusing Only on Access to Schooling Instead of the Transformation of Educational Institutions

Most endeavors to change or improve the schooling process for girls are typically perfunctory. Many nations have introduced public campaigns to raise awareness about the importance of girls' education without dealing with or altering the cultural assumptions that hold back women and girls.

Limited Attention to Gender Issues in School Content Such as Domestic Violence, Reproductive Health, and Self-Esteem

Social and economic structures that polarize gender groups and reinforce gender imbalances are rarely acknowledged. States fail to integrate an analysis of gender issues within the educational system and in policy formation in three ways:

- a. Viewing gender as irrelevant or potentially risky to define.
- b. Ignoring or overlooking proposals to expand women's influence and opportunities.
- c. Disregarding societal conceptions and expectations of women.

A Lack of (or Inadequate) Gender Training for Teachers and Gender Responsive Classrooms

Schools and classrooms mirror the values and norms of society. Most standard classrooms are characterized by stereotypical and discriminatory practices about girls and their intellectual abilities. This creates a hostile learning environment which discourages and silences girls and instills in them lower expectations, aspirations, and self-esteem.

Making Policy Decisions on Gender without the Input of Women's Civic Organizations and Widespread Community Involvement

Often gender policies are devised without the consultation of the most active advocates for women's rights—women themselves. This is apparent in the low percentage of women in positions of authority and decision making, particularly, within the education system.

Overlooking Gender Gaps in Science and Technology as Well as Women’s Limited Opportunities for Continuing Education and Equity in Employment

Due to the reason that girls’ access to secondary schooling is much lower than boys, their ability to participate in technical sciences and in higher education is greatly limited. Female graduates also find it problematic to obtain high-paying jobs because societal expectations restrict them to traditional positions.

Viewing Women’s Education as a Means to Achieving Economic Progress Rather Than an Innate Human Right

Policy discussions on women’s education are advanced from a perspective of realizing economic development goals rather than from the perspective that education is a fundamental human right.

Research Findings Related to Gender and Education

The body of research on education and gender provides significant insights into the aspects of schooling associated with gender equity, including elements of quality, best schooling practices, and barriers to education.

Quality of Education

Important influences on the quality of education include characteristics of schools and the learning environment, with key differences in the way they affect girls’ and boys’ schooling. An important distinction involves the formal and informal curriculum. Gender-based staffing and teacher quality is an important dimension of the formal curriculum in both industrialized and developing countries. In industrialized countries, the segregation of the curriculum along gender lines is likely to be seen in the staffing of math and science classes as well as vocational and technology classes (Glick 2006).

The hidden curriculum also affects education quality and gender equality through unfavorable teacher attitudes toward and treatment of girls in class, sexual harassment by male teachers or students, and curricula and textbooks that present positive adult role models for boys but traditional ones for girls. Other sources of implicit messages in schools in both developed and developing settings include organizational characteristics of schools such as the hierarchical structure in which males occupy the higher level administrative positions (Tyack 1974) and the sex segregation of classroom activities which communicates superior roles for males compared to females (Shakeshaft 1986). Within classroom settings, males often dominate the interaction, regardless of the sex of the teacher (Sadker, Sadker & Klein 1991).

In developing countries, the following factors contribute to gender unequal-

ity in schools: low expectations of teachers for girls' intellectual abilities along with low level of feedback from teachers; girls' low expectations of themselves; and lack of female teachers in high-status subjects, such as math and science (Oxfam 2005). Textbooks, curriculum and examination materials also often reinforce the low expectations of women and girls, while the uses of physical space in schools often marginalizes girls.

Best Strategies and Practices for Equity in Education

The best practices and strategies for improving gender equity in education have been identified for both classroom settings and conditions outside the classroom.

Classroom Strategies

Gender-sensitive classrooms: A gender-sensitive classroom strives to challenge male-dominated world views through the provision of gender training for teachers and the elimination of gender bias in textbooks and curriculum (UNESCO 2003/2004).

Teaching in the local language: Education provided in a language other than children's mother tongue tends to alienate girls whose exposure to other languages and environments outside of their families is more limited than boys (UNICEF 2004b).

Recruit more female teachers: The recruitment of female teachers contributes to creating a more girl-friendly school atmosphere and also provides girls with inspiring role models. In Kenya, the overall primary school completion rates for girls improved with the employment of more women teachers and principals (UNICEF 2004b).

Schedule lessons flexibly: Girls tend to be excluded from the learning process because of work responsibilities at home. Instituting a flexible schedule which also accommodates important local events and activities such as the harvest season has been effective in increasing girls' school enrollment significantly (UNICEF 2004b).

Effective teaching styles: Research studies identify effective teaching method as a major determinant of quality education and learning outcomes (UNESCO 2005). For example, assessment of the Nueva Escuela Unitaria (NEU) schools in Guatemala, which offers discovery-based instruction, shows positive outcomes for girls in several areas: improved retention rates, higher numbers of female students completing sixth grade, and consistent higher scores on math achievement tests by female students compared to non-NEU schools (Kline 2002). Similarly, since 1994, Mali has implemented *pedagogie convergente* (PC), a teaching approach which instructs students in their native languages and then gradually introduces French (Traoré 2001). Because the PC method is rooted in a learner-centered paradigm, it also incorporates group work, role playing, and

child-to-child interaction. Research in Mali has indicated that girls in PC schools get statistically significant higher scores in mathematics compared to girls attending traditional schools (Kane 2004).

Factors that adversely impact students' ability to learn successfully include ineffective pedagogies, undesirable teaching methods that place students in a passive role such as rote memorization, inadequate learning materials, and a tenuous link between schooling and community life (UNESCO 2005).

Outside-the-Classroom Strategies

Providing food and health programs in schools: The World Food Program estimates that approximately 170 million of the children who attend school must learn while fighting hunger (WFP 2002). Impressive success was achieved in increasing girls' enrollments in Pakistan through a program that rewarded families whose daughters attended school with certain rations (e.g., cooking oil).

Decreasing girls' domestic workload: Even when the cost of schooling is free, widespread poverty prevents families from sending their daughters because their labor and income is essential to family welfare (WFP 2002). Assisting communities with mills for grinding grains, day-care centers for younger siblings, and installing water pumps and wells within closer parameters can alleviate girls' workload, thus enabling them to attend school.

Moving schools closer to children: Another barrier to ensuring education for girls is the high percentage of girls who live in rural areas of the world where travel to school is long and often dangerous. An example of a promising solution is Burkina Faso's "satellite schools" in rural areas which are small, community-run schools. These schools have provided a safer and closer alternative for young children, especially girls.

Making schools girl-friendly: Providing girls with a learning environment which is safe, supportive, and "girl-friendly" increases their attendance. Many girls drop out of school once they hit puberty because schools lack separate toilets for girls (Hertz & Sperling 2004).

Mobilizing support in the community for girls' education: When given the opportunity, girls can be the most effective advocates for education in their communities. The Girls' Education Movement (GEM) in Uganda involves both boys and girls in promoting gender-responsive education. GEM also identifies girls who have dropped out and facilitates their return to school (UNICEF 2004b).

Removing gender-biased practices and providing incentives for girls to attend school: In recent years, governments have begun to initiate reforms to address both the institutional and financial obstacles to girls' education. Rugh (2000) points out that these reforms include campaigns to discourage early marriage and delay initiation ceremonies for girls (e.g., in Malawi), set a minimum age and literacy requirements for work (e.g., in Egypt), and waived age and document requirements for school enrollment. Incentives, Rugh adds, have in-

cluded scholarships for girls (e.g., in Nepal, Bangladesh), tax relief for parents (e.g., in Peru), and government subsidized board and transportation.

Social and Economic Barriers to Girls' Education

Barriers to girls' participation and successful completion include the costs of schooling, discrimination, violence and security issues, and social and cultural issues.

Cost of Schooling

In many countries, school fees and related indirect education costs remain an intractable obstacle to ensuring universal access to education. The introduction of school fees, initially intended to improve educational quality, has had the inverse effect: lower enrollment in schools and restricted access to education among the poor, girls, and disabled. Although at present, while many countries have waived school fees, parents still pay for uniforms, textbooks, and transportation expenses which account for a significant portion of the household income.

Discrimination

Armed conflict and internal displacement: Half of the 113 million children out of school live in countries currently experiencing or recently emerging from conflict (UNESCO 2004). In addition to the physical and psychological trauma endured by children during conflict situations, there are other structural factors that hinder the schooling process for displaced individuals such as the destruction of the infrastructure, shortage of teaching staff, poor-quality education, overcrowded classrooms, and the lack of learning resources (Roger 2002).

Rural children: Children in rural areas are denied equal access to schooling because of insufficient public funding and an urban bias in educational policy. When schools are available, the quality of education offered is low, the facilities are poorly built and maintained, and children have to walk long distances (UNICEF 2006).

Race, ethnicity, religion, and caste: Minority ethnic or religious groups, which account for at least 10% of the population in two-thirds of all countries, are excluded from learning because of their identities and beliefs (UNICEF 2006). Due to the persistent cycle of impoverishment, Dalit (low caste) children in India have low enrollment rates and are more likely than any other group to drop out of school. When Dalit children attend school, they experience harsh treatment and discrimination in the classroom and the school system (Artis, Doobay & Lyons 2003).

Disability: Even in countries where the laws and policies do not explicitly marginalize disabled peoples, they face discrimination in the form of institutional abuse, prejudiced attitudes, and limited opportunities for education (Elwan

1999). In the United States, women with disabilities are five times more likely to receive less than eight years of schooling compared to non-disabled women (Human Rights Watch 2006).

Violence and Security Issues

School-related gender violence is a pervasive violation of girls' right to education. Violence against girls is manifested in several ways ranging from teasing and intimidation to sexual harassment, physical abuse, and rape by male classmates and teachers. The consequences for girls experiencing violence within a school setting include loss of concentration, low self-esteem, depression, poor academic performance, and higher drop out rates as well as unwanted pregnancies, STD, and HIV infections (Panos Institute 2003). Due to fear of retaliation, complicity of school administrators, and nonexistent guidelines and channels for addressing violence at school, most of these abuses are seldom reported (USAID 2003).

Social and Cultural Issues

Cultural practices and social attitudes also significantly contribute to limiting the opportunity for girls to benefit from education. In most countries, investing in girls' education is perceived as unnecessary because women are less likely to find employment in the formal sector. In some cases, the education of girls is seen as having a corrupting influence because of increased mobility and relative freedom at school, thereby making them less desirable marriage partners (Miske & VanBelle-Prouty 1997).

Factors Undermining Educational Goals and Policies

Factors that undermine the pursuit of gender equity in schooling include the debt crisis, negative influences of the World Bank and IMF policies, and the lack of gender-responsive budgeting.

Debt Crisis

In 1999, 62 of the most impoverished countries were transferring US\$128 million every single day to service their debts. Additionally, for every dollar these countries receive in aid, they pay out US\$13 on outstanding debts (Ambrose 2001). Excessive debt diverts resources away from critical services, such as health and education, further impeding development, and poverty reduction. In Tanzania where education was free, large debt payments led to the introduction of school fees, excluding millions of children, particularly girls, and also resulting in a severe shortage of teachers due to pay cuts (Lea 2005).

The World Bank

According to UNESCO (1998), the World Bank's contribution to education in

1995 comprised 28% of all loans and assistance. Consequently, the World Bank exerts considerable influence in guiding the education policies of recipient countries. The World Bank's major neoliberal policy recommendations on education, which essentially have been "simplistic and standardized," include privatization, cost recovery through user fees, demand-side financing (i.e., focusing on infrastructure instead of quality and equity issues), decentralized school management, and transferring subsidies from higher education to basic education (Alexander 2002). These approaches undermine the quality of education provided in a number of ways: they widen ethnic, class, and urban/rural divides in educational access; they undercut teachers' rights and job security; and they leave institutions of higher learning under-funded and non-functional (Alexander 2002).

International Monetary Fund Policies

The IMF's structural adjustment programs imposed on developing nations places ceilings on public spending on social services including teacher salaries. The fiscal austere policies advocated by the IMF make it virtually impossible for countries to improve and transform the education system to accommodate all excluded children, especially girls. This has forced countries to reallocate funds from higher education to finance primary education. Spending cuts on education and wages contribute to shortages in teachers, further compromising the quality of education.

Lack of Gender-Responsive Budgeting

To date, gender equality in education has been an elusive goal in part because sufficient funding is rarely attached to policy commitments. National budgeting procedures often fail to address the diverse roles of men and women and often overlook contextual factors (e.g., race/ethnicity, social class status, rural/urban location, and disability) that influence access to services and resources. Resources, therefore, are allocated from a gender-neutral perspective which tends to strengthen existing imbalances. Gender-responsive budgeting provides a mechanism for restructuring and disaggregating expenditures based on their distinct impact on men and women (Balmori 2003).

Analysis and Future Action

The development of solutions to problems of gender equity and equality in education identified in the previous sections should begin with the analysis of and re-consideration of the meaning of quality from a gender perspective (Stromquist 2005).

A focal point of a gender approach to quality in education is the content of the curriculum (Stromquist 2005). Specifically, the curriculum should transcend traditional disciplines and include transformative messages in favor of a less

polarized gender identity. Curricular changes designed around gender equity should contribute to the development of personalities with assertiveness, self-esteem, respect for democratic behaviors in school and society, and the exercise of an autonomous citizenship de-linked from marriage and motherhood. Additionally, they need to assess and challenge the culture of authority, hierarchy, and social control in schools that may negatively affect the opportunities and roles of women and girls.

Problems in Implementing Solutions Suggested by Research Findings

Despite broad-based awareness and a solid body of research on the need to integrate and institutionalize gender equity issues in development and education strategies, these analyses and recommendations rarely translate into concrete and effective action and solutions. Using a gender perspective to pursue quality in education must overcome a number of problems.

Lack of Gender Knowledge by Policy Makers

Among policy-making bodies and individuals at the national and international levels, gender is not regarded as a “core competence” area (Kabeer 2003). Thus, there is an acute lack of gender knowledge and expertise among policy makers. Subsequently, policy mandates that specifically addressed issues of gender equity tend to be under-funded, sketchy, and isolated from national plans.

Male Perceptions and Biases about Women’s Issues

The regulations and practices of policy-making bodies are intrinsically informed by male-dominated world-views and ideologies. The strong resistance to mainstreaming gender in development and educational policies derives from deep-seated biases about women’s economic and social roles. Additionally, there is concern among representatives of ministries and international agencies that planning across gender lines would infringe on other budget allocations (Kabeer 2003).

Women are Unempowered to Affect Policy Changes

Generally, knowledge of and proficiency in gender issues lies with the primary stakeholders—women. However, female activists and women-oriented organizations are rarely engaged or consulted in policies related to gender concerns. Even in situations where formal women’s institutions exist, women are seldom involved in policy advocacy, planning, or oversight. Rather, women’s ministries are consigned to social and welfare sectors and are completely detached from central decision-making processes and mechanisms. Women’s ministries are also tied to the interests and goals of the governing parties and, as such, are unable to exercise any autonomy (Bell, Byrne, Laier, Baden & Marcus 1996). Women also lack crucial political, social, and economic resources that could enhance their

agency and capacity to initiate policies that renegotiate and alter patriarchal structures (Kabeer 2003).

Role of Media in Generating Collective Gender Stereotypes

The media is powerful in shaping and influencing societal perceptions about women's roles. Women are either portrayed as the archetypal passive wife and mother or are objectified, diminishing their numerous contributions to society. The lack of alternative and independent media outlets further solidifies these negative representations of women as the norm.

Competing Gender Agendas

Disparate gender-transformation agendas and expectations that arise from women's diverse experiences and needs (i.e., urban/rural, social, race, and ethnicity) have yet to coalesce. Women at grassroots levels are working to solve practical problems impacting women's day to day survival (e.g., land tenure, access to credit, and expanding health services, and others), while academicians focus on a more abstract vision as well as tangible goals such as women's legal rights and political participation.

Weak Communication among Women's Groups (Within and Across Regions) about Research Findings

The various organizations representing women's interests rarely forge stronger global networks and links to better facilitate access and exchange of research findings and their implications for policies on women. Partnerships among activist organizations, civil society, and research institutions are needed to combine resources and the expertise for publicizing and advancing successful and empowering strategies. A concerted effort is also needed to translate research findings into effective and inclusive action.

Potential Solutions

The issues identified above relating to gender and education suggest several implications for policies that support solutions and progress toward gender equity and equality. A policy framework for addressing solutions must consider four essential characteristics of policy. First, despite the fact that 152 signatory countries to the MDGs have *written* policies on achieving gender parity/equity in education, it does not automatically follow that these policies are well-conceived or that they will be enacted in the particular form intended. Second, enacted policy inherently involves a struggle among stakeholders at different levels with competing objectives. In gender education, different political, economic, technical, social, or cultural objectives may dominate or be pursued simultaneously. For example, girls' enrollment and completion rates are never merely technical

acts of counting persons, but instead involve assessing quality factors such as school learning environments, knowledge gained, and relevance of the curriculum to the vocational and occupational goals of women. Third, policy-makers at national/governmental levels often deploy particular discourses in relation to gender education as both tactic and theory in a web of power relations that influence both quality and equity. Fourth, policy does not exist without practice. Gender education is simultaneously a philosophy and a practice based on particular ideologies and discourses.

This conception of policy—as a struggle that takes different forms and is exercised at different levels with different objectives and under different conditions of power relations—provides a useful lens for analyzing policy implications in gender education. Five key policy needs and implications are set forth here.

Mobilize Policy-Makers as Change Agents through Training and Support

Policy-makers need training, mobilization, and support in order to act as change agents. Policy-makers include not only governmental civil servants and donor agency workers, but also those at the grass-roots levels (e.g., women-led NGOs and informal feminist networks). A tiered approach to policy development and enactment begins with women’s projects and expands to projects that target women with diverse characteristics within their mission and activities (e.g., agencies that support those with disabilities and other marginalized minority groups). The next tier expands the scope of policy in gender education to focus on influencing mainstream gender and education projects. Building on a grass-roots base to mobilize and empower change agents begins to redress the imbalance of power relations.

Training for mobilization must focus not only on increasing participation in policy development, but also participation in the critical corollary activities of research that influence policy decisions. Neoliberal technical/rational notions have weakened both policy and research in gender education, first by making states less responsive to the well-being of their citizens, and second by linking large-scale studies of gender education almost solely to economic/market competition notions of productivity. Through training, policy-makers must learn to conceptualize and define gender in ways which ensure that holistic, democratized approaches drive research and policy agendas. Further, emphasis must be placed on the *quality* of learning opportunities, not only on *access* to formal schooling.

Undertake a Dual-Track Approach to Gender Education

Along with a tiered approach to training and mobilization, a dual-track approach must be undertaken that simultaneously focuses on global policies and local realities. This focus needs to pinpoint and address disparities between local reali-

ties and global policies. Related to this issue is that the MDGs focus on primary education alone, overlooking the fact that education constitutes a continuum that includes secondary, tertiary, and life-long education opportunities. Solutions to the problems of gender education must take these disparities into account across the continuum.

Develop Partnerships through Intentional Coordination and Collaboration

In order to address the current imbalance in power relations and increase participation at grass-roots levels, partnerships among non-governmental organizations and higher educational institutions must work on gender issues to disseminate research findings broadly. These partnerships must involve both South-South as well as North-South collaboration and coordination. Disseminating findings at scholarly associations must be expanded to presentations to the general public in order to obtain grassroots support. Memberships in various foundations and grass-roots organizations facilitate the targeted publicizing of research findings as well.

Hold International Donors Accountable for Increasing Education Budgets

Donors and nation states must be held accountable for increasing education budgets, including budgets for research on gender education. Lewin (1993) argues that resource constraints are not the only deterrent to access and quality issues in education. Failure to provide an adequate education “is the result of conscious decisions to allocate resources for other purposes whether these are military, excessive levels of borrowing to sustain levels of public expenditure, or other preferred uses of public funds” (p.23). Solutions to problems in gender education will not be forthcoming without a return to critical levels of commitment to and investment in education and research.

Balance and Expand the Research Agenda

Research in gender education must attend to better data collection processes as well as the quality of the data collected. For example, disaggregated data, qualitative and quantitative research methodologies must be balanced. Research must not only focus on outcomes and large-scale studies, but must also be informed by case studies and action research projects as well. Packaging and translation of research findings to educate policy makers must take different forms, depending on the target audience. For example, pamphlets and other alternative formats to scholarly journals must be created and disseminated to grass-roots organizations, NGOs, and field workers in donor agencies. Action research projects that include women as active participants in the development, implementation, and dissemination of research findings constitute a critical aspect of this work as well.

Conclusion

Much is at stake in transforming gender education in order to achieve the goals of quality education and gender parity. Policy-makers, educators, donor agencies, national governments—all those concerned with gender education—must invest beliefs, resources, and intellectual problem-solving abilities to achieve these goals. Inequalities in gender education are a reflection of the value society places on women's education and indicate deep-rooted social and economic hierarchies (i.e., race, class, age). The current political priorities and agendas say more about collective values and philosophical commitment to gender parity in education than they do about the capacity to provide it. If the world community is to meet the MDGs of gender equality and empowering of women, all those concerned are challenged to commit to providing support. Opportunities will manifest themselves in the day-to-day tasks that are undertaken with individual girls and women, in classrooms, in schools, and in society. The process of transformation involves the complex interplay of the factors that we have outlined here, and must be viewed within the context of the broader political, social, and economic processes of change. Transition does not take place at a single moment, but is a lengthy process involving mobilization, resources, collaboration, and coordination at multiple levels and taking into account global policies and local realities.

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Notes

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6

Inequalities in Education for People with Disabilities

Susan J. PETERS

Introduction

Disabled people's exclusion from education sectors—both formal and informal—is a global phenomenon. Disabled people face injustice and discrimination in every country in the world, regardless of national boundaries, national wealth or national poverty. Increasingly, the global agenda encompassed in Education for All (EFA) initiatives, recognizes that the twin goals of poverty reduction and effective access to education cannot be achieved without addressing the rights of 600 million disabled people worldwide, 70% of whom reside in countries of the South,¹ and particularly in the Asia/Pacific and African regions (Helander 1992).

Recent UNESCO studies indicate that 1-2% of disabled people in countries of the South receive an education (IDDC 1999). Recent World Bank estimates indicate that people with disabilities may account for as many as one in five of the world's poorest people (Elwan 1999). Poverty and lack of education go hand in hand, and lock disabled people into a chronic cycle. Exclusion from education and employment means limited social contacts, poor health, and low self-esteem. As a result, income-generating opportunities become further reduced, leading to chronic poverty, further exclusion, and higher risks of illness, injury, and impairment (Yeo 2001, p.11).

However, impairment does not inevitably lead to disability and poverty. It is at the point of discrimination that the cycle could be broken. If disabled people are denied educational opportunities, then it is the lack of education and not their disabilities that limit them. To address discrimination, a recent United Nations (2002) report challenges all 189 signatory governments to the UN Convention on the Rights of the Child to “take all measures to ensure the full and equal enjoyment of all human rights and fundamental freedoms, including equal access to health, education and recreational services, by children with disabilities and children with special needs, to ensure the recognition of their dignity, to promote their self-reliance, and to facilitate their active participation in the community” (pp.5-6). This challenge encompasses four basic aspects of equity in relation to people with disabilities (OECD 2004, p.17):

1. *Equity of access or equality of opportunity* refers to the full range of resources and services (e.g., health, welfare, transportation, income generation) needed to enroll in school;
2. *Equity in terms of learning environment or equality of means* refers to the quality of teaching, curriculum, and instruction provided for participation in school;
3. *Equity in production or equality of achievement (or results)* refers to the direct outcomes of school (e.g., diplomas, occupational, political, and recreational skills preparatory for post-school activities);
4. *Equity in terms of realization or exploitation of results* refers to the cultural, economic, and social capital that provides life-long opportunities for productivity and community participation.

Several significant barriers to achieving equitable rights and fundamental freedoms for disabled people exist: (1) lack of reliable or comparable demographic data; (2) lack of conceptual and attitudinal understanding regarding impairment and disability; (3) lack of governmental enforcement of law and policy concerning disabled people; and (4) lack of coordination across sectors that results in fragmented, uneven, and difficult to access services. In addition, these barriers are contextually dependent on cultural, economic, and political factors that constitute both causes and effects of the discrimination inherent in educational inequality.

Despite these barriers, a growing number of programs in countries of the South have begun to effectively address exclusion from education for disabled people. A twin track rights-based approach is being adopted that combines participation of disabled people in mainstream development work with initiatives aimed at empowering disabled people as advocates for change. Five principles are inherent in this approach: social protection, accessibility (both physical and programmatic), consciousness raising, participatory decision making, and capacity building/control of resources and benefits (DFID 2000).

Several countries' initiatives have taken lessons learned from countries of the North and adapted an inclusive rights-based approach to education that is responsive to cultural, political, and economic contexts. The experiences of South Africa provide a promising rights-based approach within the African region. Selected provinces in India provide a contrasting example of a charity-based approach to educational needs from the Asia/Pacific region. These regional examples provide a platform for developing future research, policy, and practice.

After a discussion of the barriers to educational inclusion and equity, an analysis of existing case studies from two countries are presented in this chapter, followed by recommendations for future strategies in the domains of research, policy, and practice.

Statistical Information as Both Cause and Effect of Inequality

Virtually all of the major reports concerning disability issues cite the lack of reliable data. Numbers are important for government officials, policy makers, and all kinds of decision makers at all levels of civil society. Numbers reveal the extent and scope of a problem as well as assist in assessing supply and demand for access to a given service. In addition, demographic data provide decision makers with information needed to target services to specific geographic areas (urban or rural), age groups (infants, children/youth, adults), and other important status markers (gender, race, economic level). Numbers collected over time illuminate patterns and trends in populations, assisting decision makers in anticipating future demand for services.

However, numbers alone do not tell the whole story. Effective data collection itself is dependent on both reliable sources and the methodology employed as well as on significant cultural, economic, and political factors. In addition, statistical data must be interpreted and analyzed, and can be easily manipulated through established priorities, quotas, and formulas. Current census data on disabled people provide a significant case in point.

Systems of counting disabled people are dependent on several factors and as a result, vary to a great extent from country to country. In countries of the South, four categories/types of disability are typically recognized: physical disability, blindness, deafness, and mental retardation. In countries of the North, the numbers are influenced by the recognized disability categories and range from two in Denmark to more than 12 in the United States. For purposes of identifying disabled children in need of special education services, the UK recognizes only one category—exceptional children (disabled as well as gifted). Other countries, such as South Africa, include counts of non-disabled children in special education needs (SEN) categories; for instance, refugee children, street and working children, children who are environmentally disadvantaged due to war or AIDS, and children from linguistic, ethnic or cultural minorities.

Economic, cultural, and political contexts influence these differences. In terms of economics, the UN Disabilities Statistics Database (DISTAT) reports higher disability rates in the North as compared to the South due to greater resources for detection and medical treatment which impact survival and life expectancy rates. For example, relatively wealthy countries of the North spend as much as 40% of their education budgets allocated to “special education” for the purposes of diagnosing and labeling children with mild (and often “hidden”) disabilities such as those labeled as learning disabled in the United States. Learning disabilities currently constitute the largest category of childhood disability in the US—almost 50% of six million children receiving special education services (PCESE 2002, p.3). The definition of “learning disability” is highly contested in

the US and is open to interpretation. Some researchers have estimated that as many as 80% of all children attending public school (K-12 Grades) in the US could be labeled as learning disabled depending on professional discretion at the local school level. However, the federal government has established a cap on educational funding of 12% of the total population, arbitrarily delimiting overall numbers. By contrast, in countries of the South, only “objective cause” or visible impairments are counted, mainly due to the lack of infrastructure, professional expertise, and resources needed to identify these more subtle learning difficulties.

Cultural influences on identification and labeling manifest themselves in the degree of stigma attached to disability and impairment. Door-to-door censuses undertaken in countries of the South, in all probability, may grossly underestimate numbers of disabled people. In many countries, impairment may be a cause for shame and there are often strong disincentives to reveal a disabled child.

Political contexts influence statistical data as well. When revenue and access to services in the form of governmental funding formulas is attached to identification, statistical numbers vary greatly. This phenomenon has been evident in the US as well as other countries of the North.

Finally, the structural antecedents of the systemic links between poverty, race, and disability are rarely considered in research and policy concerning learners with disabilities (Slee 1996). African American children are over-represented within the special education category of mental retardation in 38 states in the United States. In five of these states, the rate is four times greater than a White child (Parrish 2002, p.21). This mental retardation label adds ability to the composite of racial and social class markers (Artiles 2003, p.177). In his seminal treatise on the paradoxes and dilemmas of special education, Artiles (2003) addresses this over representation and asserts that the historical, cultural, and structural links between poverty, race, and disability are rarely considered. He argues that research on over representation ignores the structural correlates of poverty (e.g., resource poor schools) and the social structures of educational settings. Artiles (2003, p.176) concludes:

We need to ask tough questions about the role of culture and power in learning and disability, and the visions that inform the work we do with students who have historically faced great adversity. . . . My expectation is that such introspection will contribute to the creation of a pluralistic educational system that informs its research knowledge base with a historical and cultural consciousness.

From these selected examples, among the many more that could be cited, it becomes evident that economic, cultural, and political factors highly influence statistical numbers. Tomasevski (2003) adds what may perhaps be most important of all:

The absence of causal analyses treats poverty like a weather forecast; something to record as a fact beyond anybody's influence. If we fail to ask why people are poor [or disabled] we cannot tackle poverty when it results from denials of human rights. (p.126)

Causal factors not only create disability through systemic methods of identification and labeling, but also create effects in terms of equitable access to services that result to quality of life opportunities (equity of results) throughout the individual's life span.

Causes and Effects of Conceptualizing Disability

Several assumptions and conceptual understandings about disability underlay classification and counting systems with significant implications for equity in terms of quality of outcomes. First, it is necessary to understand the distinction between impairment and disability. Disabled People's International promotes the following distinction: impairment is the loss or limitation of physical, mental, or sensory function on a long term or permanent basis. Disablement is the loss or limitation of opportunities to take part in the normal life of the community on an equal level with others due to physical and social barriers (Rieser 2000). Impairment conceptualizes the individual as in need of medical treatment. Disability conceptualizes the environment as the catalyst for disability when it is constructed in such a way to limit opportunities—either in terms of physical barriers or attitudinal barriers. Attitudinal barriers may also become institutionalized in the form of policies and regulations that limit disabled people's participation in activities of civil society.

In 2001, the World Health Organization (WHO) adopted the International Classification of Functioning, Disability, and Health (ICF) that recognizes the distinctions cited above. ICF defines two interacting dimensions of disability: individual bodily functioning and environmental factors. This definition shifts the focus from impairment as an individual deficit to disability as constructed through the interaction of the individual and the environment. This distinction between impairment and disability is an important one for education. A focus on individual students means that students must either be "cured" or fit in if they do not want to be denied access to "regular" education. Focus on the environment means schools and teachers must accommodate individual learners (Peters 2003, p.6).

Although WHO and other organizations, such as Disabled People's International, promote the social/environmental concept of disability as disablement, much of the exclusion experienced by people with disabilities stems from the still pervasive medical/individual deficit concept of individual impairment. The medical view is reflected in the two-track system of "special" and "regular" education, supported by a two-track system of teacher training. Parallel systems essentially segregate disabled people (and teachers) from their peers and result in

large-scale institutionalized inequalities—both in terms of educational quality and results. This situation is exacerbated in countries of the South where decisions to allocate limited resources disproportionately impact those perceived as being outside the mainstream of education (i.e., students labeled as disabled and in need of special education services). By contrast, initiatives for inclusion that move away from a two-track system have opened up opportunities for students with disabilities and have also proven to be more cost effective (Metts 2000). The major barrier to inclusive education or a one-track system that educates all students together has not been limited economic resources but the attitudes embedded in a two-track model based on charity and individual deficits rather than rights and social inclusion. Governments have traditionally abrogated responsibility for disabled people’s education to charity organizations such as the church, ministries of social welfare, or certain nongovernmental organizations (NGOs) such as Societies for Crippled Children.

The charity model is difficult to overcome, with its pervasive basis in societal attitudes. It is no accident that advocacy organizations of disabled people have focused their efforts on addressing inequities at the level of consciousness raising and changing societal attitudes. From disabled people’s perspective, attitudes constitute the largest barrier to inclusion and equity.

Common language usage reveals the extent and source of these attitudes. For example, the Bantu languages in Sub-Saharan Africa use the suffix “-rema” or “-lema” (i.e., becoming heavy, failing, or experiencing foolishness) in words that refer to individuals with impairments. These language suffixes carry the connotation that having impairment makes an individual incapable of fulfilling societal roles. These suffixes are often coupled with prefixes (“ki” or “chi”) that denote inanimate objects or animal referents; a disabled person in Zimbabwe may thus be referred to as “chirema.” This view of people with disabilities as objects, things, or animals “is demeaning and pejorative even in these cultures and yet continues as acceptable everyday practice” (Chimedza 2006, p.423).

Similar terms exist in Latin America and the Caribbean. Common Spanish terms for disability—*invalides* and *discapacidad*—invoke negative images of non-productive persons who are rendered invalid as citizens of the state in language that is reflected in practice (Hernandez-Licona 2004, p.4).

In India, for traditional Hindus, caste is integral to their world view and is based on circumstances of birth. Disability is widely viewed as impure and as a punishment for misdeeds (Mitchell & Desai 2005, p.180). The position of women in India makes them among the most oppressed in the world.

Coleridge (1996) further explains: a disabled woman therefore suffers a multiple handicap. Her chances of “marriage are very slight, and she is most likely to be condemned to a twilight existence as a non-productive adjunct to the household of her birth” (p.154).

In fact, this “twilight existence” is also evident at the research/policy level. Rousso (2003, p.4) emphasizes:

The biggest barrier to educational equity for girls with disabilities may be their invisibility. They are not on the radar screen of either those committed to educational equity for girls—because as a rule, disability is not included in their work—or those committed to education equity for children with disabilities—because with similar oversight, gender is not considered.

This invisibility ignores the plight of disabled girls. For example, a recent global survey on HIV/AIDS and disability found that disabled women, as compared with both non-disabled *and* men with disability are less likely to be educated, more likely to be unemployed or marginally employed, less likely to marry, and more likely to live in a series of unstable relationships (Groce 2004).

The culture of independence and emphasis on individual differences in the United States contrasts sharply with Asian notions of inter-dependence and emphasis on the family. These contrasting cultural differences promote different causes and effects in terms of disability. For example, Shen (1993) argues that Confucian ideas and the concomitant values of Chinese society promote social order and personal dignity to be derived from right conduct and social approval across familial generations. However, Shen further argues that throughout Chinese history, “traditional views which promoted discriminatory practice toward the disabled have been quite powerful” (p.243). For example, the expectation of reciprocity, whereby children would care for aging parents, works against those children who because of disability are not able to fulfill these obligations. Confucian doctrines further argues for a perfectionist view of mental health so that it is not surprising that disabled individuals were subjected to shaming and that many disabled children continue to be hidden by their parents (Shen 1993, p.245). Since the Cultural Revolution in China (1966-1976), China’s transition to a market economy has increased the marginalization of individuals with disabilities (Stone 2006, p.433).

These examples of culturally embedded attitudes render the severity of an impairment inconsequential compared to the social consequences of disablement or equity of results. In India, a girl with a slight disfigurement may be fully functional but may be considered impure and unfit for marriage, making education unnecessary in the eyes of her parents. By contrast, a boy with severe multiple impairments in other cultural contexts, such as Europe or North America, might be offered comprehensive support services in school and technological aids that greatly diminish the functional impairment. Essentially, “cross-cultural differences in the interpretation of disability show that the lives of people with disabilities are made more difficult not so much by their specific impairment as by the way society interprets and reacts to disability” (DFID 2000, p.8).

In countries of the South as well as in the North, medical treatment and in-

tervention is necessary but not sufficient. Social exclusion and inequities of outcomes emanating from attitudes toward impairment must be addressed at the societal level. For individuals, access to health care and medical treatment is a necessary prerequisite that provides them with the strength to form groups and to advocate for their rights. The subsequent empowerment—targeted to changing attitudinal discrimination embedded in cultural beliefs and institutionalized through government policies—becomes the means of overcoming a disability and cannot be achieved by medical care alone.

The Role of Governmental Law and Policy in Addressing Inequalities

Equity in terms of quality and outcomes is fully endorsed and specifically cited by the United Nations and its agencies. Several significant international texts and instruments explicitly include rights of persons with disabilities, including the United Nations *Standard Rules on the Equalization of Opportunities for Persons with Disabilities* (1993); the International Labour Organizations (ILO) *Convention on the Vocational Rehabilitation and Employment of Disabled Persons* (1983); the UNESCO *Salamanca Statement and Framework for Action on Special Needs Education* (1994); and UNESCO's *The Dakar Framework for Action* (2000a). In 2006, the *Comprehensive and Integral International Convention on the Protection and Promotion of the Rights and Dignity of Persons with Disabilities* was adopted by the United Nations General Assembly. The right to inclusive education as an entitlement for disabled learners is enshrined in Education Article 24 of this convention (United Nations 2006).

As with cultural attitudes, law and policy concerning educational rights of disabled people have shifted—albeit sporadically—from an emphasis on assisting the disabled individual to a focus on society and exclusionary policies. The Dakar report on EFA progress since Jomtien states:

Concern about inclusion has evolved from a struggle in behalf of children “having special needs” into one that challenges all exclusionary policies and practices in education. . . . Instead of focusing on preparing children to fit into existing schools, the new emphasis focuses on preparing schools so that they can deliberately reach out to all children. (UNESCO 2000b, p.16)

This developing focus on law and policy has been responsive to concerns growing out of Despouy's (1993) report entitled *Human Rights and Disability* and the Disability Awareness in Action Data Base launched in 1999. Both of these sources have documented widespread human rights abuses against disabled people. The DAA Data Base reports violations of the 30 articles contained in the UN Universal Declaration of Human Rights. With respect to violations pertaining to education, the data base contains 118 documented cases affecting 768,205

disabled people in 67 countries, constituting the sixth largest category of the 30 articles (Light 2002).

Within the past decade, several World Congresses have passed resolutions and declarations with relevance to inclusive education for people with disabilities.

- The Declaration of Managua (1993)
- The Inter-American Convention to eliminate All Forms of Discrimination against Persons with Disabilities (1999)
- The 1999 Declaration of the African Seminar on Development, Cooperation, Disability and Human Rights (establishing the Pan-African Decade of Disabled People 2000-2009)
- The Beijing Declaration on Rights of People with Disabilities in the New Century 2000
- The Declaration of Quebec (2001)
- The 2001 African, Caribbean and Pacific-European Union resolution on Rights of Disabled People and Older People in ACP countries
- Disability Rights—A Global Concern Conference (London, 2001)
- The Declaration of the 2002 World Assembly in Sapporo
- The Declaration of Biwako (2002)
- The G-8 Commitment to Inclusion (2002)
- The European Year of Disabled Persons (2003)
- The Cochin Declaration (2003)

In 1994 and 1997, two independent studies produced survey data analyzing UN member states and the existence of legislation or policies pertaining to education for persons with disabilities. Of the states responding, about 85% did have policies, but conformity and implementation lagged far behind (Michailakis 1997). This lag between policy development and enactment has led monitoring bodies, such as the UN Committee on Rights of the Child, to push for including individuals with disabilities as full participants in the bodies and procedures by which laws and policies are formulated, implemented, and evaluated (Lansdown 2001). Laws and policies are seen as necessary but not sufficient to address current inequities (both in terms of access and results) and to afford disabled people the right to education.

Redressing Inequalities through Service Sector Coordination

EFA global assessment reports indicate that worldwide, 63% of education costs are covered by governments; 35% by private sector agencies; and 2% by external support from international donors (Torres 2000). Services are often fragmented, uneven, and difficult to access. Level of funding and resources appears

to be not as much of an issue as that of distribution, coordination, and allocation of funds (Peters 2003).

Four key actors involved in service sector coordination are transnational organizations (e.g., International Monetary Fund [IMF] and The World Bank), governments, NGOs, and donors. At the transnational level, the neoliberal model of development imposed on countries by IMF and the World Bank stresses deregulation, decentralization, and privatization. This emphasis reduces governmental power to provide social welfare. At the national level, structural adjustment programs have led many countries' governments to reduce education budgets and social welfare safety nets, disproportionately affecting people with disabilities.

NGOs have traditionally provided critical services and supports, especially for people with disabilities. These organizations have grown in numbers to the point that more than 14,000 indigenous rural development NGOs are currently working in India alone (Coleridge 1996, p.156). As a special type of NGO, Disabled People's Organizations (DPOs) have also multiplied exponentially over the past decade to address gaps in services across sectors. The Indian government currently works with over 1,500 NGOs in the disability sector (Mitchell & Desai 2005, p.180). A report by the UN Economic and Social Commission for Asia and the Pacific asserts:

The diversity of DPOs and their local and international supporters, as well as their wide range of actions and competence are considerable assets. However, their efforts are usually uncoordinated, since each often confines its activities to its own members. (ESCAP 1999, p.96)

It is generally recognized that multisector collaboration is necessary for full participation and equality of opportunity for people with disabilities. For example, employment and successful vocational integration depend on educational integration which in turn is dependent on family support and access to health care, including assistive devices such as hearing aids and prostheses. Access to these services also involves costs, necessitating social welfare assistance. In addition, for each of these services, specialized training in areas such as physiotherapy, child development, and special education is necessary. While most citizens' needs are met by sectoral governmental ministries, disabled people's services typically are the responsibility of a single ministry—usually the ministry of social welfare. When services are centered in the ministry of social welfare, the result is often lack of responsibility on the part of other ministries and inappropriate services. Compounding this effect, transnational corporations promote radically different approaches to services. WHO promotes a medical rehabilitation approach; UNESCO promotes inclusive education policies; ILO focuses on employment; UNICEF focuses on prevention of impairment via health and immunization programs (Yeo 2001, p.17). Add to this mix, the plethora of NGOs

with different clients and goals along with their donors, and the results are often a tangled web of services difficult to access or navigate.

This state of affairs has led many in the disabled people's movement to advocate a policy of "Nothing About Us Without Us" coined by a disability rights advocate, Friday Mavuso, in South Africa. Echoing this policy, Ed Roberts, one of the leading figures of the disability rights movement at the international level, has said: "If we have learned one thing from the civil rights movement in the US, it's that when others speak for you, you lose" (Driedger 1989, p.28). James Charlton (1998) adds:

The disability rights movement's demand for control is the essential theme that runs through all its work, regardless of political-economic or cultural differences. Control has universal appeal for DRM activists because the needs are everywhere conditioned by a dependency born of powerlessness, poverty, degradation, and institutionalization. (p.3)

This state of affairs has led the new EFA Flagship on the Right to Education for Persons with Disabilities to urge,

not only inter-sectoral collaboration (e.g., between health and education ministries) but also much broader interaction and information exchange among professional communities (educational, medical, and psychological). . . . Above all, persons with disabilities need to be involved in all aspects of policy determination, outcome measurement, and feedback and corrective mechanisms. (United Nations 2004, p.18)

Addressing Inequities: Patterns and Trends in Inclusive Education

To address inequities of disabled individuals, the world EFA declaration in 2000 clearly identified inclusive education as one of the key strategies to address issues of marginalization and exclusion. UNESCO (2002a) explains that "Inclusion was seen as the fundamental philosophy throughout UNESCO's programs and the guiding principle for the development of EFA" (p.17). In the past two decades, inclusive education programs have grown exponentially in every region of the world. In the United States, a 1994 report of the National Centre on Educational Restructuring and Inclusion (NCERI) documented inclusion programs in every state at all grade levels, involving students across the entire range of disabilities (Peters 2007, p.123). In 2003, a 30-country study documented policy toward inclusive education as a general trend in Europe (EADSNE 2003). The UNESCO Inclusive Education initiatives provide further evidence of widespread adoption with individual country reports of inclusive education in Africa, Asia and the Pacific, Latin America and the Caribbean, and the Middle East (UNESCO 2007). Enabling Education Network (EENET) reports that as of 2003,

more than a hundred districts in China have participated in inclusive education projects, including the Golden Key Project in four provinces and in Beijing, the Anhui Integrated Education Project, and the Yangtse River New Milestone Project (EENET 2006).

Despite this progress, the regions of the world with perhaps the most challenging obstacles to EFA goals and strategies are Africa and Asia/South Pacific. The level of diversity in both the Indian and South African cases highlighted in this chapter is staggering in terms of numbers, distances, languages, cultures, and resources. For example, India's population exceeds one billion people, with 18 official languages and more than 1,500 dialects. Conservative estimates of the numbers of school-aged disabled people in India range from 30-45 million (Mitchell & Desai 2005). As a continent, Africa hosts 800 million people in over 40 countries with an estimated disabled population of 50 million (Chimedza 2006). The South African government alone recognizes 11 official languages. In both countries (India and South Africa), wide differences in socioeconomic status and educational attainment exist. What this diversity means is that both countries contain a mosaic of cultures and circumstances within which disability exists. As a result, the cases described in this section should not be perceived as representative of the region or country in which they took place but as representative of contrasting experiences that may be found in any region of the world. These two examples have also been specifically chosen from among the most-populated regions of the world in order to demonstrate the challenges inherent in taking inclusive education to scale.

South Africa: The East London Community and Child Development Centre Inclusion Project

Historically, education for South African children and youth reflect massive deprivation; and for learners with disabilities, the inequities have been shaped not only by the political and economic priorities of the apartheid system but by the separation of educational provision in "specialized" schools (Engelbrecht, Howell & Bassett 2002, pp.60-61). In 1994, with the end of the apartheid regime, South Africa began the challenge of redressing school inequalities and discrimination in a context of rapid social change. Focus has been on organizing schools as dynamic learning environments with a twin focus on teacher development and organizational development. The national government has provided leadership for inclusive education through the promulgation of several policy documents, including the 1994 Report of the National Commission on Special Needs in Education and Training; the South African Schools Act of 1996; the March 1995 White Paper on Education and Training; the 1997 White Paper on an Integrated Disability Strategy; and the Education White Paper 6—Building an Inclusive Education and Training System, July 2001 (UNESCO 2002b, p.86). These pol-

icy documents reflect the all-encompassing inclusive efforts of the post-apartheid government, as evidenced by the following statement:

The adoption of a philosophy of one education system, with a resultant move towards equity, access, redress and quality education for all learners irrespective of race, religion, gender, or special needs. . . . implies acceptance of differences. Inclusion can be viewed as a basic value that extends to all children. People with special needs have a variety of ABILITIES that make them a useful part of society. The main thrust behind inclusion is thus a very specific ATTITUDE towards the norms and criteria society uses when evaluating the 'worth of a human being'. (Gateng Department of Education 1996, p.1)

While the provinces in South Africa each have their own ministries of education and respond to inclusive education in ways unique to their particular contexts, inclusive education projects are typically characterized by holistic approaches. One of the well-documented projects with a holistic approach is that of the NGO, the East London Community and Child Development Centre (CCDC) in the Central Region of the Province of the Eastern Cape. In this province, as is typical in countries of the South, three-fourths of the children under age 15 live in rural areas. This case is a synopsis of the project as reported in UNESCO's *First Steps: Stories on Inclusion in Early Childhood Education* (McKenzie 1997).

CCDC believes in education without boundaries and aims "to spread an awareness of the needs of children with disabilities and to promote their integration into society in general, especially through mainstream education" (McKenzie 1997, p.103). CCDC staff began their inclusive education project by examining their own attitudes toward, and stereotypes of, people with disabilities. Trainers for the project attended a workshop on disability issues. A survey of learners enrolled in CCDC Early Childhood School was conducted and revealed the need to focus on negative attitudes on the part of community and parents, resources, and further staff training. New Horizons pre-primary school was chosen as the site for the project with the aim of becoming a model for CCDC community-based centers.

Training for the school personnel began with a short course on inclusion that focused on understanding the reasons for an inclusive approach and why this approach is being adopted nationally and internationally (knowledge); developing positive attitudes toward disability and toward inclusion specifically (attitudes); and including children with disabilities in the classroom (skills) (McKenzie 1997, p.106). Personnel were also taught how to make adaptive equipment from natural products available locally. As a follow-up, community visits were conducted to increase acceptance and to solicit support.

Curriculum and instruction in the school was developed on the premise that teaching children with disabilities is "not a special, or an additional one, but an

integral part of what a teacher does in the classroom” (McKenzie 1997, p.105). A child-centered approach to teaching and learning promoted a sense of responsibility to the children with disabilities along with basic skills for accommodating their needs and devising adaptations in the classes. On-going supports were provided through employment of a teacher aide and a special needs consultant to the teachers.

At the same time, CCDC staff took the position that they should not wait for supportive policy development but participate in forming policy, as an integral part of the inclusion project—at national, provincial, and local levels. At the national level, several CCDC members became involved with the work of the *South African Federal Council on Disability Education Working Group*, and were appointed to a national commission. At the provincial level, they participated in development of a provincial curriculum framework for early childhood education to ensure special education needs were included. This framework is distributed to every school in the province. Finally, a regional-level working group was formed with affiliates such as the Down’s Syndrome Association, Disabled People South Africa, Societies for the Blind, Mental Health, Physically Disabled, and the Deaf. This working group provided a voice and advocated for parents of children with special education needs and for individuals with disabilities. As part of its outreach efforts, CCDC also collaborated and networked with two local hospitals, the Association for the Rehabilitation of Persons with Disabilities and the Disabled Children’s Action Groups.

Six children with disabilities were successfully integrated in the first stages of the inclusion project. From this small-scale model project, outreach and advocacy efforts were initiated to achieve a wider impact. However, CCDC reported that efforts were limited due to several factors: larger societal attitudes; stress within the educational system (e.g., underresourced and crowded classrooms); animosity within specialist schools toward the concept of inclusion; inadequate rehabilitation and health services; limited resources; and inability as an NGO to impact the formal sector beyond early childhood programs.

Lessons learned from the CCDC inclusion project describe attitudes as the primary concern: “First and foremost, inclusion is about attitudes For inclusion to become a reality, we need to expect that children will achieve their potential” (McKenzie 1997, p.110). A second primary lesson was the need for a holistic approach and that “it is not enough just to train teachers or work on policy development” (p.110).

India: Inclusive Schools and Community Support Programmes

In 1995, UNESCO launched a large-scale project, Inclusive Schools and Community Support Programmes, as a follow-up to the World Conference on Special Needs Education in Salamanca, Spain. The project embraced the principles of

the Salamanca Statement and aimed to “foster wider access and quality education for children and youth with special needs, seeking to promote their inclusion in regular education provision” (UNESCO 1999, p.11). The project was conducted in two phases. Phase one was launched and implemented in 1996-1997, with 18-member countries participating. Phase two was launched and implemented in 1998-1999, with 12-member countries included. In order to qualify for the project, member countries had to apply and were required to meet the following criteria: (1) a clearly stated policy for promoting inclusive schools and community based support programs; (2) a solid infrastructure base at national or provincial levels on which new initiatives could be built; and (3) the ability and will to serve as a dissemination base for new practice to neighboring countries (UNESCO 1999, p.58).

India participated in Phase II and was also the subject of a *Four Nations* follow-up study that examined participating schools and school districts in Mumbai and Chennai. The main objectives of the UNESCO project were to train teachers and to enlist community support. Using a trainer-of-trainers model, the *UNESCO Teacher Education Resource Pack: Special Needs in the Classroom* was introduced during a five-day workshop for master trainers. The master trainers then conducted teacher-training programs with their own constituencies. Unfortunately, the project in India was greatly compromised by a number of factors and does not seem to have accomplished its goals. First, the diversity of experience and backgrounds of the master trainers as well as the strategies and content of the training appeared to be lacking or inadequate to the task or inappropriate (UNESCO 2002b, p.38). Secondly, master trainers of a significant number of projects transferred or resigned, further compromising the second aim of the project to enlist community support.

The *Four Nations*' evaluation of selected Indian schools' projects describes programs that appeared to lack coordination and were over-whelmed by significant barriers. In the district of Mumbai officially classified as a slum district, 85% of parents are illiterate and migration is high. In one particular school, the head teacher reported that 90% of all children can be considered “disabled” due to deprivation of basic facilities. Further, children with intellectual disabilities were refused admittance and were instead seen as the responsibility of specialized schools. Teachers were ordered to go out into the community to locate children not attending school; however, none of the teachers had complied.

In Chennai, strategies to include students focused on sports and social activities rather than academic subjects. Staff demanded that disabled children must have guest student status and not wear school uniforms or use school transport. Further, if special education teachers could not be present in academic classes, then students with disabilities were expelled.

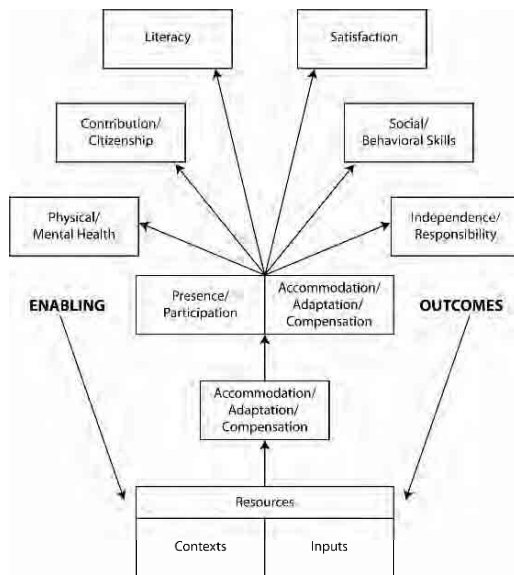
Events in India beyond the time of this project have attempted to address inequities. In 1995, India passed The Disability Act to ensure protection of rights

and full participation of disabled people and treat disability as a civil rights issue rather than a health and welfare issue. Ten years later, a member of India’s Union Cabinet announced that the Cabinet had approved a National Policy for Disabled People on December 23, 2005. This new policy aims to set up mechanisms and protections of rights to enforce the earlier act. It was formulated after an intense media campaign and pressure from the Disability Rights Group in India and others in the disability sector (DNIS 2006). If fully implemented, these laws/policies have the potential to impact more than 45 million people with disabilities in India who currently have no or limited access to education. However, Mitchell and Desai (2005) assert that “Unless the wider community, especially parents of children with disabilities and school personnel, are made knowledgeable about the various provisions enshrined in the Act [of 1995], the central and state governments’ commitment to providing integrated education will be in vain” (pp.180-181).

Analysis: A Disability Rights in Education Model for Addressing Inequalities

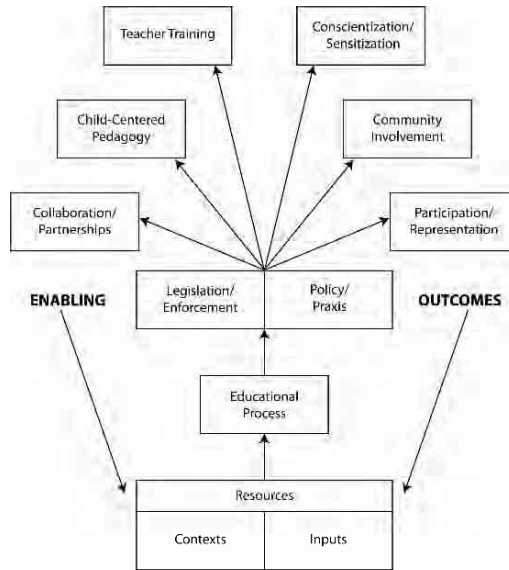
The disability rights in education model (DREM) depicted in Figures 6.1, 6.2, and 6.3 below presents a cross-national and multi-level conceptual framework as a tool for addressing inequities in education. The model provides a heuristic for

Figure 6.1: Disability Rights Education Model: Local-Level Outcomes



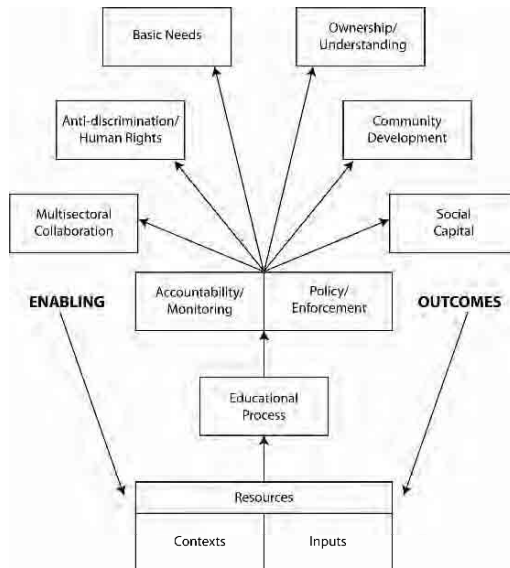
Source: Peters, Johnstone, and Ferguson (2005).

Figure 6.2: Disability Rights Education Model: National-Level Outcomes



Source: Peters, Johnstone and Ferguson (2005).

Figure 6.3: Disability Rights Education Model: International-Level Outcomes



Source: Peters, Johnstone and Ferguson (2005).

assessing the efficacy of inclusive education and for measuring educational attainment outcomes in different contexts. The DREM was constructed from disability rights declarations and other international policy documents. It addresses barriers as well as encompasses the four basic aspects of equity articulated in the introductory sections of this chapter: equity of access, equity in terms of quality, equity of outcomes, and equity of results. The DREM provides a multilevel policy framework (local, national, and international) for evaluating inclusive education, and illustrates the dynamic interrelationships between access, quality, outcomes and results. Specifically, the outcomes at the top of each level are influenced by the resources, contexts and inputs. The intermediary-enabling outcomes are essential components of the model and serve to shift the focus from neoliberal (market value) development agendas to the sociocultural (human values) identified by disability and human rights advocates and their organizations.

Using this DREM as a heuristic for evaluating the CCDC project in South Africa, all three levels appear to be addressed. Teacher training included attention to conscientization (examining attitudes), child-centered pedagogy, classroom adaptations, and outreach to the community. These strategies for teacher training directly addressed the enabling outcomes of presence and participation necessary for students' access to a quality education. The CCDC's inclusion project capitalized on natural and local resources as well as considered the sociopolitical context within which the project needed to interact in order to be successful. CCDC project personnel solicited multisector collaboration and made efforts to influence policy that would enable the project to expand its program for more disabled learners. As the CCDC report noted, weaknesses or challenges centered on CCDC's status as an NGO, making impact and change difficult in the public sector of education. As a result, the lack of accountability and monitoring capacity compromises equity in terms of achievement and results, even though a strong asset is national level policy support. Resources for expansion were also limited, pointing to the necessity for greater community involvement and support. Overall, the CCDC experience, when viewed through the heuristic of the DREM, illustrates the need for attention to inputs at a high level in terms of enabling outcomes in order to achieve the desired results of equity across all of its aspects: access, quality, and outcomes (immediate or direct and long-range or realized).

The experiences of India, as part of UNESCO's multi-country *Inclusive Schools and Community Support Programmes*, provide an exemplar with multiple challenges at many levels and across several dimensions. First and foremost, equity in terms of access appears to present a significant barrier. Disabled students' access is severely curtailed by attitudes of school personnel which can in turn be linked to inadequate and/or inappropriate training. Further, national level policy in India seems to have an inadequate link with enabling outcomes of enforcement and practice, as evidenced by the fact that teachers refused to implement community outreach. While resources were cited as barriers by the head-

master and teachers (e.g., lack of special education support personnel in classrooms and overall deprivation), the natural supports of collaboration and partnership that constitute essential inputs as well as outcomes were not reported to be utilized. Without these inputs and enabling outcomes, equity and educational attainment in terms of immediate and long-range outcomes are expected to face constant barriers.

Conclusion: Addressing Barriers

The historical, cultural, economic, and sociopolitical dimensions of exclusion and marginalization for persons with disabilities are staggering. Only 1-2% of disabled people in countries of the South experience equity in terms of basic access to education. As a result, equity in terms of quality education, production of achievement, and realization of results are severely compromised. Recognizing these inequities, the Dakar Framework for Action places a special emphasis on these learners as among the most vulnerable and clearly sets inclusive education as a key strategy to address them. The recently released Guidelines for Inclusion (UNESCO 2005), provides a way forward, strongly recommending a holistic approach that builds capacities directed at both policy and practice.

The presentation and analysis of two cases from South Africa and India, using the Disability Rights in Education Model, illustrate inclusive education as a dynamic process dependent on the interaction of several factors at multiple levels. This evaluation model constitutes a rights-based approach founded upon the four aspects of equity introduced in this chapter. The representative CCDC case in South Africa and the discussion of barriers in earlier sections of this chapter, illustrate five principles inherent in this rights-based approach:

1. **Social Protection:** Emphasis is not only on education rights but also on the prerequisites needed to exercise these rights—adequate health care, family welfare, and basic needs of food and shelter.
2. **Accessibility:** Identification and removal of barriers become included in the scope of concerns long with the physical, but attitudinal, organizational, and distributive aspects.
3. **Participatory decision making:** Inclusive education is a process that recognizes the value and dignity of disabled people and their inalienable right to self-determination. Decision making and capacity building both require the meaningful and active participation of disabled people to effect this principle.
4. **Control/capacity building:** Under conditions of scarce resources, priorities and values influence capacity. The cost of providing education for people with disabilities is inexpensive, as compared to the costs

that failing to provide education brings to society. Natural resources and community involvement through coordination and collaboration are sources of support that are largely underutilized and would greatly enhance capacity to provide education for all.

5. **Consciousness Raising:** It is at the point of discrimination that the cycle of poverty and disability can be broken. Negative attitudes inherent in a charity/deficit approach to disability constitute arguably the most significant barriers to equity. Conditions of marginalized children at the edge of a society reflect the unadorned values and aims of education and society in general.

Today's inequities and state of progress toward EFA provide both challenges and opportunities. Countries of the world are challenged to commit to EFA the inclusive education strategies contained in the Dakar Framework for Action, ratified by 152 member countries. Opportunities will manifest themselves in the day-to-day tasks undertaken with individual children, in classrooms, in schools, and in society.

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Note

¹ The terms countries of the North and South, rather than the terms developed and developing countries are used in this chapter. This choice conforms to the trend in the literature. North and South in this chapter are used as shorthand to describe the rich, industrialized countries, and those countries that are still in the process of economic development. The definition is adopted from *Inclusion in Education: The Participation of Disabled Learners* (UNESCO 2001).

7

Language and Democracy in Africa

Birgit BROCK-UTNE

Introduction

Can there be genuine democracy in South Africa when prevailing post-apartheid institutions continue to foster forms of knowledge that continue to produce inequalities which continue to underprivilege the African majority?

(Alidou & Mazrui 1999, p.101)

The forms of knowledge spoken of by Ousseina Alidou and Alamin M. Mazrui (1999) are built on European culture and tradition and delivered in European languages. The forms of knowledge that could empower the underprivileged in Africa would have to be built on African culture and tradition and be delivered in African languages. A genuine concern for social justice and democracy should lead African political leaders to work for strengthening the use of African languages. Donor pressure as well as the impact of the capital-led market economy, often called globalization, however, works to retain the European languages. Alidou and Mazrui (1999) focus on the ex-colonial (which they term “imperial”) languages as promoters of intellectual dependency to the detriment of democratic development in South Africa specifically and in North-South relations generally.

Writing from so-called francophone Africa, Paulin Djité (1990) argues:

It is hard to believe that there can be, or that one can possibly argue for, a true and lasting development under such policy when so many people do not know their constitutional and legal rights, cannot understand the developmental goals of their governments and therefore cannot actively exercise their basic democratic rights simply because they are written in foreign languages. (p.98)

Djité notes that there is considerable research that clearly demonstrates that less than 15% of the African population in the so-called francophone countries barely function in French, while 90% of the same population functions very well in the widespread African lingua francas, such as Hausa, Djula/Bamanankan, Fulfulde, Kiswahili, and Wolof.

Donors are currently very concerned about democracy and “good govern-

ance” in Africa. It seems paradoxical in such a situation that most of them are not more concerned about the fact that some 90% of the people of Africa hardly have any knowledge of the official language of their country, even though it is presumed to be the vehicle of communication between the government and its citizens. Missionaries and religious institutes such as the Summer Institute of Linguistics (SIL) are bent on reaching the minds and hearts of the masses, including the very poor. They have understood that in order for a message to get through, it must be delivered in the language people speak and use. In an interview I had with Joseph Butiku, director of the Nyerere Foundation, on 6 February 2001, he said that a primary aim of the foundation was to further democracy. When it comes to democracy it is extremely important to communicate with people in a language that they understand. In Tanzania, Kiswahili is an instrument of national unity he told me. In the talk we had he mentioned that the Catholic Church used Latin when it first established itself in Tanzania. It had been soon realized, however, that people did not understand the sermons, psalms, and liturgy. The Catholic Church in Tanzania had, therefore, changed the language used in church to Kiswahili. It proved a very wise move by the church, as Tanzanians started attending in much greater numbers.

When I did my fieldwork in Namibia in connection with a consultancy report on the use of African languages after independence (Brock-Utne 1995, 1997), many of the Namibians I met up in Northern Namibia complained that their own politicians, also coming from the north and having Oshikwanyama or Oshindonga¹ as their first language, would address them in English. They had great difficulties understanding what their own politicians were saying. Along these same lines, the use of a foreign language as the medium of instruction in school increases the inequality between students and is a threat to democracy. Doctoral theses which have been written under the Language of Instruction in Tanzania and South Africa (LOITASA) project have shown that the spread of exam scores is much larger if a colonial language is used as language of instruction than if a familiar African language is used (Mwinsheikhe 2007; Vuzo 2007; Nomlomo 2007). The use of an unfamiliar language creates losers of most of the students (Brock-Utne 2007). The structural adjustment programs that have been forced on African countries have meant reduced funding to government schools and a growth in private schools and private tutoring. In order for children to cope with the foreign medium as a medium of instruction, parents who can afford it send their children to private tutoring, thus increasing the inequality among children. The use of a foreign language as the language of science and technology, politics, the press, and the judiciary prevents a society from developing full democracy among its citizens. In this chapter, my main concern will be with the language situation in Africa and its threat to democratic development.

African Languages in the Precolonial and Colonial Periods

Zaline Roy-Campbell (1998) draws on the works of Cheik Anta Diop, who has written extensively on the African past, to point to African achievements during the age of antiquity in mathematics, architecture, chemistry, astronomy, and medicine—areas that required highly developed technical vocabulary and conceptual frameworks. This intellectual work was all done with African languages. Walter Rodney (1976) has described the process of Europe under-developing Africa, by means of technologically and scientifically deskilling Africans. Both the account of Diop and that of Rodney are a testament to the vast capabilities of African peoples realized through the indigenous African languages. One of the oldest forms of written language in the world—Ge'ez—was found in Africa in the area currently known as Ethiopia. It is still used as a liturgical language in Ethiopia. However, European mythology about Africa, which came to be accepted as the early history of Africa, did not recognize the achievements of African societies in precolonial times. From the perspective of these Europeans, the activities worth recording began with their own contact with the “dark continent.” Africa was presented as comprised of peoples speaking a multitude of tongues that did not have written forms. In contrast, Roy-Campbell (1998) points to written African languages dated to BC 3,000 that are still used today.

In Berlin, Germany in 1884, the European powers divided up the continent of Africa into regions/territories that each country would control and with which a particular European language would be associated. African countries, as colonies and even today as so-called “independent” countries, came to be defined and to define themselves in terms of the languages of Europe: anglophone, francophone, or lusophone² Africa. In most African countries even today, only about 5% of the population has one of these European languages as its first language.

The Portuguese, it seems, went further than any other colonial power in having educated Africans give up their mother tongue and substitute it with Portuguese. Yet even in Mozambique, where the policy of linguistic assimilation has gone further than in any other African country, only 9% of the population has Portuguese as its first language. However, using parental tongue as an indicator of socioeconomic origin of university students and relying on survey data, Mario et al. (2001, cited in Sawyerr, 2002) found that Portuguese, the language of privilege in Mozambique, was the parental tongue of almost 70% of Universidade Eduardo Mondlane (UEM) students and the means of family communication for over 60%.³

There was a clear difference in the language policies pursued by the British and the French in their African colonies. White (1996) claims that the main feature characterizing French colonial education was the widespread use of the French language. Though France would permit the short-term use of African languages in order to meet “immediate” pedagogical needs such as health educa-

tion and morality, all instruction had the mastery of the French language as its ultimate goal. Bakar (1988), from the Comoro Islands, tells of his school days:

Since we were considered as French ‘a part-entière’, nothing but French was taught. The whole curriculum was based on France and anything that was French, whereas Comorian, our mother tongue, was never considered to be a suitable medium of instruction. (p.184)

White (1996) writes that the French view on African intelligence enabled France to justify this policy. He quotes Inspector General Albert Charton of French West Africa who attributed “the technical inferiority” of Africans to “their ignorance of the language” (p.14) which meant the French language. He further quotes Governor General Brevie of French West Africa who in 1930 wrote that “the native’s mind can become disciplined by the mastering of spoken French” (p.14), implying that learning the French language is itself *the* education. Similarly, in so-called anglophone Africa, many people equated education with mastering the English language

Ousseina Alidou (2002) shows how formal education has been used as a tool of France’s civilizing mission in Africa. This mission included Christianity, formal education, the French language, and colonial administrative structures. The French had great confidence in their language as a transmitter of French cultural values. Aliou notes that it is in French (and to some extent Portuguese) colonies that we find the clearest evidence supporting the nationalist thesis that the imposition of European languages was an important cultural aid to colonialism. She shows that colonial education was primarily intended to educate a tiny proportion of African men to fill the lower-level administrative posts that were too junior for French officers. She further shows how the former colonial power reacted when the so-called francophone African countries tried to limit the damage of French control over the African educational system and introduce African languages as mediums of instruction. She then demonstrates how France was helped in their sabotage efforts by the IMF and the World Bank through, among other things, their support of French publishing companies and their lack of support for African publishers

When it comes to the choice of language for instruction in African schools, sociocultural politics, economic interests, sociolinguistics, and education are so closely interrelated that it is difficult to sort out the arguments. It is an area with strong donor pressure, mostly from the former colonial masters who want to retain and strengthen their own languages. Over the last couple of decades the former colonial languages have been strengthened as languages of instruction in Africa (see Brock-Utne 2000, 2002a). When it comes to the bilateral donors, it seems as though both the British and the French use development aid to strengthen the use of their own languages as mediums of instruction. In fact, there is a battle going on between French and English language proponents, with the

French being on the losing side. British Council has played no unimportant role when it comes to deciding on the language policies in Tanzania and Namibia (see also Brock-Utne 1997, 2000; Phillipson 1992). Skutnabb-Kangas and Phillipson (1996) tell of a succession of British conferences held to “assist” colonies in organizing their education systems when they became independent states in the 1960s. In these conferences, language was given very little attention; and if the issue was raised, the focus was only on the learning of English.

A British Council Annual Report admitted that although the British government no longer has the economic and military power to impose its will in other parts of the world, British influence endures through “the insatiable demand for the English language.” The report maintained that English language is Britain's greatest asset, “greater than the North Sea Oil” and characterized English as an “invisible, God given asset” (British Council 1983, p.9).

Madagascar has, like Tanzania, a national and unifying official African language, Malgash (Malagasy). For many years Madagascar succeeded in having Malgash as the language of instruction not only in elementary school but also in secondary school. During a visit I made to Madagascar in 1989, a headmaster of one of the larger secondary schools in Antananarivo told me that the year before the secondary school system in Madagascar had felt compelled to reintroduce French as the language of instruction in secondary school. “There were simply no more books available in Malgash,” the headmaster said with considerable regret. “But the French government has supplied us with textbooks in French as a type of educational aid.”

In the Seychelles, which I visited in February 1992, the language of instruction in elementary school is Creole. In secondary school it is English. French is taught as a foreign language (Brock-Utne 2000). The leading political party was a promoter of Creole. Officials in the Ministry of Education, with whom I had several conversations with about the language policy of the Seychelles claimed that all their studies showed that the switch to Creole had been beneficial to the great masses of children. Members of the elite, with whom I also talked, preferred to have English and French as official languages, as they saw the introduction of Creole, a language they looked down upon, as an imposition by the leftist government with which they were in disagreement. Some of the new parties coming up wrote their party programs in English. They wanted to reduce the use of Creole, especially as a language of instruction. They argued that the use of Creole prevented the Seychellois from participating in world culture. Mr. Ferrari, leader of the new Institute for Democracy which was formed to distribute information on democratic methods of governance in the Seychelles, told me that he had asked for some financial help from a development agency in France to further the work of the institute. He was promised the aid on the condition that the institute would use French as the medium of communication, would work for the strengthening of the French language in the Seychelles, and would distribute the

institute's brochures also in French! He declined the offer.

There are strong economic interests from publishing companies overseas who see that they will have easier access to the African textbook market when the European languages are used. There are also faulty but widely held beliefs among laypeople when it comes to the language of instruction. Among these beliefs, one finds the widespread notion that one learns English well by having it as the language of instruction. It is a fact that many parents in Africa today, if asked what language they would choose for their children as the language of instruction, answer English in the former British colonies and French in the former French colonies. If one asks them about the reasons for their choice, one sees however, that what they are really concerned about is their children being able to master these imperial languages. They mistakenly think that having the language as a medium of instruction is the best way to promote the language (Qorro 2005). Research conducted as part of the LOITASA project in a township in Cape Town shows that parents indeed would prefer to have their children to be taught in the language they and their children communicate, isiXhosa, as long as they are guaranteed that the children will also learn English well as a subject (Nomlomo 2006; Desai 2006).

Another faulty belief is that the earlier one starts having English as the language of instruction the better. In LOITASA,⁴ a 10-year research project that I am conducting together with partners in Tanzania and South Africa, we encountered many of these beliefs (Qorro 2005; Nomlomo 2006; Desai 2006).

In Search of Social Justice: The Language Policy of South Africa

African languages seldom find any meaningful legal protection under national laws. In Tanzania, according to Kamanga (2001), "there is a need therefore for the Constitution of Tanzania to explicitly recognise language as one of the grounds for discrimination for instance in Art. 13" (p.5). In an interview I had with the late Professor Rugatiri D.K. Mekacha, former head of the Department of Kiswahili at the UDSM on 5 February 2001, he made me aware of the fact that language is no longer mentioned in Tanzania's constitution. According to the constitution of 1962, Kiswahili and English should be the national languages. Since then, there have been changes in the constitution 13 times, and the issue of language has disappeared.

The South African constitution offers better protection for the African languages than does the Tanzanian constitution. In an effort to eliminate the domination of one language group by another, the drafters of South Africa's constitution decided to make all 11 of the country's major languages equal and official. These languages are English, Afrikaans, and nine African languages. The nine African languages chosen to be used in South Africa are, however, the nine main

languages developed in the homelands, the Bantustans from the apartheid period. They functioned to separate people who spoke very similar languages. Sociolinguists and policy analysts like Kwesi Kwaa Prah (2005) and Leketi Makelela (2005) claim that a better policy for South Africa would have been to concentrate on the two language groups Sotho and Nguni and develop a harmonized written form for each of these groups, while different oral forms were kept. It should be required of all South Africans to master one of these two written forms and speak a language in one of these two groups apart from either English or Afrikaans.

Neville Alexander, a former and very prominent member of the Pan South African Language Board, bemoaned the fact that the language board is not helped to work the way it should according to its statutes: “There is a lack of political will on the part of the current government to have our progressive language policy work” (personal communication, 9 February 2002). In spite of the seemingly progressive language policy of South Africa, languages other than Afrikaans and English (i.e., the nine African languages) seem almost completely absent from practical planning. The spaces opened for them in the constitution and in such important documents as the Language Plan Task Group (LANGTAG) report remain, according to Alexander, largely vacant.⁵

Stanley Ridge (2000) describes the situation as requiring a move from rhetoric to practice in key strategic areas in the interests of democracy and justice. Ridge continues, “This has been dramatically evident in the hearings of the Truth and Reconciliation Commission, where the voices which could not previously be heard in the apartheid era have spoken to South Africa overwhelmingly in languages other than English and Afrikaans” (p.62).

The Language of the Courts

The actual achievement of justice is often determined by the language used by the actors in the judicial theatre. There is still a near monopoly of English and Afrikaans in the law and legal system of South Africa, leading to the alienation of the legal system from the bulk of South African society. In South Africa two languages, English and Afrikaans, have dominated the legal field since the early colonial and apartheid days. This is in contrast to Tanzania where Kiswahili is being used as the judicial language in the primary courts. Bills come to parliament in English; however, they are discussed in Kiswahili whereupon the law is then written in English. In lower courts, both English and Kiswahili are being used, but the sentence is written in English. In 1980, Kiswahili was used in the courts 78% of the time; in the high court, only English is used (Temu 2000).

In South Africa, however, while the use of indigenous African languages was allowed in the Black homelands, Africans who found themselves with legal matters to settle within so-called White South Africa had to endure the conduct of

their proceedings in either English or Afrikaans. If they were not conversant in either language, translation services were provided. The Magistrates' Courts Act (Act 32 of 1994) places a duty on a magistrate to call a competent interpreter if he/she is of the opinion that the accused is not sufficiently conversant in the language in which evidence is given (Ailola & Montsi 1999). Ailola and Montsi note that "There can be no doubt that the exclusive by-passing of indigenous languages in enacting laws and conducting legal proceedings creates enormous obstacles for the native speakers of those languages" (p.135).

In spite of the formal recognition of the 11 official languages in the constitution, there is to date little evidence of actual court processes or proceedings taking place in any of the African languages. Section 35 of the Constitution of South Africa provides that "every accused has the right to a fair trial which includes the right to be tried in a language that the accused person understands or, if it is not practicable, to have the proceedings interpreted in that language."

Interpretations do not always work well, however. Through a concrete example Ailola and Montsi (1999) show that even when translation facilities are available, fatal mistakes can occur because there are certain expressions which are, at best, resistant to exact interpretation. Others simply cannot be translated. While most Bantu languages have a term for "killing," they have no equivalent for "murder." Thus, according to a story that was told to Ailola and Montsi by a Zambian legal practitioner, a client of his nearly incriminated himself in a crime of murder on account of an improper translation of the term. In that case, the accused had been asked in the Tsonga vernacular whether he admitted to killing the deceased. He replied in the affirmative. Thereupon, the translator turned to the bench and reported: "My lord, he says he murdered him." Had it not been for the defense lawyer's knowledge of Tsonga and his alertness in spotting the difference between "murder" and "kill," the matter would have ended there, and a conviction would have ensued. The accused could possibly have been hanged for the offence. In reality, what the accused meant to say was that he had killed the deceased, but there were extenuating reasons for his deed. Killing per se, without the requisite unlawful intent or malice aforethought, is not tantamount to "murder" (Ailola & Montsi 1999). Sometimes it is not even unlawful. Thus, killing in self-defense or in the defense of one's family or property is often lawful. Similarly, no criminal offence is attached to killing lawfully effected during war, civil strife, or lawful suppression of a crime.

In cases where the rest of the court does not understand the language of the accused, the interpreter plays a semiautonomous role. Ailola and Montsi (1999) claim that interpreters often play a subservient role in relation to the administrators of the courts, and frequently internalize the values and attitudes of their court superiors. Ailola and Montsi refer to a study by Nico Steytler (1993) from what was then Zululand showing the unsatisfactory nature of the quality of interpretation, exacerbated by the fact that the rest of the court members were not

conversant in Zulu. There was no effective means for checking the veracity of the actual interpretation, given that only the English and Afrikaans languages were recorded. There is a great need in South Africa today for lawyers and judges who speak the languages of the majority population of the country.

The Subject *Elimu ya Siasa* in the Secondary Schools of Tanzania—Change from Civics to *Siasa* and Back Again to Civics

After independence in Tanzania, President Nyerere himself started to work on the country's educational policy. He was proud of his earlier training and work as a teacher and was often called *mwalimu* (“teacher” in Kiswahili). His policy document, *Education for Self Reliance*—ESR (Nyerere 1968), is counted as one of the most important texts for all students of education in Africa. This declaration spelled out the values of the *Ujamaa* society. *Ujamaa* is a Kiswahili word which means “familyhood.” The idea was to extend traditional African values of kinship to Tanzania as a whole. The word is often heard in connection with the *ujamaa* villages, settlements that were built in order to ease people's access to water, electricity, and schools. The spirit in these villages was to be of a cooperative, “*ujamaa*” kind. The *ujamaa* villages were to be governed by those living in them. *Ujamaa* is sometimes translated as “African socialism.”

A circular from the Ministry of Education in 1968 changed the name of the subject called “civics” to *elimu ya siasa* (in daily speech often just called *siasa*). The circular explained the aims of the new subject which were to correspond to the aims of the policy of Education for Self Reliance. In July 1970, a circular⁶ was issued to secondary school teachers, instructing them to use the term *elimu ya siasa* instead of “civics” and to use Kiswahili in teaching instead of English. The aim of teaching *elimu ya siasa* was known to foster among pupils a sense of commitment to their country. The circular mentioned that apart from the necessary commitment to the country on the part of teachers, the subject could be best taught by teachers who had knowledge of history, economics, and political science. In the years between 1987 and 1992, I sat myself for many hours in the back of secondary school classrooms and observed the teaching of *siasa* (Brock-Utne 2000, 2002a). It was a subject that both students and teachers enjoyed. It was a subject where they were active, where they discussed and argued. The subject was taught in Kiswahili. I sometimes observed the same class in the following lesson where they might have geography, history, or mathematics, subjects taught in English. It was difficult to believe I was observing the same group of pupils. In these lessons they were passive and hardly said a word. The teachers were struggling with the English language; their vivacity and their enthusiasm were gone. When I talked with the teachers about the changes that I had observed, they admitted that the use of English as the medium of instruction

was a great barrier to them. They also mentioned that the syllabus for the *siasa* subject was not as detailed as for the other subjects. For example, it said in only five lines all that was expected to be covered in Form 1. This called on the creativity of teachers. They also got challenging questions from the students, so they experienced much more of a dialogue than in other lessons.

Mary Mkwizu (2003), a former teacher of *siasa*, has studied the changes that took place when civics was changed to *elimu ya siasa* and the changes that took place in 1992 when the subject was changed back to civics. Mkwizu mentions that the secondary school syllabus from 1970 says that in *siasa* in Form 1, pupils were to learn about the Arusha Declaration, Education for Self Reliance, and socialism in rural areas. In Form 2 they were to be taught about Tanganyika National Union (TANU) and Afro-Shirazi Party (ASP), the government, and the ESR philosophy. The syllabi for Forms 3 and 4 were a bit more exhaustive. However, there was no syllabus for Forms 5 and 6. There was just an instruction that students should learn about “recent” books written by then President of Tanzania Julius K. Nyerere. They should also study other books such as *Afrika Inakwenda Kombo* (“Africa Is Going Astray”), by Rene Dumont, and *Kilimo Baada ya Azimio la Arusha* (“Tanzania Agriculture After the Arusha Declaration”), by Leonard Banes. In March 1973, another syllabus was issued. It lasted up to 1976. This had a bit wider coverage in comparison to the previous syllabus. It explained in more detail all that was found in the 1970 syllabus. This syllabus was written in Kiswahili. Analyzing the syllabi for *siasa* from 1968 to 1991, Komba (1996) in his doctoral thesis points out that the aims of *siasa* assumed that there was consensus about the *ujamaa* ideology itself. This was not always so. Teachers had to grapple with this false assumption as they attempted to abide by the overall requirements of the ESR philosophy. Komba notes that the aim of *siasa* was said to be to create critical awareness of political phenomena by open, balanced discussion and analysis making use of a range of evidence and opinions. If this aim were to be fulfilled, then ambiguities, inconsistencies, and contradictions within the *ujamaa* ideology itself, according to Komba (1996, p.10), should have constituted an important part of the syllabus rather than simply being glossed over.

Changes from *elimu ya siasa* back to civics can be traced to political changes in the country from the single party system of CCM⁷ to the introduction in 1992 of a multiparty system. The Nyalali Commission, preparing for a change to a multiparty system, called upon the education system to plan strategies for making people the subject of political reform rather than passive consumers. The commission recommended changes in the subject they continued to call *siasa*. It wanted the subject to create critical awareness of political phenomena by open, balanced discussion and insisted that the subject be detached from any particular party. Mary Mkwizu (2003) finds it surprising to see that the Ministry of Education and Culture and the Institute of Curriculum Development opted for the

name civics.

The Ministry of Education and Culture issued a circular⁸ in May 1993 to introduce changes in the subject *siasa*. The circular can be seen as an attempt on the part of the Ministry to cope with the newly introduced multiparty system:

Mada za somo lililokuwa likiitwa “Elimu ya Siasa” zimerekebishwa ili kuendana na mfumo wa demokrasia chini ya vyama vingi vya siasa nchini. Somo hili sasa litaitwa “Civics” katika shule za sekondari na *litafundishwa kwa kiingereza*.

(Topics of the subject that was called *elimu ya siasa* have been changed in order to cope with the system of multiparty democracy in the country. From now on the subject will be called Civics in secondary schools and *it will be taught in English*. “Italics added. Author’s translation”)

The change in the content of a subject that had been so closely related to the philosophy of the one-party system is understandable. The change in language of instruction for this subject is, however, less understandable. In interviews that Mkwizu (2003) conducted with teachers who used to teach *elimu ya siasa*, they all complained that they were not consulted to give their views on the change in language of instruction. This lack of consultation with teachers was an undemocratic move in order to introduce democracy! Several of the teachers told Mkwizu that they had enjoyed teaching *elimu ya siasa* but could not teach civics because their command of English was not good enough for that. Others told about the lively discussions they could have when they were teaching *siasa* and the passivity of the pupils when they now had to teach the new subject in English. They felt that this had more to do with the change in medium of instruction than with change in content. One teacher said that when the teaching was in Kiswahili, she had to plan her lessons well because the students would come up with difficult questions, often from things they had read in newspapers, heard on the radio, or discussed in the neighborhood. When the teaching now was done in English, she did not have to plan the lessons much because students would not ask questions anymore. They just sat there afraid of being asked a question by the teacher. She just controlled through her constant questioning of the students that they had read what they were supposed to have read and did not engage in dialogue with them anymore. Several of the teachers also mentioned the problem of undemocratic participation in the classroom because those who are proficient in the English language (though very few and coming from the better-off homes) dominate discussions when they are supposed to be held in English.

Redistribution of Power between Social Classes

Though the legal system might function somewhat better in Tanzania since most of the court cases in the lower courts are dealt with in Kiswahili, the current

education policies in Tanzania lead to social injustice for the masses and reinstate the inequality of preindependence times. I am referring to so-called cost-sharing and privatization policies as well as the reduced emphasis on Kiswahili in secondary school.

The language question is all about power. The choice of a language of instruction in Africa is a political choice, a choice that may redistribute power in a global context as well as within an African country, between the elites and the masses. African political writers concerned with reaching the masses and not only the elites will often write in African languages. The Kenyan author Ngũgĩ wa Thiong'o (1986) found that when he started writing plays in Gikuyu, they really reached the masses. But then he also became a threat to the government and was imprisoned for a year. His radical writings in English did not lead to repercussions from the government. Choosing as the language of instruction an indigenous language, a language people speak, are familiar with, and which belongs to their cultural heritage, would redistribute power from the privileged few to the masses. I shall here quote two voices from two different continents.

A. Mahinda Ranaweera (1976), a Sri Lankan researcher and former Director of Education at the Curriculum Development Centre of the Ministry of Education in Sri Lanka, writes about the great advantages to the population of Sri Lanka that accompanied the introduction of Sinhala and Tamil instead of English as the languages of instruction—*especially* for the teaching of science and technology:

The transition from English to the national languages as the medium of instruction in science helped to destroy the great barrier that existed between the privileged English educated classes and the ordinary people; between the science educated elite and the non-science educated masses; between science itself and the people. It gave confidence to the common man that science is within his reach and to the teachers and pupils that a knowledge of English need not necessarily be a prerequisite for learning science. (p.423)

Ranaweera notes that the change of medium of instruction in science and mathematics always lagged behind the other subjects because of special difficulties, such as the absence of scientific and technical terms, textbooks, and proficient teachers. Yet he found the greatest need to switch over to the national languages in scientific subjects. He gives two reasons for this claim. First, science education is considered the main instrument through which national development goals and improvements in quality of life for the masses can be achieved. Thus, there is a need to expand science education to as many people as possible. He claims that the English medium was a great constraint that hindered the expansion of science education. Second, in order to achieve the wider objectives of science education, such as inculcation of the methods and attitudes of science, the didactic teaching approach used had to be replaced by an activity- and inquiry-based approach. Such an approach requires greater dialogue, discussion, and

interaction between the pupil and the teacher and among the pupils themselves. As Ranaweera notes, “Such an approach makes a heavy demand on the language ability of the pupils and will be more successful if the medium of instruction is also the first language of the pupils” (p.417).

Babs A. Fafunwa (1990) likewise holds that one of the most important factors militating against the dissemination of knowledge and skills, and therefore of rapid social and economic well-being for the majority of people in Africa, is the imposed medium of communication. He claims that there seems to be a correlation between underdevelopment and the use of a foreign language as the official language of a given country in Africa (e.g., English, French, or Portuguese):

We impart knowledge and skills almost exclusively in these foreign languages, while the majority of our people, farmers, and craftsmen perform their daily tasks in Yoruba, Hausa, Wolof, Ga, Igbo, Bambara, Kiswahili, etc. . . . The question is: Why not help them to improve their social, economic, and political activities via their mother tongue? Why insist on their learning English or French first before modern technology can be introduced to them? (p.103)

Prah (2000) claims that “no society in the world has developed in a sustained and democratic fashion on the basis of a borrowed or colonial language” (p.71). According to his argument, underdeveloped countries in Africa remain underdeveloped partly on account of the cultural alienation that is embedded in the use of colonial languages.

And Ali Mazrui (1996) asks:

Can any country approximate first-rank economic development if it relies overwhelmingly on foreign languages for its discourse on development and transformation? Will Africa ever effectively “take off” when it is so tightly held hostage to the languages of the former imperial masters? (p.3)

Tove Skutnabb-Kangas and Robert Phillipson (1996) make a point of the striking fact that in much educational policy work, even in policies on education for all, the role of language is seldom considered. This shows myopia on the part of the donors and the researchers/consultants who guide such policy work. The donors and their consultants urge targets for universal literacy to be set, but little thought is given as to the language in which literacy should be achieved.

When it comes to bilateral donors, both the British and the French seem to use development aid to strengthen the use of their own languages as mediums of instruction. British Council has, as mentioned previously in this chapter, played no unimportant role when it comes to deciding on language policies in Tanzania and Namibia (Brock-Utne 1993, 1997, 2000, 2001, 2002b, 2005a, 2005b; Phillipson 1992, 2001).

Pai Obanya (1980), who for many years was the director of the UNESCO

office for West Africa called BREDA and located in Senegal, noted almost 30 years ago:

It has always been felt by African educationists that the African child's major learning problem is linguistic. Instruction is given in a language that is not normally used in his immediate environment, a language which neither the learner nor the teacher understands and uses well enough. (p.88)

Conclusion

If the African child's major learning problem is linguistic, and I tend to agree with Obanya that it is, then all the attention of African policy makers and aid from Western donors should be devoted to strengthening African languages as mediums of instruction, especially in basic education. The concept "education for all" becomes a completely empty concept if the linguistic environment of the basic learners is not taken into account. There can be no democracy when only children of the elite become competent enough in a foreign language to be able to master this language as a medium of instruction, of communication with official authorities, and in the judicial theater. In the developed countries, the languages of the majority are used as the languages of instruction in school, in the media, and the judicial system. Finns educate their youth through Finnish, Greeks through Greek, and Norwegians through Norwegian. Even the island of Iceland with just 300,000 inhabitants has its Icelandic language as the language of instruction in elementary, secondary, and tertiary education. Inhabitants of these countries also learn larger European languages well but as subjects in school. Such a system does not lead to "stupidification" of the masses. There are signs in some African countries that African politicians are starting to see the need to educate the masses in languages they are familiar with and hear around them.

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Notes

¹ These two “languages” are actually the same, and their oral forms are closer than many dialects in European countries. They were made into two different written forms by two

different groups of Western missionaries. This is the case with many of the African “languages” (see e.g., Brock-Utne 1997; Prah 2003, 2005).

² Portuguese speaking.

³ This is in comparison to fewer than 3% in the general population. The figures for mothers of students were 50%, compared to less than 1% in the general population. The survey also showed that students from more privileged backgrounds were disproportionately represented in courses of higher prestige and potential wealth (law, medicine, etc.; Mario et al. 2001 cited in Sawyerr 2002).

⁴ The LOITASA (Language of Instruction in Tanzania and South Africa) project started on 1 January 2002 and finished its first phase on 31 December 2006. We have been granted funding for a second phase, a new 5-year period that commenced on 1 January 2007 and will continue until the end of 2011. LOITASA is funded by NUFU (the Norwegian University Fund) and is a so-called South-South project, with partners at the University of Dar es Salaam in Tanzania as well as the University of Western Cape in South Africa. LOITASA contains two different research components apart from a staff development component. Some extra funding in the years 2003-2005 was secured from a Norway-South Africa research program. This part of the project we called the LOISA project (Language of Instruction in South Africa). We have published four books from the LOITASA project (Brock-Utne et al. 2003, Brock-Utne et al. 2004, Brock-Utne et al. 2005, Brock-Utne et al. 2006). A video/DVD from the project has also been produced. See our web-page: <http://www.loitasa.org>.

⁵ The brief of the Language Plan Task Group (LANGTAG) set up in November 1995 by the Minister of Arts, Culture, Science and Technology requires LANGTAG to advise the minister on a National Language Plan for South Africa.

⁶ No EDG G2/6/11/3 of 14/7/1970.

⁷ In 1977, TANU in mainland Tanzania and ASP in Zanzibar formed Chama cha Mapinduzi (CCM), the Party of the Revolution it won in 2005, with an overwhelming majority, its third election after the reintroduction of a multiparty system.

⁸ No ED/OKE/S.4/25.

8

Reconstructing Access in the Cambodian Education System

John M. COLLINS

Cambodia has had a turbulent history that has created low levels of education attainment. The education system has been identified as low quality and limited access as seen in low enrollment rate and high levels of repetition and dropout rates. These rates are especially high at the primary level with very low transition rates to post primary education. In this chapter, I examine how access, as measured by education Gini coefficients of enrollment and a representation index, has changed in the country at the primary subsector level between the academic school years 1998-1999 and 2003-2004. The chapter further examines the change in school quality by looking at trends in the repetition and dropout rates of the country and how school quality, teacher training, and classroom size have impacted these trends. This chapter identifies female, rural, and minority groups as being disproportionately disadvantaged in the Cambodian education system, and although the country is seeing improvements, the gender gap, urban/rural gap, and lack of access to ethnic minority groups continue to plague the education system.

Introduction

The issue of educational equity and access is not a new concept in the field of education. Equitable access has been identified as a major goal in recent years. Major international meetings and workshops have addressed equitable access, particularly at the primary level. The 1990 Jomtien Conference, the 1995 Beijing Conference, and the 2000 Dakar Framework saw the creation of new international initiatives that stressed equitable access to primary education for all children. The resulting initiatives seen in the Millennium Development Goals (MDGs) and Education for All (EFA) have set international standards and a global focus on the continued inequality in education access and attainment. Goals two and three of the MDGs emphasize universal access and gender equity within schooling, and objectives two and five of the Dakar Framework for EFA focus on ensuring all children with access to primary education of good quality and eliminating gender disparities in education enrollments (UNESCO 2000; United Nations 2007).

Cambodia is a low-income country in Southeast Asia. The country has ex-

perienced both external and internal conflict during the second half of the 20th century that have created vast disparities in educational attainment of the adult population. With a population of 12 million, Cambodia is a resource-constrained country that has had a difficult time providing the constitutionally guaranteed years of basic education to its entire population. To compound the situation, Cambodia has experienced significant social, economic, and political turmoil between the late 1960s until the mid-1990s. This turbulent period has had a significant impact on the distribution of education in the country. Due to a violent 30-year period, much of the highly skilled human capital stock was killed or fled from the country. This has created an obstacle and opportunity for Cambodia. Cambodian education has historically been inequitable and the reconstruction of the country's education system provides the government an opportunity to ensure equitable access for all Cambodians as the government rebuilds the educational system nearly from scratch. In this chapter, I examine enrollment data published by the Cambodian Ministry of Education, Youth and Sport (MoEYS) since 1997 to assess the government's reconstructing efforts. To better understand the current state of the Cambodian education system, a brief overview of the inequitable education system of Cambodia's past will help to highlight some of the constraints and contexts that have created the current education system.

Historical Development of Cambodian Education

The French officially colonized the area of Cambodia in 1884 and did not leave the country until 1953. While in Cambodia the French discouraged the traditional Cambodian Buddhist Wat schools where monks had been providing education and religious instruction since the twelfth century for a segment of the male population (Dy 2004). The curriculum relied heavily on religious Buddhist texts and was aimed at providing moral and religious instruction with the provision of basic literacy and numeracy skills (Clayton 1995; Dy 2004). The French did not provide an alternative formal education system until the early 1900s. The French education system focused on the French language and aimed at creating an elite male Cambodian population that would serve the colonial administrative structure (Clayton 1995; Dy 2004). Although the French did not begin formal education until the early 1900s, by 1925 there were 160 French primary schools and enrollment had increased from 10,000 in 1925 to 80,000 in 1944 of which only about 500 students per year were graduating from primary school (Ben Kiernan 1985). Enrolled students consisted mainly of males and only represented 20% of the male school age population. At the secondary level there were only 1,000 secondary students and this number had only increased to 2,700 by 1953, with roughly 144 Cambodians passing the baccalaureate by 1954 (Clayton 1995; Kiernan 1985).

After the coronation of King Sihanouk and subsequent Cambodian inde-

pendence from France in 1953, the Cambodian education system saw an impressive expansion. The number of high schools and universities increased from eight in 1953 to 209 in 1967, and in the latter year boasted an enrollment of over 160,000 (Kiernan 1985). However, Dy (2004) notes that only 10% of the female population was literate in 1958. Enrollments under King Sihanouk rapidly increased as basic education was expanded. During the 1960s, education consumed over 20% of the national budget (Duggan 1996; Dy 2004). However, Dy and Duggan both note that the education system continued to serve primarily the large urban centers of the country.

The expansion of the education sector that had been made by King Sihanouk was halted in the early 1970s. Cambodia became the victim of violent conflict both from civil war with the Khmers Rouge in the west and the spillover of the Vietnam War across Cambodia's eastern border. Many of Cambodia's educated elite fled to France and Thailand during this period. However, the greatest threat to the education system came from the Khmer Rouge as they took political control of the country. The Khmer Rouge, under the control of Pol Pot, saw the systematic execution of the educated population that had remained in the country between 1975 and 1979. The four-year period saw the death of nearly two million people; anyone who could speak a foreign language, wore glasses, had received higher education, or had been a Buddhist monk were specifically targeted for elimination. Education everywhere in Cambodia was effectively halted (Duggan 1996; Dy 2004; Kiernan 1985). Duggan (1996) states that between 75% and 80% of Cambodia's teachers and higher education students were killed or fled the country. In addition, roughly 67% of the primary and secondary students were also killed or forced to flee during the same period (Duggan 1996).

The Khmer Rouge forced an exodus of the urban centers and moved the entire population to the rural countryside where they were engaged in agricultural production. In the deserted urban areas, schools were converted into prisons; in rural areas, the supposedly schools were turned into animal shelters (Kiernan 1985). In an attempt to create an easily controllable and uneducated society, the Khmer Rouge destroyed much of the human capital and educational infrastructure in the country. The regime moved the country toward an agrarian society as the human capital of the country was either killed or was forced to leave, and the educational infrastructure was abandoned or destroyed. Further the regime attempted to instill a new social order by separating families and communities in an attempt to ensure allegiance to the state. In the process of creating a new social order, the Khmer Rouge, according to Duggan (1996), did provide basic education services in factories and cooperatives where students could gain a basic rudimentary education while providing manual labor that would help build the nation.

In 1979, the Vietnamese entered Cambodia and drove the Khmer Rouge into exile in the Cambodian jungles. Once Vietnam occupied Cambodia in 1979,

a forced communist system was imposed. Although an education system was reinstated in the country, there were very few resources or trained individuals to fill the roles of teachers and administrators (Duggan 1996). According to an ICORC/UNICEF report, by 1980 many people had returned to the urban centers and over 5,000 primary schools had been reopened with roughly 60% of the school-aged population and 21,000 teachers in the primary schools (Duggan 1996). During the period of Vietnamese Occupation (1979-1989), desperate attempts to create the needed skilled manpower for the semi-autonomous government in Phnom Penh gave rise to a system based on the maxim, “those who know little teach those who know nothing” (Ahrins 2004). Progress in the educational sphere was slow and hampered by a shortage of teachers, low quality of standardized curriculum, and high dropout and repetition rates. During this period, the Vietnamese established an in-service training program to try and provide basic skills to many of the untrained teachers that had been recruited to teach in the education system (Duggan 1996; Dy 2004). Before the Vietnamese left Cambodia in 1989, enrollment had increased to 1.3 million at the primary level and .24 million at the lower secondary level (Dy 2004).

Between 1989 and 1998 the country continued to undergo political, social, and economic uprising and turmoil as the country moved toward establishing a post-conflict, post-occupied country. The Kingdom of Cambodia held its first peaceful election in 1998 and the new government not only inherited a new found peace in the country, but also a population that had been devastated by over thirty years of civil unrest and conflict. The overall population had low levels of educational attainment and high levels of poverty and, like most developing countries, had scarce financial resources to address these issues.

The current educational system of Cambodia is administered by the Ministry of Education, Youth and Sports (MoEYS), which is comprised of four departments dealing specifically with four different levels of education—primary and preschool, secondary, non-formal, and higher education. The MoEYS has reinforced its desire to provide nine years of basic education throughout the country and to modernize the education system to improve education quality (Department of Planning 1999, 2003; MoEYS 2004a, 2005a). Although many areas of the country differ, Cambodia generally follows a twelve-year education schedule. Each school year is comprised of 38 weeks with five school days per week.

Several major challenges prevent the MoEYS from achieving their goals at increasing access to nine years of quality education throughout the country. At the time of the 1998 census, 48.3% of primary schools lacked a complete range of grade levels, 28 districts lacked lower-secondary school facilities, and dropout and repetition rates have remained high (Department of Planning 1999).

Since 2000, Cambodia has increased its educational expenditures on primary schooling both proportionately and in absolute terms in comparison to lower and upper secondary schools. The primary education consistently receives

60% of total education budget (Badloe, et al. 2007). In 2002 the central government focused on an Education Sector Support Program to specifically address EFA, the US\$725 million dollar project is two-thirds funded from the government and one-third funded from donor agencies. The project is aimed at increasing equitable access and enrollment at all levels to improve the quality and effectiveness of education and training and strengthen capacity for education (Forsberg & Ratcliffe 2003; Romeo & Spyckerelle 2004).

Low teacher salaries have been seen by the MoEYS as a reason for low instruction quality as teachers have had to engage in additional economic activities. Low teacher salaries have led to unofficial fees collected from students at classroom doors, thus preventing poorer segments of society from attending. Even though the MoEYS has banned fees and has attempted to abolish the collection of unofficial school fees by teachers and administrators, it is widely known that communities continue to carry the disproportionate burden of paying for their children's educational experience at all levels. Teachers charge students for additional tutoring hours after the scheduled school day ends. This consists of each student paying a small fee to the teacher, approximately US\$1 per month at the primary level, US\$2 at the lower secondary level, and US\$2.50 at the upper secondary level per pupil (MoEYS 2003). After the regular school day ends, the teacher and students remain in the classroom where the teacher then covers material that students will need in order to move to the next grade level or pass exams.

Several significant challenges exist at the upper secondary level as well. The Department of Planning (1999) notes that the concentration of schools in urban areas, the lack of an accreditation authority, and corruption in admittance procedures following examinations are issues the MoEYS are currently trying to address. The Ministry of Industry, Mines and Energy ([MOIME] 2003) identified that the low quality of the current education system has resulted from a lack of educational infrastructure and low teacher training and has inefficiently and inequitably equipped the labor force with the needed knowledge, skills, and capabilities to effectively compete in the global market and wage economy.

The *National Action Plan for Basic Education: Primary 2004-2015* (2004) identified the high dropout and repetition rates as reflections of the low level of quality in the Cambodian education system and a major indicator of the countries' inability to provide quality access to a significant portion of Cambodian children and youth. High student-teacher ratios, high student-classroom ratios, limited hours of instruction, inappropriate student assessment, lack of instructional materials, poorly trained teachers, and low teacher salaries have been cited as the reasons for the high dropout and repetition rates. Teachers, like most government employees, make US\$30 a month, compared to the salaries earned by garment factory workers who make a minimum wage of US\$45 a month and can typically earn up to US\$65 a month with over-time. The low salaries of teachers compared to other professions helps the observer to understand how difficult it is

for teachers to survive on the low state salary of US\$30 a month which contributes to teachers engaging in outside economic activities such as tutoring and charging unofficial or user fees to receive tutoring and instruction in the classroom (Bray 1999). The low teacher salaries also represent an obstacle to getting highly educated individuals to enter the teacher workforce or to move to rural and remote areas where the majority of ethnic minority populations reside.

The majority of Cambodian schools are classified as public and are operated by the government but are financed largely by households, communities, and other nongovernmental organizations (Bray 1999; MoEYS 2005b). Due to limited government resources and lack of ability to levy taxes, the government is highly dependent on external, community, and family contributions to finance education. Mark Bray (1999) estimates that roughly 60% of primary resources are derived from households and communities, with government financing resting mainly with teacher salaries. In addition, Bray (1999) notes that the costs of uniforms, stationary, and other school supplies are more expensive in the rural and remote regions which increase the cost to parents and communities and the cost of schooling even when school fees are removed. Prior to 2003, government financing toward physical resources was heavily biased toward Phnom Penh and other urban centers; however, the government has focused the majority of its physical construction in rural and remote areas since 2003 (MoEYS 2005a).

Since Cambodia emerged from a turbulent 30-year period with a decimated education system, the government and the ministry have been actively engaged in addressing issues of access and quality. As mentioned previously in this chapter, the government and MoEYS have had to and still need to address numerous obstacles. To better understand the progress the MoEYS has made in increasing access in the reconstruction period, I have examined MoEYS data to examine enrollment and representation indices. The next section discusses the methods to examine the enrollment and representation in educational access followed by a discussion of the implications of these findings.

Methods

Enrollment data was used to calculate a representation index and education Gini coefficient of enrollment for all 24 provinces and municipalities of Cambodia. The *Education Statistics and Indicators* data provided the NER for every province or municipality at the primary, lower secondary, and upper secondary levels. The *Education Statistics and Indicators* data also gave a NER for the country as a whole. Using data published in the *Education Statistics and Indicators* by the MoEYS between the years of 1998 and 2003, I have assessed how current education policies are impacting access to the education system. This process has been done by Maas and Criel (1982) for two East African countries and by Sheret (1988) for Papua New Guinea.

The data from the MoEYS was compiled by the Department of Planning using Annual School Census Forms that are distributed to all schools yearly. The school principals fill out the forms while the district and provincial offices verify the forms before returning them to the Department of Planning. The data is coded according to province and is disaggregated to identify male, female, urban, rural, and remote areas. Data for GER, NER, repetition rates, dropout rates, completion rates, GDP, and expenditures have been coded to correspond with each province. Using the provincial level data a representation index (RI) was calculated for all 24 provinces and municipalities for both 1998 and 2003. The equation was taken from Maas and Criel's (1982) examination of equitable representation of the enrolled population in East Africa. The RI is done by a simple calculation of dividing the province or municipality's NER by the country's NER. As demonstrated in equation 1.

$$(1) \quad \text{RI} = \text{Province NER} / \text{Country NER}$$

The RI is useful in identifying which regions are overrepresented and to examine whether representation has changed over time. The RI is a helpful policy tool that identifies regions that may need additional attention and highlight regions that may have previously been privileged at the expense of other areas.

To ascertain the equitable access to education in the post-1998 country of Cambodia, the education Gini coefficient of enrollment¹ was constructed by incorporating the NER and the actual enrolled values to calculate the out of school population and ascertain the total number of students both in and out of school for the primary, lower secondary, and upper secondary levels. According to Morgan (1962) and Gastwirth (1972), the Gini coefficient is the best distributive index to measure inequality. The education Gini coefficient measures the distribution of education and calculates an index of educational inequality.

The Gini coefficient has been used to measure the distribution of educational enrollment, attainment, and finance in sixteen East African countries, Papua New Guinea, Armenia, Brazil, Ghana, and India (Appiah-Kubi 2002; Bird-sall 2000; Blom, Holm-Nielsen & Verner 2001; Gastwirth 1972; Maas & Criel 1982; McKay 2002; Mirzakhanyan et al. 2002; Sheret 1988; Ter Weele 1975). In addition, the Gini coefficient has been used to compare educational attainment of the labor force for 12, 85, 108, 140, and 149 countries (Castello & Domenech 2002; Checchi 2000; Ter Weele 1975; Thomas et al. 2000; Thomas, Wang & Fan 2001; Thomas, Wang & Fan 2002). Further, the Gini coefficient of attainment was used to evaluate the variance that existed between provinces in the country of Vietnam (Holsinger, Collins & Rew 2003).

Examining the education Gini coefficient of enrollment avoids looking at the unequal distribution of education that exists in the adult population as inequality from the education system cannot be disentangled from the violent history that saw the eradication of the educated population. As most of the education reforms

are aimed at the school-aged population, it is important to know how the country has increased access to education after the reconstruction of its education system beginning in 1998 when the country finally witnessed peace and stability in the country. The longitudinal component of this study spans the academic years from the school years of 1997-1998 to that of 2002-2003 and uses data collected from the Kingdom of Cambodia Education Statistics and Indicators instead the MoEYS and the Department of Planning (Kingdom of Cambodia 1998, 1999, 2000, 2001, 2002, 2003b).

Findings

Representation Index

The results of the RI equation are found in Table 8.1. The RI was calculated for both 1998 and 2003 to see how representation has changed in the different provinces and municipalities over time. At the primary level, the RI for 1998 showed that remote regions were highly underrepresented in the primary enrollments, whereas 10 provinces or municipalities, primarily urban, were over-represented in terms of education enrollments. In 2003, we see considerable progress through improving access and representation in primary enrollments. By taking the standard deviation of both sets, one sees that the standard deviation declined from 0.20 in 1998 to 0.097 in 2003. This demonstrates less variation between the provinces and municipalities reflecting greater equality in terms of access to primary education. These findings demonstrate that the gap in primary enrollments was drastically decreased between the remote regions and the urban/rural areas. Although, these findings reflect success of the MoEYS in increasing access and particularly in reducing urban and rural differences, they also highlight continued shortcomings in remote areas, particularly regions with proportionally high ethnic minorities. Although the Gini coefficients of enrollment will be discussed later, it is not surprising to note that the areas with higher coefficients are also under-represented at the primary level.

The RI for both the lower and upper secondary enrollment fails to mention the same success story. The urban centers continue to dominate enrollments to the near exclusion of remote regions particularly at the senior secondary level. As seen in Table 8.1, Phnom Penh is disproportionately over-represented with a 2.79 in 1998 and a 2.44 in 2003 at the upper secondary level. As noted, the urban centers dominate enrollments at the secondary level, whereas the remote areas have close to no representation at the secondary level. Although the five-year trend shows that the rural areas are gaining some representation at the secondary level, the rural and remote areas are still highly under-represented at the secondary level. The MoEYS notes that 53 out of 185 districts lack upper secondary school facilities. These districts lacking upper secondary schools are mostly in

rural and remote area where there are significant poor and minority populations (MoEYS 2004b). By 2005, only 42% of communes had a lower secondary school, with remote communes having a NER of only 3.9% for lower secondary school and 25% of all districts also lack a senior secondary school located within the district (MoEYS 2005a). The lack of physical school facilities within communes and districts reflects a major obstacle to increasing access and will continue to prevent rural and remote regions from providing equitable access to their children and youth.

Table 8.1: Representation Indices, 1998 and 2003

Representative Index	1998			2003		
	Primary	L.Sec.	U.Sec.	Primary	L.Sec.	U.Sec.
Banteay Meanchey	0.88	0.56	0.64	0.99	0.65	0.62
Battambang	0.83	0.72	1.01	0.99	0.70	0.78
Kampong Cham	0.94	0.90	0.69	1.02	0.87	0.70
Kampong Chang	0.98	0.56	0.52	1.05	0.87	0.74
Kampong Speu	1.05	0.80	0.49	1.02	0.73	0.69
Kampong Thom	0.98	0.82	0.76	1.01	0.85	1.04
Kampot	1.07	1.12	0.92	1.00	1.61	1.34
Kandal	1.11	1.29	1.24	1.04	1.22	1.04
Kep	1.07	1.07	0.59	1.00	1.02	0.62
Koh Kong	0.72	0.36	0.28	0.84	0.35	0.22
Kratie	1.14	1.01	0.45	1.00	0.88	0.89
Mondulkiri	0.87	0.44	0.26	0.83	0.28	0.22
Otdar Meanchey	NA	NA	NA	0.88	0.26	0.17
Pailin	0.39	0.03	0.00	1.01	0.47	0.39
Phnom Penh	1.18	2.59	3.44	0.97	2.01	2.71
Preah Vihear	0.98	0.36	0.19	0.92	0.32	0.53
Prey Veng	1.07	1.03	0.57	1.02	0.95	0.74
Pursat	1.09	0.62	1.05	1.00	0.68	0.78
Ratanakiri	0.51	0.21	0.16	0.60	0.22	0.25
Siem Reap	0.88	0.63	0.51	1.03	0.65	0.68
Sihanoukville	0.85	0.84	1.03	1.00	0.80	0.87
Steung Treng	0.71	0.41	0.38	0.98	0.50	0.83
Svay Rieng	1.17	1.29	0.69	0.97	1.15	0.85
Takeo	1.04	0.92	0.61	1.02	1.61	1.34
Whole Kingdom	1.00	1.00	1.00	1.00	1.00	1.00
- Urban Area	1.07	1.94	2.79	0.98	1.61	2.44
- Rural Area	1.06	0.79	0.37	1.01	0.89	0.65
- Remote Area	0.55	0.03	0.00	0.87	0.11	0.00

Source: Author's calculations using Kingdom of Cambodia 1998-2003 Education Statistics and Indicators; published in Phnom Penh by MoEYS.

Table 8.2: Female Representation Indices, 1998 and 2003

Representative Index Female	1998			2003		
	Primary	L.Sec.	U.Sec.	Primary	L.Sec.	U.Sec.
Banteay Meanchey	0.95	0.81	0.67	1.00	0.99	0.85
Battambang	0.97	0.88	0.83	0.96	1.01	0.91
Kampong Cham	0.92	0.78	0.71	0.97	0.97	0.86
Kampong Chang	0.91	0.65	0.68	0.99	0.90	0.76
Kampong Speu	0.92	0.63	0.54	0.99	0.93	0.66
Kampong Thom	0.96	0.80	0.68	1.01	0.98	0.80
Kampot	0.95	0.69	0.61	0.98	0.90	0.69
Kandal	0.94	0.79	0.67	0.99	0.96	0.84
Kep	0.90	0.70	0.62	0.95	0.96	1.16
Koh Kong	0.95	0.73	0.71	0.90	0.93	0.67
Kratie	0.89	0.87	0.79	0.98	1.01	1.00
Monduliri	0.93	0.44	0.61	0.89	1.05	0.90
Otdar Meanchey	NA	NA	NA	1.00	0.85	0.89
Pailin	0.90	0.80	0.00	1.02	1.04	0.96
Phnom Penh	0.92	0.86	0.82	0.99	0.95	0.92
Preah Vihear	0.95	0.98	0.67	0.99	1.00	0.88
Prey Veng	0.92	0.61	0.58	0.99	0.87	0.65
Pursat	0.92	0.76	0.73	0.98	0.88	0.83
Ratanakiri	0.80	0.79	0.65	0.86	0.92	0.84
Siem Reap	0.92	0.73	0.78	0.98	0.92	0.86
Sihanoukville	0.89	0.74	0.62	0.95	0.92	0.85
Steung Treng	0.89	0.71	0.69	0.97	0.91	0.65
Svay Rieng	0.91	0.62	0.52	0.99	0.80	0.61
Takeo	0.94	0.67	0.65	1.01	0.90	0.63
Whole Kingdom	0.93	0.76	0.75	0.98	0.93	0.82
- Urban Area	0.94	0.82	0.77	0.98	0.96	0.90
- Rural Area	0.93	0.70	0.62	0.99	0.92	0.73
- Remote Area	0.92	0.58	0.00	0.95	1.08	0.00

Source: Author's calculations using Kingdom of Cambodia 1998-2003 Education Statistics and Indicators; published in Phnom Penh by MoEYS.

The RI further reflects unequal access to females as urban male populations are seen to be over-represented at an increasing rate from primary to lower secondary and eventually upper secondary. In terms of gender, a second RI was calculated using enrollment rates for the female population and is presented in Table 8.2. An interesting success of the MoEYS emerges from the table, as female representation has significantly improved over the five-year period at both the primary and lower secondary levels. In particular, female enrollment at the lower secondary level has gone from being significantly under-represented to having higher enrollments than their male counterparts. Female representation at the

primary level is approaching males, however female representation at the senior secondary level becomes increasingly under-represented again and reflects a lack of successful efforts targeted at the senior secondary level or education beyond the basic nine years of education. These findings do support a claim that Cambodia has made progress in developing equitable access at the primary level and is improving at the lower secondary level in this post-conflict reconstruction. However, rural and remote areas, particularly areas with large ethnic minorities continue to be underrepresented and the urban centers at much of the lower and upper secondary levels continue to dominate education access.

Education Gini Coefficient of Enrollment

A second measure of equitable access in schools is the education Gini coefficient of enrollment. The results of the education Gini coefficient of enrollments are seen in Table 8.3. As the RI indicated there was convergence and a decrease in inequality in terms of enrollment at the primary level. All but five provinces and municipalities have approached nearly educational equality in terms of enrollment over the five-year period at the primary level. However, five provinces (Koh Kong, Mondol Kiri, Otdar Meanchey, Preah Vihear, and Ratanakiri) still exhibit significant inequality in primary enrollments. As seen in the table, the education Gini coefficient of enrollment for the lower and upper secondary levels did not change significantly and continue to reflect large amounts of inequality in enrollment at the secondary level. The findings of the RI at the primary level are supported by the findings of the education Gini coefficient of enrollment. In 1998, the average coefficient for enrollment was 0.41 and had declined to 0.29 by 2003. This significant difference can be identified in a positive trend in support that the country has moved toward providing equitable access at the primary level over this five-year period. Overall, the provinces and municipalities saw a 30% decrease in the education Gini coefficients of enrollment at that time. This can be seen as significant progress in decreasing inequality at the primary level.

All of the provinces and municipalities saw decreases in the coefficient, except the province of Mondul Kiri. Although the coefficient of enrollment fell below 0.30 for 18 of the 24 provinces and municipalities, five of the six provinces still remained above 0.30 and continue to reflect high levels of inequality. The provinces of Koh Kong, Mondul Kiri, Otday Mean Chey, Preah Vihear, and Ratanakiri all had coefficients close to or greater than 0.40. Five of these six provinces are located in the northern part of the country, and constitute the North and Northeast provinces of the country. These provinces constitute a significant percent of the ethno-linguistic diversity of the country and contain the majority of the ethno-linguistic minority groups that exist in the country and are the same provinces that have been identified as having large ethnic minority populations

Table 8.3: Education Gini Coefficient of Enrollment, 1998 and 2003

Province	Primary		Lower Secondary		Upper Secondary		Province Total	
	1998	2003	1998	2003	1998	2003	1998	2003
Banteay Meanchey	0.46	0.26	0.91	0.87	0.96	0.95	0.77	0.74
Battambang	0.41	0.28	0.74	0.86	0.79	0.94	0.66	0.74
Kampong Cham	0.38	0.26	0.85	0.82	0.47	0.95	0.64	0.70
Kampong Chang	0.41	0.23	0.91	0.83	0.97	0.94	0.75	0.68
Kampong Speu	0.30	0.26	0.86	0.85	0.97	0.95	0.62	0.71
Kampong Thom	0.34	0.28	0.87	0.83	0.95	0.92	0.64	0.69
Kampot	0.35	0.25	0.83	0.68	0.94	0.90	0.67	0.63
Kandal	0.33	0.22	0.80	0.76	0.93	0.92	0.69	0.67
Kep	0.33	0.26	0.83	0.79	0.96	0.95	0.65	0.71
Koh Kong	0.56	0.39	0.94	0.93	0.98	0.98	0.82	0.81
Kratie	0.31	0.27	0.84	0.82	0.97	0.93	0.70	0.71
Mondul Kiri	0.36	0.42	0.93	0.94	0.98	0.98	0.61	0.82
Otdar Meanchey	NA	0.37	NA	0.95	NA	1.00	NA	0.79
Pailin	0.75	0.29	1.00	0.91	1.00	0.97	0.95	0.72
Phnom Penh	0.26	0.24	0.60	0.60	0.82	0.79	0.66	0.64
Preah Vihear	0.36	0.37	0.86	0.94	0.96	0.96	0.74	0.78
Prey Veng	0.39	0.26	0.85	0.81	0.94	0.94	0.73	0.70
Pursat	0.36	0.27	0.90	0.86	0.94	0.94	0.71	0.72
Ratanakiri	0.67	0.55	0.97	0.96	0.99	0.98	0.89	0.86
Siemreap	0.47	0.27	0.90	0.87	0.97	0.95	0.77	0.73
Sihanoukville	0.45	0.27	0.87	0.84	0.94	0.93	0.78	0.74
Stung Treng	0.56	0.31	0.94	0.90	0.98	0.94	0.83	0.75
Svay Rieng	0.30	0.27	0.80	0.77	0.96	0.93	0.67	0.69
Takeo	0.36	0.23	0.86	0.68	0.96	0.90	0.74	0.64
Whole Kingdom	0.39	0.26	0.85	0.80	0.94	0.92	0.73	0.70

Source: Author's calculations using Kingdom of Cambodia 1998-2003 Education Statistics and Indicators; published in Phnom Penh by MoEYS.

(Pen 1996). These findings, although not conclusive, lead to the opinion that although current education policies have increased equity in terms of enrollment in areas that are primarily Khmer (or the majority population), it has not been successful in providing equitable access to the rural and remote regions where there are still large minority populations.

Discussion & Conclusion

The significance of these findings relates to the gender and residence gaps that continue to persist in Cambodia. According to the Demographic Survey of Cambodia (DSC) in 1996, 85.6% of the population lives in the rural regions of the country and by 2003, 90% of the poor in the country were classified as liv-

ing in rural areas (Kingdom of Cambodia 1996; MOIME 2003). The demographic stratification of the country further impacts the country's ability to provide adequate and equitable educational services to the school-aged population. More than 50% of the population is under the age of 20, and 43% of the population is under the age of 15. The size of the youth population in connection, with the fact that most individuals live in rural poor parts of the country where educational infrastructure is less developed, reinforces the significance of the RI and education Gini coefficient of enrollment. These findings illustrate that Cambodia is doing a better job at creating equitable access for the dominant Khmer population but is having more difficulty in decreasing inequalities for the Khmer-Loeu, also known as indigenous minorities or highland peoples (Pen 1996). The 70,030 people that make up the Khmer-Loeu, live primarily in the provinces of Kratie, Ratanak Kiri, Mondul Kiri, Preah Vihear, Koh Kong, Pousat, and Stung Treng. According to Frédéric Bourdier (1996) 68% of Ratanak Kiri's population is indigenous minorities, while 66% of Stung Treng's population is indigenous minorities, and 89% of Mondul Kiri's total population consists of indigenous minority groups.

These same provinces that consist of high ethnic minorities overlap significantly with the same provinces that have high education Gini coefficients of enrollment as seen in Table 8.3. These provinces also have the largest proportion of primary schools that do not offer a full range of grades with 81% of primary schools in Ratana Kiri, 77.1% in Mondul Kiri, 61.7% of primary schools in Preah Vihear, 58.4% in Steung Treng, 54.6% in Koh Kong, 52.2% in Otdar Mean Chey, 51.2% in Kampong Thom, 46.3% in Kampong Cham, and 43.5% in Kratie (MoEYS 2005a).

An evaluation of Net Enrollment Rates (NER), Gross Enrollment Rates (GER), promotion, repetition, and dropout rates for each grade level from 1998 to 2003 demonstrate that although enrollment is increasing, high levels of grade repetition and dropouts still reflect low quality of schooling. In 2004, it was calculated that it takes a child on average 10.8 years to complete six years of primary schooling, if the child does not dropout first (MoEYS 2004a). The MoEYS (2004b) has noted that 74% of primary schools in rural and remote areas, particularly areas with high minority populations do not offer all six years of schooling and are considered to be incomplete schools. In the poorest communes, 71% have no lower secondary schools and this remains the case after the MoEYS has targeted 73% (85 of 117) of all new schools into these poorest communes (MoEYS 2004a). A major problem with lack of schools in these areas is that lack of schools, or schools without the full range of grades, automatically deny these students from accessing or continuing their education.

These schools are located in poorer communities where parents have had little to no access themselves but also have little to no economic resources to provide alternative educational opportunities or the ability to send their children

to another community where a school is located. It is estimated that 66.0% of remote schools do not offer the full range of Grades 1-6 and 29.6% of rural schools do not offer the full range of primary grades (MoEYS 2005b). Another obstacle to access for children in these poor, rural, and remote communities is that students in schools without the full range of grades, as seen in Table 8.4, have higher dropout and repetition rates. As mentioned, many of these schools are located in provinces that have high ethnic minority populations, for example 81% of primary schools in Ratanakiri and 77.1% of primary schools in Mondul Kiri lack the complete range of grades (MoEYS 2005a).

Table 8.4: 2004 Repetition and Dropout Rates in Primary Schools without a Full Range of Grades

	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
Repetition Rate	20.8	12.6	10.1	7.2	7.3
Dropout rate	19	12.1	8.3	7.3	

Source: Compiled from data presented in the 2004 Education Sector Performance Report; published in Phnom Penh by MoEYS.

Since 1993, the Royal Government of Cambodia has pursued a policy aimed at the integration of the ethnic minorities by trying to create conditions where the ethnic minorities can freely take part in the social and cultural life of society (Ehrentraut 2003). This process would then be identified as a means of integrating or assimilating indigenous groups into the Khmer majority culture, as a result instruction and textbooks have been done in Khmer to the exclusion of indigenous languages.

Joanna White (1996), Frédéric Bourdier (1996), and Stefan Ehrentraut (2003) all note that indigenous groups have resisted majority nation building and are committed to maintaining their traditional institutions, language, and culture. The indigenous groups in the highlands not only have a distance from the majority culture in terms of language and religion, social, and political institutions, but also a geographic gap. Lack of roads and physical infrastructure in the northeast part of the country makes travel difficult, leaving many ethnic groups isolated with very little government involvement, interference, or assistance.

Both White (1996) and Ehrentraut (2003) observe that the indigenous groups compose the poorest members of Cambodian society and although they have a strong sense of shared values, or social capital, and have maintained effective local governance structures, indigenous groups have not had access to representation with the national government. Indigenous groups have been ranked lowest in terms of access to education as seen in the RI and education Gini coefficient of enrollments and the reasons for the low access has been attributed to no school facilities in areas inhabited by certain indigenous groups, use of a foreign

language of classroom instruction, lower teacher education and quality, and in some cases a complete lack of access to any skilled or unskilled teachers (Ehrentraut 2003; White 1996). To complicate the issue of access to education, the high level of poverty among indigenous groups have prevented parents from sending their children to school as the parents cannot afford to, or afford the opportunity cost of losing the child's contribution to family labor and income.

An obstacle in providing education to many of these ethnic groups that live in rural and remote regions of the country is the fact that the education system is not culturally neutral as the language of instruction is in Khmer. The national curriculum does not recognize indigenous languages, cultures, or knowledge, nor does it consider the different cultural, economic, or social circumstances of indigenous groups, resulting in low relevancy to indigenous realities. The language policy must be analyzed in terms of how it addresses issues of access and quality in the education system and whether inequality is perpetuated by maintaining a language that is foreign to the ethnic population, or reduces inequality by providing instruction in a language and culture that the student understands (Mehrota 1998; Brock-Utne 2001). Studies have shown that when students are taught in a language other than their own, learning and understanding decline, and that when instruction is changed to the maternal language learning and educational participation dramatically increase (Brock-Utne 2007; Mkwizu 2003; Ranaweera 1976). The repetition and dropout rates reflect not only lack of access to physical buildings but lack of access to the curriculum that is presented in a foreign language and by untrained and low educated teachers. Ethnic minority students are often exposed to small overcrowded schools that are located far from their homes and in a language foreign to their own by a teacher with only primary education. Students fail to focus on the schooling material but must first attempt to master the Khmer language instead of the math, science, and literacy that the student needs and desires.

Regardless of the lack of relevance and financial and physical resources, many indigenous groups desire formal education. Minority groups have associated education with representation and many indigenous groups have expressed a desire to gain access to education in Khmer in order to gain better political representation. As most indigenous groups have their own local language, many groups have difficulty interacting with government due to low levels of education and low fluency in Khmer (White 1996). Further, they see education as a means of increasing their opportunities in the economic sphere. Many indigenous groups feel at a disadvantage to the Khmer merchants and see education as providing them with the skills to benefit from the growing market economy (Bourdier 1996; Ehrentraut 2003; White 1996). These indigenous groups desire greater access to education, however, they also desire better quality educational infrastructure and teaching.

The MoEYS has recognized that the lack of a bilingual curriculum, native

teachers, and scholarships, in addition to school building has impeded increased access in these regions (MoEYS 2005b). As mentioned earlier, several major challenges exist for Cambodia's education system and the MoEYS has acknowledged that the education system has not been of high quality in many areas nor have all children had equitable access. The MoEYS identified high dropout and repetition rates as indicators of this low school quality. The Ministry further notes that in addition to the areas that already plague rural communities, the dropout and repetition rates are also due to high student-teacher ratios, high student-classroom ratios, and low education levels of primary teachers (Kingdom of Cambodia 2003a; MOIME 2003). Recent educational initiatives have been designed to target the lack of educational infrastructure and low teacher training that were seen as significant contributors to unequal access and the perpetual low quality of the Cambodian education system in many of these rural and remote areas with large ethnic populations (Forsberg & Ratcliffe 2003; MOIME 2003; Romeo & Spycerelle 2004). The remaining discussion will examine changes impacting school quality and access for rural, remote, poor, and ethnic minority students.

Access

In terms of access, the education sector since 1996 has seen a general increase in primary NER. The most dramatic increase can be seen by students living in remote areas, as enrollments have increased from 43% in 1997 to 70% in 2002. The lower secondary NER has only increased from 16 to 19%. Although the rural area saw an increase from 13 to 17% from 1997 to 2002 for senior secondary enrollments, the remote areas only increased from .4 to 1.4%. Both the rural and remote areas are significantly behind the urban areas that have lower secondary NER of 32%. The largest contrast is in the upper secondary NER, as there are no children from the remote areas enrolled at the upper secondary level and only 4.3% of the rural population enrolled. In contrast, the urban areas have an upper secondary NER of 20%. This further reflects the urban bias of education policies as resources have been focused in urban areas. Although, the government would like to improve access and quality to rural and remote areas, the NER reflects that the curriculum and quality is still not relevant to the realities and conditions of rural and remote communities.

While the analysis at this juncture is largely descriptive, the data provides quantitative evidence that remote, female, and ethnic minority populations have been disproportionately disadvantaged in regards to access to the Cambodian education system. These findings identify which provinces and districts need additional resources and attention. The issue of gender differences has been addressed by the MoEYS and increasing international focus and is experiencing decreasing gaps between male and female enrollment. Although differences between remote and urban and rural differences contribute to high levels of educa-

tion inequality and unequal access in the country, the access of ethnic minorities is a much larger problem that requires additional monitoring and evaluation. The persistence of inequality in the Northeast region at the primary level and exacerbated at the secondary level as seen in the enrollment Gini coefficients and representation index reflects the lack of relevant ethnic minority policy to adequately address issues of equal access in the education system. Further, the RI shows that the rural and remote areas are disproportionately under-represented at all levels of the education system and that the female populations are increasingly under-represented at the upper secondary level. In 2004, approximately only 46.7% of students that had started primary school had completed all six years of primary school and only 32% of students that start primary school transitioned to lower secondary schools. When breakdowns between urban, rural, and remote regional classifications are taken into consideration, it is highly unlikely for a child from a poor remote area to even complete two or three years of formal education.

These trends are seen particularly in remote areas which are populated by ethno-linguistic minority populations. Further, the cost of schooling and lack of resources continue to be stumbling blocks for these rural and remote regions. In addition to rural and remote schools, having more schools lacking the full range of classes and fewer secondary schools as mentioned earlier, the primary pupil-to-teacher ratio (PTR), identified as impeding student access and contributing to student dropout and repetition rates, also differs by region. In 2005, the PTR was 40.3 in urban areas compared to 56.9 in rural areas and 58.1 in remote areas. Students in rural and remote areas not only have fewer schools, fewer teachers, and less educational resources, but also have higher student teacher ratios per class than do urban students.

The persistent high dropout and repetition rates in poor rural and remote regions continue to impede access and will constitute the remaining discussion of this chapter. First, as seen in Table 8.5, repetition rates have declined at the primary level from 26 to 10% and from 9 to 5% at the lower secondary level, but increased from 3 to 5% at the upper secondary level. NERs have increased at the primary level from 78 to 90% but remained relatively stable at 20% at the lower secondary and 9% at the upper secondary levels. GERs increased at all levels from 90 to 120% at the primary level, 24 to 40% at the lower secondary level and 8 to 15% at the upper secondary level. Although the GER rates have increased, the fact that the NER has remained constant reflects poor quality and high repetition and not solely from new entrants. In addition, completion rates and dropout rates remained steady with about 5% and 15% in primary, 2% and 13% in lower secondary, and 0.5% and 11% in upper secondary respectively.

Table 8.5: Primary Dropout & Repetition Rates for the Provinces of Cambodia from Academic Years 1997/1998 to 2002/2003

	1997-1998		1998-1999		1999-2000		2000-2001		2001-2002		2002-2003	
	Repetition Rate	Dropout Rate	Repetition Rate	Dropout Rate	Repetition Rate	Dropout Rate	Repetition Rate	Dropout Rate	Repetition Rate	Dropout Rate	Repetition Rate	Dropout Rate
Whole Country	18.6	16.42	17.97	14.1	16.77	13.62	13.17	11.98	7.88	11.33	8.73	11.7
Banteay Meanchey	19	18.3	18.27	18.13	14.72	16.67	10	14.8	4.57	13.83	5.92	14.72
Battambang	15.52	15.9	14.12	13.5	14.88	13.43	12.52	13.02	5.37	13.9	6.97	13.73
Kampong Cham	18.98	18.87	18.72	14.83	18.45	15.23	15.93	13.37	10.05	12.32	12.35	13.3
Kampong Chang	19.28	14.38	18.97	11.87	17.95	14.92	10.55	14.42	7.07	10.92	8.45	8.97
Kampong Speu	18.53	17.62	18.45	17.5	16.67	15.48	11.02	13.1	6.57	12.2	7.93	12.65
Kampong Thom	16.63	20.22	17.78	10.9	16.02	16.27	13.65	13.22	5.42	13.12	7.2	13.5
Kampot	18.68	15.08	17.4	10.57	15.27	11.97	9.12	10.97	5.88	9.05	5.15	10.78
Kandal	21.15	13.12	19.82	14.33	18.92	10.32	11.1	9.65	7.23	8.3	6.92	8.37
Kep	15.62	15.45	19.52	21.16	15.8	8.92	13.02	12.58	7.07	14.62	5.07	8.37
Koh Kong	18.67	24.87	20.63	36.87	17.28	17.7	13.98	16.6	11.4	16.53	8.55	19.07
Kratie	22.88	15.55	25.52	6.63	23.08	16.35	15.15	11.08	9.13	13.77	8.4	12.97
Mondul Kiri	26.23	17.8	24.63	25	20.03	31.45	16.8	19.37	12.87	25.65	11.22	15.45
Oddar Meanchey	Na	Na	Na	Na	17.4	24.37	19.35	20.43	9.23	21.12	8.47	15.13
Pailin	Na	Na	16.87	Na	13.37	15.97	10.68	11.38	3.32	10.24	6.48	9.15
Phnom Penh	16.07	9.76	15.25	14.57	13.83	7.52	11.78	6.73	6.5	5.58	5.83	7.78
Preah Vihear	22.82	21.57	19.57	33.13	21.07	22.88	19.8	18.38	10.02	20.32	10.85	18.17
Prey Veng	19.23	18.73	20.3	8.53	18.98	14.78	16.27	12.42	12.78	12.3	12.9	10
Pousat	16.72	21.65	17.75	5.53	17.1	15.93	15.08	14.73	8.98	13.72	6.48	13.23
Ratanakiri	18.43	31.78	23	42.73	15.98	29.25	12.57	20.67	11.1	23.82	10.7	23.57
Siemreap	18.07	21.17	17.17	14.2	15.88	16.98	15.27	13.28	9.02	13.12	9.65	14.23
Sihanoukville	20.05	16.03	17.47	14.87	16.98	13.72	15.68	11.7	8.43	12.98	7.38	11.22
Stung Treng	22.77	23.82	21.77	9.33	19.18	20.42	18.75	14.37	13.02	15.88	12.22	12.72
Svay Rieng	19.58	17.55	19.18	25.17	17.28	12.22	13.03	11.03	9.17	10.15	12.23	11.17
Takeo	17.73	15.53	14.18	10.83	13.5	10.07	11.53	9.32	5.52	6.9	7.07	7.92

Source: Author compiled from the Kingdom of Cambodia 1998-2003 Education Statistics and Indicators; published in Phnom Penh by MoEYS.

According to Grootaert (1996), repetition and dropout rates indicate the effectiveness of education policy reform. Unlike the enrollment rates, the repetition and dropout rates have continued to decline for all demographic regions since 1997, as seen in Table 8.5. In addition to higher PTR for rural and remote areas, the education levels of teachers in rural and remote schools are significantly lower than their urban counterparts. As both the repetition and dropout rates decrease, teacher education level increasingly becomes more important. Not only are rural and remote students disadvantaged in terms of school resources, the education level of teachers also varies by region. For teachers in remote areas 34.5% of all teachers had only completed primary school, compared to 6.4% of teachers in rural areas and 4.2% in urban areas. In general, teacher training and educational attainment remains low in the teaching labor force with only 32% of all primary teachers having completed 12 years of schooling and two years of teacher training (MoEYS 2005b), with the majority of these highly trained teachers remaining in urban centers. These disparities in educational attainment of teachers reinforces the lack of access for remote, poor, and ethnic minority populations from accessing quality education, when their teachers have barely completed primary education themselves. Increasing educational attainment of existing and new teachers in these regions is paramount in increasing access for remote and ethnic minority students.

Recent innovative efforts by the MoEYS and other international actors have begun the steps to reconstruct an equitable access to education in the remote areas. Bilingual education systems for ethnic minorities has been developed and is currently being piloted in 20% of the districts with high ethnic minority populations with one school cluster in each district receiving the bilingual curriculum in the five provinces of Otdar Meanchey, Stung Treng, Ratanakiri, Prey Vihear, and Mondolkiri. The pilot project implements bilingual education developed by NGOs who have already been implementing bilingual formal and non-formal education (MoEYS 2005b). The bilingual education project moves the language of instruction from the foreign Khmer language to the indigenous languages spoken in homes and communities, enabling students to be exposed to ideas and information in their own language. To support this bilingual effort and increase the overall educational attainment and training of teachers in remote and rural areas the MoEYS has developed a teacher re-deployment program. The MoEYS has deployed 1,474 highly trained teachers to rural and remote areas in 2003 and has given some 15,286 teachers difficult or remote posting allowances to offset the increased cost and burden to work in rural and remote areas away from family (MoEYS 2004a). In order to increase teachers with the sociolinguistic characteristics of the students, the MoEYS recruited over 1,500 teachers (one-fourth of all recruited individuals for teacher training) from remote areas during the 2002-2003 academic year that will be posted in remote areas once they complete their teacher training (MoEYS 2004b). This effort to increase the

educational attainment of teachers reflects the need for innovative and new pre- and in-service teacher training strategies to increase access for remote and ethnic minority students. On the student side, the MoEYS has developed and is currently funding scholarships for poor and ethnic minorities at the primary and lower secondary levels. Although scholarships remain merit based and not need based at the senior secondary level, the scholarships offset the cost of schooling, particularly for poor female and ethnic minority students.

Although the MoEYS has started to address the unequal access to remote and ethnic minority populations, continual reform in the education sector is needed if education access and attainment gaps between remote and urban and rural, male and female, and ethno-linguistic and Khmer groups are to be decreased. Access to both physical school buildings and quality teachers continue to be the greatest obstacle to providing quality education in remote and poor regions. First, the MoEYS needs to look at ways to increase the education levels of primary teachers and does not infer that the MoEYS should attempt to replace the existing low educated teacher workforce with university graduates with pedagogic training, but find ways to increase current education levels up to the lower and upper secondary level through in-service programs. The need to increase the level of education for primary teachers to the upper secondary level comes from the lower costs as well as the strong positive relationship between the percent of primary teachers with only primary education and high repetition and dropout rates. In contrast a strong negative relationship between the repetition and dropout rates is seen as the percent of teachers with upper secondary education increases. This seems to be a less expensive means of providing teachers with the needed mastery of the curriculum that is taught at the primary level. This fact could have significant importance to the MoEYS. Instead of focusing on increasing pedagogic training and the number of college graduates to fill teaching positions at the primary level, particularly in rural and remote areas, the government should focus on increasing the number of upper secondary graduates. This would be cheaper for the government but provide more gains in decreasing the repetition and dropout rates by providing more qualified teachers in the classroom. This would require a reallocation of funds into increased physical resources in terms of construction of lower and upper secondary schools in poor, rural, and remote areas.

Although PTRs are significantly higher in rural and remote areas and there is a strong inverse relationship between the PTR and repetition and dropout rates, recent efforts to decreasing PTR has not and does not appear to be an effective means of decreasing repetition and dropout rates. In the short term, with the current context of lower teacher educational attainment and few physical resources, decreasing student teacher ratios may not provide measurable benefits. Can a teacher, who does not speak the students' language and not know algebra, be considered better off teaching algebra if there are 40 instead of 56 or 58 students?

If the MoEYS does not need to reduce student/teacher ratios at this time, it would allow the Ministry to use those resources to provide education facilities in new areas that currently lack facilities, and staff those schools with teachers. This would allow the Ministry to shift resources from building new school facilities in areas where school facilities already exist to building new facilities in rural and remote areas, particularly in areas that currently have low levels of access in rural and remote areas of the country.

This chapter has identified Cambodia's progress in reducing inequality in access at the primary level; however access to the secondary level remains far from equitable. Differences in enrollment between the minority groups and the Khmer, and remote and urban and rural regions continue to pose a problem to truly providing equitable access to the education system. The numerous factors that impede the education system from providing equitable access to the rural and remote regions that consist of high proportion minority groups have only recently been addressed in policy documents or educational reform. As the official school curriculum and the language of instruction remains in Khmer, it will continue to be difficult to find teachers who are willing to move to rural or remote regions, and even harder to find teachers who can effectively communicate with students once they enter the classroom.

The persistent inequality in the secondary enrollments particularly among rural, female, and minority ethnic groups reflect segments of the population currently not receiving equitable access to the Cambodian education system and are faced with a ceiling of primary education. The analysis of the education Gini coefficient of enrollment and the representative index demonstrate that provinces are converging towards equalized representation at the primary level; however, the rural and remote areas, particularly the Northeast region of the country have lagged significantly behind in terms of access to quality education. The issues of gender, ethnicity, and "urbanicity" remain challenges for the Cambodian education system.

Although the country is still in need of greater equity in terms of access, the country needs to begin to shift its focus at the primary level to providing primary teachers with at least a secondary education. By focusing on providing primary teachers with secondary education in lieu of university and pedagogic training, the costs of preparing teachers in the under-represented areas would decline while increasing the quality of schooling in those regions. In this way funds can be used to provide greater access to areas that are currently under-represented instead of wasting resources in ways that do not seem to contribute to decreasing repetition and dropout rates which in turn reflect the level of school quality.

Lastly, issues relating to ethnicity remain under-represented in the discussion of education reform in Cambodia. Although, issues of ethnic minority rights and gender balance are discussed in Millennium Development Goals and National Policies, data on these groups and projects targeting these groups, is very difficult to acquire. The paucity of literature and data leads to the conclusion that

inequality in the education system will persist in Cambodia for ethnic minorities and remote areas. The MoEYS must focus its efforts in reconstructing the education system to ensure equitable access to both physical buildings with highly educated and competent teachers and a curriculum in a language that students can understand in remote areas.

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Note

¹ The education Gini coefficient of enrollment was constructed using a modified version of an equation first developed by Thomas, Wang and Fan (2001, 2002) to accommodate the data provided by the Education and Statistics Indicators released by Cambodia. Specifically, the education Gini coefficient is the ratio of one divided by the average years of schooling multiplied by the sum of the product of all pairs of proportions multiplied by the year of schooling minus the lower years of schooling and corresponding proportions. For a complete description of the methodology used to construct the education Gini coefficient of attainment and for enrollment see Holsinger, et al. (2006). For the mathematical reasoning behind the equation see Robert Dorfman's (1979) article "A Formula for the Gini Coefficient" in *The Review of Economics and Statistics*. In addition see James Morgan's appendix on the measurement of income inequality where he provides a detailed explanation of how to construct the Lorenz curve and calculate a Gini coefficient located in his 1962 article the Anatomy of Income Distribution in *The Review of Economics and Statistics*. These equations all deal directly with constructing income curves and creating a Gini coefficient for income distribution; however, using the same principles but using NER and enrollment data, the equations can be used to construct an education Gini coefficient of enrollment and corresponding Lorenz Curves. Gatswith (1972) argued that the Lorenz curve demonstrates relative inequality as visually portraying the measure of dispersion of income in a society.

9

Higher Education in China: Access, Equity and Equality

John N. HAWKINS, W. James JACOB & LI Wenli

Introduction

One of the global educational challenges is the increasing demand for higher education often in an environment of scarcity. Nowhere is this truer than in China with a large population and a general recognition that the road to success lies in being admitted to one of its relatively few universities, most of which are located on the coastal or near interior regions of the country.

Since 1949 and the establishment of the People's Republic of China, China's leaders have sought to find a "Chinese way to higher education" including such radical efforts as the virtual elimination of conventional higher education during the Cultural Revolution. In general, however, one can say that since 1949 and up until the last few years, two principal goals have been pursued with respect to higher education: ideological training and establishing a narrowly focused technical training program to build socialism (or in earlier ideological jargon, universities were exhorted to be both "red" and "expert"). Policies leading up to the current reform effort are detailed well elsewhere (Agelasto & Adamson 1998; Hayhoe 1999). In understanding China's current efforts to transform higher education, it will be useful to provide a brief history of policies leading up to the current effort: the Draft Law on Higher Education (hereafter—Draft Law).¹ This will be a broad-brush overview to bring the reader up to date on current reform efforts and some of the challenges Chinese leaders face as a result of the reforms.

Although the Draft Law is only now being seriously implemented, it has a long history dating back to 1985 (cited in the ten-year plan of 1991 as a means to realign higher education with new economic directions). The initial draft began in 1985 when the State Education Commission (SEC; now the Ministry of Education), sought to rationalize the legal foundations of China's higher education system. Prior to 1985, there had been a plethora of decrees, regulations, and provisions issued by the central authorities in an effort to bring some order to China's quilt-like pattern of higher education. These documents lacked coherence, authority, and systemization; there was no basic legal framework to guide higher education.

From 1985 to 1995, different aspects of the law were experimented with in different parts of the country, and evaluation data were gathered to work out the details so that by 1997 the final Draft Law was submitted to the National People's Congress (NPC) standing committee on education. Prior to that in 1995, the Draft Law was sent to more than 500 units and individuals in higher education and legal circles for their comments. Deliberations occurred in the NPC, and in 1998 it was finally passed and implementation began (Qu 1998).

Overall, it might be said that the basic goal of the Draft Law was to decentralize the control and management of higher education, moving away from the dominance that China's central authorities had long exerted on higher education and allowing increasing autonomy for individual universities and colleges. More specifically, it was meant to address issues such as how higher educational institutions are established and governed, investment in higher education, the proliferation of universities and colleges run by ministries, departments under ministries, private individuals, localities throughout China, and so on. This rather diverse system resulted in a variety of redundancies, overlap of functions, and cost inefficiencies among other problems. The goal of the Draft Law was to develop a new system whereby the central government would maintain macrocontrol and the provincial and local governments would exercise the chief management of the institutions. Colleges and universities would have a more independent legal status, with presidents being the legal representatives, exercising autonomy in student admissions, setup and reform of specialties, teaching programs, scientific research, foreign exchanges, personnel and management, and use and generation of funds. Other policies focused on standardizing the academic personnel system, detailing the duties and obligations of faculty, and promoting a form of affirmative action to assure that students from low-income families were represented in schools and completed their studies. It was noted that many of the new policies under the Draft Law were only general principals "leaving room for further revision" (Qu 1998, p.14).

While the central authorities portrayed this effort as a logical outcome of many years of deliberations, others have noted that the motivation behind ratifying the Draft Law in 1997 was that China's universities and colleges had lost their initiative due to the rigid administration of the Ministry of Education. Zhejiang University's President Pan Yunhe is quoted as saying: "China's existing system of higher education fails to meet the requirements of modern times" (*Xinhua* April 25, 1998). This was indeed a polite way of noting that China's higher education was in danger of slipping behind other advanced nations, a process, which in the end would affect China's competitive stance in the world. Or, as central officials put it, the many changes recommended are being sought because Deng Xiaoping's educational theory "provides a scientific basis for China's educational policies . . . [whereby] education development should be aimed at China's modernization; keeping abreast of world development trends

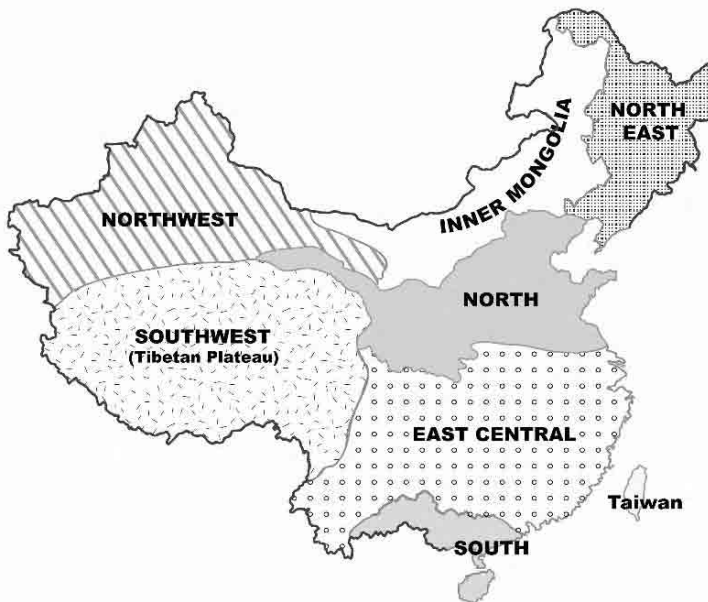
and continuing to contribute to future developments” (Cui 1998, p.1). Either way, it became clear that China’s system was in need of a major overhaul. In the sections that follow, we look at the current architecture of China’s higher education system focusing on special distribution, levels, types of institutions, and governance and then move on to some recent survey data, and conclude with some discussion of recent policy reforms designed to provide a more equitable higher educational system.

Current Architecture of the System

Spatial Distribution

China’s regional organization has long influenced public policy. With approximately 70% of its surface area classified as mountainous, China has a series of natural borders. The country may be geographically divided into seven primary regions: Northeast China, North China, East Central China, South China, Inner Mongolian Grassland, Northwest China, and the Tibetan Plateau (see Figure 9.1).²

Figure 9.1: Seven Primary Geographic Regions of China



Chinese civilization and its educational roots have often been linked to these geographic regions. The East Central Region has been particularly important and is the site of many of China’s most prestigious universities. It consists of the Huang River Basin, often considered the oldest inhabited region of China,

and according to some scholars, among the earliest inhabited regions of the world (Fairbank & Goldman 2002). Perhaps most notable about China's higher education past is its influence on the rest of Eastern Asia. With the help of globalization, China's educational influence is being felt in the surrounding international community, especially in terms of business education.

Perhaps most relevant to Chinese higher education and geographic regions is the correlation between economic, educational, and market-oriented reforms based on geographic region. From the 1980s, the government has encouraged the coastal provinces to carry out a number of significant educational reforms which, in effect, left many of the regions to the west less developed. This geographic policy gave rise to the first four Special Economic Zones (Shantou, Shenzhen, Xiamen, and Zhuhai). Guangdong and Fujian provinces also benefited as recipients of several government financial contracts. Although these government policies clearly aided the development of the Chinese market economy, they also brought fostered inequalities based on geographic region.

Another geographic disparity has been the rural-urban divide. With a dramatic increase in economic output due to worldwide market demand for China's products (primarily manufactured in the eastern regions), domestic migrant workers have left their homes in the interior to seek employment in the eastern coastal regions (see Table 9.1).

Table 9.1: Urban Population and Percent Urban, 1980-2005

Year	Urban Population (in Millions)	Population Urban (%)
1980	191.40	19.39
1985	250.94	23.71
1990	296.15	26.20
1995	353.40	28.58
2000	455.94	36.09
2005	561.57	42.99

Source: National Bureau of Statistics of China (2005).

The availability of higher education is dramatically greater than in rural regions, as most higher education institutions (HEIs) are spatially distributed in eastern urban centers. The net result of this uneven development is that students in rural regions have less access to higher education than those in the urban, coastal areas. A number of social disparities have been the result; socioeconomic and a lack of sufficient financial support among them. A complicating demographic feature has been the one-child policy, which has resulted in a disproportionate number of males, primarily in urban areas once again (Hudson & Den Boer 2005).

This rural-urban divide has been most challenging. An estimated 100 million workers have migrated from rural to the manufacturing urban centers, leading to increased living congestion, transportation traffic, and crime rates (Fews-

mith 2001; Jacob 2006; Kahn 2003; Solinger 1999). While many critics cite the negative aspects of this migrant urbanization movement, others point out the positives. The rural-urban gap has been diminished as several major manufacturing cities have granted permanent residency to migrants residing in cities and have begun to give migrants' children equal access to education in urban schools (Chan 1995; "Equal Right of Education" 2003; "Migrant Workers Help Cut Urban-Rural Gap" 2004). Motives fueling the migrant workers movement include the hope to send enough money back home to support their children, spouse, and even parents so that they might realize a better quality of life. Parents flock to the cities in pursuit of work for the purpose of financing greater educational opportunities for their children. Still the government has struggled with how to eliminate such problems as urban employers either underpaying or refusing to pay rural migrant workers (Kahn 2004; Kuhn 2004).

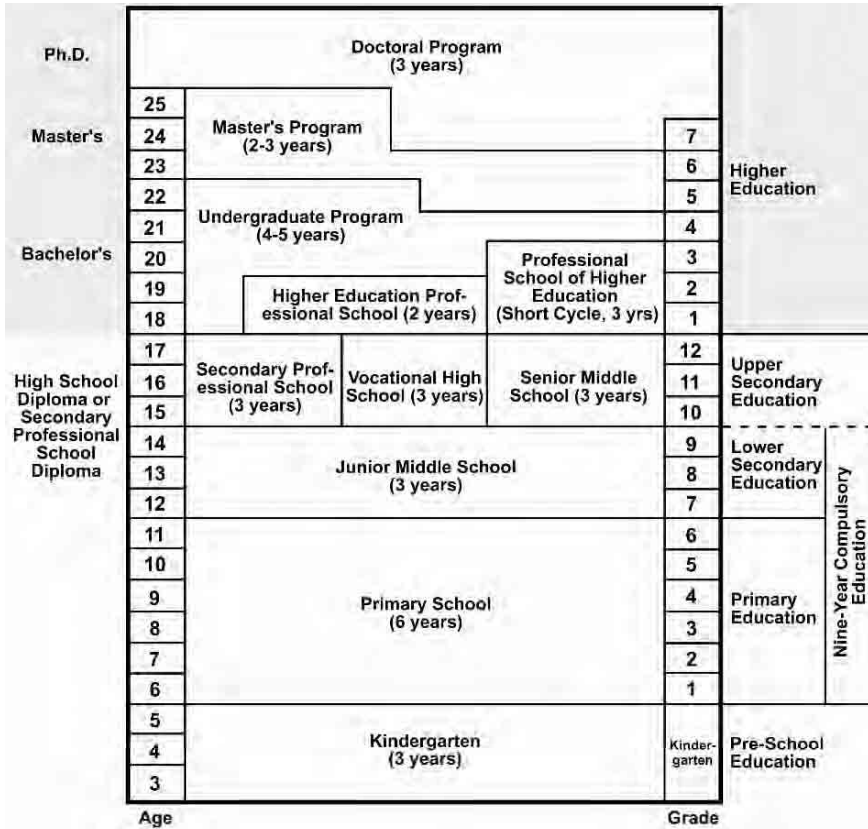
The rural-urban divide is also seen as presenting a challenge for the maintenance of social order in China. Responses to a questionnaire administered to government officials attending the Central Party School in 1994 showed that "84 percent identified social instability as the greatest problem generated by regional gaps; 16 percent feared that such gaps could lead to national division" (Hu Angang, Zhao & Yao as cited in Fewsmith 2001, p.137). Hu Angang and Wang Shaoguang (1993) feel that the market cannot entirely reconcile regional inequalities, for an unchecked market economy, may well increase the regional disparity gap rather than diminish it. Under this perspective, Hu and Wang argue that the government has a significant role to play in overcoming existing regional inequalities. The recent 2006 Chinese People's Political Consultative Conference (CPPCC) has clearly shown that the problem of the "west" is at the top of the public policy agenda (Yang 2006).

Levels

Created in 1985, the SEC was set up to administer the largest education system in the world. The objective of the new administrative body was to grant greater local administrative control while simultaneously retaining a certain level of centralization of education administration in Beijing. The SEC played an encompassing role and had the autonomy to conduct and oversee all national higher education reforms. A new Ministry of Education has since replaced the SEC with more direct responsibility and control over macroeducational policy.

China's education sector can be disaggregated into four essential levels or subsectors: primary, secondary, higher, and adult education (see Figure 9.2). As of 1 July 1986, China has supported a national compulsory subsector education law, and at the recent CPPCC meeting it was reaffirmed that compulsory education would consist of the first nine years of schooling. Efforts would be made to keep costs low and even free for students from the western provinces (as of 2006) and for all rural students (as of 2007).

Figure 9.2: China's Education System



The primary education subsector includes pre-school education and elementary education. Pre-school children include 3- to 5-year-olds who are taught in kindergartens. Primary education, generally for 6- to 11-year-old students, is usually operated by local educational authorities. While tuition is free for all primary-level students, private schools offer an alternative choice for parents to send their students to if they are willing to pay for tuition expenses.

Next, secondary education generally ranges from ages 12-17. Also primarily operated by local governments, Chinese secondary schools include junior and senior middle schools, each lasting for three years. While junior middle schooling is compulsory, attendance at the senior middle school level is regulated by examinations sponsored by local education authorities.

Students are required to attend junior middle school, tuition free. Senior middle school is not required, and families must pay minimal tuition fees for their children. People-operated or *minban* schools are also available and are compara-

Table 9.2: Enrollment of Higher Education Students, 1911-2006

Year	Total Enrollments (thousands)	Year	Total Enrollments (millions)	Year	Total Enrollments (millions)
1911	.48	1943	73.67	1975	.50
1912	.48	1944	69.96	1976	.56
1913	1.37	1945	83.50	1977	.63
1914	.73	1946	80.65	1978	.87
1915	1.21	1947	154.61	1979	1.04
1916	1.45	1948	*	1980	1.17
1917	15.51	1949	.12	1981	1.30
1918	*	1950	.14	1982	1.18
1919	*	1951	.16	1983	1.31
1920	*	1952	.19	1984	1.45
1921	*	1953	.22	1985	1.79
1922	*	1954	.26	1986	1.99
1923	34.88	1955	.29	1987	2.08
1924	*	1956	.40	1988	2.18
1925	25.28	1957	.44	1989	2.18
1926	*	1958	.66	1990	2.16
1927	*	1959	.81	1991	2.13
1928	21.79	1960	.96	1992	2.28
1929	25.50	1961	.95	1993	2.64
1930	37.57	1962	.83	1994	2.93
1931	33.85	1963	.75	1995	3.05
1932	42.71	1964	.69	1996	3.18
1933	42.94	1965	.68	1997	3.35
1934	41.77	1966	.53	1998	3.61
1935	41.13	1967	.41	1999	4.36
1936-37	41.92	1968	.26	2000	5.86
1937-38	31.19	1969	.11	2001	7.58
1938-39	36.18	1970	.05	2002	9.53
1939-40	44.42	1971	.08	2003	11.74
1940-41	52.38	1972	.19	2004	14.16
1941	59.46	1973	.31	2005	16.60
1942	64.10	1974	.43	2006	18.49

*Data not available.

Note: The figures in this table comprise undergraduates and postgraduates in regular Chinese HEIs; enrollments in adult HEIs are not accounted for in this table.

Sources: Achievement of Education in China: Statistics 1949-1983 (1985); Chen (1942); China Handbook 1937-1943 (1947); Djung (1934); Du (1992); Hartnett (1998); Hayhoe (1999); Jin (2000); Ministry of Education (1949, 1965, 1978, 1980, 1990-2006); Xiong (1990); and Zheng (1994).

ble to the state-run senior schools. While most graduate students from the junior middle schools advance to senior middle schools, some choose to enroll in vocational high schools or professional secondary schools for periods of three to five years.

Higher education is considered the third and often the final level of one's educational experience. Somewhat mirroring global higher education structure standards, bachelor's degrees generally last from 4-5 years, master's degrees from 2-3 years, and doctoral programs approximately 3 years.

The fourth subsector in the Chinese education system in many ways coincides with all three of the above education subsectors. There exists adult primary education, which organizes into various types of primary schools, including workers' primary schools, peasants' primary schools, and literacy classes. Adult secondary education includes several specialized schools, such as distance learning schools, cadres schools, staff and workers schools, peasants' schools, in-service teacher training schools, and correspondence schools. Adult higher education includes distance-learning universities, cadre institutes, workers' colleges, peasant colleges, correspondence colleges, and educational colleges. Most of the adult higher education colleges offer seminar-type courses as well as regular undergraduate courses (Surowski 1998).

During the last two decades, higher education in China rapidly expanded in response to an ever-increasing demand stimulated by the fast-growing market economy, the rapid development of science and technology, and the rising income levels and living standards (Bartell 2003). Enrollment in HEIs rose from about 1 million in the early 1980s to 6 million in 1998 (including 2.8 million enrolled in adult education) and now stands at about 23 million, excluding vocational education.

College admissions decisions rely mainly on performance on the national competitive examinations and tend to favor students of higher socioeconomic status who have had the benefit of better learning conditions. Regional disparities are glaring, rooted in the uneven socioeconomic development among different areas in China.

Types of Institutions

Founded on October 2, 1895 in Tianjin, Peiyang University became the first modern HEI in China. The next year, Jiaotong University was established in Shanghai.³ Both universities have existed over a century, and along with other leading universities, such as Zhejiang University (1897), Peking University (1898), and Nanjing University (1902), recently celebrated their hundredth anniversaries. Duan Xinran (2003) views these celebrations as the beginning of a new chapter in Chinese higher education.

Although plagued by war with Japan, Chinese HEIs progressed after the

Western model from 1895 to 1949. Severing ties with the West in 1949, the People's Republic chose instead to pattern its HEIs after the Soviet model for HEIs. This higher education shift resulted in the restructuring of entire institutions. Rather than emphasizing the comprehensive departments so characteristic of Western universities, Chinese HEIs were altered to specialize in singular disciplinary foci.

From 1956 to 1960, the expansion of HEIs in China was extraordinary. The number of institutions grew from approximately 227 to 1,289 and enrollments from 441,000 to a peak of 961,000 (see Tables 9.2 and 9.3). A series of natural

Table 9.3: Number of Chinese HEIs, 1911-2006

Year	No. HEIs	Year	No. HEIs
1911	4	1978	598
1916	10	1979	633
1925	50	1980	675
1928	49	1981	704
1929	50	1982	715
1930	54	1983	805
1931	59	1984	902
1936-37	108	1985	1,016
1937-38	91	1986	1,054
1938-39	97	1987	1,063
1940-41	113	1988	1,075
1941-42	132	1989	1,075
1945	141	1990	1,075
1946	182	1991	1,064
1947	207	1992	1,053
1949	205	1993	1,065
1953	181	1994	1,080
1956	227	1995	1,054
1957	229	1996	1,032
1958	791	1997	1,020
1959	841	1998	1,022
1960	1,289	1999	1,071
1961	845	2000	1,034
1962	610	2001	1,225
1963	407	2002	1,396
1964	419	2003	1,552
1965	434	2004	1,731
1973	345	2005	1,792
1974	378	2006	1,867
1976	404		

Sources: Becker, Falski, Langevin, & Tawney (1974); Chen (1942); Djung (1934); Du (1992); Hartnett (1998); Ministry of Education (1985, 1997, 2001-2006).

disasters, coupled with the economic catastrophe of the Great Leap Forward, saw this HEI number cut by two-thirds in 1965, when enrollments decreased to 674,436 (Du Ruiqing 1992; Hayhoe 1999). The higher education subsector suffered greatest during the Cultural Revolution (1966-1977). Notice how enrollments were virtually eliminated during this time, with only 47,815 students enrolled in 1970. Nonetheless, regular enrollments reached a normal level again in 1975 and 564,715 on the eve of Mao's death in 1976.

The reform decade (1980s), as it has since become known, saw a dramatic increase in both enrollments and number of HEIs. The number of institutions grew from 675 in 1980 to near 1960 numbers of 1,075 in 1988. This rise in number of HEIs provided increased opportunities for many additional eligible secondary school graduates to attend higher education in China.

In the 1980s, a variety of higher education alternatives emerged (Hawkins 1985): (1) evening universities, (2) correspondence colleges, (3) radio and television universities, (4) worker spare-time colleges, and (5) self-study examination institutions offering single subject certificates and degrees.

Today, there are many types of Chinese HEIs that include national universities, provincial universities, colleges, institutes, vocational colleges, and *min-ban* HEIs. Entrance into the higher education subsector requires students to sit for and pass at an acceptable level in the national entrance examination. The examination is offered annually to all eligible students. Selection into HEIs is based on student performance on this exam. Given the enormous number of applicants who sit for the exam each year, entrance into the best institutions is highly competitive. If students fail to be selected into the state-operated universities, they can opt for private HEIs as an alternative.

While the number of HEIs leveled off in the 1990s, enrollments continued to rise.⁴ The ultimate goal of the Chinese government—to reach 20% higher education enrollment of the eligible secondary student graduates by the year 2015—gradually came closer to reality when enrollments reached 2.16 million students in 1990, 3.05 million students in 1995, and 5.43 million in 2002.⁵

Governance

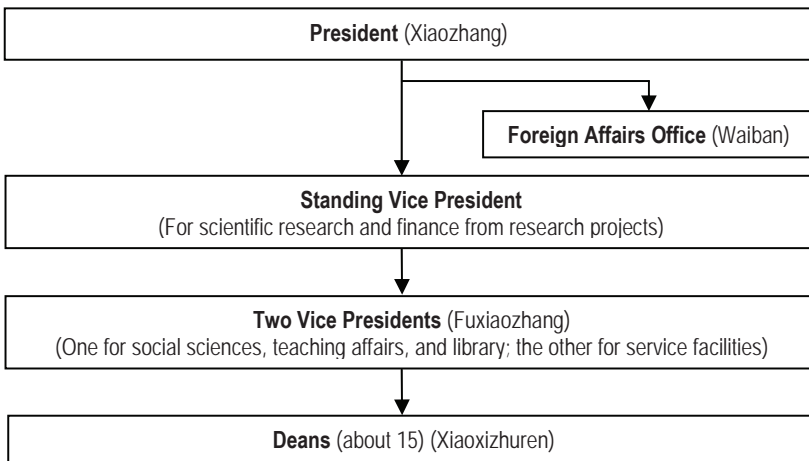
Despite the political shifts that have occurred over the past century in Chinese education, some enduring features of the traditional Chinese system remain and have influenced the manner in which the system is governed. The link between education and politics, collectivism ideology, and national entrance examinations are a few of these features. Chinese societies have traditionally been politically correlated with the education system. Thus an embedded high-value has been placed on educating its children and youth for the benefit of family, community, and government. Since the rise of Confucian thought, Chinese society has been described as having “established an enduring and decisive link between

education and political power” (Aaronvitch 1997, p.6).

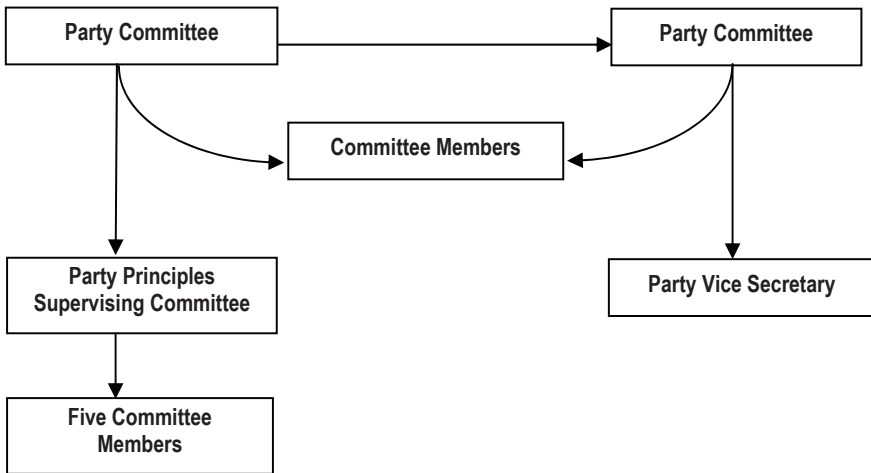
Nina Y. Borevskaya (2004) identifies four “maxims” within the Confucian traditional context that illustrate an alternative to individual-oriented education. First is the notion of an oft-touted characteristic of Chinese and East Asian culture—communalism—that focuses on the whole versus the individual. The second, and perhaps, most well known maxim among Confucian sayings is *xing xiang jin, xi xiang yuan* (human beings are by nature alike, only learning makes them different). This emphasizes the idea of the perfectibility of the individual, the great value placed on education and reinforces the idea that it is through education that individuals can attain knowledge and power. The dialectical ideologies of positive and negative forces are summed up in a third Confucian educational maxim. Here, negative characteristics that are derived from the *xin* (heart and mind)—for example, contention, and corruption—come from *qing* (natural desires). Under this notion, education and learning help subdue these negative forces and develop positive virtues. The final maxim places societal interests over personal interests. This notion was easily reconciled with the Marxist-Leninist idea of the transformative power of the state.

Though contact with the West introduced liberal and democratic ideas, these were not part of the traditional educational makeup and did not take hold. Confucianism is the core of Chinese traditional culture; thus, it remains an instrumental underpinning in contemporary Chinese higher education (Yuan 2004). The Confucian teaching of “dutiful self-subordination” has left its mark on traditional Chinese families, communities, and education today and has influenced the governance model (Fairbank & Goldman 2002, p.384).

Figure 9.3: Administrative Structure of the University



Source: adapted from Rai Shiren (1991, p.67).

Figure 9.4: Structure of the Party in the Chinese University

Source: adapted from Rai Shiren (1991, p.68).

While the state has always exercised control over many aspects of higher education, it has gradually bestowed greater autonomy on HEIs with respect to the knowledge structure, faculty salaries, admissions, and administration (Law 1995). Law Wingwah also notes that there remains a strong state interest in the maintenance of political and ideological education. Higher education was therefore viewed as a mechanism to “propagate official beliefs to students for citizenship” (p.349).

Focusing more specifically on the structure of the higher education system, we can see that until 1985, Chinese universities maintained a dual leadership system, whereby the CCP maintained chief governance over administrative and academic decisions (see Figures 9.3 and 9.4).

The CCP Central Committee (1985) introduced a “presidential responsibility system” as part of its 1985 educational reform (p.20). This autonomy transition was to be gradual, such that eventually the presidents of HEIs would assume full autonomy and governance of their respective institutions. In this revised dualistic system, the CCP would retain control of ideological matters, and the president would assume control of general administrative and academic affairs of the institution, principally teaching, research, personnel, and finance. Apart from the CCP presence in Chinese HEIs, the system as a whole is increasingly patterned somewhat after the US model of higher education administration. Figure 9.3 shows a somewhat typical organizational chart whereby there are vice-presidents who oversee scientific research, finance, and teaching affairs of HEIs

(Hartnett 1998). Richard A. Hartnett considers the current plight of higher education reform in China in a state of a tug of war between the state's centralized goals and "decentralized path of utilitarianism that followed the autonomy movement of the late 1980s" (p.459).

Stated another way, higher education in China has generally faced a dilemma:

On the one hand, higher education has been at the forefront of China's effort to modernize, to provide the high level of techniques and technologies needed to propel China into the modern world. On the other hand, universities and the professors and students within them have been at the vanguard of various movements to criticize the government. (Hawkins 1992, p.105)

With the initiation of the Four Modernizations movement in the 1990s, higher education regained some of its autonomy and more important, respect as a producer of knowledge:

First, the research mission of the university was formally recognized, placing it on an equal footing with teaching. Second, intellectuals found they had entered the ranks of the working class, thus shielding them to some degree from the kind of class struggle to which they had been subjected in previous years. Third, greater authority was delegated to university presidents, allowing some flexibility with respect to university administration. Fourth, political education was deemphasized. (Hawkins 1992, pp.105-106)

Perhaps no reform effort could compare with the massification of the higher education subsector by increased overall enrollments. However, this rapid expansion brings with it additional concerns that educators and policy makers must address equity, quality, choice, and efficiency.

In a multimethods study of ten HEIs in 2003, W. James Jacob (2006) shares from his findings that many students are limited in terms of access and equal educational opportunities based on SES, geographic disparities associated with the rural-urban divide, and ethnic and language backgrounds. Zheng Ruoling (2006) supports these conclusions and adds that educational quality inevitably suffers when massification reforms are implemented at the rate of recent Chinese higher education expansion.

The results of a recent survey study on equity issues in higher education (Li 2006), help illustrate the dimensions of higher education equity issues. The survey was conducted in 2004. Survey research was carried out at ten national and eight local HEIs focused on students ($n = 15,294$, with an 85% response rate). The institutions were stratified by geographic region, such that 15 institutions were from the eastern region, one from the middle region, and two from the western part of China. Schools were further stratified by type, including two comprehensive institutions; two scientific and technological institutions; two agriculture and for-

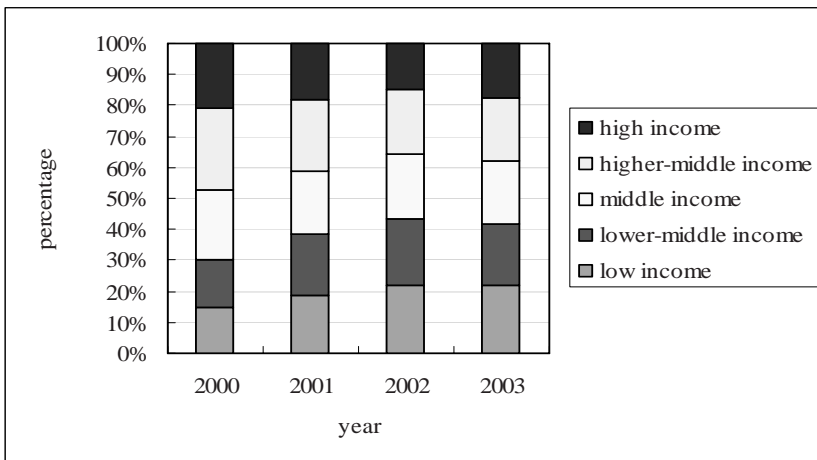
estry institutions; two medical institutions; two teacher education institutions; two language institutions; two institutions of finance, politics, and law; one art institution; one nationality institution; and two geological and mining institutions.

Students were stratified so that slightly more than half were from national HEIs ($n = 8,609$) and the rest from local HEIs ($n = 6,685$). Fifty-two percent of students surveyed were female and 48% were male. The largest number of students sampled came from urban homes. Just over two-thirds of the student came from large and middle-sized cities ($n = 5,871$, 34.6%) and smaller cities ($n = 4,626$, 30.4%). The remaining participants came from villages ($n = 3,294$, 21.6%) and towns ($n = 1,424$, 9.4%).

Results and Findings

From 2000 to 2003, the percentage of students from the top three income quintiles declined from 20.90% to 17.36%, 26.34% to 20.57%, and 22.60% to 20.57% respectively. Meanwhile, the student percentage from the low and lower-middle quintiles showed obvious increases (see Figure 9.5).

Figure 9.5: Socioeconomic Status of Sample Students, 2000-2003



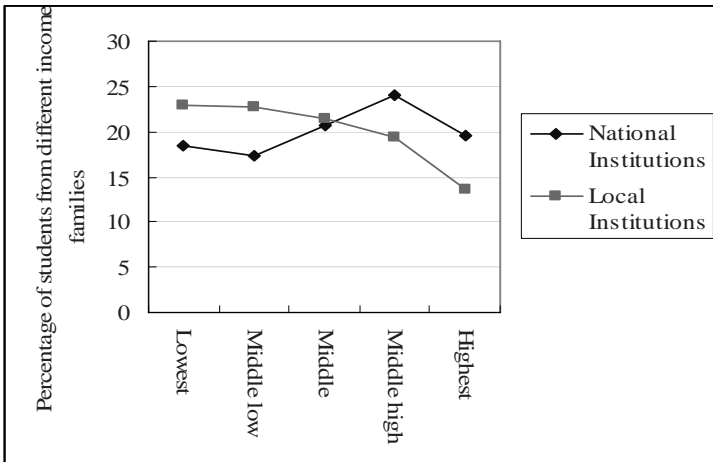
Source: Li Wenli (2006).

Findings also indicate that the student proportion from urban areas, especially large- and middle-sized cities, steadily decreased from 2000 to 2003. The proportion of students from counties also showed modest decrease during the same period. Meanwhile, the proportions of students from counties, towns, and villages showed increases during the same period. In 2003, the student percentage from large- and middle-sized cities was below 40% while that from counties, towns and villages exceeded 60%.

Figure 9.6: Geographic Origin of Sample Students, 2000-2003

Source: Li Wenli (2006).

When comparing the student distribution between national and local HEIs, we found that the student percentages from the top two income quintiles were higher than that from the two lowest quintiles in national institutions, while the inverse was true for local institutions (see Figure 9.7). However, it should be noted that national universities have more public funding and a stronger academic prestige and brand recognition than local universities.

Figure 9.7: Percentage of Students from Different Income Quintiles at National and Local HEIs

Our analysis also shows that a huge disparity exists between income levels and geographic location. Table 9.4 shows that at HEIs in the eastern region, the student percentages from different income groups were similar with the number of students from the middle-high income quintile and was moderately higher than those from the other four income quintiles. However, the student percentages from low-income families were much higher than those from high-income groups at middle and western region institutions. Cost of living and operational costs are notably higher in the eastern and central regions than they are in the western region.

Table 9.4: Student Percentages from Income Quintiles Attendance at HEIs in Eastern, Middle, and Western Regions

	Eastern Region	Middle Region	Western Region
low income	16.47	24.25	25.09
lower-middle	18.22	22.73	18.16
middle	20.78	21.20	20.54
higher-middle	22.66	20.58	23.44
high income	21.87	11.26	12.78

In order to improve the overall quality of Chinese HEIs, construct national leading universities and create world-class universities, national and local governments of China implemented two key projects: Project 211 (1995) and Project 985 (1998) channeling billions of RMB toward the nation's top universities. The purpose of these two projects was to help China's top universities transition into world-class institutions. This meant that Projects 211 and 985 HEIs would have greater public financial support and better facilities than other universities.

Figure 9.8: Percentage of Students Attending Project 211 and 985 HEIs

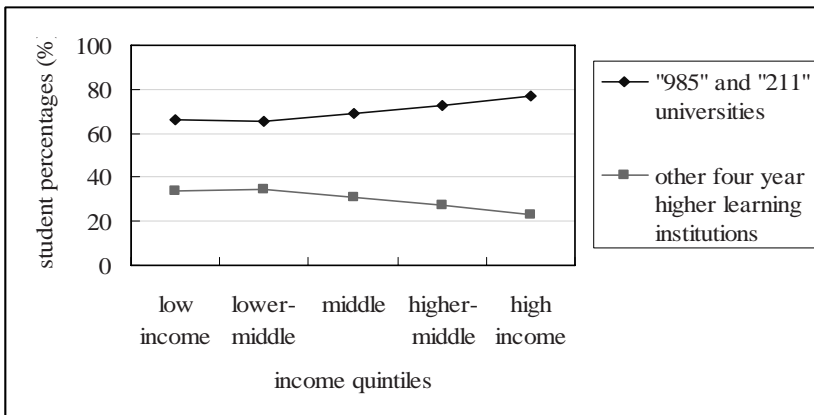


Figure 9.8 shows that Projects 211 and 985 helped enroll a larger percent of high-income students than other HEIs. While universities that qualified as 211 and 985 HEIs received special governmental financial support in an effort to improve higher education quality, this emphasis on improved quality has not necessarily made these same HEIs more equitable.

In order to address the issue of access equality, we examined one national university and one provincial university from the 18-institution sample in this study. We found a significant difference of student distribution from different income groups. While the national university had more students from high-income families, the provincial university had more students from low-income groups (see Table 9.5).

Table 9.5: Student Distribution from Different Income Groups at Two Different Universities (%)

	20% lowest	20% middle low	20% middle	20% middle high	20% highest
A National University	10.0	10.7	20.6	30.9	27.8
A Provincial University	21.8	26.5	23.8	16.7	5.2

Since 1997, all Chinese HEIs implemented cost recovery and cost-sharing policies. Tuition revenue, as a percentage of total higher education financing, increased annually. The average percent of student tuition fees increased from less than 1% in 1990 to 27% by 2002. We also discuss in this section the issue of equality at the sample institutions.

The average annual tuition of students at the sample institutions was 5,300 RMB (US\$641).⁶ The selected national university was 5,000 RMB (US\$605) and the provincial university was 4,400 RMB (US\$532). Differences were also noted in student financial aid packages (see Table 9.6). The annual household income per capita among our student sample was 7,159 RMB (US\$866). Only 1,117 RMB (US\$135) per student of grants and scholarships was allocated to HEIs in our study. Students at the sample national university received an average

Table 9.6: Tuition and Financial Aid in Different Institutions (Chinese RMB)

	Tuition	Tuition and boarding fees	Grants and scholarships	Loans with public subsidy	Work-study earnings
Average of sam- ple institutions	5,300	6,200	1,117	526	367
A National University	5,000	5,800	1,593	308	362
A Provincial University	4,400	5,100	837	357	201

of 1,593 RMB (US\$193) in financial aid while those at the sample provincial university received only 837 RMB (US\$101). Even with grants, student loans, and work-study programs, a large gap prevails between the ability to pay and financial assistance.

A further analysis shows the financial disparity among different income quintiles. We compute the cost or *net price* students pay for their higher education experience with the following formula:

$$\text{Net Price} = \text{Tuition} + \text{Boarding Fees} - \text{Financial Aid}$$

Table 9.6 shows the results of this formula based on information provided by the study's participants. Calculating the cost of a Chinese higher education led to the following conclusions. First, with the general increase of household earnings, the net price paid for higher education also increased. Second, the net price exceeded the ability of low-income families to pay for their children's higher education in some sample institutions. The average percentage of net price to annual household earnings of the lowest income quintile was 42.8% for participants at the sample institutions. The percentage was 46.6% for students at the national sample university and a staggering 100.3% for those attending the provincial university. Third, with the overall increase of household earnings, the affordability of a higher education in terms of percentage of net price to annual household earnings was also increasing.

Table 9.7: Net Price for Higher Education and the Percentage of Net Price to Annual Household Earnings (Chinese RMB; %)

		lowest	middle low	middle middle	middle high	highest
Average of Sample Institutions	Net price	1,408	3,077	4,392	5,006	5,417
	Percentage of net price to annual household earnings	42.8	36.9	29.6	19.3	7.2
A National University	Net price	1,594	1,862	3,655	4,437	4,665
	Percentage of net price to annual household earnings	46.6	22.6	25.4	17.3	6.2
A Provincial University	Net price	3,430	3,876	4,268	4,239	4,018
	Percentage of net price to annual household earnings	100.3	45.6	27.4	17.0	4.4

These findings are the results of one study that provide a general picture of the kind of disparities which appear in Chinese HEIs as massification increases the

pressure on China's HEIs to accommodate students from a variety of SES groups. We will now turn to a discussion of some recent policy reforms that are designed to address some of these equity issues.

Current Policy Reform

The study above as well as additional current sample research conducted on the issue of access and equity in higher education clearly shows that opportunities for those sectors of the population in the lower SES groups are significantly worse than those in the upper groups. This study (Li 2006), conducted in 2004, showed that student enrollment rates for higher education grew modestly for those students from rural areas and lower-income families. Shi's (2005) study achieved similar findings. From 1997 to 2001, the number of higher education applicants from urban areas grew at a more rapid rate than those from rural regions. After 2001, the situation has changed somewhat as applicants from urban and rural areas have shown the same rate of increase. More and more students from rural areas are entering the academic track to pursue a higher education. Zhou Ji, the Chinese Minister of Education identified educational inequality as an important and growing problem. He has argued (February 8, 2005) that "educational equity is an important problem, the educational administrative departments must determine how to plan and coordinate the delicate relationship between the quick educational fix on the one hand and overall educational equity on the other" (p.2).

In order to address these issues of equity and access, education laws have served as the foundation of educational policy (Li & Min 2006). The *Chinese Education Law* grants all Chinese the right to receive a basic education, regardless of ethnic background, gender, religious belief, or occupation. It states,

Citizens of the People's Republic of China shall have the right and obligation to receive education. All citizens, regardless of ethnic group, race, sex, occupation, property status or religious belief, shall enjoy equally opportunity for education according to law (Article 9).

The *China Higher Education Law* goes further and states that citizens, if qualified, also have the right to higher education. In cases where students are unable to afford higher education or an advanced degree (due to low SES or perhaps because of linguistic differences—Han Chinese as a second language) the government provides financial and other assistance. National minority regions generally are given preferential assistance over other regions under a provision which states:

The state assists and supports national minority regions in the development of higher education and training of senior human resources for minorities in the light of the characteristics and requirements of minorities (Article 8). . . . Citizens have the right to higher education according to law.

The state adopts measures to assist students of minority nationalities and students with financial difficulties to receive higher education. . . . Institutions of higher learning must admit disabled students who meet the admission standards set by the state and must not refuse to admit them for their disabilities (Article 9).

The education laws obviously show the state's attitude to education equity and equality. We can conclude from the laws that students who reside in national minority regions are encouraged to attend and complete higher education degrees, and in turn are expected to help meet the huge demand for skilled and specialized human resources in the western regions of the country. Furthermore, in article 54 of *Chinese Higher Education Law*, it states that students in institutions of higher learning shall pay tuition fees in accordance with state provisions; however, if they are from low-SES groups, they may apply for financial assistance. In some cases, tuition and fees can be reduced or waived altogether.

These legal provisions provide the basis by which China is seeking to address the broad SES and other discrepancies that exist especially between rural and urban education. In particular, several policy reforms have been initiated to focus on the issue of financial assistance specifically with respect to higher education: the Announcement on Higher Education Tuition Costs, the Government Subsidized Student Loan Scheme, and the State Fellowship and Scholarship Program. The first reform focused on providing direct financial assistance for those below the poverty line. HEIs are authorized to take out 10% of tuition revenue for financially assisting students from low-income families in need.

The government loan program provides loans to qualified students from low-income families. And the third financial aid program focuses on providing scholarships and fellowships to qualified students based on financial needs. It was established in 2005 and allocates over one billion RMB annually. Funds are distributed for living expenses. Preference is given to HEIs and students in the western provinces as well as institutions with a predominance of students majoring in farming, forestry, water conservation, teacher education, geology, minerals, petroleum, and navigation.

Since 2005, the MOE has established the *Sunshine Project*, which makes public information regarding enrollment policies, procedures, and results. Both government and media provide the publicizing of this information (Li & Min 2006).

Trying to Eliminate the Urban-Rural Inequality Gap

The inequality in basic education between urban and rural students only exacerbates the inequality gap between urban and rural regions. In order to overcome this disparity, additional resources need to be focused on raising the quality of basic education in rural areas. This will help level the playing field between rural

and urban students and address the educational imbalance at its source.

The government has recently improved the *Training Education Masters for Rural High Schools Program* in 2005. This program helps provide educational poverty relief, primarily in remote regions of the country. By the end of 2005, 940 teachers in rural high schools have been trained as education masters.⁷

In recent years, the central government has recognized the need to put rural education high on the reform agenda and proposed increased funding on rural education. Additionally, the government has organized and implemented a task-force plan to assist in the development of primary education in the western region. Distance education programs have also supplemented rural primary and middle schools.

Improving Equality for National Minority Students

As is the case in most nations, education for marginalized groups, ethnic and linguistic minorities and others, generally lags behind educational opportunities for the majority population. In China, the government has recently enacted a number of reforms, to go along with previous efforts, designed to support national minority education. Programs have been designed to provide more educational aid to students in minority regions and to provide subsidies to schools in these regions. Aid is also provided for direct poverty alleviation. Because of a shortage of qualified teachers for minority regions, new policies have been enacted that provide incentives for college graduates who volunteer to teach in minority areas. Another program matches up the more elite, coastal institutions with counterparts in minority areas so that joint programs and teaching assistance can be provided to minority HEIs. Finally, education administrators and policy makers from minority areas are linked with officials from the central government to plan context-appropriate avenues for education improvement and development in the primary, secondary, and higher education subsectors. This is in contrast to previous top-down approaches to providing education assistance to these regions.

Improving Regional Equality in Higher Education

Of particular interest is the policy referred to above to link coastal institutions with their counterparts in the interior. Since 2001, the MOE has established the *Counterpart Aiding Project* between leading universities and HEIs in western regions. Four years later, the project was extended and focused on developing HEIs in Xizang and Xinjiang Provinces. This project links all four-year HEIs in Xizang and Xinjiang provinces with elite universities in the east and coastal regions. This higher education partnership project provides funding and incentives for exchange opportunities for students and faculty members that would otherwise be impossible.

Institution building has also received attention. The *Action Plan for In-*

vigorating Education from 2003 to 2007, focused on the development of educational institutions, finance, human resource management, leadership skills, and the promotion of talents in the western region. Continual support is also given to operate at least one high-level university in each province, autonomous region, and municipality directly under the central government of the western region. Exchange and cooperation programs are also established between participating HEIs in the western region and prestigious institutions throughout China.

Many of these reforms were legitimized in the *10th Five-Year Plan for National Education Undertaking*, which placed a heavy, simultaneous emphasis on educational development. Policies and expenses were established and prioritized toward educational development in the western region. Support should be primarily given to the development of basic education and secondary vocational education. Two-year higher vocational education was also made a priority especially if graduates would develop the necessary skills and, following graduation, fill much-needed occupations in the western region. Government funding efforts to support each province (autonomous region and municipality directly under the central government) were established to run a number of secondary vocational schools and a higher-level university. Funding was also made available to construct normal universities in the western region. The recent meeting of the CPPCC in Beijing has reinforced these policies and other new initiatives. It is likely that efforts to focus attention on the western regions and improving higher educational access and equality will continue to be a priority of the Chinese government.

Conclusion

As the Chinese economy continues to expand and play a leading role in the global economy, its higher education subsector is faced with unique challenges that parallel this growth. In this chapter, we have identified several of these challenges relating to spatial distribution, number of individuals who are able to enter the higher education subsector, types of institutions available, and the governance of HEIs. People from rural and hinterland regions of the vast country do not generally have the same higher educational opportunities as do those from the urban and eastern coastland regions. Issues relating to language, ethnic background, and the rural-urban divide all are significant factors that determine an individual's opportunity to access and succeed in the secondary and higher education subsector levels of the education system.

Forged from century of political and market influences, and grounded in thousands of years of educational history, the current Chinese higher education system is a subsector of promise. Elite state-sponsored HEIs retain their preeminent role as the leading universities in the country. These HEIs are stabilized by government financial backing, brand-name recognition, and partnerships with leading international HEIs. Meeting the equity needs of the Chinese masses are

other government, private, and international HEIs. The government is playing an active role in striving to bridge many of the existing equity gaps that we have discussed in this chapter. Current reforms include financial aid and incentive programs for rural and remote regions of the country. More still can be done to realize higher educational equity in China. Trying to eliminate the inequality gap that exists between urban-rural and regional locations will need to continue to be a priority for future reform efforts. In addition, continued effort by the government and HEIs to include national minority students is an essential element in achieving equality in the higher education subsector.

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Notes

¹ At the 57th Session of the Standing Committee of the State Council, the Draft Law was ratified in principal. It consists of 63 articles in eight chapters dealing with most sectors of China's higher education system.

² These regions are based upon the natural geographic features of China. In all, the total land area of China is 9,571,300 sq km (3,695,500 sq mi), making it the fourth largest geographic nation behind Russia, Canada, and the United States.

³ In the 1950s, most of Jiaotong University was transplanted to Xi'an, an ancient capital city in central China, and renamed Xi'an Jiaotong University. The remaining portion of the university in Shanghai was renamed Shanghai Jiaotong University.

⁴ Although public HEIs leveled off in the 1990s, the phenomenon of private higher education gained increased precedence throughout the latter end of the decade. In 1999, China had 1,207 *minban* colleges, educating 1.5 million students among a total of 7.2 million students in colleges nationwide (Walfish 2001b).

⁵ Daniel Walfish (2001a) writes that as of 2001, Chinese higher education enrollment was about 11%, compared with around 60% in Japan, South Korea, and Taiwan.

⁶ US dollar equivalents are based on 1 July 2004 currency exchange rate.

⁷ Teachers so designated are somewhat equivalent to the concept of "master teachers" in the United States but with a specific focus on training teachers for rural development.

10

Using Enrollment and Attainment in Formal Education to Understand the Case of India

Mary Ann MASLAK

Introduction

The investigative inquiry of global trends in comparative and international education provides opportunity to examine the current state of the field and perpend its future study. Studies in the field have traditionally sought to reveal similarities and differences in educational ideas, systems, and practices. This timely edited volume offers felicitous case studies on the inequality of education, focusing on educational participation measured in terms of educational enrollment and attainment.¹ This chapter is devoted to understanding educational inequality in India. After providing a brief overview of the country, the first section offers a sketch of India's educational system, methods used to measure enrollment and attainment, and statistics that offer a numerical depiction of education in the country, with a particular emphasis on differences by sex. The second section offers a literature review of enrollment and attainment in the formal education sector.² This examination of national policy and scholarly literature pinpoints inattention to studies on educational enrollment and attainment at the secondary and tertiary levels, and educational participation among other populations, including the "disabled," "deviant," and minority populations. It also shows how the unequal representation of both quantitative and qualitative studies presents an inadequate and incomplete depiction of the educational enrollment and attainment situation in the country. The conclusion offers final thoughts on and future directions for the field that highlight the need to reexamine educational enrollment and attainment by using sociological frameworks that prominently position gender as a critical pivot point to understand educational inequity in India.

India is comprised of 25 States, 7 Union Territories (UTs), and 466 Districts. Excluding the politically volatile regions of Jammu and Kashmir, the country reports a population of 1,028,610,328 with 532,156,772 males and 496,453,556 females (Registrar General 2001). Approximately 80% of its population is Hindu (N = 827,578,868), approximately 13% Muslim (N =

Figure 10.1: Map of India, 2001



Source: Registrar General (2006).

138,188,240), approximately 2% Christian ($N = 24,080,016$), approximately 1% report themselves as Sikh ($N = 19,215,730$). The Registrar General (2001) also notes that less than 1% of the population is comprised of Buddhists ($N = 7,955,207$), Jains ($N = 4,225,053$), or other religions ($N = 6,639,626$).³

Table 10.1 (Registrar General 1991) reflects India's spoken languages, (excluding Jammu and Kashmir populations).⁴

Table 10.1: India's Spoken Languages (excluding Jammu & Kashmir populations)

Language	Population	Percent
Hindi	337,272,114	40.22
Bengali	69,595,738	8.30
Telugu	66,017,615	7.87
Marathi	62,481,681	7.45
Tamil	53,006,368	6.32
Urdu	43,406,932	5.18
Gujarati	40,673,814	4.85
Kannada	32,753,676	3.91
Malayalam	30,377,176	3.62
Oriya	28,061,313	3.35
Punjabi	23,378,744	2.79
Assamese	13,079,696	1.56
Sindhi	2,122,848	0.25
Nepali	2,076,645	0.25
Konkani	1,760,607	0.21
Manipuri	1,270,216	0.15
Kashmiri	56,693	0.01
Sanskrit	49,736	0.01
Other Languages	31,142,376	3.71
Total	838,583,988	100.00

Source: Registrar General (1991).

Table 10.2 shows India's population statistics of Scheduled Castes (SC) and Scheduled Tribes (ST).

Table 10.2: Scheduled Castes and Scheduled Tribes

Group	Population	Percentage of Total Population
Scheduled Castes	166,635,700	16.2
Scheduled Tribes	84,326,240	8.2

Source: Registrar General (2001).

India's Formal Educational System

Educational enrollment and attainment as it applies to this chapter relates to the formal educational system. The concept of the 10 + 2 + 3 education system has been adopted by all the States and UTs in India (Brock & Cammish 1997).

However, variation is apparent. For example, although Article 45 of India's Constitution states the country is required to provide a free and compulsory education for all children under the age of 15, and many States and Union Territories offer free education in Classes 1-7 in their schools, others have yet to institutionalize the compulsory education plan.⁵ Moreover, the compulsory primary education that is offered has not been standardized. The Planning Commission's (2002) *Tenth Five Year Plan* (hereafter referred to as TFYP) states that primary school consists of either Classes 1-5 or Classes 1-4. High school includes Classes 6(5)-8 or Classes 6(5)-7. Higher secondary school consists of Classes 9-10, 8-10, or 11-12 (10 + 2 pattern). Other regional differences exist. For example, the minimum age for admission to Class 1 is 5 years. In order to accommodate for the diverse population and regional differences therein, the schools in most States/UTs adopt the local, mother tongue, or regional language as the medium of instruction at the primary stage of education. Hindi is compulsory in most of the non-Hindi speaking States/UTs. All States/UTs, except Bihar, expect English usage; however, requirements differ in each class per region. The document also reveals the variation in the number of working days in a year, the length of academic sessions, and corresponding vacation times for schools in the States and UTs.

Methods for Measuring Enrollment and Attainment⁶

Although not specifically mentioned in the Indian educational policy literature, India relies on the concept of educational parity to measure educational enrollment and attainment. Educational parity is the "...equal participation of females and males in all forms of education based on their proportion in the relevant age-groups in the population" (Subrahmanian 2005, p.397). India uses gross and net enrollment figures to offer a snapshot of educational participation. Gross enrollment is not defined in the TFYP (1991). The UNESCO Institute for Statistics (2007) defines gross enrollment ratio as "[n]umber of pupils enrolled in a given level of education, regardless of age, expressed as a percentage of the population in the theoretical age group for the same level of education." India reports the net enrollment rate (NER) is obtained by subtracting the number of underage and overage children enrolled in Classes 1-5 and 6-8. The TFYP also reports literacy levels, which may be interpreted as a measurement of attainment. Although the statistics are reported in the TFYP, the term *literacy* is not defined in the document. As we are aware, a range of skills may be used to assess one's literacy level. This may include a test of writing one's name, reading and writing simple and complex sentences, and reading a personal letter.

India's Educational Descriptive Statistics

The 2001 Census (Registrar General 2001) provides the most comprehensive,

current set of descriptive statistics that depict the enrollment and attainment situation in the country. When data are excluded in the 2001 Census, other databases, as well as the 1991 Census are used in this chapter. The first table shows the percentage of children by age group currently enrolled in school.

Table 10.3a: Percentage of Children by Age Group Attending School

Age Groups	Total			Rural			Urban		
	Per-sons	Males	Fe-males	Per-sons	Males	Fe-males	Per-sons	Males	Fe-males
6-10 Years	51.2	56.6	45.4	46.0	52.3	39.3	68.3	70.7	65.8
11-13 Years	63.8	72.5	54.2	58.5	69.1	46.6	79.0	82.3	75.3

Source: Registrar General (1991). These figures exclude data from Jammu and Kashmir; disturbances in these regions could not permit data collection.

Table 10.3a indicates females are attending school at rates lower than males of the same age range. The difference between males and females in the 6-10 age group is more pronounced in the rural areas (13%) than in urban areas (4.9%). The difference between males and females in the 11-13 age group is even more striking at 22.5% and 7%, respectively. The National Sample Survey Organisation (1996-1997) reports an estimated 96.8 million children in the 14-18 age group (cited in Planning Commission 2002). Enrollment figures show that only 27 million children were attending secondary school. This indicates approximately 66% of the eligible population remains out of secondary school.

The TFYP also provides descriptive statistics for primary and middle school youths' enrollment ratios from 1980 to 2000. Table 10.3b offers this information.

Table 10.3b: Gross Enrollment Ratios by Classes 1-5 and 6-8, 1980-1981 to 1999-2000

Year	Primary (Classes 1-5)			Middle (Classes 6-8)		
	Girls	Boys	Total	Girls	Boys	Total
1980-1981	64.1	95.8	80.5	28.6	54.3	41.9
1990-1991	85.5	114.0	100.1	47.8	76.6	62.1
1998-1999	82.9	100.9	91.9	49.1	65.3	57.6
1999-2000	85.2	104.1	94.9	49.7	67.2	58.8

Source: Selected educational statistics for respective years, Department of School Education and Literacy, Ministry of Human Resource Development (MHRD). New Delhi: Government of India.

The figures here reflect both inconsistent growth over time, and disparity among the sexes.

Table 10.3c shows gross enrollment ratios of the STs and Total Population (1990-2000). The situation for girls is particularly dire. Their enrollment ratios lag behind that of boys in primary and secondary schools during each of the periods noted here.

Table 10.3c: Gross Enrollment Ratios of STs and Total Population, 1990-1991 to 1999-2000

		1990-1991		1999-2000	
		Classes 1-5	Classes 1-8	Classes 1-5	Classes 1-8
Total Pop- ulation	Total	100.1	62.1	94.9	58.8
	Boys	114.0	76.6	104.1	67.2
	Girls	85.5	47.8	85.2	49.7
Scheduled Tribes (STs)	Total	103.4	39.7	97.7	58.0
	Boys	126.8	51.3	112.7	70.8
	Girls	78.6	27.5	82.7	44.8
Gap	Total	(+) 3.3	(-) 22.4	(+) 2.8	(-) 0.8
	Boys	(+) 12.8	(-) 25.3	(+) 8.6	(+) 3.6
	Girls	(-) 6.9	(-) 20.3	(-) 2.5	(-) 4.9

Source: Annual Report of Respective Years, Department of School Education and Literacy, MHRD, New Delhi: GOI.

The Government of India's Tenth Plan also reports drop-out rates. Table 10.4a provides a glimpse of the situation in India.

Table 10.4a: Drop-Out Rates among Girls and Boys, 1980-1981 to 1999-2000

Year	Primary (Classes 1-5)			Middle (Classes 6-8)		
	Girls	Boys	Total	Girls	Boys	Total
1980-1981	62.5	56.2	58.7	79.4	68.0	72.7
1990-1991	46.0	40.1	42.6	65.1	59.1	60.9
1999-2000*	42.3	38.7	40.3	58.0	52.0	54.6
Decrease between 1980 and 2000	(20.2)	(17.5)	(18.4)	(21.4)	(16.0)	(18.1)

* Includes ST population

Source: Planning Commission (2002), Table 2.11.27, p.264.

This information indicates that an alarming number of students drop out of school at both levels, but the rates for both boys and girls are lower at the secondary level than at the primary level. The situation is even more serious for the children from STs. Table 10.4b provides these statistics.

Table 10.4b: Drop-Out Rates among STs and Total Population, 1990-1991 and 1998-1999

	Classes (1-5)		Classes (1-8)		Classes (1-10)	
Total*	42.60	39.74	60.90	56.82	71.34	67.44
STs	62.52	57.36	78.57	72.80	85.01	82.96
Gap	19.92	17.62	17.67	15.98	13.67	15.52

*Includes ST students

Source: Educational Profile of States/UTs, Department of School Education and Literacy, MHRD, New Delhi: GOI.

As tables 10.4a and 10.4b suggest, both girls and those from STs drop out of school more frequently than do boys and those from non-ST groups. By Class (or Grade) 6, almost 60% of middle school-aged girls and more than half boys drop out of school. The situation is even more alarming for children from STs. By Class 10, almost 83% of this population has dropped out of school.

Achievement of students who remain in school (or acquire literacy by some other means, such as non-formal education programs which are not mentioned in this document) is measured by literacy level. The 2001 Census (Registrar General 2001) reports literacy statistics of males and females by percentage of the total, urban, and rural populations (see Table 10.5). The most recent information provided by the Registrar General does not offer the percentage of literates by educational level (see Table 10.6) and literacy rate by age group (see Table 10.7). Statistics from the 1991 database are included here. The 1991 Census data are used. Although these data alone do not allow us the opportunity to analyze the situation today, they provide a point of reference.

Table 10.5: Number of Literates and Literacy Rates

	Persons	Males	Females
Total	64.8	75.3	53.7
Rural	58.7	70.7	46.1
Urban	79.9	86.3	72.9

Source: Registrar General (2001).

Inequity between the sexes is also evident when examining literacy statistics (see Tables 10.5, 10.6 and 10.7). For example, Table 10.5 clearly shows females have lower literacy rates than males. Tables 10.6 and 10.7 reflect a bleak picture for women's literacy using more specific breakdowns. Although girls seem to fare better than boys at the primary school stage, that situation no longer holds true beyond middle school. The age breakdown reflects that girls at the 10-14 year old range have the highest literacy rates of both rural and urban areas.

Table 10.6: Percentage of Literates by Education Level and Sex, 1991

	Total			Rural			Urban		
	Per- sons	Males	Fe- males	Per- sons	Males	Fe- males	Per- sons	Males	Fe- males
Below Primary	25.2	23.8	27.8	29.2	27.2	33.2	18.4	17.1	20.4
Primary but below Middle	28.7	27.3	31.4	31.6	30.1	34.8	23.9	21.9	26.7
Middle but below Matric	20.9	21.2	20.4	21.0	21.6	19.7	20.8	20.5	21.3
Matric but below Graduate	19.4	21.3	16.0	15.5	17.7	10.9	26.1	28.3	23.0
Graduate and Above	5.7	6.4	4.5	2.7	3.4	1.4	10.8	12.3	8.7

Source: Registrar General (1991), Tables C-2, C-2a, Social and Cultural Tables Part IV. These figures exclude data from Jammu and Kashmir; disturbances in these regions could not permit data collection.

Table 10.7: Literacy Rate by Age Group and Sex, 1991

Age Groups	Total			Rural			Urban		
	Per- sons	Males	Fe- males	Per- sons	Males	Fe- males	Per- sons	Males	Fe- males
7 & Above	52.2	64.1	39.3	44.7	57.9	30.6	73.1	81.1	64.1
10 & Above	51.5	64.1	37.8	43.8	57.7	29.0	72.6	81.1	62.9
15 & Above	48.2	61.6	33.7	40.0	54.6	24.6	70.5	80.0	59.5
10-14 Years	68.8	77.0	59.7	63.4	73.4	52.3	84.7	87.8	81.4
15-19 Years	65.8	75.3	54.9	59.3	71.0	45.8	82.6	86.4	78.3
19-59 Years	50.8	64.2	36.3	42.5	57.4	26.8	72.6	81.3	62.5
60 Years & Above	27.2	40.6	12.7	21.1	33.7	7.5	48.7	66.0	30.8

Source: Office of the Registrar General, India (1991), Tables C-2, C-2a, and C-4; Social and Cultural Tables Part IV. These figures exclude data from Jammu and Kashmir; disturbances in these regions could not permit data collection.

Literacy statistics are also calculated for the SCs. Tables 10.8a and 10.8b show literacy attainment for both SCs and females of SCs from 1971 to 2001, respectively.

Table 10.8a: Literacy Percentage Rates of SCs and Total Population, 1971-2001

	1971	1981	1991	2001
Total Population*	29.45	36.23	52.21	65.38
Scheduled Castes	14.67	21.38	37.41	Not yet available
Gap between SCs and Total Population	14.78	14.85	14.80	Not yet available

*Includes SC population

Source: Registrar General (2001) and MHRD (1995).

Table 10.8b: Female Literacy Percentage Rates of SCs and Total Population, 1971-2001

	1971	1981	1991	2001
Total Population*	18.69	29.85	39.29	54.16
Scheduled Castes	6.44	10.93	23.76	Not yet available
Gap between Female Literacy of SCs and Total Population	12.25	18.92	15.53	Not yet available

*Includes SC population

Source: Registrar General (2001) and MHRD (1995).

The situation for the SCs and women is particularly disconcerting. According to more recent governmental statistics, just over 37% of the SC population was considered literate (1991). These figures are not surprising if we examine the statistics by educational level. Table 10.9 shows almost 70% of women in the rural areas, and 34% of women in the urban areas are considered literate.

Table 10.9: Distribution of Women in the Age Group 15-44 Years by Education Level

Number of Women in (000s)	Total	Percentage of Women in Rural Areas	Percentage of Women in Urban Areas
Total	181,496	131,792	49,704
Illiterate	59.9	69.7	34.0
Literate but Below Middle	16.3	15.3	18.8
Middle but below Matric	10.5	8.4	16.1
Matric but below Graduate	10.4	5.8	22.5
Graduate and Above	2.9	0.8	8.7

Source: Registrar General 1991, Tables C-2 and C-2a; Social and Cultural Tables Part IV. These figures exclude data from Jammu and Kashmir; disturbances in these regions could not permit data collection.

Table 10.10: Enrollment of Girls in Graduate, Postgraduate, and Professional Courses, 1990-1991 to 1999-2000

Levels	1990-1991		1996-1997		1999-2000	
	Women	Total	Women	Total	Women	Total
Graduate (B.A./B.Sc./B.Com)	1.14 (34.7)	3.29	1.82 (37.4)	4.87	2.66 (40.9)	6.51
Post Graduate (M.A./M.Sc./M.Com)	0.12 (32.8)	0.35	0.17 (30.5)	0.54	0.22 (39.6)	0.55
Ph.D./D.Sc./D. Phil	0.01 (26.2)	0.03	0.01 (29.2)	0.04	0.02 (35.4)	0.05
B.E./B.Sc.(Eng)/ B. Architecture	0.03 (10.9)	0.24	0.05 (14.9)	0.33	0.08 (22.0)	0.36
M.B.B.S.	0.03 (34.3)	0.08	0.04 (35.4)	0.12	0.05 (37.8)	0.14
Total	1.32 (33.0)	3.99	2.09 (35.3)	5.90	3.03 (39.8)	7.61

Note: Figures within parentheses indicate percentage to total.

Source: Selected educational statistics for respective years from the Department of School Education and Literacy, MHRD, New Delhi.

The statistics reflected in this table (10.10) show the percentage to total of women enrolling in upper divisions of education. These figures are comparatively high based on the figures of school enrollment and literacy levels. This situation should give pause to the researcher; investigation into this finding is warranted.

Unlike the 1991 Census data, the 2001 data bank includes statistics on type of disability by age, including the sight impaired, speech impaired, hearing impaired, physically disabled, and mentally disabled. While the data improve the range of information provided by the Census, it does little to deepen the discussion of the extent to which, and ways in which these individuals are educated.

In sum, education and literacy levels falls short of both international and national expectations and goals. Females as well as those from rural areas do not obtain adequate levels of education. Those from urban areas also fall short of enrollment expectations, albeit at a lesser rate, than those from the countryside. The next section of the chapter offers a review of the literature that seeks to explain this situation.

Literature Review

This brief literature review contains two sections. The first section offers an overview of national policies that pertain to educational inequity in India. The second section provides a review of scholarly literature that addresses educational enrollment and attainment in India.

Policy

There is no abeyance in national policies on education to survey India's attention to educational inequity. Based on Article 45 of the Constitution of India that clearly states the right to a free and compulsory education for all children under the age of 15, the *National Policy on Education* (NPE) guides educational development in India and offers documentary evidence of policy aimed to address educational inequity in the country (MHRD 1985 & 1992).

Chapter 2.2 of the NPE (MHRD 1992) offers a general overview of issues pertinent to this discussion on enrollment and attainment in India's primary educational system. One of the more extensive policies pertaining to primary education is the District Primary Education Programme (DPEP). Commenced in 1994 with the assistance of numerous international agencies, the DPEP's primary goal is to operationalize the objectives outlined in the Universal Primary Education (UPE)/Universal Elementary Education (UEE) plan for at-risk segments of the population. It has been adopted, to some extent, in 248 Districts of 18 States. Major thrusts of the policy include school construction, teacher hiring, and curricular development. Annual scholarships to encourage enrollment are provided upon attendance. The TFYP also mentions the Kasturba Gandhi Swantantra Vidyalaya (KGSV) and the National Programme for the Education of Girls at the Elementary Level (NPEGEL), both of which focus on regions struggling to promote education among the girls from SCs and STs. The grandiose plans promote:

1. tackling gender-specific issues that prevent girls and women from having access to education;
2. providing women and adolescent girls with the necessary support structure and an informal learning environment to create opportunities for education;
3. creating circumstances for larger participation of women and girls in formal and non-formal education programmes; and
4. helping girls to overcome socio-cultural and economic factors inhibiting her access to elementary education. (Planning Commission 2002, pp.34-35)

Upon review, these policies pay little if any attention to how *gender* relates to the current situation and solutions for improvement.

In addition to the TFYP, the Government of India invited its Central Advisory Board of Education (CABE) to review critical issues prevailing in the country. The Committee agreed to pursue girls' education and the "common school system." The Committee pursues three goals:

1. examine existing schemes, incentives and special measures aimed at reducing gender disparity and increasing the participation and reten-

tion of girls, in all sectors of education;

2. make the provision in the NPE and POA [Plan of Action] regarding the Common School System a reality; [and]
3. examine ways of promoting inclusive education and the education of all children with disabilities/special needs.

Secondary education does not receive the same emphasis in Indian policy. Although Chapter 2.3 of the *National Policy on Education* is devoted to secondary education, it lacks both serious review of and plan for addressing educational inequity at this level of the educational system. India's descriptive statistics clearly indicate educational inequity in attendance (see Table 10.3a), gross enrollment (see Tables 10.3b and 10.3c), dropout rates (see Tables 10.4a and 10.4b), literacy rate as an indicator of attainment (see Tables 10.5, 10.6, 10.7, 10.8a, 10.8b, and 10.9), and obtainment of advanced degrees (see Table 10.10). Cursory mention is made of hostel facilities and free education for girls (Planning Commission 2002, p.44).

Related and receiving more attention is the issue of women's education. The chapter of the most recent *National Policy on Education* (MHRD 1985 & 1992) entitled "Education for Women's Equality" offers a variety of policy goals and objectives for the betterment of females. It states:

The National System will play a positive, interventionist role in the empowerment of women. It will foster the development of new values through redesigned curricula, textbooks, the training and orientation of teachers, decision-makers and administrators, and the active involvement of educational institutions. . . . The removal of women's illiteracy and obstacles inhibiting their access to, and retention in, elementary education will receive overriding priority.

It is unclear how, if at all, the *National Policy on Education* works with or is related to the education for women's equality policy. The statement assumes educational institutions play one (if not the only) role in female education. Not only does the policy fail to mention how curricula and educators impact the "empowerment of women" but it also neglects to consider (or even suggest) any other factors that may influence females' pursuit of an education.

Educational attainment is mentioned in policy documents in terms of adult literacy from a programmatic perspective. The TFYP's Chapter 2.6 provides descriptions for program development. For example, one government-sponsored program for women is Mahila Shamakhya, which operates in 53 districts in more than 8,000 villages of Uttar Pradesh, Karnataka, Gujarat, Andhra Pradesh, Kerala, Bihar, Madhya Pradesh, and Assam. Information on the program's level of operation, consistency in services offered, student achievement, and evaluative

reports is not provided.

Another policy that pertains to females' educational enrollment and attainment is the Ministry of Women and Child Development's (MWCD) *National Policy on Empowerment of Women*, which was adopted in April 2001. Among other objectives, it seeks to accomplish the following:

initiate steps for eliminating gender bias in all educational programmes; and to instate plans for free education of girls up to college levels including professional levels; [and] to equip women with necessary skills in modern upcoming trades which would make them economically independent and self-reliant.

The *National Policy on Education* refers to educational inequity for the educationally backward and disadvantaged sectors of society. In order to address the government's concern, the Area Intensive Programme for Educationally Backward Minorities (AIPEBM) and the Modernisation of Madrasa Education (MME) initiatives have built hostels and revised curricula to include classes in English, mathematics, science, and the social studies. Scholarship schemes, including "Pre-Matric Scholarship for the Children of Those Engaged in Unclean Occupations" are extended to students from SCs to pursue education and reduce their chances of drop out (Social Justice and Empowerment Department 2007). The Special Educational Development Programmes aim to establish special residential schools for SC girls who are the first generation to attend school and belong to "Low Literacy Districts." Low literacy regions targeted in this program include Bihar, Madhya Pradesh, Rajasthan, and Uttar Pradesh. However, another program that seeks to increase minority student enrollment and attainment is the Maulana Azad Education Foundation's scheme. Its wide-ranging services include remedial tutoring for students, constructing and expanding schools, and supporting vocational and technical training centers for women.

Educational inequity among the exceptional population is also mentioned in governmental policy. India promulgated its first piece of legislation related to special education—the *Rehabilitation Council of India Act*—in 1992. It mandates a minimum standard of education for professionals working with disabled individuals. Initiated in 1995 and enacted in 1998, the *Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act* specifies that every child under the age of 19 has a right to a free, appropriate education in a suitable learning environment (Vakil, Welton & Khanna 2002). The *Act* entrusts the appropriate governmental authorities to provide children with disabilities access to education; however, it makes no mention of *how* educational systems and practices will address this requirement. The CABE also offers a policy statement on special education. It claims it will study ways to promote inclusive education for disabled students. Most recently, the *National Trust for Welfare of Persons with Autism, Cerebral Palsy, Mental Retardation and Multiple Disabili-*

ties Act passed in 1999.

Complementing these policies, the TFYP's Chapter 4.3 is devoted to "Other Special Groups." The chapter focuses on the concerns of "persons with disabilities" (defined as one suffering from one or more visual, loco-motor, hearing, and speech or mental disability) and "social deviants" (defined as delinquents, street children, alcoholics, and child sex workers). Education for persons with disabilities is provided under the auspices of UEE. In 2000, the Department of School Education and Literacy introduced another umbrella scheme called the Sarva Shiksha Abhiyan (p.3) which "aims at providing elementary education to all children," including disabled children. TFYP also reports that secondary education for disabled youth is housed under the Integrated Education for Disabled Children (IEDC) Plan. The IEDC Plan reports operation in 28 States/UTs but it does not provide details on students' enrollment and attainment. The *Juvenile Justice (Care and Protection of Children) Act* distinguishes between the juvenile offender and the neglected child, and suggests services for both. The schemes of the Prevention and Control of Juvenile Social Maladjustment, National Initiative for Child Protection, and the Scheme for Prevention of Alcoholism and Substance Abuse address the needs of these children. Although not usually considered in the debates on enrollment and attainment, the gifted should be considered when discussing educational inequity. The National Council of Educational Research & Training (NCERT) conducts a national talent search examination to identify gifted youth. Talented students from rural areas are offered scholarship in order to assist their ability to attend high-quality schools to which they may not have access to due to their financial status, may not have access. Information on the number of children identified as gifted, their enrollment and attainment statistics, and the extent to which these programs meet the needs of the populations are not provided.

General Education Literature

There is no dearth of literature on many facets of formal, non-formal and informal education in India. Surprisingly, research that specifically examines enrollment and attainment policy and practice, however, is fairly limited. Several recent studies have examined this dimension of educational policy. Unterhalter and Dutt (2001) found gender equity was a major concern in the planning of DPEP (DPEP 1994, 1998, 1999a, 1999b) by suggesting provisions for alternative schooling to reduce the distance to school, establishment of flexible school times to coordinate with the work patterns of girls, improvement of school buildings, and provision of toilets for girls to meet general health concerns.

Other researchers take a different approach, emphasizing the relationship between practical elements of daily life and educational enrollment and attainment. For example, Kingdon (2002) examines the extent to which parents' dif-

ferential treatment of children's education in India can be explained. Based on data collected in 1995, Kingdon utilizes a stratified sample survey of 1,000 households in the Urban Agglomeration of Lucknow District, Uttar Pradesh. The household questionnaire obtained information on personal characteristics, parental background, adults' level of education, and time spent at work and time involved in work-related responsibilities. Kingdon found that sex is an important variable in explaining enrollment. Her model shows that even after controlling for parental background, religion, and caste, girls are disadvantaged in the decisions regarding schooling. Kingdon states the enrollment rate of women aged 31-38 is significantly higher (at the 10% level) than the enrollment rate of women aged 39-45. Moreover, being Muslim, or from a low caste has "a powerful negative influence on the probability of enrollment." Her work provides more detail than that which is found in government sources (see Table 10.7).

Another household-related factor influencing girls' enrollment in school is parental education. Kambhampati and Pal (2001) conducted an analysis based on a sample of 5- to 15-year-old boys and girls from the WIDER villages in rural West Bengal. After controlling for child's age, birth order, sibling composition, household income, caste, and other community-specific characteristics, their results suggest that while father's education is more important for boy's enrollment and attainment at the primary level, the level of education of both parents is important for girls. Kambhampati and Pal also found a considerable difference in the proportion of boys and girls who enroll in and continue through primary school. Using individual (age and birth order) and household characteristics (parental literacy, presence of a female head of household, and household per capita expenditure as an indicator of long-term income), the authors found household expenditure on education differed between male and female children.

Socioeconomic status is the main predictor of educational attainment in the work of Filmer and Pritchett (2001). Using a socioeconomic structure, the authors found very low primary school attainment by the poor. In this comparative study (which includes India), more than 40% of the children from poor households never graduate from Grade 1 and typically only one in four complete Grade 5. Second, a 10-year difference in median grade-level attainment exists for 15 to 19 year olds from poor and rich households. Chudgar (2008) calls on these and other factors to explain young women's enrollment in school. Her findings support that which earlier studies have concluded.

Another factor influential in students' enrollment and attainment in school is teachers. Chin (2005) uses data from India's National Sample Survey and the All-India Educational Survey to examine the effect of a redistribution of teachers across schools using the Operation Blackboard Model on student enrollment and attainment. Using 1991 Census data, she found that girls' primary school completion rate increased by 1.6% for each Operation Blackboard teacher provided per 1,000 children (significant at the 95% level of confidence). Chin believes

redistributing teachers from larger schools to smaller schools had a positive effect on primary school completion for the sample in this study.

In sum, sociological variables including parental perceptions, education and socioeconomic standing, as well as household size, expenditures, and teachers impact the chances for females' schooling.

Concluding Remarks and Directions for the Future: Sex, Social Constructivism, and Educational Inequity for Females and Males

Educational equity can be defined in both conceptual and operational terms. The *conceptual* definition of educational equity refers to the notion that all individuals have the same opportunity to enroll in, remain in, excel during, and graduate from an educational program of choice, and that individuals benefit from an educational community that equally invests in, attends to, and protects for schooling for the sexes. The *operational* definition of educational equity refers to the development of specific plans for, and implementation and evaluation of, programs and services that offer equivalent opportunities and experiences for males and females to meet educational goals.

Although a couple scholars (Dyer 1999; Joshee 2003) have recognized the need to explore the conceptual elements of educational inequity such as the concept of backward mapping and diversity as central elements of policy. The conceptual perspective of educational inequity has not been thoroughly explored. The advancement of our understanding of inequity will be further expanded by work that grapples with the forces and factors of local settings that contribute to educational inequity.

The lack of literature on the important topic of educational inequality, as identified by the editors of this volume, leads me to five additional points. First, the majority of studies related to Indian education are largely limited to studies of primary education. Although it is understandable that studies are conducted in response to international calls for attention to primary school education, studies in secondary school and tertiary education are necessary for two reasons. As the aforementioned statistical evidence has documented, under-enrollment of females exists in the secondary and tertiary stages of education in India. Studies that examine the reasons that cause this situation are apposite; they will enhance our understanding of that which influences individuals' inability to partake, or disinterest in participating in school (see Maslak & Singhal 2008). Second, far less attention has been paid on research that investigates educational enrollment and attainment of populations from socially disadvantaged groups, including the handicapped, minorities, and SCs and STs. The advertent attention to these groups provides insights into their situation and will provide important points of comparison for groups within India. Third, a better representation of studies

from all geographic regions of the country should be considered. For example, studies from the remote regions of the northeastern and northwestern regions will offer a deeper understanding of poor and rural regions of the country. These studies may also offer rich accounts of education for the comparative literature. Fourth, studies on educational participation in India's formal sector are largely limited to quantitative studies. Although the academic and international development agency communities understand the value of qualitative studies, the work is both expensive and time-consuming. These types of studies can, however, add another layer to our understanding of the field by examining cases of particular regions and groups of individuals' educational enrollment and attainment. For example, we are aware that gender is infused into all beliefs and practices of individual and family life. It is a consideration in females' chances for and continuation through school. Investigations into the ways in which the roles of women are influenced and shaped by their social communities may illuminate our understanding of their educational participation. This may be accomplished by the use of the "gender parity index" (GPI), but not as it is presently used. This index computes the ratio of female-to-male value of a given indicator, with the mean value being 1. Although the concept of a GPI is a useful one because it provides an indicator of the relationship between males and females with educational access to and participation in school, the measurement does not relate to *gender*. Gender refers to the individual's ideas, values and roles that are based on a set of socially prescribed and culturally conditioned norms. An index that utilizes gender must consider the ways in which and extent to which social and cultural factors relate to females' schooling.

The international and comparative educational community has drawn on the expertise of development scholars to grapple with the complexity of educational inequity for females. In the early 1950s, the Women in Development (WID) rhetoric gained popularity to explain females' social status, including low levels of participation in public spheres. Welfare, equity, anti-poverty, efficiency, and empowerment approaches were developed to address women's needs from a variety of perspectives. One common element in all the WID approaches is the need for specific programs designed to meet the needs of women, including but not limited to, non-formal education and vocational training. While important in its stress on those in need, its practices were criticized for their sole emphasis on women as the cause of and solution to inequity.

The Indian example of the disparity in educational participation by sex proffers a clear picture of the serious inequity present in many communities in the nation. These sets of data demonstrate gaps in every school level and changes over time. This information is critically important because it reveals the status of girls and women at each educational level over time. However, policy documents that solely reflect females' present situation without suggesting how social norms and expectations relate to girls' education leave a gaping hole in

our studies. Examining the surroundings that create and perpetuate sexual inequity requires a concerted effort of identification and a vigilant process of inquiry.

Feminist thought and analyses can offer both frameworks and methods of complementing the sex-related policy. As Subrahmanian (2005) rightly suggests "...measuring gender equality in education is conceptually demanding and will necessitate focus on a far wider range of indicators than may be suggested by focusing on educational alone, or defined in a narrow sense" (p.396). Many scholars and development agency specialists profess to use the Gender and Development (GAD) approach to explain gender inequity because it underscores the importance of historical, political, economic, social, and cultural contexts as primary influences on and challenges to equity for females. However, too few works have fully considered and discussed its basic tenets as they apply to guidelines and programs. Most have paid lip service by adopting the jargon simply stating the use of a "gendered" approach to a policy or a program without unpacking the multifarious dimensions that create the inequitable situation. One of the most widely known documents, the Education for All (EFA) policy, has been critiqued because of its narrow approach to this issue (Maslak 2005).

In order to address this inadequacy, we must be concerned with attention to *definitions* of educational participation, as well as the *collection* and *analysis* of data. With regard to definitions, I suggest study of both *static* and *dynamic* facets of enrollment and attainment. In the case of static data, studies must continue to utilize educational statistics differentiated by sex in order to identify the state of education for females in India. Such statistics provide important information about enrollment and attainment for girls and women. In addition, quantitative data of the remote and disadvantaged groups presently underrepresented in the literature will not only complete the data set for India, but also provide a truer snapshot of the educational situation for girls and women in the country. With regard to dynamic facets of educational enrollment and attainment, we must broaden our study to examine the *process* of enrollment and attainment. Decisions to enroll and remain in school are continually challenged. By laying bare the intricate complexities of daily life and their relationships to education for both males and females, we are in a better position to understand the lives of females, and their educational successes and failures. With regard to the *analysis* of educational inequity in India, we must *utilize* the GAD approach to understand quantitative and qualitative data that specifically calls on the interrelationships between class, politics, language, patriarchy, geographic region, culture, and religion to further our understanding of sexual disparity in educational enrollment and attainment. We can also develop GAD so that it helps recognize, listen to, and incorporate local women's voices into the discussion of educational equity.

In short, we neither need *bouleversement* nor start again *abo vo*. India has made strides in its educational enrollment and attainment for select communities in the country by identifying inequitable educational opportunities for select

populations. Moreover, the country recognizes the need to promote education for all and continually strives to design and implement policies and programs that seek to meet this goal. Future studies in gender and education will enhance knowledge of one facet of educational inequity in India. Continued work to address all populations that suffer from this injustice may eventuate in future generations' ability to benefit from education.

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Notes

- ¹ The field is aware of the hazards of using gross and net enrollment, drop-out and literacy statistics to measure inequity. Although flawed, the statistics are one tool to compare change over time within country, and differences amongst countries.
- ² Although nonformal education plays a significant role in India's educational framework, lack of a comprehensive set of statistics on enrollment and attainment prevent discussion thereof in this chapter. In addition, the statistics used in the census data provide an incomplete snapshot of the situation. For example, enrollment by age is provided; however, one cannot assume that age corresponds with grade.
- ³ These data were retrieved from the Census of India 2001 (Registrar General 2001, Table C-15, Religious Community by Age, Group and Sex). They include summary statistics for the total urban population, ages birth through 80+, including an "age not stated" category, and a rural population of 45 through 80+ years of age. Religious affiliation for ≤ 44 age populations is not included in this data set.

⁴ The 1991 Census data are used only when the same information is not available from the 2001 Census of India resource.

⁵ Expenses for uniforms and supplemental supplies as well as lost income for the family when the child is in school are also incurred expenses not mentioned in the document.

⁶ International organizations use additional methods, including but not limited to the Apparent Intake Rate [AIR], also called Apparent or Gross Admission Rate, the Net Intake Rate (NIR), also referred to as Net Admission Rate, the School Life Expectancy (SLE) and the Survival Rate (see UNESCO 2002 for definitions).

11

Education Inequality in the Republic of Korea: Measurement and Causes

Matthew E. BURT & PARK Namgi

Introduction

The Republic of Korea (hereafter South Korea) is one of relatively few developing states to experience consistent, significant success in economic, social, and governmental development. Although it began its post-civil war history with a real gross domestic product (GDP) per capita of about US\$1,459 in 1955, South Korea is now considered a high-income country by the World Bank with a per capita income of US\$15,876. With the exception of the 1980 recession and the 1997 Asian financial crisis, South Korea has maintained some of the highest GDP growth rates in the world for the past 45 years (see Table 11.1). Today, it is a global leader in industries ranging from shipbuilding to cellular phones and stem-cell research. The country has likewise experienced remarkable improvements in key indicators, such as life expectancy, infant mortality, and education attainment. In addition, although the country was controlled by authoritarian governments from its establishment in 1948 up to the late 1980s and during the its most extraordinary periods of economic growth, South Korea today is considered a politically stable, liberal democracy.

Although its development experience involved essential cultural, geographical, and historical contexts that cannot be duplicated in today's developing countries, South Korea provides many insights into the question that state leaders, economists, humanitarians, and development experts have struggled with for decades: why are some countries rich and others poor? General explanations for South Korea's success include effective government policies, high rates of saving, a relatively egalitarian distribution of income, large infusions of foreign aid, and East Asian, Confucian values that emphasize thrift, diligence, and discipline (Weil 2005, p.347). The rapid accumulation of human capital following the end of Japanese Colonialism in 1945, however, has been widely recognized as a key piece in South Korea's development puzzle and has been studied extensively (McGinn et al. 1980; Morris 1996; Lopez, Thomas & Wang 1998). Despite significant investment in and accumulation of human capital, however, economic returns in other developing countries have not reached expectations (Holsinger 2005; Pritchett 2001); several scholars have suggested that this may be due to

levels of inequality in the distribution of education (Holsinger 2005; Lopez, Thomas & Wang 1998; Thomas, Wang & Fan 2001; Dessus 2001).

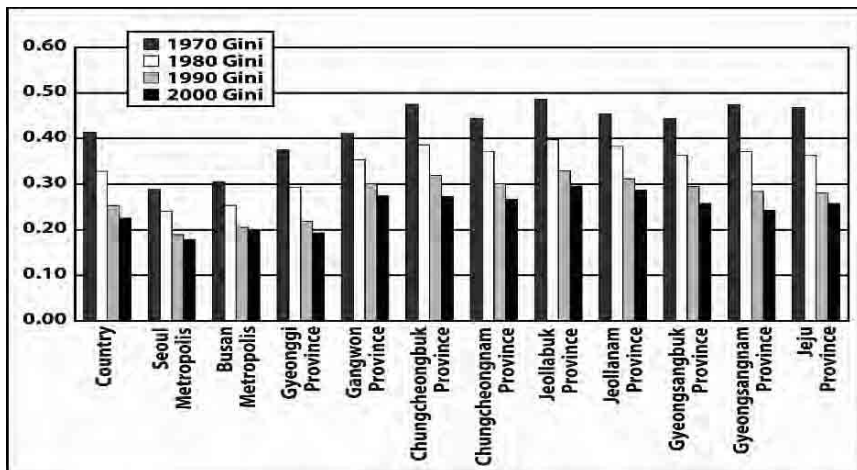
Table 11.1: Key Economic Indicators of South Korea

Year	Total Population (hundreds)	Current Savings (% in current prices)	Real GDP/Capita (US\$ in 1996 constant prices: chain series)	Real GDP/Capita Growth Rate(% growth, constant prices: chain series)
1955	21674	3.98	1458.67	8.05
1960	25252	1.06	1495.24	-1.15
1965	28814	7.33	1802.65	2.67
1970	32241	13.86	2715.58	5.9
1975	35281	19.74	3656.55	4.44
1980	38124	25.82	4789.83	-4.88
1985	40806	34.03	6568.89	5.33
1990	42869	37.91	9952.39	8.3
1995	45093	39.03	13551.57	7.69
2000	47275	33.56	15875.84	7.2

Source: Heston, Summers, and Aten (2002).

This chapter analyzes the distribution of human capital in South Korea from 1970 to 2000 by calculating education Gini coefficients for each province and metropolis and each city, county, and ward to measure the level of inequality in the distribution of human capital as indicated by levels of education attainment. The aggregate, national level of education inequality as measured by the Gini coefficient has indeed fallen significantly over the past 30 years (see Figure 11.1);

Figure 11.1: Comparison of Provincial Education Gini Coefficients, 1970-2000



*Data (NSO-Korea 1990 and 2000) from some provinces were combined with that of metropolises not existent in 1970 or 1980 in order to maintain continuity of administrative divisions across time and allow consistent comparison. These four provinces are Gyeonggi (combined with Incheon Metropolis), Chungcheongnam (combined with Daejeon Metropolis), Jeollanam (combined with Gwangju Metropolis), and Gyeongsangbuk (combined with Daegu Metropolis).

Sources: Republic of Korea (1970, 1980, 1990, 2000); Burt's calculations.

also important, however, are the differences in levels of education in equality at the disaggregate level—the domestic administrative divisions of the country.

South Korean policymakers need a tool that indicates the distribution of education within the country and thus allows them to form policies that focus resources on areas that need them most. This chapter analyzes the patterns of education inequality across South Korea's administrative divisions from 1970 to 2000. It also traces the development of South Korea's education system and suggests possible causes for the rapid decline in education inequality that occurred in all areas of the country. The chapter thus provides a case study example of success that can be used by policymakers in other developing countries struggling with the problem of education inequality.

Methods

The education Gini coefficient, an adaptation of the Gini coefficient originally developed by Corrado Gini to measure income inequality (Gini 1921), is an effective method of measuring and comparing the distribution of education within a particular geographic area. For the most part, it has been used to compare education inequality at aggregate levels across countries and across time. A single, national indicator of education inequality, however, is relatively useless to governments attempting to establish effective domestic systems of education. More significantly, therefore, the education Gini coefficient can be used to compare inequality in the distribution of education across the domestic administrative divisions of a particular country. This provides policymakers with a tool to understand the distribution of human capital within the country, identify areas with high levels of inequality, and effectively target government policies and programs in specific areas. If the government is unaware of the distribution of education within lower-level administrative divisions, educational policies can have unintended consequences by benefiting a small segment of the population in areas with high levels of education inequality (Psacharopoulos 1989; Grootaert 1994).

This study employs the direct method of measurement of the education Gini coefficient as developed by Thomas, Wang, and Fan (2001), altered slightly to accommodate the organization of South Korean Census data as explained in detail below. The mathematical formula shown in Equation 1 generates a single

number bounded by zero and one, zero representing perfect equality and one representing perfect inequality in the distribution of education within a particular population. Thus a coefficient greater than 0.5, for example, would be considered relatively unequal, and a coefficient less than 0.2 would be considered relatively equal.

$$(1) \quad E_{gini} = \left(\frac{1}{\mu} \right) \sum_{a=1}^9 \sum_{b=1}^{a-1} x_a |z_a - z_b| x_b$$

Equation 1 consists of four components: E_{gini} , μ , x , and z . E_{gini} is the education Gini coefficient based on the distribution of educational attainment in the population being analyzed; μ denotes the average years of schooling for the population being analyzed; x_a and x_b represent the proportion of the population with given levels of schooling; and z_a and z_b represent the number of years schooling at each of the different levels of education in South Korea, as explained in detail below. The number above the first summation symbol indicates the number of different levels of education attainment in the population; in South Korea's case, this is equal to nine.

Although the education Gini coefficient does not address the level of value for the measured variable and fails to specify the location of inequality within the distribution of the measured variable, it provides a single indicator that can be used to compare the distribution of education in one population with that of another. Moreover, like the original income Gini coefficient, the education Gini coefficient can be graphically illustrated with the Lorenz curve.

The Education Gini Coefficient for South Korean Census Data

Data from the 1970, 1980, 1990, and 2000 Censuses of the Republic of Korea for the population age six and older were obtained from the Korea National Statistical Office (KNSO) and used to calculate education Gini coefficients for each province (*do*) and metropolis (*tüpyölshi*, *kwangyökshi*, and *chikalshi*) and each county (*gun*), city (*shi*), and ward (*gu*) within them.

In the 1970, 1980, and 1990 Census data, levels of education attainment were divided into three categories: “graduated,” “not completed,” and “never attended.” As South Korea has used a 6-3-3-4 system of education since 1961, “graduated primary” was assumed to indicate six years of education, “graduated middle school” nine years, “graduated high school” 12 years, “graduated junior college” 14 years, and “graduated college or higher” 16 years. With the exception of the primary level, an incomplete education was assumed to indicate the number of years of education for the next lowest level completed; this is because a partial high school or college education, for example, will have little actual value in South Korea due to the lack of official credentials in the form of a di-

ploma or a degree. Thus, “not completed primary” was assumed to indicate three years of education, “not completed middle school” six years, “not completed high school” nine years, “not completed junior college” 12 years, and “not completed college or higher” 14 years. “Never attended” was assumed to indicate zero years of education. Unlike the 1970 and 1990 Censuses, data in the Census 1980 for secondary education was divided into two levels: “general high school” and “vocational high school.” These two levels were assumed to indicate the same number of years of schooling for all three categories mentioned above.

In the Census 2000 data, levels of education attainment were divided into four categories: “graduated,” “dropped out,” “completed,” and “no schooling.” Assumptions concerning the first two categories are the same as those of the Census 1970 data with the additions that “graduated master’s course” was assumed to indicate 18 years of education, “graduated doctor’s course” 20 years, “dropped out master’s course” 16 years, and “dropped out doctor’s course” 18 years. The “completed” category was available for tertiary education only; it indicates students that finish required coursework for a particular program but fail to complete required theses or pass necessary exams in order to receive a regular degree. Such students often enter specific programs available in certain educational institutions with the intention of completion rather than graduation. Although these students technically attend school for the same duration as graduates, their credentials are not as highly recognized. Thus “completed” was assumed to indicate one year of education less than the “graduated” category for the four tertiary education levels specified in the Census data: junior college, university, master’s course, and doctor’s course. “No schooling” was assumed to indicate zero years of education.

Findings

Tables 11.2, 11.3, 11.4, and 11.5 provide education Gini coefficients along with the mean years of schooling and the total population over six years of age in each province and metropolis for 1970, 1980, 1990, and 2000, respectively. Most significantly, the level of education inequality in South Korea as measured by the education Gini coefficient fell significantly in all areas of the country between the 1970 and 2000; this is illustrated in Table 11.6 and in Figure 11.1. The most significant decreases in the majority of areas occurred between 1970 and 1980; decreases between 1980 and 1990 and between 1990 and 2000 began slowing down as the Gini coefficients approached zero.

Table 11.2: Data for Provinces and Metropolises, 1970

	Population	Mean	Education Gini
Republic of Korea	18,314,536	5.71	0.414
Male	8,755,556	6.82	0.362
Female	9,558,980	4.71	0.449
Seoul Metropolis	3,364,235	8.21	0.288
Busan Metropolis	1,123,964	7.31	0.304
Gangwon Province	1,067,550	5.24	0.411
Gyeonggi Province	1,983,677	5.82	0.376
Chungcheongbuk Province	843,861	4.48	0.475
Chungcheongnam Province	1,639,668	4.80	0.445
Jeollabuk Province	1,374,695	4.58	0.486
Jeollanam Province	2,245,713	4.74	0.454
Gyeongsangbuk Province	2,662,971	5.05	0.443
Gyeongsangnam Province	1,803,067	4.75	0.474
Jeju Province	205,135	5.15	0.468

Source: Republic of Korea (1970); Burt's calculations.

Table 11.3: Data for Provinces and Metropolises, 1980

	Population	Mean	Education Gini
Republic of Korea	22,519,287	7.57	0.328
Male	11,661,669	6.59	0.363
Female	10,857,618	8.62	0.281
Seoul Metropolis	5,167,241	9.56	0.241
Busan Metropolis	1,932,209	8.57	0.253
Gangwon Province	1,057,695	6.57	0.354
Gyeonggi Province	3,087,396	7.74	0.292
Chungcheongbuk Province	854,761	6.15	0.386
Chungcheongnam Province	1,734,181	6.37	0.372
Jeollabuk Province	1,302,692	6.21	0.397
Jeollanam Province	2,128,435	6.29	0.383
Gyeongsangbuk Province	2,999,729	6.83	0.363
Gyeongsangnam Province	1,996,061	6.77	0.372
Jeju Province	258,887	6.98	0.363

Source: Republic of Korea (1980); Burt's calculations.

Table 11.4: Data for Provinces and Metropolises, 1990

	Population	Mean	Education Gini
Republic of Korea	28,421,896	9.51	0.253
Male	14,523,347	8.56	0.293
Female	13,898,549	10.51	0.206
Seoul Metropolis	6,954,543	10.94	0.189
Busan Metropolis	2,461,146	10.11	0.205
Daegu Metropolis	1,419,800	9.95	0.227
Daejeon Metropolis	643,123	9.97	0.237
Gwanju Metropolis	674,175	10.19	0.229
Incheon Metropolis	1,200,483	10.24	0.198
Gangwon Province	1,034,669	8.34	0.301
Gyeonggi Province	4,144,411	9.80	0.225
Chungcheongbuk Province	904,741	8.17	0.319
Chungcheongnam Province	1,339,855	7.73	0.325
Jeollabuk Province	1,311,945	8.11	0.329
Jeollanam Province	1,662,374	7.59	0.338
Gyeongsangbuk Province	1,931,859	7.83	0.340
Gyeongsangnam Province	2,407,293	8.85	0.284
Jeju Province	331,479	9.03	0.281

Source: Republic of Korea (1990); Burt's calculations.

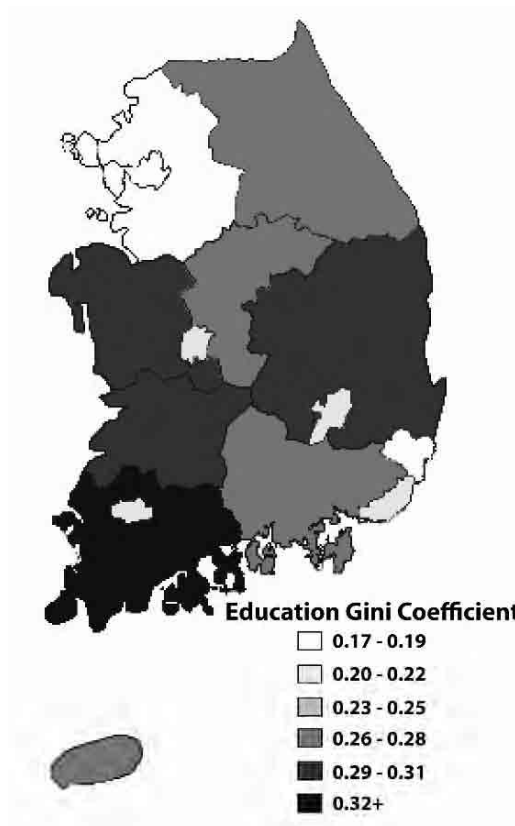
Table 11.5: Data for Provinces and Metropolises, 2000

	Population	Mean	Education Gini
Republic of Korea	31,269,816	10.56	0.225
Male	16,294,865	9.74	0.259
Female	14,974,951	11.44	0.185
Seoul Metropolis	6,813,840	11.70	0.178
Busan Metropolis	2,508,517	10.78	0.200
Daegu Metropolis	1,648,645	10.81	0.212
Daejeon Metropolis	870,438	11.21	0.209
Gwanju Metropolis	851,559	11.20	0.204
Incheon Metropolis	1,670,238	10.82	0.185
Ulsan Metropolis	661,305	10.84	0.186
Gangwon Province	1,023,003	9.44	0.274
Gyeonggi Province	6,005,099	11.06	0.195
Chungcheongbuk Province	990,318	9.51	0.272
Chungcheongnam Province	1,281,377	8.86	0.300
Jeollabuk Province	1,278,915	9.31	0.296
Jeollanam Province	1,403,979	8.40	0.329
Gyeongsangbuk Province	1,892,860	9.08	0.294
Gyeongsangnam Province	2,029,461	9.74	0.260
Jeju Province	340,262	10.04	0.257

Source: Republic of Korea (2000); Burt's calculations.

The 1990 and 2000 Census Data from four provinces were combined with the inexistent data of the metropolises in 1970 or 1980 in order to maintain continuity of administrative divisions across time and to allow consistent comparison. The concerned provinces include Gyeonggi (combined with Incheon Metropolis), Chungcheongnam (combined with Daejeon Metropolis), Jeollanam (combined with Gwangju Metropolis), and Gyeongsangbuk (combined with Daegu Metropolis). Table 11.6 and Figure 11.1 show the combined changes in the 1990 and 2000 Censuses.

Figure 11.2: Geographical Representation of Provincial and Metropolitan Education Gini Coefficients, 2000

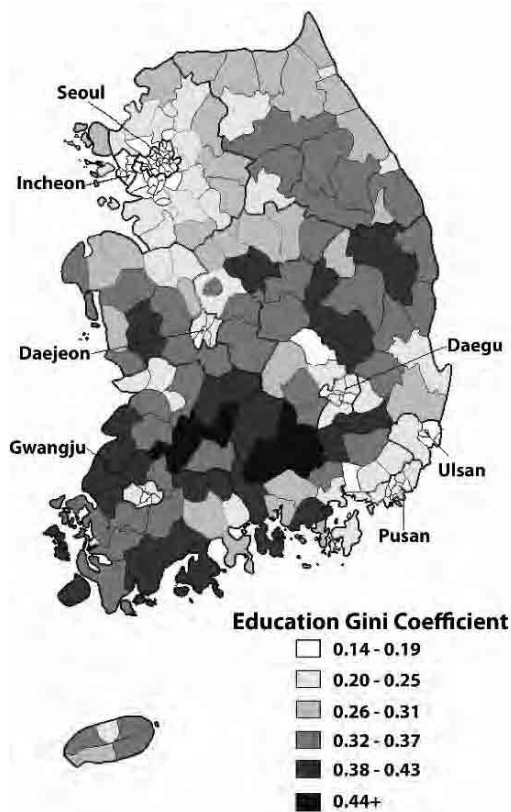


Source: Republic of Korea (2000); Burt's calculations.

In 1970, the first-level administrative division with the most equal distribution of education was Seoul Metropolis with a coefficient of 0.28, and the most unequal distribution was found in Jeollabuk Province with a coefficient of 0.49.

In 2000, Seoul Metropolis again showed the most equal distribution with a coefficient of 0.18, and Jeollabuk Province showed the most unequal distribution with a coefficient of 0.30 (see Table 11.6); Figure 11.2 provides a geographical illustration of the Gini coefficients of these provinces and metropolises. The second-level administrative division with the most equal distribution in 1970 was Jung-gu in Seoul at 0.27, and the most unequal was Sancheong-gun in Gyeongsangnam Province at 0.56. The most equal in 2000 was Seocho-gu in Seoul at 0.14, and the most unequal was Hapcheon-gun, also in Gyeongsangnam Province, at 0.46; Figure 11.3 provides a geographical illustration of these counties, cities, and wards. Despite high levels of inequality in many areas of the country, the 2000 provincial coefficients indicate a remarkable increase in equality overall from 1970 to 2000; a coefficient of 0.29 is considered relatively equal compared to most areas of the world.

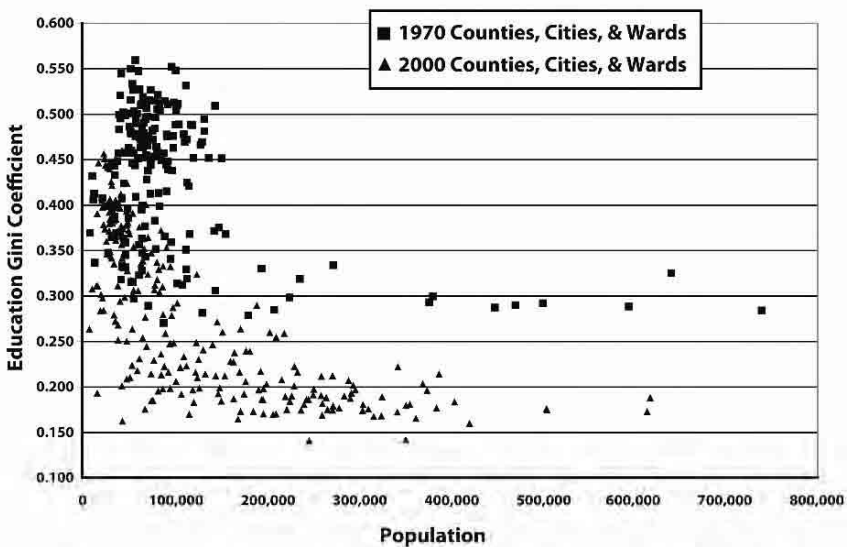
Figure 11.3: Geographical Representation of County, City, and Ward Education Gini Coefficients, 2000



Source: Republic of Korea (2000); Burt's calculations.

Although categorical comparison between rural and urban areas is impossible as census data was not divided as such, a pattern of higher inequality in rural areas appears clear in the data and is confirmed by Figure 11.3, which indicates the location of South Korea's major metropolitan areas in 2000. The scatter plot in Figure 11.4 further confirms this in its illustration of the negative relationship between the population level and the level of inequality in 1970 and 2000; although inequality in all areas decreases noticeably, this negative relationship becomes significantly more distinct in 2000. Thus rural areas are clearly at a disadvantage in the distribution of education, and critics of the South Korean education system appear correct in their assertion that education revolves around the capital Seoul and, to a lesser extent, other metropolises.

Figure 11.4: Scatter Plot of All County, City, and Ward Population Levels and Education Gini Coefficients, 1970 and 2000

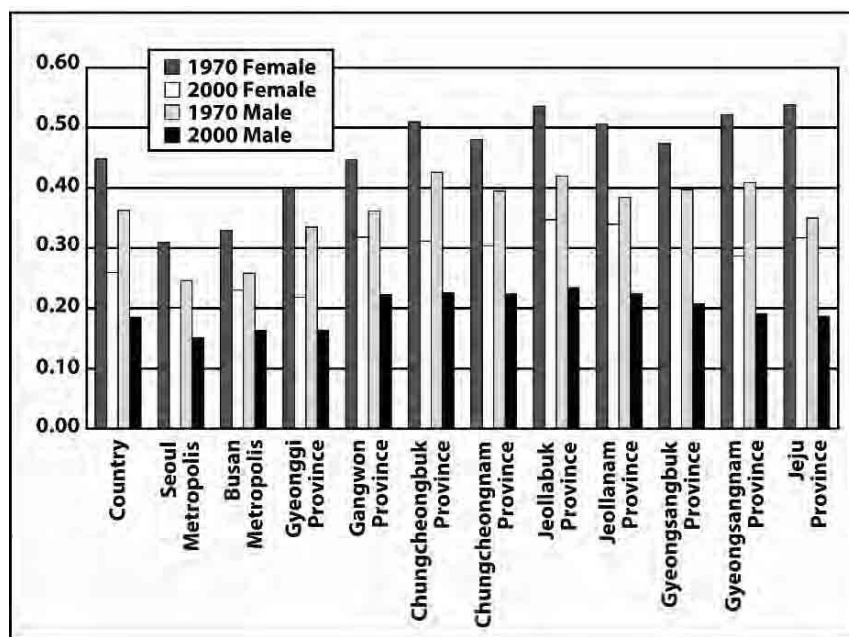


Sources: Republic of Korea (1970, 2000); Burt's calculations.

A second pattern that appears in the data is a significant gap in gender equality of education. Education Gini coefficients of both female and male populations in all areas of the country have fallen significantly since 1970, but there is still a clear advantage for males in obtaining human capital in South Korea's male-dominant society. Figure 11.5 illustrates the differences in female and male inequality in all provinces from 1970 to 2000. Although female education Gini coefficients decreased dramatically in all provinces, male coefficients decreased by approximately the same amount in most areas. Thus, despite tremendous

overall success, South Korea appears to have failed to close the gender gap in education inequality over the past 35 years.

Figure 11.5: Comparison of Female and Male Provincial Gini Co-efficients, 1970 and 2000



*Data (NSO-Korea 2000) from some provinces were combined with that of metropolises not existent in 1970 in order to maintain continuity of administrative divisions across time and allow consistent comparison.

Sources: Republic of Korea (1970, 2000); Burt's calculations.

A third pattern that emerges in the data is consistently higher inequality in the south-western provinces of Jeollanam and Jeollabuk (see Table 11.6). Figures 11.2 and 11.3 show the comparatively higher inequality in these provinces. This regional difference is partially a result of the general focusing of resources by South Korean dictators Park Chung-Hee and Chun Doo-Hwan in the areas near the capital Seoul and in their hometown provinces of the southeast from the 1960s to the 1980s. Such regional favoritism has its roots in the regionalism that developed early in Korea's history as documented in historical sources (Oberdorfer 2001; Cummings 1997).

Table 11.6: Comparison of Education Distribution in Provinces, 1970-2000

<i>Location</i>	<i>1970 Mean Years Schooling</i>	<i>1970 Gini Coefficient</i>	<i>1980 Mean Years Schooling</i>	<i>1980 Gini Coefficient</i>
Country	5.71	0.414	7.57	0.328
Seoul Metropolis	8.21	0.288	9.56	0.241
Busan Metropolis	7.31	0.304	8.57	0.253
Gyeonggi Province	5.82	0.376	7.74	0.292
Gangwon Province	5.24	0.411	6.57	0.354
Chungcheongbuk Province	4.48	0.475	6.15	0.386
Chungcheongnam Province	4.80	0.445	6.37	0.372
Jeollabuk Province	4.58	0.486	6.21	0.397
Jeollanam Province	4.74	0.454	6.29	0.383
Gyeongsangbuk Province	5.05	0.443	6.83	0.363
Gyeongsangnam Province	4.75	0.474	6.77	0.372
Jeju Province	5.15	0.468	6.98	0.363

<i>Location</i>	<i>1990 Mean Years Schooling*</i>	<i>1990 Gini Coefficient*</i>	<i>2000 Mean Years Schooling*</i>	<i>2000 Gini Coefficient*</i>
Country	9.51	0.253	10.56	0.225
Seoul Metropolis	10.94	0.189	11.70	0.178
Busan Metropolis	10.11	0.205	10.78	0.200
Gyeonggi Province	9.90	0.219	11.01	0.193
Gangwon Province	8.34	0.301	9.44	0.274
Chungcheongbuk Province	8.17	0.319	9.51	0.272
Chungcheongnam Province	8.45	0.301	9.81	0.267
Jeollabuk Province	8.11	0.329	9.31	0.296
Jeollanam Province	8.34	0.312	9.46	0.287
Gyeongsangbuk Province	8.73	0.294	9.89	0.257
Gyeongsangnam Province	8.85	0.284	10.01	0.242
Jeju Province	9.03	0.281	10.04	0.257

*Data (NSO-Korea 1990, 2000) from some provinces were combined with that of metropolises not existent in 1970 or 1980 in order to maintain continuity of administrative divisions across time and allow consistent comparison. These four provinces are Gyeonggi (combined with Incheon Metropolis), Chungcheongnam (combined with Daejeon Metropolis), Jeollanam (combined with Gwangju Metropolis), and Gyeongsangbuk (combined with Daegu Metropolis).

Sources: Republic of Korea (1970, 1980, 1990, 2000); Burt's calculations.

Perspectives on Causes of Education Equality

Education Expansion

Rapid expansion of Korean education at all levels is the key reason to the swift decline of education inequality. If the education attainment rate becomes highly accessible, the inequality among education subsectors simultaneously decreases. This leaves us with the following questions. First, what causes this high attainment rate? And second, what role, if any, did the government play in achieving such a high education attainment?

Primary school attainment rate rapidly increased from 54% in 1945 (year of independence) to 81% in 1949. During this period, around 70% of primary education expenditure was paid by parents (Gyoyuksinmunsa 1999b, p.180). Thus, the rapid attainment rate increase was achieved not by governmental initiation but by social demand. The second author has termed this educational attainment phenomenon *education fever* or in other words a high zeal and extreme demand for education. This education fever persisted through the Korean War Period (1950-1953) and will be further explained in this chapter.

Following the end of the Korean War in July 1953, the Korean government began to implement a project toward increasing primary educational attainment rate to 96.1% by 1959. Between 75-81% of the government's education budget was devoted toward the primary education subsector (Gyoyuksinmunsa 1999a, p.303). Even though attainment rates increased to 96.4% in 1959, the quality of Korean primary education remained very poor and parents had to pay a substantial portion of education expenditures. Students in major urban schools continued to pay tuition throughout the 1980s. Even today, the condition (i.e., pupil-to-teacher ratio, infrastructure, and education cost per student) of Korean primary schools is recognized as the worst among Organisation for Economic Co-operation and Development (OECD) countries (OECD 2007).

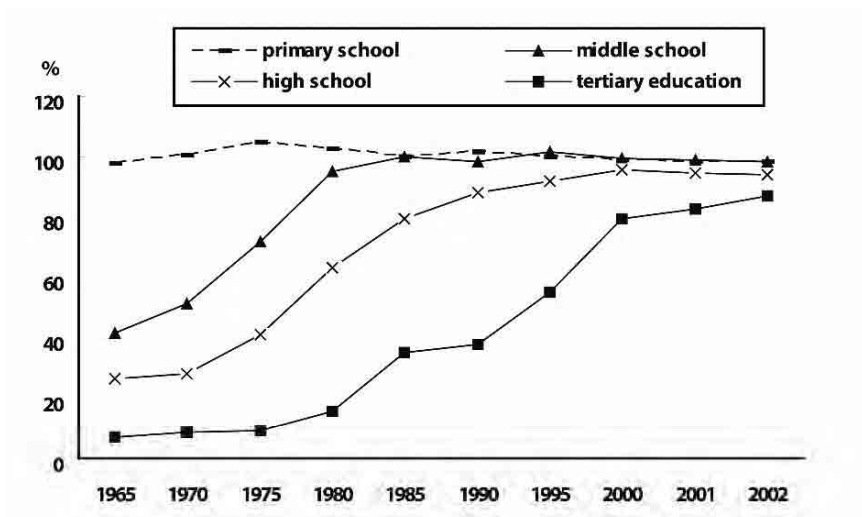
Secondary school attainment had a similar growth rate as the primary subsector but was exclusionary due to a required entrance examination. The middle school (Grades 7-9) attainment rate was 41.4% in 1965. The middle school entrance examination became extremely competitive and led to the rise of the private tutoring movement. This tutoring focused on passing the middle school entrance examination and left behind the traditional focus on the development of a well-rounded student. Eventually the government eliminated the middle school entrance examination and accepted every student that enrolled. Attainment rates increased from 51.2% in 1970 to 71.9% in 1975 and reached 95.1% in 1980. Even though middle school was neither compulsory nor free, the subsector expanded tremendously as soon as the opportunity was made available. The government allowed private foundations or individuals to help offset the tremendous demand for establishing additional secondary schools. In 1985, middle school

education became compulsory and free in remote provinces; in 2004, tuition free middle school was also available in the metropolitan areas. However, students still paid an average of US\$200 on private tutoring which served as a supplemental form of tuition.

High school (Grades 10-12) attainment rates began to increase rapidly from 28.1% in 1970 to 41.0% in 1975 and 63.5% in 1980; the significant increase corresponded with the rise in middle school attainment rates. In 2000, the high school attainment rate reached 95.6%. High school is not compulsory and tuition is around US\$1,500 per year. Around 50% of middle and high school students are registered in publicly controlled private schools which have financial support from the government.

The attainment rate of tertiary education (which includes all post-secondary education) experienced a rapid increase following the mid-1970s. The rate was 9.3% in 1975, 15.9% in 1980, and 87.0% in 2002. Reasons for this rapid increase in higher education stem from the establishment of many private universities and colleges following 1980 and the government's initiative permitting more students to enroll (Park & Weidman 2000). Freshman enrollment quotas of government and private higher education institutions (HEIs) are still determined by the government. As a consequence, the population (ages 23-34) that attained four-year higher education degrees in 2005 was an astounding 32%, the highest among OECD countries (OECD 2007, p.38). Korean higher education has other interesting characteristics. For example, expenditure on HEIs as a percentage of GDP is only 0.5% in 2004, the lowest among OECD countries (OECD 2007, p.208). However, the ratio of students attending four-year private universities and colleges is the highest among OECD countries, 84.2% in 2005 (OECD 2007, p.296). This *higher education fever* phenomenon highlights the huge social demand for education in Korea, even where there is relatively low government investment in the higher education subsector compared with other OECD countries.

The rapid increase of the education attainment rate from 1965 is depicted in Figure 11.6 and Table 11.7. The middle school attainment rate between genders was significantly different until the late 1970s. Female education discrimination continued at the high school level until the mid-1980s. Compared to males, attainment rate at the higher education subsector remains quite low. This gender inequality is not limited to the Korean case, but it does emphasize that even with the tremendous education achievements in Korean education over the past three decades, there is still room for improvement. Korean parents often restricted their daughters from pursuing education because sons were traditionally expected to continue the family line. However, decreasing birth rates in each household and increasing gender equality within Korean society helped change parental perceptions toward female education.

Figure 11.6: Educational Attainment Rate, 1965-2002

Source: Adapted from Park (2004).

Table 11.7: Educational Attainment Rate, 1965-2002

Year	Primary school		Middle school		High school		Tertiary	
	Total	Female	Total	Female	Total	Female	Total	Female
1965	97.7	111.8	41.4	30.5	26.4	18.1	7.2	3.8
1970	100.7	100.2	51.2	40.6	28.1	21.6	8.4	4.5
1975	105.0	105.3	71.9	63.1	41.0	32.5	9.3	5.4
1980	102.9	103.7	95.1	92.5	63.5	56.2	15.9	8.1
1985	99.9	100.1	100.1	99.6	79.5	75.5	35.1	21.6
1990	101.7	102.2	98.2	98.5	88.0	85.4	37.7	24.5
1995	100.1	100.3	101.6	101.8	91.8	91.3	55.1	50.2
2000	98.7	99.3	99.5	100.0	95.6	95.5	79.4	59.7
2001	98.4	98.8	99.0	99.8	94.7	94.7	82.7	62.6
2002	98.5	98.9	98.5	99.1	94.0	93.9	87.0	66.5

Source: Park (2004).

Based on this analysis, the government did not play a major role in motivating parents to send their children to school. Rather, the government served as a gate keeper to meet rising education demands by increasing enrollment rates while

parents continued to pay their children's tuition.

On the other hand, the government designed some strategies to decrease educational inequalities. The government began to implement a free primary education policy in 1972 for the remote and poor geographic regions of the country. By 1979, primary education became free except for residents in six metropolitan cities. Primary education in these cities also became free in the early 1990s (Gyoyuksinmunsa 1999b, p.181). A policy of free compulsory middle school education also started in the remote geographic areas of the country in 1985. Ten years later, this policy was extended nationwide, including the major urban centers. High school tuition, which is controlled by the government, was subsidized in rural and remote regions. In order to decrease education inequalities with its limited education budget, the government implemented policies to first support the more remote and poor regions of the country.

Even though education attainment rates remain high and the government continues to provide support to the poor and remote regions, education inequalities persist. Key factors, which explain the gap between rural and urban areas, range from demographic to economic conditions. The average age of rural residents is significantly older than that of urban residents. For example, the average age of the Jeollanam Province, which showed the most unequal distribution among first-level administrative divisions, also has the oldest population. Jeollanam is also considered to be the most underdeveloped province. Because attainment rates are generally lower for older portions of the population than their younger counterparts, demography is an independent factor that leads to a region's overall attainment rate.

Average household income is another independent factor. The most equal second-level division in the 2000 Census, Seocho-gu in Seoul, is also recognized as the richest in Korea. To help offset this disparity relating to household income, the government provides high school tuition remission to the children of poor families and supports their university education.

High Zeal and Demand for Education

High zeal and demand for education, known to educators and scholars by the term *education fever*, is the main factor that explains swift education expansion that led to rapid decrease in education inequality. What has caused this education fever in Korea? Park and Weidman (2000, pp.180-196) identified six perspectives: the historical and cultural perspective, the social environment perspective, the human capital perspective, the radical perspective, the educational stratification perspective, and the education war perspective.

Table 11.8: Perspectives on the High Demand for Education

Perspectives	Focus	Assumptions (Views) of				Important Factors of high demand
		State	Education	Class (Group) Struggle	Individual Autonomy	
Historical and cultural	Given and embodied condition	..... Assumption-free				<ul style="list-style-type: none"> . Confucian culture . Kwako (the national examination system for higher civil service) . homogeneous society . family-centered life style . perspective on children . colonization effect
Social Environment	The present, and changing circumstances	..... Assumption-free				<ul style="list-style-type: none"> . increased GDP per capita . demographic change . impact from the lower level education system . colleague effect
Human Capital	Government planning	Organic, Bureaucratic	Instrument for national development	Low-Low	Low-Low	<ul style="list-style-type: none"> . government planning . technological development . general phenomenon of developing countries
Radical	Will of the dominant class	Instrumental	Status apparatus	Upper-High	Low-Low	<ul style="list-style-type: none"> . interests of the dominant class rebuilding . legitimizing the political power . controlling student movements . interests of the new "colonials"
Educational Stratification	Status competition	Autonomous	Credentials for social status as defined by a dominant group	Middle-High	Low-Middle	<ul style="list-style-type: none"> . value of credentials . educational bourgeois interests . competition for status group Membership
Education War	War for better position and life	Liberal or Autonomous	Assumption free	Middle-Middle	High-High	<ul style="list-style-type: none"> . extremely competitive social economic condition . on the process of structuring social class . school choice solely based on student's academic ability . job distribution mainly based on academic achievement . school is the best tool for class change

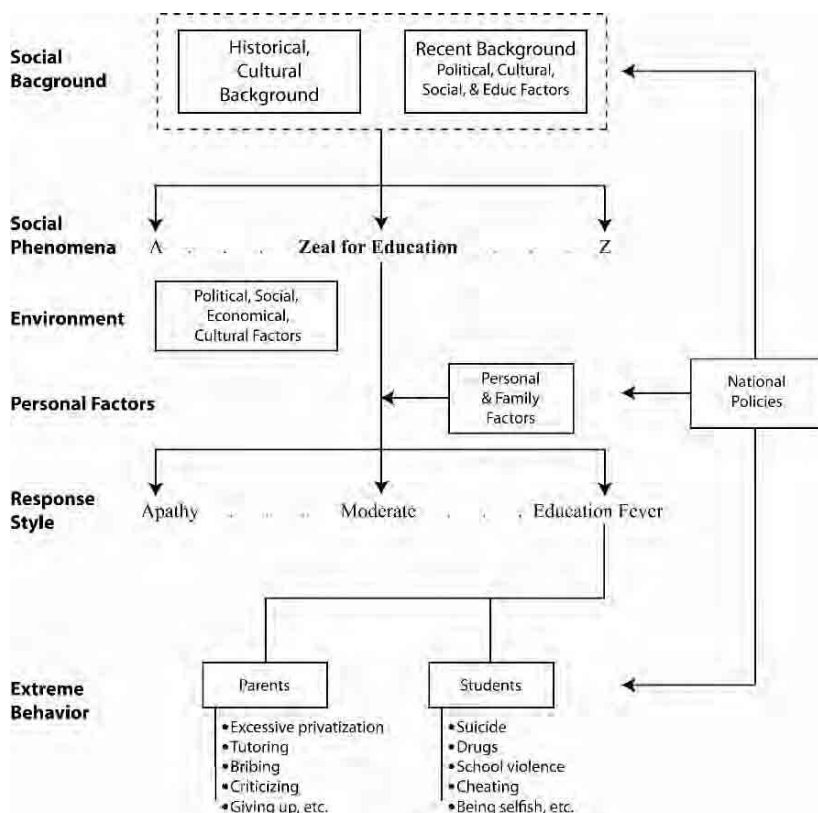
Sources: Weidman and Park (2000, pp.181, 187); Namgi Park (2003, p.245).

Table 11.8 illustrates how the dimensions of each perspective are described. The table also shows the important factors that affect the unusually high demand for education.

The historical and cultural perspective explains the high zeal toward education based on factors associated with Korea's history, culture, and past education systems. The major historical and cultural factors are Confucian culture, Kwako (the national examination system for higher civil service), a predominantly homogeneous society, family-centered life style, perspectives on children, and Korea's colonization experience. From the social environment perspective, the high demand for higher education is viewed in terms of increasing GDP per capita, demographic characteristics of the national population, and the prevalent type of school system. This perspective differs from the historical and cultural view in finding its elements in the present, changing environment which includes economic circumstances, demographic changes, and the impact of the lower-level education system. The human capital perspective sees the expansion of higher education as a result of governmental planning to develop human capital and technological advancement. The radical perspective assumes that society is characterized by a high level of social class conflict, views individuals as lacking autonomy, and explains higher education expansion as resulting from pressure exerted by dominant social class interests which legitimates the use of political power for controlling student movements (and other forms of dissent) and serving the interest of elites. According to the educational stratification perspective, high demand for education results from competition over the potential "payoffs" perceived to accrue to advanced educational credentials. The education war perspective asserts that

the Korean context cannot be described adequately by the terms "struggle" or "competition," rather it characterizes the Korean people as actually being involved in a war for survival due to insufficient natural resources, high population density, inadequate job opportunities, and conflict over government policies aimed at various types of social and economic control. This war for survival has spilled over to the education sector, pushing people into increasingly intense battles over education. (Park & Weidman 2000, p.194)

From the education war perspective, education fever is viewed in terms of extremely competitive social and economic conditions, processes of structuring social class, school choice based solely on students' academic ability, job distribution mainly based on academic achievement, and schooling as the best tool for social class change. Figure 11.7 shows how all the factors influence each other; thus, creating the education fever phenomenon.

Figure 11.7: Education Fever Revelation Model: Personal (Family) Level

Source: Namgi Park (2003, p.245).

Development of the South Korean Education System and Causes of Increasing Educational Equality

Koreans are renowned for the development of their education system over the past several decades. Many students devote countless hours to their studies; parents of students are enthusiastic about their children's educational development with strong moral and often financial support. The following three statements assess Korean education and its progress from an external lens, identifying both positive and negative aspects of the education system.

The people of this country are very enthusiastic about [education] and the method they use is gentle and ingenious. Teachers offer their students the teaching of earlier scholars and constantly cite the example of those who

attained fame through high scholarship. The boys devote their time to study day and night. (Choe 1987, p.43)

. . . the tragedy of higher education in Korea is not in the lack of textbooks, laboratory equipment, or even faculty; the real tragedy is in the lack of realization on the part of both students and staff that no education is taking place under present conditions. (Kehoe 1949, p.185)

Education has been one of the major sources of economic growth and social development in Korea. In three decades, Korea has been able to accomplish nearly 100% coverage for primary and secondary education. Moreover, Korea now has a tertiary education sector that is as large as those in developed countries. (G.-J. Kim 2002, p.29)

The statements were made, respectively, by a shipwrecked Dutch merchant from the 17th century (in the first Western account of Korea), an educational specialist in the U.S. War Department in the 1940s, and an education specialist from the World Bank in 2002. These widely varying statements likely have much to do with individual perceptions, but they are indicative of the extreme changes, both positive and negative, the South Korean education system has undergone in the last century. This section examines the developments in the South Korean education system encompassing all three of the above periods of critical change: early developments from the Koryŏ Dynasty in the 900s to the end of the Chosŏn Dynasty in the early 1900s, Japanese Colonization (1910-1945), and post-liberation (1945-present). Specifically, the section further addresses the developments that help explain the rapid decrease in education inequality following liberation observed in the education Gini coefficients as discussed previously.

The Influence of Confucian Culture

For the past millennium and up to the late 1800s, the Korean education system was largely derivative of the traditional Chinese model; its orientation was likewise humanistic and liberal (J.C. Kim 2000, p.10). For example, technical training for doctors, interpreters, or merchants was considered inferior to literary education in history, art, and philosophy. In 958 during the Koryo Dynasty, a civil service examination based on Chinese classical texts and Confucian moral training, much like that developed in China during the Tang Dynasty, was established in Korea as a means to recruit qualified men into the government bureaucracy (Seth 2002, p.9). Not only did this mark the beginning of a period in which the demand for education grew as a result of the prestigious position of government bureaucrats and associated economic advantages, it established a system of education focused on exam preparation that has been carried to the present in South Korea. Access to this exam and the schools established to prepare students for it, however, was mostly limited during the Chosŏn Dynasty to

the ruling *yangban* aristocracy, a hereditary class that made up about 15% of the population at most (Sorensen, 1994, p.12); education among the peasant commoners was considered unnecessary.

Education during this period normally began at *sōdang*—small, private schools located within villages and taught by local Confucian scholars. Students would spend most of their time committing the Confucian classics to memory or practicing art, calligraphy, or poetry. Success in a *sōdang* would lead to admittance to larger state-run schools called *hyanggyo* and an opportunity to take the civil service examination (Seth 2002, p.10). A high score on this exam would qualify one for service as a government bureaucrat or a teacher in a Confucian school.

Education in Korea during this period was a mark of advancement and sophistication; indeed, it was one of the only paths of upward social mobility, particularly during the Chosŏn Dynasty from 1392 to 1910. Status as a Confucian scholar implied moral authority to be respected by all social classes and institutions, including the government itself; this distinction has largely persisted in South Korea today (Seth 2002, p.13). Other than the abstract benefit of moral authority, however, the intentions of Koreans seeking education were much the same as those in other countries today; a successful Confucian education was the surest culturally approved means of power, prestige, and wealth.

As the Chosŏn Dynasty began to founder in the late 1800s in the face of challenges presented by colonialist, Western powers and a quickly rising Japan, desperate attempts at reform to salvage Korean independence included the abolishment of the civil service examination in 1894, a sudden increase in private educational institutions (Seth 2002, p.17), and the rapid decline of traditional Confucian academic institutions. One particularly interesting development in line with this decline is an increased use of *hangul*, a phonetic alphabet developed indigenously in the 1400s that is easily learned by scholars and peasants alike. Most Confucian scholars derided this writing system as uncultured and persisted in using Chinese characters adapted to the Korean language; only members of the *yangban* aristocracy, however, had the time and resources necessary to learn this cumbersome writing system. The increasing use of the *hangul* writing system during the decline of the Confucian education system can be credited with a rapid increase in Korean literacy and the subsequently widening availability of education in the early and mid-1900s.

At this point, one particular aspect of Confucian culture in South Korea's development and its role in the increasingly egalitarian distribution of education in the decades following liberation should be identified. In studies concerning the rapid development of East Asian states such as South Korea, Taiwan, and Japan, one thread is remarkably common: the influence of East Asian values associated with Confucian culture. The concept of East Asian, Confucian values, however, is flawed as the societies of East Asian states vary widely (Jun 1999, p.194); Confucianism has evolved extensively since its beginnings several mil-

lennia ago into an ideology that today encompasses countries with vastly different cultures. Moreover, studies attempting to correlate culture with economic success are subject to observer bias as values associated with a particular culture are easily reconciled with newly observed facts (Sen 2000). For example, many, especially Koreans themselves, attribute East Asian economic success with Confucian values such as thrift, discipline, and diligence (Berger 1988; Choi 1998; K.-D. Kim 1994); this same culture, however, was blamed for laziness, apathy, and stagnation in Korea and China previous to the success of the recent decades (Sorensen 1994, p.11; Weber 1952).

To avoid such problems with a cultural explanation of decreasing inequality in education, this study focuses on the specific fit of a particular value within the problems of a given situation rather than attempting to establish the superiority of a general set of values over another (Sen 2000). One specific aspect of Confucian culture in South Korea is clear: its emphasis on education. It is not general Confucian ideology or values that must be examined; Confucianism's emphasis on human capital accumulation and the designation of education as one of the only culturally approved means of upward social and economic mobility, however, help explain the Korean population's generally consistent demand for education. Although this popular demand was stifled by restrictions in class mobility in the Yi Dynasty and policies of the Japanese colonial rulers, it eventually drove the education explosion following liberation as former aristocrats and peasants alike sought opportunities in the new, more open society of modern South Korea. The wide availability of educational opportunities coupled with effective government policies, which will be addressed in detail below, contributed to the increasingly egalitarian distribution of education in South Korea as observed in the education Gini coefficients measured in this study.

Colonization

With the arrival of imperialist Japan in the late 1800s and colonial status by 1910, Korea and its population was largely organized and used to serve the interests of the Japanese empire, and the education system was no exception. The Japanese imperial government saw little benefit in an educated Korean populace and thus limited the ability of Koreans to gain much beyond primary education; 14 years of education was available to Japanese while Koreans were limited to eight (Seth 2002, p.20). The purpose of the limited education that was available to Koreans was “to give the younger generations of Koreans such moral character and general knowledge as will make them loyal subjects of Japan” (Government-General of Chosen 1911).

Some scholars, such as McGinn and his colleagues (1980, pp.81-82), assert that it is in the colonial period that South Korea's modern education system has its roots. They say that the old Confucian system that limited education to upper

classes was completely dismantled, primary education was made compulsory in 1944 and 45% enrollment was achieved by 1945, a public school system was rapidly expanded, and physical facilities were constructed that would provide a jump-start to the education explosion following liberation in 1945. However, the authors recognize several issues that run contrary to McGinn's assertions. The Japanese Occupation period is recognized within Korea and abroad as a period of colonial oppression, including the suppression of education institutions to prevent independent movements from surfacing. Also, note how primary education enrollments soared following the Japanese Occupation and Korean War to 89.5% in 1955 and 96.4% in 1959. These figures give credence to the argument that Korea lost its chance to achieve a developed modern education system for national development. It had to wait until its independence to satisfy the high demand for education in Korea. Yet several characteristics of the colonial education system largely persist to the present, including a high degree of centralization; strict, military-like discipline among students; emphasis on moral and academic training; disdain for technical education and occupations; and reliance on competitive entrance examinations.

The limitations placed on Korean educational attainment during the colonial period had two results particularly important to the study of education inequality in South Korea. First, they caused a shortage in the supply of education to Koreans and a pent-up demand that would explode into a rapid expansion following liberation in 1945 (Seth 2002, p.19). As discussed previously, educational opportunities for most Koreans were limited due to class structures in the Yi Dynasty and policies of the Japanese Occupational government. With the dismantlement of aristocratic structures by the colonial government and liberation from Japanese policies following World War II, the newly emerging education system was largely open to the entire population; this openness was maintained and enlarged by succeeding governments in South Korea, thus allowing increasing equality in the distribution of education for the next 50 years. Second, the lack of educational opportunity in Korea during colonization led a large portion of the population to seek education and better employment opportunities in other Japanese colonies such as Manchuria or in Japan itself. Cummings (1997, p.177) estimates that 40% of the adult population of the Korean Peninsula took part in this demographic uprooting. This mass movement of people from Korea and their return following World War II significantly altered previous institutions and routines and provided new opportunities and experiences to millions of Koreans (Seth 2002, p.33), thus breaking down previous barriers and permitting upward social and economic mobility for a much larger segment of the population in the decades following liberation.

Early Independence and Economic Takeoff

Immediately following the Japanese surrender and withdrawal from the peninsula, Koreans' pent-up demand for education resulted in an explosion of both private and public education institutions. As will be explained below, this demand initially lacked direction, but it forced the government to address the issue of education early in the development process and provided the impetus for South Korea to accumulate human and physical capital simultaneously throughout its era of remarkable growth from the 1960s to the 1990s. This contrasts with early development scholars' emphasis on the importance of accumulating physical capital in the initial decades following World War II and the associated policies of many developing countries that led to little or no economic success.

Although the first government under Syngman Rhee allowed educational institutions to expand without significant limits in response to popular demand, the government under Park Chung-hee attempted to limit expansion in the early 1960s and channel demand according to the country's development needs (McGinn et al. 1980, p.35). Thus, in sharp contrast to the experience of most developing countries, efforts by the new South Korean government focused more on controlling the growth of education than promoting it. Three characteristics of government attempts to control the expansion of educational in the decades following independence are particularly important to understanding the increasingly equal distribution of education in South Korea: centralization of control of the education system in a strong state, the channeling of educational output to meet the economic needs of the country, and the sequential development of public education.

Liberation from Japanese imperial rule began with division of the peninsula into north and south with a caretaker government under the US military in the south. Despite attempts by this government to establish a decentralized system following World War II, control of education, among other things, was centralized by Syngman Rhee's government, particularly following a civil war in the early 1950s and the rise of a rival government in North Korea as a serious threat to South Korean security. Centralized, authoritarian control was maintained until the late 1980s by the governments of Park Chung-hee and Chun Doo-hwan. Although the military dictators of this period used education for political purposes, such as instilling loyalty in the leader and demonizing the rival northern neighbor, control by a strong, stable government allowed for the intentional formation of a uniform system open to all segments of society. The Park Government in particular promoted wide access to education to prevent the formation of a poor class that might generate discontent and instability.

Centralized control enabled the government to match educational output to particular economic needs. As mentioned above, Koreans have generally preferred academic over technical education. Mostly unbridled expansion during the

government of Syngman Rhee allowed educational development to take on “a momentum of its own, driven by public demand for schooling and degrees” (Seth 2002, p.5) rather than the technical needs of fledging economy. Near the end of the Rhee Government in 1960, the number of students in academic schools grew to 164,492 while enrollment in vocational schools fell to 99,071 (p.112). The result was a large number of unemployed college graduates that could generate more discontent than a poor class; it was estimated at the end of the Rhee Government in 1960 that 60% of college graduates failed to find employment within three months of graduation (McGinn et al. 1980, p.38). The Park Government quickly began promoting technical and vocational training and limiting the number of advanced degree holders (Seth 2002, p.84). The First Five-Year Educational Development Plan of 1962 decreed cuts in academic subjects, the addition of technical subjects to entrance examinations to encourage greater study in these fields, quotas on the number of post-secondary students, and a goal of a 7:3 ratio of vocational to academic students to be achieved by 1966. Most of these policies were initially ineffective in altering the popular demand for academic education, but the Park Government eventually forced changes through, particularly after its turn to heavy-handed authoritarianism in 1971 (Seth 2002, pp.120-139). These policies effectively placed a cap on the ability of a minority of the population to advance in academic education much beyond those of the majority in technical education. A decentralized, democratic government would have found such a task impossible as popular demands ran counter to policies of the Park Government.

The US caretaker government attempted to promote an American-style education system with decentralized control, open access for the entire population to publicly funded institutions, and emphasis on all levels of education. Although many facets of the American model were maintained, emphasis on all levels was replaced with a program of sequential development beginning with primary education during the Rhee Government and continuing into the Park Government during the 1960s and 1970s (Seth 2002, p.75). After achieving universal elementary education by the mid- to late 1960s, the government expanded its focus to nine years of universal education; this was accomplished within a decade, and resources were subsequently shifted to achieve universal secondary education (Seth 2002, p.83). Focus was again shifted to tertiary education after universal secondary education was completed in the early 1990s. This sequential devotion of government resources to increasing levels of education is illustrated in Table 11.9 by the percentage of the government’s total education budget devoted to different levels, and Table 11.10 shows the results of this policy in the rapid, sequential increases in enrollment ratios beginning with primary education. This policy of sequentially promoting education attainment within the entire population rather than an elite class led to the decreases in inequality of the distribution of education observed above. As a result, South Korea has consistently

maintained enrollment ratios significantly higher than countries with similar levels of income per capita (McGinn et al. 1980, p.62).

Table 11.9: Key Education Indicators by Expenditures on Public Education

Year	Public Education Expenditure (% of GDP)	Public Education Expenditure (% of govt. spending)	Primary Ed. Expenditure (% of total ed. budget)	Secondary Ed. Expenditure (% of total ed. budget)	Tertiary Ed. Expenditure (% of total ed. budget)
1970	3.51	--	--	17.78	6.37
1975	2.15	15.5	--	18.94	9.04
1980	3.64	--	--	27.99	7.34
1985	4.34	--	37.21	29.2	8.69
1990	3.33	22.43	39.51	30.45	6.62
1995	3.4	--	44.48	36.64	8.01
2000	3.44	11.73	41.42	37.28	13.54
2002	4.22	15.48	33.96	43.41	8.07

Source: World Bank (2002).

Table 11.10: Key Education Indicators by Enrollment Rates

Year	Gross Enrollment Rate, Primary (% of age group)	Gross Enrollment Rate, Secondary (% of age group)	Gross Enrollment Rate, Tertiary (% of age group)
1970	103.41	41.61	7.43
1975	106.86	56.35	8.8
1980	109.91	78.13	14.67
1985	97.02	91.65	34.05
1990	104.94	89.83	39.1
1995	95.25	100.87	52.03
2000	100.07	94.17	77.6
2002	103.86	89.84	84.73

Source: World Bank (2002).

The policies of a strong, centralized government from the 1950s to the 1970s thus promoted an equal distribution of education by squeezing the vast majority of the South Korean population between a lower educational limit that was gradually raised by a policy of sequential development and an upper limit that restricted access to tertiary education. South Korea was thus able to avoid many of the problems many developing countries are still grappling with today: gaps in the development of an education system and concentration of resources on an

elite segment of society (Seth 2002, p.4).

Educational Equality and Democracy in South Korea

As a side note to the above discussion of educational development following liberation, an interesting subject and possible area of future research is the role of an increasingly egalitarian distribution of education in the rise of democratic governance in South Korea. As discussed earlier, the Confucian culture of Korea designated education as one of the only means of upward social mobility and linked education with moral and institutional authority and duty. Seth (2002, pp.6-13) points out that this aspect of Korean Confucianism has persisted to the present and that the effective, modern school system developed following liberation unwittingly produced the dissident teachers and students that haunted all three South Korean dictators and helped caused the downfall of two of them.

The role of students and instructors of educational institutions in the fall of authoritarianism and the eventual rise of democracy in South Korea is well documented (Seth 2002; Cummings 1997; Oberdorfer 2001). These modern scholars of Korea were essentially exercising the Confucian-implied authority and duty to criticize and demonstrate against the government's immoral, undemocratic practices. Perhaps the establishment of an education system that successfully brought the vast majority of the population to significantly higher levels of education inadvertently generated a large number of people culturally qualified to criticize South Korea's authoritarian leaders. Thus, the increasingly equal distribution of education may be linked to the enormous student demonstrations of the late 1950s that forced Syngman Rhee into exile and those of the late 1980s that caused Chun Doo-hwan to step down and hold democratic elections.

Conclusion

Inequality in the distribution of human capital is one possible reason for the lack of improvement in development prospects of many countries that have shifted resources from investment in physical capital to investment in human capital in the hope of increasing economic growth (Holsinger 2005). This chapter's documentation of South Korea's remarkable success in increasing equality in the distribution of education during its period of extraordinary economic growth provides a case study for comparison with similar studies in less-developed areas of the world. Educational policies in less-developed countries that focus resources in a sequential manner on successive levels of educational institutions and seek to bring a majority of the school-age population to gradually higher levels of attainment will be more successful than simply devoting a larger share of resources into a general, nation-wide education sector.

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12

Access and Equity: Who are the Students at Taiwan's Top Universities?

HUNG Chih-Cheng & CHENG Sheng Yao

Introduction

In the field of education, achieving equality of educational opportunity is a universal goal for almost all educators. Accordingly, education researchers have drawn attention to societal success or failure in obtaining it. The equal distribution of education attainment, together with high quality learning environments, has become a persistent worldwide concern as recognition of the bad effects of inequality of education have been identified, quantified, and made available to policy makers and social commentators all over the world (Apple 2001; Heyne-man 1993; Jeliaskova & Westerheijden 2001; Lo 1998).

With Taiwan's implementation of a nine year compulsory education policy in 1968, the enrollment rate steadily increased until it reached 99% in the early 1990s. In the recent decade, along with social, political, and economic development, Taiwanese society and government started to pay more attention to the expansion of higher education. In 1990, Taiwan had only 39 higher education institutions (HEIs), but by 2006 there were more than 160 HEIs. Some observers see this change as the harbinger of universal higher education;¹ this means that high school graduates will soon have a very high probability of attending an HEI. However, other education scholars (Fu 2000; Lo 2002) worry that the rapid expansion of higher education will derail the goal of universal coverage at lower levels of schooling. With so little quantitative research available, not much empirically grounded evidence is available to inform future decision making.

Austin and Oseguera (2004, p.321) feel that equity of access to higher education will be attained in Taiwan only after the universal coverage at primary and secondary levels close to being reached. The equity debate in Taiwan is also tied to the issue of unequal resources among the nation's HEIs with top-ranked universities and benchmarking universities² possessing superior financial resources while students from certain gender, ethnic, socioeconomic, and geographic backgrounds are underrepresented in them. Austin drew attention to many reports demonstrating that higher ranked HEIs own more educational re-

sources and are able to offer their students more benefits at a lower price than other lower ranked HEIs (Austin 1977). More recently Carnevale and Rose (2003) have shown that in the United States, students of low socioeconomic status have a lower probability of gaining admittance to Ivy League universities than do students from high socioeconomic status (SES) backgrounds. Again drawing on research from the United States and by way of illustration, low SES and minority-group students have in recent years enjoyed increased chances to enter HEIs. This progress toward equalizing admissions of underrepresented minority groups, has brought into relief legal issues pitting the goal of selection criteria based solely on "merit" against the important ideal of equal representation (e.g., University of Texas School of Law 2003, p.322).

Returning to the Taiwan case, Fu (2000) attempted to analyze the impact of educational expansion on the equality of educational opportunity drawing on structural functionalism and conflict theory. Fu argues that the expansion of higher education in Taiwan reproduces the social and cultural structure in spite of improving the equality of educational opportunity. Fu further contends that students from low SES families are easily sacrificed in the national obsession with education. Lo (2002) analyzed the background of students at National Taiwan University (NTU) from 1954 to 2000. NTU consistently ranks first among all Taiwanese HEIs in terms of reputational ranking. The researcher found a positive correlation among students' ethnicity, parents' higher educational background, and residence in Taipei. He noted that students from higher SES families and those who graduated from more prestigious high schools attended NTU in greater numbers than did students with different education background characteristics.

To examine the question of accessibility, by which we mean the probability assigned to any given secondary school graduate of securing a place in higher education and also the probability of entering a top tier university, we draw on data from the Higher Education Research Center at National Taiwan Normal University. Specifically we analyze a number of achieved and ascribed variables such as students' fathers' educational background, mothers' educational background, family income, ethnicity, gender, and geographic area of residence, as these impact students' access to top universities in Taiwan. Finally, we draw conclusions concerning the issue of equality of educational opportunity in Taiwan, as this related to the top-ranked universities and benchmarking colleges.

Equity, Gender, Class, and Ethnicity

To probe the impact of the expansion of higher education on the issue of equity, we review the literature on the relationships among equitability, gender, class, and ethnicity first and then consider the interaction among gender, class, ethnicity, locale, and opportunities for higher education.

The definition of *equity* is often confused with *equality*. *Equality* means all

members in a society or group have the same “quantity” of status and privilege, while *equity* could be interpreted as meaning that all members of a group have the same “quality” of opportunity (Cheng & Jacob 2005) or experience the same degree of fairness or justice in the distribution of education (Farrell 1999). The main thrust of this study is equity, as we are concerned with questions of social justice in the distribution of educational opportunity in Taiwan and possible remedies for improvement of policies leading to increased equity.

In his renowned work, *The Theory of Justice*, John Rawls (1999) emphasized that the concept of justice includes two elements: the first is *sameness*, which means everyone should have the same opportunity to share limited social resources; the second is *difference*, which means that we need to acknowledge existing social inequities and provide remedies that would reduce them even if this means according different policy treatment to students in order to compensate for the effects of their different backgrounds. To describe the inherent conflicts of this approach, Rawls created a new word, *maximin*, which for the purposes of this study is taken to mean the creation of social policies that give students from the lowest social backgrounds the most helpful social resources.

Coleman (1966) used a different approach to interpret the possibility of equal educational opportunity, and he urged readers to conceptualize the problem in terms of three key dimensions: access, schooling, and outcome. He noted that in the past, most education policy making and reform focused on equality of access and ignored the importance of equality of instruction and learning outcomes.

Unlike Coleman, in this study we focus on the tension between accessibility to higher education in general and equity in the sense of social justice for all Taiwanese as a consequence of the current expansion of higher education. We believe that equality of educational opportunity not only relates to access to universities but must also apply to access to top-ranked universities or what we call equity. Our contention is that, while the issue of equity has been given more official attention in the past decade, opportunity of access to all public higher education is still inequitable. In summary, the promise of near universal coverage of higher education does not mean that equity has been attained.

Due to the ubiquitous cultural heritage of Confucianism in Taiwan, higher education depicts a comparatively elevated social and economic status. Invariably, it also equals higher wages and salaries (Cheng 2002). Following the expansion of higher education in Taiwan in the recent decade, more than 90% of high school graduates are able to enter HEIs. With the goal of equal access almost achieved, the challenge of equity will become the next leading topic.

Austin and Oseguera (2004) argue that the issue equal access to higher education among all sub-elements of a population should be always emphasized, and that HEIs should be regarded as one the major catalysts for improving social mobility and helping minority students achieve at rates similar to majority students. Similarly, Luhanga (2003) suggests that access to HEIs should attempt to

compensate for “social” or “cultural” impediments often experienced by aboriginal peoples or those of oppressed cultures and languages. In the same vein, we hold that achievement rates by gender, socioeconomic status, and ethnicity to be relevant policy markers, measured, reviewed, and utilized as the basis for public accountability in the field of higher education.

Gender and Higher Education Opportunity

Even though the percentage of female students and faculty who participate in higher education has increased significantly in recent years, female participation is still a poorly studied issue and little public attention was focused on it during the era of higher education expansion. This is not merely a question of ignoring women’s roles in society but also a clear sign that that female contributions and commitment to valued social functions is overlooked and underappreciated (Kane 1995).

The quality and extent of female participation in higher education is a clear indication of the phenomenon of social injustice (Jacobs & Reyhner 2002). Chliwniak (1997) contends that benchmarking HEIs should consider the institution type, subject area, and degree in the admission of female applicants. For instance, the standard that the European Union uses to evaluate HEIs considers how the HEIs provide equal treatment on the basis of gender for their students, employees, and faculty. The opportunity for female students to access higher education there has made huge advances; however, social, economic, and political barriers still influence females’ full access and effective integration into HEIs (Alderson 1991).

In Taiwan, the educational opportunities for female students increased rapidly along with the expansion of compulsory education in 1960s. In 1995, female students represented half of all students; therefore, we can say that gender in the education realm is almost equitable in the dimension of quantity. However, according to the statistics of the Ministry of Education (2005), the gap between males and females becomes larger when we review the proportions in master’s and doctorate programs. The ratio of male to female is 3:1 among those seeking doctoral degrees, and we discover that female participation keep lower when the education stratification keep going upward.

Class and Equitability

Coleman (1990) emphasizes that a key factor in determining students’ achievement is their family background. Sewell and Hauser (1980), on the other hand, disclose the pivotal role that parents’ educational background and family income play in predicting their children’s educational achievement via the Wisconsin Model.

The equitability of higher education enrollment should be considered in a

whole picture, because it depends on individual, societal, and economic viewpoints. Darvas (1997) points out the new consensus that every individual should have the chance to access and fully participate in HEIs regardless of social, economic, and cultural factors. Unfortunately, the ideal of equitability in higher education is still a long way off.

Students from lower social strata seem destined to be shut out or to be neglected in the early stages of the admissions process. In the United States, the admission procedure is often too complicated for the parents of students of lower social status, and a couple of AP courses could be provided in the rural area. Both of these disadvantages decrease students' chances of admission into the top universities (Timpone & White 1998). Johnbloed (1998) notes several additional unfavorable factors that correlate with the admission procedure for students of lower social status. For instance, their parents are unfamiliar with how HEIs operate; therefore, these students fail to receive the best advice on choosing majors and professions. These students can also be forced into poor decisions because of limited financial support. In addition, students of lower social status are rarely confident that they can find a job to pay back their student loans. At the same time, they often feel isolated culturally, especially when they land in top HEIs and their identity or minority group is attacked (Johnbloed 1998; Merline 1998; Weidman & Park 2000). Bourdieu (2000) stresses that education is a major tool for class reproduction because education not only delivers knowledge but also reproduces social injustice and legislation.

In Taiwan, the expansion of higher education has led to companies selecting graduates from the top universities. This increases the competition to enroll at the top universities. Lo (2002) points out that between 1997 and 2000, students at Taiwan's number one university, National Taiwan University, came from the top 20 high schools in Taiwan. Fifty-seven percent of the students came from Taipei, while less than 1% came from rural counties. If we look only at the law school at NTU, 42% of the students' fathers and 27% of their mothers graduated from universities. That percentage is much higher than the average for all students in Taiwan, which comes to 17% of fathers with a bachelor degree and 7.5% of mothers with a university diploma. To sum up, the concept of class represents parents' educational background, family income, living area, and the equitability of higher education opportunity.

Ethnicity and Equity

Ethnicity and multiculturalism are the main criteria for an inclusive higher education policy (Bérubé & Nelson 1995; Pifer 1973). In the United States, affirmative action is an important but legally complicated education policy that many educators and sociologists regard as a crucial leveler for increasing social justice. However, important affirmative action admissions policies may be in the eyes of

many, US constitutional and other legal obstacles to its implementation exist as do more politically motivated negative views, negating much of its potential impact on redressing racial imbalances. In the United States, much of the reaction against affirmative action policies comes from two myths about the extent of ethnic integration. The first is that affirmative action is no longer necessary because university admission procedures have leveled the inequities derived from historic racial discrimination. However, significant evidence shows that Hispanic and Black students remain underrepresented in regard to university admissions (see, for instance, Bennett & Xie 2003; Lee 2002). American Community Colleges, of much lower social prestige than universities, do not have this same imbalance in relation to the ethnic background of their student populations.

Another commonly held view is that of race neutrality. Some portions of the American population believe that to emphasize race in matters of university admissions will produce a selection mechanism that does not reward effort and ability. Regardless of the arguments for or against the presence of race as a factor in US university admissions, decisions are convincingly documented by Altbach, Berdahl, and Gumpert (1994) whose exhaustive, but now outdated, review of social psychological research literature found that racial discrimination in admissions decisions remained. They insisted that the color-blind policy advocated by some American academics will never result in equity but will likely increase racial disparity of student populations.

In Taiwan, educational opportunity for Taiwanese aboriginal students has similarly been a hot issue since 1990 (Chang 1994). Taiwan aborigines remain in the lower strata in economic, political, cultural, and educational circles; for this reason, the Ministry of Education and Taiwan Aboriginal Affairs Council created an extra score policy in the vein of affirmative action (Cheng 2004). This policy adds 33% to the scores of Taiwanese aboriginal students on the high school entrance exam and 25% to their score when enrolling in universities. Unfortunately, even so, Taiwanese aboriginal students on the whole still fail to perform well during their study.

Research Design

After reviewing the relevant literature and from our vantage as professional educators and researchers in Taiwan, we hypothesize that Taiwanese students' socioeconomic background will impact their chances to gain admittance to top-ranked and benchmarking universities. The overarching problem for Taiwan is to respond to the question of how equitable admissions can be achieved, now that the matter of providing an adequate number of university places has almost been reached.

For this purpose, we draw on data from the Higher Education Research Center at National Taiwan Normal University to interpret the state of higher education in Taiwan. The database comes from a 2003 survey. The sample is

constructed using 1% random stratified selection of all the freshmen in Taiwanese HEIs. The sample is stratified by type of institution so as to assure the ability to compare student responses across major institutional categories. The 1% sampling rate resulted in at least 100 freshmen from each campus, and each respondent was asked to provide his or her basic family background and personal information, opinions related to higher education, self-concept, and educational plan.

Total sample size was 49,611, and the final total valid response was 33,959, yielding a return rate to the mailed questionnaire of approximately 68.5%. Although the main purpose of the higher education research survey was to build a longitudinal database for college students, employees, and faculties, our research aimed to estimate the correlation among educational opportunity (i.e., the probability of admittance) at top universities and students' parents' educational background, family income, ethnicity, gender, and locale.

To define operationally the top universities, we used the 2005 university evaluation conducted by the Ministry of Education as criteria to divide HEIs in Taiwan into four categories: top public, regular public, top private, and regular private. Top public universities in Taiwan are regarded as enjoying the highest social prestige or, as used elsewhere, the highest reputation ranking because of social, economic, educational, and cultural factors. In this research, we frequently make reference to the difference between freshmen's background between the top public and the other three HEI categories. According to 2005 evaluation results, the reputation scores of Taiwanese HEIs four categories had the following ranges: (A) top public 180-220, (B) regular public 100-130, (C) top private 120-160, and (D) regular private 40-60. We randomly selected five universities per category resulting in 20 participating HEIs in this study and the number of respondents is 6,519 or roughly 326 per university.

The main hypotheses of the research posit that the following student characteristics will have a statistically significant and positive association with the following characteristics of the student:

1. Fathers' educational backgrounds
2. Mothers' educational backgrounds
3. Family income
4. Ethnicity
5. Gender
6. Locale (geographic place of family residence)

Analysis and Discussion

Fathers Educational Background

Fathers of 12.5% of top public university students had earned a master's or Ph.D. degree, compared to 2.9% at regular public, 4.0% at top private, 3.6% at regular

private, and 3.3% overall. We obtained a similar result when we looked at bachelor's degrees: 28.6% of fathers of top public university freshmen had a bachelor's degree, compared to 16.1% at regular public, 18.1% at top private, 15.0% at regular private, with an overall total of about 12.3%. The differences are significant at the .05 level when using the chi-squared statistic (see Table 12.1).

Table 12.1: Percentage Distribution of Educational Background of Freshmen's Fathers by University Types

University Type	Educational Background						X ²
	Elementary School	Junior High	Senior High	Associate Bachelor	Bachelor	Graduate	
Top Public	8.41	2.71	24.27	16.68	28.61	12.54	338.897***
Regular Public	11.97	15.09	33.48	20.47	16.13	2.86	
Top Private	12.22	13.91	32.44	19.35	18.09	3.99	
Regular Private	11.63	15.88	33.35	20.56	14.99	3.58	
Total	15.73	19.31	33.27	16.07	12.29	3.32	

***P<.001

Table 12.2: Summary of Educational Background of Freshmen's Fathers and School Evaluation Scores

Educational Background	School Evaluation Score			Post hoc
	N	M	F	
Elementary School	730	122.5450	44.672***	Graduate >Bachelor >(Associate Bachelor, Senior High, Junior High, Elementary School)
Junior High	883	118.5334		
Senior High	2,048	122.0963		
Associate Bachelor	1,275	123.2768		
Bachelor	1,285	140.8440		
Graduate	373	157.6956		
Total	6,593	127.5628		

***P<.001

Having a father whose terminal university degree is above the master's level is the single best predictor of a student's ability to gain entrance to a top-ranked university, but this fact of a given student's background confers no absolute guarantee of getting into a top public university. Having a father with a bachelor's degree is the second-best predictor of entrance to a top public university, while an associate bachelor's degree or graduation from senior high, junior high,

or elementary school made no difference to a student's chances (see Table 12.2).

These results differ somewhat from Tseng's (2000) research outcomes. He used the 1999 Taiwan social change survey, which had a 4,313 sample size, to analyze and estimate the same association and found that an associate bachelor's degree was a good predictor of children's educational opportunity. However, we believe that the expansion of higher education, which has made bachelor's and master's degrees much more common, may account for the differences in the results from Tseng's earlier study and our own.

Mother's Educational Background

When we examined the impact of freshmen's mothers' education on their admittance at a top public university, we find that 5.6% of freshman have mothers with a master's degree, compared to 1.3% at regular public, 1.6% at top private, 1% at regular private, and 1.3% in total. At the bachelor's level of mothers' education, the percentage of freshmen who have mothers with a bachelor's degree is 24.1% at top public, 9.9% at regular public, 11.7% at top private, 9.2% at regular private, and 8.2% in total. The chi-square analysis reveals a significant difference at the .95 confidence interval (see Table 12.3).

Table 12.3: Percentage Distribution of Educational Background of Freshmen's Mothers by University Types

University Type	Educational Background						X ²
	Elementary School	Junior High	Senior High	Associate Bachelor	Bachelor	Graduate School	
Top Public	12.34	10.44	30.24	17.36	24.07	5.56	367.159 ***
Regular Public	18.21	20.38	37.81	12.40	9.89	1.30	
Top Private	16.27	19.35	34.99	16.07	11.69	1.64	
Regular Private	16.98	20.01	38.09	14.66	9.21	1.05	
Total	22.26	22.12	34.38	11.80	8.15	1.30	

Having a mother whose terminal university degree is above the master's level is the single best predictor of a student's ability to gain entrance to a top-ranked university but this fact of a given student's background confers no absolute guarantee of getting into a top public university. Having a mother with a bachelor's degree is the second-best predictor of entrance to a top public university, while an associate bachelor's degree is located in the third and graduation from senior high, junior high, or elementary school made no difference to a student's chances (see Table 12.4).

Table 12.4: Summary of Educational Background of Freshmen's Mothers and School Evaluation Scores

Educational Background	School Evaluation Score			Post hoc
	N	M	F	
Elementary School	1,036	121.4706	50.253***	Graduate >Bachelor >Associate Bachelor >(Senior High, Junior High, Elementary School)
Junior High	1,165	117.6307		
Senior High	2,321	122.8525		
Associate Bachelor	1,024	131.9205		
Bachelor	891	148.3370		
Graduate	155	165.1947		
Total	6,593	127.5628		

***P<.001

Family Income

In the research, we used 500,000 New Taiwan Dollars (NTD) and 1,150,000 NTD as two key criteria for dividing family income in Taiwan because students from families with income less than 500,000 NTD can apply for a low-income subsidy, and students are able to apply for a student loan if their family income is less than 1,500,000 NTD.

When we looked at total family income of freshmen at HEIs as a contributing factor to their university admission, we were again not surprised to find our suspicion confirmed. We discovered that family income for 40.4% of freshmen at top public universities was more than 1,150,000 NTD, compared to 26% at regular public, 32.4% at top private, 29.2% at regular private, and 26.7% in total. For family income less than 500,000 NTD, only 17.8% of the freshmen at top public universities fell into this category, compared to 25.5% at regular public, 22.6% at top private, 23.4% at regular private, and 28.8% in total. A chi-square analysis of this data shows that the difference is statistically significant at the .05 level (see Table 12.5).

Table 12.5: Percentage Distribution of Freshmen's Family Incomes (in NTD) by University Types

University Type	Family Income			X^2
	Less than 500,000 NTD	500,000 NTD~114,000 NTD	More than 1,150,000 NTD	
Top Public	17.76	41.83	40.41	73.188***
Regular Public	25.50	48.48	26.02	
Top Private	22.62	45.00	32.39	
Regular Private	23.37	46.91	29.17	
Total	28.77	44.54	26.70	

***P<.001

When we use college evaluation scores as our dependent variables, we find that the independent variable which is their family incomes has significant difference. Along with the post hoc test, we discover that freshmen's family incomes are more than 1,150,000 NTD present the best chance to enroll in the top universities, and there is no difference between their family incomes are between 500,000 NTD and 114,000 NTD or less than 500,000 NTD (see Table 12.6).

Table 12.6: Summary of Freshmen's Family Incomes (in NTD) and School Evaluation Scores

Family Income	School Evaluation Score			Post hoc
	N	M	F	
Less than 500,000 NTD	1,432	122.3106	24.054***	More than 1,150,000 NTD >(500,000 NTD~114,000 NTD, Less than 500,000 NTD)
500,000 NTD~114,000 NTD	3,014	125.0687		
More than 1,150,000 NTD	2,148	134.5640		
Total	6,593	127.5628		

***P<.001

Gender

When we took the gender variable as a key factor, we discovered that 55.2% of top public students are female, compared to 56.81% at regular public, 49.4% at top private, 49.6% at regular private, and 55% in total (see Table 12.7). If we analyze the data via a chi-square test, there is significant difference between male and female, and male has higher opportunity to access top universities.

Table 12.7: Percentage Distribution of Freshmen's Gender by University Types

University Type	Male	Female	X^2
Top Public	44.85	55.15	29.515***
Regular Public	43.19	56.81	
Top Private	50.58	49.42	
Regular Private	50.36	49.64	
Total	45.00	55.00	

***P<.001

Using gender as the independent variable and college evaluation scores as the dependent variable, we discover that the average college evaluation score men attended is about 129.7 and 124.8 for female (see Table 12.8).

Table 12.8: Summary of Freshmen's Gender and School Evaluation Scores

Gender	School Evaluation Score			Comparison
	N	M	T	
Male	3,706	129.7292	3.390**	Male>Female
Female	2,889	124.7902		
Total	3,706	129.7292		

**P<.01

Ethnicity

With a population of approximately 23 million, Taiwan is a multiethnic country generally classified into four main aboriginal peoples: *Fukinese* (people who immigrated to Taiwan from the Fukine Province of China before 1949), *Hakka* (people who migrated from the Kwangtung Province of China before 1949), *Mainlander* (people who migrated from China after 1949), and *Taiwan aborigines*. These four primary ethnic groups can be separated into two larger groups. One is called Han Chinese which included Mainlanders (14%), Fukien Taiwanese (74%), and Hakka Taiwanese (10%); the other is named non-Han Austronesians which is made up of indigenous tribes of Taiwan aborigines (2%), approximately 400,000 of the total population (Council of Aboriginal Affairs Executive Yuan 2007).

When we used ethnicity as the key factor, we found that 64.4% of freshmen at top public universities were Fukienese, 70.7% at regular public, 69% at top private, 67.1% at regular private, and 68.4% overall. The similar situation happened in Hakka, Mainlander, and Taiwan aborigines. Chi-square analysis shows that there is no significant difference among the four types of universities (see Table 12.9).

Table 12.9: Percentage Distribution of Freshmen Ethnicity by University Type

University Type	Ethnicity					X^2
	Fukienese	Hakka	Mainlander	Taiwan aborigines	Others	
Top Public	64.41	8.95	12.27	2.78	11.59	50.915***
Regular Public	70.69	10.67	8.85	2.86	6.94	
Top Private	69.01	10.64	10.97	1.15	8.23	
Regular Private	67.09	12.51	10.05	2.15	7.99	
Total	68.37	11.89	8.70	3.10	7.95	

***P<.001

Table 12.10: Summary of Freshmen's Ethnicity and School Evaluation Scores

Ethnicity	School Evaluation Score			Post hoc
	N	M	F	
Fukienese	4,482	127.2341	9.068***	Mainlander > (Hakka, Taiwan aborigines) Others > (Fukienese, Hakka, Taiwan aborigine) Mainlander > Fukienese
Hakka	720	120.6259		
Mainlander	710	131.7566		
Taiwan aborigines	97	109.9737		
Others	585	136.4377		
Total	6,593	127.5628		

*** $P < .001$

Further analysis shows that even with the special extra score policy³ to help them access HEIs, Taiwan aborigines still belong to the minority group at top public universities (confidence interval is 98-122). Hakka were not regarded as the second minority group in past educational research; in our research, however, we discovered that Hakka tend to become a neo-minority group to study in the top public universities. Moreover, “other” (N = 585) is the third best predictor of access to top public universities, and we will need to do subsequent research to figure out the real situation (see Table 12.10).

Locale

In Taiwan, the geographic locale represents different social economic circumstance. The north area preoccupied most of the political, economical, educational, and social welfare resources in Taiwan, the middle and south have the second level, and the eastern owns the last.

When we examined where freshmen came from, we found that 54.4% of freshmen at top public universities came from the north area of Taiwan, 46.6% at regular public, 54.5% at top private, 43% at regular private, and 43.2% in total. The similar situation happened for answers of middle, south, and eastern, and others. Chi-square analysis shows no significant difference based on location of where the students came from (see Table 12.11).

Table 12.11: Percentage Frequency of Freshmen's Locale by University Types

University Type	Locale					X^2
	North	Middle	South	East	Others	
Top Public	54.41	20.25	19.25	2.54	3.55	199.450***
Regular Public	46.58	19.94	28.73	3.80	0.95	
Top Private	54.45	20.50	21.70	2.99	0.56	
Regular Private	42.99	15.94	35.61	4.45	1.01	
Total	43.20%	24.80%	25.77%	4.93%	1.30%	

*** $P < .001$

Using Freshmen's Locale as the independent variable and college evaluation scores as the dependent variable, we find that there is significant difference. Freshmen from north and middle area of Taiwan have more chances to enroll in the higher College Evaluation Score Universities (see Table 12.12).

Table 12.12: Summary of Freshmen's Locale and College Evaluation Scores

Locale	College Evaluation Scores			
	N	M	F	
North Area	3,265	130.6071	28.926***	Others > (North, Middle) > (South, East)
Middle Area	1,293	132.1273		
South Area	1,704	118.0528		
East Area	222	113.1501		
Others	93	165.2750		
Total	6,577	127.5573		

***P<.001

Conclusion

The distribution of higher education opportunity is a crucial dimension for the equitable allocation of scarce social resources, and it is also a major mechanism for upward mobility of the poor and underrepresented. From 1994, the Taiwanese government has made a concerted effort to expand secondary and higher education enrollments, modernize curricula and instructional practice, and reform the entrance examination practice. The popular demand for education among Taiwanese citizens has brought into political discussion questions of equity and social justice. Although many regard the expansion of the system at the same time as major improvements to quality as nearly miraculous, others have questioned the extent to which elite HEIs are truly accessible to all Taiwanese. Our results add evidence to the growing concern that urban, high-income, and well-educated Taiwanese continue to enjoy unequal access to highly ranked public universities thus serving to perpetuate intergenerational social inequalities in Taiwanese society.

In summary, this study examined the backgrounds of freshmen in Taiwan in 2003 and identified a number of significant correlates of inequity in the allocation of places in top tier, national public universities across all elements of Taiwanese society. Only student gender, an ascribed characteristic, is unrelated to the probability of admittance at a highly ranked top public university.

Among secondary school graduates in Taiwan, a number of powerful social characteristics are highly associated with their opportunity to enroll in one of the top-ranked public universities. Students whose parents hold a bachelor's or master's degree, whose family income is more than 1,150,000 NTD, who are Mainlanders, and live in the northern and middle areas of Taiwan have a better chance

Table 12.13: Summary of Major Research Findings

Variables	Who will be the top Taiwan university students?
Father's Educational Background	Master > Bachelor > (Associate Bachelor, High, Junior High, Elementary School)
Mother's Educational Background	Master > Bachelor > Associate Bachelor > (Senior High, Junior High, Elementary School)
Gender	Male>Female
Family Income	More than 1,150,000 NTD > (500,000~1,140,000 NTD, less than 500,000 NTD)
Ethnicity	Mainlander > (Hakka, Taiwan aborigines) Others > (Fukienese, Hakka, Taiwan aborigines) Mainlander > Fukienese
Locale	Other> (North, Middle) > (South, East)

of studying at the top universities in Taiwan. Whether or not these students and their families are happy with this situation is no doubt linked to their sharing the same characteristics. Education policy options are theoretically available to alter this pattern of student placement in order to achieve a more equal distribution of opportunity.

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Notes

¹ The net matriculation rate in 2007 was about 59% which is higher than Martin Trow's "Universal Type."

² According to Alstete (1995) and Barak & Kniker (2002), an organization's comparison with the best practice established by another entity (sometimes in a different field) is used to improve a process, procedure, or outcome in the case of higher education.

³ The Extra Score Policy was put in place in 1987 by Executive Yuan, R.O.C. for the purpose of helping the disadvantaged Taiwan aboriginal students for better education. Taiwan aboriginal students could have 33% extra score to access to high schools and 25% to enroll in higher education institutions. It is generally regarded as having been positive to minority students. In 2007, an amendment of the extra score policy had been promulgated (Council of Aboriginal Affairs Executive Yuan, R.O.C. 2007).

13

Provincial, Ethnic, and Gender Disparities in Education: A Descriptive Study of Vietnam

W. Joshua REW

The global push to expand formal education, particularly primary and secondary schooling, originated with human capital theory (Becker 1993; Schultz 1961). Human capital theory specifies several plausible outcomes as products of the expansion of formal education such as economic growth and poverty reduction. Furthermore, it hypothesizes that the expansion of formal education has a profound effect on economic and social inequalities. Woo (1991); Birdsall, Ross, and Sabot (1995); Lewin (1998); and Mingat (1998) indicated that the high-achieving East and Southeast Asian economies of Hong Kong, Indonesia, the Republic of Korea, Malaysia, Singapore, Taiwan, and Thailand are examples of countries that experienced rapid economic growth and a dramatic decline in poverty because of the expansion of formal education, among other factors. Morris (1996) stated that the most significant feature of high-achieving East and Southeast Asian economies, with respect to formal education and its accrued benefits, was the near universalization of primary schooling and the timely expansion of secondary schooling.

Many developing countries viewed the model utilized by these East and Southeast Asian economies as a template for replication. Consequently, these countries allocated considerable financial resources to universalize primary schooling and expand secondary schooling in an attempt to duplicate the outcomes experienced by the high-achieving East and Southeast Asian economies. However, while many of these developing countries experienced similar outcomes, disparity intensified within each country due to an unequal distribution of the benefits of rapid economic growth and poverty reduction. In several cases, the divide between the elite and the masses grew considerably. Under such conditions, it may be easy to view formal education as culpable in some contexts where the elite designed formal education to maintain, replicate, and augment economic and social inequalities instead of eliminating them. While this may be accurate for some countries, for most developing countries the benefits of economic growth and reduced poverty did not reach the masses because of an un-

equal distribution of formal education.

An unequal distribution of formal education also known as educational inequality indicates that the enfranchised elite enjoy the major portion of education. Furthermore, the elite typically capture the benefits of education such as superior occupations and higher incomes because of their hegemonic control over education. On the other hand, the disenfranchised masses—typically differentiated by gender, ethnicity, religion, geography, income, and social class—characteristically receive the minor portion. Invariably, this leads to the masses having inferior occupations and lower incomes compared with the elite. However, occupational and income inequality are not the only negative outcomes associated with educational inequality. Disproportionate social mobility also occurs when educational inequality exists. Unfortunately for the masses, occupation and income inequality accompanied by disproportionate social mobility reinforce and perpetuate educational inequality and entrench the elite’s hegemony over education.

The objective of this study is to descriptively examine educational inequality in terms of the disparities in educational attainment that exist in Vietnam. The examination consists of four sections: provincial, ethnic, and gender-based educational inequality, and a comparison of educational inequality between the Thai Binh and Lai Chau provinces. The comparison between Thai Binh and Lai Chau provinces offers a valuable look at the provinces with the most equal and unequal distributions of education attainment in Vietnam. The rationale behind each section of the examination is the notion that formal education continues to be a national priority for achieving Vietnam’s economic and social objectives (Duggan 2001). Therefore, examining the provincial, ethnic, and gender-based disparities in education will provide insight to the economic and social context of Vietnam after a decade of economic growth and poverty reduction. The findings indicate that while Vietnam as a national aggregate has a reasonably equal distribution of educational attainment, considerable educational inequality exists within and between provinces, ethnic groups, and gender groups.

Background

In the late 1970s and 1980s, post-conflict Vietnam was one of the least developed countries in the world because of poor economic performance, high inflation, and relentless poverty (Glewwe 2004; Glewwe, Gragnolati & Zaman 2002). The government of Vietnam responded to the crisis in the late 1980s by implementing *Doi Moi*, or renovation, which represented the methodical transition from a socialist economy to a market economy (Irvin, 1995). It consisted of a variety of market reforms designed to fuel economic growth and reduce poverty. These reforms included the elimination of collectivized agriculture, the redistribution of land from the collective farms to individual households (Fritzen 2002; Liu 2001), the elimination of trade barriers and the encouragement of direct for-

eign investment (Jensen & Tarp 2005; Nghiep & Quy 2000), and the liberalization of the private sector (Glewwe et al. 2002; Irvin 1995). Additionally, the government of Vietnam abolished the price regulation of goods and services (Liu 2001; Nghiep & Quy 2000), unified the exchange rate, devalued the currency, and favored the development of rice and oil as primary exports (Irvin 1995).

The transition from a socialist economy to a market economy under Doi Moi produced remarkable outcomes. According to Fritzen (2002) and van de Walle (2004), Vietnam enjoyed an average rate of economic growth of 7.6% during the 1990s because of the favorable economic climate. This coincided with a decrease in Vietnam's poverty rate from 75% of the population in 1984 to 37% of the population in 1998 (Glewwe 2004). The economic growth and poverty reduction, considering Vietnam's former economic and social circumstances, is miraculous. Additionally, by emphasizing export-led growth, Vietnam began to export oil (Fritzen 2002) and became a significant exporter of rice (Glewwe 2004). The exportation of rice was another remarkable turn of events considering that during the 1970s and 1980s, Vietnam's agricultural sector failed to produce adequate rice and forced the country to import rice to feed its population (Glewwe 2004; Glewwe et al. 2002).

Table 13.1: Total Student Enrollment and Gross Enrollment Rates for Vietnam

Year	Total Student Enrollment			Gross Enrollment Rates		
	Primary	Secondary	Tertiary	Primary	Secondary	Tertiary
1975	7,403,715	2,915,753	80,323	107	39	2
1980	7,887,439	3,846,737	114,701	109	42	2
1985	8,125,836	4,022,858	121,159	103	43	2
1990	8,862,292	3,235,992	129,600	103	32	2
1991	9,090,800	3,253,100	106,900	104	31	2
1992	9,527,200	3,383,800	136,800	109	32	2
1993	9,782,900	3,869,900	157,100	111	35	2
1994	10,029,000	4,500,800	203,300	113	41	3
1995	10,228,800	5,332,400	297,900	114	47	4
1996	10,431,300	5,995,300	509,300	115	52	7
1997	10,431,337	6,642,350	...	113	57	...
1998	...	7,172,000	810,072	109	62	10
1999	10,063,025	7,743,132	732,187	108	65	11
Percent Increase (1990–1999)	14%	139%	465%	5%	103%	450%

Sources: Adapted from UNESCO (1999) and UNESCO Institute for Statistics (2005)

Occurring simultaneously with Vietnam's major economic and social accomplishments, formal education expanded at an impressive rate during the 1990s. Prior to the 1990s, the growth of formal education was inconsistent, erratic, and

unable to match the population growth and public demand. Table 13.1 indicates that although primary schooling was nearly universal, the primary gross enrollment ratio remained idle during the 1970s and 1980s. In 1975, the primary gross enrollment rate was 107 and increased to 109 by 1980. By 1985, it decreased to 103 and remained there until 1990. Despite the fact that the primary gross enrollment ratio was reasonably stagnant, total primary enrollments increased slowly from 7,403,715 students in 1975 to 8,862,292 students in 1990. The slow increase signifies that the total primary enrollments grew by merely 1,458,577 students over 15 years, presumably not in pace with the population growth or with public demand.

Secondary schooling fared much worse than primary schooling before the 1990s. Table 13.1 illustrates that in 1990, the gross enrollment ratio for secondary schooling was 7 percentage points lower than that in 1975. This dramatic decrease actually occurred between 1985 and 1990. Total secondary enrollments increased from 2,915,753 students in 1975 to 4,022,858 students in 1985; however, it plummeted from 4,022,858 students in 1985 to 3,235,992 students in 1990. As seen in Table 13.1, tertiary schooling, in terms of the tertiary gross enrollment ratio, remained unchanged from 1975 to 1990. However, total tertiary enrollments grew, albeit slow, during the 15-year span from 80,323 students in 1975 to 129,600 students in 1990. Nonetheless, while it slowly increased during the 15-year period, analogous to total primary enrollments, it most likely did not keep pace with population growth or with public demand.

In spite of the stagnant growth during the 1970s and 1980s, schooling expanded dramatically between 1990 and 1999. This achievement coincided not only with tremendous economic growth and poverty reduction, but it also occurred after the adoption of the Doi Moi market reforms. Between 1990 and 1999, gross enrollment ratios and total enrollments increased substantially. As shown in Table 13.1, the primary gross enrollment ratio increased from 103 in 1990 to 115 in 1996, yet it declined from 115 in 1996 to 108 in 1999. Simultaneously, primary total enrollments increased from 8,862,292 students in 1990 to 10,431,300 students in 1996. From 1996 to 1999, similar to the primary gross enrollment ratio, it declined from 10,431,300 students in 1996 to 10,063,025 students in 1999. Notwithstanding the small decline from 1996 to 1999, primary schooling enrollments modestly increased by 14% during the 1990s.

Secondary and tertiary schooling experienced tremendous growth between 1990 and 1999. Table 13.1 indicates that in the case of secondary schooling, the secondary gross enrollment ratio doubled from 32 in 1990 to 65 in 1999. Additionally, total secondary enrollments increased by 139% between 1990 and 1999. Tertiary gross enrollment rates quintupled from 1990 to 1999, whereas total tertiary enrollments increased by 465% over the same time period. Interestingly, it appears that both total primary and tertiary enrollments began to decline at the end of the 1990s. It is plausible that they began to match population growth and meet

public demand. Yet, secondary schooling appeared to have momentum for continued expansion by the late 1990s and almost certainly will continue to expand because of the large number of students graduating from primary schooling.

Nevertheless, although Vietnam experienced tremendous economic growth, poverty reduction, and a remarkable expansion of formal education during the 1990s, the benefits of these improvements did not reach all members of Vietnamese society. Glewwe et al. (2002) found that the poorest households including ethnic minority households did not benefit as much from Vietnam's economic boom as did wealthy, ethnic majority households. Recent literature indicated that income and educational inequality soared during the last decade in Vietnam (Aikman & Pridmore 2001; Behrman & Knowles 1999; Biddington & Biddington 1997; Fritzen 2002; Liu 2001). With respect to formal education, Holsinger (2005) stated that "the rapid expansion of coverage might have come at the expense of egalitarian goals" (p.300). Nguyen (2004) found that although school enrollments expanded substantially during the 1990s, the expansion was not distributed equally across provinces and ethnic groups. Additionally, van de Walle and Gunewardena (2001) noted, in a recent study examining the sources of ethnic inequality in Vietnam, that the educational attainment of ethnic minorities was substantially lower than that of the ethnic majority. Belanger and Liu (2004), Liu (2004), and Goodkind (1995) stated that the provision of formal education under Doi Moi failed to reduce the educational disparities between males and females. This literature makes it apparent that educational inequality exists within Vietnam and is possibly increasing.

Methods

This study addresses educational attainment inequality in Vietnam. It utilizes descriptive statistics derived from education data taken from the 1999 Population and Housing Census of Vietnam (Government of Vietnam 1999). The data represent the education attainment of individuals ages five years and older. Using the mathematical formula developed by Thomas, Wang, and Fan (2000), this study examines educational attainment inequality by calculating the Gini coefficient for each province, ethnic group, and gender group.

The Gini coefficient is a distributive index similar to the standard deviation and the coefficient of variation, which measures disparity (Allison 1978; Fry 1983). The Gini coefficient, in the context of educational attainment, measures the relative equality or inequality of the distribution of the total number of years of schooling within a given population. It represents a value between 0 and 1, with 0 symbolizing perfect equality and 1 symbolizing perfect inequality. Perfect equality or inequality is unattainable regardless of efforts to provide or withhold schooling. A Gini coefficient closer to 0 indicates a relative equal distribution of educational attainment. Conversely, a Gini coefficient closer to 1 indicates a

relatively unequal distribution of educational attainment.

Most studies use the standard deviation, coefficient of variation, and Gini coefficient to analyze income inequality; however, several studies employ these measures of disparity to examine educational attainment and enrollment inequality as well. Ram (1990) used the standard deviation to measure the distribution of educational attainment for 94 countries, while Lam and Levison (1992) used it to measure the distribution of educational attainment in Brazil. Monchar (1981) employed the coefficient of variation to measure the distribution of enrollments in 46 countries, while Birdsall and Londoño (1998) used it to measure the distribution of educational attainment in various Latin American countries.

Ter Weele (1975) and Maas and Criel (1982) undertook the first studies that utilized the Gini coefficient as a measure of educational attainment and enrollment inequality. Recent studies that have examined educational inequality in terms of attainment (Castello & Domenech 2002; Sahn & Stifel 2003; Thomas, Wang & Fan 2002) compared educational inequality between countries as opposed to comparing educational inequality within a country. While comparing between countries provides a valuable look at the global level, an aggregate national measure offers very little to address educational inequality within a country. Furthermore, it may perhaps conceal the variation in educational inequality that exists between provinces, ethnic groups, and gender groups.

Findings

As stated previously, the objective of this study is to examine descriptively the educational attainment inequality in Vietnam. The Gini coefficient for Vietnam is .25. While Vietnam's Gini coefficient represents a moderately equal distribution, it conceals inequality that exists within various levels and groups including provinces, ethnic groups, and gender groups. This study will examine educational inequalities in these three areas. Furthermore, it will also provide a comparison between Thai Binh and Lai Chau provinces to look at educational inequality within the provinces with the lowest and highest Gini coefficients.

Provincial Educational Inequality

The aim of this section is to demonstrate that, while Vietnam's national Gini coefficient indicates relative equality, considerable variation exists within Vietnam's 61 provinces in terms of educational attainment. The data used to compute the Gini coefficient and the average years of schooling for this study include individuals ages five and above. According to Table 13.2, the mean provincial Gini coefficient is .26, while the provincial average years of schooling is 7.57. A Gini coefficient of .26 represents a relatively equal distribution. Nineteen provinces have a higher Gini coefficient, while 36 provinces have a lower Gini coefficient than the mean. Additionally, six provinces have Gini coefficients that

Table 13.2: Educational Attainment Inequality in Vietnam by Province

Province	Mean	Gini	Province	Mean	Gini
An Giang	6.39	.28	Kon Tum	6.36	.36
Ba Ria-Vung Tau	8.08	.24	Lai Chau	4.23	.53
Bac Giang	7.98	.20	Lam Dong	7.93	.26
Bac Kan	7.17	.27	Lang Son	7.38	.24
Bac Lieu	6.79	.26	Lao Cai	5.44	.43
Bac Ninh	8.29	.20	Long An	7.42	.23
Ben Tre	7.29	.24	Nam Dinh	8.49	.19
Binh Dinh	7.92	.24	Nghe An	8.18	.22
Binh Duong	8.16	.23	Ninh Binh	8.44	.20
Binh Phuoc	7.04	.27	Ninh Thuan	6.52	.33
Binh Thuan	6.95	.27	Phu Tho	8.46	.20
Ca Mau	6.91	.22	Phu Yen	7.54	.25
Can Tho	7.20	.26	Quang Binh	7.93	.22
Cao Bang	6.50	.36	Quang Nam	7.86	.24
Da Nang City	9.40	.24	Quang Ngai	7.58	.27
Dak Lak	7.30	.28	Quang Ninh	8.51	.23
Dong Nai	8.04	.24	Quang Tri	7.64	.28
Dong Thap	6.72	.27	Soc Trang	6.47	.26
Gia Lai	6.18	.39	Son La	5.45	.40
Ha Giang	4.97	.44	Tay Ninh	7.25	.25
Ha Nam	8.39	.19	Thai Binh	8.69	.18
Hanoi City	10.65	.22	Thai Nyugen	8.65	.21
Ha Tay	8.47	.21	Thanh Hoa	8.06	.22
Ha Tinh	8.26	.20	Thua Thien-Hue	7.40	.30
Hai Duong	8.59	.19	Tien Giang	7.47	.24
Hai Phong City	8.97	.20	Tra Vinh	6.49	.29
Ho Chi Minh City	9.30	.24	Tuyen Quang	7.50	.24
Hoa Binh	7.94	.21	Vinh Long	7.48	.24
Hung Yen	8.48	.19	Vinh Phuc	8.37	.20
Khanh Hoa	8.00	.26	Yen Bai	7.08	.30
Kien Giang	6.60	.26	Vietnam	7.87	.25
Mean	7.57	.26			
Standard Deviation	1.08	.07			

Note: "Mean" refers to the average years of schooling.

Source: From the author's computations from the 1999 Population and Housing Census of Vietnam.

equal the provincial mean. The province with the highest Gini coefficient, or with the most unequal distribution of educational attainment, is Lai Chau (.53), while the province with the most equal distribution of educational attainment and

the lowest Gini coefficient is Thai Binh (.18). Lai Chau's Gini coefficient is nearly three times the size of that of Thai Binh. Thirty-one provinces have higher average years of schooling, while 30 provinces have lower average years of schooling than the provincial mean. The province with the lowest average years of schooling is Lai Chau with 4.23 years of schooling. The province with the highest average years of schooling is Hanoi City, with 10.65 years of schooling (and a Gini coefficient of .22). The average years of schooling for Lai Chau is less than half of Hanoi City's average.

The key finding taken from this portion of the examination is that, although the national Gini coefficient for Vietnam indicates relative equality, education attainment is not equally distributed among Vietnamese provinces. Differences exist among provinces in terms of Gini coefficients and the average years of schooling. Although some provinces, such as Thai Binh and Hanoi City, have a lower Gini coefficient and higher average years of schooling than the provincial average and national indicators, several provinces, including Lai Chau and An Giang, have a higher Gini coefficient and a lower average years of schooling. The standard deviation with respect to the provincial Gini coefficients is .07. The Gini coefficient for Thai Binh falls one standard deviation below the provincial mean, whereas the Gini coefficient for Lai Chau is four standard deviations above the provincial mean and the Gini coefficient for Vietnam. While this may indicate that the distribution of provincial Gini coefficients has substantial variation, only five provinces have Gini coefficients two or more standard deviations away from the provincial mean. The distribution of provincial Gini coefficients has little variation because 53 coefficients are either one standard deviation above or below the mean, while two Gini coefficients are 1.5 standard deviations above the mean. However, the national and the provincial mean Gini coefficients taken alone conceal the fact that several provinces are considerably higher or more unequal. If we were to take this examination a step further, it is plausible that the variation between Gini coefficients increases considerably at each lower level of analysis down to the district and the parish level (Holsinger, Collins, Rew, Luo, Lindsay & Jimenez 2004).

Ethnic Educational Inequality

The examination of ethnic educational inequality describes the distribution of education attainment for nine of Vietnam's 54 ethnic groups. Table 13.3 indicates that the Gini coefficient for Vietnam is .25, and the average years of schooling is 7.87 for the selected ethnic groups. The Kinh ethnic group represents 86% of the Vietnamese population. It has a Gini coefficient of .23 and an average years of schooling of 8.23. Both of these indicators are an improvement over the nationwide indicators. Two additional ethnic groups, the Tay and the Muong, have similar Gini coefficients and average years of schooling to those of

the Kinh (.23 and 7.66 years of schooling, respectively, for the Tay and .21 and 7.32 years of schooling, respectively, for the Muong). However, while these are comparable indicators, the Tay and the Muong represent only 2% and 1% of the population, respectively. Several ethnic groups have moderately inferior Gini coefficients and average years of schooling compared to those of the Kinh, Tay, and Muong, and these groups are the Hoa (.28 and 7.19 years, respectively), Nung (.28 and 6.46 years, respectively), and the Thai (.34 and 5.59 years, respectively). The Hoa and the Nung each represent 1% of the population, while the Thai represent 2%. Finally, two ethnic groups have excessively inferior indicators compared to the other ethnic groups especially the Kinh. The Dao have a Gini coefficient of .45 and an average years of schooling of 3.78, while the Hmong have a Gini coefficient of .71 and an average years of schooling of 1.98. Each group represents 1% of the population.

Table 13.3: Educational Attainment Inequality in Vietnam by Ethnicity

Vietnam and Ethnic Groups (9 of 54)	Percent of Population	Total	
		Gini	Mean
Vietnam	100	.25	7.87
Kinh	86	.23	8.23
Tay	2	.23	7.66
Thai	2	.34	5.59
Muong	1	.21	7.32
Hoa	1	.28	7.19
Nung	1	.28	6.46
Kho-me	1	.38	4.90
Dao	1	.45	3.78
Hmong	1	.71	1.98

Note: “Mean” refers to the average years of schooling.

Source: From the author’s computations from the 1999 Population and Housing Census of Vietnam.

The key findings that can be taken from the examination of ethnic educational inequality are the following. First, educational attainment is not distributed equally among ethnic groups, and Vietnam’s aggregate Gini coefficient hides the large variations that exist between and within ethnic groups. Second, the discrepancy between the Kinh and the other ethnic groups with respect to Gini coefficients and average years of schooling is sizeable. The Kinh’s Gini coefficient is only one-third of the Hmong’s Gini coefficient (.23 compared with .71). Additionally, the Kinh’s average years of schooling is four times that of the Hmong (8.23 years compared with 1.98 years). Such divides on different scales also exist be-

tween other ethnic groups. Third and finally, the previous findings concerning the discrepancy between ethnicities point to the possibility that the Kinh, as the majority of the population, benefited disproportionately more from the expansion of formal education compared with the ethnic groups such as the Hmong and the Dao.

Gender-Based Educational Inequality

The examination of educational inequality based on gender is comparable with the previous examination in that it examines ethnic educational inequality; however, each ethnic group is divided by gender. As shown in Table 13.4, Vietnamese males have a lower Gini coefficient and higher average years of schooling than females (.23 and 8.27 years, respectively, compared with .27 and 7.49 years, respectively). This discrepancy also exists for each of the nine ethnic groups. Ethnic males have a lower Gini coefficient and higher average years of schooling than ethnic females. The Kinh have the smallest discrepancy between males and females in terms of the Gini coefficient (a difference of .02), while the Tay have the smallest discrepancy between males and females in terms of the average years of schooling (a difference of .41 years). On the other hand, the Hmong have the largest discrepancy between males and females in terms of the Gini coefficient and the average years of schooling (a difference of .24 and 1.77 years, respectively). The Muong, Tay, and Kinh males have the lowest Gini coefficients (.19, .21, and .22, respectively), while the Kinh and Tay males and the Kinh

Table 13.4: Educational Attainment Inequality in Vietnam by Ethnicity and Gender

Vietnam and Ethnic Groups (9 of 54)	Percent of Population	Male		Female	
		Mean	Gini	Mean	Gini
Vietnam	100	8.27	.23	7.49	.27
Kinh	86	8.60	.22	7.86	.24
Tay	2	7.87	.21	7.46	.25
Thai	2	6.45	.26	4.73	.41
Muong	1	7.60	.19	7.05	.23
Hoa	1	7.48	.26	6.89	.30
Nung	1	6.89	.24	6.03	.32
Kho-me	1	5.42	.34	4.41	.41
Dao	1	4.42	.39	3.14	.56
Hmong	1	2.87	.59	1.10	.83

Note: “Mean” refers to the average years of schooling.

Source: From the author’s computations from the 1999 Population and Housing Census of Vietnam.

females have the highest average years of schooling (8.60, 7.87, and 7.86 years, respectively). Alternatively, the Hmong females and males and the Dao females have the highest Gini coefficients (.83, .59, and .56, respectively) and the lowest average years of schooling (1.10, 2.87, and 3.14, years, respectively).

The Gini coefficient and average years of schooling broken down by gender provide an interesting perspective regarding the distribution of educational attainment. The key findings are as follows. First, males within each ethnic group have lower Gini coefficients and higher average years of schooling than females. Second, variation with respect to educational attainment exists between ethnic males. This signifies that a discrepancy exists between males of one ethnic group (such as the Kinh) and males of other ethnic groups (such as the Hmong). This trend is also evident for females. Third and finally, indicators of educational attainment inequality for Kinh males and females are superior to those for the males and females of minority ethnic groups, such as the Hmong and Dao. Additionally, although the Gini coefficient and average years of schooling for Kinh females are inferior to those for Kinh males, Kinh females have benefited more from formal education than males and females from other ethnic groups.

Table 13.5: Educational Attainment Inequality in Thai Binh by Ethnicity and Gender

Thai Binh and Ethnic Groups (9 of 54)	Percent of Population	Total		Male		Female	
		Mean	Gini	Mean	Gini	Mean	Gini
Thai Binh	100.0	8.69	.18	9.05	.17	8.37	.20
Kinh	99.9	8.69	.18	9.05	.17	8.37	.20
Tay	< 0.1	...	...	...	...	...	...
Thai	< 0.1	...	...	...	...	...	...
Muong	< 0.1	...	...	...	...	...	...
Hoa	< 0.1	...	...	...	...	...	...
Nung	< 0.1	...	...	...	...	...	...
Kho-me	< 0.1	...	...	...	...	...	...
Dao	< 0.1	...	...	...	...	...	...
Hmong	< 0.1	...	...	...	...	...	...

Note: “Mean” refers to the average years of schooling.

Source: From the author’s computations from the 1999 Population and Housing Census of Vietnam.

Thai Binh and Lai Chau Comparison

The last examination is a combination of the previous three. It involves the examination of ethnic and gender groups within the province with the least educational

attainment inequality and within the province with the most educational attainment inequality. These provinces are Thai Binh, with a Gini coefficient of .18, and Lai Chau, with a Gini coefficient of .53. As seen in Table 13.5, Thai Binh has a Gini coefficient of .18 and an average years of schooling of 8.69 years. Both indicators are superior to the Gini coefficient and average years of schooling for Vietnam. The factors that separate Thai Binh from the other provinces are the following. First, both males and females have very low Gini coefficients and very high average years of schooling compared with other provinces, ethnic groups, and gender (.17 and 9.05 years, respectively, for males, and .20 and 8.37 years, respectively, for females). Second, the difference between males and females in terms of the Gini coefficient and the average years of schooling is comparatively small (.03 and .68 years, respectively). Third, the Kinh comprise 99.9% of the population of Thai Binh. Although other ethnic groups do live there, their population is small and insignificant. In the case of Thai Binh and other provinces with similar demographics, it is apparent that where the Kinh are the majority, educational attainment is distributed relatively equally.

Table 13.6: Education Attainment Inequality in Lai Chau by Ethnicity and Gender

Lai Chau and Ethnic Groups (9 of 54)	Percent of Population	Total		Male		Female	
		Mean	Gini	Mean	Gini	Mean	Gini
Lai Chau	100.0	4.23	.53	5.08	.44	3.36	.63
Kinh	16.9	9.15	.18	9.41	.18	8.88	.18
Tay	< 0.1	9.02	.22	9.10	.20	8.91	.23
Thai	35.1	4.79	.40	5.91	.29	3.66	.50
Muong	< 0.1	9.11	.20	9.66	.17	7.83	.27
Hoa	< 0.1	3.17	.60	3.85	.50	2.45	.70
Nung	< 0.1	8.04	.24	8.53	.20	7.41	.28
Kho-me	< 0.1	5.91	.49	7.50	.41	3.80	.60
Dao	6.7	1.43	.78	2.19	.67	0.68	.89
Hmong	29.0	1.47	.78	2.31	.66	0.63	.90

Note: “Mean” refers to the average years of schooling.

Source: From the author’s computations from the 1999 Population and Housing Census of Vietnam.

The demographic context for Lai Chau is completely opposite that of Thai Binh. While Thai Binh, with the Kinh as the majority ethnic group, has superior indicators of educational attainment equality, Lai Chau, where the Kinh represent only 16.9% of the population, has substantially inferior indicators. Table 13.6 indicates that Lai Chau has a Gini coefficient of .53 and an average years of

schooling of 4.23. These indicators of educational attainment equality are substantially inferior to the indicators of other provinces, ethnic groups, and gender groups. Lai Chau primarily consists of ethnic minority groups such as the Hmong, Thai, and Dao. These ethnic groups represent 70.8% of Lai Chau's population. The Kinh represent 16.9% of the province and have the lowest Gini coefficient and the highest average years of schooling in the province (.18 and 9.15 years, respectively). Additionally, the discrepancy between Kinh males and females in terms of the Gini coefficient and average years of schooling is the smallest in the province (.0 and .53 years, respectively). Alternatively, the Hmong represent 29.0% of the province and have the highest Gini coefficient and the lowest average years of schooling (.78 and 1.47 years, respectively). Moreover, the Hmong have the second highest discrepancy between males and females next to the Nung in reference to the Gini coefficient and average years of schooling (.24 and 1.68 years, respectively). The Thai represent 35.1% of the province. However, the educational attainment equality indicators of the Thai are distinct compared with those of the Hmong, albeit their percentages of the provincial population are relatively similar. The Thai have the second lowest Gini coefficient among ethnic groups with more than 1% of the province population and the second highest average years of schooling (.40 and 4.79 years, respectively). Interestingly, the difference between Thai males and females is the second smallest next to the Kinh in terms of Gini coefficient but the largest in terms of the average years of schooling (.21 and 2.25 years, respectively).

The factors that differentiate Lai Chau from Thai Binh are the following. First, the majority of Lai Chau's population consists of ethnic minorities (78.8%), while Thai Binh's population consists of the Kinh ethnic group (99.9%). Second, it is apparent that within Lai Chau educational attainment is distributed unequally within and between the ethnic minority groups. This is not the case for the majority of Thai Binh's population. Third, it is also evident that gender discrepancies persist within and between ethnic minority groups. Fourth and finally, it appears plausible that the Kinh, according to the Gini coefficient of .18, have benefited the most within Lai Chau from formal schooling among the ethnic groups even when they represent a comparative minority.

Conclusion

The findings from the four examinations demonstrate that educational attainment inequality exists within and between Vietnam's provinces, ethnic groups, and gender groups despite unprecedented economic growth, poverty reduction, and expansion in the education sector during the 1990s. Exclusive reliance on national or aggregate indices of inequality that conceals disparity at the provincial, ethnic, and gender levels presents a distorted view of the state of educational inequality, misleads policymakers, and invariably renders policies and interventions useless.

The aim of the study is to identify, examine, and compare descriptively the educational inequality between and within provinces, ethnic groups, and gender groups. The value of identifying educational inequality, in addition to informing the public of the conditions that many men, women, and children experience in Vietnam, is to identify the causes and remedies of educational inequality. Numerous supply and demand-side factors exist that may explain and resolve educational inequalities. Applicable factors are the language of instruction, proximity to the school, need for employment, diffusion of schooling, geographical obstacles (terrain and weather), relevance of the curriculum, lack of teachers and school resources, lack of post-schooling opportunities, and the direct and indirect costs to parents among many others. These may appear to be causes but they also represent the sources of the solutions. For instance, if the distance to the school is a predictor of educational inequality, providing transportation to the school or providing schooling opportunities closer to the village or community characterizes resolutions to educational inequality. Therefore, proximity is an obstacle and solution to educational inequality.

An interesting explanation of the education attainment disparities between ethnic and gender groups is risk aversive behavior. Behrman and Knowles (1999) noted that lower-income households in Vietnam might have higher risk aversion than higher-income households. This is most likely the case for ethnic minorities because they represent the bulk of the low-income households. Scott (1975) studied risk aversive behavior and conceptualized *safety-first* by describing food shortages and peasant rebellions in the 1930s precapitalist Southeast Asia. Safety-first represents a possible rational motivator behind the lack of demand for schooling among ethnic minorities in Vietnam. It refers to the social and economic decision-making process in which the poor elect to minimize the probability of the maximum short term catastrophe by preferring stable, reliable, and safe investments with lower returns over risky investments with higher returns (Scott 1975). In the case described by Scott, this signified that rural and subsistence peasants favored to continue utilizing traditional agricultural techniques producing constant but marginal yields over innovative agricultural techniques producing variable but abundant yields. Despite the long-term benefits of innovative agricultural techniques, peasants opted for living slightly above the subsistence margin—the level of subsistence where further declines in agricultural yields produce malnutrition and starvation—as an alternative to living well above the subsistence margin but plunging below it on several occasions due to yield variability (Scott 1975).

The concept of safety-first creates similar outcomes in the context of Vietnamese ethnic minorities. Because Vietnamese ethnic minorities, such as the Hmong, Dao, and Thai, tend to live in rural areas, make their livelihood as subsistence farmers, and represent the bulk of the population living below the poverty line, they are vulnerable to choices where subsistence agricultural labor is

preferred over schooling. Their choice is not necessarily motivated by comparing the returns with investments (subsistence agricultural labor vs. schooling) and investing where the highest returns are generated; their choice is also based on which investment produces the smallest probability of short-term disaster. For many ethnic minorities, subsistence agricultural labor symbolizes a stable, reliable, and safe short-term investment, while schooling is seen as a risky investment that allocates labor and resources away from the provision of basic needs.

If the practice of safety-first explains educational inequality between and within ethnic and gender groups, what policy options or solutions can the government of Vietnam implement to remedy this situation? The key to resolving the safety-first explanation of educational inequality is to reduce the risk associated with schooling. If ethnic minorities perceive that the risk associated with schooling is less than that of the subsistence agricultural or another less risky alternative, it is entirely possible that the demand for schooling will increase and match the demand from other ethnic groups. It should be noted that this invariably assumes that the supply of schooling, in terms of teachers, curricula, schools, and other school resources, is accessible to all ethnic minorities. Certainly, the supply of schooling is not constant. Therefore, the government of Vietnam will need to implement both supply and demand-side antidotes to reduce the risk as well as ensure the supply of schooling is available. For instance, the creation of scholarships for ethnic minorities to reduce the costs of schooling and offset the loss of income and labor is a logical intervention. However, the risk is not only related to the cost and loss of income, but it is also related to the quality of schooling and the outcomes produced by schooling. It will be necessary to increase the quantity, quality, and relevance of school resources, such as qualified local teachers and textbooks and examinations written in the local language. Additionally, it will also require the contextualization of the curriculum to ensure that the outcomes of schooling match the realities of ethnic minorities. Unless the risk associated with schooling is less than the alternative, the educational attainment of ethnic minorities and females will continue to languish, and the rhetoric of eliminating educational inequality will never become a reality. Unfortunately, persistent educational inequality in the absence of the appropriate government policies will inevitably tarnish and invalidate the remarkable economic and social accomplishments of Vietnam during the 1990s.

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14

Different Paths, Similar Effects: Persistent Inequalities and Their Sources in European Higher Education

Cécile DEER

Most Western European countries are rich, liberal nations with a long-standing pluralistic political tradition and a long history of emphasis on education in their economic and social development. Primary and lower-secondary education is compulsory with the legal school leaving-age set at around 16. In this context, it is not surprising to find that issues concerning the equality or inequality of access to post-compulsory education and particularly to higher education have risen to the top of the agenda over the last decades.

However, beyond these broad similarities, there are significant differences between higher education systems in their various national settings. In many aspects, France and Britain, for historical and political reasons, stand at the two ends of this broad spectrum while epitomising the problems that most western European higher education systems face concerning access and participation. In both countries, the increasing participation rate at the higher education level has been debated around the notions of *access* and *selection*. The corresponding social question has evolved around the ideas of *equality* and *equity*, two contested concepts which have been given various definitions.

Social and Political Impulse behind the Rapid Increase in Participation Rates in Recent Decades

During the 1960s and 1970s, higher education was deemed a luxury commodity which should become accessible to the many rather than the few on normative grounds. Greater opportunities for people from lower social status at the tertiary level were equated with their right to benefit from an academic education. As a result, many supporters of equality have for a long time been content with opening access as widely as possible to make up for the differences in the socioeconomic origins of students. In France, for example, one of the many reasons that

led to the 1968 student revolt was the intention of De Gaulle's government to introduce selection at entrance to university. In the aftermath of the riots, non-selection at entrance and its corollary—the right to access to a university education for anyone with a recognized upper secondary qualification—became an accepted, almost non-negotiable feature of the system. Similarly, the notion of “free” higher education at the point of access gained currency since the principle of free public education is enshrined in the French Constitution:

The Nation guarantees equal access to instruction, vocational training and culture for children and adults alike. The organisation of free and secular public education at all levels is a duty of the State.

However, some argue that this applies to compulsory education and that higher education, being non-compulsory, should not fall under this constitutional principle.

In Britain, meritocratic values regarding access to higher education have strongly emerged since the Second World War. A demand for greater social equality combined with a selective social approach led to the establishment of an “impartial” selection process at 18+ through the Advanced Level examination and to the introduction of mandatory grants for higher education. It became common wisdom to argue that it was in the interest of the nation as a whole to have an education system which, at all levels, could tap into abilities from all social origins rather than from a small pool of the advantaged few (Sanderson 1987). The conclusions of the Robbins Report (Robbins 1963) epitomised this current of thought like those of other previous publications such as the Crowther Report (Central Advisory Council for Education 1959-1960), which recommended raising the school leaving-age to 16 and condemned over-specialization in sixth-forms and the Newsom Report (Central Advisory Council for Education 1963), which recommended expansion in higher education. Educational achievement was denounced as closely correlated to the socioeconomic backgrounds of students. A central argument that led the Robbins Committee to recommend that higher education should be allowed to expand was that in terms of academic performance, the achievements of university students did not depend on their social origins, hence the straightforward, rational deduction that a huge amount of potential of ability remained untapped. However, in Britain, relative success at the upper secondary school level does not mean entitlement to a place at university as each institution of higher education remains free to select its students and as overall numbers in higher education have been largely controlled via budget allocation (although this may change with the introduction of sizeable top-up fees). The Robbins credo has therefore been the subject of an on-going bargaining process between higher education stakeholders, that is to say the students and their parents, the academic profession, the government, and public authorities.

Since the 1980s in Britain, the broad consensus has been that the “low wage/low skills equilibrium” was detrimental to the country’s long-term competitiveness and that new generations would need to be better qualified particularly at the post-16 level. In 1986, the General Certificate of Education (GCE) O-Level and the Certificate of Secondary Education were replaced by a single examination--the General Certificate of Secondary Education (GCSE). This abolished the socially inequitable early divide that existed between two types of educational routes at secondary level. Two years later, the 1988 Education Reform Act gave the Secretary of State the right to prescribe a national curriculum in publicly financed schools with desired pupil achievements set at central level and checked at ages 7, 11, 14 and 16.

The real difficulty lay in devising ways to encourage more pupils to stay on after 16. As in France, the vocationalization of part of the upper secondary school curriculum has been considered as a way to overcome this difficulty. The aim has been to find a middle way by providing a pre-vocational form of secondary education at all levels based on achievement criteria but compatible with the more traditional and general forms of education. In 1994, the official objective was that half the age-group would be involved by the year 2000 (Hayward 1995). In spite of the relative success of what are now called vocational A-Levels, the problem has lain in the fact that parity of esteem as well as equivalence of status cannot be easily decreed. The universities have the ultimate choice in their admission criteria and the long-term success of any upper secondary qualification is strongly linked to its acceptance by the academic profession. In view of the extent to which the A-Levels have remained the “gold standard,” however strongly they have been called into question (Pound 1998) and given the way the elitist private secondary sector remains immune to these changes, it is difficult to see how the vocational A-Levels could become a major route to higher education without a drastic change in general admissions policies.

Preparation courses initiated within the universities have played a more important role in enhancing access to higher education for the less, well-represented groups. This has allowed the academic profession to keep the upper hand in defining and delivering degree courses. Until now, the academic profession has been able to retain part of its social power in the form of selection at entrance. The argument between the Labour government and dons at Oxford and Cambridge concerning the exchange of a suitable level of public funding for a suitable percentage of new recruits from State schools and the setting-up of the Office for Fair Access at the same time as top-up fees were announced are symbolic new developments. The idea has even been aired that two selection standards could be applied to state school and public school recruits.

In both France and Britain, the increase in participation rates at the higher education level during the 1980s and the 1990s has been the result of government policies devised to increase qualification rates for the next generations, and

therefore the number of pupils studying beyond the age of 16. In conjunction with this, parents who have benefited from higher education in terms of social mobility have been eager to see their children maintain a high position on the social ladder through higher education. Alongside these pro-active aspects, youth unemployment has also been a contributing factor. For various reasons that range from demography to job market protection and regulations (OECD 1998), this has been particularly the case in the French context but less so in Britain, where both the government and higher education institutions have had to compete with the attraction of the corporate sector to increase after school leaving-age beyond 16. For this purpose, new secondary school qualifications that were vocationally, or more accurately, pre-vocationally oriented have been set up (Pring 1995). In the process, there has been a redefinition of what is acceptable as a secondary school qualification and by extension for entry to university. Higher education in France and Britain has gradually become *de facto*, if not *de jure*, the final stage of the official, organized state system of national education.

Higher Staying on Rates: Qualitative and Quantitative Impact on Higher Education

Growth at the tertiary level has been a function of the increase in participation and success rates at the upper secondary (Form 6, lycée) level (Pring 1995). At the same time, the *laissez-faire* meritocratic approach which had underpinned the traditional notion of equality has been questioned in the name of equity, that is, a greater chance of equality of outcome rather than just equality of access is to be achieved throughout the educational system. In both countries, education—with higher education at its apex—has for a long time been used to objectify the selection and promotion of the socio-political elite, which has been based on a belief in narrowly defined meritocratic principles. However, the two systems have increasingly been faced with the growing difficulty in reconciling the strict formal (i.e., academic) equalities they have traditionally relied on with the kind of social inequalities they have helped to reproduce. Whatever macro-systemic or micro-individualistic methodological vantage point one chooses to adopt, the question remains the social inequalities which have persisted within the two systems and which have become particularly visible at the higher education level. In France, it has become increasingly difficult to justify the Republican meritocratic ethos which has underpinned the educational system in the face of the social elitism and discrimination it seems to have preserved and, in some instances, reinforced (Duru-Bellat & Dubet 2000). In Britain, similar persisting social inequalities have been used by the Labour government to justify the recent introduction of means-tested fees at the higher education level as a way to partially redress the balance; as today's graduates will earn more than non-graduates, today they should contribute to the cost of a higher education that will later confer

on them greater earning power. This atemporal rationalization has been used by policy makers and academics to convince the general public that changes have been socially justified on grounds of equity (Barr & Crawford 1997; Hills 1999). The upper secondary school sector has been first in line, and this has had an inevitable effect on higher education. Quantitative changes have been accompanied by two kinds of qualitative changes. On the one hand, there have been changes of a social nature with the increased variety in the social backgrounds of people gaining access to higher education (the latter is of course coupled with ethnic minority issues) and with a growing influx of girls (although not in all subject areas). On the other hand, there have been changes of an educational nature with modifications introduced in the organization of studies often to meet the changing needs and demands from these new recruits, either proactively as has been the case in some higher education institutions in Britain or more reactively as has been the case in French universities. In France, all *baccalauréat* holders can enter most first years of university courses by right regardless of the major subjects they have studied at the upper secondary level. Consequently, the expansion of higher education has been a mechanical phenomenon stemming from politically encouraged growth in participation at the upper secondary school level combined with increased success rates at the baccalaureate level. In Britain, growth in higher education itself has been politically encouraged, engineered, and justified by the need to boost the country's productivity and competitiveness.

In the mid-1980s, partly because it was decided that France would join the European Monetary System (Demeulemeester & Deer 2004), the French Ministry of Education set two stringent targets for the upper secondary school sector for the year 2000: firstly, every school leaver should hold a recognized professional qualification, and secondly, 80% of the class-age should reach *baccalauréat* level. Although at times it has been denounced as “dumbing down” demagoguery, this policy of expansion has been endorsed by successive governments regardless of their political allegiance.

Central to this policy of increased access to the upper secondary school level was the creation of new types of vocationally oriented baccalaureates alongside existing general and technical baccalaureates prepared in vocational upper secondary schools which led directly to the job market. Most of the anticipated growth at the upper secondary school level was expected to be channelled through this new vocationally oriented route. However, these baccalaureates were not as popular as expected and soon became socially and educationally stigmatised. In fact, the next five years saw a steep rise (32%) in the student population studying for the traditional baccalaureates. This had not been foreseen let alone planned for. There was a clear progression towards the 80% participation rate at the baccalaureate level but the quantitative target was better achieved than the qualitative one (see Table 14.1 and Figure 14.1). In 2002, 69.1% of an age cohort reached baccalaureate level, whereas only 30% reached

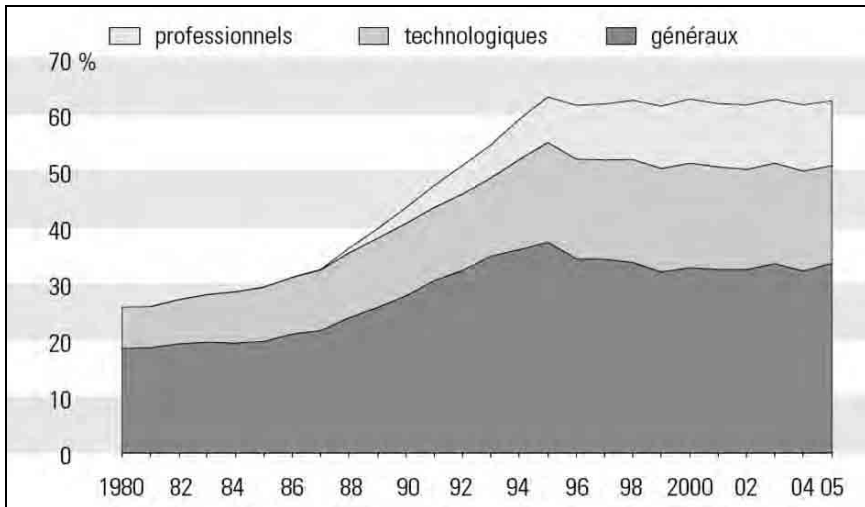
this level at the beginning of the 1970s. The average age of those gaining access to the baccalaureate level has also decreased, which illustrates the fact that fewer pupils repeat a stage during their school years.

Table 14.1: Percentage of Access to Baccalaureate Level by Type of Baccalaureate and Gender in 2006

Type of baccalaureate	Girls	Boys	Total
General	41.6	28.8	35.1
Technological	19.7	18.0	18.8
Vocational	14.0	17.6	15.8
Total	75.2	64.4	69.7

Source: Direction de l’Evaluation et de la Prospective (2007).

Figure 14.1: Percentage of Baccalaureate Holders within a Generation (1980-2005)



Source: Direction de l’Evaluation et de la Prospective (2006).

The effect on the university sector was an influx of students for which the sector was not really materially or pedagogically prepared as many recruits came from “non-traditional” (i.e., lower) social backgrounds with little experience in the traditional routes to higher education. This effect has been reinforced by demographic trends and the politico-economic environment with large age cohorts and high rates of unemployment particularly among young people.

In the French context, with the persistence of double-figure youth unemployment rates, rising participation rates in higher education may be seen at a

broad level as a socially inclusive, inequality-reducing phenomenon (Galland & Oberti 1996). Similarly, growing female participation may be viewed as having contributed to a reduction in traditional forms of gender inequalities (Baudelot & Estabiet 1992). France is one of the few countries where there are more young women (56%) than young men at university. However, this does not mean that the system has become more equitable across all sub groups. There are more students from the lower socioeconomic categories (60% of young people aged 20 to 24) going to university where they now represent a quarter of the students, but their presence in the *classes préparatoires* for the elite *grandes écoles* has diminished (less than 15% of today's recruits). On the other hand, young people from the upper categories (15% of those aged 20 to 24) have gained markedly increased access to the highly selective strand of higher education (the *grandes écoles*) to the point where they now represent 53% of recruits. This process, which has been termed “segregating democratisation” (Merle 2002), does not start at the higher education level but is also visible at the upper-secondary school level and even before (Attali 1998) where pupils from higher socioeconomic categories are over-represented in the scientific types of general baccalaureates which give access to the elite higher education, whereas pupils from lower socioeconomic backgrounds tend to study technological and vocational baccalaureates. The vast consultation process on education organized by the government throughout the country in 2005 is a reflection of the growing unease about these inequalities. As far as higher education is concerned, there has recently been cautious debate about implementing some form of positive discrimination and about whether this would be an acceptable way of correcting stubborn forms of inequalities within the system. The outreach programme initiated by the Institut d'Etudes Politiques (IEP) in Paris in 2003 is a case in point. Some have criticized it as having dented the principle of formal equality that should rule selection, but others have praised it for taking a much-needed step in the direction of greater equity within the system.

The Politics of Access and Selection in Education: Similar Issues, Differing Motives, and Rationales

In both countries, expansion in secondary education has made the question of access and selection in higher education socially and politically sensitive. Here, the issue of persisting inequalities has been all-pervasive.

Opinion has been informed by differing normative ideals concerning the desired role for higher education in society with increasing reference to the economic outcomes higher education should have through its teaching (human capital theory) and research activities. For some, an ideal social organization is an ordered one consisting of a clear hierarchy of individuals. This favours blind selection by academic merit, particularly at the higher education level, irrespec-

tive of initial conditions. In France, the ultra-Republicans on the right or on the left would adopt such a stance, whereas in Britain it would be the position of certain Conservative proponents of economic liberalism. For others, society—and the education system which is part of it—needs to be conceptualized within the broader context of economic status. Although this interpretation is contentious today, it was particularly influential in educational matters in both countries before the 1980s. It led to different views of what the role and the organization of education should be ranging from *laissez-faire*, as was favoured in Britain by those who wished to reconcile the liberal ethos with a Marx-inspired *weltanschauung*, to a strong State organization as was favored in France by those in the profession who sought to combine a Marxist discourse with the Republican ideal. This was the rationale which under laid many social and educational conflicts after the Second World War and particularly during the 1960s and 1970s. Lately, the focus has been on the importance of interactions between groups with different functional and occupational roles. Harnessed to the notion of equality of opportunity, this has helped to justify the lengthening of the period of study and the vocationalization of the curricula. More recently still, with the advent of market mechanisms in education, there has been a growing tendency to bring back uncertainty as an organising principle with game theory (Turner 1992), perverse effects (Boudon 1977), or other forms of ecosystem theories (Finegold 1999) which cast doubts on the real effect of political decisions and regulations.

With regard to the debate concerning access and selection in higher education in France and Britain, three main viewpoints have co-existed and interacted often in conflicting ways. For certain left-wing sympathisers, economic liberals, and functionalists alike, access should be as wide as possible to allow everyone to get access to the education and training they need. Their conceptions vary around the key notions of what a higher education should mean (academic versus utilitarian) and who should finance it (public vs. private funding). Certain employers and technocrats, and also some academics, have expressed concern about the socially damaging effect of an overeducated workforce—the Tocquevillian threat—to suggest that student cohorts should be adapted to the needs of society as far as possible both quantitatively and qualitatively (Tooley & Seville 1997; Lange 1999). Finally, some would like to see the academic profession decide for itself. Not surprisingly, these are essentially academics. Of course, these different ways of thinking are not clearly attributable to well identified social or professional categories in the two countries, but they reflect general conceptual trends.

In Britain, the sharp rise in the number of students in higher education is still a relatively new phenomenon to which the various stakeholders, namely, the academic profession, the general public, and the polity have had to adjust relatively quickly. In the debate on higher education, the notion of expansion has gone hand in hand with that of selection (Ranson 1984). The two are often pre-

sented as being mutually exclusive, and this is embodied in the idea that “more means worse.” A kind of utilitarian rationalism which seeks to maximize the worth of higher education to society as a whole, has also been put forward to justify the selection at entrance to university. This view is based on the idea that not everyone is fit to benefit from higher education. The question of student numbers tends to carry with it that of an elusive break-even point, beyond which the further production of graduates will have an adverse effect on the economic and social well-being of the nation.

However, in spite of a steep increase in participation rates in higher education, once the growth in middle class occupations is taken into account, the social origins of British students have remained largely unchanged. Figures even show a tendency towards greater social polarization in the sector (Halsey 1988). This is a phenomenon which has been well documented and repeatedly denounced (Halsey 1986, 1993; Lowe 1988; HEFCE 2005) and relayed by the press and politicians who have used it to exert moral pressure on the academic profession. Traditional, highly selective universities such as Oxford and Cambridge have come under repeated attacks over their recruitment practices, which have been presented as conservative. However, as selection procedures in higher education have remained socially biased, this source of inequality has been used to justify the intervention of the central government to redress the imbalance through a demand-led increase in the participation rate. The key words have been choice and equity, with academic programmes having to yield to student demand and not the reverse. This may be contrasted with the evolution of the selective higher education sector (*grandes écoles*) in France, which, during a period of rising participation in higher education, was *de facto* allowed to continue to differentiate its activities even further from the non-selective university sector and in terms of recruitment patterns, social background, women’s participation, and other traditionally used access criteria, and they cannot be considered to be simply lagging behind (Merle 1996). Only in the mid-1990s with the persistence of the economic crisis did the central government become aware of the liability represented by the continuation of such a situation.

Few have openly advocated stricter selection in the universities and those who have done so have mainly expressed the fear that a university education should remain specific and should not become an extended form of interdisciplinary secondary education (Schwartz 1987). Many more, especially in the political spheres, have refused to consider the unpopular option of selection at entrance to university and have preferred to concentrate their attention on the orientation and channelling of pupils at the secondary level, regionalization of short-cycle programs, or the popular but elusive notion of life-long learning. However, those who have advocated these options have also added that to be successful major changes would need to take place in terms of greater variety of courses, more systematic links between courses and traineeships, and hands-on

experiences. The wide-ranging higher education reforms of 2004 to 2005 inspired by the European-wide Bologna process seem to go some way in this direction, but it remains to be seen whether this will lead to greater equity in the system with more opportunities for students to find their way and achieve success, or whether reinforced disparities between higher education institutions and courses on offer will serve to entrench existing sources of inequalities (Matthew effect).¹

However, it may be argued that the debate surrounding selection at entrance to university is a purely symbolic one. In reality, selection is the backbone of the organization of the whole higher educational system in France, not to say its *raison d'être*. The centrality of selection is epitomised by the central role played by the selective public and private *grandes écoles*, which are greatly diverse in status. In 1980, the *classes préparatoires* and the *grandes écoles* altogether accounted for some 5.5% of the recruitment in higher education. In 2002 to 2003, this percentage represented 9% of the total (Ministère de l'Éducation Nationale, de la Recherche et de la Technologie 2003). Entry to most *grandes écoles* requires two to three years spent preparing for the entrance examinations after the *baccalauréat*. Successful candidates are not always able to choose their area of specialization, given that places are allocated according to academic performance in examinations and that there is a clear hierarchy of institutions. The original purpose of the *grandes écoles* system was to serve the interests and needs of the State machinery through the rational selection and vocational training of its administrative, political, technical, academic, and ultimately, social elite and this remains largely so today. There is no need to dwell on this for it has been consistently shown and often denounced by numerous French and foreign observers (Bourdieu 1989; Crozier & Tilliette 1995; Suleiman 1978; Shinn 1980).

What is more significant is the pressure to which this elite system has recently been subjected with unified expansion at the higher secondary school level and a persistent lack of diversity in its social recruitment; the claim of these institutions to have promoted a meritocracy has been increasingly difficult to sustain. However, the main pressure on the system has come from external, largely uncontrollable forces in the form of persistently poor economic performance, European integration, and globalization, which have exposed the drawbacks of a Malthusian elitist approach.

The structural impact of the elitist higher education sector remains very important in gaining an overall understanding of the educational system in France. Not only does it go a long way towards explaining middle-class parental strategy at (and even before) the secondary school level but also, more generally, the educational logic around which the whole system has been organized. If the quality of a university undergraduate programme in France has for a long time been measured by its attrition rate (Allègre 1993), the much admired selective *grandes écoles* model accounts a great deal for this approach. In an open univer-

sity system, high success rates are more easily suspected of being a sign of “dumbing down” than of good pedagogical practices and adaptation to the needs of the students. It is only since the recognition of the overall human and financial cost of high dropout and failure rates (especially at the undergraduate level) that performance-based approaches have been considered as a suitable way of measuring higher education performances. At the same time, the discourse of orientation started to be heard more distinctly. As *baccalauréat* holders are free to register in any higher education program on offer at their local university regardless of the qualifications they have previously acquired, students can be of highly varied strengths in any given subject and the first year at university has gradually become an orientation year organized in two semesters. There has been renewed pressure for the universities to abandon their rigid disciplinary-based credit accumulation system and reorganize their activities so as to facilitate the adaptation of the students, their reorientation, and their acquisition of a number of basic skills. The recent modular reorganization into *Licence/Masters/Doctorate* following the guidelines of the Bologna process is a move in the same direction.

Significantly, whenever governments have tried to reinforce the positioning of the universities within the higher education system, they have encouraged the creation of vocationally oriented selective institutes or programmes to allow the universities to compete directly with the *grandes écoles*. Examples are the University Institutes of Technology (IUT) in 1966, the *magistères* in the 1980s, and the *Instituts Universitaires Professionnalisés* (IUP) in the 1990s. Further examples of selection in France may be noted. Since 1970, there has been a highly competitive examination with a *numerus clausus* at the end of the first year in Medicine and Pharmacology. Some universities like *Paris Dauphine*, which was an experimental university set up after 1968, or certain university programmes do not even try to hide the fact that they apply forms of selection for their recruitment. Finally, in other subjects studied at university such as the sciences, the liberal arts, or the humanities for which access is automatic, dropout rates have run high (around 50% at the end of the first cycle of studies in some subjects). Dropout rates are well-known to be higher in free open-access systems like the French one, and this is reinforced by the existence of parallel selective routes and in Albert H. Halsey’s (1993, p.138) words: “Dropping out is socially selective though with decreasing severity.”

At first sight, the French situation may appear to be remote from the traditional British liberal ethos. Central to this was the traditional university life in which low staff-student ratios, individualised tutorials, and periods of campus residence all played their roles. Until the 1980s, attempts were made to preserve this liberal ethos of a university education while expansion took place. However, more recently, rapid expansion has taken place and the “depersonalisation” of the university experience has become a recurrent theme in much of the criticism aimed at today’s universities. Even if statutory grants had fallen to a very low

level, their replacement by loans—and therefore by personal debt—have brought British undergraduates closer to their French counterparts. In both countries, an increasing number of undergraduates have taken up temporary jobs during the academic year for financial reasons. At the same time, while the new structures of the curriculum particularly the introduction of the modular course (for a long time called UV or *Unité de Valeur* in France) have reinforced the overall systematization of the system and partly satisfied one of the main student demands, they have also reinforced a feeling of anonymity. Of course, one may reasonably expect that the student experience at the University of Cambridge is, in many instances, very different to that at Aston University or at the University of East London.

Over the last few years, as increased participation at the higher education level in Britain has taken its toll on success rates, worries have been aired concerning the rising number of students dropping out of their courses. The growing rate of non-completion has started to hit the headlines, even though it stands at below 10% on average, and the country can still boast one of the lowest student dropout rates among OECD members. The recent introduction of tuition fees may be taken as the political answer to this problem. Together with the withdrawal of maintenance grants, tuition fees have been presented by the polity and part of the academic profession as a way to raise awareness among the student population as to the financial cost of higher education in the hope that those who will not have been deterred by the cost of studying at university will think twice before walking away. For the polity and employers alike, the introduction of tuition fees has been a way of shifting the economic burden of choice to the supposedly rational decision of the individual student. For the polity, this has been a well-timed strategic move. Since participation in higher education in Britain has only recently reached a level where the system could be defined as a mass system, the polity has been able to play on a public perception still focused on the idea that the universities are mostly closed, elitist institutions (Brooke 1993) to justify to the broader public a closer scrutiny of university activities and sponsor the idea that those who benefit socially from this form of *non-compulsory* education ought to pay for it.

Access and selection have formed a conceptual dualism around which the public and political debate concerning the development of higher education has revolved both in Britain and in France. They cannot be disentangled from another pair of oppositional ideals, namely, equality and equity which need to be examined if we wish to clarify how the two systems of higher education have expanded.

Access and Selection in Higher Education: Formal Equality of Access vs. Equitable Modes of Selection

The expansion of higher education has been justified for two main reasons: the

increase and accumulation of education and knowledge on the one hand, and the equalization of life chances through the school system on the other. In Britain and France, the spread and accumulation of education is an undeniable fact since the 1960s but access to and success through higher education remain highly dependent on the social origins, gender, and even geographical origins of students. As such, the expansion of higher education has not been synonymous with a genuine democratization of access and even less of success. One may ask whether inequalities have not just been displaced and if, in fact, they have not worsened (Merle 2002; HEFCE 2005). Thus in France and Britain, the debate surrounding equality and equity is complementary to the debate on access and selection.

Certain notions form part of received sociological wisdom that has been at work in the general debate on higher education. A central notion has been that of “cultural capital.” This holds that more or less conscious forms of conservatism influence the social system and that the dominant groups manage to translate any social changes into acceptable forms which do not upset entrenched interests. It denounces the meritocratic discourse as a myth and justification for the “symbolic violence” used by the ruling elites to promote types of selection whose criteria are far from being as socially neutral and rational as they would have the remainder of society believe. Individual methodologists would condemn such swift statements, requiring them to be backed by hard empirical evidence. However, regardless of the scientific validity of this contested sociological account of why social inequalities in recruitment and achievement in mass systems of education have persisted, and despite the claims made for meritocratic selection procedures, one cannot ignore the fact that this explanation has been fully integrated into the general debate on access and selection in the shape of the equality versus equity debate. Even more significant, however, is the extent to which this type of discourse has given rise to specific courses of action in the two countries.

In Britain, the question of access and selection has been specifically linked with the question of social inequalities and has been transformed into action with the development of access courses and many other flexible programmes designed to adapt mainstream higher education to new forms of external social demand (Williams 1997). This explains the parallel discourse that has developed around the so-called post-modern university (Barnett 1993). At first, the debate was internal to the academic profession and reflected the binary divide between new higher education institutions, which were anxious to increase their visibility and boost recognition by opening up their activities to the general community and more traditional institutions, which were more concerned with retaining social status and expertise. At the beginning of the 1980s, the government sided with traditional higher education institutions, showing itself to be disdainful both of the new types of offers in higher education and of the discourse that came with them. However, at the end of the decade when the government decided to increase participation rates, it made full use of both. In parallel to this discourse

on inequalities and access, the notion of cultural relativism as applied to access in higher education has been particularly influential in Britain and has been used by part of the academic profession to justify the delivery of non-traditional courses such as cultural studies or feminist studies. The “old” universities have remained largely immune to this change of emphasis that has occurred mostly in the less traditional institutions.

Although the discourse that encouraged institutional adaptation originated in France through the post-structuralist philosophical school, it has had little impact on the French higher education system itself where the kind of knowledge transferred in universities has remained essentially based on canonical academic forms, theoretical knowledge, clear disciplinary allegiance, and professional self-organization. Among the most commonly identified reasons that help explain this development are recruitment procedures and levels of institutional autonomy. The centralization and politicization of academic recruitment procedures combined with ministerial approval for the creation of new courses have prevented the post-modern discourse from being converted into action. At the same time, the existence of non-selective programmes in universities has meant that students have had little stake in the matter. For the academic profession, this has been a way to protect a certain form of expertise and, by the same token, its social status. Even Pierre Bourdieu, one of the prominent proponents of concepts such as “cultural capital” and “symbolic power” signed a letter in *Le Monde* arguing for a centrally organized national competitive examination for the selection of university teachers (Bourdieu 1996).

The traditional Republican discourse has focused on the notion of equality defined as the equal availability of goods and people within the system (Walford 1994, p.13). With such an approach, monitoring the access of specific parts of the population such as the so-called ethnic minorities is not only considered irrelevant but also philosophically and politically unwelcome. The whole system has developed “naturally”—others would say blindly—without any special attention to the various categories of the population getting access to it and especially without a concerted attempt at developing any affirmative action to try to redress well-documented inequalities.

The monitoring of ethnic minorities, genders, or social classes are specific cases in point. In Britain, in the context of selective higher education institutions, the hub of the debate has been equity and maximising the chance of the greatest possible variety of people to gain access to higher education. This implies that variety has had to be recognized in the first place, which explains, for instance, the many studies focusing on ethnic, gender, and class participation (Modood 1993). In France, official education statistics do not provide data on the ethnic origins of students. For constitutional reasons, this is not recognized as a valid way of categorising the population. However, the socioeconomic background of students is reasonably well documented. These differences in the political, aca-

demic, and public discourse on minorities, genders, and classes are striking, but they are too pervasive to be linked to particular sets of interest within the higher education system itself without falling into an unjustified form of conspiracy theory. Education systems are embedded in a broader ideological context which they themselves partly produce and contribute to reproduce (Archer 1988, 1996).

In fact, what was obtained by French students and part of the academic profession almost overnight as a result of the 1968 riots, that is, the possibility of automatic access to higher education for all those with the *baccalauréat*, the system in Britain has worked at gradually by consciously looking to integrate different categories of the population such as women, mature students, part-time students, or ethnic minorities. Elite institutions have not been allowed to develop into differentiated national super-elite in terms of recruitment as has been the case for the *grandes écoles* and their *classes préparatoires*.

Persistent Sources of Inequalities

France

Inequalities come in two main forms in the French higher education system: streaming and high drop-out rates. Both are interrelated. The streaming principle is gradually applied from the secondary school level to the baccalaureate level, and it determines the kind of post-secondary education to which a student can aspire: *grande école*, *institut universitaire de technologie* (IUT), and university. Dropping out is linked to the fact that the new categories of university students have had access to a higher education with an organizational culture that has remained remote from their own daily experience. They often suffer from a lack of familiarity with and alienation from “legitimate” forms of culture and knowledge or from difficulty in planning their own work. This is an academic source of inequality which may be interpreted in two ways: firstly, the academic profession has not been willing and/or able to adapt its practice and expectations to the diversified public it now has to address; secondly the academic profession has retained the power not to depart from what it considers in absolute terms to be an acceptable level of knowledge at each stage of the higher education process. Both are of course related but each may matter to a varying degree.

If the expansion of higher education has allowed more students from poorer socioeconomic backgrounds to gain access to higher education, this increased access has been to the less prestigious streams of higher education, namely, the non-selective university courses with qualifications that do not carry the same value in the labor market because they are in competition with those from selective higher education streams. These qualifications have been likened to “school *assignats*” (Beaud 2003), recalling paper money printed out after the 1789 Revolution with a value that was supposedly based on the selling of seized assets but soon proved to be of little worth. In effect, the recent expansion has reinforced the

separation between the selective vocationally oriented higher education sector—with the highest proportion of students from high social backgrounds—and the more generalist non-selective streams of higher education—with the highest proportion of students from lower socioeconomic backgrounds.

For some, one element of reform which has been detrimental to the successful integration of these new students into higher education is the setting up of university branches in medium-sized towns (Beaud 2003; Merle 2002). These small branches have not facilitated and have even impeded a genuine socialization of the new categories of students. These students tend to struggle at university because they find it difficult to relate the experience to and differentiate it from their day-to-day life and to make “the necessary break.” However, Beaud also notes that for women—in particular those from an ethnic minority background—this “break” is often not so great because they are less influenced by street culture and peer pressure spending more time at home. They also have a greater personal interest in going to university as it gives them more autonomy. Men face greater peer pressure and success at university often depends on the loosening of ties with their environment. Those who have already started this acculturation/reculturation process at the upper-secondary school level find it less difficult at the university level. According to this interpretation, the onus is on new students to try to adapt to a “*culture scolaire*” and “*culture universitaire*.” There is hardly a voice in France to be heard suggesting that academics should adapt their teaching and assessment practice to suit the needs of the new public gaining access to the university (and even less to the *grandes écoles*).

Of course, the French higher education sector has diversified in recent decades to cater to the diverse academic backgrounds of students who are now gaining access to post-secondary education. This has been a source of inclusion, but on the other hand, it has also been a source of exclusion in that it has made the system opaque and difficult to understand. As a result, access to information has become a key dimension of success in higher education, and the fact that this information has not always been easily available has led to forms of inequalities.

Gender Inequalities

The significantly greater percentage of women (56%) than men at university in France, which has already been mentioned, may be interpreted as a sign of expansion benefiting girls. However, in the French context, it also conveys less positive aspects. Like in many countries, higher education in France exhibits strong polarizations in terms of subject choices between women and men but because mathematics and physics lie at the heart of competition in the French system of education, selection tends to be detrimental to girls both in terms of equality of opportunity and equality of outcome. As women have been shown to be comparatively less inclined to study scientific subjects and less willing to adopt the values of competition, there is a strong element of auto-selection.

Table 14.2: Percentage of Women per Level and per Subject at University in 2002

	1st cycle	2nd cycle	3rd cycle
Law & Political Science	66.3	64.5	57.3
Economics & Management	47.0	52.3	47.1
Economic & Social Administration	59.8	61.0	64.5
Arts & Humanities	72.7	76.0	66.9
Modern Languages	74.4	79.4	69.4
Social Sciences	68.9	68.8	58.3
Material Science	32.1	39.1	33.9
Technology & Engineering	19.4	23.0	20.9
Natural Science	60.4	57.8	49.5
Sport Sciences	31.6	32.5	34.0
Medicine	68.3	56.5	50.1
Pharmacy	69.3	67.2	65.3
IUT (University Institute of Technology)	40.3		
Total	57.0	57.3	50.5

Source: Direction de l'Evaluation et de la Prospective (2004).

According to Baudelot and Establet (1992), the cultural model that French society offers women is not neutral either. It accounts for processes of categorization of school subjects and jobs among students and goes a long way towards explaining why girls provide the bulk of arts and humanities students and why 70% of them are found in the 30% of the so-called “feminine” professions (health, education, services).

Table 14.3: Percentage of Women in Higher Education 1985-2001

Type of institution	1985	2001
Institut Universitaire de Technologie		
Production	17.5%	19.8%
Service	56.1%	61.3%
Engineering School	18.2%	22.9%
Classes Préparatoires		
Science	26.3%	27.2%
Arts	68.9%	76.6%
Teacher training		70.5%

Source: Direction de l'Evaluation et de la Prospective (2004).

Public Financial Support Available to Students

Given the social diversification of the student population that the expansion of higher education has engendered, it is not surprising to find that there has been a significant increase in the total amount of public money devoted to supporting students through higher education. The forms of aid available to students to facilitate their participation in higher education are greatly varied. There are a

number of direct or indirect kinds of social aid available to students to assist in covering the costs of transport (bus passes) and accommodation. For example, the *allocation de logement à caractère social* (ALS) was set up in 1971 to help mature students. It is financed both by the government and the employers. The *aide personnalisée au logement* (APL) was set up in 1977. This is not means-tested but concerns only certain types of accommodation. Parents supporting a child through higher education can claim tax-breaks, while indirect help also comes in the form of reduced-cost health care and insurance, and reduced-cost food and activities. In 2003, the total amount of aid to students was more than 4,400 million Euros, representing a 14.5% net increase since 1995 (Table 14.4). The main demand of the major student unions is a reduction in the overall complexity of the system and the definition of a student status that will carry an automatic right to receive public financial support through higher education. They argue that it should not be taken for granted that parents will support their (adult) child through higher education.

Table 14.4: Public Financial Help for the Students and Their Parents, 1995 and 2003

Type of support	1995 (million Euros)	2003 (million Euros)	Net evolution 1995–2003
BUDGETARY STATE SUPPORT			
Direct financial support			
- Grant	927.7	1291.3	25.3%
- ALS	672.6	896.6	20.0%
- APL	187.5	190.2	-8.7%
- Transport		11.4	
Total	1787.8	2389.5	20.3%
Indirect financial support			
- Student Life	253.4	295	4.8%
- Associations / Health	12.8	15.9	11.8%
- Exemption from admin. fees	8.4	46.0	392.8%
Total	274.6	356.9	17%
FISCAL SUPPORT (tax break)	1067.1	1272.0	7.3%
NATIONAL INSURANCE	375.1	436.2	4.6%

Source: Direction de l'Evaluation et de la Prospective (2004).

The total amount of aid has been on the increase, reflecting the needs of the new students now gaining access to higher education (Table 14.5). Two million Euros are distributed annually to poorer students in the form of means-tested, academic or merit-related grants. In 2003, some 350,000 university students (28%) received this kind of a grant (19% of the students in the *classes préparatoires aux grandes écoles* [CPGE]). Students also have access to interest-free loans and bursaries. The total proportion (and number) of students benefiting from this

kind of direct public financial help has grown from 20% in 1990 to 30% in 2003 for a total of 510,000 students in higher education (Direction de l'Evaluation et de la Prospective 2004). In 1998, a merit-based grant was created to help academically gifted students from deprived economic backgrounds to study towards the most prestigious streams of higher education (scientific *grandes écoles*, medicine, Ecole Nationale d'Administration).

Table 14.5: Evolution of Public Financial Support for Students

	1990/91	1995/96	2000/01	2002/03	2003/04
Total number of students assisted (% of relevant population)	272,088 (25.5%)	414,105 (32.3%)	478,600 (35.7%)	497,7217 (37.8%)	510,249 (37.7%)
Number of means-tested grants (and average amount)	254,809 (n)	383,566 (2,283 euros)	452,616 (2,320 euros)	471,710 (2,441 euros)	484,545 (2,407 euros)

Source: Direction de l'Evaluation et de la Prospective (2004).

These efforts towards supporting poorer students financially through their higher education have contributed to promote a more inclusive type of expansion in this educational sector. However, as discussed earlier, they have been insufficient to stem certain forms of exclusion.

England

For a very long time, inequalities in British higher education have been expressed in terms of access both quantitatively (widening participation) and qualitatively (i.e., social origin, ethnic origin, gender). Over the last 25 years, the higher education sector has moved from a situation where just over 10% of an age cohort—mostly pupils from fee-paying independent schools—had access to an elitist type of higher education which was essentially organized around tutorials and with very little dropping-out to a situation where over 40% of an age cohort now gets access to higher education and where drop-out rates are on the rise (5%), although they remain far below what can occur in France.

In 2005, a detailed survey of access among young people aged 18 to 19 for the period 1994 to 2000 was published by the Higher Education Funding Council for England (HEFCE 2005). This survey highlighted in great detail persisting sources of inequalities of access to higher education in terms of income, disability, schooling, age, gender, and even date of birth. Crucially, it showed that throughout the 1990s, and in spite of the significant expansion and increased access to higher education, the relative likelihood of getting a degree in relation to one's origins has changed little. In particular, it revealed that the 20% of peo-

ple living in the wealthiest parts of country are up to six times more likely to enter higher education than the 20% of people living in the most disadvantaged areas. Furthermore, among the latter, there is also an element of self-selection for those who do get access to higher education as a significant proportion of those meeting the admission criteria for selection at leading universities choose to go elsewhere for personal, financial, and even cultural reasons. The HEFCE survey also shows that like in France, differential rates of access to higher education are the last stage of the process that starts as early as in primary school.

Gender Inequalities

Women aged 18 to 19 are now far more likely (18%) than young men of the same age to go to university and complete their course, and the gap is widening as this percentage was only 6% in 1994. However, sources of inequalities persist which prove disadvantageous to female students. Significant gender discrepancies remain between different subject and disciplinary areas across the board, and female students achieve fewer first-class degrees than their male counterparts. Female students study in lower-status universities, and many are mature or part-time students. Even if female participation in higher education has increased dramatically, this has taken place essentially at the bottom of the higher education hierarchy.

Table 14.6: Percentage of Girls among UK Students per Subject at University in 2003/2004

	Female % of UK students
Medicine & Dentistry	57
Subjects allied to medicine	84
Biological sciences	64
Veterinary science	71
Agriculture and related subjects	61
Physical sciences	40
Mathematical science	38
Computer science	24
Engineering & Technology	14
Architecture & Building planning	28
Social studies	63
Law	60
Business & administrative studies	50
Mass communications & documentation	58
Languages	69
Historical & philosophical studies	57
Creative arts & design	60
Education	74
TOTAL	58

Source: Higher Education Statistics Agency (2005).

A young female student from a disadvantaged area is now 30% more likely to go to higher education than a young man from the same area. In fact, if one does not bring any hierarchy between higher education institutions into the equation, the gender difference is becoming greater than the difference between the two main school types that characterise the English educational system: the elite independent sector and the state maintained sector.

Financial Support Available to Students

Financial support for students is certainly the area which has been altered most dramatically over the last decades in Britain. Maintenance grants have gradually been replaced by maintenance loans to cover part of the costs of accommodation, food, travel, and course materials. In 1998, limited up-front tuition fees rising with inflation (£1,000) were introduced together with low-cost government loans with repayment starting after graduation when or if the person earned over £15,000. Besides the fact that this was a way to plug part of the funding gap for higher education, it was also presented by the Labour government as a measure designed to redress the imbalance of employment opportunities and lifelong earnings between graduates and non-graduates.

Since 2006, English universities have been able to charge undergraduates variable tuition fees of up to £3,000 per year. Loans are available to cover the full amount of fees charged. There will be non-repayable means-tested maintenance grants from the government of up to £2,700 and grants and bursaries from universities and colleges. At the same time, an Office for Fair Access (OFFA) has been set up by the government to regulate this gradual process of liberalization of tuition fees and particularly to insure that those universities that will choose to charge the full amount of tuition fees have also grants and scholarships in place to provide financial help to students in need who meet the academic criteria for entrance. These arrangements will be reviewed in 2010, and it has already been strongly suggested that the top level of chargeable tuition fees should be raised to £6,000 or even £8,000 per year.

Although the 2005 HEFCE survey and other previous surveys found little evidence that these changes in funding arrangement have so far had a deterrent effect on access and participation as predicted by those who opposed the change, the fact remains that British students now enter the job market with significant and increasing amounts of debt to reimburse. A significant source of inequality may therefore be considered as generational and would need to be investigated in the long run.

Conclusion

In this chapter, evolutions in higher education in England and France have been used to illustrate how educational inequalities at this level have been perceived,

debated, and addressed. For historical reasons including recent ones, these two European countries exhibit two distinct systems of higher education organized around specific educational, administrative, and political structures/environments, which have in turn been informed by a number of normative academic, political, and social beliefs. The debates and actions concerning the need to address educational inequalities have been channelled by these structures and sets of beliefs. This has been particularly true for higher education when issues of access and selection combined with those of equality and equity have been concerned. However, after decades of expansion which have been justified on grounds of economic and social equal opportunity first at the upper secondary school level then at the higher education level, the mapping of inequalities and their sources remain remarkably unchanged in both countries. In some aspects, namely, access to the elite part of the higher education system, the situation has even worsened. This has prompted renewed political and academic initiatives in the name of greater redistribution of educational chances. The reforms proposed and implemented have followed different logics, and particularly, we may identify two approaches to reducing inequality: one based essentially on public supply in France and another on private demand in England.

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Notes

¹ The Matthew effect refers to the line spoken by “the Master” in Jesus’ parable of the talents in the Christian Bible: “For unto every one that hath shall be given, and he shall have abundance: but from him that hath not shall be taken away even that which he hath.” (Matthew 25:29, KJV). In this context, it refers to the phenomenon widely observed across advanced welfare states that the middle classes tend to be the main beneficiaries of social benefits and services even if these are primarily targeted at the less well-off.

15

Religious Education and Islam in Europe

Holger DAUN

Introduction

Today, education systems are challenged more than ever before by the requirements to contribute to economic competitiveness as well as social cohesion. The migration of Muslims to Europe and conversion to Islam have reinforced these requirements (An-Na'im 1998; Eickelmann 1989). Educational opportunities for Muslims differ greatly between the countries along combinations of variables that are strategic for the emergence of schools that correspond to the Muslim demands.

In Europe, educational policies were largely conditioned by factors internal to each country up until the 1980s. Today, education, particularly religious education, should be seen in the context of globalization and its impact. This impact, both direct and indirect, is evident in the elite-mass divide in cultural values, beliefs, and preferences, and in the increasing Muslim presence in Europe. Traditionally, religion seems to have been the major factor differentiating the demand for private education, at least at the compulsory level (James 1991). Today, the global elite see education as a means for the formation of human capital and increasing competitiveness. The masses, however, have broader considerations for their children. The demand for moral-religious training is particularly strong among some Christian, Jewish, and Muslim groups (EFTRE 2006; Jackson & Steele 2004; Schreiner 2005).

This chapter reviews the educational situation in Europe before globalization started to accelerate in the 1970s and presents policies related to private or religious education in the context of national as well as globalizing factors. The principal features of globalization and the spread of world models for education are then described. While traditional differences in the education systems have survived to some extent, new aspects have been added due to globalization. A combination of some key variables seems to determine children's access to and opportunity for religious education.

Some 19 European countries are compared using a combination of key variables. The chapter is based principally on data reported by the different countries to the European Commission (EC) and its units (e.g., Eurybase 2005; Eurydice 2000) as well as other types of documents and research reports. Al-

though the EC requests standardized reporting, the terminology varies considerably and sometimes makes comparisons difficult.

The Concepts of “Religious Education” and “Private Education”

What is meant by “religious education” and “private education” differs substantially among European countries (Walford 2001). Most sources, though, do not make a clear distinction between moral and values education on the one hand, and religious education on the other. Here, religious education refers to the proportion of the whole curriculum allocated to religious issues in public and private schools. In some countries, religious instruction is given as an extracurricular activity and takes places outside of the ordinary school day.

Definitions used by various countries for “private” do not always make a clear distinction between civil society (not for profit) and market (for profit) arrangements (Levin 2001). In some definitions of “private education,” ownership is the only criterion. In other definitions, it is clear as to the amount of public funds, regulations, and/or adherence to a state-defined curriculum is required before the schools are classified as public sector. In Ireland, most of the schools are owned and run by religious associations or churches, but in all other aspects they correspond to public schools and they are called public schools. Only those few schools that neither teach the centrally established curriculum nor receive state subsidies are called private. However, in the report published by UNESCO (1995), 100% of the primary school students were identified as attending private schools, while OECD (1995) placed 99% of the same students in public schools. Instead of “private schools,” other terms, such as independent schools,¹ are sometimes used.

In this chapter, private schools are those owned and run by private interests regardless of other features or what they are called by the countries themselves. Another distinction that is also important to make is between approved and non-approved schools. Approved schools are those that have an agreement or contract with the state. In countries where there are non-approved schools, there are also usually avenues, such as standardized tests, students can take in order to gain state validation of their education.

Traditional European Education

Over time, Europe has maintained a Christian foundation in its education systems; however, the elite have increasingly come to a more technocratic and secular understanding of education (principally as a formation of human capital). The overriding aims of the education systems are to make education contribute to Europe’s competitiveness (European Commission 1997; Eurydice 2004; Sultana 1995). In large parts of Europe, modernization and then “post-industrialization”

were accompanied by secularization and a declining importance of traditional religious values (Berger 1998; Davie 1998; Norris & Inglehart 2004). However, despite trends of convergence, the populations in various European countries tend to see education (at least at the compulsory level) and social policies as primarily a national concern (Giordani 1993).

The education provided by Western European countries in the mid-1990s had primarily evolved through interaction with national and local societal characteristics and demands. Therefore, education systems differed in certain important dimensions. Differences in religious instruction prior to accelerated globalization were to a large extent found in (1) cultural characteristics (degree of cultural homogeneity-heterogeneity) and especially the ethnic and religious composition of the national population; and (2) church-state relationships among other features (Daun 1997, 2002b). The Nordic countries formed their own group within Europe in that their education systems developed a more egalitarian, welfare, and child-centred orientation (Eide 1992; Grubb et al. 2005; Nicaise et al. 2005).

Cultural and Religious Features

In countries which were comparatively homogenous in terms of culture and religion, the state developed a unitary, public education system. This is the case particularly in Finland, France, Norway, and Sweden. Denmark is an exception in that while its population is comparatively homogenous, for historical reasons it has had very generous rules concerning religious initiatives in the establishment of schools. In more heterogeneous countries, some degree of diversity had to be accepted by the state. This is the case, for instance, in the Netherlands and Spain wherein while being culturally homogeneous countries with a state church, they have had comparatively low rates of private school enrollment (less than 1% in three of the Nordic countries).

Church and State

In most European countries, the church established schools centuries ago. With the development of the state in the 19th century, the role of the church in educational matters became dependent upon the church-state relationship. Here, this relationship is classified into three principal types: incorporation, corporatism, and autonomy. Incorporation means that the church became subordinate to the state. This was the case in Protestant countries (e.g., Denmark, Finland, Norway, Sweden, and the UK), where Protestantism became the state religion. In these cases, there was later a gradual change from a religious-oriented approach to education to a non-religious one, and finally this evolved to the point where the church was to a large extent marginalized from educational matters.

Under *corporatism*, the church is separate from the state, but there is more

or less a permanent cooperation wherein church representatives participate in the preparation of state decisions on educational matters (Badelt 1988; Gilbert 2004; Johnson 1987; Therborn 1992). For instance, the church is not incorporated (no state church) in Catholic countries; however, there are cases (e.g., France, Greece, Ireland, and Spain) where the church has been able to exert influence over the state's educational policy (Altrichter & Posch 1994; Fowler 1991; Hanson 2000). Finally, *autonomy* means that the church is an actor in the civil sphere of society but does not to any large extent participate in decisions related to matters such as education. This has been typical in some of the former communist countries since the beginning of the 1990s (e.g., Czech Republic and Estonia).

In Eastern Europe, the societal and educational changes after the collapse of the communist system were conditioned to some extent by the particular pre-socialist characteristics of each country and their interplay with the monolithic politico-economic system. In other words, important elements of the pre-communist cultures survived the decades of the communist regime (Inglehart 1997; Norris & Inglehart 2004). The role of the church differed between the countries during the communist period. It played an important role in Poland and to some extent in Hungary but not in the other countries (Kozma 1992; NIPE 1996; Offe 1996). It is interesting to note that the processes of liberalization and relaxation of state control started before 1989 in these two countries (Swain 1992).

Certain groups in Eastern Europe and the Baltic states wanted a return to the pre-war situation and a revival of the educational arrangements (e.g., private religious schools) that existed at that time, while other groups argued for westernization, human capital formation, and pluralism (Filer & Munich 2003; Misztal 1995).

Europe in the Context of Globalization

Globalization implies increasing planet-wide interactions and interdependencies of various types. The global economic, political, cultural, and educational interplay affects religious education via general societal changes as well as, and more specifically, changes in educational thinking. With globalization, economic imperatives have become dominant and so have pricing, marketization, and commodification of societal activities including the field of education (Cox 2000; Gill 2000; Saul 1997). Meanwhile, in the religious sphere, Islam is the most expansive religion today, and more than ever before the world religions are competing and challenging one another, each of them claiming the possession of "exclusive and largely absolute truths or values" (Turner 1991, p.173; see also Beeley 1992; Lechner 1991).

Globalization is changing the conditions for most people in the world. It

implies different aspects, but the strongest globalizing forces include the market ideas as well as the idea to make individuals' behaviour correspond to modern liberal norms. ICT and the mass media are "exposing the everyday world of Islam to the competition of pluralistic consumption and the pluralization of life worlds . . ." (Ahmed 1992, p.177). The "universalized" aspects of cultures challenge and question taken-for-granted aspects, and traditions are being problematized (Giddens 1994). On the other hand, Islam is itself a globalizing force and is spreading. Islamic movements have extended to new areas, and Islamic messages have reached large parts of the globe via mass media, IT, migration, and conversion of "Northerners" (Berger 1998; Cankar 2002; International Crisis Group 2005).

Globalization impacts education indirectly as well as directly. The indirect influence may be seen in the restructuring of national economies, changes in the labor force, and subordination to the drive for competitiveness (Dale 2000; Freeman & Soete 1994). Direct influence is derived from the borrowing of educational features from the world models. According to Meyer et al. (1997), a world polity exists as a complex of cultural expectations constructed in and disseminated from international organisations. World models derived from this polity include features as diverse as human rights and children's rights (emphasizing individual autonomy), cultural minority rights (e.g., freedom of religion), Neoliberal views (the self-interested and utility maximizing man, freedom of choice), privatization of education, a move from regulation of input to monitoring and evaluation of output, and so on (Dale 2000; Robertson 1991; Wilson 1997). The universal right to one's own culture "has gained political legitimacy and has reached the political agenda of the countries in Europe" (Soysal 1997, p.513), and the same applies to the right to be taught in one's mother tongue. In the 1990s, Islamic groups in the diaspora started to connect their demands and claims to the global discourse on cultural and human rights. There is also a large proportion of Muslims in the diaspora who want their children to have a distinct moral training. At the same time, a revival of Christian values and norms has taken place in some areas, especially in Eastern Europe (Norris & Inglehart 2004, p.115).

Since the beginning of the 1980s, education systems have borrowed from world models, and this has resulted in some convergence in the policies related to private education. For example, regulations of private schools have been relaxed and subsidies have been increased in countries where control has been strong, and in other countries where control has been loose the conditions for receiving state subsidies have implied increased control and regulation.

It also seems that a culturally adapted form of education is increasingly seen as a way to reduce school dropout rates and improve social cohesion. For example, according to BBC (2001), "religious schools are expected to play an increased role in the secondary school system in England as the government

prepares to increase its subsidy for church-sponsored schools” (from 85% to 90%).

Contradictory international, national, and local needs, demands, and requirements are implied in globalization. Two of these are: (1) religious-moral vs. secular education, and (2) principal formation of human capital and merits vs. broad personality development (Daun 2002a). These contradictions manifest themselves along the elite-mass division (Norris & Inglehart 2004). The elite in Europe tend to be more internationally oriented and globalized in their world view. They demand secular-oriented education producing cultural and human capital. The opposite view exists mainly among the lower classes and minorities who see education in broader terms (Andreweg 1996; Norris & Inglehart 2004; Steenbergen et al. 2006).

Overall, the adoption of elements of the world models, immigration, and the drive for competitiveness have resulted in certain changes in European education systems not in the least with regard to private schools. There also remain considerable differences between Catholic, Protestant, and Orthodox areas of Europe and in the degree of religiosity. The populations of Austria, Ireland, Italy, and Spain are most religious (Christian), while the most secular are the populations of the Nordic countries, England, France, and the Netherlands as measured along the dimensions used in the World Values Study. Also, the Nordic countries and the Netherlands have the largest proportions of people with postmodern values as well (Norris & Inglehart 2004, p.22). These values are post-materialist and oriented toward direct participation in political and social activities, secular values, and ecological issues, for example.

Traditional ethnical or religious minorities exist in several of the countries (e.g., Czech Republic, Hungary, Poland, and Spain). Some of these existing minorities have been allowed to make adaptations of the national curricula and teach in the minority language, a privilege rarely available to the new immigrant minorities (at least not Muslims). These countries have varied their immigration policies and consequently have varied in the percentage of students with immigrant background (from less than 1% in Finland and Poland to 15% or more in Belgium and Germany). Thus, immigration has added to the traditional diversity, and in this case, Muslims may be seen as one of the most sensitive categories of immigrants.

In fact, a large number of Muslims have lived in Europe for generations. In 2000, more than 23 million Muslims lived there (Karic 2002), representing different generations, sects, and degrees of secularization (International Crisis Group 2005). The number of Muslims migrating from the “core” areas is increasing, and the discourse legitimizing religious and multi-cultural demands on education is being globalized (Karic 2002; Wilson 1997). Also, since the beginning of the 1990s, migrants from Muslim areas have increasingly expressed their

lifestyles in religious terms but their demands in political terms (D'Agostino 2003; Moore 2002).

Since the 1980s, Islam in the United States and Europe has emerged from the private and invisible sphere as a cultural, religious, and political phenomenon in the public discourse (Cainkar 2002; D'Agostino 2003; Euro-Islam 1995; International Helsinki Foundation [IHF] 2005; Istanbuli 2001; International Crisis Group 2005). Moreover, Islamic groups have started to connect their demands and claims to the globalized discourse on cultural and human rights (Soysal 1997, p.513).

One principal feature shared by many Muslims is the desire to have their children trained in Islamic moral values and norms. Since the 1980s, Islam in Europe has emerged from a private and invisible sphere to a cultural and religious phenomenon in the public discourse (Euro-Islam 1995; IHF 2005; Soysal 1997). During the first phase of “officialization” of Islam’s presence, there was some politicization of Muslim issues, but the younger second and third generations of Muslims now seem to reject the Islamic “communitarianism” (participation in local, religious life) and be more individualistic, areligious and apolitical, at least in France (International Crisis Group 2006).

Most Muslim parents in Europe want to enroll their children in public schools rather than in separate Muslim schools, which they often perceive as of being low quality. However, choosing a Muslim school is sometimes a response to the lack of moral and values education and/or the racism and lack of multicultural and multi-religious issues some Muslims perceive to exist or have experienced in public schools (for instance, see Daun, Brattlund & Robleh 2004; Walford 2004). Some Muslims even prefer Christian to secular public schools, while others enroll their children in non-formal Quranic schools for complementary moral training after regular school or on weekends (Euro-Islam 1995).

There are numerous national and international Christian organizations that provide moral support for religious schools and lobby for maintaining or increasing religious (meaning Christian) studies in schools (EFTRE 2006). In the case of Islam, several international organizations have been established to support, strengthen, and augment its following. For instance, since the 1970s, the Islamic Organization for Education, Science and Culture (ISESCO) has supported educational projects everywhere in the world (ISESCO 1985). Several governments and organizations in Muslim countries provide funds for schools in Europe, as is the case, for example, in the Netherlands (Driessen & Merry 2006; Jacobs 2004).

Private and Religious Education in Europe

With regard to religious education, European countries differ in (a) the extent to which and the way in which public schools include religious matters, and (b) the

opportunities to establish private religious schools. Practically all countries have regulated what can be and cannot be taught in compulsory education. They usually have a national (core) curriculum or a national framework. In a few countries, they refer to the constitution (e.g., Italy), indicating that private school education should not violate what is stated in the constitution. Approved schools most often get some kind of subsidy and are subject to inspection and regulation of different issues such as exams and tests, certificates, minimum number of students when starting a school, etc. Also, approved schools have to admit students without discrimination.

In Western Europe, the proportion of school time dedicated to religious education differs considerably (Taylor 1994), and so does the way religious education is organized. Sometimes there is even variation within a country. In countries with a mix of religions, the religion (Catholic, Protestant, Orthodox) predominating in an area is the one taught in the area schools (Jackson & Steele 2004). In some countries (e.g., France and Greece) no religious teaching at all is offered (Eurybase 2005; Eurydice 2000). Religious education can vary from being compulsory for all students (in practice) to optional, whereby it is decided by the individual, school, or is offered if requested by a certain number of parents. For example, in Italy 90% of the students take voluntary religious lessons, while in Estonia, schools can organize religious studies based on a request from parents, but in actuality only a small fraction of schools organize such education (EFTRE 2006).

The approach to teaching religion also differs, and Schreiner (2005) identifies three approaches: (1) education in religion, (2) education about religion, and (3) learning from religion. According to him, most countries have education about religion in all compulsory schools. However, according to Jackson and Steele (2004) and European Union (EU) documents (Eurybase 2005; Eurydice 2000), studies offered in non-religious schools (meaning education *about* religion only) exist in England, Denmark, Sweden and Norway. In Sweden, for example, students are taught about the world religions. On the other hand, education *in* religion takes place in Belgium, Czech Republic, Estonia (on request from parents), Ireland, Italy, Netherlands, and Poland (Eurydice 2000). According to the same documents, no religious education is offered in public schools in France and Greece. Finally, religious education can, like civics, be integrated into other subjects such as social studies or taught as a separate subject (Taylor 1994).

So far, as it relates to the topic has been religious education as it relates to Christianity. The picture is different when it comes to other religions. For example, in Germany, despite a general willingness of the *Länder* (provincial governments), it has not been possible to introduce Islamic religious education as a standard subject in any of the jurisdictions (Eurydice 2000; Henze 2004).

Education systems vary in the opportunities for Muslims to have an economically competitive *and* Islamic moral education. Education is compulsory in

all countries. Whether it has to take place in a school approved by the state, it differs between the countries. Some countries require all types of private schools to follow central regulations (e.g., a national curriculum and national inspection), while others do not; some allow non-regulated and non-subsidized private schools for compulsory education, while others do not (Henze 2004; Walford 2004). Some countries have the ambition to create equal conditions for all pupils and give more resources to schools with a comparatively large proportion of disadvantaged children (e.g., immigrant children) (Arayici 2001; Emin, Levasseur et al. 2004; Driessen & Merry 2006; Sammons et al. 2004; Walford 2004; Walther et al. 2005).

Certain key variables in combination are crucial for the variation in the opportunities for establishing private (more precisely, religious) schools. According to James (1991), in the 1980s, the number of private schools varied with religious patterns and demands, and along two variables: (1) the degree and type of subsidy and financial support, and (2) the degree of regulation and control (Levin 2001, adds support services). Today, these two variables have to be refined if we are to better understand the conditions for the emergence of private religious schools (Christian, Jewish, Muslim, and so on). These refinements include (a) whether compulsory education is allowed to take place in non-approved private schools; (b) whether private schools are subsidized, controlled/regulated, and inspected; (c) whether private schools have to teach a centrally established curriculum; (d) whether the students acquire a valid and recognized diploma/certificate from private schools; and (e) whether religion is a part of the curriculum. These refinements can be applied since practically all countries tend to have a specific pattern of regulation and subsidization for compulsory (generally primary and lower secondary) and upper secondary levels (Daun & Arjmand 2005).

Also, it is important to note that since the beginning of the 1990s, the implementation of market forces (e.g., voucher programs) has changed the patterns of school choice, at least in England and Sweden. Certain categories of parents have increasingly chosen according to human capital preferences rather than religious and pedagogical convictions. On the other hand, in countries such as those in Southern Europe, for example, market mechanisms have not been implemented to any large extent (Eurybase 2005).

Rules for the approval of a school vary by country. For example, in the Netherlands, schools not seeking approval only need to report their existence. In France, schools have to function for five years without subsidy before they can be considered for approval. However, even schools not seeking approval in France are required to respect compulsory attendance and standards, and they have to correspond to the overall educational plans and needs of their local area. This additional criterion applies also in some other countries such as Austria, Germany, and Finland (Eurydice 2000). In the two latter countries, it is up to the concerned municipality to judge what needs must be met.

Non-approved private religious schools without subsidies are legitimate alternatives for compulsory education in some countries but not in other countries. In England, for instance, private Islamic schools can substitute for compulsory public education. Sweden, on the other hand, does not approve institutions that do not follow the national curriculum and the regulations; such entities are not allowed to function as primary or secondary schools. In several countries (e.g., Germany, Ireland, Norway, and Sweden), all schools run by religious interests are integrated into the public sector. They are private in terms of ownership and governance, but they must follow the state curriculum and regulations and be subsidized.

That there exist laws supporting the right to establish a private school does not mean that the laws are automatically applied. This is the case in some Eastern European countries, which have recently obtained EU membership (Rýdl & Uiberlayova 2004), and in England and France in the case of subsidies for Muslim schools. Even when Muslim schools live up to the stated requirements and are formally eligible for subsidy, they are not approved to the same extent as Christian and Jewish schools. It has been difficult to obtain data but available sources indicate that until 2004, only four compulsory level Muslim schools had been approved in England (Walford 2004), and only one Muslim secondary school had been approved by the state in France in 2006 (Islam for Today 2006).²

Whether Schools are Subsidized or Not

Schools approved by the state are controlled and inspected, but not all approved schools are subsidized. (Greece seems to be the only exception among the countries reviewed here; there, the traditional minority in the north receives subsidies for their Muslim schools.) In most countries, schools are subsidized if they accept all the conditions set by the state. Exceptions are characterized by schools that charge fees or obtain funds from private entities. The latter is the case mainly in Catholic or mixed religion countries. Normally, religious schools are not run by commercial interests so they tend not to charge fees. Approved schools also tend to be obliged to participate in evaluation and inspection, and the certificates they offer are generally valid. The amount and form of subsidies can vary a great deal (Barro 1996): teachers' (and sometimes also the other staff) salaries can be paid from the central state, premises can be offered rent-free, investments can be paid by the state or the schools can receive a lump sum payment per student, and so on. There are also differences in the way subsidies are estimated, such as per student or sometimes according to some other criteria. In some cases, schools that receive subsidies are allowed to charge fees at the compulsory level (e.g., Denmark and Finland), but in other cases they are not (e.g., Sweden). The level of subsidy varies from very little to 100% of the cost

per student in public schools at the same level (Eurydice 2000). Also, especially in Catholic countries, schools can obtain funds and donations from other entities instead of or in addition to state funds. Non-approved schools are not eligible for subsidies in England, Greece, Italy, Portugal, and Spain. In other countries, subsidies vary according to the contract established with the state (e.g., France, Italy, Portugal and Spain).

Control/Regulation

Regulations for schools differ between countries (Cibulka & Boyd 1989, p.13). Traditionally, regulation has been pro-active regulation, that is, certain criteria have to be met before a school can be approved. With the dissemination of the world models, a gradual move to retro-active control of output is taking place. Pro-active regulation and control normally includes quality of the premises, student health, student admissions, teacher qualifications, administration and budget, curriculum, certificate-examinations, minimum number of students, and others. For example, in Portugal, a school can start with five students while the minimum requirement in Denmark is 12 students during the first year after approval. Retro-active measures of control mainly consist of monitoring, evaluation, self-reporting, and inspection.

In most countries, a centrally established *curriculum* has to be taught if the school is to be approved. The few exceptions are, for example, alternative schools in Austria, complementary schools in Germany, and purely private schools in Ireland and Italy. In some countries, private schools are allowed to make certain exceptions. For instance, Muslim children are not forced to attend sex education in English Muslim schools supported by the state. In Sweden, on the other hand, sex education is required to be given to all children. There are no exceptions.

Certificates

The validity of certificates provided by private schools varies in relation to state regulation and subsidies. Generally, when schools are approved and receive subsidies from the government, they also offer certificates valid for further education or in the labor market. Private schools in Greece are an exception.³

Comparison and Discussion

It seems that the majority of private schools in Europe are approved. If they are not approved, it is because (1) they have chosen to be completely independent within the framework set by the country's constitution and/or education laws, or (2) they do not fulfill the requirements for approval. Generally, regulation goes with approval although there are exceptions, such as complementary schools in Germany, schools with simple contracts in Portugal and Spain, and for-profit schools in Finland. Table 15.1 presents the most common combinations or con-

ditions for private schools in the 19 countries. The different terms used by the countries themselves in their descriptions have been maintained.

Patterns or trends emerge when the countries are categorized. In this case, the countries were classified first according to predominating religion(s) (Catholic, Mixed and Protestant); second, according to the cultural or religious dimension (homogeneity-heterogeneity); and third, according to the three types of state-church relationships (incorporation, corporatism and autonomy). In the

Table 15.1: Varieties of Features of and Conditions for Religious Schools in Europe

Approved	Subsidized	Certification	Regulated	Examples
Yes	Yes	Yes	Yes	Austria (statutory), Czech Republic (all private schools), England (vol. aided), Denmark (denominational; free schools), Finland (not-for-profit), France, Germany (substitute), Greece (Muslim schools in the north), Hungary (not-for-profit), Ireland (full contract), Italy (scuole paritarie), Netherlands (mostly private), Norway, Poland (all private), Portugal (full contr.), Spain (grantaid.), Sweden (compulsory private)
Yes	Yes	Yes		Belgium (denominational)
Yes		Yes	Yes	Belgium (non-denominational.), Estonia, France ("partial" contr.), Hungary (for-profit), Norway (for-profit), Sweden (secondary, for-profit),
Yes			Yes	Greece (all private)
Yes		Yes		Germany (complementary), Portugal (simple contract)
Yes				Finland (commercial/for profit)
	Yes	Yes	Yes	Denmark (immigrant schools)
			Yes	England (independent), Netherlands (for-profit)
		Yes		Austria (alternative schools)
				Finland (non-authorized), Belgium (non-contracted), France (non-contr.), Ireland (fully private), Italy ("transition" private; fully private), Netherlands (non-contr.), Portugal (non-grant- aided II), Spain (non-grant-aided)

latter case, the long-term conditions and patterns were used, and not short-term changes, such as the transformation of the Swedish state church into an independent church a few years ago. Table 15.2 presents the results using the first two classifications, but the results from the third one are also discussed in the text.

There are large variations in enrollment in private, compulsory schools within each religious category. The range of variation is largest in Catholic countries due to the fact that several of them use different contracts related to different levels of subsidy. The median is highest in these countries even if the extreme case of Ireland (99% in private education) is excluded. The median enrollment is lowest in countries with a mixed religious pattern, and the range of variation becomes the lowest if the extreme case of the Netherlands (67%) is not included. In countries where there is a corporatist relationship between the state and the church, the level of private school enrollment is significantly higher

Table 15.2: Predominating Religions, Cultural Patterns, and Some Educational Parameters in Compulsory Private Schools in Europe

		Religion			Culture, religion	
		Catholic* N = 9	Mixed N = 4	Protes- tant N = 6	Homogene- ous N = 14	Heterogeneous N = 5
% enrolled in private (compulsory)	Variation	1.4 - 99 (1.4 - 44.5**)	2 - 67 (2 - 5***)	0.6 - 11.9	0.6 - 99 (0.6 - 14.7**)	2 - 67 (2 - 44***)
	Median	9.9 (8.6**)	5 (5***)	7.1	Md: 7.1 (7***)	Md: 33.5 (19.2**)
Education in non-recogn. schools	Yes	6	0	0	4	2
	No	3	4	6	10	3
Subsidies, %	Variation	0-100	50-100	75-90	0-100	0-100
	Median	92	95	82	85	90
Religious education in public schools	Yes:	3	3	5	8	3
	Op-tional	3	1	1	3	2
	No:	2			2	
	No inf:	1			1	
Muslim schools recognized/ approved	No:	2	3	1	4	2
	Few:	2		3	4	1
	Sev-eral:	1	1		1	1
	No inf:	4		2	5	1

Notes: *Greek orthodox included, **Excluding Ireland, ***Excluding the Netherlands.

(even when Ireland is not included). Thus, it seems a corporatist relationship is more advantageous for Christian interests in education than other relationships.

However, the relationships are embedded in a complex of features; for instance, incorporated churches exist only in Protestant countries.

Among the cases studied here, non-approved schools are legitimate educational alternatives only in Catholic countries. Traditionally, the state has been less likely to intervene in religious and other matters in these countries (with the exception of France) (Gilbert 2004). Also, this educational alternative is more commonly accepted in heterogeneous than in homogeneous countries and only in countries with corporatist (church-state) relationships. Where churches have been comparatively strong, they have also been able to make the state establish a corporatist relationship, and from this platform, religious interests have been able to influence the education system.

Subsidies vary most in Catholic countries from none to 100% (depending on the type of contract). The median subsidy is lowest in Protestant countries, but in these countries there are no non-profit private schools that do not have subsidies. The cultural homogeneity-heterogeneity dimension does not make any significant difference with regard to subsidies. Incorporated churches have the lowest minimum level but also the highest minimum level of subsidy to private schools.

Teaching religion in public schools is more common in Protestant countries. To some extent, it is optional in Catholic countries. In two of the homogeneous countries, there is no religion taught in public schools, and in these cases it is optional. When it comes to church-state relationship, public schools in all countries with incorporated churches teach religion (education *about* religion), while the pattern is mixed in other countries.

It may look like a paradox that subsidies are as high as they are in countries with incorporated churches, but it has to be mentioned that two of the countries (England and Sweden) apply a neoliberal market approach (funds follow the student). Thus, real choice is possible only with high subsidies to private schools. This seems to be the reason for the comparatively high level of subsidies in this overall category of countries.

So far, what has been presented has dealt primarily with Christianity and Christian schools. When it comes to Muslim schools and Islamic education, the picture is very different. There are six countries for which data on approval of Muslims schools has not been available, but the trend is clear. Only two countries have several (15 or more) Muslim schools: Greece and the Netherlands. Greece, since its formation as an independent state, has had a large minority of Muslims in the north. The Muslim schools in this region are approved and subsidized because of international agreements (Benincasa 2004).

There are no differences related to cultural and religious homogeneity-heterogeneity. It seems that countries wherein the church is incorporated and the state controls religious education have been more permissive in relation to Muslim schools. The determinant factor, however, is the pattern of immigration.

The countries with a small proportion of Muslims (such as the Eastern European countries and Finland) have not approved any Muslim schools. While it is not known whether any applications have been made, in the case of Czech Republic the state has accepted to follow the international rights (that being one of the conditions for membership in the EU) on the one hand, but it has a practice of not allowing the new minorities like Muslims to establish their own schools on the other hand (Rýdl and Uiberlayova 2004). In the Netherlands, the opposite is the case. Although the percentage of immigrants in this country is not higher than in Belgium, England, France, and Germany, for example, the country has many more Muslim schools than any other country (41 primary Muslim schools in 2006 according to IHF 2005, p.113).

Also, applications for Jewish schools have been treated favorably compared with those for Muslim schools at least in France, and this has been criticized by Muslims (International Crisis Group 2006). Finally, regardless of the combinations, non-formal Quranic schools or courses are organized in all countries where there are Muslim minorities.

Some Concluding Notes

Traditional educational patterns in Europe have survived to a large extent. Catholic countries, for example, allow non-approved schools to exist with looser controls and regulations, while other countries do not. In this traditional type of policy, there is hardly any place for Muslim schools. Since 1980, however, globalization processes have affected educational policies in Europe in different ways. There are indirect as well as direct influences, some of which facilitate the establishing of Muslim schools, while others “shrink the space” for such schools. We may distinguish four types of influences: (1) indirect influences that facilitate the emergence of Muslim schools, (2) indirect influences that make this emergence more difficult, (3) direct influences that facilitate the establishing of such schools, and (4) direct influences that worsen the conditions for such schools. As for the first type, we have observed the dissemination of the world models (human rights, minority rights, cultural rights, and others) defending the request for plurality, diversity, cultural-religious rights, and mother tongue instruction among different groups. However, this dissemination works in seemingly contradictory directions and includes the spread of a materialistic, individualistic, and consumerist culture (type 2). The third type portrays specific educational models that argue for private and multicultural education. The fourth type includes the standardization of structure and content of education. Together with general globalization, they generate pressure for competitiveness and a focus on cognitive skills, and question and challenge religious cultures and lifestyles. Local as well as religious communities respond to these pressures in different ways. Within each country, the elite are more internationally and globally oriented than the

masses, and they are pushing for the formation of human capital and economically oriented knowledge and skills. They are also the ones influencing the educational policies more than others.

Mixed influences will emerge from the convergence taking place in the education systems between European countries in that regulation and subsidies are being adapted to the ideals of the world models. Countries with loose control of private, religious schools have tightened the retroactive control (e.g., monitoring and evaluation), and countries with low subsidies to such schools have made some efforts to raise their subsidy levels. Furthermore, countries with unified education systems and monolithic policies seem to be more responsive to diversified demands than before.

All these contradictory processes make it difficult to predict what opportunities Muslim minorities will have in the future when it comes to moral *and* competitive (in human capital terms) education. Second and third generations among established Muslim groups are known to be more secular and than first generations, but at the same time, new immigrants arrive continuously from the Islamic “core areas” and “traditional” Europeans convert to Islam increasingly.

Finally, a review of the field makes it easy to argue that it needs more basic, non-biased research and less normative research in this field. Several of the reviews of religious education have been conducted by people or organizations with vested interests in a stronger position for religious (read Christian) education.

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Notes

¹ For example, in Sweden, “independent” is used, but Swedish “independent schools” are not more independent than private schools in other countries, since they receive large subsidies and are objects of as much control and regulation as “private” schools in other countries. Also, they are very different from “independent” schools in other countries such as England; such schools are neither controlled nor receive subsidies.

² According to the International Crisis Group (2006, p.23), there were two Muslim secondary schools in 2006. It is not mentioned whether they received subsidies or not.

³ The detailed data for each country and along the dimensions discussed here can be obtained from the author (Holger.Daun@interped.su.se) by request.

16

Social Inequalities, Educational Attainment, and Teachers in Egypt

Nagwa M. MEGAHED & Mark B. GINSBURG

The chapter first summarizes major perspectives for explaining inequalities in educational attainment across social groups: functionalist and conflict. Then Egyptian government and international agency statistics and reports are used to compare the educational attainment of different social groups (social class, rural/urban, inter-governorate, and/or gender). The focus is on the number of years of formal education completed, enrollment in and completion of general/academic versus vocational secondary schools, and access to university or other institutions of higher education. Next, drawing on qualitative data collected in 2001 to 2002 via interviews with general/academic and vocational/commercial secondary school teachers working in the Giza governorate, the chapter portrays how these Egyptian educators explain social inequalities in educational attainment among their own students and in general. Finally, the chapter discusses how different the teachers' explanations of inequality (a) are framed by the different perspectives introduced earlier and (b) may contribute to reinforcing or challenging these social inequalities.

Introduction

With respect to Egypt (or other societies), there is a general agreement about the existence of inequalities in educational attainment (as well as wealth, income, status, and power) across social groups. Social inequality and stratification are recognized to be facts of life at least under current arrangements. Such consensus evaporates, however, when we move to the explanations of why and how such inequalities exist (see de Marrais & LeCompte 1995; Epstein 1986; Hurn 1978; Karabel & Halsey 1977; Morrow & Torres 1995; Tyler 1977).¹ Some may explain educational inequalities as resulting from divine intervention, just as Max Weber claimed that “early Calvinists” conceived of differences in “material success and prosperity” as being a function of “the grace of God” (Braun 1997, p.41; referencing Max Weber’s, *Protestant Ethic and Spirit of Capitalism*). Contemporary “western” social science literature though tends to highlight two major theoretical approaches for explaining social inequalities in education in a given society: functionalist and conflict.²

From a functionalist perspective, social stratification exists because “there is a generally fixed set of positions, whose various requirements the labor force must satisfy . . . [in order to meet] the needs of society” (Collins 1971, p.1004). Thus, educational stratification is functional because it serves to differentiate and prepare individuals who have different native abilities and/or levels of motivation necessary for the performance of the given hierarchically organized occupational roles (Arum & Beattie 2000; Parsons 1959; Sorokin 2000). From this viewpoint, schooling provides a meritocratic mechanism for allocating individuals to occupations, allowing for the upward social mobility of capable, motivated children of parents with lower socioeconomic status groups (Amin 2000; Collins 1971; Davis & Moore 1945). For example, some Egyptian scholars emphasize the importance of stratifying secondary schools into different tracks, arguing that admission to secondary schools should be based on student abilities and that the division between academic and vocational schools is necessary to meet the requirements of the economy specifically and the society generally (see Shaban 1981).

In contrast, conflict theorists highlight that existing social inequalities primarily serve the interests of elites. Furthermore, such inequalities are reproduced—perpetuated and legitimated—through schooling (Morrow & Torres 1995). The content and process of schooling are biased in favor or against those with different amounts of economic capital and/or those with different forms of cultural capital (Bourdieu & Passeron 1977; Bowles & Gintis 1976). As Arum and Beattie (2000, p.4) observe, “Privileged members of society . . . [are] rewarded by both school personnel and employers, who code these [members] as being more worthy and deserving . . . [And this leads to] inequality in educational achievement and related occupational attainment.” Ability measures that are employed to track students into stratified programs and schools are viewed to be culturally biased in favor of higher and middle class students and against lower class students (Hallinan 2000; Oakes 1985). As Oakes (1988, p.106) observes, “While it is tempting to blame their low achievement . . . on the disadvantages that poor . . . students bring with them from home, their school experiences contribute to these disappointing outcomes as well. . . . Assessment of students’ ability and their assignment to ability groups and curriculum tracks is one of the most obvious examples of this nexus of students’ characteristics and school experiences.” In the context of Egypt, there is a strong significant correlation between a student’s track placement into an academic or a vocational secondary school and his or her father’s occupational status (El-Shikhaby 1983), and some Egyptian scholars strongly criticize the tracking system in secondary schools, arguing that the stratification within public schools contradicts the ideal of equal educational opportunities, which the government has promoted at least rhetorically since the 1952 revolution (Ali 1989).

It is not only scholars who differ in their perspectives in analyzing schooling and educational reform. Teachers also vary in viewing schooling as promot-

ing social mobility or social reproduction, while at the same time they differ in their personal and professional ideologies and occupational statuses (Connell 1985; Ginsburg 1988; Grace 1978; Megahed & Ginsburg 2004). Because teachers are key actors in constructing educational processes and in conveying the (il)legitimacy of inter-individual and inter-group differences in educational attainment, it is important to understand how they explain educational inequality. This is because teachers can contribute either to reproducing—perpetuating and legitimating—social inequalities in education (see Hollingshead 1949; Kozol 1991; McNeil 1986; Metz 1978; Ogbu 1974; Valli 1983) or to resisting and challenging these reproductive processes (see Anyon 1983; Everhart 1983; Giroux 1983; Weiler 1988; Willis 1977).³

In balance of this chapter we first examine quantitative indicators of the educational attainment of different social groups (framed in terms of family socioeconomic status and rural/urban residence), focusing on (in)equalities with respect to access to schooling, the number of years of formal education completed, enrollment in and completion of general/academic versus vocational secondary schools, and access to university or other institutions of higher education. Next, drawing on the qualitative data collected in 2001 to 2002 via interviews with general/academic and vocational/commercial secondary school teachers working in rural and urban settings in the Giza governorate (see Megahed, 2004), we will analyze how these Egyptian educators explain social inequalities in educational attainment among their own students and in general. Finally, we will discuss how different teachers' explanations of inequality (a) are framed by the different theoretical perspectives introduced earlier and (b) may contribute to reinforcing or challenging these social inequalities.

Data Sources

The quantitative data analyzed in the next section of this chapter include official statistics published by the Government of Egypt and the World Bank. Where available, we report data on a sample of governorates (i.e., states or provinces) in Egypt to gauge educational inequalities associated with rural versus urban residence.⁴ In these analyses, we include the seven governorates that serve as the focus for the five-year, USAID-funded Educational Reform Program⁵ on which we are currently working (Alexandria, Aswan, Beni-Suef, Cairo, Fayoum, Minya, Qena). In addition, we include the three most populated governorates located in the “delta” or “lower Egypt” (north of Cairo)—Behira, Dakahlia, and Sharkia, which have similar proportions of rural populations as Beni-Suef, Fayoum, and Minya, which are located in “upper Egypt” (south of Cairo).⁶ Table 16.1 indicates the percentage of the rural populations in each of these governorates. Note that Alexandria and Cairo have 100% urban populations; these two governorates along with Port-Said and Suez are considered to be Egypt's only “urban governorates.”

Table 16.1: Rural versus Urban Population by Governorate, 1996

Governorate	Rural	Urban	Total
Alexandria	0.0%	100.0%	3,339,076 (100%)
Aswan	57.4%	42.6%	974,068 (100%)
Behera	77.2%	22.8%	3 994,297 (100%)
Beni-Suef	76.5%	23.5%	1,859,214 (100%)
Cairo	0.0%	100.0%	6,800,992 (100%)
Dakahlia	72.2%	27.8%	4,223,919 (100%)
Fayoum	77.6%	22.4%	1,989,774 (100%)
Minya	80.6%	19.4%	3,310,129 (100%)
Qena	78.8%	21.2%	2,442,016 (100%)
Sharkia	77.5%	22.5%	4,281,068 (100%)
EGYPT (overall)	57.4%	42.6%	59,312,914 (100%)

Source: Central Agency for Public Mobilization and Statistics (2004, pp.33-34).

Additional sources of quantitative data include publications by Filmore (2000) and Filmore and Pritchett (1999) reporting on the analyses “of internationally comparable household datasets . . . [compiled from] Demographic and Health Surveys (DHS) for 57 surveys in 41 countries,” (Filmore 2000, p.3) including Egypt and focusing on social class and gender differences in educational access and attainment.⁷

The qualitative data presented in the third section of this chapter are drawn from a larger study by Megahed (2004), which was conducted within a critical ethnographic tradition (see Anderson 1989; Carspecken 1996; Lather 1991; Masesmann 1986; Simon & Dippo 1986; Thomas 1983). The main sources of data are from in-depth, “standardized open-ended interviews” (see Martella, Nelson & Marchand 1999) conducted in December 2001 and January 2002 with male and female academic and commercial teachers working in urban and rural communities in the Giza governorate in Egypt.⁸ A total of six schools representing three types of secondary schools in the rural district and three types of schools in the urban district were chosen randomly: (pre-reform) regular general/academic schools, new general/academic schools (former commercial schools being converted), and commercial schools.⁹ The 40 interviewees were selected, using a quota sampling technique, to include two male and two female teachers (with at least five years experience in public or government schools) from both urban and rural areas in the following categories:

- (a) academic subject teachers working in regular general/academic schools
- (b) academic subject teachers working in (new, converted) general/academic schools
- (c) academic subject teachers working in regular commercial schools

- (d) vocational subject teachers working in regular commercial schools, and
- (e) vocational subject teachers working in old (being converted) commercial schools¹⁰

To identify teachers' explanations of educational inequalities—or what elsewhere are termed their ideologies of social mobility/reproduction (see also Ginsburg 1988; Hopper 1981; Megahed & Ginsburg 2004)—the interviewees were asked about their views on the secondary education system and the different types of secondary schools:

- Should secondary education be separated into academic and vocational tracks?
- What are the advantages or disadvantages for students attending each type of school?
- Can or should all students attend academic schools and attend university or other type of post-secondary education?
- Does the Egyptian education system promote or allow upward social mobility for students from low socioeconomic status families?
- Does the Egyptian education system perpetuate inequalities among students from different socioeconomic backgrounds?

Data were analyzed using a qualitative approach (synthesizing ideas from Bogdan & Biklen 1998; LeCompte & Preissle 1993; Spradley 1979, 1980).

Stratified Education System in Egypt

Inequality in *access* to schooling in Egypt can be observed if we look at the number of (age-appropriate) children who are *not* enrolled in the primary and preparatory levels of the system. These numbers for the year 2000—334,639 and 1,097,212, respectively—represent a sizeable proportion of children (estimated respectively to be 4.2% and 11.4%) (UNESCO 2002; World Bank 2002, Table 12, p.11).¹¹ Inequality in access to education can also be measured by gross enrollment ratios that compare the number of children enrolled at a given level of the education system with the number of age-appropriate children.¹² Table 16.2 shows that the gross enrollment ratios for primary and preparatory schools, respectively, vary considerably across governorates, with the “upper Egypt” governorates with more rural populations (Beni-Suef, Fayoum, and Minya) having lower ratios, particularly at the preparatory level, than the governorates with more urban populations (Alexandria and Cairo) and with the “lower Egypt” governorates with more rural populations having gross enrollment ratios between these two groups of governorates.

Table 16.2: Gross Enrollment Ratios, 2000

Governorate	Primary Level	Preparatory Level
Alexandria	117.19	107.82
Aswan	99.80	83.91
Behira	101.76	89.68
Beni-Suef	88.21	71.34
Cairo	107.34	99.30
Dakahlia	96.03	93.46
Fayoum	91.96	75.15
Minya	81.66	71.01
Qena	81.37	94.46
Sharkia	98.64	89.52
EGYPT (overall)	105.81	96.64

Source: World Bank (2002, Tables 13 & 14, pp.12-13).

Inequalities in educational *attainment* are also important to examine. One way to assess inequalities of educational attainment is by using the percentage of a particular category of students (e.g., from families with different levels of income) who complete a given grade.¹³ Table 16.3 shows substantial inequalities in educational attainment across income groups, with the percentages of children completing Grades 1, 5, and 9 higher among children of middle income families than the poor and still higher among children of the rich.¹⁴

Table 16.3: Grade Completion of Males and Females Ages 15-19 by Income Group, 1995-1996

Gender x Income Group	Completion of Grade 1	Completion of Grade 5	Completion of Grade 9
Male			
Poor	86.5%	74.2%	47.0%
Middle Income	96.2%	83.1%	64.2%
Rich	99.9%	94.3%	80.7%
Female			
Poor	60.9%	50.4%	31.3%
Middle Income	89.3%	80.9%	61.5%
Rich	96.5%	92.7%	78.8%

Source: Filmore (2000, Table 6, p.18); Filmore and Pritchett (1999, Table A-1, p.89), and the World Bank (2005, Tables C1 & C2, pp.226-227).

In Table 16.4, one can observe inequalities in educational attainment between students attending urban schools and those attending schools in rural areas. Here,

our measure of educational (non)attainment is *repetition rates* for students at different levels of the school system. Particularly noteworthy are the higher repetition rates for students in rural versus urban schools at the primary and (especially) the preparatory stages.¹⁵

Table 16.4: Repetition Rates in MOE Schools, 2000-2001

Type of School	Urban	Rural
Primary	4.62%	5.54%
Preparatory	7.19%	9.39%
General Secondary	2.27%	2.46%
Technical Secondary	2.50%	2.38%

Source: World Bank (2002, Table 27, p.25).

When Egyptian students move from the preparatory school stage (Grades 7 to 9) to the secondary school stage (Grades 10 to 12) of the system, they are formally separated (stratified) based on their performance on the Basic Education Certificate Exam. They either attend a general (i.e., academic) secondary school or one of the three types of technical/vocational secondary schools: agricultural, commercial, and industrial.¹⁶ In Egypt, students, parents, and society more generally perceive the quality of the education in vocational/technical schools to be “second-class” (Richards 1992), while students enrolled in *vocational secondary schools* tend to be viewed as “losers” (Sayed & Diehl 2000). Beyond the perception of differences in the quality and status of general versus technical/vocational secondary schooling, the type of school attended has significant implications for whether students eventually enroll in universities or other institutions of higher education. This is because most general secondary school students move on to post-secondary education, while only a small percentage of the vocational/technical school students do so. Moreover, graduates of technical/vocational secondary schools were (and are) unlikely either to find employment in the formal economy (Gill & Heyneman 2000).

As indicated in Table 16.5, just over one-third (36.1%) of all students in Egypt attending secondary school were enrolled in general (academic) secondary schools in the 2002-2003 school year.¹⁷ However, it is not just that a minority of students gaining access to secondary schooling attend a high status institution, which puts them on track to enter a university. At issue here as well is the fact that there are substantial inter-governorate inequalities in access to this higher status form of secondary schooling. For instance, Table 16.5 (below) also shows that greater than 50% of secondary students attend general (academic) institutions in the governorates with more urban populations (Alexandria and Cairo), while less than 35% of the students do so in the governorates with more rural populations, whether in “upper Egypt” (e.g., Beni-Suef, Fayoum, and Minya) or “lower Egypt” (Behira, Dakahlia, and Sharkia).

Table 16.5: Percentage of Students Enrolled in Different Types of Secondary Schools, 2002-2003

Governorate	General	Agricultural	Commercial	Industrial	TOTAL
Alexandria	50.9%	3.2%	22.2%	23.7%	173,991 (100%)
Aswan	29.8%	9.1%	26.4%	34.7%	68,123 (100%)
Behira	23.6%	7.1%	23.6%	45.7%	218,769 (100%)
Beni-Suef	28.1%	10.5%	22.5%	38.9%	87,656 (100%)
Cairo	58.7%	0.0%	23.4%	17.9%	392,834 (100%)
Dakahlia	33.3%	8.1%	24.6%	34.1%	269,174 (100%)
Fayoum	20.7%	10.2%	31.7%	37.4%	115,550 (100%)
Minya	27.1%	13.5%	24.6%	34.9%	175,885 (100%)
Qena	28.5%	17.2%	25.3%	29.0%	155,919 (100%)
Sharkia	30.0%	8.3%	33.2%	28.5%	269,903 (100%)
EGYPT (overall)	36.1%	7.3%	27.9%	28.7%	3,463,678 (100%)

Source: Central Agency for Public Mobilization & Statistics (2004, pp.70-71, 76-77).

Table 16.6 provides further evidence of inter-governorate inequalities in access to high status secondary schooling. One can observe that the gross enrollment ratios for general (academic) secondary school are substantially higher in the more urban governorates—Alexandria (35.8) and Cairo (43.7)—than in the more rural governorates, whether they are located in “upper Egypt” [Beni-Suef (12.33), Fayoum (10.54), and Minya (13.04)] or in “lower Egypt” [Behira (13.62), Dakahlia (21.82), and Sharkia (22.02)].¹⁸

Table 16.6: Gross Enrollment Ratios for Different Types of Secondary Education, 2000

Governorate	General	Agricultural	Commercial	Industrial
Alexandria	35.38	3.91	15.07	27.39
Aswan	20.11	6.48	21.72	21.52
Behira	13.62	3.91	13.16	27.39
Beni-Suef	12.33	4.22	12.31	15.95
Cairo	43.76	0.0	20.58	13.57
Dakahlia	21.82	4.94	22.81	24.71
Fayoum	10.54	3.16	18.78	23.37
Minya	13.04	6.75	15.24	18.17
Qena	14.99	11.34	16.70	15.00
Sharkia	22.02	5.47	21.20	21.66
EGYPT (overall)	27.12	6.95	20.35	18.52

Source: World Bank (2002, Table 16, p.16).

As students move into and through secondary school and during the transition (for some) to higher education, there is a substantial “selection” or “drop-out” process that occurs. One rough indication of the resulting inequalities in *access* can be obtained by dividing the total number of students in higher education (see Table 16.7) by the total number of students in any form of secondary education (see Table 16.5). The figure obtained ($1,602,859/3,463,678 = 46.3\%$), while an overestimate, can be interpreted to mean that less than half of all students who enroll at the secondary stage of the school system in Egypt gain access to higher education.¹⁹ This “selection” or “stratification” process can be partly explained by which type of secondary school students attend. As noted above, students who attend general (academic) secondary schools are much more likely to enroll subsequently in higher education. Moreover, *access* to higher education is strongly related to the socioeconomic status of the student’s family; for instance, 80% of students from lower socioeconomic status families, compared with approximately 50% from upper and middle socioeconomic status families, obtained low scores on the Academic Secondary Certificate Examination, which determines access to university education (World Bank 1991, p.76).²⁰

Table 16.7: Percentage of Students in Various Types of Higher Education, 2001-2002

	Universities	Commercial Technical. Inst.	Industrial Technical Inst.	TOTAL
EGYPT	93.3%	4.5%	2.2%	1,602,859 (100%)

Source: Arab Republic of Egypt (2004, pp.82, 110).

While access versus non-access to higher education is an important indicator of inequality of educational attainment, there are also differences among the types of higher education institutions, notably between universities and technical institutes. Furthermore, it should be noted that the commercial technical and industrial technical institutes, which are populated by graduates of technical/vocational secondary schools, are perceived to be lower status institutions than universities. As is shown in Table 16.7, while the vast majority of students in higher education attend universities, there are 6.7% who attend these lower status technical institutes.

Teachers’ Perspectives in Explaining Social Inequalities in Educational Attainment

The previous quantitative analysis portrays the existing inequality in access to schools and in educational attainment in Egypt. The Egyptian secondary school teachers who were interviewed (see Megahed 2004) differed in their perspectives in explaining such inequalities in educational access and attainment.

Overall, of the 40 teachers interviewed, 26 (65%) generally reflected a functionalist perspective on social inequalities in education, that is, they perceived schooling as a mechanism that promotes or allows for social mobility; 13 (32.5%) generally articulated a conflict perspective, that is they perceived schooling as an institution that reproduces inequalities in the broader social and economic system; and 1 (2.5%) combined elements of both perspectives or ideologies, noting that schooling would allow for upward social mobility but with a great difficulty because of the existing societal, economic, and educational inequality.²¹

The 26 teachers who exhibited a functionalist perspective agreed that secondary education should be divided into general/academic and vocational/technical schools. They emphasized the importance of providing different educational tracks that would be appropriate for different group of students. According to these teachers, there are differences among students in terms of (a) their natural or genetic learning abilities and intelligence, and (b) their level of ambition and desire for success. Therefore, all students should not attend an academic secondary school or enter the university. Education was viewed as a mechanism that allows and promotes upward social mobility for motivated and talented students. Based on their own personal experiences and their observations of and experiences with their students, they believed that they and many of their students in Egypt were able to achieve a higher socioeconomic status than their parents because of education. In other words, these teachers believed that educational and future attainments are determined by individual ability and motivation, which might be derived from their families' socioeconomic status and cultural background, but they did not view (non)achievement in school as a function of systemic biases against or for students with different backgrounds.

In response to the questions (a) does the education system as it is structured in Egypt allow for social mobility and (b) should secondary education be separated into academic and vocational tracks? Excerpts from the interviews with four representatives of this group of teachers are given below:

Absolutely, any level of education definitely leads to a kind of social mobility For example, a student who finished a preparatory school if he or she is from an illiterate family, he or she would be socially mobile . . . at least culturally . . . I am one of the people who was from a very simple [i.e., poor] family. My brothers, my sisters, and I have experienced [upward] social mobility . . . through education. Nobody could believe that the children of this poor man [my father] reached the status that my brothers, my sisters, and I have achieved. . . . So, education does not differentiate based on social or economic background; it is the opposite. You could find a poor student who is very concerned about his or her study more than a rich student because [the former] . . . is aware of his or her family's situation and wants to improve it. (*Male academic subject teachers working in an urban commercial school*)

Of course, [secondary education] should have different tracks because . . . each person has given by God a specific ability which he or she cannot exceed. Therefore, there should be [social] classes; there should be academic and vocational [schools]. . . . Each person directs himself or herself according to his or her economic, personal, and academic abilities. . . . It is feasible that a very modest [i.e., poor] person could be a very distinguished . . . in his or her education [achievement] and reach the highest status in the society. This depends on the student and his or her efforts. (*Female commercial subject teacher working in an urban commercial school*)

[Secondary education should be separated into academic and vocational tracks,] absolutely. Because if it is a comprehensive school, it will have a negative aspect, which is the difference of students' nature. . . . I mean if I combined academic students with commercial and industrial students all together [in one school] and each [group] has its own culture, way of thinking, and background, then this would develop a very big problem. . . . I would not be able to socialize the three groups together. Thus, [a comprehensive school] would not have a high percentage of achievement. . . . Academic students are different from vocational students. . . . Vocational students have been socialized by their families and the society to [enter the workforce] after obtaining their [vocational] diploma. But academic students have high [educational] ambitions; they know that they still have four or five years of university education, and maybe even more years, if they will continue on for postgraduate studies. Therefore, they devote all their energy and ability to education. . . . [Thus,] it is possible that, by ambition and depending on students' abilities . . . education could provide the opportunity for a student from a low-income family to achieve a higher social status than his or her family's status. (*Female academic subject teacher in an urban academic school*)

It is necessary to make a distinction between academic secondary school and commercial secondary school because I would not allow academic students to interact with commercial students. . . . There are cultural and intellectual/mental differences. . . . Of course, academic students have advantages over commercial students, but they deserve them because they help in carrying out the educational process in a perfect matter. . . . [Social mobility] is available only for a distinguished [i.e., academically talented] student. A distinguished student could improve his or her socioeconomic status. . . . The MOE provides the RSG [Reinforcing Study Group] sessions²² for students from low-income families. [In this sense,] students from low-income families have the same opportunities for education. (*Male academic subject teacher in a rural commercial school*)

In contrast, 13 teachers expressed views on the existing inequalities in educational access and attainment in Egypt in line with a conflict theory perspective, stating that social inequalities are reproduced in and through education. They argued that to provide equal educational opportunities in Egypt, the tracking system of secondary education as well as the curriculum and assessment method should be reformed radically. The current stratified education system, with the academic school at the top and the commercial school at the bottom, is organized around final exam scores, which do not accurately measure of all relevant learning abilities. These 13 teachers added that many students from lower socioeconomic status families enter commercial schools because their families cannot afford to pay the costs associated with academic school (e.g., private tutoring and additional books). They also believed that the perception of commercial schools as providing a “second class” education negatively affected their students’ ambition and interest in education. For these teachers, academic school students enjoy the advantages of greater attention by the state/MOE, higher prestige and social status, and better quality school facilities.

Additionally, these teachers highlighted how students from higher socioeconomic status families enjoy a better quality of life, with respect to healthcare, nutrition, social networks, activities, etc. These advantages provide them with better educational and employment opportunities partly because they are viewed by the school and society to be more capable.

The quotations below from three interviews illustrate examples of how this group of teachers communicated their conflict theory perspectives. In response to the similar questions mentioned earlier, they stated the following:

Why doesn't the secondary school include [a range of] different branches instead of this sharp distinction. . . . Here in a commercial school we, students and teachers, feel that we are the third class group in the education system in Egypt. He [the Minister of Education] wants to convert all [commercial schools] . . . into academic schools. Okay, nice, but . . . he should . . . [provide] commercial education as a program in academic schools. . . . Education reproduces inequalities because students of higher economic status have better opportunities than students of lower or middle economic status. . . . A student from upper-middle social class . . . has many . . . social and economic advantages that give him or her the opportunity to have better thinking, training, and knowledge compared to a student from lower income family. In addition . . . students [who belong to higher socioeconomic class] have good nutrition, so their thinking would be better because there is a relationship between physical health and mental health. This is completely different from [the case] of students from the lower socioeconomic class. These students have to work and study; do both things at the same time. . . . There are big inequalities and many differences. (*Fe-*

male commercial subject teacher in an urban commercial school)

We give academic students a privilege; we coddle or pamper them. Vocational education is referred to as a second class [education]. Even teachers themselves say [this about] . . . those in vocational education. There is a kind of classification that exists in education. . . . [Does education allow for social mobility?] In the current system, no. . . . There is inequality in opportunities for achievement among students especially with regard to vocational education and academic education. (*Male academic subject teacher working in an urban newly converted academic school*)

[Does education allow for social mobility?] Education in Egypt, of course, does not. Why? Because the top colleges or schools, such as Medicine and Engineering, which give higher social status, require private tutoring to be able to enter them [and this] costs a lot of money. A student from an ordinary family will find it impossible to afford such a cost. Maybe, as an exception, one or two students could, but the rest, their material/[economic standard] would [negatively affect] them...[Does education perpetuate inequalities?] Definitely, [education reproduces inequalities] because everything is measured by money. . . . Additionally, the assessment method does not evaluate different academic abilities, but it focuses only on memorization, things like that. Also, for example, schools in urban neighborhoods hire the best teachers. Schools in the villages are [considered by the MOE and teachers as] a punishment; teachers work in them under [an administrative] punishment. So, if I am a student in a rural school, how can I achieve good educational standards if my teacher is being punished by teaching me? (*Male commercial subject teacher in a rural commercial school*)

Clearly, teachers differed in the reasons they gave for why inequalities of education exist in Egypt. Some teachers articulated from a functionalist perspective that the school system and society promote social mobility; these teachers exhibited both a positive view of the political, economic, and educational systems and the belief that it was mainly the differences in the students' abilities and motivation that lead to inequalities in educational attainment. In contrast, other teachers articulated from a conflict perspective that it was the way the school system and society were structured and operated that accounted for why educational inequalities existed and why social and educational inequalities were reproduced—perpetuated and legitimated—from one generation to the next.

Conclusion

As can be seen from the above interviewees quoted and is the case more generally among the teachers interviewed (see Megahed 2004), teachers' perspectives

on explaining educational inequality are not associated with a particular position (academic versus vocational subject teacher), a particular type of general school (general/academic versus vocational), or a particular community context in which the school is located (urban versus rural). Nevertheless, these teachers' perspectives are related to their perceptions of the impact on students of the 1999 secondary education reform that sought to convert more than 300 commercial secondary schools into general/academic schools. As reported by Megahed (2004), interviewees articulating a conflict (or an ideology of social mobility) perspective were more likely to view the reform negatively; 8 (61.5%) of these teachers reported only negative perceptions of the reform and 5 (38.5%) reported both negative and positive perceptions; while interviewees articulating a functionalist (or an ideology of social mobility) perspective, 6 (23.1%) evaluated the reform positively and 9 (34.6%) had both positive and negative perceptions of the reform.

It is important to note, however, that neither the teachers with conflict perspectives nor those with functionalist perspectives indicated clearly how they would intervene in the situation, either at the level of policy (publicly and individually/collectively applauding or criticizing the reform) or at the level of practice (working with students from different socioeconomic status backgrounds or residing in rural or urban contexts to try to reduce the inequalities in educational access and/or attainment).

Perhaps it is unsurprising that teachers with functionalist perspectives are not engaged in or planning to engage in actions to change the system. As an illustration, the above-quoted female academic subject teacher working in an urban academic school, categorized as having a functionalist perspective, seems satisfied to be a bystander, relying on the students' "motivation" and "abilities" to determine whether they experience upward social mobility through a *reformed* school system. When asked "what impact the conversion of commercial schools into academic schools had on different groups of students" and "what impact the reform had on educational quality in academic schools," she responded:

I have an opinion on this, the nature of students who are now in academic schools . . . not all of them are qualified to study academic education. Because academic school needs specific intellectual/mental capacities [and] specific thinking, it needs specific social culture in terms of the family. . . . Now, all [students from all social] classes enter academic school So, what is the accomplishment? Only 20% of students who have . . . the required abilities . . . will succeed, but the rest of students will not benefit from being in academic schools The accomplishment in the end would be very weak graduates.

However, it is at least somewhat surprising that teachers with conflict perspectives did not focus their attention on providing special help, that is, trying to

compensate for social background differences in ability and motivation. One might predict that teachers with conflict perspectives would try to block or minimize the negative effects of the system on students from less advantaged circumstances, but such actions were not highlighted by these teachers during the interviews. For example, the above-quoted female commercial subject teacher working in an urban vocational school, categorized as having a conflict perspective, seemed inclined to be a non-participant observer, watching as inequalities in family socioeconomic status continue to influence which students succeed in secondary schooling (and beyond) within a reformed school system. When asked about her "opinion of the 1997 reform," she stated:

This is a failed, failed, failed project and it will not work. . . . Most students from lower [socioeconomic status] families will not continue even into secondary education. They will stay home [i.e., drop-out because they cannot pay for private tutoring required for success in general/academic secondary schools]. . . . Bring the commercial schools back for . . . the poor parents and students; they are the group most oppressed by this reform.

Moreover, teachers with a conflict perspective did not offer much indication that their critique of the system has led them to become actively involved (individually or collectively) in trying to challenge or change the school system. Instead, like their colleagues holding functionalist perspectives, the way they responded to their situation is perhaps best characterized in terms of inactive "politics" in their work and lives (see Ginsburg 1995). While it is reasonable to question the extent to which teachers, even if well organized as a professional group and even if allied with other groups of workers/consumers/citizens (Ginsburg 2001), could transform the educational and social system in Egypt, it seems clear that inaction is most likely to result in the unequal social relations being reproduced.

The challenge to educators and other workers/consumer/citizens concerned to address issues of educational inequality is even greater if we open our horizon to the global level. This is because in addition to the intra-societal (including inter- and intra-provincial, district, and school) inequalities in educational access and attainment, one needs to consider inequalities in the average level of educational attainment across societies as well as differences in the degree of intra-societal inequalities in educational attainment (e.g., see Wils, Carol & Barrow 2005). It is likely that such differences are related to societies' locations in (the periphery, semi-periphery, or core) of the world system (see Arnove 1992; Berman 1982; Hopkins & Wallerstein 1982). Analogously, Braun (1997) reports that "[t]he data show that world position has much to do with the degree of income inequality within a nation" (p.108); "[c]ore countries have an average [Gini ratio] of .320, compared to .336 for the semiperiphery and .431 for the periphery" (p.112). Thus, Egyptians and others interested in reducing or eliminating educational inequalities will not only have to find ways to collaborate

with others within their own country but also with educators and other workers/consumers/citizens in a range of other countries.

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Notes

¹ It is worth reminding ourselves that “social reality is complex . . . [and thus] one theory alone will never have an absolute and final answer explaining why some are more equal than others” (Braun 1997, p.37) and that the “real [students] and actual adults who teach

them [and who administer educational institutions] contain all of the elements which differing sociologists blow up and claim to be dominant” (Davies 1976, p.48).

² It is important to acknowledge that educational inequalities (like educational reform—see Ginsburg 1991) must also be examined globally, in that “[t]he major division of labor is now seen from a world perspective, not as internal to a particular country” (Braun 1997 p.53). Moreover, there are also different explanations of international or global educational inequalities, analogous to the functionalist and conflict perspectives (see Ginsburg 1991). For instance, from a functionalist perspective educational development assistance by bilateral or multilateral agencies are seen as directed toward reducing both inter- and intra-societal educational inequalities, while from a conflict perspective such technical assistance and training programs are viewed as reproducing unequal international relations and social inequalities in education. Analogously, Braun (1997) contrasts functionalist and conflict perspectives on the impact of development assistance on income inequality: “the World Bank assist[s] poor nations in development of their economies . . . reduc[ing] global poverty while enriching Third World nations” (p.68) versus World Bank and International Monetary Fund “structural adjustment programs . . . have . . . lock[ed] more poor countries up in debtor’s prison for longer periods,” which reduces the quality of social services (including education) they can provide for their people (p.87).

³ Our focus here on the meanings and actions of teachers, of course, calls attention to another theoretical perspectives, social interactionist or social phenomenological, which can inform our understanding of educational inequalities and other features of human experience. As Sharp and Green (1975, p.viii) summarize: “Sociological phenomenologists . . . reaffirm the significance of human action, and see social structural formations [highlighted positively and negatively, respectively, within functionalist and conflict perspectives] as the dynamic creations of human subjects who, through a continuous process of interpretation and negotiation, make and remake their social worlds.” Or as Willis (1977, p.175) put it, teachers and other “social agents are not passive bearers of ideology, but active appropriators who reproduce existing structures only through struggle, contestation, and partial penetration of those structures.”

⁴ While in this chapter we focus on inequalities in educational access and attainment, it is worth noting that: there are significant differences between the quality of schools in rural and urban areas in Egypt: (a) as measured by a composite index (see Hanushek & Lavy 1994, Table 2, p.38) and (b) as indicated by student/teacher ratios (see World Bank 2002, Table 19, p.18).

⁵ The Educational Reform Program (Cooperative Agreements 263-A-00-04-00006-00 and GDC-A-00-03-00006-00 between the United States Agency for International Development Cairo Mission and, respectively, the American Institutes for Research and the Academy for Educational Development, 2004-2009) is a comprehensive effort in support of the goals of the Ministry of Education and the Ministry of Higher Education to improve educational quality. It includes a focus on pre-service and in-service education of teachers, educational supervision and management, community participation and decentralization, preschool and adult literacy and life skills programs, school-to-work initiatives, as well as monitoring and evaluation.

⁶ These “lower Egypt” governorates with sizable rural populations are included to be able to separate out the effects of rural/urban differences and differences in the economic/cultural context of “upper Egypt” (see Ali 1989). Note, however, that the governorate of Aswan, has a rural population representing just over half of its residents (57.4%), which

also happens to be the percentage of rural area residents in Egypt overall.

⁷ It is useful to note, as Wils et al. (2005, p.11) report, that household survey data for “primary entry and primary completion . . . correspond well to values for similar indicators measured by administrative data.”

⁸ Giza was chosen because it is one of three governorates that constitute the “Greater Cairo:” Giza, Cairo, and Kalyoubia. Giza represents the highest percentage (6.4%) of rural residences in comparison with Cairo (0%) and Kalyoubia (5.8%) (Central Agency for Public Mobilization & Statistics 2002). In addition, Giza is considered to be the second biggest governorate in Egypt in terms of the percentage of the total population of Egypt, which in 2002 equaled 66.4 million people (World Development Indicators 2003); Cairo constitutes 11.5% while Giza constitutes 8.1%, including 10.2% of the urban residents and 6.4% of the rural residents (Central Agency for Public Mobilization & Statistics 2002).

⁹ Out of 79 commercial schools in Giza there are four commercial schools that at the time of the field work had already been—during the previous school year (2000-2001)—converted into general/academic secondary schools. According to plans specified in the 1997 reform and the 1999 SEEP, 12 more commercial secondary schools in Giza were scheduled to be converted into academic secondary schools during the school year 2003-2004 (see Megahed 2002; Program, Planning & Monitoring 2003).

¹⁰ As delineated by Megahed (2004), teachers reported that the socioeconomic status of students in the regular general/academic schools in rural and urban areas were similar, while teachers indicated that the socioeconomic status of students in the newly converted, general/academic school and the regular commercial school tend to be somewhat higher in the urban compared with the rural area. Teachers in regular general/academic schools and new (converted) general/academic schools tended to perceive that students in urban areas had somewhat higher academic ability than was the case for their peers in rural areas, although the rural-urban differences were not clear for the regular commercial and old (being converted) commercial schools. At the same time, regular and new general/academic school teachers (compared to their counterparts in regular and old/being converted commercial school) tended to perceive their students’ academic ability as above average or outstanding.

¹¹ The percentage estimates are calculated using the World Bank figures (cited in the previous sentence) divided, respectively, by the following figures for the primary school-age population, ages 6 to 10 (7,951,000) and the preparatory and part of the secondary school-age population, ages 11-16 (9,611,000) (UNESCO 2002).

¹² Note that gross enrollment ratios can exceed 100% (as they do in a few cases in Table 16.2), when a high proportion of students are enrolled but there is also a substantial number of older students still enrolled at that level of education, because of their repeating prior grades.

¹³ Note that this measure of educational attainment also captures access, in that, for instance, children cannot complete the first grade if they do not enroll in school at all.

¹⁴ Differences in educational attainment among income groups are especially notable with respect to completion of Grades 5 and 9 for boys, with the grade completion for poor girls being strikingly lower in comparison to other girls and even to poor boys.

¹⁵ Note that the repetition rates are lower for both types of secondary schools (compared to primary and preparatory schools) and that the rural-urban differences in repetition rates are also negligible. Thus, we would not highlight the facts that technical secondary schools have higher repetition rates than general secondary schools in urban areas, while the opposite is true for rural areas.

¹⁶ Note that beginning in 1999 approximately 300 commercial secondary schools were converted to general secondary schools (see Megahed 2002).

¹⁷ Note that among the 10 governorates included in this table, only those with larger urban populations have a sizeable percentage of private secondary schools: Alexandria (19.95%) and Cairo (19.73%). In the other governorates with larger rural populations, whether in “upper” or “lower” Egypt, few if any general secondary students attend private institutions: Aswan (0.0%), Behira (4.4%), Beni-Suef (4.47%), Dakahlia (4.4%), Fayoum (3.82%), Minya (0.81%), Qena (1.23%), and Sharkia (1.8%). This is another indicator of inter-governorate inequality, since private general secondary students tend to score higher on the Academic Secondary Certificate Exam and thus more likely to gain access to higher status, and more selective university programs (Ali 1989).

¹⁸ Note, however, that Dakahlia and Sharkia, along with Aswan (20.11), have somewhat higher gross enrollment ratios for general/academic secondary schools than the other rural governorates.

¹⁹ This ratio over-estimates to a considerable extent the percentage of the relevant age cohort attending higher education because it does not take into consideration the number of youth (a) who do not enter the school system, (b) who drop-out before entering the secondary stage, or (c) who drop-out during secondary school years. Moreover, it uses enrollment figures for higher education, which for the most part involves four-year programs, and compares these with enrollment figures for three-year secondary programs.

²⁰ We should not be surprised that there are social class differences in students’ performance on this test or the Basic Education Certificate Exam, which is administered at the end of preparatory school and determines whether a student attends a general (academic) or a vocational/technical secondary school. Part of the explanation for such is that out-of-school, *private tutoring* is considered necessary, because the teaching-learning processes in secondary schooling tended to be organized around infrequent, high-stakes exams, which required students to memorize material included in textbooks or teachers’ lectures (Program Planning & Monitoring Unit 1998). The “need” for private tutoring in secondary education in Egypt—and other societies (see Bray 1999; Chew & Leong 1995)—introduces a strong source of socioeconomic bias in education, since families are not in equal positions to pay the tutoring fees. While school attendance in Egypt has never really been free, in that parents have always “had to pay a tiny entry fee, buy a school uniform, provide a bite of food[,] . . . what is disastrous is the need for private tutoring” (*Economist* 1999, p.11). For example, in 1992 to 1993 rural and urban families of students attending academic secondary schools spent on average 14.3% and 10.6%, respectively, of their annual incomes for tutoring and additional “required” books. Indeed, because of the costs of private tutoring, families’ per-child expenditure on education is higher than the cost borne by the government, especially in Grades 11 and 12 in academic secondary schools (Fawzey 1994).

²¹ The female, academic subject teacher working in an urban academic school, who combine elements of both functionalist and conflict theory perspectives, believed that second-

dary education should be divided into academic and vocational tracks in order to provide the appropriate program for different groups of students. “[A]cademic and vocational [tracks] are okay, but we should consider student’s choice and develop specific tests for measuring his/her [learning] abilities in relation to his/her choice. If s/he succeeds [in these tests], s/he can enroll in the program that matches his/her choice and/or abilities. Yet, she recognized many factors that reproduce inequality in education and society, with students from wealthier families having better opportunities than students from poorer families. She commented that “those who are on top do not need to exert much effort; they are already up . . . [But] poor students have to work [in the informal sector] in order to enter a public school and pay its tiny fees.” According to this teacher, students from lower class families could experience upward social mobility through education but “with great difficulty.”

²² According to Fawzey (1994), in 1968 the Egyptian Ministry of Education began to organize additional classes known as “Reinforcing Study Groups” (RSG) for students from low-income families who needed extra help but could not easily afford to pay for private tutoring. Initially, these classes were free, but beginning in the 1970-1971 school year a small fee was charged. Fee increases continued, so that by the early 1990s many students from low-income families could not afford to pay either for private tutoring or RSG sessions (Fawzey 1994).

Inequalities in Iranian Education: Representations of Gender, Socioeconomic Status, Ethnic Diversity, and Religious Diversity in School Textbooks and Curricula

Omid KHEILTASH & Val D. RUST

Introduction

We will explore issues related to educational equity with respect to gender, socioeconomic status, and religious and ethnic minorities among primary and secondary school pupils of Iran.¹ In so doing, we will discuss policies and practices related to the language of instruction, national curricula, and textbook content as measures of educational opportunity provided to under-privileged and minority groups within Iran. We will also explore the degree to which educational content and educational implementation deviate from each other with respect to minority and under-privileged groups. We will focus our discussion on equal educational opportunity, namely, equality of educational participation and equality of educational results.

We begin by outlining a descriptive overview of Iran's education system and the current policies that directly affect females, the economically under-privileged, and ethnic and religious minorities. Next, we will focus on Iran's primary school practices, curricula, and textbooks and its treatment of these groups. We argue that educational inequity results from a disregard of demographic realities and the range of ideological and cultural diversity that exists in present-day Iran. Instead, we see its diversity exchanged for lopsided depictions of homogeneity, absence of entire minority groups, and cookie-cutter ideological representations.

Identity and the National Context

The current educational system of Iran is a direct result of the successful radical transformation efforts of the theocratic regime that was instituted after the Is-

Islamic Revolution of 1979. Of utmost importance to the post-revolutionary Islamic heads-of-state was the immediate desire to instill Islam as the new national religion into every aspect of society (Mohaddessin 1993). Therefore, it is not surprising that the call for “Islamization” and subsequent “de-Westernization” of the school system was high and urgent on the agenda. The means to achieve these goals were radical, and the implementation of new school curricula and textbooks in relation to what was to be (and perhaps more essentially, what was *not* to be) taught, was vast and immediate.

In striving to keep Western influences out of its borders, in cleansing institutions of any lingering pre-revolutionary tints, and in the national amalgamation of religion, education, government, and law, Iran’s highly centralized educational system has come to embody some distinct characteristics which the leaders aggressively utilize to restructure the social, cultural, and religious identity of the country.

According to Shahrokh Meskoob (1992), Iran’s present-day cultural identity is built on the following four factors:

1. The country’s pre-Islamic legacy, which took shape over a period of more than a millennium, from the time of Achaemenians to the defeat of the last Farsi dynasty (the Sasanians) by the invading Arab armies in the middle of the seventh century;
2. Islam, or, more specifically, Shi’ism, the religion of over 90% of the country’s present-day inhabitants, with an all-encompassing impact on every facet of Iranian culture and thought;
3. The more diffuse bonds, fictive or real, established among peoples who have inhabited roughly the same territory, with the same name, faced the same enemies, struggled under the same despotic rulers and conquerors, and otherwise shared the same historical destiny for over two millennia; and finally,
4. The Farsi language, currently the mother tongue of a bare majority of the population, has long been the literary and “national language” in Iran (as well as in parts of Afghanistan, Central Asia, and parts of the Indian subcontinent).

What is important to note in both the case of the government’s depiction of a national identity and in Meskoob’s factors in the formation of an Iranian cultural identity, is the overarching dictum that it be based on a sense of historical, religious, and/or language *homogeneity*, with little to no formal recognition of diversity particularly as it relates to religion, language, and ethnicity within the country. According to Sansarian (2000), “Modern Iranian history has exhibited constant fluctuations between extremes of ultra-nationalism and religious bigotry,

moderated by ‘an almost altruistic notion of existence.’”

National Curriculum and Textbook Development

Within Iran’s highly centralized system of education, the curriculum is expected to be the same everywhere. Teachers are required to follow the curriculum as outlined by the Ministry of Education and Training and are expected to cover the content without deviation. In addition to core academic subjects, physical education, and art, the curriculum requires children to engage in religious learning. An exception to sameness is found in religious studies, in that some religious minorities participate in their own religious instruction. The weekly allocation of subjects for each primary grade is presented in Table 17.1.

Table 17.1: Iran’s Primary Education Weekly Lesson Timetable

Subject	Number of weekly periods in each grade				
	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
The Holy Quran	-	-	2	2	2
Religious Teaching	-	3	2	2	2
Farsi Composition	-	2	2	2	2
Dictation	-	3	2	2	2
Farsi (Reading & Comprehension)	12	4	4	3	3
Social Studies	-	-	2	-	-
Arts (Painting, Calligraphy, & Workmanship)	2	2	-	4	4
Health & Natural Sciences	3	3	4	3	3
Mathematics	5	5	4	4	4
Physical Education	2	2	2	2	2
Total Weekly Periods	24	24	24	25	24

Source: International Bureau of Education (2002)

Since Iran’s Ministry of Education regulates the education system, it also regulates the textbook production, and hence, textbook content. Since the system of education in Iran is highly centralized, textbooks, which are the main medium of standardized instruction across the country, are centrally written and used in all schools. Each course at each grade level has its own textbook used in every school. Teachers are instructed to use the textbook to guide every facet of their instruction, and students are expected to study thoroughly and understand textbook content. Finally, the contents of each textbook define the content of the examination system. In 2002, for example, the national examinations assessed students’ performance in Grades 5, 8, and 11, and the exam contents were drawn directly from textbooks of these grade levels. Shorish (1988, p.63) has noted the following:

It is through the textbooks that one sees the aspirations of the revolutionaries about the establishment of their ideal society expressed. This society is composed of men and women who are profiled in the pages of the textbooks as ideal citizens. It is hoped that children have, over the years, internalized the contents of the textbooks as well as other similar and reinforcing values inculcated by the other socializing agencies readily available to the revolutionary state like the news media.

The significance of textbook content cannot be overstated, as textbooks are the primary and arguably the most effective tools for the socialization and indoctrination of the nation's youth, and in the case of Iran, textbook content is central to every course. Textbooks for primary school students in Iran comprise the following six subjects: Farsi language, social studies, religious studies, Koranic studies, mathematics, and science.

Generally, Farsi language textbooks are a collection of short fiction pieces with an explicit message at the end of each (e.g., "Use the crosswalk when crossing the street."). Occasionally, short biographical pieces are also included such as those of well-known people such as Muslim prophets, scholars, or world inventors. Finally, poetry is also incorporated, comprising on average about one-fifth of the Farsi language lessons. Poetry topics range from an appreciation of seasons to praising the Islamic Revolution of 1979.

Social studies textbooks vary more greatly in content, ranging from teaching about Iran's climate, landmarks, and cities, and giving brief biographies about the most prominent prophets in Islam (such as Noah and Jesus Christ), to defining the role of each individual in the family setting.

Religious studies textbooks should be more appropriately entitled "Islamic studies" as no reference to other religions or their practices is made. Topics range from how to pray properly to the ideal traits of a good Muslim. Finally, Koranic studies textbooks are entirely comprised of Koranic verses, Shi'a Muslim practices, and proper prayers.

Ethnic Minorities and Minority Languages

It is difficult and perhaps artificial to separate a discussion of ethnic minorities from languages spoken and even from religious affiliation. Ethnic minorities are most likely to speak a mother-tongue other than Farsi and/or be religious minorities as well. Therefore, while distinctions have been made here between ethnic and religious minorities, and the difference between ethnic and language minorities are blurred, it is important to note that these portrayals do not necessarily reflect the demographic realities in Iran. About 50% of its population is comprised of individuals who can be classified as members of ethnic minority groups.

Article 15 of the Constitution of Iran has the following to say about Iran's official language and language of instruction:

The official language and script of Iran, the *lingua franca* of its people, is Farsi. Official documents, correspondence, and texts, as well as textbooks, must be in this language and script. However, in addition to Farsi, the use of regional and tribal languages in the press and mass media, as well as for teaching of their literature in schools, is allowed.

According to Amir Hasanpour (1999), this is interpreted as the literature of a minority group that is taught in the schools can be in the native language, but the language of instruction is always Farsi. Clearly, Farsi is the national language and is closely connected with Iranian national and cultural identity. An excessively tight coupling of the national language and national identity, however, has resulted in the tendency to suppress the significance and presence of other languages spoken in the country and to isolate the speakers of other languages both within the education system and within the nation as a whole. This tight coupling is no accident or coincidence; Iranian policy makers actively strive to create a country with a single language and a single identity. The exclusive use of Farsi in instruction means, for example, that in schools Azeri-speakers who speak a Turkish dialect must give up part of their cultural identity to be considered Iranian. There is also little allowance for Kurdish to be spoken in the school, even though the Kurdish language constitutes so much of the identity of this marginal group. According to Shahrokh Meskoob (1989),

[The] ideal state of affairs . . . is one in which all these languages could exist and thrive alongside each other, each in its area of concentration and in accordance with its own capabilities, but with Farsi continuing as the common language of communication among all Iranian ethnic groups. (Interview with Ali Banuazizi, 25 March 1989)

To this point, such a state of affairs has yet to be achieved. The only reference to ethnicity in Iran's constitution, for instance, reads, "All people of Iran, whatever the ethnic group or tribe to which they belong, enjoy equal rights; and color, race, language, and the like do not bestow any privilege." The absence of ethnic minority presence within national documents is particularly alarming given the many types and numbers of ethnic minorities currently living in Iran. The breakdown of these groups, including tribal communities, is as follows.

1. Azeris (24% to 42%)
2. Kurds, (7% to 12%)
3. Gilakis and Mazandarani (7%)
4. Arabs (3%)
5. Turkamans (2%)
6. Baluchis (1%)
7. Assyrians
8. Talishis

9. Armenians
10. Bakhtiari
11. Khamseh
12. Lurs
13. Qashqai

Estimates of the number of Azeri-speaking people and Kurds vary widely. This can be explained in part not just by the lack of solid information available on minorities in general and by the assimilation process of minorities into the dominant culture, but also by Iran not wanting its ethnic minority population to appear too significant in the country. While Farsi is the official language and native tongue of over half the population, it is also spoken as a second language by the majority of the remainder. Aside from the permanent ethnic minorities in Iran, there are also large numbers of refugees from Afghanistan and Iraq who have brought their own linguistic and cultural traditions with them, but who are not entitled by law to attend regular public schools in Iran.

In areas dominated by minority groups, the school teachers usually come from that minority group. In Azeri-speaking areas, for instance, 99% of the teachers speak Azeri as the mother tongue, while in Kurdistan 95% of the teachers speak Kurdish as the mother tongue.

Religion

Roughly 98% of Iran's population is Muslim, though the statistics vary based on the source. Of this percentage, 5% to 10% are Sunni Muslims and the overwhelming majority (88% to 93% of the entire population) are Shi'a. The remaining 2% of the population is comprised of Christians, Jews, Zoroastrians, and Bahá'ís, the first three of which are officially recognized. Ironically, while far more heterogeneity exists in terms of ethnicity and language than religion, and as many as half of the population belongs to an ethnic minority, more official attention is given to recognized religious minorities with respect to national policies, rights, and education. Article 13 of the Constitution of Iran entitled "Recognized Religious Minorities" states that only Zoroastrian, Jewish, and Christian Iranians are officially recognized as religious minorities who, "within the limits of the law, are free to perform their religious rites and ceremonies, and to act according to their own canon in matters of personal affairs and religious education." Article 14 more specifically addresses non-Muslims' rights in the following language:

In accordance with the sacred verse "God does not forbid you to deal kindly and justly with those who have not fought against you because of your religion and who have not expelled you from your homes" [60:8], the government of the Islamic Republic of Iran and all Muslims are duty-bound to treat non-Muslims in conformity with ethical norms and the principles of

Islamic justice and equity, and to respect their human rights. This principle applies to all who refrain from engaging in conspiracy or activity against Islam and the Islamic Republic of Iran.

The main monotheistic religious minorities within the country, including the Sunni Muslims, are officially recognized because they follow the main doctrines set forth in the Bible and Koran. Due to the similarities in beliefs and the Koran's insistence on tolerance toward religious minorities, these groups are given certain rights pertaining to their freedom to worship, be educated, and so forth.

Gender

It has been generally understood that female rights have deteriorated since the 1979 Revolution with women placed under male supervision. Under official documents created since the establishment of the current government of Iran, reference to women and the purpose of and goals for their education have been articulated. For instance, the First Economic, Social, and Cultural Plan (hereafter referred to as the First Plan) of the Islamic Republic of Iran 1989-1993 states the following goals for educating women:

- Improving the condition of women through education and increasing women's participation in the socioeconomic affairs of society and family;
- Bringing about a higher level of participation among women in social, cultural, educational, and economic affairs while maintaining the values of the family and the character of the Muslim woman;
- Paying attention to the education and the literacy training of women and young mothers.

Clearly, a great emphasis is laid upon the role of the Iranian woman as a mother, and subsequently, as one who is predominantly active within the family setting, and the purpose of educating her is first and foremost to ensure the survival, stability, and education of the family she is to "head." That is, her identity as a mother, even before she chooses to be one "or not" dominates all other purposes of her education.

More significant is the progression from this initial First Plan to the one that was to follow it. In 1993, a new plan was drafted called the Second Economic, Social, and Cultural Development Plan (hereafter referred to as the Second Plan) of the Islamic Republic of Iran 1994-1998. There are some key differences between the First and Second Plans; the Second Plan is substantially more detailed and specific as to the gender distinctions that must be made clear early in a child's educational career. That is, the Second Plan more explicitly assigns unique roles and responsibilities for boys and girls, making the point that these distinctions must be made early on. Furthermore, as is clearly demonstrated in the Farsi and

social studies textbooks in primary school, girls are encouraged to pursue the field of education. The following is a sample of the distinctions made:

- The Iranian education system should recognize the identity of a woman and her role in the family and in society on the basis of Islam and plan for the content and method of her schooling accordingly.
- The educational guidance of girls should be based on their capabilities and interests, and their vocational guidance should consider the kind of occupations needed by women, best fulfilled by women, or most fit for their role and responsibility in the family.
- Curriculum development in Iran should emphasize the sanctity and stability of the family and introduce the different roles of men and women in marital life.
- Women should participate in the planning, policy making, management, and administration of education at all levels, especially at the top level positions.

While the above principles allow for and formally encourage women to have “social and political insight” and to assume “top level positions” (although only specifically mentioned for the realm of education), it is far more emphasized that women be trained to abide by their “Muslim identity” and to fulfill their roles and responsibilities within the family setting (Safe 1997). The manifestation of the official stance on women’s societal role can be even more clearly observed within Iranian elementary school curricula and textbooks. Notions of women participating in planning or policy making, especially at top level positions, for instance, are nowhere to be found within the textbooks. It should be noted, however, that the lack of higher education or white-collar career depictions in primary school textbooks is not unique to women, but is lacking for men as well. Women, in fact, are hardly depicted outside the home or classroom. Once again, the portrayal of women as such is a gross misrepresentation of the realities within the country. Indeed, women far surpass their male counterparts in educational attainment and make up 61% of the college-going population; their national college examination results and high school grades are also higher than their male peers.

Literature on the issues of access and enrollment patterns of women in higher education is relatively scarce with respect to Iran. One research endeavor specifically addressing women’s motivations and rationale for pursuing higher education in Iran conducted by Shavarini (2005) attempts to explain the feminization of Iranian higher education, and the study concludes that women are not flocking to colleges and universities strictly for academic purposes, but rather because they see it as a means to acquire certain opportunities and experiences to

which they would otherwise be closed. Shavarini (p.340) writes,

Young Iranian women do not consider college an avenue through which they can acquire skills and knowledge. For them, college is an experience of intangibles: of feeling uncontrolled; of increasing their ‘worth’ for marriage; of gaining respect; and of acquiring independence—all of which are rarely available to women in this society.

With respect to women’s educational and occupational rights as ordained by the Constitution of Iran, the same vague and almost promising language that assigns gendered roles to men and women is evoked. The preamble of the 1979 Constitution states the following:

The family is the fundamental unit of society and the focal point of human growth While regaining her significant and worthy role of motherhood in bringing up children with ideological beliefs and attitudes, she, along side man, pioneers . . . for achievement.

In this context, it states the following about women’s rights:

The government must ensure the rights of women in all respects, in conformity with Islamic criteria, and accomplish the following goals:

1. Create a favorable environment for the growth of women’s personality and the *restoration of her rights, both the material and the intellectual*;²
2. Protect mothers, particularly during pregnancy and child-rearing, and protect children without guardians;
3. Establish competent courts to protect and preserve the family;
4. Provide special insurance for widows, aged women, and women without support;
5. Award the guardianship of children to worthy mothers, in order to protect the interests of the children, in the absence of a legal guardian.

The emphasis on the importance of the family unit and of the mother within it as presented by the Islamic Republic of Iran is perfectly paralleled within elementary school texts. What is left out of textbooks, however, is the promise of those more ambiguous rights such as the “restoration of her rights, both the material and the intellectual.” By Grade 2, every girl student knows about the importance, value, and admirable responsibilities of the mother and even the teacher, but she has no concept of those material and intellectual rights that her constitution promises her, nor will she ever through the medium of primary school textbooks.

However, despite socializing efforts and the abundance of explicitly sexist messages and policies, women have not been confined to the home, are not mar-

rying early (the average marriage age for women is 24), and have arguably been the greatest resistive force against the current regime and its attempts. Afshar (1996, p.197) writes,

For the past fifteen years Iranian women have become the standard-bearers of Islamism in Iran and have been obliged, by law, to present veiled, and often serene and silent, face to the world media. Yet in practice, despite the continuous efforts of the State to control and curtail them and their activities, Iranian women have fought a long and successful battle and regained much of the ground that they had lost in the early days.

More specifically, Afshar claims that not only have women stood up against the revocation of their rights, but they “have managed to reverse the discriminatory policies on education, they are attacking the inequalities in the labor market and demanding better care and welfare provisions for working mothers” (p.214). Afshar goes on to say that “although the road to liberty is one that is strewn with difficulties, Iranian women, as ever, have come out fighting and have proved difficult to dominate” (p.214).

These acts of resistance can be witnessed in all echelons of society as women push the Islamist envelop in attire, make-up, education, and the work force. As Tohidi and Bayes (2001, p.40) argue, “The case of the ‘Islamic Revolution’ in Iran has shown [that] the mobilized and politicized Islamic women are not going to allow the male leadership to return them to the ‘house of obedience’ to play solely wifhood and motherhood roles.”

Methods

The equality of educational opportunity is usually assessed according to four standards (Farrell 1982; Levin 1976). Most of the attention has generally been given to the first—the issue of equal educational *access* at each level of schooling. The proponents of common primary schools and secondary comprehensive schools have focused almost exclusively on access issues, particularly in the first stages of primary schooling, then in the transition to secondary schooling, and finally into upper secondary schooling.

The second measure of equal educational opportunity has to do with equality of educational *participation*. Equal participation has both environmental and schooling implications. Environmentally, proponents of equal participation argue that underprivileged and minority children bring cultural and social class disadvantages with them. Furthermore, while at school, these groups are further discouraged from gaining equal educational advantage through the messages of the curriculum, streaming, and other mechanisms designed to ensure that some pupils succeed and others fail.

The third measure of equal educational opportunity pertains to equality of

educational *results* or outcomes. The gender, ethnicity, or social class of young people is highly related to achievement levels.

The fourth measure of equal educational opportunity has to do with *equality of educational effects on life chances*, namely, the success students experience after they have left the school and entered the adult world of work and life. Some scholars argue that education has been of great value in breaking down the barriers that have historically prevented some children from succeeding in the workplace and in life. There is no question that some children have benefited greatly, but there is also ample evidence that the education system also reinforces the status quo and favors some backgrounds at the expense of others.

In this chapter, we have chosen to concentrate on the second and third of the above educational equity measures, namely, equality of educational participation and equality of educational results. More specifically, the study predominantly analyzes primary school Farsi language (Ministry of Education and Training [MET] 2001a, 2001b, 2001c, 2001d, 2001e), social studies (MET 2001k, 2001l, 2001m), religious studies (MET 2001n, 2001o, 2001p), and Koranic studies (MET 2001f, 2001g, 2001h, 2001i, 2001j) textbooks in their presentation of women, economic status, and religious and ethnic minorities. The mathematics and science textbooks were not utilized for this study as they did not speak to the research questions at hand, namely, the depiction of gender, economic class, and religious and ethnic minorities. Each of the remaining textbooks was thematically coded to determine the frequency of certain themes, topics, and types of depictions. All of the eight textbooks have the copyright date of “1381,” which is the solar calendar, the Iranian equivalent to the 2002-2003 academic year. Where the depictions of these groups are scarce or nonexistent, a discussion on policies, curriculum, and classroom practices will be used to supplement the textbooks.

Findings

Gender and Textbooks

Primary textbook depictions of girls and women explicitly follow the official state ordinances of the separate and distinct roles of women and men both within the family and in society. The distinction between *gender* and *sex* is significant. Nicholson (1994, p.79) writes the following about the differences between the two terms:

Gender was developed and is still often used as a contrasting term to *sex* to depict that which is socially constructed as opposed to that which is biologically given. On this usage, *gender* is typically thought to refer to personality traits and behavior in distinction from the body. Here *gender* and *sex* are understood to be distinct.

The different roles of individuals explicitly segregated by gender are clearly defined and reinforced throughout elementary school textbooks. The Grade 3 social studies book (MET, 2001k), for example, begins its first lesson by introducing the Hashemi Family. Ali, the son of the family is introduced first. He is said to have a younger sister, Maryam. Next, his father Mr. Hashemi is introduced followed by Mrs. Tahereh (who, unlike Mr. Hashemi, is referred to by her first name) and finally, Mr. Hashemi's mother who also lives with the family. The story explains that in Mr. Hashemi's home, everyone helps each other to get work done: Mr. Hashemi goes to work and does the household shopping for the family. Mrs. Tahereh, in addition to housework, also works at home as a seamstress and uses the money she earns to pay for household expenses. Grandmother helps Mrs. Tahereh with the housework and cooking, and sometimes knits socks and sweaters for the children. Ali buys bread and gasoline for the house and tends his garden. Finally, Maryam helps her mother with housework and wants to learn to cook and sew like she does. She hopes to become a teacher someday.

From the depiction above, it is apparent that the males of the family are far more physically mobile and present outside the family setting and within public spheres, while there seems to be no need for the women to leave the home, except for Maryam who obviously needs to go to school. In other words, most apparent in both the Farsi language and social studies lessons are the mobility and public presence of men and the subsequent predominance of women within the home.

This story is unique and slightly more "liberal" than other depictions of women in other lessons and textbooks, for Mrs. Tahereh does in fact work and bring in an income, and her daughter aspires to become a teacher. However, aside from one brief mention in one lesson of the books reviewed, women are cast as holding traditionally "female" jobs, or they do not work outside the home. That is, almost no mention is made of women holding any type of career or job aside from teaching or being a housewife. The only mention of women outside these roles is in a lesson in the Grade 4 social studies book (MET 2001, pp.123-124) entitled "Family Life" that reads:

The mother usually tends to the work inside the home. She cooks food, keeps the house clean, tends to the children, and helps them with their homework. In some families, women also work outside the home. In the countryside, women help their husbands by farming, weaving rugs, and milking cows and sheep. In cities, some women work in schools and hospitals or in some offices and factories.

Stories of women in non-traditional roles are not presented, and aside from the role of mother and sometimes of teacher, adult women never function as the protagonist or lead character in any of the eight books.

Generally, the trend in Farsi language books is that the higher the grade level, the less girls and women are represented either as characters, protagonists,

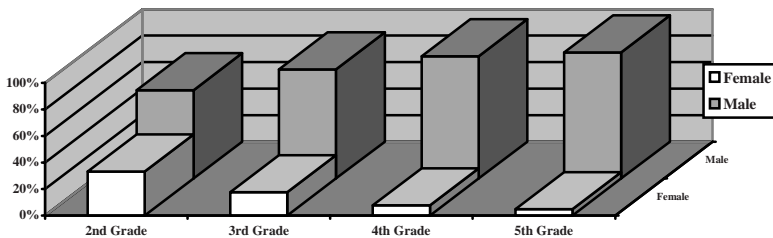
or even images within the books. As can be observed in Table 17.2 that shows the representations of male and female characters or images within Farsi language textbooks, girls and women are disproportionately underrepresented either as characters or images. When the role of mother is excluded, the representation of women falls between 6% and 26% of the total. Furthermore, even more of a discrepancy exists when counting the number of times girls or women are the protagonist or main character of the lesson.

Table 17.2: Representations of Male and Female Characters or Images within Farsi Language Textbooks, Grades 2-5

Grade Level	% Male	% Male, Excluding Fathers	% Female	% Female, Excluding Mothers	% of Females as Mothers
Second	76.2%	72.6%	23.8%	15.5%	20.0%
Third	68.7%	67.8%	31.3%	26.1%	17.0%
Fourth	88.0%	88.0%	12.0%	6.0%	50.0%
Fifth	81.6%	79.3%	18.4%	17.2%	6.3%

Figure 17.1, which presents the percentages of female and male characters in Farsi language textbooks, demonstrates this great imbalance. It should be noted that the role of mother is listed separately in the table to show its dominance within female roles and to show that when it is excluded, the role of women significantly drops.

Figure 17.1: Percentages of Female and Male Main Characters in Farsi Language Books



Not only are women and girls seldom the main characters or main topic of lessons, but the gap of representation between the sexes significantly and consistently widens with each higher grade level textbook. In the Grade 2 Farsi language textbook (MET 2001b), girls and women are the main characters in approximately one-third of the lessons in which humans are the main characters. In

Grade 3, however, female protagonists constitute less than 18% of the total. By Grade 4, only 7% or 1 out of 12 lessons, and by Grade 5 less than 5% or 1 out of a total of 21 stories is a female-led story or lesson.

Furthermore, while Iranian elementary male students can look up to male role models ranging from inventors (like Thomas Edison in Grade 5 and Alexander Graham Bell in Grade 4), writers, poets (Rumi, one of Iran's most famous poets), teachers, soldiers, fathers, scholars, and even prophets, elementary school girls have far fewer figures to look up to for inspiration other than their mother and teacher. One exception is of the first woman to be martyred in the name of Islam (MET 2001m), but no other female role model is presented in any of the Farsi language or social studies textbooks as an alternative model to which girls may aspire.

The topics and settings of stories are also sex segregated. For instance, a Grade 2 Farsi lesson entitled "The Beautiful Newborn" is one in which the main character of the story—and in fact all the characters—is female. The reader is introduced to Maryam, a girl who has recently become sister to a newborn girl. She is very excited and impatient to play with her, but her mother asks her to be patient and states the following to her:

For now, you can help me in taking care of her. For instance, you can help me in changing and washing her. If you do these things, you have not only learned how to do something, but you have also helped your mother out. (MET 2001b, pp.43-44)

This way, girls learn even from an early age that such domestic work is reserved for them.

Meanwhile, a very different message is sent to boys; within this same textbook is another story entitled "Our Friends," which discusses several different types of blue-collar jobs. All the job descriptions are accompanied by illustrations of the men who perform them. From baker and farmer to brick-layer, all are visually portrayed as men's work.

Another representation of women within the texts is expressed more implicitly with familial interactions. As mentioned earlier, the Grade 3 social studies textbook opens with the introduction of the Hashemi family (MET 2001k). The entire book is set around the adventures and experiences of this family who travels by bus around the nation, as it is the curricular purpose of this text to introduce students to the different regions, cities, and landmarks of Iran. We therefore see much of the Hashemis and begin to observe the ways in which mothers and fathers are not set as intellectual or decision-making equals within the family setting. For instance, in the second lesson entitled "Important News," Mr. Hashemi comes home from work and announces that they will be moving to another region in Iran. "Mrs. Tahereh," the lesson reads, "becomes a bit upset, but the children are excited that they get to travel. She says, 'We must wait until

the children’s school gets out. And I have to finish sewing the uncompleted garments and pack up the house” (p.6).

Mrs. Tahereh does not question her husband’s decision, nor does he solicit her opinion. It seems only natural that he decides and she complies. Throughout the rest of the textbook, the children often ask questions about the various sites and cities that they visit, most often addressing and subsequently getting a response from their father.

The Role of the Mother

Often, mothers are the secondary characters within the stories, usually functioning as moral instructors to their children. In “Taking Turns Everywhere” in Grade 3 Farsi, Hamid comes home early from school one afternoon and his mother becomes surprised and asks how he managed it. He tells her that he was clever and cut to the front of the line while waiting for the bus. She gently but firmly responds, “My son, you did not do a good thing . . . Abusing other people’s rights is not being clever, but being harmful. Every person must uphold other individuals’ rights and let them have their rightful turn” (MET 2001c, pp.17-19).

Figure 17.2: Depiction of a Mother in a Grade 2 Farsi Textbook



Source: MET (2001b, p.122).

Such gentle acts of admonition and support on the part of the mother figure is quite common in elementary textbooks, and it seems not only to function as teaching children to respect their mothers but also to paint the mother in a desirable and respectable role to which girls may wish to emulate. Figure 17.2 that

shows four images of a mother attending to her children and her household duties can be found on an in-class exercise page in the Grade 2 Farsi language textbook (MET 2001b), and it depicts the ways in which women are portrayed.

Alternatives to such depictions are difficult to find. Occasionally, such as in the Grade 3 Farsi book (MET 2001c), a woman may be found standing in line waiting to buy bread. She is the only woman out of six people illustrated in the picture.

Two other examples come to mind when considering the ways in which mothers are so pleasantly and dutifully portrayed within the texts. In Grade 2, students read the story of the fictional Mrs. Kokab, Abass' mother who, we are told, is a very clean and tasteful woman and who can painlessly feed guests who arrive at her home unexpectedly (MET 2001b, p.24). This is the entire point of the story. The poem "Mother" is read in Grade 3 that showers words of kindness, devotion, and love upon the mother. It is written in the first person from the point of view of a child with an illustration of a mother and daughter at the bottom of the page. Such depictions are not coincidental and are indeed meant to send a strong message to young girls that the purpose of education for women and their general rights predominantly revolve around motherhood.

Economic Status and Social Class

The official treatment of economic status cannot be discussed without also discussing the historical context. One of the major criticisms of the Shah's Iran that fueled the Islamic Revolution pertained to the extreme economic gap that existed between Iran's richest and poorest citizens, with a depleted and seemingly non-existent middle class. One of the ways in which the Islamic Revolution gained significant support from the people was its emphasis on economic inequities within the country under the former regime. To a great extent, the new regime's emphasis on economic inequities did not die out on its rise to power. Rather, the issues of socioeconomic status continue to be directly addressed in national policy, governmental welfare programs, and even within textbook content and educational curricula. In fact, the depiction of socioeconomic status and the insistence of the current regime to side with the economically underprivileged population further demonstrate the Islamic government's claim that it is its protector from abuse and exploitation, while the previous regime is portrayed as robbers of the poor to subsidize their own extravagant and excessive lifestyle.

School textbook content is highly focused on demonstrating government support and empathy toward the economically underprivileged and showing the former regime's neglect. For instance, in a two-part lesson in the Grade 3 social studies textbook (MET 2001k) on the Shah's many castles, the text reads, "The Imam Khomeini always protected deprived and dispossessed people and once stated to them, 'One of the hairs on your head is more valuable than all of the

Castle-dwellers’” (MET 2001k, p.57).

Similarly, in a Grade 5 social studies lesson entitled “The Government’s Obligations in a Muslim Society,” *Combating Poverty* is listed as one of the major duties of a responsible Islamic republic and explicitly outlines what is to be done to combat poverty:

In an Islamic republic, it should not be that a select group of people prosper from favorable circumstances and convenient resources while other people live in poverty and helplessness. Therefore, another one of the obligations of an Islamic government is combating poverty. In order to eliminate poverty, the government must work with the people and formulate sound plans in order to further industrial and agricultural efforts. (MET 2001m, p.154)

It may be argued that such positive attention from a government toward its most economically disadvantaged groups can only result in social improvements and an increase in equity and quality of life for all. For instance, both the First and Second Plans emphasize the development of occupations for tribal groups in the countryside and the expansion of economic privileges beyond agricultural activities in villages, so the occupational opportunities will become more available.

While it is not the intent of this discussion to discount the good that has resulted from this focus, it is important to note that not only is the depiction of economic status within textbooks highly lopsided in favor of the socioeconomically underprivileged, but virtually no attention is given to professional careers and white-collar professions. This simply does not reflect reality. Depictions of status distinctions in all elementary school textbooks almost exclusively represent the lowest echelons of society and are not representative of occupational, economic, and educational patterns within the nation. Emphasis is laid on the goodness of living a simple and understated lifestyle and shunning material excess, and a thorough consideration is given to the various types of blue-collar jobs within the nation and the ways in which they contribute to national growth and betterment, while careers such as medical doctors, college professors, engineers, and business professions are virtually ignored. For instance, in all three social studies textbooks analyzed, only one brief reference was made in the Grade 3 textbook to a medical doctor who was visited by the Hashemi family after the youngest daughter became ill.³ The only other exception is the teaching profession and Islamic scholars. Teachers, almost exclusively portrayed as female, are glorified. Aside from these two examples, while frequent reference is made in these books to various occupations and lifestyles, with few exceptions only blue-collar occupations are discussed.

A prominent example of the glorification and over-representation of blue-collar professions comes in the form of a lesson in the Grade 3 social studies textbook (MET 2001k). As mentioned earlier, this textbook is set up as the reader accompanying the Hashemi family as they travel across the country to

move to a new city as a result of Mr. Hashemi's new job appointment. The Hashemi family is introduced in the first lesson as a very modest and devoutly Muslim family. The lesson goes into substantial detail about their modest living arrangements and the small size of their home, "Ali's family lives a simple life. Their house has two small rooms and a small yard. At nights, Ali [the older son] and Maryam [the daughter] sleep with their grandmother in one room. Grandmother tells them sweet stories" (MET 2001k, p.2).

A clear message is sent that this familial lifestyle, and not a more economically secure one, is to be aspired to since it is spiritual wealth and not monetary wealth that is of true value. Again, such messages are good in their own right, but they are offered at the expense of, for instance, higher educational achievement and professional careers.

Similarly, throughout the Hashemi family's entire trip, emphasis is laid on agricultural, industrial, and other lower-income occupations. Mr. Javad, for instance, is one of the passengers traveling with the Hashemi family on their bus. He works in a metal molding factory and offers to take Ali, Mr. Hashemi's son, to his work so that he can see what he does. In this case, the metal molding plant workers, like the farmers, are praised for allowing the country to be independent of having to purchase such goods from other countries (p.40).

Examples of blue-collar jobs are numerous. In the Grade 2 Farsi language textbook (MET 2001b), a lesson entitled "Where is Little Hassan?" tells a fictionally story of Little Hassan, a young farm boy who is responsible and praised for feeding the farm animals every day after school (p.19). In the Grade 3 Farsi language textbook (MET 2001c), the lesson "Our Friends" introduces a series of blue-collar professionals who are "our friends" such as the villager, the miller, the baker, the builder, and the teacher who have all given us so many wonderful blessings. It concludes, "We thank God and thank our friends" (p.81).

Another typically lower economic status group that is discussed or referenced on several occasions is the "Tent Dwellers" of Iran. An entire lesson is dedicated to these nomadic tribes in the Grade 3 social studies textbook (MET 2001k), whose primary occupation is animal husbandry. The lesson describes the Tent Dwellers' way of life and states, "The nomads are brave and kind people. They do a service to the nation through their herding work, and if God forbid, an enemy were to attack, these people will defend our nation's borders" (p.14). Again, blue-collar work, modest lifestyles, and physically laborious work is glorified and highlighted through the depiction of these groups of peoples.

Religious and Ethnic Minorities

Iranian education clearly addresses minorities, but this is most often done in the context of religion. Official references to minority groups in Iran tend to refer almost exclusively to religious minorities and virtually ignore ethnic minorities.

Not only are the major monotheistic religions of the world recognized by the government, but these religious minorities are also given separate textbooks addressing the topic of religion in a way that better accommodates their needs. This is not to say, however, that Iran has, since the revolution, treated religious minorities equitably; the Bahá'í religion, for example, has systematically been subjected to persecution (Sears 1982). Curiously, there is a place in the curriculum for approved religious minorities to participate in a special kind of religious program, but the content they learn is general enough that it does not foster a particular religion; rather, it fosters religious belief in general.

Iran recognizes Jews, Christians, and Zoroastrians, and it has sponsored textbooks specifically for these faiths called *Teaching of the Sacred Religions and Ethics for the Religious Minorities*. The Ministry of Education produces the textbooks for the schools but claims to consult teachers and other appropriate groups in the development of the textbooks. In this context, the Ministry consults religious leaders of these minority religions in the production of the religious texts. The justification for creating such textbooks for religious minorities is the recognition that it is disbelief rather than belief that is the major problem. It is thought that those who do not believe in any single deity cause more problems than do the Zoroastrians, Christians, and Jews. In general, textbooks for religious minorities present those ideas that all religions have in common with Muslims. In fact, the same textbooks are used for all three minority groups, so they must emphasize shared aspects of the three religions such as the belief that there is a supreme creator, that there are prophets such as Jesus and Moses, that the order of the universe is a manifestation of God's hand in all things, and that there is a resurrection and an assessment of one's deeds on earth in the afterlife.

However, while there appear to be explicit efforts to recognize and address the educational needs of religious minorities, the standard textbooks utilized by the majority of the school-going population, namely, the Shi'a Muslims give almost no attention to the fact that religious or ethnic minorities are part of the Iranian national population. However, when they do, the references are usually negative in character. For example, textbooks in Iran include anti-semitic remarks relating to Middle Eastern history or religion. Of course, these are made in the context of Israel, but they pointedly degrade the Jewish tradition as being anti-social and against the family structure (e.g., MET 2001q). One example of anti-Israeli and anti-Jewish sentiment within the textbooks is a lesson entitled "A Letter from a Palestinian Child" and is from the Grade 2 Farsi language textbook (MET 2001b). The translation is as follows:

I am a Palestinian child. We Palestinian children are Muslim. Our Country's name is Palestine. The enemy has occupied our country. We live in the desert, but the enemy will not leave us alone anywhere. The enemy bombs our tents, schools, and even hospitals. Ever since the news of your

Islamic Revolution reached our enemy's ears, it has become very fearful. Because of this, it harms us even more. Our enemy is Israel. Israel is the enemy of all freedom loving people. We will resist Israel to our last breath. We know that you and all freedom loving people will help us. We will resist and in the name of God shall be victorious and will return to our dear country. In the hopes of victory, goodbye. (pp.24-25)

While there are healthy developments in some aspects of Iranian curriculum, the nationalizing element so dominates the scene that the treatment of minority groups remains almost completely absent. For example, the geography curriculum is a likely candidate to stress ethnic groups of a country, and it has been upgraded so that it no longer focuses exclusively on memorization of names and places. It has incorporated some of the ideas prevalent in international geography programs that include the development of a wide range of geographic skills on the part of the student and the ability to engage in geography projects and solve geographic problems. Unfortunately, these new developments do not include the coverage of ethnic groups in Iran itself beyond the learning of the names of ethnic groups and where they are located. In other words, with regard to ethnic minorities, the Iranian geography curriculum remains as it was in its most traditional periods in that it focuses almost exclusively on the learning of names and places.

No course or special curriculum modules are found that deal with specific ethnic issues. Kurdish or Turkish people and other ethnic minorities in Iran are not allowed to institute special programs dealing with their respective groups; all programs are uniform throughout the country. All pupils in all areas of the country are judged on a uniform scale and there is no distinction among them. In addition, the entrance examination for university students cannot take local considerations into account. Authorities cannot consider the ethnic situation in their decision to admit students.

It has been noted above that constitutionally textbooks must be in the Farsi language and script, and true to the focus of Iran on religion, the textbooks are focused on Islamic pedagogy through training and content purification. The purpose of textbooks is to inculcate into each child the sacredness and attributes of an Islamic person (Mehran 1989). Thus, women always appear in the texts wearing a veil or scarf. Men do not wear a tie, which is a mark of a Western man, and is considered forbidden attire. Furthermore, pictures always display marks of Islam, including the Koran, religious leaders, a mosque, or some other symbol (Menashri 1992).

The only references to Azeri-speaking people in the primary school textbooks are found in the regional geography section of the Grade 5 social studies textbook that dedicates a short lesson to each of Iran's adjacent neighbors. This is hardly an account of ethnic minority depiction, however, since its aim and focus is not a national one and it ignores the Azeris within the borders of Iran.

Furthermore, no social commentary or deeper discussion exists as the depictions are factual and descriptive in nature, pointing out where Azerbaijan is and where in Iran the Azeri peoples are located. There are no supplemental materials available in general public schools that deal with ethnic minorities.

While there is virtually no direct representation of ethnic minorities in any of the Farsi language, social studies, religious studies, or Koranic studies textbooks, there are frequent references to various parts of the country, often the villages or farmlands. That is, geographic and lifestyle diversity is discussed in some depth, and if any commentary does exist about the peoples of these various regions, it comprises one sentence or less to the affect of, “The people of Esfehan are extremely active and devout” (MET 2001k, p.23), “The village people are hard working” (MET 2001l, p.51), and “The tent dwellers are kind and brave people” (MET 2001k, p.14). While it is likely that some of the regions described contain large ethnic communities, inhabitants are only generally and vaguely brought up, and only in relation to how or where they live or what they do.

Furthermore, all classes and lessons are related to the whole country, and books and lessons never discuss local problems. Teachers invariably hold to the curriculum and textbooks as they are distributed by Tehran. It should be noted that even research projects at the University in Tabriz, the capital of Azeri-speaking peoples, are expected to focus on the whole country and not on local and ethnic problems. As may be expected, ethnic minority groups have great difficulty with Farsi, and some village communities scarcely utilize the national language at all. As a result, this uniform education tends to put the ethnic minority groups at a disadvantage. The situation is so regulated that many children are embarrassed to speak because Farsi-speaking children make fun of their poor language skills, accents, or dialect.

Because there exists so little textbook content addressing the substantial number and ratio of ethnic minorities in Iran, data on the issue were supplemented with classroom observation and interviews at elementary schools in heavily populated Azeri and Kurdish communities in Iran. The researchers were curious to know whether in such culturally and ethnically diverse communities and educational environments, would educators “bend the rules” and better cater to the unique needs and backgrounds of the minority students they serve.

One school that was visited had 451 students, and out of this number 440 pupils spoke the Azeri language. However, all courses were taught entirely in the Farsi language. As a result, it is to be expected that the Farsi-speaking students experienced a higher degree of academic success than the Azeri-speaking children. Only 9% (less than 40) of the Turkish pupils passed their examinations, while almost all of the Farsi-speaking children passed. The average score of the Azeri-speaking pupils was between 10 and 11 (“F”, 50% to 55%), but the average score for the Farsi-speaking children in this school was more than 18 (“B+” to “A-”, 90% to 95%). In examinations and competitions, Persian stu-

dents were not only more successful, they were also observed to participate more actively in class discussions and be more involved in activities such as science experiments and demonstrations.

What was surprising to observe was that teachers were uniformly diligent in attempting to teach the prescribed curriculum and textbooks in Farsi. The language barrier was quite easily observable and apparent in many students' ability to speak and learn, and their disadvantaged position within the classroom was also clear. This was particularly surprising because all the schools observed were comprised of a dominant majority of Azeri-speaking and Kurdish-speaking pupils and teachers, and despite the fact that both the teacher and pupils were able to communicate better in Azeri or Kurdish, they were attempting to function exclusively in a second language.

Teachers were asked why they were so diligent in using Farsi in the classroom. Many responded that it was necessary to do so because as teachers they were required to do it. Others said that to do otherwise might mean they would lose their jobs or be placed in a less desirable school.

Teachers were also asked to reflect on their attitudes toward having an Iranian versus an Azeri or Kurdish identity. Almost all of them expressed some pride in being both, although there seemed to be an age factor in response patterns. That is, younger teachers appear to have a greater sense of pride in being Iranian than the older teachers, indicating some nationalizing effect. However, none of the teachers expressed hostility toward being Iranian, even though they were uniformly proud to be Azeri-speaking or Kurdish. An important element in the development of Azeri-speakers concerning their self-identity is the presence of the Republic of Azerbaijan. In the past, they had no place with which they could easily identify, but in the last two decades they have had close relationships with a country with which they can identify with and relate to. In spite of this, the nationalistic educational mission of Iran has had a noticeable effect on its minority peoples. They constitute an important part of Iran, and they identify strongly with the country.

Conclusion

One of the goals of this chapter was to uncover the depictions of gender, social class, and religious and ethnic minority status within elementary school pedagogical content and practices in considering the degree to which diversity is addressed within schools. The study found that girls and women are portrayed in highly gendered, maternalistic, and rigidly "Islamic" terms, and the roles and socialization of boys and girls are explicit and distinct. With respect to economic status, interestingly, textbook content presents a one-dimensional picture of blue-collar occupations and a glorification of a modest lifestyle with a blatant disregard for the large numbers of highly educated and professional citizens in

Iran. Ethnic and religious diversity is generally also ignored within educational content, the first of which is particularly surprising given the fact that ethnic minorities comprise a substantial proportion of Iran's population. Religious minorities are also virtually ignored within the standard educational content, although some of these groups are granted some protections under the law. Overall, the study concluded that one of the primary goals of basic education in Iran is a forced insistence on a homogeneous, unified national and Shi'a Muslim identity that is not only both extreme and artificial but is ultimately harmful and excludes the minority and under-privileged groups.

In Iran, the focus on national unity in the context of the Islamic religion is acute. There is a concerted attempt to give all citizens of Iran a similar curriculum which made the state-mandated subjects a key element in providing a common sense of cultural heritage, history, and language. Finally, similar schools are intended to build a sense of uniform patriotism and devotion to the country. Another aspect of the study was to determine if national policies played themselves out in the schools. The answer to this issue is simple and clear. In Iran, all of the teachers we interviewed and the schools we visited were dedicated to the national curriculum and instruction according to the textbooks. They maintained that they held to the program of the school and did not deviate in any way from it. In Iran, teachers felt a professional obligation to teach according to the national program of studies. They saw themselves as dedicated professionals who were interested in the welfare and growth of their pupils. One consequence of such strict oversight is that teachers tend to become mechanical in what they do.

Perhaps the more important consequence of Iranian educational policies is that schools appear to be instruments of certain inequalities in that by treating everyone the same, they put to advantage those whose language, gender, ethnicity, social class, and religion correspond to the curriculum, textbooks, and general tone of schools, and indeed, the national governmental will. This, of course, is inevitable in any national context, but it is exacerbated where sameness and uniformity are pushed to extremes.

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Notes

¹ About half the population of Iran belongs to an ethnic minority group.

² Emphasis added.

³ The doctor was necessarily a female because Maryam, being female, would not have visited a male doctor.

18

Mexico: Evolution of Education and Inequality in the Last Two Decades

Gladys LOPEZ-ACEVEDO¹

Introduction

The last two decades were a meaningful period for the Mexican economy as it encompassed a major structural change from a protected, public-sector-driven economy to a globally integrated private-sector-led one. This change has resulted in economic stability and growth although Mexico's income inequality is still high by international standards. Mexico's inequality over the past decade has co-existed with very rapid progress in educational attainment in terms of both coverage and distribution of schooling. This phenomenon, which in recent years has also been observed in other developing as well as developed countries, is somewhat surprising given the powerful equalizing properties generally attributed to education.

This chapter reviews the interaction between education and inequality in Mexico. More specifically, it examines earnings inequality with emphasis on the role of education, an important relationship since wages depend directly on individual characteristics instead of family structure, as well as the fact that the distribution of wages explains much of the distribution of welfare in society. This chapter also establishes an analytical framework that permits analysis of the interaction between education and the labor market.

According to the most commonly used synthetic index of inequality, the Gini coefficient, in 2000 Mexico was more unequal than the (high) Latin American average although less unequal than Brazil, Chile, and Colombia, as shown in Table 18.1 below. In terms of the shares of different parts of the distribution, the bottom quintile of households (ranked by per capita household income) accounted for 3.1% of the total income, while the top decile accounted for 43%. The ratio between the income of the top and bottom decile was 45 times (de Ferranti, Perry, Ferreira & Walton 2004 for all figures). An important part of the reason for high levels of poverty in Mexico is the high level of inequality. On average, East Asian countries are much more equal and have lower levels of poverty for their mean income level. Malaysia has levels of income inequality significantly above the East Asian average, and as shown in Table 18.1, is only somewhat more equal than Mexico, and less equal than Costa Rica and Uruguay.

National and urban income inequality still remains high in Mexico despite some recent improvements particularly in the 2000 to 2002 period as shown in Table 18.2.

Table 18.1: Income Inequality in Mexico from an International Perspective

	Gini coefficient	Share of top 10% in total income	Share of bottom 20% in total income	Ratio of incomes of 10 th to 1 st decile
Brazil (2001)	59.0	47.2%	2.6%	54.4
Guatemala (2000)	58.3	46.8	2.4	63.3
Colombia (1999)	57.6	46.5	2.7	57.8
Chile (2000)	57.1	47.0	3.4	40.6
Mexico (2000)	54.6	43.1	3.1	45.0
Argentina (2000)	52.2	38.9	3.1	39.1
Jamaica (1999)	52.0	40.1	3.4	36.5
Dominican Rep. (1997)	49.7	38.6	4.0	28.4
Costa Rica (2000)	46.5	34.8	4.2	25.1
Uruguay (2000)	44.6	33.5	4.8	18.9
Malaysia (1997)	49.2	38.4	4.4	22.6
United States (1997)	40.8	30.5	5.2	16.9
Italy (1998)	36.0	27.4	6.0	14.4

Source: Based on de Ferranti et al. (2004)

Table 18.2: Inequality Measures for Mexican Households, 2000-2004

	2000	2002	2004
<i>Urban</i>			
Gini	0.484	0.462	0.476
Theil	0.472	0.408	0.489
<i>Rural</i>			
Gini	0.532	0.496	0.468
Theil	0.624	0.546	0.458
<i>Total</i>			
Gini	0.536	0.508	0.503
Theil	0.576	0.502	0.539

Source: Own estimates based on ENIGH

This chapter is organized as follows. The first section presents the background and summarizes some of the significant work in this area, and begins by describing the evolution of individual earnings inequality using information from the National Urban Employment Survey (ENEU). Although educational attainment has an impact not only on income but also on other outcomes that are important for an individual's well-being but are not necessarily measured in mone-

tary terms, this chapter does not consider the non-monetary impacts of education. As part of this background overview, I analyze the evolution of educational attainment, and later relate changes in the distribution of education to changes in earnings inequality. The next section presents the chapter's methodology. A third general section of this chapter examines the evolution and structure of the rates of returns to education by means of ordinary least squares and quantile regressions. The last section offers concluding remarks.

Background and Literature Review

Earnings contribute to most of the overall inequality, being responsible for almost half of it at the national level. These figures clearly may be affected by the under-reporting of capital gains, but understanding the mechanisms that produce earnings inequality represents a large step toward understanding the behavior of total inequality. As long as labor is the main, if not the only, asset of the poor, a better knowledge of earnings inequality is a valuable input for the assessment of poverty and welfare issues. The ENEU household survey is used to examine the behavior of earnings inequality because it is extremely rich in household characteristics (see Annex 18.1). The population under analysis is urban individuals between 16 and 65 years old working 20 hours a week or more (seasonal workers are excluded). The two highest observations were dropped from the sample given the clear evidence of outliers in some years. Table 18.3 shows that the Gini coefficient increased from 0.395 in 1988 to 0.464 in 1996, ending with a slight overall increase to 0.396 in 2002. Another index, the $R_{10/20}$, which is the ratio of the income share accruing to the richest 10% to that accruing to the poorest 20%, increased from 4.48 to 4.81 over the period 1988 to 2002, reaching a maximum of 6.74 in 1996. The Theil T index exhibited a slight decline from 0.327 in 1988 to 0.302 in 2002 (after peaking at 0.474 in 1996), but this may be due to the nature of this measurement, which is more sensitive to changes in the income distribution and tends toward greater variability than the Gini or other techniques.

Table 18.3: Inequality Indexes for the Distribution of Earnings, 1988-2002

Population share	1988	1990	1992	1994	1996	1998	2000	2002
Bottom 20%	7.54	7.19	6.47	5.98	5.72	5.91	5.93	6.72
Middle 40%	25.23	23.86	23.37	22.36	22.09	22.87	23.33	25.47
Mhigh 30%	33.44	33.96	33.52	32.94	33.61	34.63	34.50	35.49
Top 10%	33.78	34.98	36.64	38.72	38.58	36.59	36.24	32.31
Gini	0.395	0.414	0.434	0.458	0.464	0.445	0.440	0.396
Theil T	0.327	0.35	0.396	0.47	0.474	0.410	0.399	0.302
R10/20	4.48	4.87	5.66	6.47	6.74	6.19	6.11	4.81

Source: Calculations based on ENEU (third quarter).

Earnings Inequality

Three broad hypotheses are frequently advanced to explain the earnings inequality experienced in Mexico and other countries.² These link earnings inequality to (a) increased openness of the economy, (b) institutional changes in the labor market, and (c) skill-biased technological change.

The first of these hypotheses argues that as trade barriers are reduced, an economy is placed under heightened competitive pressure to specialize along its lines of comparative advantage. A developed country with a relatively abundant supply of high-skilled workers, like the United States, will be induced to specialize in activities that require a high level of skill or education as its low-skilled industries come under increased competitive pressure from countries with an abundant supply of low-skilled, low-wage workers.

Hanson and Harrison (1995) examine the impact of Mexican trade reform on the structure of wages using information at the firm level. They test whether trade reform shifted employment toward industries that are relatively intensive in the use of skilled labor (the Stolper-Samuelson-Type [SST] effect, which is examined under NAFTA in Burfisher, Robinson & Thierfelder [1993] and others). They conclude that the wage gap was associated with changes within industries and firms, which cannot be explained by the SST effect. Thus, the increase in wage inequality was due to other factors. Hanson (1997) examines a trade theory based on increasing returns, which has important implications for regional economies, and concludes that employment and wage patterns are consistent with the idea that access to markets is important for the location of industry.

This first hypothesis has several problems when applied to the United States and becomes even less persuasive when applied to Mexico. Mexico greatly liberalized its trade regime after 1984. However, the reduction of its trade barriers was mostly with respect to imports from the developed countries, notably the United States and Canada, whose share of total Mexican merchandise imports increased from 68% in 1985 to 73% in 1993 and to almost 78% in 1996. Since Mexico has an abundant supply of low-skilled labor compared with its northern neighbors, the liberalization of trade could be expected to induce a pattern of specialization that would raise the relative demand (and hence wages) of the lesser-educated members of the labor force. This did not happen. Instead, the increase in earnings inequality observed in Mexico followed the same pattern as observed in the United States: less-educated workers experienced real wage declines, while highly educated workers experienced real wage improvements. The trade-based explanation may still be relevant, however, to the extent that greater openness facilitates the transfer of ideas and technology. This is a more persuasive explanation of the increase in earnings inequality. A variant of the globalization-technology nexus advanced by Feenstra and Hanson (1996) involves outsourcing in which multinational enterprises in the developed country relocate their less

skill-intensive activities to the less skill-abundant developed countries. However, what is referred to as a low-skill activity in the United States may be a high-skill activity in Mexico, which could explain the similarity in the evolution of earnings inequality in both countries (de Ferranti et al. 2003).

The second explanation revolves around institutional changes such as reductions in the minimum wage, the weakening of trade unions, and the decline of state-owned enterprises. The existence of a binding minimum wage, for example, truncates the lower end of the wage distribution. As the minimum wage is allowed to erode—say, through inflation—it becomes less binding by moving farther down the low end of the wage distribution, with the result that, *ceteris paribus*, a higher share of wages will lie below the previous minimum-wage level. This translates into an increased dispersion in wages and earnings. Institutional developments have not exerted a significant influence on the earnings distribution since the early 1980s (see Hernández Loas, Garro Bordonaro & Llamas Huitrón 1997). The distribution of real wages, for example, does not reveal any significant distortions around the minimum wage, which suggests that it is not a binding constraint. The fact that this minimum wage has continued to erode in real value, therefore, seems to be irrelevant. Similarly, the distribution of union wages is not significantly different from the distribution of nonunion wages, once differences in educational levels are taken into account. This also renders any erosion of union power irrelevant for the distribution of earnings. In conclusion, although the influence of institutional factors cannot be rejected entirely, it does not appear to be the principal cause of the increase in earnings inequality.

A persuasive explanation, both for the United States and Mexico seems to be the one that links earnings inequality to skill-biased technological changes that raise the relative demand for higher-skilled labor. Cragg and Epelbaum (1996) examine the shift in demand in Mexico. They point out that the major source of rising inequality is a biased shift in demand rather than a uniform growth in demand when there are different labor supply elasticities. Meza (1999) also investigates shifts in demand and offers the hypothesis that the shift in demand toward a more educated labor force “within” an economic sector explains the increase in their premium when compared with the shift in demand for less-educated workers “between” economic sectors. Tan and Batra (1997) study the skill-biased technical change hypothesis as a plausible explanation of wage inequality using data at the firm level for Colombia, Mexico, and Taiwan. They obtain the following results: (a) a firm’s investments in technology have the largest impact on the distribution of wages for skilled workers, (b) they have the smallest impact on wages paid to unskilled workers, and (c) wage premiums paid to skilled workers are led primarily by the firm’s investments in research and development (R&D) and training. Such conclusions seem to support the skill-biased technological change hypothesis, although these results should be considered carefully, since the analysis is based on data at the firm level and only for

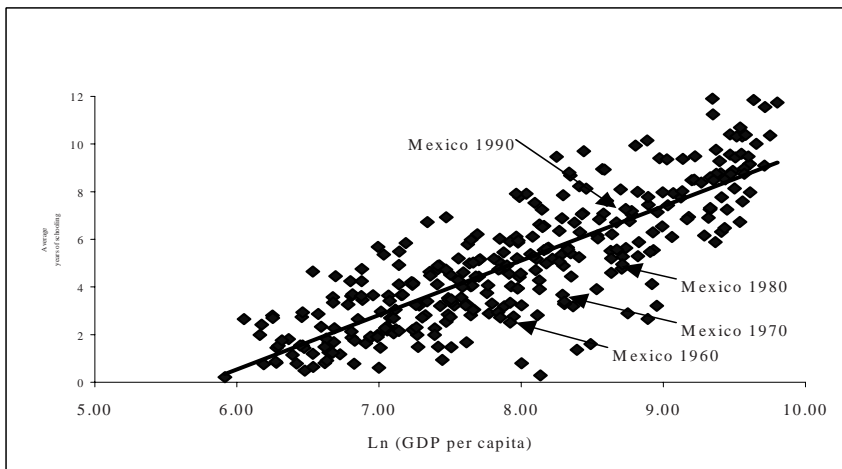
the manufacturing industry. According to the typology used by Johnson (1997), the type of technological change that drives wages up for the more highly-skilled workers and drives wages down for the less-skilled workers (as occurred in both the United States and Mexico) is extensive skill-biased technological change. Under this type of technological change, skilled workers are more efficient in jobs traditionally performed by unskilled workers (de Ferranti et al. 2003; World Bank 2006).

In sum, demand and supply, interacting within a context of economic modernization and globalization, generate the trend toward greater wage disparity. However, none of these explanations deals explicitly with *changes in the distribution of education* or with the interaction between the educational policies that induced them and the workings of the labor market, which is the focus of this document.

Evolution of Educational Attainment

Levels of educational attainment have increased rapidly in most developing countries since the 1950s (Schultz 1988). Although Mexico also benefited from that development, there was a significant lag in its educational indicators. Londono (1996), for example, points to an “education deficit,” according to which

Figure 18.1: Cross-Country Relation between Educational Attainment and GDP, 1960-1990



Note: The scatter diagram is based on 317 observations from five years. The trend line represents the least squares regression line given by

$$S = -13.17 + 2.28 \text{Ln}(GDPcap) \quad \text{Adjusted } R^2 = 0.68.$$

(-18.7) (26.0)*t*-values in parentheses

The application of Ramsey's RESET test to this regression equation failed to detect a specification error; unlike with the alternative specification of the following type: $S = a + bX + cX^2$.

Latin American countries in general, and Mexico in particular, have approximately two years less education than would be expected for their level of development. Elías (1992) finds that education was the most important source of improvement in the quality of labor in Latin America between 1950 and 1970, although such improvements did not take place in the same extent in Mexico as in other countries in the region. This changed dramatically in the 1980s. Figure 18.1 shows that although Mexico's educational attainment increased steadily after the 1970s, it remained below the international trend line. In the 1980s, however, the growth of educational attainment in Mexico accelerated, permitting it to catch up with international standards by 1990 where its placement in Figure 18.1 is slightly above the trend line.

The closure of Mexico's education gap vis-à-vis the rest of the world was hastened in part by the country's economic stagnation. Mexico's real gross domestic product (GDP) per capita in the mid-1990s was roughly the same as it had been in the first half of the 1980s. Nevertheless, this should not detract from the remarkable increase in schooling that occurred during the 1980s. While the level of average schooling in Mexico increased by roughly a year per decade during 1960 to 1980 (from 2.76 to 4.77 years), it increased by two years in the decade of the 1980s. This acceleration in schooling was the product of concerted efforts to increase the coverage of basic education, combined with advances made in the reduction of primary school repetition and dropout rates. The observations pertaining to Mexico, ordered by date, are shown below in Table 18.4.

Table 18.4: Years of Schooling and Gross Domestic Product per Capita in Mexico, 1960-1990

Year	Average schooling (years)	Ln (GDP per capita in 1980 U.S. dollars)
1960	2.76	7.95
1970	3.68	8.29
1980	4.77	8.71
1985	5.20	8.63
1990	6.72	8.67

Source: Calculations based on Barro and Lee data set

With respect to changes in the distribution of schooling by socioeconomic groups, there are several aspects to be considered. In particular, three are examined here: the changes in this distribution that are related to gender, economic sector, and age.

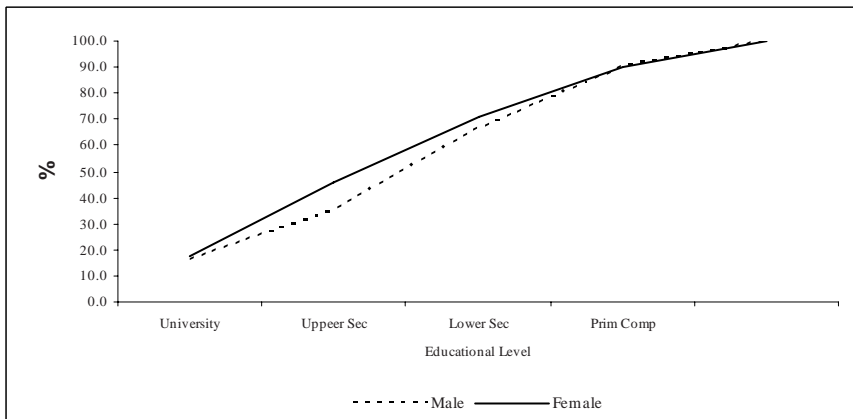
Table 18.5 shows the distribution of schooling by gender from 1988 to 2002. Even though there were clear improvements for both males and females, which signified an upgrade of educational attainment, women achieved better performance during that period, especially at the top of the distribution. Improvements for males, in contrast, were spread more evenly over the entire distribution. Nevertheless, in 2002 women were undoubtedly more educated than men, as their cumulative distribution dominated that of men (see Figure 18.2).

Table 18.5: Educational Distribution by Gender, 1988, 1996, and 2002 (percentage)

Educational Group	Primary incomplete	Primary complete	Lower secondary complete	Upper secondary complete	University complete
1988					
Male	19.0	30.1	24.5	14.6	11.8
Female	17.3	22.2	23.2	29.1	8.2
Total	18.5	27.7	24.1	18.9	10.7
1996					
Male	13.3	26.2	27.6	17.8	15.1
Female	12.3	20.9	21.8	29.2	15.8
Total	12.9	24.4	25.7	21.6	15.4
2002					
Male	10.1	23.3	31.5	18.8	16.2
Female	9.7	19.2	25.4	28.1	17.6
Total	10.0	21.9	29.5	21.9	16.7

Source: Calculations based on the ENEU survey (third quarter)

Figure 18.2: Cumulative Educational Distribution by Gender, 1997



Source: Calculations based on ENEU data

With respect to the distribution of schooling by economic sector, Table 18.6 shows large heterogeneity in the distribution of schooling across sectors from 1988 to 2002. The results suggest that within this heterogeneity, the financial sector uses a more highly skilled labor force. It seems that the primary sector, together with the “Other services” sector, employ a more low-skilled labor force. Third, commerce is very heterogeneous in its labor force composition.

Table 18.6: Educational Distribution by Economic Sector, 1988, 1996, 2002

Educational group and year	Primary incomplete	Primary complete	Lower secondary complete	Upper secondary complete	University complete
1988					
Primary	41.1	21.0	13.3	14.3	10.3
Manufacturing	16.2	33.3	27.8	14.7	8.0
Not Manufacturing					
Industry	36.6	28.5	14.7	9.0	11.2
Commerce	18.0	28.7	28.8	18.7	5.8
Finance Services or Rent	4.8	6.1	19.5	47.1	22.5
Transportation or					
Communication	14.4	35.7	26.0	18.9	5.0
Social Services	11.3	17.6	21.7	28.2	21.2
Other Services	32.8	36.6	20.2	8.1	2.3
Total	18.5	27.7	24.1	18.9	10.7
1996					
Primary	32.5	27.4	14.9	10.4	14.7
Manufacturing	11.3	30.3	32.4	17.0	9.1
Not Manufacturing					
Industry	27.8	29.6	18.2	11.9	12.4
Commerce	13.4	24.2	30.2	23.6	8.7
Finance Services or Rent	3.5	5.3	14.9	43.0	33.3
Transportation or					
Communication	8.6	27.9	33.2	21.5	8.8
Social Services	6.0	14.4	20.0	28.8	30.8
Other Services	25.3	36.1	23.4	12.6	2.6
Total	12.9	24.4	25.7	21.6	15.4
2002					
Primary	22.0	23.0	17.8	17.4	19.8
Manufacturing	8.0	25.7	37.6	18.2	10.5
Not Manufacturing					
Industry	23.1	30.8	22.5	10.9	12.8
Commerce	9.4	20.9	33.8	25.5	10.4
Finance Services or Rent	3.6	7.6	15.1	38.2	35.5
Transportation or					
Communication	7.1	25.9	35.6	21.8	9.7
Social Services	5.0	12.6	22.0	27.7	32.7
Other Services	20.1	32.7	28.7	14.2	4.3
Total	10.0	21.9	29.5	21.9	16.7

Source: ENEU (third quarter)

Another relevant observation is that educational attainment by age group also improved, as the distribution by educational level was higher in 2002 than it was in 1988 (Table 18.7). In an attempt to reach a better understanding of this event, it is interesting to contrast the cohort and time effects, the latter referring to the comparison of the same age group at two different points in time.

Table 18.7: Educational Distribution by Age Group, 1988, 1996 and 2002

Age group	Primary incomplete	Primary complete	Lower secondary complete	Upper secondary complete	University complete
1988					
16-25	8.5	26.5	36.7	23.7	4.6
26-34	12.6	23.7	23.1	22.5	18.2
35-49	24.0	33.3	16.8	14.3	11.6
50-65	46.1	27.2	9.9	9.0	7.8
Total	18.5	27.7	24.1	18.9	10.7
1996					
16-25	5.9	23.8	38.6	24.9	6.8
26-34	6.9	19.6	27.0	26.1	20.4
35-49	15.7	27.4	18.2	18.6	20.1
50-65	36.1	29.2	12.2	11.5	11.0
Total	12.9	24.4	25.7	21.6	15.4
2002					
16-25	4.8	20.5	42.8	24.5	7.5
26-34	5.6	17.4	32.0	25.6	19.4
35-49	10.8	23.9	23.7	20.7	20.9
50-65	26.3	29.0	15.5	12.9	16.3
Total	10.0	21.9	29.5	21.9	16.7

Source: Calculations based on the ENEU (third quarter)

In order to do this, one can look at the first age groups, 16-25 and 26-34, like synthetic cohorts. Namely, the 26-34 age group in 1996 and 2002 can be compared directly with the 16-25 age group in 1988, and to a lesser extent the 35-49 age group in 1996 and 2002 can be compared with the 26-34 age group in 1988. From 1988 to 1996 and to 2002, the percentage of persons in the category of incomplete primary schooling decreased, and this decline was higher than that experienced by the 16-25 age group (who were in the 26-34 age group in 1996). The opposite took place in the highest level of instruction. In other words, improvements throughout the educational process in Mexico were significant, both for those entering the system (higher coverage) and for those already in it (higher efficiency).

Also concerning the interaction between age and education, one can argue

that developments in the educational system have more impact on the new generations than on the elderly. To investigate this, it is necessary to contrast the behavior of inequality between different age groups to that of inequality within synthetic cohorts and in relation to education. The results indicate that differences in both educational attainment and distribution among cohorts have become pronounced in recent times, leading to a higher (negative) correlation between education and age.

In 2000, adults in households in the top quintile had almost eight years more education than those in the bottom quintile (de Ferrati et al. 2004). This was the largest difference in the set of countries with comparable data in Latin America, and it had actually risen by half a year since 1992. At the bottom of the distribution, one of its dimensions is the level of illiteracy. Whereas self-reported illiteracy rates are less than 5% in the top two quintiles, they were 30% in the bottom quintile in 2000, which was down from 34% in 1992 (for the second quintile illiteracy declined from 17% in 1992 to 13% in 2000). The evidence on educational dynamics is mixed. On one hand, there was a modest reduction in the educational gap between the top and bottom quintiles of people in their 50s and 30s. There was also a small decline in the differences in enrollment from 13 to 17 year-olds between poor and rich households in the years spanning from 1992 to 2000. However, there was a rise in differences in enrollments for 18 to 23 year-olds. Since the major divide in Mexico in terms of returns to education is now between those with and without tertiary education, rising inequalities at this level across income groups could be a source of further un-equalizing pressures in the coming years.

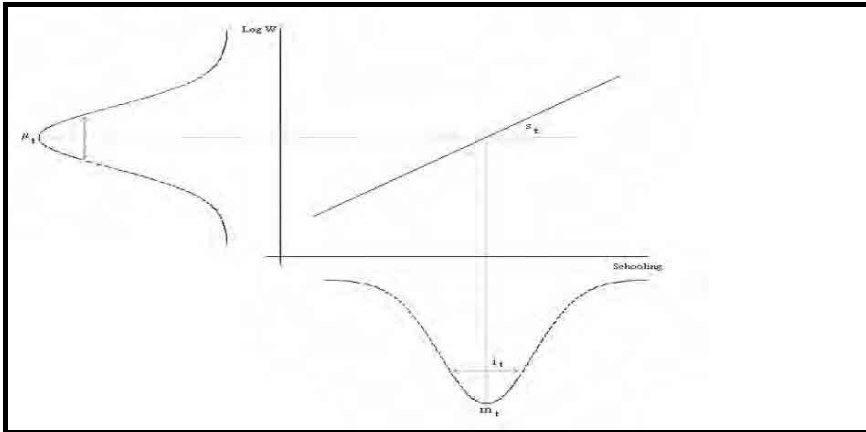
Evolution of Education and Earnings Inequality

To address the relationship between education (the result of the interaction between supply and demand) and earnings inequality, it is necessary to explain how the labor market determines the earnings differentials among workers with different educational attributes. This relationship can be viewed as determined by two elements: (a) the distribution of education itself and (b) the way the labor market rewards educational attainment. The first element reflects a preexisting social stratification that already entails some inequality due to reasons other than the workings of the labor market itself. The second is associated with the degree to which this preexisting inequality grows into earnings inequality due to the performance of the labor market (that is, demand behavior).

Figure 18.3 shows the distribution of education in the horizontal axis (m_t is an indicator of the average schooling of the labor force, and i_t represents its dispersion), while the vertical axis presents the distribution of earnings. The first quadrant depicts the interaction between the preexisting conditions (the distribution of education) and the workings of the labor market, through the steepness s_t of the

income profile related to education. Therefore, at a point in time, (a) the higher the m_t , the larger the average earnings are; (b) the lower i_t , the smaller the earnings inequality is; and (c) the higher s_t , the higher the growth of preexisting disparities is; and accordingly, the higher the earnings inequality. As these indicators change over time, they will induce changes in the income distribution: changes in i_t , assuming s_t constant, will change earnings inequality due to changes in the composition of the labor force (the so-called allocation-population effect), whereas changes in s_t will alter the earnings differentials (the income effect).

Figure 18.3: Stylized View of Education and Labor Market Interaction



Barros and Reis (1991) develop three synthetic measures for the indicators m_t (average schooling), i_t (schooling inequality), and s_t (income profile), based directly on the definition of the Theil T index. The figures for Mexico from 1988 to 2002 are presented in Table 18.8.

Table 18.8: Synthetic Indicators of Schooling Distribution and Income Profile, 1988, 1997-2002

Year	1988	1992	1996	2000	2002
m_t	0.476	0.491	0.511	0.519	0.522
i_t	0.066	0.069	0.076	0.077	0.077
s_t	0.066	0.102	0.122	0.097	0.080

Source: Calculations based on the ENEU survey (third quarter).

Average schooling improved somewhat, but the inequality of the distribution of education deteriorated, whereas the income profile, which is related to the returns to schooling, became much steeper. This means that there was a shift in demand toward highly skilled labor that was not met by an increase in supply.

Probably, this occurred as a result of the accelerated pace of skill-biased technological change facilitated by the increased openness of the Mexican economy. The same pattern observed for the overall sample holds for the 16-25 age group: the m_i rose from 0.476 in 1988 to 0.522 in 2002; the i_i increased from 0.066 to 0.077, whereas the s_i increased from 0.066 to 0.080.

Methodology

The dynamic decomposition analysis is a suitable tool for translating this stylized view into quantitative results, giving one a better understanding of the socioeconomic transformations responsible for changes in the earnings distribution. Besides permitting the identification of the relevant individual variables, it also helps in understanding the nature of the contribution of each variable to the evolution of earnings inequality over time.

Ramos (1990), following Shorrocks (1980), shows that it is possible to break down the change in inequality between two points in time. This is done according to whether the change can be attributed to changes in the socioeconomic groups relative to incomes, to group sizes, or to internal inequalities, by using the Theil T index. In generic terms, as shown before in a slightly different way, for a given partition of the population, the inequality indexes of this class can be written as:

$$(1) \quad I = I(\alpha_g, \beta_g, I_g)$$

where α_g is the ratio between the average income of group g and the average income of the whole population, β_g is the proportion of the population in group g , and I_g is the internal dispersion of incomes in group g .

Of course, the α s are related to the indicator s_i in the previous picture, and the β s refer to m_i and i_i . In this context, the *population* or *allocation effect* corresponds to the variation induced in the inequality index I by modifications in the allocation of the population among the groups (changes in the β s), with no direct changes in the group's relative incomes (α s). The difference between this and what Knight and Sabot (1983) call the "compression" effect is that the present exercise includes the indirect change induced in I through variation in the weighting of the I_g s. Of course, the individual's α s change as the β s change, since the overall average income is altered. This indirect impact is also computed in the composition effect. The *income effect* corresponds to the changes in I induced by changes in group incomes (α s), without changing the groups' shares of the population (β s), and the internal effect is the change in the inequality caused only by modifications in dispersions at the group level (the I_g s).³ The expressions corresponding to the Theil T index are derived in Annex 18.2.

Findings

Education (the result of the interaction between demand and supply) is the variable that accounts for by far the largest share of earnings inequality in Mexico, in terms of both gross and marginal contributions. The gross contribution—that is, the variable’s explanatory power when it is considered alone—amounted to one-fifth of the total inequality in 1988 and one-third in 2002 (Table 18.9). (In most earnings equations for any country, the set of all measurable observable variables explains at most 60% of the total variance. In the United States, education accounts for 10% of the total variance.) The marginal contribution—that is, the increase in the explanatory power when the variable is added to a model that already has the other variables—was remarkably stable and meaningful, remaining at around 25% throughout the period. The difference between the two contributions has been growing over time; however, it indicates that the degree of correlation with other variables has been increasing. This means that the “indirect” effects are becoming more important.

Table 18.9: Static Decomposition: Contribution to the Explanation of Earnings Inequality (%)

	1988		1992		1996		2000		2002	
Variable	Gross	Marginal	Gross	Marginal	Gross	Marginal	Gross	Marginal	Gross	Marginal
Education	20.3	20.8	26.9	21.6	29.3	21.2	27.6	19.6	30.3	21.4
Age	5.4	8.3	7.2	6.1	6.6	6.2	5.9	4.6	5.9	4.4
Economic Sector	2.7	8.1	4.0	5.2	6.8	5.9	5.5	4.5	6.1	3.5
Status	12.8	11.2	13.7	8.9	13.7	7.4	13.9	8.4	13.7	7.4

The other variables considered seem to be much less important. All three of them, but particularly economic sector and status in the labor market, display an upward trend in their gross contribution and a declining trend in their marginal contribution. This can be interpreted as evidence that the interaction between these variables and education has become more intense. That is, the workers’ skills are becoming increasingly more relevant to the determination of their type of participation in the labor market as well as to their position across different economic segments of the economy. The same pattern holds when the number of hours worked instead of sector is considered

The results of the decomposition of the variations in the Theil T index for different intervals of time are shown in Table 18.10. First, when the variables are considered alone, education made the highest gross contribution to the changes in earnings distribution. Second, both the allocation and the income effect were positive in all periods. This means that changes in the distribution of education

and in the relative earnings among educational groups were always in phase with alterations in the earnings distribution. Namely, when the income profile related to education became steeper and the inequality of education grew the earnings distribution worsened as in all periods below.

Table 18.10: Results of the Dynamic Decomposition, 1988-2002

	<i>Variable</i>	<i>Allocation</i>	<i>Income</i>	<i>Gross</i>	<i>Marginal</i>
<i>1988-1996</i>					
	Education	15.4	47.6	63.0	30.2
	Age	4.6	15.9	20.5	4.2
	Economic Sector	-4.9	14.8	9.9	-2.6
	Status	3.5	11.9	15.4	-7.2
<i>1996-2000</i>					
	Education	-4.2	45.3	41.2	37.8
	Age	-6.6	10.0	3.4	19.8
	Economic Sector	5.3	10.0	15.3	24.6
	Status	2.5	9.6	12.1	2.2
<i>1996-2002</i>					
	Education	-1.7	30.5	28.7	24.5
	Age	-3.5	8.5	5.0	10.1
	Economic Sector	1.8	8.0	9.9	14.7
	Status	1.1	15.4	16.4	9.5
<i>2000-2002</i>					
	Education	0.3	20.3	20.6	15.0
	Age	-2.0	6.7	4.6	4.1
	Economic Sector	-0.5	5.6	5.1	10.2
	Status	0.6	17.8	18.4	14.4

Source: Calculations based on the ENEU (third quarter).

Third, the income effect is always prevalent. If one considers, for instance, the 1988-1996 period, changes in the relative earnings among educational groups alone would have generated a larger deterioration in the earnings distribution than the one observed. The same holds true for the other periods. Even the decrease in inequality observed in recent periods is explained by the changes in relative earnings (the income profile related to education became less steep as shown in Table 18.3). Therefore, it seems reasonable to conclude that the income effect is the leading force behind the increase in inequality, and this, in turn, suggests that the workings of the labor market and its interaction with educational policies should be thoroughly examined.

Fourth, the significance of changes in the distribution of education remains high even when one controls for changes in other relevant variables. As a matter of fact, the marginal contribution of age, economic sector, and status in the labor market is negative in the 1988-1996 period. This means that changes in these

variables reduce the effects induced by changes related to education, as most of the time they reduce inequality after the influence of education is taken into account. In comparison, Székely (1995) finds that education and the economic sector were significant factors in explaining inequality in the 1984-1989 period, while education and job status were significant in the 1984-1992 period. Bouillon, Legovini, and Lustig (1998) find that household characteristics explained 49% of the increase in the Gini between 1984 and 1994 with education being the most important characteristic.

The last period, from 1996 to 2002, deserves a special comment. First, earnings inequality decreased. Second, once more, alterations were associated with education, and such alterations appear to be the main factor responsible for the reduction in earnings inequality. As can be seen from the synthetic indicators, there was a small improvement in the distribution of schooling during the period and a sizable decrease in the steepness of the income profile related to education. All other variables, as observed for other periods, also contributed to an improvement in earnings inequality.

Table 18.11 shows the results of the same kind of decomposition for Brazil, Argentina, and Peru. The significance of education as an explanation of changes in inequality seems to be a common pattern in Latin American countries. Moreover, the relevance of the income effect over the allocation (population) effect is also shared by all countries where a similar analysis was carried out. In the Mexican case, however, the figures are higher than those for other countries (and in a shorter period of time). This means that changes in the structure of supply and demand for labor, which are greatly affected by the educational and macroeconomic policies followed by the country or by their interaction with the workings of the labor market, were particularly relevant for the earnings distribution.

Table 18.11: Education and Inequality Variation in Brazil, Argentina, and Peru

Country	Study	Time period	Explanatory power (percent) ^a	Income effect (percent)
Brazil	Ramos and Trindade (1991)	1977–89	6–20	10–17
Argentina	Fiszbein (1991)	1974–88	54–56	38–46
Peru	Rodríguez (1991)	1970–84	32–47	34–43

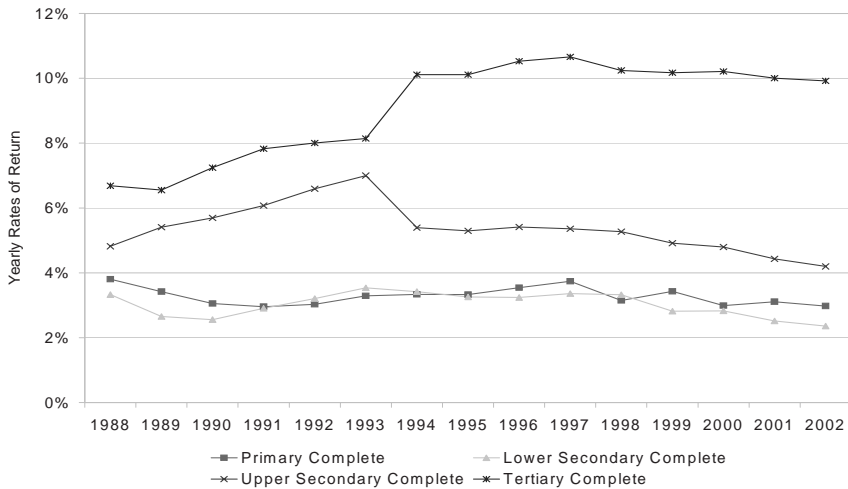
^a The income effect plus the allocation-population effect

Rates of Returns to Education

The earnings inequality evolution is not the result of changes in the distribution of education, whereas the income profile, which is related to the returns to schooling, is the leading force in the explanation of inequality in Mexico. In light of this evidence, this section analyzes the structure and evolution of the rates of

returns to education. Returns for upper secondary rose sharply in the late 1980s and early 1990s and then fell after 1993. Returns to tertiary education continued to rise until 1996, before falling to levels that remained much higher than in the early 1990s (Figure 18.4). These results took into account the change in the ENEU 94 questionnaire and were consistent with rate of return patterns found by de Ferranti et al. (2003) as well as with estimates using the National Survey of Household Incomes and Expenditures (ENIGH).

Figure 18.4: Yearly Rates of Return to Education Level, Mexico Urban Areas, 1988-2002



Note: The yearly rate of return represents the additional contribution to wages from an additional year of a certain level of education. All the coefficients are statistically significant at the 5% level and conditioned on age, squared age, gender, and region (North, Center, South, and Mexico City).

Source: Calculations using the third quarter of ENEU from 1988 to 2001 and third quarter and urban section of ENET 2002

A more complex pattern of changes in rewards to education is illustrated by an analysis that looks at different parts of the distribution (using quantile regression techniques, see Table 18.12). Returns are “convex” and become more so throughout the distribution until 1997—that is, they increased at a rising rate for higher levels of education. In 1988, when estimated at the median of the conditional earnings distribution, tertiary education was associated with on average 52% more income compared with a person with a complete upper secondary education. By 1997, the premium to tertiary education had risen to 95%. How-

ever, when estimated at the top of the distribution, the premium to tertiary education “only” rose from 34% to 67% (implying higher relative *and* absolute returns to upper secondary in the upper reaches of the income distribution). Moreover, while the premium to tertiary fell somewhat between 1997 and 2002 throughout most of the earnings distribution, they continued to rise to the top.

To test the robustness of these trends, four models were estimated: the basic model included only age, squared age, and gender; the second model was the basic model plus region; the third model added labor market status to the second; and the last model included all these variables plus the sector of activity.

Table 18.12: Marginal Value of Education by Level along the Conditional Earnings Distribution, Mexico 1988-2002

Quantile	1988					1992				
	0.1	0.25	0.5	0.75	0.9	0.1	0.25	0.5	0.75	0.9
<i>Primary Complete</i>	1.11	1.09	1.06	0.95	0.85	1.02	1.01	0.95	0.81	0.67
<i>Lower Secondary Complete</i>	1.21	1.18	1.19	1.24	1.27	1.15	1.18	1.21	1.25	1.3
<i>Upper Secondary Complete</i>	1.11	1.18	1.24	1.25	1.37	1.17	1.2	1.25	1.32	1.38
<i>Tertiary</i>	1.43	1.5	1.52	1.47	1.34	1.61	1.68	1.75	1.7	1.6
Quantile	1997					2002				
	0.1	0.25	0.5	0.75	0.9	0.1	0.25	0.5	0.75	0.9
<i>Primary Complete</i>	1.12	1.13	1.13	1.11	1.05	1.14	1.1	1.1	1.08	1.04
<i>Lower Secondary Complete</i>	1.19	1.21	1.26	1.32	1.39	1.15	1.15	1.16	1.21	1.25
<i>Upper Secondary Complete</i>	1.15	1.22	1.27	1.35	1.42	1.13	1.15	1.21	1.28	1.34
<i>Tertiary</i>	1.75	1.91	1.95	1.83	1.67	1.67	1.82	1.91	1.87	1.73

Note: The marginal value is with respect to the previous education level. The asymptotic covariance matrix of the estimated coefficient vector in quantile regression is computed using the bootstrap method. All the coefficients are statistically significant at 5% level and conditioned to age, squared age, gender, and region (North, Center, South, and Mexico City).

Source: World Bank staff estimates using the third quarter of ENEU 1997 to the third quarter and urban section of ENET 2002.

With respect to gender and geographic area, the results show that rates of return to tertiary education are higher for both urban and rural men compared with women, particularly in the upper tail of the conditional earnings distribution.

In sum, the returns to education increased in Mexico from 1988 to 1997, especially for higher levels of education and in the upper tail of the conditional earnings distribution. However, there was a reversal of this trend after 1997 especially for higher levels of education and in the middle and lower tail of the conditional earnings distribution. This may reflect a structural development if the

expanding relative supplies of school-leavers are offsetting the secular tendency for raising the relative demand for skills especially at the tertiary level (see de Ferranti et al. 2004). Alternatively, it may reflect a cyclical fall in education premiums in times of recession, which has also been observed in the data for Latin America. However, for the present, the labor force patterns by labor force status and education are fully consistent with the equalizing patterns of income growth.

Conclusion

Even though the levels of educational attainment expanded very rapidly, Mexico experienced a pronounced increase in the degree of inequality over the 1980s and mid-1990s. Most of the deterioration in the distribution of income happened in the middle to late 1980s (1984-1989). The early 1990s displayed little change in total current income inequality except for a slight trend toward deterioration. The trends in the distribution of earnings differ from the trends in the distribution of current income in two ways. First, the gains are not limited to the richest 10%, as those in the seven-, eight-, and nine-tenths of the distribution improved their relative earnings over the period by almost two percentage points. Second, the distribution of earnings clearly worsened in the 1990s until 1996, although the inequality associated with total current income was moderately stable in the 1990s, displaying an improvement after 1996. Differences in the behavior of total current income and labor earnings inequalities from 1994 to 1996 support the idea that the poor, who rely the most on labor as a source of income, are the least able to protect themselves during a recession.

Education is a key variable for our understanding of income and earnings inequality in Mexico. It is by far the variable that accounts for the largest share of earnings inequality in Mexico in terms of both its gross and marginal contributions. The marginal contribution of education to the explanation of inequality in Mexico is almost equal to the joint contribution of other relevant variables such as age, economic sector, labor market status, and hours worked. It is worth pointing out that the difference between the gross and marginal contributions has been increasing over time, indicating that as the economy progresses education becomes even more important in determining the choices of sectors and occupations. That is, the workers' skills are becoming increasingly relevant in determining their type of participation in the labor market as well as their position across different economic segments of the economy. The contribution of education to income inequality in Mexico is the second highest in Latin America, next only to Brazil. Moreover, what seems to be particularly interesting in the Mexican experience is that the significance of education has been increasing over time.

The contribution of relevant variables to changes in inequality for different intervals of time shows the following facts. First, education has the highest gross contribution in explaining changes in earnings distribution. Second, both changes

in the distribution of education and in the relative earnings among educational groups have always been in phase with the alterations in the earnings distribution. Specifically, when the income profile effect related to education became steeper and the inequality of education increased, the earnings distribution worsened (as in the 1988 to 1996 periods). Third, changes in the relative earnings among educational groups are always the leading force behind changes in inequality.

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Annex 18.1: ENEU

This chapter uses information from the National Urban Employment Survey (ENEU), which is also a micro-level data set collected by the National Institute of Statistics and Geography of Mexico (INEGI), and contains quarterly wage and employment data from 1987 to 2002. According to INEGI's methodology document on the ENEU, the data are representative of the 41 largest urban areas

in Mexico, covering 61% of the population in urban areas with at least 2,500 inhabitants and 92% of the population living in metropolitan areas with 100,000 or more inhabitants. In 1985, the ENEU included 16 urban areas: Mexico City, Guadalajara, Monterrey, Puebla, León, San Luis Potosí, Tampico, Torreón, Chihuahua, Orizaba, Veracruz, Mérida, Ciudad Juárez, Tijuana, Nuevo Laredo, and Matamoros, covering 60% of the urban population for that year. In 1992, 18 more urban areas were included in the survey: Aguascalientes, Acapulco, Campeche, Coahuila, Cuernavaca, Culiacán, Durango, Hermosillo, Morelia, Oaxaca, Saltillo, Tepic, Toluca, Tuxtla Gutiérrez, Villahermosa, Zacatecas, Colima, and Manzanillo. In 1993 and 1994 Monclova, Querétaro, Celaya, Irapuato, and Tlaxcala entered the ENEU. Finally, Cancún and La Paz joined the survey in 1996. According to INEGI, the ENEU has always covered about 60% of the national urban population.

The data are from household surveys, which fully describe family composition, human capital acquisition, and experience in the labor market (the variables contain information about social household characteristics, activity condition, position in occupation, unemployment, main occupation, hours worked, earnings, benefits, secondary occupation, and search for another job). As with the National Household and Income Survey (ENIGH), the sampling design was stratified in several stages (where the final selection unit was the household) and with proportional probability to size.⁴ This statistical construction allowed us to make comparisons among different years. Moreover, this survey is structured to generate a panel data set that conforms to a rotator or rotating panel (a fifth of the total sample goes out and a new one comes in every quarter). Hence, the panel data follow the same household throughout five quarters.

Category Selection

The individuals in the sample were classified according to their educational level, age, sector of activity, position in occupation, hours worked, and geographic region in the following categories:

Educational level

- a) Primary incomplete: no education and primary incomplete (one to five years of primary)
- b) Primary complete: primary complete and secondary incomplete (one or two years)
- c) Secondary complete: secondary complete and preparatory incomplete (one or two years)
- d) Preparatory complete: preparatory complete and university incomplete

- e) University complete: university complete (with degree) and post-graduate studies

Age

- a) 12 to 25 years old
- b) 26 to 34 years old
- c) 35 to 49 years old
- d) 50 to 65 years old

Sector of Activity

- a) Primary sector (includes agriculture, forestry, fishing, and mining).
- b) Manufacturing industry
- c) Nonmanufacturing industry (includes construction and utilities)
- d) Commerce
- e) Finance services and rent
- f) Transportation and communication
- g) Social services (tourism, education, health, public administration, embassy)
- h) Other services

Labor Market Status

- a) Employer
- b) Self-employed
- c) Informal salaried: people who work in an enterprise with 15 or fewer workers and do not receive social security (IMSS, ISSTE, private, and so forth)
- d) Formal salaried: people who work in an enterprise with 16 or more workers or receive social security (IMSS, ISSTE, private, and so forth)
- e) Contract

Hours Worked

- a) 20 to 39 hours a week
- b) 40 to 48 hours a week
- c) At least 49 hours a week

Geographic Regions

- a) North: Baja California, Baja California Sur, Coahuila, Chihuahua,

- Durango, Nuevo León, Sinaloa, Sonora, Tamaulipas, and Zacatecas
- b) Center: Aguascalientes, Colima, Guanajuato, Hidalgo, Jalisco, Mexico, Michoacán, Morelos, Nayarit, Puebla, Querétaro, San Luis Potosí, and Tlaxcala
 - c) South: Campeche, Chiapas, Guerrero, Oaxaca, Quintana Roo, Tabasco, Veracruz, and Yucatán
 - d) Distrito Federal

Group Selection

Analogous to the ENIGH, the sample consists of individuals who have the following characteristics:

- a) Between 16 and 65 years old
- b) Living in urban areas (localities with at least 2,500 inhabitants)
- c) Working regularly (nonseasonal workers)
- d) Working 20 hours or more a week
- e) Having positive earnings⁵
- f) Having the attributes of interest defined

Annex 18.2: Methodological Note

Gini Index

The Gini index is defined by

$$(1) \quad GI = \frac{2\text{cov}[Y, F(Y)]}{\mu}$$

where Y is the distribution of per capita income $Y = (y_1, \dots, y_n)$, where y_i is the per capita income of individual i , $i = 1, \dots, n$; μ is the mean per capita income; $F(Y)$ is the cumulative distribution of total per capita income in the sample (that is, $F(Y)=[f(y_1), \dots, f(y_n)]$, where $f(y_i)$ is equal to the rank of y_i divided by the number of observations $[n]$).⁶

Equation 1 can be rewritten and expanded into an expression for the Gini coefficient that captures the “contribution to inequality” of each of the K components of income (see Leibbrandt, Woolard & Woolard 1996).

$$(2) \quad GI = \sum_{k=1}^K R_k G_k S_k$$

where S_k is the share of source k of income in the total group income (that is, $S_k = \mu_k / \mu$), G_k is the Gini coefficient measuring the inequality in the distribution of income component k within the group, and R_k is the Gini coefficient of income

from source k with the total income.⁷ The larger the product of these three components, the greater is the contribution of income from source k to total inequality.

Theil T Index⁸

This index is calculated as follows:⁹

$$(3) \quad T = \left(\frac{I}{n}\right) \sum_{i=1}^n \left(\frac{Y_i}{\bar{Y}}\right) \ln \left(\frac{Y_i}{\bar{Y}}\right)$$

where Y_i is the income of the i th individual, \bar{Y} is average income, and n is population size. Static decomposition of the Theil index: if the population is divided into G groups with n_g observations each, it is then possible to write equation 3 as

$$(4) \quad T = \sum_{g=1}^G \left(\frac{1}{n}\right) \sum_{i=1}^{n_g} \left(\frac{Y_{ig}}{\bar{Y}}\right) \ln \left(\frac{Y_{ig}}{\bar{Y}}\right)$$

where Y_{ig} is the income of the i th individual of the g th population subgroup.

If we now define $\beta_g = n_g/n$ and $Z_g = \bar{Y}_g/k$ where \bar{Y}_g is the average income of the g th group and k is a reference income, it is possible to show, after some algebraic manipulation, that T can be expressed as

$$(5) \quad T = \left(\frac{I}{k}\right) \sum_{g=1}^G \beta_g Z_g \ln Z_g - \ln k + \left(\frac{I}{k}\right) \sum_{g=1}^G \beta_g Z_g T_g$$

where $k = \sum \beta_g Z_g$ and T_g is the Theil index for the g th group. The first two terms on the right-hand side of equation 5 correspond to the between group inequality, while the third corresponds one to the within group inequality. Choosing the mean income as the reference income, that is, $Z_g = \alpha_g = \bar{Y}_g/\bar{Y}$, expression 5 can be simplified as

$$(6) \quad T = \sum_{g=1}^G \alpha_g \beta_g \ln \alpha_g + \sum_{g=1}^G \alpha_g \beta_g T_g$$

The first term in equation 6 is the between group inequality, while the second term is the within group inequality. Dynamic decomposition analysis: by totally differentiating equation 6, we have

$$(7) \quad dT = \sum_{g=1}^G \frac{\partial T}{\partial \beta_g} d\beta_g + \sum_{g=1}^G \frac{\partial T}{\partial \alpha_g} d\alpha_g + \sum_{g=1}^G \frac{\partial T}{\partial T_g} dT_g$$

The first term on the right-hand side is the population allocation effect (changes in T caused exclusively by population shifts). The second term is the income effect (changes in T induced exclusively by changes in standardized mean incomes), while the third one is the internal effect (changes in T caused by changes in internal dispersion). It can be shown that

$$(8) \quad \frac{\partial T}{\partial \beta_g} = \alpha_g \ln \alpha_g - \alpha_g \sum_{g=1}^G \alpha_g \beta_g (1 + \ln \alpha_g) + \alpha_g T_g - \alpha_g \sum_{g=1}^G \alpha_g \beta_g T_g$$

$$(9) \quad \frac{\partial T}{\partial \alpha_g} = \beta_g (1 + \ln \alpha_g) - \beta_g \sum_{g=1}^G \alpha_g \beta_g (1 + \ln \alpha_g) + \beta_g T_g - \beta_g \sum_{g=1}^G \alpha_g \beta_g T_g$$

$$(10) \quad \frac{\partial T}{\partial T_g} = \alpha_g \beta_g$$

Replacing equations 8, 9, and 10 into equation 7 and simplifying it, we obtain

$$(11) \quad dT = \sum_{g=1}^G \alpha_g (\ln \alpha_g + T_g - T - 1) d\beta_g + \sum_{g=1}^G \beta_g (\ln \alpha_g + T_g - T) d\alpha_g + \sum_{g=1}^G (\alpha_g \beta_g) dT_g$$

The three terms on the right-hand side of equation 11 correspond to the allocation, income, and internal effects, respectively. For estimation purposes, equation 11 must be approximated. The convention used in the empirical exercises is to evaluate the expression at the middle points. Level, Inequality, and the Indicator of Steepness of the Income Profiles in Educational Level. Ramos (1990) uses three synthetic measures for the indicators m_t (average schooling), i_t (schooling inequality), and s_t (income profile) based directly on the definition of the Theil index.

The calculations of the principal parameters α_g , β_g , and T_g (5) could determine the changes in the distribution by level of education (g groups in this category). These parameters allow us to analyze the trend in educational income differentials, the distribution of the population in each educational level, and the inequality among them. Three synthetic measures are used to summarize the changes related to education: m_t is the average level of schooling for the year t, i_t is the degree of inequality in the distribution of education for year t, and s_t is the variation in the income ratios associated with education for year t. These measures can be calculated as follows:

$$m_t = \sum_g \alpha_g^* \beta_g'$$

$$i_t = \frac{\sum_g \alpha_g^* \beta_g' \log(\alpha_g^*)}{\sum_g \alpha_g^* \beta_g'} - \log\left(\sum_g \alpha_g^* \beta_g'\right)$$

$$s_t = \frac{\sum_g \alpha'_g \beta'_g \log(\alpha'_g)}{\sum_g \alpha'_g \beta'_g} - \log\left(\sum_g \alpha'_g \beta'_g\right)$$

where α'_g is the standardized income of educational category g for the reference year, β'_g is the fraction of the labor force in the g th educational category in year t , and β_g^* is the value β_g in the reference year. s_t can be understood as an indicator of the relative steepness of the income profiles related to education. If one fixes the fraction of the labor force in each educational group, it follows that the steeper the income profile, the larger the between group inequality. i_t corresponds to the Theil T index that would prevail in a population with no inequality within the educational groups and where the group incomes are proportional to the group average incomes in the base year.

Notes

¹ I wish to thank Monica Tinajero for her help in processing the data and Barrett Sheridan for his editorial assistance. These are views of the author and do not necessarily reflect those of the Government of Mexico, The World Bank, its Executive Directors, or the countries they represent.

² See, for example, “Symposium on Wage Inequality” (1997), Diwan and Walton (1997), and de Ferranti et al. (2003).

³ Székely (1995) explains the changes in inequality using a different methodology that does not control for the effects of changes in population distribution and the relative earnings of income groups (see Annex 18.2).

⁴ For this it was necessary to use weights or expansion factors.

⁵ In this survey, an additional adjustment had to be made. If the worker had a bonus at the end of the year (*aguinaldo*), then the wage was expanded (we assumed that this benefit was equivalent to 30 days of wages a year).

⁶ Both the covariance and cumulative distribution are computed using the household weights.

⁷ R_k is defined as
$$R_k = \frac{\text{cov}[Y_k, F(Y)]}{\text{cov}[Y_k, F(Y_k)]}$$

⁸ The Theil T index is sensitive to changes at the bottom and top tail of the distribution.

⁹ The mathematical notations in this section and the next follow Ramos (1990).

Issues of Difference Contributing to US Education Inequality

Eric JOHNSON & Tyrone C. HOWARD

Education inequities have been rampant in the United States for the past four centuries. Despite the portrayal of education as a tool for empowerment, enlightenment, and economic mobility for all, the precious commodity of education has been elusive for scores of citizens. Historically, the divides in educational opportunities have usually fallen along racial, gender, religious, and social class lines. An examination of the history of schools in this country reveals the manner in which they have always been designated as an institution for those of privilege, power, and influence beginning with the common school movements as early as the 1830s (Coleman 1967; Ehman 1980; Spring 2006).

It is important to note that education is not a discipline that can stand alone without an historical, political, economic, and social/cultural context (Rothstein 1993). A closer examination of early schools in the US shows that they frequently served as spaces for indoctrination underscored by political, economic, and social notions that benefited those in power. One of the political rationales behind the creation of schools was to create future political leaders, create a political consensus among citizens, maintain political power, and socialize individuals for political systems and civic participation (Cremin 1957; Ehman 1980; Gordon 1961). Conversely, economics have undoubtedly played a role in the creation of schools. From the exploitation of free labor from enslaved Africans, the indentured servitude of indigenous populations, the use of human resources to build economic infrastructure has been consistent in the US financial evolution. Schools have played an integral role in the socialization of young minds about the necessity to maintain economic arrangements despite the seemingly inhumane ramifications that were associated with economic and political expansion (Anyon 1988).

A careful analysis of the manner in which educational opportunities have been afforded in the United States over the past three centuries reveals that issues of difference have usually been tied to these disparities (Anderson 1988; Banks 1995). These differences, whether they have been tied to family history, ethnic origin trajectory to the United States, language, social status, cultural values, religious persuasions, sexual orientation, disability, or political beliefs, have

had a significant influence on the types of opportunities afforded to individuals. In many cases, these factors have shaped educational and life experiences more so than the principles purported to be core “American values” such as hard work, perseverance, loyalty, dedication, and sacrifice. Thus, it goes without stating that issues of difference, no matter their manifestation, have served as sources of tension, dissonance, prejudice, and outright discrimination for scores of people in the nation state. In many ways, our inability to come to grips with difference has been one of the most troublesome realities of this nation’s history. Allan Johnson (1997) aptly states

The real illusion connected to difference is the popular assumption that people are naturally afraid of what they don’t know or understand. This supposedly makes it inevitable that you’ll fear and distrust people who aren’t like you and, in spite of your good intentions, you’ll find it all but impossible to get along with them. (p.16)

Some would argue that the inability to accept or understand difference has proved to be the primary source behind access to educational equality in the US. The purpose of this chapter is to examine the manner in which the concept of difference has had an indelible influence on educational equity and access in the United States. We acknowledge that differences manifest on multiple levels and classifications, and that an interrogation of each of these constructs of difference merits its own investigation to understand the complexity of educational opportunity. However, for this chapter we will delve into the manner in which the difference along race, class, and gender lines affects educational disparities. These three areas will be used as our units of analysis because they have a sordid history of denying countless citizens the ability to enjoy basic unalienable rights that are tied to US democracy, namely, freedom, justice, equality, and the pursuit of happiness. Moreover, the historical roles that race, class, and gender have played continue to shape contemporary issues that remain critical to high quality education in the 21st century.

Theoretical Framework

Systemic analyses that seek to emancipate and/or liberate human beings by utilizing the agency people have to create and impact their own reality are best exemplified by critical social theory (Kellner 1984). Critical social theory describes the interconnected ways that social structures tend to reproduce inequity in the form of domination and subordination (Habermas 1984). This examination will use the lens offered by critical social theory to identify how difference is used as the marker for educational institutions to perpetuate the status quo in terms of power, privilege, domination, and subordination.

One of the essential components of critical social theory is that it must not

only identify areas of inequity and inequality, but it must also provide avenues of transformation that improve identified conditions (Kellner 1988). The merits of critical theory are evaluated in its success to guiding the struggle of human beings to improve their conditions. Critical social theory attempts to encourage people to question the reality that social institutions (and in this case, the educational system) promote and create, and to conceptualize a society and social institutions (educational) that work to promote human dignity (Lyotard 1984).

Using the lens of critical social theory, this emanation seeks to do three things: (1) analyze the use of difference within educational structures that produces varied and inequitable outcomes for identified groups, (2) identify how the concept of difference shifts and transforms to extend notions of domination and subordinations, (3) suggest a new reality that encourages education institutions to examine not the affected groups of varied outcomes but the institutional policies and structures that produce education inequality.

Difference: A Contributing Factor to Educational Inequality

Difference and education inequality are concepts with broad implications and applications but simultaneously, each has particular contextual understandings within the field of education (Schultz 2006). Difference for the purpose of this examination is conceptually representative of the identified characteristics that serve as observable markers indicating the presence of an individual or group. Education inequality refers to qualitatively distinctive educational experiences and processes that produce inequitable outcomes or identify disparities in access. These two ideas are inextricably connected to inquiries founded on notions of inequality.

An examination of how difference contributes to education inequality is important to understanding how difference is a construct that is mobilized as a socio-economic-political idea (Shapiro & Purpel 2005). Difference in this framework is not simply a set of unique characteristics, but it is also a mechanism by which dominate and subordinate relationships are maintained and reinforced (Apple 1995a; Sleeter & Grant 2007; McLaren 2003b). In this context, identification of difference is designed for the expressed purposes of domination or, conversely, subordination. Difference mobilized as a socio-economic-political idea is a pre-requisite for education inequality (Kincheloe & Hayes 2006).

Distinctions surrounding gender in US schools are not simply the results of benign differences between boys and girls. Gender distinctions have identified education inequalities that produce varied and inequitable outcomes between males and females (Bailey et al. 2002). The Title IX Legislation of 1972 essentially prohibits sex discrimination in institutions receiving federal dollars (Cusher, McClelland, & Stafford 2006). As a result, Title IX had and continues to have

social, economic, and political implications on every aspect of school (Halsey, Lauder, Brown, & Stuart-Wells 1997). Suggesting gender differences simply identify innate and prescribed social behaviors of men and women or boys and girls is a failure to acknowledge the perpetuation of power relations that tend to benefit men often at the expense of women. Notions of gender are even further complicated when analyzed in the context of race, class, and ethnicity (Giddings 1984). This point can be expanded with race and the *Brown v. Board of Education* Supreme Court decision of 1954, a case that in effect made racial segregation in schools unconstitutional. As a result of the Supreme Court's decision, hundreds of African American teachers lost their jobs because they were not permitted to teach in predominantly White schools, and thousands of African American students moved from all Black schools to predominantly White schools (Walker 1996). The decision continues to impact the social, political, and economic landscape of US schooling.

Difference itself seems to be an allusive concept that is not stable, instead it is an idea that is fluid and transforms to capture any identifying characteristics that perpetuate the status quo (Karabel & Halsey, 1977). The fluid transformation of difference and its political, economic, and sociocultural implications in US schooling contribute to a continued state of education inequality. These transformations and metamorphoses are evident in English only movements, gay and lesbian issues, and US policy on immigration to name a few (Kincheloe & Hayes 2006). Separate notions of difference such as race, gender, class, ethnicity, language, and culture are puzzled together under very complex circumstances to perpetuate inequality in ways that are not easily separable. These separate notions are closely associated, but each also has a unique historical, political, and socio-cultural legacy of education inequality in US schooling. Notions of difference singularly or in complex combinations identify the "other" and produce circumstances that contribute to a long legacy of education inequity (Marcuse 1969).

The Role of Social Class in Education

Many educators critical of the distributions of educational resources in the US operate from the standpoint that education is under girded by political aims, which have clearly defined economic ramifications (Bowles & Gintis 1976; Darder 1991; Freire 1970; McLaren 2003a). From this critical perspective, education is situated within a capitalist economic system that places the needs of working-class students, families, and communities against the needs of the capitalist labor system that requires cheap labor from a large majority of its population. Bowles and Gintis (1976) posit that education serves the needs of a capitalist structure, in that it is set up to reproduce and sustain existing class stratification. In more concrete terms, low-income students typically attend unequally

funded, low-performing schools, exit those schools to work for meager wages while living in low-income neighborhoods, subsequently sending their children to the same type of underfunded schools and maintaining a firm place in a seemingly endless cycle. More specifically, these schools suffer from a host of ailments which plagues students from low income backgrounds, many of whom are disproportionately students of color, namely, lack of investments, low property taxes, strained social services, pollution, crime, police brutality, and other ailments that affect poor communities.

Kozol (1991) has shed light on the manner in which schools receive disproportionate funding, which has a detrimental influence on school quality and overall effectiveness, and contributes to “savage inequalities.” Conversely, affluent students attend better staffed and resourced schools with higher qualified teachers, smaller class sizes, and additional enrichment courses, exit these schools to work in white-collar professions, gain access to human and cultural capital which aids their educational and professional success (Bourdieu 1973), and provide their children with the same type of educational, social, and economic opportunities.

Critical to the work that Kozol (2005) has examined about inadequate schools is that they are disproportionately non-White and largely poor. More recent research has uncovered findings similar to Kozol’s work about the impact of inequitable distribution of funding. Chiu and Khoo (2005) examined how resource distribution inequality and bias toward privileged students has a significant impact on students’ school performance. Using data on 15-year-olds from 41 countries, Chiu and Khoo discovered that countries that showed more equitable distributions with their resources had students who performed better on key academic indices.

One of the primary theoretical frameworks that seek to explain how social class differences have created multi-tiered educational and social structures has been social reproduction theory (Apple 1978, 1986; Bourdieu 1973; McLaren 1994, 2003a). Steeped in an analysis of education being intimately tied to labor, production, and disguised exploitation, social reproduction theorists contend that schools are a reflection of the effects of a harsh capitalist system, reproducing the existing class structure. Bowles and Gintis (1976) assert that “the American education system is subordinated to and reflective of the reproductive process and structure of class relations in the United States” (p.56). According to critical education theorists, this is indeed the function of education, and it is not, as many liberal educational scholars or traditional multiculturalists would argue, a failure of a democratic system. Anyon (2005) eloquently frames this argument by stating the following:

Low-achieving urban schools are not primarily a consequence of failed educational policy, or urban family dynamics, as mainstream analysts and public policies typically imply. Failing public schools in cities are, rather, a

logical consequence of the U.S. macroeconomy—and the federal and regional policies that support it. Teachers, principals, and urban students are not the culprits—as reform policies that target increased testing, educator quality, and the control of youth assume. Rather an unjust economy and the policies through which it is maintained create barriers to educational success that no teacher or principal practice, no standardized test, and no “zero tolerance” policy can surmount. (p.2)

Therefore, educational failure as a logical consequence to US economic policies posits that education’s function is the “perpetuation of values and social relations that produce and legitimate the dominant worldview at the expense of a vast number of citizens” (Darder 1991, p.19). From a critical perspective, this worldview is inherently capitalistic, racist, and sexist. One of the principal points of concern for critical theorists is overt domination and oppression in society, which has an inevitable influence on schools. Gramsci (1971) speaks to the manner in which “hegemony” has been used to implement particular world views that have contributed to such inequities.

Critical scholars have also demonstrated that our educational system is increasingly controlled by corporate market interest (Apple 1995a; Giroux 2003; McLaren 1994, 2003b; Molnar 2003). Responding to the conservative wave of corporate school reform efforts, Apple (1995b) posits that their interest is not benign—it is set up to extend US economic influence and power:

This new power bloc combines business with the New Right and with neo-conservative intellectuals. . . . it aims at providing the educational conditions believed necessary both for increasing international competitiveness, profit, and discipline and for returning us to a romanticized past of the “ideal” home, family, and school. (p.78)

The globalization of the US capitalist market makes it essential to understand that what is occurring in the US education system is related to what is happening to third world countries. A number of scholars posit that there is a direct relationship between increased global domination of transnational corporations and loss of US jobs, which in turn affects the communities in which our students reside and the schools that they subsequently attend (Apple 1995a; Chomsky 2000). While a host of scholars has examined the macrostructural impacts of social class on schooling, others have taken a more microlevel analysis of the effects of social class on school quality. Knapp and Wolverton (2004) maintain that social class has a detrimental impact on both content and pedagogy, wherein the curriculum is less rigorous and more concerned with social control, and disconnected from students’ background knowledge. Instruction is frequently non-dynamic and painfully repetitive without enhancing learning and student thinking. Habermas (1987) refers to the “pedagogy of poverty” that afflicts

scores of low-income classrooms, wherein an area where social class disparities were highlighted on a large scale recently occurred in California. In *Williams v. State of California*, a lawsuit was filed in May 2000 when 97 students from 46 different elementary, junior high, and high schools in California were part of a class action lawsuit to force the state of California to face the appalling conditions of many of its public schools. The plaintiffs argued that the State was negligent in providing thousands of public school students, particularly those in low-income communities and communities of color, with the bare minimum necessities required for an education such as textbooks, trained teachers, and safe and clean facilities. The State's failure to provide these bare minimum necessities to all public school students in California violates the state constitution as well as state and federal requirements that all students be given equal access to public education without regard to race, color, or national origin.

The lawsuit never reached trial as a US\$1 billion settlement was reached four years later, but the case helped shed much needed light on the gross disparities that existed in California classrooms, particularly those from low-income backgrounds. Student health and safety was being severely compromised in many schools due to the substandard conditions of school facilities, which were unsafe, not up to county and state building codes, poorly ventilated, vermin infested, and had a litany of other slum conditions. Furthermore, learning opportunities were significantly hampered by lack of qualified and highly trained teachers, lack of gifted, advanced, and honors classes, and inadequate school supplies and materials. The *Williams* case was important because it helped illuminate the manner in which issues of economic deprivation and social class division create harsh and unimaginable learning environments.

The Salience of Race in Inequality

Race, in many ways, has been and remains the single dynamic that has shaped United States history, its landscape, and the overall way of life (Marrable 2002; Omi & Winant 1994). The failure to engage in critical discussions about race and racism, and its ugly historical legacy in the United States continues to polarize a nation with increasingly rich racial diversity. As Manning Marable points out, "Instead of talking abstractly about race, we should be theorizing about the social processes of racialization, of how certain groups in US society have been relegated to an oppressed status, by the weight of law, social policy, and economic exploitation." (p.10) Manning's claim should serve as an alarming call to education scholars who are concerned with issues of equity and access. The noted sociologist Howard Winant (2001) states

Race is present everywhere. . . . Race has shaped the modern economy and nation-state. It has permeated all available social identities, cultural forms, and systems of signification. Infinitely incarcerated in institution and per-

sonality, etched in the human body, racial phenomena affect the thought, experience, and accomplishments of human individuals and collectivities in many familiar ways, and in a host of unconscious patterns as well. (p.1)

The United States' record on issues of race and educational equality is far from stellar. Some would argue that race has frequently served as the determining variable in determining access to school quality and core democratic rights (Anderson 1988; Loury 2002). Leading theorists on race have argued that the marginalization of race and consequently racism are interwoven into the historical conscious and ideological framework of the US and most of its institutions (Bell 1992; Delgado 1999). Critical race theorists assert that racism is and has been an integral feature of American life, law, education, and culture, and any attempt to eradicate racial inequities has to be centered on the socio-historical legacy of racism (Delgado & Stefancic 2000). It is through this lens of race and all of its manifestations that make critical race theorists seek to challenge racial oppression and subjugation in legal, institutional, and educational domains

Critical race theory within education seeks to give the much needed attention to the role that race plays in educational research, scholarship, and practice (Ladson-Billings 2000; Solorzano & Yosso 2002; Solorzano 1998). The inclusion of a critical race framework is warranted in education when one considers the perennial underachievement of African American, Latino/Latina, Native American, and certain Asian American students in US schools. Critical race theory within education enables scholars to ask the important question of what racism has to do with inequities in education in unique ways. Critical race theory examines racial inequities in educational achievement in a more critical framework than multicultural education or achievement gap theorists by centering the analysis on difference and inequity on race.

One area that has come under intense scrutiny recently as an example of where race has contributed to disproportionate inequities has been school punishment and discipline. One of the more compelling examples is the "zero tolerance" policies. Implemented in the late 1990s in response to the spate of school shootings, the zero tolerance policies were designated to suspend or expel students for bringing weapons or drugs to school and curb student violence. Although the school shootings that prompted schools to adopt the zero tolerance policies were at predominantly White schools involving White students, students of color have been expelled and suspended at rates far higher than White. African American students make up approximately 17% of the nation's student population but comprise 33% of school suspensions. Conversely, White students who comprise 63% of the nation's student population make up 53% of school suspensions (Civil Rights Project 2000).

In almost every major city in the United States, African American male students are overrepresented in suspensions and expulsions. In New York City,

African American males make up 18% of the student population, 39% of school suspensions, and 50% of expulsions. The disturbing pattern holds true in Los Angeles where African American males make up 6% of the student population, 18% of the suspensions, and 15% of expulsions (Civil Rights Project 2000). The United States Department of Education reports that 25% of all African American male students had been suspended at least once over a four-year period and are 2.6 times more likely than White males to be suspended from school (Schiraldi & Ziedenberg 2001). Racial disproportionality in suspensions and expulsions is also a consistent finding in the literature (McFadden, Marsh, Price & Hwang 1992). Yet, Skiba, Michael, Peterson, and Nardo (2000) conclude that “studies have yet to find racial disparities in misbehavior [are] sufficient enough to account for the typically wide racial differences in school punishment” (p.6). Their findings suggest that African American males do not necessarily misbehave more than other students, notwithstanding disproportionate punishment statistics.

Difference? Different from Whom?

The inequality that is often concomitant with the social construction of difference is not easily captured or identified. As it relates to race and ethnicity, Whiteness tends to provide a distinct advantage but not always (Morris 2006). As it relates to sex, maleness tends to be an advantage (Hubbard 1995). As it relates to language, English tends to be an advantage (Espinoza-Herald 2003). As it relates to social status, wealth tends to be an advantage (Strouse 1997). Even with these tendencies, race, status, and ethnicity tend to produce varied outcomes that contradict these tendencies.

A measurement of most school indices would indicate that White children perform better on standardized tests when compared with their African American and Latino/a counterparts regardless of socioeconomic status (Shapiro & Purpel 2005). Asian American students, particularly those of Japanese or Korean ancestry, outperform White students on standardized exams (Curry 1996). When African American middle income students are compared with White students from low income backgrounds, the advantage based on Whiteness decreases considerably, and in some cases, it disappears altogether (Brooks-Gunn, Klebanov & Duncan 1996). When boys and girls are compared as an aggregate group, boys tend to have a slight overall advantage in terms of testing (Tate 1997). When race, ethnicity, and class are accounted for, there are many scenarios under which girls do considerably better than boys. For example, White middle income girls have a tendency to perform better than Latinos of any stratum (Patterson, Kupersmidt & Vaden 1990).

Attempting to quantify disadvantage and inequality based on difference is not as easy a task as one might assume. The general advantages that tend to be gained by Whiteness, maleness, class, or language are not absolutes and alone do not ex-

plain the perpetuation of inequality comprehensively. Given the reality that no single set of characteristics explains the perpetuation of inequality, an honest investigation of difference and its role in the perpetuation of education inequality has to account for the nuances and complexities that make absolute generalizations inappropriate. However, analyses examining difference also have to account clearly for the well documented legacy of legal educational discrimination based on race. Moreover, analyses examining difference have to recognize the political, economic, and social legacy of educational discrimination that gives privilege to Whiteness at the expense of anyone identified as “other” (Sparks & Ramsey 2006).

The implicit question when referring to difference is: Different from what or whom? The social construction of difference cannot simply be reduced to a single set or one identifying marker. Difference in this context periodically refers to race in some circumstances but in others, difference is about sexual orientation or ethnicity or any one or a set of characteristics that human beings use to distinguish themselves from one another (Koppelman & Lee 2005). Difference here is not about an individual or group of characteristics but it is more about an idea. The idea human beings can be neatly categorized into mutually exclusive groups.

Moreover, this idea rooted in the notion that an individual’s or group’s attitudes, behaviors, or world views can be ascertained by identifying and categorizing these arbitrary human divisions. In this context, difference does not necessarily require a human comparison group; this meaning of difference necessitates only the idea that certain collections of human beings are categorically distinct from one another. Central to this notion is the idea that certain groups of humans can be assessed based on broad categories such as race, ethnicity, class, gender, sexual orientation, or a host of other arbitrary distinctions of humanity. This notion of difference represents the primary source for the social construction of the “other.” These broad categories provide surprisingly little information about an individual or group. The resiliency of these categories speaks more to a socio-economic-political necessity to group people more than it does to any real connections of people involved in or affected by these categorizations.

The understanding that difference is not based on actual human differences but on the false idea of mutually exclusive and socially constructed human categories is important. The fluidity of these socially constructed identities provides the mechanisms to perpetuate inequality or it provides the opportunity to address it. Once it is understood that these identities can and do change, these arbitrary decisions can be investigated and re-evaluated for the purpose of improving the quality of education for all students in US schools.

Why the *Oppression Olympics* is Not the Answer

The context of difference and its connection to inequality is often a source of tension between affected groups. There is both a tendency and temptation to

place varying types of oppression and prejudice within a hierarchical framework. This is frequently done due to the experiences of oppressed groups for the purpose of determining which group has been more systemically maltreated. The inequitable distribution of resources often leaves marginalized groups competing for a share of the paucity of resources set aside for disadvantaged groups. Consequently, marginalized groups have a tendency to organize around particular characteristics such as race, gender, ethnicity, sexual orientation, and to a less extent, class.

Disenfranchised groups vie for resources in what is perceived as a zero sum gain environment (Verba & Nie 1972). For example, to the extent that schools allocate resources addressing the issues that particularly affect students from the Latino/Hispanic community; this decreases the resources that are available to all other marginalized students (e.g., African American students, gay and lesbian students). This perception has produced what can be referred to as the *Oppression Olympics*. This phrase attempts to capture the idea that competing marginalized groups' share of educational resources is linked to their ability to quantify how they are affected by systemic education inequality.

The Oppression Olympics encourages marginalized groups, based on an array of differences, to focus on the experiences of the particular group they represent or the community or communities for which they consider themselves a member. In some respects, this approach accentuates differences and perpetuates varied educational outcomes based on notions of difference. The Oppression Olympics facilitates, although often implicitly, a tension surrounding the access and opportunity to educational equality. The zero sum gain approach often leads many marginalized groups to believe that if one group gains it is at the expense of all other marginalized groups.

The zero sum approach theoretically does not address systemic processes that often perpetuate education inequality. If the goal is to improve the quality of education for all students then it is necessary to examine what procedures and structures are producing the outcomes. Latino/Hispanic and African American students are often under-represented in advanced placement courses around the county (Shapiro & Purpel 2005). This is further accentuated by the fact that Latino/Hispanic and African American students are over-represented in special needs classes (Obiakor & Ford 2002). Latino/Hispanic and African American students are more likely to experience suspension in schools and are disproportionately affected by long-term suspensions (McFadden et al. 1992; Skiba, Peterson & Williams 1997). It is not enough to put more of these students in one set of courses and less students in others nor is it enough to suspend some student less and some students more. It is important that the procedures that produced those realities be examined because if they are not then there will continue to be similar results.

When various groups, both those who are marginalized and those who are

not, work together it is more likely to see systemic change that positively affects all students matriculating through the US educational system (Cushner, McClelland & Safford 2006). If one was trying to clean a pool, you could not simply clean one section of the pool and determine the entire pool is clean. Education inequality only becomes educational equality when all students are presented with the similar opportunities and access to educational success. It is not enough to improve the circumstances for a particular community. The educational system either provides the similar opportunities for all communities or it does not. If it does not, then the process continues to produce education inequality, and the only circumstances that change is who is affected and to what degree. The entire pool is clean or it is not.

The idea that marginalized groups have to compete for access to a finite and relatively small set of resources is a significant contributor to the perpetuation of both the socio-economic-political notion of difference and its predictable outcome of education inequality. Certainly, many of the differences between groups are the result of legitimate divergent cultural world views and should be acknowledged by the educational system. What is also important is that there is as much diversity among groups as there is between groups. Moreover, the processes and structures that produce varied educational outcomes affect many of these groups in similar ways. To that end, the concerted efforts of different groups can be a more effective tool than the divided and disconnected efforts that operate in the interest of a particular group under particular circumstances.

Implications of Getting it Right

According to the 2000 Census data, 39% of the population aged 25 and younger in the US is of non-White ethnic status, while the population 65 years and older is 16% non-White (U.S. Census Bureau 2000). The Asian American population has tripled in the last 20 years, while the Hispanic/Latino population has doubled (U.S. Census Bureau 2000). It is of paramount importance that the next generation of students and teachers be both aware and prepared to operate in the world they are destined to inherit.

Moreover, there is no aspect of education inequality affecting students from non-White populations that does not also have an expression in White communities. High school dropout rates disproportionately affect Hispanic/Latino and African American students (U.S. Census Bureau 2000). However, in major urban areas in the US, White students make up the single largest group of people over 18 without a high school diploma (U.S. Census Bureau 2000). While White students are more likely to attend college than African American and Latino/Hispanic students, White people with a high school diploma and no college experience in urban areas outnumbers African American and Latino/Hispanic communities in the same category combined (U.S. Census Bureau 2000).

The changing national demographics in the US require educators to represent the front line of the changing human landscape. It is important that Educators be prepared to become change agents for their students, themselves, their classrooms, and many times their schools. Pedagogical approaches used by educators are more effective when they not only appreciate and respect the difference but also when they use difference as an asset to shape the educational environment possibility (Anyon 1988). The fluid notions of difference require educators and subsequently education institutions to become learners and reflective in an effort to grow constantly through meaningful interaction with their students and the cultures and communities they represent (Senge, Cambron-McCabe, Lucas, Smith, Dutton & Kleiner 2000). This not only has the potential to improve the quality of education for students who represent marginalized groups, it also represents a mode of interaction essential in a multicultural, multiracial, and pluralistic society (Apple 1990; Freire 1998).

In the approach, education programs are encouraged to produce educators who have the skills, self-efficacy, and the will to not be threatened by difference but seek to understand, respect, and embrace difference in such a way that all those involved become better for the experience. Educators cannot simply verbally assert an appreciation for difference by way of multiculturalism, diversity, multiple intelligences, or whatever else is the politically correct “buzz” word of the moment. Educators are asked to respect the communities they work in particularly when it is a community in which the teacher has little first hand knowledge or experience. Education in general requires community building efforts, and those efforts are particularly important in the context of the social construction of difference.

Education inequality is an important issue not just simply for marginalized groups but for all students matriculating in US schools. The struggle to address the outcomes of education inequality is better served when they are also grounded in an effort to improve the structures and policies that produce inequity. When unfair structures and policies are improved, the quality of education for all students is improved. If the notion of difference is a pre-requisite for education inequality, then the notion of community is a pre-requisite to change it. The notion of community is an essential idea in educational improvement because it is important for school communities not to see themselves as disconnected communities with mutually exclusive cultures, values, and world views but rather as a nation of interdependent communities with legitimate differences and similar challenges and interest.

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Measuring Educational Inequality in South Africa and Peru¹

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Introduction

In 2000, Thomas, Wang, and Fan published a paper calling for the application of the Gini coefficient to educational attainment. The idea was to treat educational attainment as a wealth stock, and to calculate Gini coefficients for, say, years of attainment, as a way to see trends within countries or to compare countries. Since then there have been a few applications to particular countries. Holsinger, Collins, and Rew (2004) apply a similar methodology to measure regional variations in attainment in Vietnam. In his presidential speech to the Comparative and International Education Society, Holsinger (2005) calls for further analysis of education inequality.

Here we take up this challenge, with several twists and extensions. First, we compare two interesting societies: South Africa and Perú. Second, we extend the concept not just to attainment but to input provision and achievement. Third, our analysis is not about the inequality of education spending or attainment per se, but of its concentration along income lines.

The comparison between South Africa and Perú is instructive because there are many societies in the world that practice a sort of non-statutory *apartheid*. While this form of social inequality is not as vicious in its processes, and not as unequal in its results, as the formal, statutory *apartheid* that reigned in South Africa, it does result in considerable inequality and, ironically, inequality that because of its non-statutory basis is harder to fight.

Second, comparing the inequality in input provision (such as the pupil-teacher ratio, funding per child, and so on) with the inequality in learning achievement, and the latter with the inequality in parental income (or total expenditure) is interesting. If inequality in achievement is greater than inequality in input provision, one might wonder whether input provision is the most important constraint in generating greater equality in results. It is also instructive to note whether inequality in educational achievement seems to be smaller than inequality in parental income.

Third, measuring inequality of provision of education inputs, or of learning achievement, per se, may be misleading if one wants to extend the analysis to-

ward the input side. In the case of education attainment or achievement, the size of the variance itself is interesting because it is unlikely that variation in education could conceivably be pro-poor. (Although even then there is a small natural variation in achievement due to the differential natural ability in children.) Thus, the Gini coefficient of educational attainment or achievement is an interesting thing to compare across time or between countries. However, the variance in educational input provision *could* be pro-poor. It thus seems wise if one is to compare the distribution of inputs with the distribution of results, and the latter with the distribution of income to standardize one's comparisons by always using the same sorting concept: parental income (or a total expenditure proxy). Thus, in this paper we work exclusively with indices of concentration where the sorting (or horizontal axis, in a Lorenz-curve sense) variable is parental income (or expenditure, or some index of school socioeconomic status), regardless of the sorted (or vertical axis) variable.² For this reason we do not refer to Gini coefficients but to coefficients of concentration, except when the sorting variable is the same as the sorted variable. Since coefficients of concentration can be pro-poor, they can take on negative values, and the higher the negative value, the more pro-poor is the distribution of the underlying variable.

The choice of South Africa and Perú is more than opportunistic. While South Africa had *statutory apartheid* and Perú did not (at least not in any recent period), it is difficult to deny the levels of racial discrimination and inequality that exist in Perú. The similarities between Perú and South Africa have not escaped the perceptions of other analysts (for instance, see Arrisueño 2004). Furthermore, if using the Programme for International Student Assessment (PISA), Progress in International Reading Literacy Study (PIRLS), and Trends in International Mathematics and Science Study (TIMSS) one takes the ratio of performance at the 95th to performance at the 5th percentiles as an index of inequality of achievement, Perú has the worst such ratio in the PISA sample, and compared with other international tests such as PIRLS and TIMSS (for a total of 25 developing countries), Perú's performance on PISA shows more inequality than any other country's performance on any of these three international tests except for South Africa's performance on TIMSS and Belize and Morocco's on PIRLS. More importantly, this index of education inequality is, in most countries, fairly well correlated with the Gini coefficient of income inequality. However, Perú and South Africa are outliers: their levels of inequality in education are much higher than their levels of income inequality would suggest: more than income inequality is at play in determining inequalities in educational achievement. Racial discrimination or linguistic barriers to achievement seem to play a role that goes beyond income inequality.

South Africa: The Results of Intentional Apartheid and a Focused Struggle against It

The levels of inequality that were systematically built into the South African economy and society by over three centuries of colonialism, culminating in four decades of apartheid social engineering (1948 to 1994), make South Africa an instructive case for examining education inequalities. In many ways, education inequalities lie at the heart of South African inequalities, and the 1955 injunction by Minister of Native Affairs (later Prime Minister) Verwoerd that the country's Black majority be subjected to an education system that would be more separate, more centrally controlled, less costly, and of a lower quality than had previously been the case still stands out as an infamous milestone in the country's history.

The Progressivity of Public Inputs: Insights from Benefit Incidence Analysis³

Since 1999, South Africa's Ministry of Finance has periodically commissioned benefit incidence research with respect to publicly funded education. There is a keen interest in monitoring the effects of the complete overhaul of the public expenditure system that succeeded the formal end of apartheid in 1994. The post-1994 changes have involved both a complete institutional makeover (a new system of nine provinces to replace the race-based apartheid bureaucracies) and major strides to shift a patently pro-rich public service towards a pro-poor one.

One study by Van der Berg (2005), which forms part of the Ministry of Finance's set of benefit incidence analyses, serves as a useful point of departure. The study deliberately avoided the simplifying assumption, implicitly recommended in several World Bank manuals (for example Pradhan 1996, p.72), that all recipients of the education service cost the state an equal amount. The extreme per pupil expenditure differentials of the apartheid education system are well documented (Buckland & Fielden 1994), and this makes an equal cost assumption perilous. In the schooling system, Van der Berg (2005, Appendix) finds public expenditure on the average White pupil to be 29% higher than expenditure on the average African pupil in 2000.⁴ This is similar to what Fiske and Ladd (2004, p.123) obtain in Western Cape when comparing 2001 per pupil expenditure in schools from the previous White administration with that in schools from the previous African administration—the former was found to be 28% higher than the latter. (Yet, in 1991, this figure stood at a staggering 347%.)

The grouped data approach of Van der Berg (2005) used groups of the South African population (not just pupils), and within each group, average per capita income and average public education expenditure per capita were used to construct the final indicators of benefit incidence. More importantly, public expenditure on pupils within a group was spread out across all members of each

group regardless of age—the implications of this for the interpretation of the statistics will be explained further on. Concentration curves illustrating the inequality were graphed. Table 20.1 sums up the concentration index values obtained.

Table 20.1: Concentration Indexes for South African Education

	School education (1)	School education (2)	School education (3)	Tertiary education	All education
1991			0.260		
1993		0.079		0.261	0.113
1995	-0.124	-0.016		0.235	0.030
1997		-0.078		0.223	-0.023
2000	-0.121	-0.104			
2004			0.027		

Sources: All columns except for School education (3): Van der Berg (2005). School education (3): Authors' calculations using Buckland and Fielden (1994), and various publications and datasets of the National Treasury and Department of Education

The first column indicates the concentration index values obtained for the schooling system if equal expenditure per enrolled pupil is assumed, that is, if the typical World Bank benefit incidence approach was followed. Given the negative values, this approach portrays public education expenditure as being pro-poor as early as 1995. However, the point has already been made that the equal cost method is not feasible in the South African schooling context. The second column presents the more reasonable cost-sensitive concentration indexes. This column indicates a more plausible trend, namely that public education expenditure shifted from a clearly pro-rich pattern in 1993 (positive concentration index) to a clearly pro-poor one in 2000 (strongly negative concentration index, though not as strongly negative as the corresponding value in the first column, due to the assumption that each poor child's benefits are on average lower than each rich child's benefit). The tertiary education column indicates that public spending at this level has remained pro-rich (in fact, substantially more pro-rich than in the schooling system in 1993), although there has been a marginal shift toward less inequality. This is of course not unique to South Africa. The net trend for schooling and tertiary education combined reflected in the last column has been from a pro-rich spending pattern in 1993 to a marginally pro-poor one just four years later in 1997. The figures in the column labeled *School education (3)* emanate from a different study, and they will be discussed further on.

In dealing with policy implications, the Van der Berg (2005) study begins by affirming that new education policies introduced after 1994 lay behind the

huge shifts toward a more progressive public expenditure system as reflected in Table 20.1. Above all, policies governing the distribution of publicly paid teaching posts resulted in a movement of teaching posts (although generally not actual teachers) toward the historically disadvantaged parts of the schooling system. A secondary contributor to greater equity was the introduction of a pro-poor distribution norm for non-personnel recurrent funding. Greater participation in the schooling system in poorer communities was not as major a contributor toward greater equity as in other countries, given that participation rates were high across all socioeconomic groups in 1994.

Due to the intergovernmental relations of South Africa, the pro-poor education policies referred to concentrated on pro-poor redistribution *within* provinces. However, there was also a major intraprovincial redistribution of education resources. This occurred through the Ministry of Finance's interprovincial fiscal distribution formula, which channeled proportionally larger grants toward the poorer provinces. It is essentially these grants that fund the social services, including pre-tertiary education, which the provinces must deliver.

The benefit incidence study that has been discussed is accurate insofar as it points toward an undeniably large shift in government expenditure toward the poor. The expenditure shifts in education should be considered in light of the fact that education accounts for around 23% of the national plus provincial government expenditure and just over 5% of the GNP. These shifts are possibly unparalleled elsewhere in the world in terms of magnitude, speed, and deliberateness.

However, the benefit incidence methodology we have described has some limitations if we are to use it to understand the education system and guide policy. In particular, the use of the whole population, as opposed to the population of the specific ages being targeted by the services, brings about the anomaly that a system spending 29% more on each rich pupil becomes characterized as a pro-poor system as evidenced by the negative concentration index of -0.104 in Table 20.1. This is because the methodology uses the fact that poor families tend to have more children, and tend to use public (as opposed to private) schools more, as a basis for saying that the poor benefit more from publicly funded education than the rich. The 2001 population census reveals that while 23% of Africans were aged 4 to 14, only 14% of Whites were of this age (Statistics South Africa 2004, p.22). Thus, even a completely equitable distribution of public expenditure on children would translate into an advantage for Africans of around 65%. The benefit incidence analysis we have looked at can be important in international comparisons given the widespread utilization of this methodology, but it can yield anomalous information where the age pyramid differs greatly by socioeconomic group. If the policy goal is to bring about a pro-poor public expenditure pattern in education, and this is clearly the case in South Africa, then the appropriate expenditure comparison is across enrolled pupils for some ana-

lyses and school-age children for other analyses but ideally not across *families*.

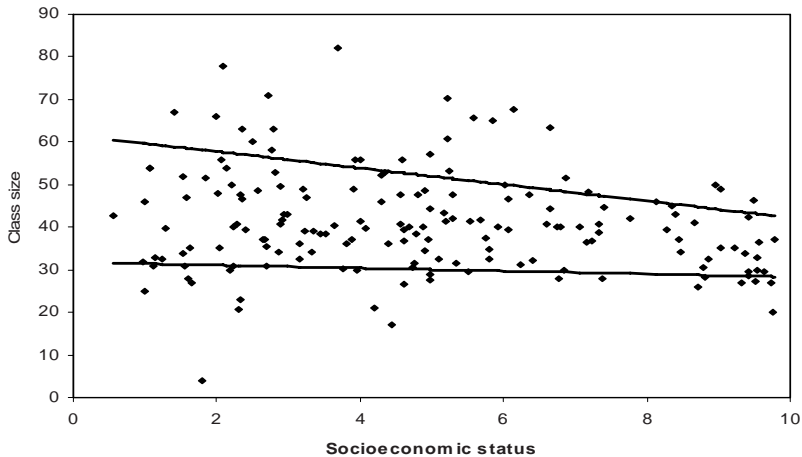
An analysis undertaken by one of the authors using similar data employed by Van der Berg (2005) found public expenditure on the average White pupil to be 10% higher than that of the average African pupil in 2004.⁵ Apart from concentrating on a more recent year, the author's analysis brought in two items not included in Van der Berg's (2005) study, namely, capital expenditure (this is clearly pro-poor) and expenditure on non-teaching staff (this is still clearly pro-rich). Moreover, the author's analysis took into account the effect of the racial mix of pupils in previously White, Colored, and Indian schools, something which was explicitly not incorporated into the benefit incidence analysis due to data limitations. This latter point has become an important consideration given that by 2002 around one-third of pupils in previously White schools were not White.

The author's analysis reveals more or less the same picture provided by Van der Berg (2005) of a somewhat regressive public expenditure pattern. The concentration index of 0.027 for 2004 in the third column of Table 20.1 is obtained if we consider school-age children, regardless of their enrolment status, as the unit of analysis. A similar methodology using school-age children was applied to 1991 data, and this resulted in a strongly regressive concentration index of 0.260. Thus, although the net public spending patterns of the schooling system were not pro-poor by 2004, they were almost completely equitable: clearly tremendous advances had been made in the post-apartheid period. In terms of the concentration index, spending inequality in 2004 was one-tenth of what it had been in 1991.

The Department of Education, since the new non-personnel funding norms of 1998, has increasingly used race-blind poverty quintiles of enrolled pupils as a framework for planning pro-poor public spending (South Africa Department of Education 2003, p.59). More importantly, whole schools are placed in these poverty quintiles, using socioeconomic data on whole communities, so within-school variations in socioeconomic status are not explicitly dealt with in this framework. As whole schools are targeted for pro-poor spending, expenditure comparisons across the quintiles would tend to over-estimate the degree of regressiveness or progressiveness (whichever was the predominant pattern) in funding as poor pupils in rich schools and rich pupils in poor schools would not be brought into the equation.

We should question the extent to which the expenditure data accurately reflect the intensity or value of the service received in the classroom. Data collected from representative samples of schools offer the advantage of a more realistic picture of the resource flows that actually reach pupils. Data collected as part of the regional SACMEQ⁶ program are useful in this regard even if resources are reported as physical inputs and not in terms of their monetary value. As an example, Figure 20.1 that deals with Grade 6 class sizes relative to socioeconomic status sheds light on some of the matters on teacher post distribution referred to earlier.

Figure 20.1: School Mean of Socioeconomic Status and Class Size Showing Interquartile Range



Source: SACMEQ (2000).

The variance in class size, especially where poorer pupils are concerned, is greater than what the national post provisioning policy would suggest. A negative and statistically significant slope obtained from an interquartile regression with socioeconomic status as the independent variable confirms that there is greater variance in class size in poorer schools.⁷ This results perhaps from a mix of within-school teacher distribution factors such as factors relating to unfilled posts, teacher absenteeism, and the presence of privately paid teachers in better off schools. The grouped data analyses we have discussed deal with some but not all the input inequality illustrated in the above graph.

An important point illustrated by the above graph is that poorer pupils seem not to be systematically subject to smaller classes resulting from the concentration of poverty in rural areas with small schools. In fact, the slope coefficient of -0.20 (t statistic of -3.02) indicates that a lower socioeconomic status is weakly associated with larger classes. The reverse is true in some developing countries, and it leads to the difficult question of whether to regard preferential per pupil expenditure in rural areas linked to smaller schools as a benefit (in Perú, this seems to offer some benefits to the poor). The relative absence of this dilemma in South African expenditure equity analyses can be traced back to the post provisioning policy, which provides only a small provisioning advantage for small schools (each school is provided with more or less half a teaching post automatically, and beyond this level essentially everything depends on enrollment).

Given the fact that nine provincial governments each determine what proportion of their provincial budget should be allocated to their respective school-

ing programs, it becomes important to distinguish within-province inequalities from between-province inequalities. Crouch (2003, p.15) finds that 88% to 93% of the input inequalities relating to the pupil/teacher ratio resided within provinces in 2000. The 2004 expenditure data generated for the author's analysis, when subjected to a variance components model, indicate that 22% of the per pupil expenditure inequality is between provinces, meaning that most (78%) of the expenditure inequality is found within provinces.

More importantly, in all the indicators of input inequality so far, "inputs" have been taken to be the monetary value of recurrent inputs (with one exception where capital expenditure for one year was included in the calculation of the concentration index). The value, monetary or otherwise, of the total stock of physical capital inputs and human capital inputs has not been analyzed in quantitative terms. Some analysis into the physical capital inequalities exist (Crouch 2003; South Africa Department of Education 2002), but rigorous analysis into the inequalities relating to the human capital inequalities, specifically the inequalities relating to teacher knowledge and skills, is not available. This is a serious research gap (not only in South Africa, it should be added), especially given the importance of teacher human capital in a schooling system.

The Progressivity of All Inputs: How School Fees Affect the Overall Picture

Private spending on education in South Africa is relatively low for a variety of historical reasons. Private schools incorporate around 2.5% of all school pupils in the country, and the Statistics South Africa household survey data indicate that expenditure on education in 2000 amounted to 4% of household expenditure on average (food, clothing, and drinks/cigarettes came to 22%, 4%, and 3%, respectively) (Statistics South Africa 2002, p.50). At the same time, Statistics South Africa data indicate that there was an upward trend in this statistic from 2% to 4% between 1995 and 2000. At the level of primary and secondary schooling, over 80% of private education expenditure goes to school fees in public schools (as opposed to fees in private schools). The parents at a given school may vote to levy themselves school fees (which stay at the school level). Parents in relatively rich areas have made use of this right to raise substantial private revenue needed, firstly, for the upkeep of more elaborate school facilities, including sporting facilities, inherited from the past apartheid; secondly, to reduce class sizes through the private hiring of teachers; and thirdly, to compensate for the lower non-personnel recurrent allocation received according to the pro-poor school funding norms. The fee-setting process must take into account the obligation of schools to exempt pupils from poorer families according to a national fee exemptions norm. The level of fees set, the degree to which poor households are indeed being exempted, and the effect of the exemptions policy on school ad-

missions are much debated topics (South Africa Department of Education 2003; Fiske & Ladd 2004). Schools from the former White administration, comprising some 7% of all schools, collect fees to a value of between 50% and 60% of their public revenue. Analysis of Western Cape data indicates that these schools apply fee exemptions to some 4% of enrolled pupils (Fiske & Ladd 2004, p.144).

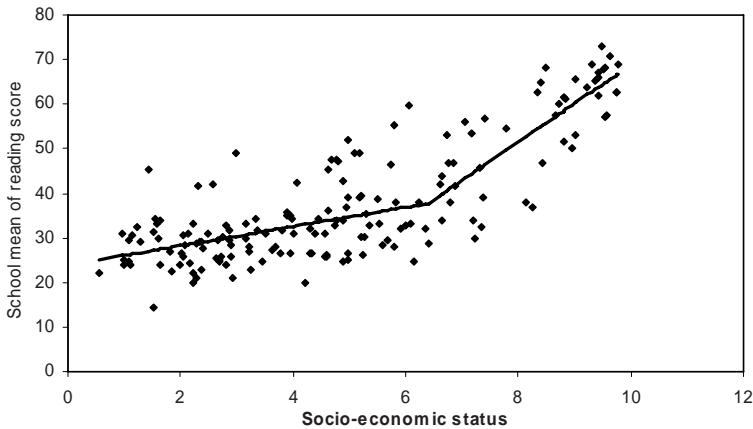
Practically all schools from the historically Black administrations charge school fees but at a level that is substantially lower than in the historically White schools. On average, their fees amount to between 1% and 3% of public expenditure. School fees in public schools clearly undo some of the progressivity in public funding described in the previous section. School fees, by themselves, have a concentration index of 0.48 (compared with Perú's 0.64 index in Table 20.3 below). When combining public and fee resources, the public funding concentration index of 0.027 referred to in Table 20.1 becomes 0.057. More importantly, this new statistic is still well short of the 0.260 concentration index that described schooling inputs in 1991.⁸ Thus, it is true to say that while school fees do counteract input equality in schools, the current schooling system is substantially more equal than the apartheid schooling system even with school fees (with reference to the concentration index, we can say that it is five times more equal than it was previously). Furthermore, by allowing for fees in middle-class schools, it has prevented a spontaneous privatization of schooling; schooling in South Africa is still overwhelmingly public.

There are other aspects to the equity effects of school fees, however. One is that school fees in poor schools, even if they are only 1% to 3% of public expenditure (and 3% to 4% of the total private expenditure *on average*), might pose a barrier to entry for the poor (or become a regressive charge if they do not deter entry). For this reason, the Department of Education is currently planning for the phased abolition of fees from schools serving the poor.

The Equality of Outputs

Despite the advances made in equalizing inputs across schools since 1994, there is a widespread concern over the persistence of quality and output inequalities in the schooling system. The SACMEQ data reveal the following pattern in the relationship between socioeconomic status and the mean reading score of the school for Grade 6.

The relationship appears to be a non-linear one. Among the poor, increases in socioeconomic status appear to be associated with smaller improvements in the scores than among the non-poor. A similar non-linear relationship is found if we use the TIMSS 2003 data for South Africa, which refers to Grade 8 pupils. In both the TIMSS and SACMEQ data, a piecewise linear model (represented by the lines as in Figure 20.2) provided a marginally better fit than other non-linear models.

Figure 20.2: Socioeconomic Status and Reading Scores across Schools

Source: SACMEQ 2000 data

The above graph should be interpreted with great care. The socioeconomic indices constructed from the SACMEQ and TIMSS datasets, like many socioeconomic indices of this type, are calculated from a few categorical variables relating to household characteristics. As such, these have ordinal but not cardinal meaning. If we compare this methodology to the use of household income, then this methodology results in a greater differentiation between poor households and a smaller differentiation between rich households. Clearly, many middle class households in South Africa would be assigned the maximum socioeconomic index value simply because they have all the household items used for the index. The differentiation between the non-poor schools in the above graphs would thus be more of a result of the presence of less advantaged pupils in those schools, and less of a result of an actual differentiation between the socioeconomic levels of non-poor pupils. We can compare the socioeconomic index derived from the SACMEQ data to the household incomes of school-age children from Statistics South Africa surveys to gauge the difference between the two methodologies. According to the SACMEQ index, the 90th percentile of children, if we sort them ascendingly by socioeconomic status, are 1.4 times as advantaged as the 70th percentile. If we use household income, however, the corresponding differential becomes 2.8.

What are the implications for the interpretation of the preceding graphs? Above all, any argument saying that differences in socioeconomic status translate into larger pupil performance improvements among the non-poor than among the poor should be carefully qualified. The relationship is non-linear if the household items index we have referred to is used. It would also be

non-linear, in fact with a more prominent change in the slope of the piecewise linear model, if percentiles of pupils ranked by the SES index were used. In other words, socio-economic ranking would be associated with even larger performance improvements among the rich than among the poor. The use of household income would result in a more linear model.

What we can conclude from the preceding graphs is that among similarly poor schools, there is considerable variation in performance. This points to the possibility of using role models from this group of schools to base the design of the intervention strategies.

The concentration index for the reading and mathematics scores in the SACMEQ datasets are 0.17 and 0.14, respectively. We can compare this to the 0.027 concentration index for public expenditure: public monetary inputs are much more equally distributed than pupil performance. This is confirmed if we calculate a concentration index from the distribution of the inverse of class size, clearly a major input, using the SACMEQ data. This gives us another near-equality (in fact, slightly progressive) concentration index of *negative* 0.039. To complete the troika of SES-inputs-outputs, the Gini coefficient for the distribution of socioeconomic status as measured by SACMEQ is 0.319. We would expect a high degree of inequality here. South Africa's overall Gini coefficient for income is approximately 0.57 (Statistics South Africa 2002, p.48). We can thus further conclude that school outputs are more equally distributed than household SES. This presumably bodes well for a more equal distribution of socioeconomic status in the future.

While the statistics in the above schema are heavily dependent on the dataset and variables used, there is little to suggest that the general picture would change substantially if a different dataset was used. In a separate study from the one mentioned earlier, Van der Berg (2004) focuses on output inequalities as observed in the Senior Certificate examinations, the system-wide pupil assessment occurring at the Grade 12 exit point. The study compares results across race groups and finds African results to be lower than they should be given the equalization of school inputs since 1994. Despite the youth being 82% African and 7% White, African pupils obtain 70% of the Senior Certificate passes, while Whites obtain 15% of the passes. If one focuses only on passes adequate for university admission, African pupils obtain 51% and Whites 30% of the total. At the same time, Statistics South Africa income data indicate that African households and White households each attracted 43% of total household income nationally (extrapolated from: Van der Berg 2004; Statistics South Africa 2002, 2004). Grade 12 results, like the Grade 6 results measured by SACMEQ, would therefore seem to be less unequally distributed than income or socioeconomic status. The relatively poor association between socioeconomic status and performance at the poor end of the scale seen in Table/Figure 20.2, for instance, is also observed by Van der Berg (2004). The best performing quartile of poor Af-

rican schools had an average of 68% of pupils passing per school, while the worst performing quartile of these schools had an average of 18% of pupils passing. The figure for schools from the former White administration was 97%. This reinforces the conclusion that there are important role models to be found among historically disadvantaged schools.

Input equalization and a shift to pro-poor public spending in education are matters of great political importance in South Africa. Greater equality in terms of outputs, however, is fast moving up the political agenda. This is accompanied by an increasing interest in discovering what makes schools effective in the South African context. Crouch and Mabogoane (1998) provide an example of the argument that the management of inputs, as opposed to the presence of the inputs themselves, tends to be underestimated as the key to more effective schooling. The specific apartheid background of predominantly African schools in particular, whether the school fell into an urban “township” or a rural “homeland,” has been shown to have a significant effect on pupil performance, and this in turn has led to policy solutions better tailored for rural schools (Nelson Mandela Foundation 2005; Phurutse 2005). Simkins and Paterson (2005, p.33), in a study focusing on some 500 schools from poorly performing school districts, find language usage in the household to be the household variable with the strongest association with pupil performance. Specifically, pupils from households where English is spoken, as opposed to an African language, are advantaged. The language policy in schools is clearly an important lever for bringing about greater equality of outputs. It should be noted that none of the three variables just mentioned (management quality, ruralness, and home language) is directly captured within a per pupil expenditure statistic. This underlines the importance of conceiving “inputs” broadly and looking beyond public recurrent expenditure statistics.

Summary

Firstly, what can be said about educational equality in South Africa? The infamous apartheid legacy of public expenditure on White pupils being almost five times the figure for Black pupils has been undone during a period of 10 years through a redistribution of public expenditure that is probably unprecedented in any education system. As measured by the concentration index, public expenditure became 10 times more equal between 1991 and 2004. By 2004, the country was close to achieving a completely equitable public expenditure pattern. What has been clearly more difficult is achieving a radical redistribution in the access to physical capital (due to its very nature) and human or teacher capital (due to the government’s limited powers with respect to the redeployment of teachers, especially the costly teachers). Physical and human capital is clearly more difficult to measure than recurrent expenditure, and this is surely one reason why these issues have been subjected to less research. Private inputs in the form of

school fees are undoubtedly a source of inequality in the schooling system, but even taking these inputs into account, recurrent expenditure on schools is five times more equal in 2004 than it was in 1991, and this has been done without large scale spontaneous privatization. The current policy challenge on the input side is largely to bring about greater equity in pupil access to physical and human capital, through a strengthening of physical infrastructure programs, and through ongoing focus on teacher development and teacher pre-service training programs. On the output side, the challenge is to improve pupil performance in historically disadvantaged schools on the basis of a wide and carefully researched understanding of “inputs” using the numerous poor schools that do well as role models.

Secondly, what general conclusions can be drawn regarding the measurement of educational equality? Clearly, great care must be taken in the selection, utilization, and interpretation of education equality indicators. How the different units—the household, school, and pupil—are configured within the indicator can make a big difference. It is quite possible for one indicator to point to a pro-rich expenditure inequality in the system while another points to a pro-poor expenditure pattern. Neither indicator is incorrect, but each has its own function.

Perú: Unspoken Apartheid, also with Significant Improvement

The case of Perú is methodologically interesting in that it shows that one can come to quite different conclusions based on the type, purpose, and level (regional, provincial, and school) of analysis. It also shows that a country with unspoken or non-statutory discrimination can have levels of inequality similar to those found in South Africa, a country with a recent history of *statutory* inequality.

Traditional Benefit Incidence Analysis

In Perú, public spending on education in the basic levels is favorable to the poor (pre-primary, primary, and secondary) no matter what type of benefit incidence analysis one uses. In contrast, all the post-secondary levels show a regressively distribution favorable to the richer quintiles. However, since education is not a targeted program, the progressiveness of benefits in the basic levels is not a result of policy but of private choice: the better-off have fewer children and they self-select out of the public system.⁹ This happens much more in Perú than in South Africa, where even most of the families in the 5th quintile send their children to public schools (albeit public schools with high private fees). Thus, Perú shows extremely pro-poor spending for these levels of the system: concentration indices are as low (in an algebraic sense) as -0.26. However, this is a somewhat inappropriate comparison with South Africa. In a given country, if the public sector offers a service of poor quality such that only the poor remain in it, com-

paring the concentration index in that country to the concentration index in a country where there is sufficient quality in at least *some* public schools so that the middle classes do not select out is fairly misleading. Similarly, comparing concentration indices in countries where there are big differences in the ratios of fertility in rich versus poor families is also misleading. The misleading aspect is not in the actual distribution of benefits between families: this comparison is valid. The less valid aspect is the degree to which this tends to be (implicitly) attributed to policy rather than private choices such as fertility decisions, decisions to opt out of the public education system, or pay for private lessons, and in the degree to which this distribution can be used as a determinant or driver of the total social distribution of learning results.

Table 20.2: Benefit Incidence by Quintile 2003, Perú (Assuming Unequal Spending per Beneficiary)

Education Level	Income quintiles grouped by household income					Concentration Coefficient
	I	II	III	IV	V	
Pre-Primary	19.6%	20.9%	25.6%	23.7%	10.2%	-0.06
Primary	31.8%	26.8%	21.9%	14.0%	5.5%	-0.26
Secondary	18.2%	24.1%	27.3%	20.8%	9.5%	-0.08
Non univ. tertiary	3.7%	16.5%	33.3%	27.5%	19.0%	0.17
Undergraduate university	1.1%	5.5%	13.4%	31.3%	48.7%	0.48
Graduate	0.0%	0.0%	0.0%	16.9%	83.1%	0.73
Total	1.6%	7.4%	16.8%	30.1%	44.1%	0.43
post-secondary	19.4%	20.9%	22.7%	20.7%	16.2%	-0.03

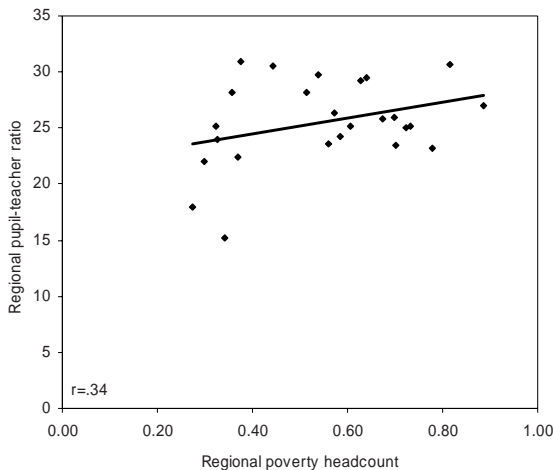
Sources: Beneficiaries: Computed from Encuesta Nacional de Hogares (ENAH) (2003); Pre-tertiary Benefits: personal communication, Public Budget National Bureau, Peru Ministry of Economics and Finance (2003). Tertiary Benefits: Peru Ministry of Economics and Finance (2003)

Analysis of Expenditure within the Public Sector

To make proper comparisons *between countries* (or regions within a country) of the incidence of expenditure as a result of policy rather than private choice, it seems more fruitful to compare spending levels per actually enrolled child (as opposed to per family) between social groupings *within* the public sector. This can be done for Perú. However, the interesting lesson that emerges is that one gets different results depending on the level of analysis: the more macro the analysis, the more *regressive* the distribution of the key input—the teachers—appears to be. Below, we show this by doing analysis at the regional (the most macro), provincial, and school (the most micro) levels. The results at the micro level are the opposite of the results at the macro level.

The analysis can be done at the regional, provincial, and school level and one gets quite different results. The results at the regional level in Figure 20.3 show that there is a positive correlation between poverty and the pupil-teacher ratio: children in poorer regions have fewer teachers, and hence, most likely lower expenditure per pupil. The correlation between poverty and the pupil-teacher ratio is -0.34 . However, if one performs the analysis at the provincial level (shown in Figure 20.4), the correlation decreases to 0.14 . (Note that there are indeed as many provinces in Peru as there are points in this figure. This represents a serious efficiency problem and presents a challenge to rational decentralization policy, but that is a subject for another paper.) The reason for this is that population density is correlated with poverty but so is the pupil-teacher ratio. Poorer provinces are also less population-dense, and less population-dense areas have lower pupil-teacher ratios. Therefore, the more disaggregated the analysis, the lower the correlation between poverty and the pupil-teacher ratio. Finally, when the analysis is brought down to the school level, the relationship becomes negative: the poor are seen to have a lower pupil-teacher ratio. This is because at this level, the association between poverty and low population density is highest. Poor schools are in low population-density areas, and thus the poor have lower pupil-teacher ratios, and this shows up most clearly only at the most disaggregated level. The correlation between poverty and the pupil-teacher ratio is now -0.43 as can be seen in Figure 20.5. This figure uses the data from the 2001 Na-

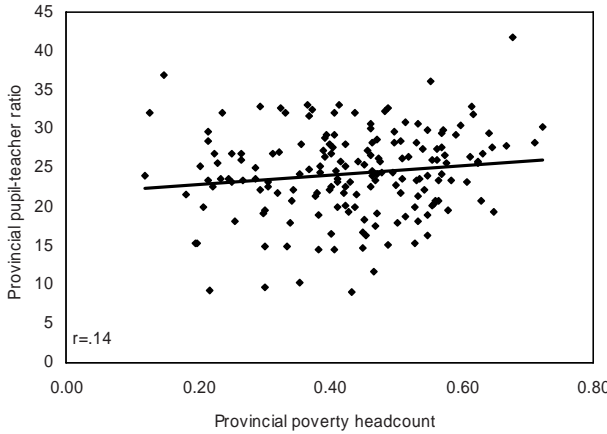
Figure 20.3: Correlation between Poverty and Pupil-Teacher Ratio at Regional Level



Sources: Peru Ministry of Education (2004) using provincial-level data aggregated to regional level, and FONCODES district-wise poverty map with data aggregated to the regional level.

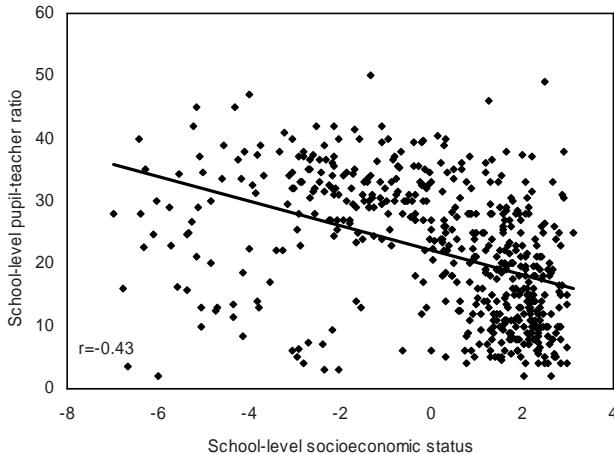
tional Evaluation, but the order of the socioeconomic index has been reversed (low is rich) to make it comparable with the headcount data from the previous two figures. This reversal of results depending on the level of analysis strikes us as an important cautionary tale.

Figure 20.4: Correlation between Poverty and Pupil-Teacher Ratio at the Provincial Level



Sources: Peru Ministry of Education (2004) using provincial-level data aggregated to regional level, and FONCODES district-wise poverty map with data aggregated to the regional level.

Figure 20.5: Correlation between Poverty and Pupil-Teacher Ratio at School Level



Source: National Evaluation (2001).

Inequality of Private Spending

With regard to private expenditure, the key point to note is that the distribution of total private expenditure of households on pre-tertiary education is regressive: the concentration index is 0.46 as shown in row 3 of Table 20.3 below.

Table 20.3: Incidence of Private Spending on Education, Pre-Tertiary Levels

	Income Quintiles					Concentration index
	I	II	III	IV	V	
Private spending on public schooling	13.3%	19.6%	25.4%	23.7%	18.0%	0.05
Private spending on private schooling	0.4%	2.2%	4.7%	15.3%	77.4%	0.67
Total	4.7%	8.0%	11.6%	18.1%	57.5%	0.46
Private spending on public schooling by type of spending						
Fees	0.1%	1.8%	7.7%	17.8%	72.7%	0.64
Non-fees	14.2%	20.8%	26.6%	24.1%	14.2%	0.01
Private spending on private schooling type of spending						
Fees	0.4%	2.2%	4.5%	14.8%	78.2%	0.67
Non-fees	0.5%	2.4%	5.4%	16.8%	74.9%	0.65

Source: ENAHO (2003)

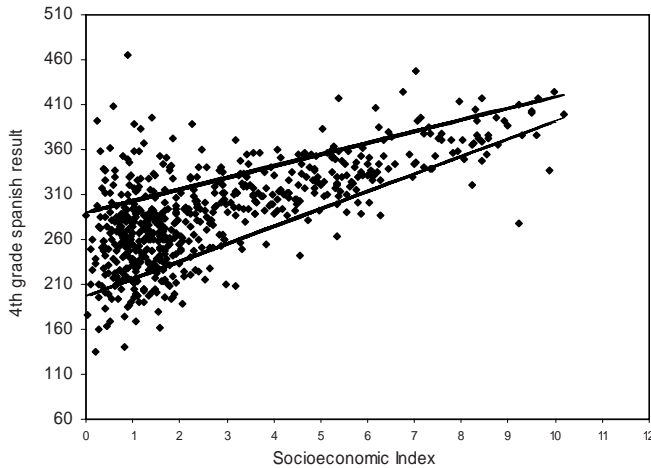
Inequality of Learning Results by Income Group

To analyze inequality of learning results by income group or socioeconomic status, the Grade 4 primary Spanish results in the National Evaluation of 2001 were used. There are several important points to note. First, the relationship between learning results and poverty is somewhat non-linear (Figure 20.6), and if anything has a non-linearity entirely in the opposite direction it is the South African results. Second, the relationship for the poor is ambiguous, however, and thus less predictable. This did not seem to be the case in the South Africa SACMEQ results, where the conditional variance of results seemed fairly constant across income groups (although high). Quantile regression lines through the 85th and 15th quantiles (shown in Figure 20.6) are useful to give an idea of how the spread in performance decreases with wealth; the narrowing of performance variation across social groups is statistically significant. At equal levels of poverty among the poor, there is a much larger variance in results than at equal levels of wealth among the wealthier.

We attempted an unusual step, namely, the calculation of a concentration index of results, which is as follows. Schools were first ranked according to the socioeconomic index of the families with children in school. In Perú, the marking concept in the National Evaluation is not based on “percent correct” but on

Item Response Theory. There is no conceptual zero level. This makes it difficult to calculate a concentration index, or at least it affects the value of the concentration index calculated. To make the results comparable to the concept of “income,” the lowest value in the results was reset to zero, and all the other values were reset by subtracting the lowest value. The resulting concentration coefficient was 0.12 (compare to South Africa’s 0.17 in literacy).

Figure 20.6: Socioeconomic Index and Spanish Performance across Schools



Source: National Evaluation (2001).

However, how to set the zero point raises an important issue. The estimated concentration coefficient tends to be lower depending on what one assumes for a lowest bound on the test scores. This is logical since the lowest actual value in the data is non-zero and since the notion of a zero score has no clear meaning in this testing approach.¹⁰ Therefore, one would want to check the sensitivity of the concentration coefficient given changes in the lowest bound. The concentration when one takes the original distribution is 0.07, whereas when one resets the minimum observed value to zero the concentration index becomes 0.12. Based upon this analysis, one could say that there is no steep change in the concentration coefficient depending on how one readjusts: they are both slightly regressive.

Evolution of Inequality

Regarding the dynamics of inequality in the last decade or so, one can perform a distributional analysis using the CRECER (Creceer con Calidad y Equidad en el Rendimiento) 1996 tests and the National Evaluation 2001. Of course, there are

some limitations to note. First, CRECER does not have a socioeconomic index, useful in order to rank pupils and schools. Second, even though CRECER and the National Evaluation are learning outcomes surveys, they are not technically comparable, though their distribution might be. Finally, the span of time is only five years, which could be considered insufficient to observe a substantial change.

Even with these limitations, one can perform a distributional analysis. However, because CRECER has no socioeconomic data, the analysis can be done at regional level only, using regional poverty data from the National Household Survey of 2003 to rank the regions by poverty. This ordering is maintained for both the 1996 and 2001 school assessments, using 2003 poverty data. Second, the regional enrollment from Ministry of Education database will be used so that regions are enrollment-weighted (otherwise each region would appear as an equally-weighted observation, which is misleading if there is a correlation between size and learning performance). Given these assumptions, *regional* inequality in learning outcomes has decreased from 0.17 in 1996 to 0.06 in 2001. (Note that these data are at regional level, whereas the above calculations, showing a concentration index of 0.12 in 2001, are based on school-level data and on data on socioeconomic status from the National Evaluation itself. Individual data, as would be expected, show greater inequality than regional data.) South Africa *appears* to have had a similar improvement in distribution of learning results in approximately the same period, though this topic is not covered in this paper. See Crouch (2003) for a discussion.

Aside from the distributional analysis of learning outcomes, there is information on benefit incidence from 1994. In the last 10 years, the distribution of government education spending has improved notably, basically in primary and in secondary education, based on standard incidence analysis. For instance, for primary education, the concentration coefficient was -0.06 in 1994 and had improved to -0.26 in 2003. The distribution of secondary spending has followed the same path: from 0.21, a regressive distribution, to -0.08, a somewhat progressive one. This is linked to the fact that more public schools were opened in rural areas during the late 90s.¹¹

Summary of Inequality Indicators for Perú

The following table shows a summary of inequality measurement, taking the concentration coefficient as the relevant indicator and primary education as the case point. It illustrates how widely the various measures of education benefits can range: from -0.28 all the way to 0.55. Thus, it stresses the importance of being clear about what one is measuring.

Education spending looks most pro-poor if one considers the distribution of students attending public education (row 1). If one looks at the benefits in public education, then spending seems a little less pro-poor (row 2). The distribution of

teachers in the sector as a whole (in public and private schools) is progressive (row 4), but less than the distribution of public benefits. The distribution of teachers within the public sector is about the same as the distribution of expenditure across income quintiles (row 3). The distribution of infrastructural and supply inputs is regressive (row 5). The distribution of learning results in the society (row 6, taking both public and private schools) is a little more unequal than the distribution of resources. The distribution of private spending on education is the most unequal distribution (row 7) in the table. The distribution of results is much more equal than the distribution of total private family expenditure (row 8), which mirrors the distribution of income.

Table 20.4: Summary of Inequality Indicators of Various Educational Benefits, Perú

Concept	Concentration coefficient
1. Distribution of beneficiaries attending public schools, in primary education, across all income quintiles	-0.28
2. Distribution of public spending ("benefits") on public schools in primary education across all income quintiles	-0.26
3. Distribution of pupil-teacher ratio within public primary schools	-0.26
4. Distribution of pupil-teacher ratio (including public and private primary schools)	-0.14
5. Distribution of infrastructure and supplies to beneficiaries within primary public education	0.10-0.15, and as high as 0.34 for certain specific inputs, such as electricity in public schools
6. Distribution of learning results in Spanish, 4 th grade primary, across all (public and private) schools	0.12
7. Total private spending on pre-tertiary education (private spending in public and private schools on uniforms, books, PTA fees, instructional fees, etc.)	0.46
8. Distribution of total household expenditure	0.45-0.50

Sources: Ministry of Economics and Finance (2003), National Evaluation (2001), and ENAHO (2003)

Commonalities between South Africa and Perú

This comparative analysis shows that both South Africa and Perú have had similar concentrations of learning results (around 0.12 for Perú, around 0.14 to 0.17 for South Africa), even though one has practiced statutory *apartheid* until recently, whereas the other has had only an implicit sort of *apartheid*. Among the 25 or so developing countries with reasonably high-quality measurement, the two are among the most educationally unequal in the world, in terms of learning results.

However, interestingly, both have progressed considerably in the distribu-

tion of learning results (although South Africa's time trend is not discussed in this paper), even though in one case the struggle against inequality has been explicit, whereas in the other it has been more implicit, and although one has to admit that the evidence on this issue is not as strong as one would like.

In Perú, the distribution of learning inputs (in particular teachers) is much more progressive than in South Africa (the concentration index for the pupil-teacher ratio, which drives some 90% of cost, is -0.26 in Perú, while the concentration of total cost in South Africa is around 0.03). In the case of Perú this is not due to a pro-poor policy, but is partly due to a set of coincidental facts: (1) poorer areas have lower population densities, (2) areas with lower population densities tend to have lower pupil-teacher ratios, and (3) the Peruvian salary scale does not reward experience and training, so lower pupil-teacher ratios translate to more teaching expenditure per child for the poor. Both countries have made progress in the distribution of inputs. In South Africa, this has been a planned and swift response to existing inequality without much school building (since access was already quite high), and this has been due to a policy of input (particularly teacher) redistribution. In Perú, it has been the result of school building programs that have increased rural access significantly.

In both countries, learning results are much more unequally distributed than learning inputs. This suggests that management of learning inputs as well as appropriateness of pedagogical approaches (e.g., in the availability of proficient instruction in home language and school language policy) rather than mere equalization of learning inputs, will be necessary in order to make further progress in the distribution of learning results.

Finally, in both countries the distribution of learning results is much more equal than the distribution of parental income. This perhaps bodes well for the future. In spite of the oft-stated opinion to the contrary, schooling is probably a force for equalization because the distribution of learning results appears to be so much better than the distribution in parental income or socioeconomic status. However, with better management of inputs and of the learning process particularly in schools that cater to the poor, and with more pro-poor spending, schooling could contribute even more to social equality in the future.

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Notes

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² A Lorenz curve is a graphical way to display the inequality of any distribution. On the horizontal axis, it shows the cumulative percentages of the population ranked by income where the poorest are near the origin and the richest lie toward 100%, which is the right-hand end of the graph. On the vertical axis, it shows the cumulative percentages of the income held by the relevant percentage of the population that lies on the horizontal axis. A diagonal line describes a hypothetical society of perfect equality, where $x\%$ of the population holds exactly $x\%$ of the income. The more the real curve diverges from the line of perfect equality, the more unequal the society. At a theoretical limit of total inequality, the curve goes along the horizontal axis until 100%, and then rises along the vertical axis suddenly, right at 100%. A synthetic measure of income inequality is the Gini coefficient, which essentially measures how “bowed out” the Lorenz curve is from the line of perfect equality. It ranges from 0 for a hypothetically perfectly equal society, to 1 for a hypothetical society where one individual or family holds all the income. An index of concentration measures the degree to which some expenditure, such as expenditure on education, is unequal, and also whether it increases or decreases income inequality as measured by the Gini coefficient. If the concentration index is 0, then the expenditure is distributed equally. If it is lower than the Gini coefficient, but higher than 0, then the expenditure is distributed unequally, but more equally than income. If it is lower than 0, then the expenditure is distributed in a pro-poor manner.

³ Benefit incidence analysis is a tabular form of analysis, popularized by development organizations such as the World Bank, where the shares of a benefit accruing to different income groups are tabulated. Thus, a typical benefit incidence table shows the percentages of, say, public expenditure on education going to the poorest 20% of the population, the next 20%, etc. If, for example, 30% of the expenditure goes to the poorest 20% of the population, 25% goes to the next 20%, and only 10% goes to the richest 20%, then this expenditure can be considered to be pro-poor or progressive. Concentration indices, mentioned in a previous footnote, are a synthetic way of presenting the data in a benefit-incident table, captured in one single number.

⁴ The terminology with regard to population groups being used here is the standard terminology used by Stats SA, South Africa’s official statistical agency.

⁵ The reference is to work being undertaken for an expenditure analysis to be released by South Africa’s Department of Education during 2008.

⁶ The Southern and Eastern African Consortium for Measuring Educational Quality program, initiated jointly by 15 African Ministers of Education and the International Institute for Education Planning, collected data from representative samples of schools across participating countries in 1995 and again in 2000. The SACMEQ website is at www.sacmeq.org.

⁷ The interquartile regression was based on the 15th and 85th percentiles of class size. The

quantile regression lines for these percentiles appear above and below the overall regression line in Figure 20.1.

⁸ Though in 1991 the concentration index is calculated using only public inputs, this is essentially the same as total inputs, since fees were negligible at the time.

⁹ The ratio of children of school-going age, per family, in the 5th quintile over the 1st quintiles is 0.5, and ratio of children attending private schools in the 5th over 1st quintiles is 55 to 1. Source: National Household Survey 2003-IV Term used in World Bank (2005).

¹⁰ To see why, note that the variance of income in a society where half the population has an income of 100 and the other half has an income of 200 is the same as the variance of income in a society where half the population has an income of 1,100 and the other half has an income of 1,200. However, the inequality, in the sense of a Gini coefficient, in the former is much greater than in the latter.

¹¹ Due to the problems inherent in traditional benefit incidence analysis, one could suspect that the change toward more progressivity was due either to more rich families removing their children to private school, or to fertility dropping faster among the rich than among the poor. While there was indeed some shift to private schools, this was very small, and fertility has been dropping faster among the poor than among the rich. Thus, the changes shown by this analysis are real.

21

Participation of Civil Society in School Governance: Comparative Research of Institutional Designs in Nicaragua and Brazil¹

Silvina GVIRTZ & Lucila MINVIELLE

Introduction

Examining the educational agenda in many countries in the last two decades reveals increased participation as one of the most important issues educators face. The idea that all members of a community should participate in the education decision-making process has been supported by people of different political and ideological origins. In Latin America, the issue of broad participation was included in many education reform agendas during the democratization process in the region. *Decentralization, school autonomy, and civil participation* are some of the key terms often used to describe the process of achieving greater equality in education.

The reform projects analyzed in this chapter are based on the idea that equality in the education system can be pursued by opening the possibility of participation to all members of the educational community. This broadening of the use of voice² should provide for a better opportunity for all demands to be heard and taken into account on an equal basis. This research is based on the assumption that different institutional designs, understood to mean the laws, values, conventions, and regulations that govern social action, have an impact on popular participation in school affairs. Therefore, an appreciation of the key features of institutional design is necessary for an understanding of civic involvement in education.

Following this line of reasoning, we seek to know the extent to which the institutional designs resulting from the reforms carried out in Latin American countries during the last 20 years have enabled greater and more effective participation by members of a sample of education communities. An education community is comprised of professional educators including teachers, leaders, managers and administrators, and elected or appointed government officials who

constitute an education bureaucracy, and other members of the civil society (e.g., parents, students, and other stakeholders such as neighbors and local civil society associations).

For this purpose, we selected three cases where education governance structures were reformed for the explicit purpose of increasing public participation in school matters. The first case is “The Autonomous Schools Program” in Nicaragua and the other two are in Brazil: the “Quality Improvement Project” (*Projeto Para Qualidade*) in the state of Minas Gerais and the “Citizen School Program” (*Programa de Escola Cidadã*) in Porto Alegre in the state of Rio Grande do Sul.

Our research contains three parts. First, we outline a conceptual framework to describe the problem of participation in school governance. Second, we define concepts that are important but often have multiple meanings that can lead to confusion. Third, with these conceptual tools in hand, we describe and analyze the institutional designs of the three selected school governance programs. We then examine the goals proposed by the reform programs and estimate whether they led to increased community participation as expected. Finally, and by way of summary, we offer our conclusions concerning the relationship between institutional design and the possibility of effective and sustainable participation.

Conceptual Framework

The two key terms in this analysis—*participation* and *governance*—are frequently misunderstood largely because of their frequent use and multiple meanings. Following Nagel (1987), we define *participation* as the set of actions through which members in a political system attempt to influence results. These actions that imply a degree of movement, energy, or effort influence results when these results align with the objectives of those who are participating. There is a range of presumably effective actions on which participants can have some degree of influence including who will be in charge of making the decisions, what will be the best course of action to pursue a certain matter, or which regulations will govern how decisions will be made.

The nature of participation can be described in terms of three variables: scope, intensity, and jurisdiction. Scope is the first variable, and it refers to how many people participate. It has three dimensions: the number of people affected; eligibility, the persons affected by a group resolution who are also allowed to influence or vote on that resolution; and attendance, the people who actually use the opportunity to participate. Intensity is the second variable, and it refers to the effort required of the participant. It has two dimensions: frequency and duration. The more frequent and lengthy the demands for participation are, the more intense the participation will be, thus requiring greater effort on behalf of the participants. Jurisdiction is the third variable, and it is the matter at stake such as a resolution a group wants to be passed. These three variables together define the

nature of the participatory act.

We can establish three generalities with respect to these three participation variables and the type of participation they may define. First, it is reasonable to think that when more activity is required on behalf of the members, less scope will be achieved. Second, in the case of less scope, there is a lower probability of achieving a good match between priorities and the decisions of the participants, and those of the entire population become affected. Third, it is reasonable to expect that the greater the jurisdiction, referring to decisions on matters relevant to those who decide, the greater will be the motivation for eligible people to participate.

Governance is the second term we need to define before we use it to describe institutional designs in our selected cases. Going back to the idea proposed in the introduction and taking into account Furubotn and Richester's (2000) definition, the *governance* of a system is formed by two elements: the set of standards and regulations that constitute the institutional design, and therefore organizes the social action, and the instruments and structures chosen to implement these standards and regulations. Therefore, we understand that different institutional designs will produce different types of governance structures and at the same time establish the real probabilities of members of the society participating in public matters. In this sense, governance is a group of norms and regulations that determine who decides, what decisions are made, and how decisions are carried out.

These concepts may, of course, be translated into the language of education. According to Murphy (2000), school governance is determined in two great spheres. First, school governance defines the way control is distributed among those who have an interest in education. Second, governance is the set of regulations and practices that determines the education structure. These two spheres of action define the persons *who* decide certain matters (the *what*), and they establish *how* decisions will be made.

Following the definitions above, the *who* in school governance is made up of all potential actors authorized to make education decisions. For our purposes, we divide potential actors into two groups. We identify the first group as the "educational community" that includes the school head, teaching staff, non-teaching staff, students, and parents. The second group of potential actors we call the "educational bureaucracy" that includes people such as ministers and their staff members, school boards, guidance counselors, curriculum developers, and state or local technical specialists who perform duties within the national, regional, jurisdictional, or local areas.

Within school governance, Dahl's (1994) criteria of authority are useful to understand *who* the participating members of the authority structure become. His first criterion is personal choice, which means that those who put a person in a position to decide presume that this person (or group of people) will act in a suitable manner. Under this principle, the *who* within school governance is potentially made up of all members of the society whose interests are affected by

educational matters such as the previously mentioned members of the state bureaucracy and those we have added in the educational community including lay members. The second criterion set forth by Dahl is competence, which is founded on the affirmation that the *who* in school governance is made up only of those with special knowledge related to education. Under this criterion, schools are governed by experts, the people who are generally from among those we have previously defined as members of the state bureaucracy.

Having defined the principal features of the *who* within school governance, we now move to the next component--the *what*, which defines the resolutions to be made. After reviewing the literature concerning school governance (e.g., Arcia & Belli 2001; Gandin & Apple 2002; Gershberg 2004; Guedes et al. 1997; King, Rawlings & Özler 1996; Narodowski & Nores 2001; Winkler & Gershberg 2000), we divide the *what* of school governance into two types of decisions: those pertaining to the academic component of education and those belonging to its administration. Academic decisions are all those directly related to teaching and learning procedures. Among them are the definition of curriculum, the pedagogic organization and selection of methods and didactic materials, evaluation and admission policies, and allocation of students to schools.

Administrative matters are inherent to every organization. Within this second set of decisions are activities such as recruitment, hiring, dismissal of the school staff, performance evaluation, staff training, payroll administration, design of the organizational structure, development of the school budget, audits, and inspections.

The final element of the conceptual framework we employ to analyze school governance structures is the *how*. As previously stated, the *how* relates to the way in which decision making is carried out. Decisions are reached in two ways: democratic and autocratic. The democratic way is characterized by the effective participation of all actors affected by the decision made, where each person's vote has equal weight. Decisions are thus made collectively using the vote as instrument. In the autocratic way, participation in the decision-making process is exclusive, and technical or expert knowledge is the criterion used to select who is authorized to decide. Decisions are then put into practice through a descending flow of instructions beginning with the decision makers.

As we have pointed out, these different forms of the *who*, the *what*, and the *how* of school governance are determined by specific norms and regulations defined by the institutional design. These forms specify the type of participation adopted by members of society on education matters. That is why we consider it important to examine institutional designs of school governance to verify the actual degree of participation allowed regardless of any explicit intention expressed in the reformers' discourse. With these definitions in place, we have a conceptual framework for the analysis of three governance structures in Latin America. In each case, an education reform project aimed at increasing public

participation in the decision-making process will be scrutinized to determine whether it has actually achieved this goal.

Participation of the Civil Society in School Governance in Nicaragua, Minas Gerais, and Porto Alegre

As explained in our introduction, we selected three education reform projects for this research: Nicaragua's Autonomous Schools Program, and two Brazilian projects—the Quality Improvement (Pró Qualidade) case in the state of Minas Gerais and Porto Alegre's Citizen School (Escola Cidadã) program. These cases were selected because their goal was to reform school governance through increased public participation in the decision-making process. Likewise, their selection for this study was interesting because they operated on different scales. While the Nicaraguan case is an example of reform at the national level, Minas Gerais operated at the state level in specific jurisdictions, while Porto Alegre was a municipal exercise.

In each of these cases, we examined the institutional design, taking into account the formal norms and regulations as well as the practices that reveal beliefs and values, all elements that shape the *who*, *what*, and *how* of school governance. Formal standards and regulations were analyzed through the corresponding legal documents attached to each case including laws, decrees, and other regulations. Socio-cultural standards, which frequently shape behavior even more than formal rules, were examined through personal interviews with relevant persons for each case. For each case, we selected the schools where we interviewed actors based on a purposive sample.

Following our goal of finding out the extent to which these reforms enabled genuine involvement through the participation of the educational community in school governance, we will start by analyzing *who* makes *what* decisions and then, after defining the features of *how* in the decision-making process, discuss the nature of participation generated by the institutional designs.

Nicaragua

Nicaragua is a country of 5.2 million inhabitants with a GDP of US\$4,911 million equivalent to a per capita wealth of US\$944 (World Bank 2006). By the end of 2007, 23.3% of the population over 15 years old was illiterate, more than 20% of the population did not have access to improved water sources, and 10% of children ages 0 to 5 were underweight. The country is ranked 110th in the UNDP's Human Development Index (2007).

In 1991, after many years of having a socialist government, a center-right coalition assumed the executive power after defeating the Sandinista National Liberation Front (FSLN) in the presidential elections. That government, led by Violeta Chamorro, implemented economic deregulation policies and a general state down-

sizing plan, which in some cases meant abandoning the responsibility for social welfare tasks that had previously been provided by the state. In education, there was a significant reduction of the educational bureaucracy resulting in the Education Ministry staff being reduced by half in less than two years. Decentralization strategies were implemented for municipalities as well as for schools. Within this framework, the Autonomous Schools Program was developed and implemented.

The Autonomous Schools Program's explicit aim was to increase schools' rights vis-à-vis central bodies in administrative and pedagogical matters. To carry out this policy, a school board called Consejo Directivo Escolar (CDE; School Managing Council) was created as the school's most important governing body. The stated purpose of this institution was to establish an entity for channeling community members' educational demands, thus allowing them to participate in a school life. Therefore, according to the established norms, representatives of all members of the school community constituted the CDE. At the time of our field research,³ the Autonomous Schools Program had been implemented in 1,780 schools, representing 63% of the total students in the system and 55% of the teaching force. In 2006, the implementation of this school governance structure was required in all public schools.

By the end of 2006, new presidential elections took place. After 16 years of conservative governance, Nicaragua was again to be run by the left wing FSLN party led by elected president Daniel Ortega. As part of a series of reforms put forward by the new administration, the Autonomous Schools Program was terminated in January 2007. It had been in place in Nicaragua for 16 years with a significant scope in terms of schools, teachers, and students involved and important support from multilateral organizations. This was sufficient time for the intended effect of increased popular school participation to have been visible. Based on our analysis of formal documents and material from interviews and observations, we were able to draw a number of conclusions with respect to institutional design and community participation.

Like other studies of the program (see Gershberg 2004), we found that although rules and regulations defined broad general powers for the school as a decision-making unit, a closer look revealed that schools had far more power to act within the administrative realm than in the academic field.

Rather than rely on the decentralized picture of schools offered by a system-wide or macro viewpoint, our study focused on what happened inside schools. Our observational methods centered on a school level or micro perspective. We looked at *who* decided *relevant matters* within the schools and *how* such decisions were made. Since our research investigated the degree of participation provided to all potential participants (including lay members of the community), we wanted to understand the extent to which decisions delegated to the school were in fact made by the school board. School boards had been formed from representatives of the educational community as defined in the reform legislation as

being composed of representatives of the school head office, teaching staff, non-teaching staff, students, and parents.

The information we gathered showed that among the decisions made by the school and its board, the CDE had a low degree of participation in academic matters, but participation increased when it came to administrative issues especially budget management. In practice, the participation of lay members of the educational community appeared limited to us, especially the participation by parents. When we asked about this lack of participation, two main reasons were offered. First, interviewees alleged the low overall intellectual level of the surrounding population caused its members to lack awareness of the importance of school participation. On this matter, Dr. Juan Bautista Arrien, president of the UNESCO office in Nicaragua, held the following opinion:

Interviewer: Do parents participate?

Arrien: There it is, that is one of the problems. Fathers and mothers are not qualified in many of the aspects related to education, pedagogical interaction . . . we have to recognize that parents do not have the intellectual development [to participate in school governance].

The second reason offered to explain the low levels of participation of parents and other community members was lack of time to dedicate to this type of task. Participation requires great effort and time. When daily concerns are related to meeting basic needs, it seems that participating in school meetings takes second place. José Antonio Zepeda, director of ANDEN, which is Nicaragua's main teachers' union, expressed this situation clearly:

The typical population of Nicaragua experiences economic difficulties—most of them struggle daily with challenges to their physical survival. Naturally their first instinct concerns this survival not their rights as members of an education community. This struggle impedes the rights inherent in their citizenship. (personal communication, March 2004)

On the other hand, it is clear that in an environment in which not everyone is considered competent to express an opinion and where knowledge is used as a criterion to decide on the distribution of power, the conditions required for a democratic decision-making process are difficult to fulfill. Such a process requires that each citizen have equal and appropriate opportunities to express preferences and to put forward reasons in favor of or against proposed positions, thus having an effect on the final decision. In the schools we visited in Nicaragua, participation by lay community members can be characterized as “peripheral” or “passive,” comparable to that of a volunteer task. The following quotation, abstracted from a conversation with a mother member of the CDE of a school we visited, shows clearly the following point of view:

Interviewer: How do you think you can participate in the school, beyond money, to improve the children's education?

Mother: I come and help to clean and prepare the tea. That's my contribution to them, so they can see other environment because sometimes, the lady in charge cannot handle the situation. If they are dirty, I clean them. One helps a little bit like this. (Fiscal School Wisconsin)

In most cases, this situation led parents, students, and non-teaching staff to behave as "empty spaces" in the decision-making processes. These spaces were then immediately occupied by the headmasters or teachers with superior technical knowledge. This limited the participation of the members of the educational community, who are defined as non-experts and restricted to inconsequential roles, diminished the possibility of achieving a truly democratic decision-making process leading to equality in school governance.

We conclude that the *how* in school governance (that is to say, the type of decision-making process in schools in Nicaragua) was closer to what we consider an autocratic than a democratic type. The formal possibilities for a democratic process were present in rules and documents that determined how decisions should be made within schools. However, from our micro perspective, we discovered structural factors inside schools that permitted the professional competence criterion to dominate participation. Education, even in its most basic forms, became a matter only for "experts."

Therefore, it was the schools that participated in the Autonomous Schools Program that showed a hierarchical governance structure with few possibilities for lay members of the community to either be part of the group that makes decisions or, once in it, have the ability to raise their voice as a means to influence the course of action in school matters. The following quotation abstracted from a conversation with a teacher demonstrates this point:

Sometimes, parents try to give orders more than the headmaster and other similar situations are raised. The headmaster is the Ministry of Education's representative to put forward ideas on pedagogic procedures, so a parent cannot go over the headmaster's authority to decide on didactic or pedagogic matters. (School 14 de Septiembre—Autonomous School)

To summarize the Nicaraguan case, the institutional design formed by norms, practices, and an externally funded reform-minded project combined to create a decentralized system within which the school, together with its board and community members as the local governance body, had considerable authority to make decisions. However, it is incorrect to think that a decentralized institutional arrangement necessarily implies an increase in community members' participation and movement toward the schools' democratization (for a similar view see Fesler 1965). In the case of the Nicaraguan reform, this limitation is clearly evi-

dent. Although it is true that the reform program positioned the local school to make decisions vis à vis the educational bureaucracy, such community-led decision making by lay school community members remained largely peripheral and limited to administrative matters.⁴

Minas Gerais (Brazil)

Minas Gerais is Brazil's fourth largest state in terms of population at 19.2 million, of which 82% live in urban areas. Due to its demographic position, it is considered a transitional state between the poor northeast and the rich south. Minas Gerais has 853 municipalities with high inequality in income distribution like the rest of Brazil.

The basic education system (which includes both traditional primary and secondary levels) has 4.7 million students, of which 90% attend public schools. There are practically no federal schools among public schools; most students attend state or municipal schools (52% and 38% respectively; IBGE 2006).

In the early 1990s, the state of Minas Gerais put in place a general state-wide reform program which featured administrative reforms in the office of the State Secretariat of Education (SEE/MG) based on a model that pursued simplification, de-bureaucratization, and decentralization. During this same time frame, the government began to implement a World Bank-supported program called Pro Quality (Pró Qualidade). One of the program's main lines of action was including members of the community in the schools' decision-making process. To achieve this goal, two measures were implemented: the democratic election of school principals and the reincorporation of school boards called Colegiados Escolares, which had been created in the early 1980s and had been gradually disappearing ever since. In 1997, only five years after the project's implementation, school boards were operating in all public schools (at the basic education level) within the state education network. At the time our field study was conducted, school boards existed in more than 5,000 schools (SEE/MG/SA/SPL/DRRO 2003) of basic education, which included all the schools within the state network.

As before, our interest in the "Pró Qualidade" program was to determine the extent to which it had accomplished a principal goal of increasing societal participation in school-level decision. One element of similarity with Nicaragua was that in Minas Gerais, the great majority of areas that constitute the *what* of school governance had a limited degree of community participation. The school's level of involvement as dictated by formal rules was very weak. For example, although the school formally participated in preparing the curriculum, the actual number of decisions taken within this area was very few. While schools are granted the power to determine the actual classroom instructional content or syllabus for the school year, the broader curriculum content in the sense of what is mandated to be taught and the pedagogical methods to be used were determined

at the state bureaucracy level.

The case of Minas Gerais provides a clear example of the more precise nature of resolutions in which the range of actors participate. While the state bureaucracy has the authority to decide on the substantive issues concerning education policy and implementation, the school as the local decision agent gets to act only on minor issues generally related to defining details.

With respect to the particular decisions an individual is allowed to make, we observed a distribution of decision-making authority granted to prospective actors on the basis of the number of decisions each education sector is allowed to make (in Minas Gerais case, the school and its actors on one hand and members of the educational bureaucracy on the other). Our observations of the type and relevance of the decisions that an actor could make were matched to the conceptual framework on the type of participation we discussed earlier in this paper. Of these, the participants' jurisdiction (in the sense of the scope of the issues being treated in a participatory decision) was especially salient in our evaluation of the probability that individuals called to participate would actually do so.

In Minas Gerais, although the school has both some power to decide and some scope for decisions deemed to be within its competence to act, the relevance of these decisions to most aspects of the education process is lower than the key matters given to actors in the educational bureaucracy chiefly to the State Education Department. Even in those areas within which the school has formal power to act, a plethora of rules, decrees, and regulatory framework cause the school-level decision-making process to resemble more of a perfunctory application of standardized procedures than a real choice among different options.

The following dialogue derived from a conversation with the president of the teachers' union, related to the development of the school calendar. This is a good example of "fictitious power" because although the school has the formal competence to determine this aspect of school-level organization, the regulatory framework that governs the actions of the State Education Secretariat greatly diminishes the possibility of significant local impact.

President of the Teachers' Union: We refer to the school board as a place of consulting and deliberation, but sometimes we face many restrictions on the board's resolutions . . .

Interviewer: Legal restrictions?

President of the Teachers' Union: Not legal as to major laws, but with resolutions themselves. When the calendar subject arose, that year we had a clear example because the federal law, the LDB (Federal Education Law), refers to a minimum number of extra hours and school days . . .

Interviewer: Two hundred days and 800 hours . . .

President of the Teachers' Union: But the LDB itself is flexible on the calendar issue, it allows adaptation according to the region. . . . The issue about holidays and recesses should be established according to each region, [each] school. That year, after a close election, . . . the department issued a resolution, a calendar model for all the state, and at that point the function of the school board is not clear. There is no distinction between rural schools from one of the interior part of the country.

It is possible that a configuration of power that promises participation of stakeholders; however, through a complex regulatory framework delimiting the results flowing from that very participation may, in the end, actually result in both diminished interest and lowered participation rates. We will return to this problem later.

Although a part of the decision-making process on education matters had been decentralized to the school, in practice this decentralization was not effective because historically important patterns of centralization still affected the organizational culture of the schools and the education bureaucracy. This being the case, we were curious to learn what would happen to public participation with respect to the few decisions not within the bureaucratic authorities' province and discussed only by the schools themselves?

The school boards we analyzed had little interest in these matters. We noticed a situation in which most of the school governance decisions discussed within the school, and outside strictly pedagogical topics, were made by technical experts, which were either principals or teachers.

For this reason, we returned to a conclusion derived from the Nicaraguan case. To leave lay members out of core school matters may lead to a tendency to consider education a technical matter suitable only for those who have arcane professional knowledge, and thereby confer added significance to the competence criterion when appointing people to school governance structures. In turn, this could endanger the democratization of the decision-making process within the school. Our field research showed that in the case of Minas Gerais, the conditions required for a democratic decision-making process were not present. The effective participation of community members in the schools we visited was seriously jeopardized. As an example, we include the following quotation that shows the degree of participation in Minas Gerais' schools that barely reached 2%:

When the time of election arrives, we announce and call the community and a relative attendance is achieved. Not in the degree we expected for in a universe of 5,000 parents, sometimes appear 70 or 100. It is something, for in the past, nobody appeared. (cited in de Oliveira 2002)

The respondents we interviewed regarded school participation as a high-cost activity, having neither adequate institutional nor material resources incentives to

offset those costs. Our experience led us to agree that the best way to attack this problem would be to reduce the participation cost and, at the same time, focus on the lack of potential benefits. Returning to the participation jurisdiction issue we dealt with earlier, we consider that to be motivated to carry out an action seen as costly, the actor must think that this undertaking implies a benefit that in some way can exceed its cost. As a first step toward achieving a favorable cost to benefit ratio, participation should be made meaningful for the actors involved, that is to say, they should find an important purpose for it—a purpose that is difficult to find when jurisdiction is reduced to minimally important matters.

Minas Gerais' institutional design, which leaves the school a narrow space for decision making because expert members are granted the power of action and implementation, illustrates a *how* (meaning the way in which decisions are made) in which the main feature is the ubiquitous presence of the competence criterion. Although all members of the educational community are included, in practice most of the participation from outside the ranks of paid professional educators is peripheral in substance and effect, and it leads to a low degree of attendance by lay members of the school community. Therefore, the perception of high costs and low benefits results may be the cause for this insipid participation. For this reason, we assert that the *how* of the decision-making process in Minas Gerais's schools is clearly autocratic.

Our work in Minas Gerais uncovered persistent institutional design factors best described as centralized regulatory practices and historical institutional customs with a wide embrace affecting even the rules and laws established to reform the system to increase local participation levels. Thus, the very possibility of achieving real participation by the local citizenry in school governance is compromised by the institutional design context in which even reforms must operate. In Minas Gerais, the objective of democratizing the education system awaits higher order institutional design changes.

The Case of Porto Alegre

Porto Alegre is the capital city and one of the 496 municipalities of the Brazilian state of *Río Grande do Sul*. Known as the “gaúcho” state at only 3% of the national territory, it is relatively small in size. However, it is one of the most important states from an economic point of view. With 10.5 million inhabitants and a GDP of more than US\$48,800 million, it is the largest grain producer in the country and the second commercial and industrial pole of Brazil after *Sao Paulo* state. One of its achievements is having the best Human Development Index in the country. Porto Alegre itself has an estimated population of 1.4 million distributed in 85 neighborhoods and is 97% urban. Porto Alegre is the municipality with the highest income in the state (GDP of around US\$5,320 million), where the GDP per capita is around US\$3,800.

The education network administered by the municipality is small because most of the students attend state schools. The 69,000 students within the municipal education network attend 92 schools generally located in marginal areas that are home to low-income families. The majority of the students attend the basic education schools, which are divided in three cycles. The first cycle serves children between 6 and 9 years old; the second, students from 9 to 12 years old; and the third, students from 12 to 14 years old (SMED 2007).

In 1989, a left-wing administration called the “Popular Administration” assumed power. During the first year in office, the government implemented several public policies geared toward modifying the relationship between the citizens and the state. One of the first projects put into practice the Participatory Budget or “Orçamento Participativo” (OP) in which a share of the annual municipal budget was allocated according to citizens’ will and expressed through voting in public assemblies. According to Gandin and Apple (2002),

“The OP is at the core of the project of transforming the city of Porto Alegre” since “the citizenry of the city has been engaged in an extensive pedagogic project involving their own empowerment. There has been a process of political learning through the construction of organizations that enable full participation in the OP.”

Other public policies followed the same line as the OP. In the education arena, the Citizen School (“Escola Cidadã”) program was initiated. This program had three main objectives: the decentralization of financial resources from the municipality to schools, the democratic election of the school principals, and the creation of school governance bodies called School Boards (“Conselhos Escolares”), which were formed from representatives of the education community.

The political stability that accompanied four consecutive administrations of the same party enabled the continuity of these policies. At the time our field research was carried out, the 92 schools of the Municipal Education Network had School Boards in place and functioning, had chosen their headmasters, and had received some resources from the Municipal Education Department that they were entitled to administer.

As with the reforms in Nicaragua and Minas Gerais, the modifications of Porto Alegre’s school governance structures sought to increase public participation on educational matters. The SMED’s ultimate goal in line with other Popular Administration’s public policies was to democratize governance practices. As in our other analysis, our intention was to discover to what extent these goals were achieved.

Porto Alegre’s reform presents an interesting case. A quick overview of the information gathered from both the revision of laws and rules and our observations led us to conclude that the education system of the Education Municipal Network of Porto Alegre was closer to what we consider a centralized system

rather than a decentralized one. In this sense and at first sight, most of the decisions about the *what* of school governance are either formally or informally under the power of actors who belong to the municipal education bureaucracy. Thus, from a system or macro perspective, we initially concluded that the system had few possibilities to acquire effective mechanisms for increasing community participation.

However, on closer examination, we understood that a strict centralization-decentralization dichotomy is not suitable for defining the RME's schools governance structure. Although there are large areas in which the Municipal Department has great power and schools are left out of the decision-making process (for example, allocation of students to schools), there are also few but significant situations in which schools operate according to their own logic and criteria without any involvement from a central entity. Likewise, in areas where the intervention of the Municipal Education Department is clearly dominant, it is not the number of actions under the bureaucrats' jurisdiction but the nature of the issues that leads schools to lose their sense of autonomy. That those rights are granted to the school becomes of little significance.

A good example of this last situation is found in how the system dealt with the student evaluation scheme. Teachers, when consulted about items they believe should be changed under the reform, repeatedly mentioned student learning evaluation as a priority. The Porto Alegre Municipal Education Department established an automatic promotion system for students attending the first cycle, wherein students pass on to the next grade independent from their results in the current year, that is, they cannot fail and repeat the year. Some teachers felt that automatic promotion denigrated the significance of good didactic practice or student learning effort. Even though teachers and members of the educational community had the formal right to decide on this matter, being compelled to put into practice the automatic promotion imposed by the educational bureaucracy "contaminated" most of the other decisions concerning teaching and learning about which teachers were supposed to have decision-making power. Two teachers we interviewed expressed this feeling of loss of autonomy.

Interviewer: What aspects of the administrative reform would you change? What is happening now? What changes would you carry out; would you make any changes?

Professor 1: I would change the evaluation.

Professor 2: I would also change the evaluation . . . the only thing I do not agree with is the evaluation, of not having an objective. To say the truth, we now do not have an objective.

Consequently, we consider that when studying complex governance structures such as the ones we observed, it is not always appropriate to apply the

centralization-decentralization construct which may not adequately capture the range of variations and sub-themes, thereby jeopardizing the accuracy of depictions relating to the possibilities for participation. Our preference in these types of school governance cases is to carry out the analysis from a micro perspective. This is especially critical when the objective is to understand how participation can develop within the school environment.

Our analysis of the *what* in Porto Alegre's governance structure allows us to assert that in contrast to the previous cases, there is no clear predominance of administrative over pedagogical aspects among matters to be decided by the school. This conclusion is consistent with the relative absence of the competence criterion in the formal structure for selecting participants or weighting their interventions. Rules and regulations do not transmit, at least not in a recurring way, the idea that academic decisions should be made only by those with technical knowledge and formal training. In Porto Alegre's schools, the distribution of responsibilities among actors in the educational bureaucracy and members of the school community seems to be granted according to an idiosyncratic logic bound in each case to different justifications.

This distinctive feature of Porto Alegre's norms and conventions concerning participation contrasts with some evidence we found in everyday practices at the schools where we conducted interviews. Due to the importance traditionally given to "knowledge" within the field of education, it is plausible that in practice the competence criterion is the one actually operating, even though it may have formally been rejected. Interviews carried out with all actors defined as members of the educational community partially confirmed this hypothesis. Teachers seemed to speak from a superior position based on their technical knowledge. The following quotation shows this position:

Interviewer: Within the education field, do you think that certain decisions should be made by the school board, by you, or by the headmaster?

Professor 1: I think that pedagogic issues should be decided by the professor. The idea that a person of the board can decide or call the community, the people has no logic at all; it is the professor the one who should decide on pedagogic issues.

Professor 2: It's the same [as when] you go to the hospital and you want the doctor to cure you. . . . You are sick and the doctor asks: What am I going to do with you? I won't know. I think that in a school, if I ask what I am going to teach, the community will not know, they lack so many things.

To support this, we also analyzed the parents' and students' attitudes. The testimonies acquired reflect a feeling of "not having the right to participate" in fields clearly dominated by teachers and experts. A school board president explains this situation.

I am a lay person on pedagogical matters . . . all professors were trained in the university, . . . [in] the education field, . . . [under] supervision, so they know much more than me. As far as I am concerned, I give my opinion; but when I believe I am saying nonsense, I don't speak . . . [I]n the council, the person that doesn't know how to express herself, won't do it, so you go and ask her: so-and-so, what do you think? Many times they keep quiet, one must push them to talk . . . parents and students do not open their mouths. Many times one asks them and they say: "Ah, you are the ones who are in the school, you are the ones who are all day with the students, you know better than us."

Therefore, in spite of the efforts made by the formal rules and norms to involve more members of the community actively in the decision-making process within the school, established practices and customs may lead the educational community to consider the competence criterion when determining the possibilities for participation.

In Porto Alegre, we found the same problems achieving effective participation as we did in Nicaragua and Minas Gerais. While there were no important problems with respect to school staff participation (either of teachers as non-teaching staff) in Porto Alegre, we found that there were frequent complaints with respect to the limited participation of parents and students. Our efforts to find reasons that could explain this behavior uncovered two related factors. The first reason offered by those we interviewed was that the lack of participation of parents and students arose from the incompatibility between participation and personal obligations. A second reason offered was the lack of commitment—that the lay members of the community had little disposition to assume added responsibilities. Although the attendance of board members in Porto Alegre was better than in the other cases we studied, the parents and students we interviewed reported feeling uneasy about their participation in important school decisions because they did not consider themselves qualified to decide on crucial educational matters.

Our observations revealed a more complex picture in Porto Alegre than we saw in Nicaragua or Minas Gerais. The situations detailed in the previous cases were clear examples of hierarchical governance with very few possibilities for participation stemming either from the rules and regulations or observed in daily practice. On the other hand, in Porto Alegre's case, we can see a clear, formal intention to include all members of the educational community in the decision-making process, so much so that the competence criterion almost does not exist when analyzing rules, regulations, and decrees that govern the municipal system operation. However, in practice, customs and deeply-rooted concepts make "knowledge" an important aspect of the distribution of power within a school community's members, thus limiting the real participation of lay actors.

This picture becomes more complex when the lay actors' perceptions of the degree of participation of their group in school governance are taken into consideration. Our research shows a generalized perception among parents and students interviewed that relevant decisions about the school's life are made democratically in spite of the anxious feeling experienced by lay actors when participating. The following quotation is a good example of this perception:

Interviewer: Here at school, how is the decision-making process? Decisions are made by one person, two, by the majority? Is it a democratic process?

Mother: In the school, many issues are discussed in a democratic way. Parents together argue, find out what is better or not, and only a few issues are dealt with by less than six persons because many issues are decided by us in the school board.

Because of their strongly favorable view of joint decision-making processes, there is a generalized perception, even among lay actors, that the process is democratic in spite of the low participation of parents and students registered with the school board.

What is the origin of this perception—this idea so deeply rooted and firmly grasped among the people interviewed that it seems to contrast with the reality of low participation by lay actors on the school council, and the disquiet felt when called on to make decisions? One hypothesis we considered is the existence of different opportunities and venues for participation other than the formal school councils. Ad hoc commissions mandated to determine matters such as school admission criteria and the schedule of informal meetings with teachers are commonplace. During such informal meetings, teachers, parents, and students may discuss a range of matters of common concern. These occasions provide the opportunity for the lay members of the community of learning to make decisions collectively in bodies other than the school board. We consider it probable that through these less formal and less intimidating opportunities for participation, Porto Alegre's municipal school communities have begun to tackle one of the biggest barriers to participation by the lay community: the perception that one's voice does not count or that one does not have the necessary knowledge or expertise to participate actively in school governance.

In sum, we affirm that the case of Porto Alegre requires detailed analysis to arrive at meaningful conclusions. On the one hand, the persistence of old assumptions deeply built into the school culture does not contribute to the development of a democratic type of governance in which participation is encouraged. However, on the other hand, rules and norms reflect the desire to achieve a governance structure with a high degree of participation by all those affected by the issues. As in the case of Nicaragua, it may be helpful to return to the political context to achieve a broader understanding of what happens inside schools. As

previously mentioned, the Citizen School program is part of a much larger municipal effort to democratize the relationship between the citizenry and the state. It is possible that some of the changes taking place within state and municipal government offices may be transferred to the provision of education services. For these reasons, we conclude that the *how* in the schools we visited in Porto Alegre illustrates a transitional autocratic character, the gradual movement from an autocracy toward a more democratic decision-making process. This is the only case among the three in which, because of the strong political commitment for the system's democratization, there are few but relevant changes in the rate of participation and use of the voice for channeling community demands.

Concluding Remarks

In the last 25 years, most governments in Latin American countries have become democratic. Within this environment, public participation and learning democratic practices have become critical issues. Some experts, among them O'Donnell (1997), think that young democracies have many things to learn and improve upon. For this reason, we believe it is important to study the ways in which the civil participation required by democratic procedures actually work.

Although most Latin-American democracies show some measure of popular participation in public affairs, the institutionalization of this practice is not complete especially at the small-scale level of an individual school. Many school governance systems still operate under bureaucratic and hierarchical models that allow only a low degree of involvement on the part of civil society.

In the early 1990s, some countries instituted reforms of their education systems aimed at redesigning governance structures. Some of these reforms explicitly pursued equal participation of all actors of the educational community. Others combined these democratizing agendas with other objectives especially in relation to diminishing public resources available for education purposes. Because these projects have been designed and implemented under different socio-cultural circumstances and from distinct political and ideological paradigms, we thought that their institutional designs would differ substantially. At the same time, we also assumed that those institutional designs would have an effect on the actual participation of community members.

On the basis of these assumptions, we proposed to study three different education projects with the purpose of investigating the nature of participation within these systems and the relationship of participation to the formal rules and the regulatory framework that constitute a formal legal context for all school systems. We then mapped out a straight forward conceptual framework to use in analyzing our three cases, which is described in the introduction. In general terms, we found that the *scope* of participation was considerable. In the three cases analyzed, those selected to decide on governance issues included a large

group of members formed by lay persons. This group typically included parents, students, and non-teaching staff as well as experts, teachers, and headmasters.

On the other hand, especially in Nicaragua and Minas Gerais, we found a strong tension between the *jurisdiction* and *intensity* of the participation process. As we stated in our conceptual framework, we believe that it is necessary to establish a balance between these two variables to achieve successful participation. In the cases analyzed, we confirmed that the effort required of the educational community to participate (determined by the institutional design) versus the benefits acquired from a role in decision making was large. Consequently, in most instances, the result was a type of participation we termed “peripheral.” Peripheral participation includes a low degree of attendance, low levels of participation, and a limitation of action to include only minor volunteer tasks. Initiative, equal opportunities to participate, and equality or balance among members when the time comes to decide, all necessary conditions of a participation that fosters democratic procedures, were observed on very few occasions and generally by individuals of exceptional will and determination.

When the newly designed governance structures opened at least formally, the possibilities for untrained or lay members of a community to express their opinions and exert effective influence on school decisions increased. However, a second tension then arose—that between expert and lay “knowledge.” In all three cases, lay members’ opinions and decision inputs were more widely accepted and put into practice in relation to administrative than in instructional matters. When the issues discussed in the councils pertained to the academic or didactic methods, the teaching profession itself was called into question. This inevitable tension poses a series of questions related to the extent to which lay opinion can be a useful input to school proceedings without compromising the teaching profession and practice. None of the three cases we studied provided an answer for these matters, not even had they themselves posed the questions.

This evidence suggests that reforms intended to restructure school governance collided with the persistent assumptions and beliefs that had formed social relationships within the school environment for more than a century. In most cases, reforms were unable to bring about a serious and democratic discussion on the nature of education, and consequently on the issue of who qualifies to decide when educational issues are at stake. As long as the traditional paradigm, which affirms that education is of an eminently technical nature and is not consciously discussed and re-thought in the light of these new governance structures, the possibilities for a real democratization and effective participation of lay members of society will remain limited.

Effective implementation of these types of projects requires that two conditions be fulfilled. First, reform projects intending to change school governance structures should have an intelligent institutional design. In this sense, Porto Alegre provides the best example. In spite of the fact that we encountered many

obstacles to effective democratization projects, we also found instances of participation that were compatible with the prevailing school culture, and therefore predestined for more success. Evidence shows that informal activities more than formal projects designed to foster public participation seemed better able to increase the involvement of lay persons. The design of governance bodies and participation channels, which take into account social and cultural conditions of the community, is the key to achieving a governance model that will promote the genuine participation of all the people involved and will generate enduring democratic practices.

Finally, reforms requiring deep cultural changes to have a successful implementation must have clear objectives designed explicitly to foster participation and democratization. It must be recognized from the onset that success is built on a great deal of political will, enduring patience, stability, and equality before the law and in routine policies over many years to generate the change young democracies in Latin America need to increase the participation of civil society in the provision of public education.

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Notes

¹ This research is the result of an investigation carried out through a grant from the John Simon Guggenheim Memorial Foundation.

² We use the term "Voice" as opposed to "Exit," which is another way of channelling demands in Hiechmnn's theoretical Framework. See Hirschman (1970).

³ The field research was carried out in 2003.

⁴ Before moving on to our next case, we emphasize that while our analysis of civil society participation is conducted with a micro-perspective in which the unit of analysis is the school, macro politics cannot be ignored when trying to understand the implementation results of a school reform. Although the Nicaraguan reforms established in the Ley de Participación Educativa (Participatory Education Law) were oriented toward fostering participation, hidden agendas were present. They were created from the need to cope with diminished funding resources and policies that had transferred substantial costs from the State to families and local communities. We maintain that in the context of poverty and lack of public and private resources, this fiscal restructuring contributed to the inability of achieving effective school participation of community members.

22

The History and Devolution of Education in South Africa

Christopher B. MEEK & Joshua Y. MEEK

Since the changeover from South Africa's apartheid system and government (which had been heavily influenced by South Africa's elite Afrikaner leaders and the secret Afrikaner society the *Broderbond*) in 1994, much has been expected of the post-apartheid government in terms of greater equalization of opportunities in all aspects of life. This includes education. Although South Africa's education system is definitely structured differently than it was prior to the end of apartheid, unfortunately, access to high-quality education for all citizens regardless of race has yet to be fully realized. Wealthy and middle-class Blacks have been able to access the best education available to any White child, but for poor and working-class Black families which make up the majority of South African citizens by the tens of millions, this is not the case. In part, this is because the roots of separate and unequal education are so deeply embedded in South African society. However, the key factor on which these inequalities rests now tends to be socioeconomic class rather than race. Given that the poorest and least educated of all South Africans during the apartheid regime were Black, class distinctions tend to be tantamount to the same racial distinctions that existed during apartheid. However, a very small proportion of South African families in professional and managerial jobs, as well as in political leadership, now have access to the same educational opportunities as middle- and upper-class White families by attending South Africa's best educational academies.

Later in this chapter, we will explain why the system—and educational opportunity for all citizens—has changed so little since democracy was extended to all of South Africa's citizens. First, however, we need to understand the history of education in South Africa especially as it was designed, structured, and administered during the apartheid era.

Indigenous Education Before and After the Dutch and British Landed

The original inhabitants of South Africa were the *San* people, often referred to as *Bushmen* in English or *Boesman* by the Dutch Afrikaners. The small number of

this group that still exists tends to live in the plains and desert regions of northern South Africa, Namibia, and Botswana. They have lived in South Africa for tens of thousands of years, and before being confined to small reserves by European colonizers, they had survived exclusively by hunting and gathering. They are renowned for their incredible tracking and hunting skills as well as their ability to survive for days with little or no food or water while moving from one hunting and watering ground to another. A group that split off from the San is known as the *Khoisan* or *Khoikhoi* people. They tended to settle in the area of the Western Cape, but they became differentiated from their original group by acquiring the skills of livestock raising and management. These skills enabled them to settle in larger population concentrations. They lived according to the dictates of a life based upon pastoralism and by fishing and collecting small sea creatures found in the tide pools of the Western Cape. The Khoikhoi learned the pastoral way of life through their interaction and intermarriage with the Black tribes.

Today, pureblooded San people can still be found, and in recent years they have gained considerably more communal lands on major government-owned wildlife refuges. Of all of South Africa's different ethnic groups, these people undoubtedly have received the worst treatment and least consideration in political, economic, and cultural decisions. Today, the Khoikhoi are essentially nonexistent; because of their location, the Khoikhoi culture was essentially decimated by Whites upon the arrival of the Europeans. To a great extent, their descendants make up a large portion of the population that became classified as *Colored*, or mixed White and African, as a result of extensive intermarriage or at least sexual liaisons, primarily between White male settlers of Dutch ancestry and Khoikhoi women working as domestics.

It would be a mistake to assume there were no educational opportunities for Black children that existed in southern Africa until the coming of the Europeans. All coherent and integrated surviving societies require that infants learn so they can grow up to become full-fledged members of society capable of communicating and working with other members of their natal group and willing to make whatever sacrifices are required for survival, which may even include warfare. From the standpoint of the European settlers, whether Dutch or English, this was not the case; in the minds of most Europeans there was no formal education in South Africa until they arrived and colonized the region. However, indigenous South Africans, in their numerous tribal and ethnic groupings, valued highly their own pre-colonial system of education. The survival and integrity of each group, collectively and independently, depended on indigenous education in all facets of living.

The goals of traditional indigenous education in South Africa were clearly focused on inculcating within each individual appropriate moral values. Each was taught how to manifest one's adherence to these morals in explicit codes for outward behavior, the requisite vocational skills required of men and women in

relation to their gender, and the basic cognitive and spiritual foundations that should constitute an individual's worldview as a member of the group (Corby 1990).

Immediate family members as well as the entire local band of one's tribe took part in each individual's education from childhood to adulthood. Key leaders and all adult members of one's own gender were of special importance in that education because it was, and still is, seen as the process of socialization that leads to becoming fully recognized as an adult member of one's group. Indigenous children learned about their environment, work, and society from older members of the community. Children learned not by simply being told what to do and what not to do but through constantly attending to their parents and closely observing what adults did in the various facets of life to which they were gradually exposed. Children worked; they performed small to ever increasingly important tasks for the family and community, and in this continuous process they transformed from child to adult. There were also important and dramatic learning experiences recognized as rites of passage. For boys ready to become young men, this was, and still is, accomplished at the time a boy, along with several others ranging in age from their teens to early twenties, goes through what is termed *bush school*. This is where they are circumcised and receive teachings in the ways of being proper men and, historically, brave warriors prepared in mind and body to protect their families, livestock, and other property. They also learn to become fathers to children of their own (Christie 1985). Circumcision rites, however, differ from tribe to tribe and ethnic group to ethnic group throughout South Africa and all of Sub-Saharan Africa as to the exact nature of the ceremony, the age when held, the rituals performed, who attends, and so forth (see Krieger et al. 2007; Mayatula & Mavundla 1997; Nqeteko 2004).

Formal Education before Apartheid and Bantu Education

Segregated education on a national scale is generally thought of as having begun in South Africa with the educational policy and structure formulated by W.W. Eiselen and his committee, who were assigned the task of developing and proposing a comprehensive system of state-controlled "native education" in 1951. They worked for the Afrikaner government and its ruling National Party, which had come to power in 1948 on a platform of segregation of the races, or *apartheid*, which the government promptly implemented as the official political, social, and economic structure for South African society. However, segregated formal education or schooling actually began, and it was at least the informal norm, prior to apartheid, provided to indigenous Africans and other non-White ethnic groups, such as South Africa's Indian population, almost exclusively through a network of church- and mission-sponsored schools established by European missionaries and clergy. The sponsors were primarily British churches,

but some were from other groups including the Catholic Church, the Dutch Reformed Church, German Christian churches, and others. Prior to the implementation of the formal schooling system proposed by the Eiselen Committee, which occurred in 1953 in the form of the *Bantu Education Act*, of the 7,000 schools in South Africa serving the Black population, some 5,000 were owned and operated by various churches as mission schools, while the remaining 2,000 were government and/or tribally sponsored schools (Christie & Collins 1984, pp.160-162; Mncwabe 1993, p.7). These schools, primarily operated by ministers and educators of English ancestry, publicly articulated the goal of education as being one of creating a harmonious, communally-oriented society where all citizens had access to the same rights and opportunities as well as the highest social and economic status they could achieve through education and hard work. The reality, though, was that most of the Black majority in South Africa was receiving no formal education at all, and if they were, it was in under separate and far from equal circumstances compared with the children of South Africa's ruling White minority as can be seen in Tables 22.1 and 22.2. While the Dutch first established South Africa as a Dutch territory in 1652, it was with the arrival of the British that the number of mission schools began to significantly increase. It is important to note that institutions owned and operated by the churches received some subsidization from the Colonial government (Keto 1990, p.31).

Table 22.1: Enrollment of Black Students of all Tribal Affiliations: 1930-1945

Year	Number of Black Students	Percentage of Total Black Population Receiving Education
1930	284,250	4.9 %
1935	351,908	5.5%
1940	464,586	6.6 %
1945	587,586	7.7%

Source: Christie and Collins (1984), p.166.

Table 22.2: Per Capita Expenditure on Schooling in South Africa by Race: 1930-1945 (In Pounds Sterling, Shillings & Pence)

Date	Whites	Blacks
1930	22.12.10	2.02.08
1935	22.17.02	1.18.06
1940	25.14.02	2.04.04
1945	38.05.10	3.17.10

Source: Christie and Collins (1984), p.165.

Although policies for educating the children of South Africa's Black majority, as well as the children of Indians and Coloreds, took a radical turn toward extreme government control, limitation, and repression in the mid-20th century, concern over establishing policy and structures for differentiating Black and other students of color from White children of European ancestry took place at the national level a number of years before apartheid and the institution of Bantu education in 1953. Ultimately, these concerns were linked to the needs of South Africa's major capitalist monopolies especially the mining industry. Throughout the 19th century and the 1920s and 1930s, the work performed by Whites, as opposed to that performed particularly by Blacks and Coloreds, was differentiated by the degree of status attached to that work and the level of specialized skills required to perform it. Whites were destined and expected to have the most skilled or intellectually challenging occupations, whereas Blacks and Coloreds were expected, and for the most part allowed (regardless of their level of training and education), to perform only semi-skilled and simple manual labor, except in the case of professions such as teaching or serving as clergy (Kallaway 1984). This race- and class-based structuring of society will be discussed shortly, but first, it is important to explain that prior to 1948 and the beginning of the apartheid era it is crucial to clarify that South Africa's race- and class-based social hierarchy was closely related to the need or desire of the nation's most powerful capitalists to maintain labor peace. This was accomplished through White workers seeing their interests more closely aligned with those of White capital than with those of their Black, Colored, and Indian countrymen involved in traditional blue-collar work. If this orientation could be sustained, the chances of cross-racial and cross-cultural labor organizations (unions and political parties) being formed on the basis of common class interest would be minimized. Thus, industrial peace could be maintained and the chance of work stoppages and an upward wage/price spiral minimized (Cross & Chisholm 1990).

Maintaining this equilibrium became difficult in the 1920s and 1930s as it became possible to switch from the traditional team-based, multi-skilled form of organization that characterized mine work, typically known as the "short-wall mining method," to a new method known as "long-wall mining." This method utilized the deskilling techniques of Frederic Taylor's "scientific management" and assembly-line methods pioneered by Henry Ford (Cross & Chisholm 1990). With the emergence of these innovations in work structuring and operational control, the mine owners no longer needed the expensive skilled labor of White miners; in fact, they needed to displace them with the less trained and experienced Black mine workers. Implementing this change, however, was no easy matter for simply laying-off White miners and replacing them with Black miners would undoubtedly lead to violent and massive industrial warfare and potentially a long-term and permanent split in identification and cooperation of White labor and White capital and management. Beginning in 1933, a potential solution be-

gan to appear as a secondary industry (manufacturing) began to intensify in 1933 and by 1943, it had significantly exceeded mining as the major contributor to South Africa's industrial activity and the national gross domestic product (GDP). Thus, as will be seen in our discussion of Bantu education, new industry began to provide a place where South Africa's White minority could reserve for themselves positions in the skilled trades, engineering, technical work, and of course, management. Where the space for White superiority and status could once be economically justified in mining, manufacturing in South Africa's urban areas could now maintain a similar situation and actively enforce the color bar, which blocked Black workers from obtaining the more highly regarded and highly paid positions requiring advanced education and skills. These skills, as we will see, were not available through the nation's new system of "native education" officially called *Bantu education*.

Discussions on the changing structure of work, and therefore the changing structure of the economy, began well before the creation of apartheid in 1948 and the implementation of the *Bantu Education Act* in 1953. Most notably in 1936, the government established the Interdepartmental Committee on Native Education, otherwise known as the Welsh Commission (Christie & Collins 1990, pp.167-168). Although the substantive recommendations of this body were not adopted, the document they produced provided valuable insight into ideology about Black education and its evolution toward the system that would be called Bantu education.

Firstly, the Welsh Commission identified the state's lack of interest and involvement in taking charge of shaping and governing the system, curriculum, and delivery of education to South Africa's Black majority.

From the evidence before the Committee it seems clear that there still exists opposition to the education of the Native on the grounds that (a) it makes him lazy and unfit for manual work; (b) it makes him "cheeky" and less docile as a servant; and (c) it estranges him from his own people and often leads him to despise his own culture. (Rose & Tunmer 1975, p.233)

Implicit in this citation is the view that among South Africa's segregationist Whites, little confidence existed that formal schooling, as it was then delivered by church and missionary schools, socialized Black children for their proper role in society. According to segregationist Whites, this role was peacefully performing menial work and existing in a servile role to the *master*, who was in all cases White and of European descent. The Welsh Commission, however, argued that if the government would take full control over Black education, managing its operation, and determining the substance of its curriculum, then education could perform the *positive* (from the standpoint of the dominant White majority) role of providing South Africa's Black majority with the basic literacy, numeracy, and vocational skills required for them to perform effectively work be-

fitting their inferior status, while also coming to understand and passively accept the correctness of the inferior social status and occupations to which White society had strictly relegated them.

Segregation and unequal schooling were not simply outlooks invented and initiated by the National Party's racist leaders at the time of their rise to hegemonic power in 1948 on the platform of apartheid. The words of the 1936 committee clearly verify that discriminatory attitudes and attempts at policy were firmly entrenched and had existed long prior to apartheid.

Socialization and Education for Inferiority and Domination: Bantu Education

Although it would be impossible to call education for Black South Africans excellent or superior prior to the success of the Afrikaner Nationalist Party and its institution of apartheid in 1948, which should be noted was not supported by all Afrikaners, education and virtually all other aspects of South African society began to change dramatically at this point. As was explained earlier, the transformation of South African education to a radically segregationist system began with the work of a specially assigned commission. The duty of this commission was to restructure South Africa's education system and the content of its curriculum to support a White-dominated and supremacist society. Formed very shortly after the Nationalist Party's rise to power, the Commission on Native Education was given the following mission:

- (a) The formulation of the principles and aims of education for Natives as an independent race, in which their past and present, their inherent racial qualities, their distinctive characteristics and aptitudes, and their needs under ever-changing social conditions are taken into consideration.
- (b) The extent to which the existing primary, secondary, and vocational education system for Natives and the training of Native teachers should be modified with respect to the content and form of syllabuses in order to conform to the proposed principles and aims, and to prepare Natives more effectively for their future occupations. (Horrell 1968, p.4)

The mission outlined above was firmly rooted in the Afrikaner concept of Christian National Education (CNE). A brief overview of CNE is necessary to understand the purpose and role of the Commission on Native Education as well as the subsequent establishment of what became officially called Bantu education. The policy known as CNE had its ideological roots in 17th-century Holland (when the Dutch began to colonize South Africa), when there was no separation between the Church and the school (Rose & Tunmer 1975). Although founded in 1939, CNE was not publicly released nor were the principles widely distributed in published form until the Nationalist government came to power in 1948. The term

national was defined as everything that was “our own,” that was Afrikaner. Even Christianity was based on “the Creeds of our three Afrikaans Churches.” Consequently, education for the Afrikaner meant “a thorough indoctrination in a belief in one nation, the *Boernasie* and its culture” (Tabata 1980, p.27).

The central and dominating doctrine expressed in the theory of CNE is that of pure Calvinist theology as the foundation for education. For the Nationalist Party and its Calvinist Afrikaner leaders and constituency, this meant that South African society, including formal schooling at all levels, needed to be restructured to fit and support the Afrikaners’ predestined role to lead and stand at the apex of mortal society and also be fully prepared to live a life on earth and in eternity as God’s “Chosen People.” It was this doctrine that informed, or justified, the policy and structural changes generated and advocated by the Commission for Native Education along with the needs of South Africa’s major capitalist firms in the rapidly growing secondary economic sector. It is also important to understand that theorists and supporters of the CNE policy and beliefs were deeply influenced by the ideology espoused by Adolph Hitler and Nazi Germany.

The commission’s leader was Eiselen; therefore, the body became popularly known simply as the Eiselen Commission (Mncwabe 1993). Eiselen was a social anthropologist by training and profession and had served as Chief Inspector of Native Education in the Transvaal region of South Africa since 1936. The fact that the Nationalists felt that education, particularly Native education, was an institution at the heart of their enterprise of implementing apartheid is apparent by the Eiselen Commission’s being formed and given its assignment in January of 1949, less than a year after the National Party takeover of the government (Christie & Collins 1984, p.161). The Eiselen Commission completed its task and made its report to the legislature and executive branch in 1951. We will discuss more details of the report’s policy recommendations later, but in the main they advocated that the education of Black children and youth should not be an autonomous, stand alone enterprise, but rather a distinctly and exclusively separate part of a larger plan for education of the entire society. In the proposed society, citizens of the White race, and especially those of Dutch ancestry, would remain dominant and in control of the instruments of the state and the economy, while the Black majority as well as Coloreds and Indians would have the opportunity to grow, learn, and prosper within the limits that a permanent position of subordination and subservience to the White minority could offer. This would not include interfering with or crossing over into competition in social, political, and economic arenas.

Immediately after the Eiselen Commission report had been submitted to and reviewed by the White government, Dr. H.F. Verwoerd, as the Minister of Native Affairs, was given broad powers to implement the *Bantu Education Act*, which would bring into effect the major recommendation of the Eiselen Commission: Black education was to be directed to Black—not White—needs; it

would be centrally controlled and financed under the Minister of Native Affairs, syllabuses would be adapted to the Black way of life, and Black languages would be introduced in all Black schools. Most importantly, however, the control of Black schools was taken away slowly and eventually completely from the missionary bodies that were running the vast majority of Black schools at that time and placed under the Native Affairs Department, which ultimately in all its policies and practices was centrally subservient to the Afrikaner Nationalist Administration. The *Bantu Education Act* created the complex and inefficient maze of multiple education departments that assumed control over educational affairs and the delivery of education to South Africa's population in a system that lasted from 1954 until the end of apartheid in 1994. The Department of Native Education was also responsible for supervising and controlling curriculum in and funding to all "Black schools" in the "independent states" of Bophuthatswana, Transkei, Venda, and Ciskei, and the "self-governing states" of Gazankulu, KaNgwane, KwaNdebele, KwaZulu, Lebowa, and Qwaqwa. A separate Department of Education for Blacks was also established for management and control of education of all Black South Africans living in urban areas. This department reported to the Department of Education and the Minister of Native Affairs. Additional departments of education were established for supervising separate schools dedicated to educating Indians and other Asians and South African youth defined as Colored. Of course, all of the nation's highest quality schools, from primary through university, dedicated to the education of White youth were under their own separate department that reported directly to the Ministry of Education. Thus, the work of the Eiselen Commission and the creation of Bantu education addressed several goals and at least tried to put a liberal face on an inherently right wing extremist policy.

Under the new scheme, education for White youth was both compulsory and free, paid for entirely from the general funds of the government from the first grade through all of high school and matriculation. Education for Black youth was not made compulsory, and although it was partially funded by the government (for such matters as the building of new schools), the source of the funds was a poll tax initially required of every Black adult male, employed or not, beginning in 1954. Additional poll and income taxes were later assessed on all Black females and males at a far higher rate than those assessed on Whites (see Table 22.5).

The Nationalist Party, the ruling party post-1948, enthusiastically backed this new scheme, which represented the dominant world view of the party's chief constituency and leadership, the Afrikaners. The Afrikaners, because of their frontier background, were not only isolationist by nature, but they were also deeply tied to racial prejudice against the Black population, whose lands they had progressively overrun and taken over. Thus, the policy of apartheid was geared toward clearly establishing the Afrikaners' unique identity among all

other races in South Africa and to justifying their need for them to maintain racial and cultural “purity” through strictly enforced racial segregation. In the meantime, Bantu education would conveniently provide what was hoped would become a stable yet docile and obedient semi-skilled and unskilled workforce, plus a small number of more highly educated Africans who could serve as the teachers in Bantu education schools and as clergy in Black churches and such. The policy of apartheid would reinforce the uniqueness of Afrikaner identity by removing other groups, particularly Blacks, from physical contact with them, or in the case of work, clearly limiting the nature of cultural contact to a master-servant relationship. An important ideological and theological factor undergirding apartheid’s social, political, and economic relations was the commitment of Afrikaners to the Calvinist teachings of the Dutch churches. These teachings gave divine justification for segregated race relations and Afrikaner social and political power, as they included the belief that the Afrikaners were among those predestined to receive salvation and return to God in heaven in the after-life.

Because Black teachers involved in Bantu education were teaching a population of students whose parents made a significantly lower income, or were in many cases unemployed, and held disproportionately fewer assets than their European counterparts (in 1913, the government segregated the lands of Black South Africans and White South Africans, giving the former 13% in communal lands and the latter 87%), Black teachers of Black students were also expected to be satisfied and peacefully accept significantly lower pay than was received by White teachers of White students (although White male teachers were paid higher rates than White females for the same work). Thus, Verwoerd harshly criticized any Black teachers, or teachers’ unions, for demanding “equal pay for equal work” (cited in Pelzer 1966, p.78).

Verwoerd, with his desire to keep Black teachers’ compensation low and lessen the likelihood of militant union activity, also strongly pushed for the education and recruitment of female teachers. He did this because he felt female teachers would be more passive in accepting lower wages and the concept and rules of apartheid. Verwoerd and the ministry pressed for a stronger effort to build the majority of Bantu schools in the rural areas on communal lands, hoping to dissuade Black South Africans from moving to the cities and pressing for the right to become part of life within the White urban society. The true aim of the apartheid policy, or separate development, as articulated by Verwoerd was the maintenance and perpetuation of African subjugation glossed over with the false pretense of trying to forward the cause of African self-determination.

Initial Opposition for Bantu Education

Bantu education was introduced as a formidable tool for addressing how the state responded to the perceived crisis of having a large population wishing for

social and economic mobility in the face of a governing minority wanting to keep Blacks as a labor force capable of performing only low-skilled and low-paying jobs to service both industry and large-scale capitalist agriculture. For Bantu education to function effectively, it became necessary to educate the Black population poorly so that their academic certificates became useless in the South African labor market. The state's hegemony over education also made operating a private school a criminal offense; all schools were to be registered, and legitimate registration was obtainable solely from the Minister of Native Education.

There is no recorded evidence of student opposition or militancy against the *Bantu Education Act* in its early days. Rather, it was the teachers who mounted opposition through such organizations as the Cape African Teachers' Association (CATA), the Teachers' League of South Africa (TLSA), and the Transvaal African Teachers Association (TATA). The teachers were concerned with the problems of Bantu education and the limitations it would place on students' futures, as well as with the severely low ceiling it would put upon their own salaries compared with those of White educators. There were virtually no student protests or organizations within the schools in part because the few secondary students who would be more likely to protest were scattered across a wide geographic area. In addition to the teachers though, the African National Congress (ANC) organized a strong opposition movement outside the schools. The ANC, at its annual conference in December of 1954, called for a boycott of government-controlled schools. The government responded rashly; the Minister of Native Affairs publicly declared that any schoolchildren still absent from school by 15 April 1955 would be expelled. He also declared that unlicensed schools were illegal and those found running them would be imprisoned (Hlatshwayo 2000, p.66).

To get around the law, the ANC established *cultural clubs* instead of schools. In these clubs children were taught through a program of songs, stories, and games the fundamentals of mathematics, history, reading, and other general subjects. The ANC, churches, and the Congress of Democrats Representatives also initiated what became known as the African Educational Movement (AEM) in May of 1955. The objectives of the AEM were three-fold: to establish private schools, assist with cultural clubs for boycotters, and develop home schooling programs. The philosophy behind this approach to teaching was "Trust the children—let them take responsibility for themselves" (Lodge 1984, p.284).

Unfortunately, all of these measures failed to defeat the implementation of the state's new Bantu education system in the long run. Gradually, active opposition diminished into unhappy acceptance because the state used draconian laws and brute force to exert its hegemony over the education of Africans (Nkomo 1984). Besides the use of force, the state also initiated a propaganda campaign seeking to gain legitimacy for its education policy. A monthly journal entitled *Bantu/Bantoe* was circulated free of charge to all Black schools. This journal

was filled with stories, poems, and articles that sang the praises of Bantu education under such headings as “Bantu Education is Good,” “Green Pastures,” and “Bantu Education is a Blessing.” To increase the perceived legitimacy of these articles and possibly gain public support or at least acceptance, the publications contained pieces written not only by White Native Education Ministry officers but also by Black teachers and school administrators (Hlatshwayo 2000, p.66).

Bantu Education and the Struggle against Education for Domination

Throughout its existence under the apartheid regime, Bantu education achieved its goal of impeding the education of most Black students, keeping them from exceeding the lowest four to six grades of primary school. This impediment is apparent in the educational statistics displayed in Tables 22.3, 22.4 and 22.5 from the 2001 South African National Census data. These data provide a clear and shocking picture of how successful a small minority can be in holding back the educational and economic success of millions. However, this success—if it can be called such—was not met with only passive acceptance over its long life; there were many instances of localized and nation-wide public resistance that forced some change to occur. However, an unintended—but inevitable—consequence of this regressive policy was not only its damage to the lives of several generations of Black South Africans but also the nation’s inability to participate effectively and compete within an ever-globalizing and high-technology world economy.

Table 22.3: South African Population Percentage Distribution by Race, 2001 Census

Year	Black	Colored	Indian/Asian	White	Total
1904	67.5	08.6	02.4	21.6	100.0
1911	67.3	08.8	02.6	21.4	100.0
1921	67.8	07.9	02.4	22.0	100.0
1936	68.8	08.0	02.3	20.9	100.0
1946	68.6	08.2	02.5	20.8	100.0
1951	67.6	08.7	02.9	20.9	100.0
1960	68.3	09.4	02.9	17.3	100.0
1970	70.4	09.4	02.9	17.3	100.0
1980	63.8	12.0	03.6	20.5	100.0
1985	64.8	12.1	03.6	19.6	100.0
1991	75.4	08.6	02.6	13.4	100.0
1996	76.7	08.6	02.6	10.9	100.0
2001	79.0	08.9	02.5	09.6	100.0

Table 22.4: Percentage Distribution of Highest Educational Attainment by Race of Persons 20-Years-of-Age or Older, 2001 Census

Grade	Black (N=35,416,000)	Colored (N=3,994,000)	Indian/ Asian (N=1,115,467)	White (N=4,294,000)
No Education	17.0	9.0	6.0	3.1
First	5.3	4.0	3.0	2.2
Second	4.0	4.0	3.0	1.4
Third	5.0	4.0	1.7	1.4
Fourth	5.2	4.7	2.3	1.6
Fifth	5.1	5.2	3.0	1.7
Sixth	5.5	6.2	3.5	1.9
Seventh	7.0	8.4	4.6	2.1
Eighth	7.0	9.8	8.4	4.8
Ninth	5.7	8.0	5.4	3.3
Tenth	6.1	9.2	9.8	1.2
Eleventh	5.3	4.5	6.4	3.9
Twelve w/Matric.	9.9	12.1	25.9	31.6
Certificate < Grade 12	0.2	0.2	0.3	2.2
Diploma < Grade 12	0.1	0.1	0.2	1.7
Certificate w/Grade 12	1.0	1.0	3.7	3.0
Diploma w/Grade 12	14.3	14.3	3.7	8.7
Bachelors Degree	0.4	0.3	2.3	4.1
Bachelors Degree w/Diploma	0.2	0.2	0.9	2.1
Honors Degree	0.1	0.1	0.7	2.0
Higher Degree	0.1	0.1	0.8	2.2
Not Applicable	10.6	10.0	6.7	5.4

Table 22.5: Black and White Taxable Income

	Black Family	White Family
Taxable Income	R 6,000	R 6,000
Less Abatements	R 0	R 4,450
Primary Abatements	R 0	R 1,200
Children: 2 X R 500	R 0	R 1,000
2 X R 600	R 0	R 1,200
1970 Addl. For Child Born That Year	R 0	R 400
Less R 2.00 for every R 10.00 by which taxable income exceeds R 5,000	R 0	R 200
Taxable Amount	R 6,000	R 1,950
Tax Payable	R 395	R 185

Source: National Union of South African Students (1979), p.52.

Bantu education, and other elements of apartheid discrimination and oppression, was not embedded within South African society without a struggle, and indeed this struggle persisted in ebbs and flows, with low and high points of conflict, from nearly its inception until the apartheid regime ended in 1994. The first historical phase of this political struggle took place roughly between 1960 and 1976. This was an era of intense government repression that began with the declaration of a state of emergency in 1960 and ended with violent student resistance and riots in the Black township of Soweto. This era is also characterized by (a) the establishment of Black universities in 1959; (b) the crushing of extra-parliamentary action (freedom of speech and assembly) as a right and legal method for protest and seeking change; (c) the distorted distribution of financial resources in education, which resulted in a failure to develop badly needed technical education to meet the needs of labor; and (d) the emergence of resistance within educational institutions by organizations such as the South African Students' Movement (SASM) that was focused upon and driven by the Black Consciousness movement. The second era, 1976 to 1983, was marked by massive and more aggressive state coercion, which was equally met with mass public action in opposition to apartheid. Faced with political, economic, and social chaos, the state in turn attempted to mute public insurrection by addressing some of the problems that plagued Bantu education. The state addressed these problems through a new government task force known as the de Lange Commission. The third phase, 1984 to 1994, was both a mature response and organization from students and parents working for change and also the last desperate policy trick and innovation from the state. The state was making an effort to cement education for White students in a superior environment as far apart from Blacks as could be possibly achieved as the reality became clear that apartheid would fall once Nelson Mandela was released from prison.

Attempts at Reform and the Escalation of Conflict and Crisis

Fervent but non-violent protests by South African students, when contrasted with the government's harsh and violent response and attempt to repress the exercise of what are considered to be inalienable individual and group political rights and freedom in most modern democracies, led to public and private government condemnation by the people and governments of many nations around the world. Criticism was also voiced by influential members of domestic and international academic and business communities. Except for members of the liberal left, however, such criticisms tended to focus more on attributing South Africa's education problems to being an obstacle to South African economic growth.

In response, the government established four new technical colleges or *Technikons* and a new college named Vista University. Corporations, foreign and domestic, also instituted new corporate policies to produce parallel strategic

reform in the private sector. For foreign multinationals, this was not some grand new commitment to fomenting social change for human rights but rather an attempt to placate their home governments and the citizens of their homelands who demanded the total disinvestment of their home corporations in South Africa if apartheid did not end immediately.

Thus, economic, social, and political conditions in South Africa continued to escalate throughout the 1980s leading to a declared “state of national emergency” by the government in July 1985. Foreign investment was also abandoning South African operations in large numbers in an attempt to pressure the South African government into ending apartheid. In turn, these conditions led to increased unemployment for both Blacks and Whites but especially among Blacks.

The White South African government attempted to quell rage over oppression and inequality with more repression and utilizing its military forces to try and end peaceful demonstrations with violence. However, they did institute one political reform, which was a tri-cameral legislature including one body for Whites and one body for Coloreds as a carrot in the hopes that this would help separate these groups from supporting Black militancy. Instead, this reform only served to fuel greater rage among Blacks who had been intentionally left out of these reforms. All of the above conditions gradually forced the South African government to face the reality that demanded complete political, economic, and educational participation granted to all citizens.

With disinvestment occurring at an increasingly rapid pace and new investment out of the question in such an unstable environment, the South African government became increasingly mired in foreign debt. Creditors also put pressure on the government to free Nelson Mandela and other ANC jailed leaders, as well as enact complete dismantlement of the apartheid structure in all areas.

The Mad Rush to Protect White-Only Education before Full Political Change: 1990-1994

Education in South Africa prior to 1994 was an extremely complex structure with tremendous duplication of positions and departments to ensure the protection of White youth from having to come into contact with other races and ethnic groups during their education. The structure was also in place to help prevent the youth and their parents from rallying together for liberation and improved services en masse in opposition to the White controlling minority. Fifteen different and uncoordinated education ministries—including 10 separate departments for each of the Black Bantustans, four for each of the government’s officially recognized racial groups (African, White, Colored, and Indian), and one Department of National Education which performed the role of establishing national norms and standards of education—existed to achieve these political and educationally hegemonic ends. However, in spite of the establishment of central controls, the

education system was in reality a conglomeration of multiple subsystems. Every one of the 15 departments had its own school model; each model had a different and independent funding formula, its own way of relating to parents and its own set of governance principles (Karlsson, McPherson & Pampallis 2002). Designed to institutionalize prejudice and inequality, the education system was unbelievably complex and difficult to govern, and it clearly needed restructuring and re-designing into a single system of education that would provide equal educational opportunities for all South African citizens regardless of race, ethnicity, or social class. The ANC and the Black majority had high hopes of accomplishing these ends, and unification was established between 1994 and 1995. Unfortunately, the success of this attempt at institutional change has proved to be a failure for the most part (Lewis & Naidoo 2004; Sayed 2002). This failure is partly because of the preemptory actions taken by Piet Clase, the minister responsible for White education, and the economic restraints that were instituted after 1994 under pressure from the World Bank and International Monetary Fund through structural adjustments.

The undermining of post-apartheid equity and equality of education began with the machinations and actions of Piet Clase. In 1990, Clase declared that White state schools would be required to open their doors to all races and ethnic groups. However, the options that White schools, and the parents of the schools' students were given for accomplishing these ends, essentially made it impossible for anyone except for White families, and a small number of the wealthiest Black families, to take advantage of these so-called integrative choices. Moreover, given the fact that the nation's White schools represented only 13% of the total education facilities and student population, Clase's actions tended to deflect educational policy away from the real problem of substandard education in South African schools; for the majority of these schools were located in areas solely or primarily populated by Black and Colored South Africans. The way that this was accomplished by Clase was ingenious but also ultimately detrimental not only to Black and Colored students but also to the future of the nation as a whole, especially with the increasing globalization of the world economy and the need to harness every single good mind to the task of increased technological sophistication, as well as the ability to understand how to participate effectively in a fully democratized society.

To protect White interests and prejudices while at the same time presenting to the world a façade of social change, Clase came up with the following choices parents could make in terms of the model or form of school that would be adopted for their children's attendance:

- Model A would result in the full and complete privatization of a school
- Model B would remain a state school but could admit Black learners up

to a maximum of 50% of its total enrolment

- Model C schools would get a state subsidy but would have to raise the balance of their budgets through fees and donations. Model C schools could admit Black learners up to a maximum of 50% of enrolment
- From the beginning of 1992, a fourth option was offered: Model D schools were allowed to recruit an unlimited number of Black learners, largely due to a diminishing enrolment in the number of White learners resulting from lower fertility rates and increasing number of White families leaving the country (Karlsson, McPherson & Pampallis 2002, p.146)

Not surprisingly, from the beginning of 1992, most of the 1,983 White state schools retained their old state school status (they were referred to as “status quo schools”) as many of them, especially the Model C schools, effectively maintained the traditional structure of White-only schools by providing Whites with state subsidized education but effectively achieving the blockage of most Black students from attending these schools either because they were too far away from Black populations or by making the added private contribution to school funding and programs required in Model C schools far beyond the financial reach of most Black families. A little over one-third of these schools (692) voted to change to Model B. Some 51 schools chose the Model C option, only one school chose to become a Model A school, and six schools chose the fourth or Model D school structure. In 1993, the government announced that all formerly White schools (except Model D schools) would become Model C schools unless parents voted by a two-thirds majority to remain status quo schools or become Model B schools. The Ministry of Education also announced that subsidies to all Model schools would be cut. Consequently, subsequent to the 1992 decision of April 1992, 96% of all of former White state schools became Model C schools (Karlsson, McPherson & Pampallis 2002, p.146).

In the case of Model C Schools, parents elected a governing body. A title to the fixed property and equipment belonging to the school was given by the state to each school to be administered by the parental governing body. Thus, each school became a juridical entity possessing the right to enter into contracts and to sue and be sued. They were given a high degree of legal and administrative autonomy including the right to change compulsory school fees, setting them at higher or lower levels, and the right to determine the admissions policy of each school.

The reasons for these changes in the status of what were essentially the traditional White schools reformed in multi-racial clothing, but effectively structured so that they could remain totally or nearly so, were the state was becoming increasingly unable to provide the same level of financial support, that is, total support to Model C schools just as it had to all White schools. This limitation

was due in large part to slow economic growth even during the decline in the 1980s and 1990s and an internal political climate that looked unfavorably upon placing the heavy tax burden of education primarily on the poor Black majority. Due to such past inequities, the National Party finally realized that its White members would have to begin to substantially support their children's schools to keep educational conditions from deteriorating. These changes also served the purpose of creating conditions where White parents could continue to control White schools, although theoretically Model C schools were interracial schools on paper. By preventing all but the wealthiest Black, Colored, and Asian families from sending their children to Model C schools, White parents maintained their hegemonic position over school resources and policies. In effect, social and economic class became the substitute for creating segregation, but given the highly distorted distribution of the nation's economic resources, segregation by class was almost an identical substitute for race. Strangely enough, although Model C schools represented such a small proportion of the total school population, political and public discussion in the media regarding schooling was essentially 99% devoted to issues related to these schools. This state of affairs further retarded the development of an equitable and progressive education system.

From Reform for Educational Equity to Stagnation to Moving Backwards in Black Education: 1994 to the Present

Before 1994 as we have previously indicated, the education system of South Africa was extremely complex. Each department had its own school model, with each model having its own funding formula, its own relationship to the ministry and parents, and its own governance arrangements. With such complexity and chaos, much of which was designed to ensure the delivery of high-quality education to Whites and to ensure sub-standard education delivered to other racial groups, it was clear that there was much need for extensive reform and reorganization. In the beginning, the intent was both socially and politically progressive with the aim of delivering superior education to all South Africans. However, as time progressed, aspirations for improvement and equity declined, and both policy and objective economic conditions served to stagnate first and then reverse quality of teaching and education facilities made available to non-White youth and students from wealthy Black, Colored, and Indian families. Discrimination arose directly as a function of social class differences and indirectly because of racial differences.

Under such conditions, the ANC-controlled government set out to minimize such inequities at first through the design and attempt to implement a Reconstruction and Development Program (RDP), which became the first education policy document of the new government; and second, the government produced an education policy document entitled *White Paper on Education and*

Training (White Paper), which also voiced a strong progressive tone demanding racial equality. The White Paper was written by the Department of Education and Training and was strongly supported by the ANC. The government's RDP was built, according to Nelson Mandela's Preface to the plan in the document's beginning,

on the tradition of the freedom charter. In 1955 we actively involved people and their organizations in articulating their needs and their aspirations. Once again we have consulted widely. . . . For those who have participated it has been invigorating and reaffirmed the belief that the people of our country are indeed its greatest asset. . . . Democracy will have little content, and indeed, will be short-lived if we cannot address our socio-economic problems within an expanding and growing economy. (African National Congress 1994)

Achieving the goals and objectives laid out by RDP required a huge expenditure of state resources. The state started to raise funds by selling what were called RDP bonds to the public. Fiscal policy requirements were large to meet the RDP objectives and huge expenditures allocated to education and training, health, and the provision of social welfare services.

Unfortunately, it soon became clear that the increased state expenditures that were required to achieve RDP's goals and objectives far outstripped actual state revenues and were leading to a rapid and continuous increase in interest rates. These interest rates, in turn, would lead to an inevitable vicious cycle of state expenditures needed to service debts which were not only beyond the state's current capabilities but would also become the heritage of future generations.

Projections indicated that the desired RDP educational outcomes would come at a great expense especially to support the much needed capital improvements. Thousands of new classrooms would have to be built by the state as well as hundreds of new schools, which would require huge amounts of money to finance new media centers, electrification, water, and other sanitary facilities, telephones, and tens of thousands of textbooks. Furthermore, if the RDP was to be achieved then equity in expenditures for each student's education would be a fundamental element of this accomplishment, which would include a vast increase in teachers (20,000 by the year 2000) so that far smaller teaching loads could make the ratio of 30 students per teacher the norm compared with the typical load in Black schools of 50 or 60 students per teacher. Simply meeting the needs of new teachers could exhaust the entire education budget by itself, rendering no additional funding available for all the other needs.

Facing the need for such massive expenditure described above left the state with two scenarios. Either it could borrow from external sources an amount of funds equal to a minimum 6% increase in GDP per year for many years to come or to achieve such economic increases through economic growth, which under

existing conditions seemed highly unlikely. Consequently, the high hopes and extremely progressive policies of the RDP began to disappear gradually from South Africa's post-apartheid plans by 1994, and this situation was clearly evident in a new document dealing with national educational policy and its implementation known as the *RDP White Paper of 1994* (Nicolaou 2002, p.62).

The 1994 White Paper advocated the same key programs as those in the original RDP document but with somewhat of a new emphasis. The necessity of redressing past injustice and the fundamental role of all of the people had completely disappeared. The eradication of inequality and elimination of poverty as well as the promotion of education and training were emphasized in the White Paper. However, the latter were specifically and intimately linked to a definition of macroeconomic policy that was consistent with the concept of structural adjustment as articulated by the World Bank and IMF.

Thus, establishing and maintaining fiscal discipline became the new priority and focal point of the national government in the White Paper. The Department of Finance had become mandated to decrease public deficit while simultaneously preventing any real increases in public expenditure from occurring. Interest rates paid to external lenders of state expenditures were to exceed state collected revenues, thereby increasing the cost of servicing debt particularly if economic growth were to decline. As a result, increased state intervention through public projects as a means of stimulating economic growth became impossible, and therefore, the RDP's original goals of eradicating inequality and ending poverty took a backseat to maintaining fiscal austerity. Fiscal austerity and the avoidance of any real increases in state expenditures lead to no economic growth. Increasing government intervention, on the other hand, tends to promote growth, whereas simply reshuffling the same level of funding, or even trying to reshuffle a reduced level of funding due to stagnation or a decline in economic growth, had no capacity at all to stimulate the economy and thereby provide a stronger economic base for funding education and other public services. Thus, South African post-democratic reform found itself boxed in by a set of constraints that either produced economic stagnation or even decline, while the elimination of inequality and extreme poverty became unrealizable dreams (Bond 2000; Matrais 2001; Nattrass 1996, 1999, 2003; Nattrass & Seekings 2001).

This new and revised form of public policy related to economic growth and fiscal management came to be known as the Growth, Employment, and Redistribution Program (GEAR) with a macro-economic strategy. The GEAR strategy argued that its new policies would generate a minimum GDP growth of 6% annually. Based upon GEAR assumptions, a minimum growth rate of 6% would enable a modest but consistent 3% annual growth rate in public expenditures for public education at a slightly higher rate than population growth, while maintaining a balanced public fiscal budget as well as steadily eliminating previously accumulated deficits during the 1980s and early 1990s. Unfortunately, if the

minimum annual GDP growth rate were to fail to meet the 6% minimum, then the government would have to rely on heavy borrowing of additional funds which would create a short-term cyclical economic boost but also simultaneously generate a rising current account deficit, yielding higher inflation and interest rates. Thus, given the priority of the Department of Finance and the Treasury over the Ministry of Education and all other government departments and ministries, the meeting of equity in social reforms quickly took a back seat to government fiscal austerity and has continued to do so since. For example, GDP growth was 3.1% in 1995, dropped to 1.7% in 1997 and again to 0.1% in 1998 before rebounding to 4.2% in 2000 and again during the first three quarters in 2005 (Nicolaou 2002, pp.71-72; Statistics South Africa 2005, pp.6, 9). With anemic and volatile economic growth such as this, educational services provided by the public sector have experienced virtually no growth, only a significant decline or stagnation especially in the case of rural schools, township schools, and schools primarily servicing Black and Colored students living in South Africa's many informal settlements on the outskirts of major cities and towns that are often derogatorily referred to as squatters' camps. Thus, public schools, which remain in essence still South Africa's Black schools, have actually been continuously deteriorating since 1994 rather than growing and improving with the end of apartheid as can be seen from the statistics in Table 22.6.

Table 22.6: Government Educational Expenditures and Race: 1975-1985, Millions of Pounds Sterling

Year	Black	Colored	Indian	White	Total
1975	131 (17%)	89 (11%)	39 (5%)	536 (67%)	795 (100%)
1976	156	103	44	646	948
1977	191	133	56	816	1,196
1978	110	144	61	877	1,192
1979	245	179	75	1,000	1,498
1980	305 (18%)	175 (10%)	83 (5%)	1,116 (67%)	1,679 (100%)
1981	298	247	123	1,361	2,029
1982	557	294	155	1,688	2,695
1983	755 (22%)	405 (12%)	196 (6 %)	2,056 (60%)	3,413 (100%)
1984	122	451	225	2,032	3,932
1985	1,460 (31%)	571 (12%)	259 (5%)	2,465 (52%)	4,755 (100%)

Source: Hlatshwayo (2000), p.87.

Ironically, even with growth in GDP this would have made little difference in the outcome in general public education for South Africa's Black population. Irony lies in the fact that the very strategies and tactics which helped to bring the apartheid government down also placed the nation in such a precarious debt and disinvestment situation, due to economic sanctions against doing business with

or in South Africa by activists in the country and abroad. The consequence of continuous and deepening sanctions against the South African state by major players in globalized business placed the nation in a perilous debt situation with 200 different banks, including the World Bank and the IMF. Debt which the country could not afford to pay-off on a timely basis could not be dealt with without significant and repeated extensions of loan periods when growth was not occurring and there were no general increases in employment as even significant retrenchment in jobs was being carried out. Money that was originally intended to rectify discrepancies in equity and expand education and social services has had to go to foreign debt repayment or debt for equity swaps instead. Furthermore, the capacity of the private and public sector to provide job growth has disappeared as the bargaining power of the trade union federation, the Congress of South African Trade Unions, has suffered massive job losses due to the movement of manufacturing to other lower wage nations in the Southern African Development Community (SADC) such as Malawi and beyond. Even many mining jobs have been lost as the shallow levels of precious metals, especially gold, have disappeared and the mining industry has chosen to invest in expensive, highly automated machinery to capture gold from deep reserves, replacing workers with machines (Allen, 2006, pp.80-83). Thus,

just as global markets had disciplined the apartheid state into abandoning the nationalist form of capitalism, they were later to discipline the democratic state, into abandoning economic restitution and social transformation. The compromise was “Truth and Reconciliation” or apology without restitution. Meanwhile, trickle-down budget politics has hardly kept pace with the reproduction of poverty. This is why, although the techniques of encounter between the indignities of racialist institutions removed, little in the substance of social inequality has changed even into the early years of the twenty-first century.

The ANC/COSATU/SACP had not won control of the economy, but had adjusted its strategy to take advantage of the convergence of interests in order to achieve democracy and African majority rule. In so doing, they achieved some of the original goals of the bottom-up revolution and adjusted their vision and ideology of feasible statecraft to be consistent also with prevailing norms of the global mode of production. From the perspective of the market they could be trusted with the State, and this made it possible for the transition to be smooth, or in the popular myth, a “miracle.” (Allen 2006, pp.83, 82).

The Model C school concept has been retained because all economic classes do not want to miss out on government subsidies. However, the tuition, fees, and often room and board charges for the Model C schools, which contrary to the end of apartheid are still referred to as White schools (even with restrictions on

the number of Black students that can be accepted and account for as low as 8% of the student body), are such that a segregated system of the education of elite and substandard schools have been structurally retained. Black and Colored students continue to receive inferior education from Grades K-12 (and their teachers, especially women receiving inferior and even late pay for their services). In contrast, nearly all White children and a fraction of the children from other ethnic groups and races who come from well educated and wealthy families have access to education at the elite prep school level. The difference in the resources that one encounters when attending public versus private schools is shocking. Private school tuition, fees, and often meals and boarding charges can run up to US\$5,000 or more a year, whereas many public schools, especially in the townships and rural communities, lack text books, desks, and even chairs.

Some room for a minority of South Africa's Black majority has opened up in middle and upper class social and economic circles, but this has not been the case for most Black citizens whose material well-being and opportunities, as well as their personal security and safety (freedom from theft and violent crime), have remained the same or even become much worse since the ending of apartheid. Many Blacks are trapped in townships that lack employment opportunities and public services, and where theft and violent crime are rampant. Others live in isolated rural communities where life consists of hard physical labor raising livestock and trying to grow crops on South Africa's least productive and fertile land. However, this group is gradually disappearing as the majority of children from persistent farming backgrounds flock to the cities believing that they will be able to escape the harsh physical existence that they would have to endure if they were to follow in their parents' footsteps. Lastly, a very large percentage of South Africa's Black families and individuals, especially those who are newly departed immigrants from the rural areas, move to one of the nation's huge shanty towns in the outskirts of major cities where there is little or no clean running water or sanitation infrastructure. In these squatter camps, gaining access to electricity requires that it must be stolen by hooking up cheap, relatively lightweight wire to power lines along which tens of families attach even cheaper and thinner wire that runs from the main line to their shacks carrying very high voltage (220 volts) electricity, which often leads to frequent house fires, accidents, and even death. Residents of these informal settlements soon learn that economic opportunities are limited and harder to come by than they had imagined when they were living in rural farm settings. Furthermore, there is generally no room to grow even subsistence crops and livestock to ensure that they do not have to face the possibility of starvation. Everything costs money of which can only be had by finding a wage-earning job, petty theft, or collectively gaining access to key resources such as the stealing of electricity. Unemployment rates in these areas can run from 60% to 80%, so finding a job, whether casual labor and especially stable employment, is very difficult. The residents of informal settlements

own no property in terms of land or housing, and therefore, they cannot gain access to loans to start their own business activities given this lack of collateral even if they have significant entrepreneurial skills and instincts. Survival, therefore, must be accomplished by developing a mixed-income generating strategy. Typically, this involves a combination of casual labor, which is scarce and unpredictable, doing domestic labor for wealthy White or Black families, and also engaging in some small business activity in the informal sector at a booth set up on the sidewalk along roads known as highly-traveled thoroughfares. In this case, money is earned by selling meat, fruits, and vegetables, second-hand or reject products from local manufacturers of clothing, shoes, and other leather or faux leather goods, luggage, bootleg popular music on cassette tapes, and so forth. Casual labor is almost exclusively sought out by men who stand and wait from early morning on a specific street corner with a crowd of other men waiting for some stranger to pick them out of the group to come and do as little as one or a few days of hard physical labor or even a full week to several weeks if they are really lucky. However, being unregulated or unprotected by the government, casual workers often earn far less per hour or day than a permanently employed individual; for they are at their temporary employer's mercy, and with such high demand for scarce job opportunities, competition is fierce even for these jobs. Since casual labor is part of the informal economy, it largely goes unregulated, and by its very structure it is impossible to gain some protection by organizing a union and trying to engage in collective bargaining.

The other most common option for earning money for a resident of an informal settlement or township is domestic labor. In some instances, this can include men serving as household gardeners and handymen for the master of the household (a term still used by employees when talking with or referring to their employer). Domestic labor performed by women involves all indoor household duties such as washing and drying clothes and bedding, scrubbing floors and dusting, and taking care of young children. Domestic labor, although more consistent and predictable than casual labor, still often has many negative characteristics; for this work is paternalistic by nature and is also part of the informal economy and unregulated. Therefore, in the case of domestic work, employers are free to underpay their workers or even delay or refuse to pay for some work done if they wish as the worker has really no legal recourse or means to pursue restitution through litigation. These workers are completely at the employer's mercy. Furthermore, domestic workers very often have to be willing to put up with frequent verbal and even sometimes physical abuse from their master or mistress for talking back or engaging in complaint or protest of unfair treatment can easily result in immediate dismissal; therefore, quietly enduring such abuse seems to be the safest strategy as many employers of domestic workers either seem to believe instinctually that being the "master" or the "mistress" gives them the divine right to be abusive. Others also believe that if they are not harsh and

abusive toward their domestic workers, they will lose control of the situation, and their employees will simply sit around and do nothing or will become cheeky and talk back to them.

The Victory of Austerity and Structural Adjustment over Redistribution and Equity: The Deterioration of Public Education

The abysmal situation faced by most township schools after the official end of apartheid and the rise of the ANC to power has naturally progressed, or digressed, to deeper levels of distress and shortages of teaching talent and teaching equipment and facilities as the economy continued to deteriorate. Where Nelson Mandela's initial dream and ideals had envisioned a society in which equity and equality would be achieved by an aggressive program of hard work, combined with the redistribution of surplus resources to the entire population regardless of race or ethnicity, the GEAR Program took precedent over the initial White Paper and reduced the hopes for a nation of widely shared wealth to one subordinated to the goals of maintaining a program of strict austerity through structural adjustment. Just as greater wealth could have brought a greater sharing of resources and a more fair distribution of wealth, instead a continuously declining economic growth rate led to ever higher levels of unemployment and poverty, and therefore, also poorer school conditions especially for most of the Black majority. Thus, today, South Africa faces a true education crisis especially when combined with one of the world's highest HIV infection rates at 18.1% of individuals 15 years and older (UNAIDS/WHO 2008) and a population of AIDS orphans in the millions that will not peak until at least 2015.

Private economic growth, instead of public resources, is seen as the appropriate engine for educational development and equity among the different segments of the population. It is believed that by combining dynamic economic growth with redistributive goals and rigorous public sector cost-cutting measures, education and wealth will become more broadly and equitably spread across the entire population without bloating government expenditures becoming an ever-growing drain upon the national economy and the growth of private enterprise. Unfortunately, experience has tended to show that rigid public sector cost-cutting may undermine and cause the failure to achieve redistributive goals instead of facilitating greater equity. Comparative studies of the impact of such policies on education have found, more frequently than not, that a severe focus on maintaining fiscal austerity has actually contributed to a deepening of poverty and produced a negative impact on equity and quality in education across all sectors of the population. This leads to widespread social unrest and resistance as educational programs become progressively cut from year to year, and an increasingly heavier financial burden for their support shifts to the poor who lack

the resources to pay for services that originally were assumed would become supported by steady and increasing levels of economic growth (Chisholm, Soudien, Vally & Gilmore 1999).

GEAR envisions education as a key determinant of long-term economic performance and income redistribution, and it therefore supports vigorous human resource development policies to ensure economic growth. GEAR is grounded in human capital theory, which is a doctrine based upon the belief there is a direct link between education and economic growth. Education is considered to be an investment for the nation in which students and workers are both value-added products and the means through which the economy is to be improved. Thus, education and training are considered to be a panacea for poor economic performance, as it is assumed that the investment in human capital and technology will increase productivity and skills in the office and on the shop floor. Under the assumptions of human capital theory, the value of education is reduced to its economic pay-off for the individual and the economy as a whole. Thus, in spite of the important role that is envisioned that education will play in economic development, ironically, GEAR becomes a serious challenge and obstacle to the adequate funding of education instead. Furthermore, by placing the focus upon economic growth now and redistribution of access to resources later, GEAR has tended to marginalize the initial quest for social justice that the end of apartheid was supposed to bring about as a singular and central goal in its own right instead of merely a means of improving skills, economic performance, and international competitiveness.

In the early 1990s, public policy conceived of increased social spending on social services as a way to reduce inequalities and allow all citizens access to adequate services; however, GEAR has promoted the opposite instead. Its central focus on fiscal austerity has instead diminished the expectation of ongoing state involvement in providing ever-increasing budgets to meet social needs. Rather, a new focus on efficiency and savings within the system as well as partnerships between the state and the private sector has emerged as a dominant trend in social funding policies. GEAR creates a social political atmosphere in which more richly endowed communities, those communities that over the years already have benefited significantly from apartheid, simply continue to receive superior educational resources and facilities, thus perpetuating a system of differential and highly unequal schooling.

One of the sharp ironies of the situation is the fact that rich, predominantly White communities have built up over the years a surplus of schools and teachers in relation to the actual number of students in their communities. Whereas the numbers of White students has steadily declined in recent years, the number of schools and teachers has remained steady or even increased such that schools that could handle well over a thousand students now serve only a few hundred White pupils. Predominantly Black schools, on the other hand, have been in

short supply of facilities, teachers, and educational resources needed to provide a quality education to Black primary and secondary youth. Thus, public schools are short on qualified teachers and teaching materials in key subjects, and classrooms are often so crowded that some students must stand or sit on the floor. Rectification of this situation was initially envisioned as being solvable through the transfer of the over abundant supply of White school educators to Black schools faced with over demand and insufficient resources. This idea failed to work for a variety of reasons but especially because White teachers did not want or did not feel financially able to move to rural areas to teach Black students in faraway places. Furthermore, Black students, given the antipathy built up over the years between Black and White South Africans, were also strongly opposed to having to accept White teachers in their schools, and the idea was rejected by both the students and their parents especially in the higher level grades. The new Department of Education attempted a solution to this dilemma by offering voluntary severance packages to White teachers who would retire from the system and then, in turn, hiring temporary Black teachers to teach in schools in Black areas, thus providing the students with teachers they found socially acceptable and which also would reduce costs because of their temporary status. Unfortunately, the number of White teachers who chose to opt for a voluntary severance packages far exceeded the number that was originally projected. The original amount that was assumed to be necessary to cover the cost of paying voluntary severance packages to the number of White teachers projected to leave the public system was 600 million Rand. Nelson Mandela believed that sympathetic foreign governments would help substantially to accomplish this readjustment of resources and the restructuring of the educational system. Instead of a total severance cost of 600 million Rand, the government found itself faced with a request from teachers choosing the voluntary severance packages option totaling at a figure of 1 billion Rand based conservatively on an average package per educator of 66,332 Rand. Furthermore, the fervent pleas of Mandela to the international community for help by supplying funds to support these adjustments were promised but never actually donated to the undertaking, or they were literally ignored by the developed nations with no offers of financial help forthcoming, leaving the South African education system near bankruptcy. This situation was even further exacerbated when it was discovered that some districts and provinces were fraudulently reporting their staffing figures in an attempt to receive enough funds from the national government to overcome the initial overly optimistic estimate of what the voluntary severance packages intervention would cost. In KwaZulu Natal, for instance, the provincial Department of Education carried out a head count in May 1997 and came up with a total of 77,000 teachers, although they had been reporting to the government that they were paying the salary and benefit costs for 84,000 teachers (Vally & Tleane 2002).

Conclusion: The Future of South African Education

Today, the future of public education in South Africa, education that will bring the capabilities of Black and White students up to parity in society and the nation's labor market, is bleak. The HIV/AIDS pandemic exacerbates this situation creating a true crisis, and the interrelationship between these two, achieving educational equity and meeting the HIV/AIDS challenge, is poorly understood by public and private donors outside of South Africa. External philanthropy has finally abruptly acknowledged the seriousness of the HIV/AIDS crisis, and donors such as Bill Gates, Warren Buffet, and the Clinton Foundation have responded by richly donating financial resources to help provide medications to South Africans in need as well as investing funds in searching for an HIV/AIDS cure. However, more investment needs to be made to offset the educational crisis that plagues this nation and threatens not only its economic future but also may lead to violent social and political unrest. The era of apartheid produced so many inequities and discontinuities between the conditions and opportunities faced by South Africa's different racial and ethnic populations. Equality in education opportunity must also be achieved, and reaching this goal will be harder given the large number of orphaned children that have been and will continue to be produced by AIDS in many years to come. Education to fight and prevent the spread of HIV/AIDS must be combined with programs and resources addressing all aspects of education, from pre-school through college or vocational schooling, up to First-World standards, for all South Africans rather than continuing to maintain a small but wealthy and highly educated White minority and leaving the large and vast population of Black South Africans out in the cold with only the most limited and inadequate of education preparation for participation in both the job market and a truly democratic society.

The emergence of the HIV/AIDS crisis in South Africa occurred in the middle of the 1980s, a decade before apartheid ended, and it has exacerbated the present and future crisis beyond anyone's imagination whether scientist or layperson. Although the outbreak led to a relatively quick response with the formation of an AIDS advisory group appointed in 1985, the response was severely hindered by both the hostile relationship between the White-controlled government and the Black population as well as the government's very limited understanding of the disease and the causes of its transmission among the most vulnerable and affected populations. By 1990, South Africa had 48,818 HIV positive cases (Dorrington, Bradshaw & Budlender 2002). In 1992, the first official government response to HIV/AIDS was taken when Nelson Mandela addressed the newly-formed National AIDS Convention of South Africa (NACOSA). However, this official response represented little in terms of specific actions to be taken, and this was the state of affairs in the several years to follow. In 1995, a year after apartheid ended, the number of identified HIV cases had increased to

1,205,847, and by 2003 this number had risen to 7,027,931 cases, representing 27.9% of the population (Dorrington et. al. 2002). According to Fredriksson and Kanabus (2004), it is estimated that as many as 600 people died daily in South Africa in 2003 due to AIDS. Fortunately yet belatedly, it is felt that the HIV/AIDS pandemic theoretically peaked in 2006 with an estimated 7.7 million HIV cases, and it is projected to decline to 7.2 million positive cases by 2010 (Dorrington et. al. 2002). South Africa's relatively slow national response with respect to HIV not only fueled the epidemic, but transformed a potential biological threat to a national long-term catastrophe. The factors commonly attributed to the inaction and unresponsiveness include: (1) the apartheid and post-apartheid reconstruction environment; (2) government impassiveness and indolence; (3) the cultural and sexual attitudes, stigmas, and myths of the general populace including that of rape, child sexual abuse cases, and the extreme shame or publicly admitting HIV infection; and (4) the facetious, venal, and ignorant attitude and knowledge regarding HIV, its causes (claiming there was no evidence that HIV led to AIDS but rather AIDS was the result of poverty), its transmission, and its resolution by top-level government leadership.

The net result of this crisis has been the production of a large number of orphaned children without one or two parents to support them or enable them to attend school. By 2001, South Africa had the sixth largest of total orphans and seventh largest number of AIDS orphans with 1,528,000 and 662,000, respectively (UNICEF 2003). By 2010, South Africa is projected to have the third largest population of orphans numbering approximately 2,303,000 or a projected increase over 2001 figures of 51% (UNAIDS/WHO 2004; UNICEF 2003). The impact of this on the educational and economic future of South Africa is unimaginable. A world of chaos may ensue with millions of young men and women, if they survive physically, with little or no education or even the lowest level of skills caught in a vicious trap of constant unemployment. Massive amounts of capital will have to be infused into this society if this population will be saved from further death and destruction. The lack of teachers to educate this population will challenge national capacity. The loss of future educators that could have arisen from this population, had they not been orphaned, will produce utter society-wide deterioration and could likely serve as the precursor for massive social strife.

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23

Measuring Education Inequalities in Commonwealth Countries in Africa¹

Elaine UNTERHALTER & Mora OOMMEN

Introduction

This chapter reviews some of the history of education inequalities in Africa since the 1970s. To what extent do the existing social indicators used to assess the provision of schooling give insight into the depth of education inequalities? Focusing on gender inequalities, we present some critiques of the indicators currently used for their failure to assess some important dimensions of why gender divisions in schools are significant. The chapter goes on to suggest how more complex measures of inequalities can be developed and presents the results of assessments of changing gender inequalities in Africa based on the Gender Equality in Education Index (GEEI), pointing out how different the picture it presents is to that based on existing measures of enrollment and gender parity. In conclusion, this chapter shows how linking measures relating to poverty and education enrollment and attainment will allow a richer picture of both the scale of the social policy challenges required to reform education in Africa and also some of the ways in which connections between social policy areas can be enhanced.

Poverty, Inequalities, and Education Provision in Africa since 1986

Expanding provisions for education was a key aspiration of post-colonial governments in Africa from the 1950s onward. Table 23.1 shows how primary and secondary gross enrollment ratios increased from 1965, but it also indicates how at the beginning of the 21st century a considerable proportion of children were not enrolled in primary school and only a quarter of children were enrolled in secondary school. The period between 1985 and 1995, when high levels of debt were accompanied by draconian structural adjustment policies in many African countries, saw a fall in primary school enrollments. Secondary enrollment levels rose in this period, but there was a drop during 1995 to 2000 that has still not been reversed.

However, since 1995 vigorous policy in a number of countries has led to considerable primary school expansion. For example, the introduction of policies

for Universal Primary Education (UPE) in Uganda in 1997 and Free Primary Education (FPE) in Kenya in 2003 abolished school fees and expanded the training of teachers and the provision of learning resources. These measures have accounted for a huge increase in the number of children in school. Some of the effects of the rise in enrollments are reflected in the figures for increased primary gross enrollment in 2003 presented in Table 23.1.

Table 23.1: Primary and Secondary Gross Enrollment Ratio* (GER) in Sub-Saharan Africa by Gender, 1965-2003

	1965	1975	1985	1995	2000	2003
Primary						
GER girls (boys)	37 (56)	55 (73)	67 (82)	64 (77)	76 (87)	84 (98)
Secondary						
GER girls (boys)	4 (7)	8 (14)	16 (23)	26 (31)	24 (29)	22 (27)

* Gross Enrollment Ratio (GER) is the total enrollment at a specific level of education (primary, secondary) regardless of age expressed as a percentage of the population in the official age group corresponding to that level of education. The GER may be more than 100% if there are large numbers of underage or overage learners.

Sources: UNESCO (1976), pp.144-191; UNESCO (1983), pp.19-68; UNESCO (1990), pp.18-69; UNESCO (1995), p.33; UNESCO (1999), pp.262-263; UNESCO (2004), pp.350-351; World Bank (2002); UNESCO (2003), pp.234-235; and UNESCO (2005), pp.318-319, 342.

Poverty is multidimensional, entailing inequalities in health, access to adequate food, restrictions on participation in the labor market, exploitative work conditions, and restrictions on freedoms of movement and political and social participation. Generally, poverty is measured on the basis of income or the capacity to buy a range of commodities. However, understanding poverty only in terms of purchasing power understates its wider social effects. These compound the inadequacies in education provision, but on the whole statistics on poverty do not reflect these additional dimensions suggesting that a rise in income or purchasing power is sufficient to indicate overcoming poverty, which is not always the case. Thus, a rise in income may not always indicate the capacity to access education under fair conditions. Similarly, statistics on education enrollment do not capture forms of inequality within school, both with regard to the provision of resources and the nature of the school experience. Furthermore, social policy divisions mean that statistics on education provision (enrollment rates, progression, and teacher-pupil ratios) are rarely read in conjunction with complex measures of poverty and inequality.

Table 23.2 compares the changing human development index (HDI)² in selected countries of Sub-Saharan Africa, comparing the HDI values of countries

with the highest, median, and lowest HDI in 1975 (South Africa, Central African Republic, and Mali) to their values in 2003. Uganda (which, like Mali, had a large expansion of primary school provision in the late 1990s) is also included, as is Kenya where FPE post-dated the last HDI calculations.

Table 23.2: Changing HDI in Selected African Countries, 1975-2003

	1975	1985	1995	2000	2003
South Africa	0.655	0.702	0.742	0.696	0.658
Central African Republic	0.343	0.386	0.367	n.a	0.355
Mali	0.230	0.263	0.307	0.330	0.333
Kenya	0.461	0.530	0.524	0.499	0.474
Uganda	n.a	0.412	0.412	0.474	0.508

Source: UNDP (2005), pp.225-226.

Table 23.2 suggests that the upward trend in enrollments in primary and secondary school from 1965 to 1985 does not only translate into increases in human development but also that the poverty that ensued from declining enrollments from 1985 has had long-term effects. South Africa, Central African Republic, and Kenya have all seen reduced growth in HDI since 1995, associated with the effects of HIV/AIDS epidemic and economic downturn. These facets of poverty are not mitigated by simply increasing school provision. However, the increase in school provision in Uganda from 1997 goes side-by-side with a general increase in human development, showing that increasing enrollments and human development can be complementary.

The figures in Table 23.1 are useful for the trends they present over time, but a difficulty with regional summaries is that they draw on country-level data where aggregation means that the scale of lack of provision in certain areas is masked. For example, census data for South Africa, a country with high enrollment rates in primary and secondary school, show considerable provincial variation in the level of education and earning power of women and men (Unterhalter 2006). This provincial variation needs to be read in conjunction with the high Gini coefficient for South Africa (57.8 in 2000; UNDP 2005, p.272).³ Similarly, a survey based on where the poor lived in Kenya measured poverty on the basis of the ability to buy a basket of commodities essential for household survival, including food, housing, health, and education. The survey revealed that in all provinces, once Nairobi was factored out, 20% or more of the population was classified as poor in a significant number of locations. In some locations this was 60% or higher (Kenya Central Bureau of Statistics 2005). Statistics based only on national level data on enrollment in school or attainment on examinations tend to underplay the ways in which education does or does not contribute to ending inequalities between regions either with regard to GDP per capita or the

capacity to buy the essentials of life. The limitations of the existing indicators can be seen clearly in the ways in which gender inequality in education is tracked.

Measuring Gender Inequality in Education in the Commonwealth Countries in Africa

One difficulty in understanding how to expand initiatives for developing gender equality in education and assessing the achievements of local good practice initiatives associated with the work of governments, communities, or NGOs is the nature of the information base available. While education departments in particular countries and the UNESCO and UNICEF annual reports go some way to provide the data from which national progress can be assessed, there are a number of serious limitations such as problems with what the data measure, data quality, and how accountable these measures and data are.

The complex processes that take place in education, particularly with regard to its gender dynamics, are not particularly amenable to analysis through “simple” measures based on inputs and outputs to the system such as enrollment rates and achievements on examination. Existing measures draw on a limited meaning of *gender*, restricting it to a noun that signifies girls or boys. More complex meanings of *gender* are concerned with structures of exclusion, discrimination, and exploitation, the diversity of local settings, or discursive practices that delegitimize certain practices and validate others are not considered (Unterhalter 2005).

The gender parity index (GPI) used by UNESCO in the Global Monitoring Reports is an attempt to indicate the extent to which boys and girls are equally present at different levels in the education system. However, a country can have a GPI of 1, indicating complete equality between boys and girls but still have low rates of access, retention, and achievement for them. For example, Tanzania had a GPI of 0.98 in the primary Net Enrollment Rate (NER)⁴ in 2003, but only 76% of girls of the required age group were at the appropriate level in school (UNESCO 2005, pp.318-319). South Africa had a GPI of 1.09 in the secondary NER, indicating more girls were enrolled in this level than boys, but in fact only 69% of girls in the age group were enrolled in secondary school (UNESCO 2005, pp.342-343). Thus, although the ratio of girls to boys in school is high, there remains a large portion of girls outside school which the GPI does not reflect. A country can have a GPI of 1, indicating complete equality between boys and girls, but still have low rates of access, retention, and achievement for them. Thus GPI, while signaling the extent of inequality between girls and boys, is very inadequate as a measure of general education provision.

The gender-related EFA index, the Gender Equality Index (GEI), used in UNESCO’s Global Monitoring Reports is a composite index measuring gender parity in primary and secondary education and adult literacy (UNESCO 2005, 419) The GEI for Commonwealth countries in Africa presented in Table 3 shows

relatively high levels of gender parity in Botswana, Mauritius, Seychelles, and South Africa but generally low levels in all the other countries for which there are data, with a striking gender gap in Mozambique. However, in countries with larger gender gaps in education access (Lesotho and Mozambique), there have actually been increases in gender parity since 1998. Only in Swaziland has there been a decline. However, it is noteworthy that the GEI looks only at inequalities in school enrollments and adult literacy, and not at other measures with a more general bearing on gender equality such as how powerful institutions take account of the views of women and men, allocate resources equitably to meet their differing needs, and consider the intersections of public and private spaces in shaping conditions for equity in outcomes. Like many measures of gender equality linked to participation in public institutions, it effaces or understates the forms of gender inequality experienced by largely poor women and men who do not easily gain access to these sites.

Table 23.3: GEI in Commonwealth Countries in Africa, 1998-2002

Country	GEI 2002	Change in GEI between 1998 and 2002 % in relative terms
Botswana	0.959	1.2
Cameroon	n.a	
Gambia		
Ghana	0.835	
Kenya	0.923	
Lesotho	0.861	7.3
Malawi		
Mauritius	0.973	0.1
Mozambique	0.661	5.5
Namibia	0.949	0.6
Nigeria		
Seychelles	0.993	
Sierra Leone		
South Africa	0.952	0.5
Swaziland	0.961	-0.9
Tanzania		
Uganda		
Zambia	0.848	1.2
Zimbabwe		

Source: UNESCO (2005), pp.256-259. Developing an Alternative Measure of Gender

Inequalities in Education in Africa

The limitations in the concept of gender in the measures thus far discussed led researchers on the *Beyond Access* project to attempt to develop an alternative

indicator. The GEEI developed by the project between 2004 and 2006, draws on Amartya Sen and Martha Nussbaum's capability approach and the experiences of the UNDP in operationalizing this work in the Human Development Reports (Fukuda-Parr & Kumar 2003; Nussbaum 2000; Sen 1999). Researchers on the project, aware of the limitations of using social indicators, nonetheless concluded that attempting to develop a richer measure of gender inequality in and through education should be weighed against the attenuated interpretations that generally flow from using social indicators alone to understand complex social settings (Unterhalter, Challender & Rajagopalan 2005). The importance of a publicly accountable criterion of justice with regard to understanding gender inequality and education, coupled with the need to review all conclusions based on social indicators in the light of more in-depth qualitative research, seemed to mitigate somewhat the negative features of such an undertaking.

The GEEI looks at girls' access to, retention of, and quality of life through learning in broader ways than the gender parity measures discussed above. It looks not only at the number of girls who attend and remain in primary school but also whether those girls are able to translate that attendance and retention into future schooling at a secondary level and healthy lives where they earn a reasonable income. The following are four measures widely used to develop the GEEI:

- Girls' net attendance rate at primary school
- Girls' survival rate over 5 years in primary schooling
- Girls' secondary Net Enrollment Ratio (NER)
- A country's gender development index (GDI)

These measures were selected because they point to four areas that are important with regard to gender equity and girls' education: access to primary schooling (net attendance rate); retention in primary schooling (survival rates); potential of the education system to generate teachers, social development workers, and managers with some concern with gender equality (girls' secondary NER); and the possibilities for women to survive and flourish as adults (GDI).

There are a number of difficulties associated with the GEEI. There are considerable difficulties in using NER because of the inadequacy of birth registration information in many countries. Retention in the last years of primary school is probably more important than the first five years because this is when there is a higher dropout rate for girls in Africa, but there is no countrywide comparable data on retention at that level. However, like all the other measures in the GEEI, these are a proxy for girls' participation in school. The Gender Empowerment Measure (GEM) would have been a stronger indicator of gender equity than the GDI, but the GEM has not been calculated for most countries in Africa. Moreover, there are critiques that the GEM foregrounds gender equality for richer women who take seats in the parliament and occupy professional and managerial

positions, while obscuring gender inequalities for poorer women who do not participate publicly in this way. Furthermore, the measure does not take account of non-economic dimensions of women's decision-making powers at the household level (Beteta 2006) The GDI was used because it appeared the only proxy available for gender equality in adult life. However, as Schuler notes, the GDI is not a measure of gender inequality in its own right but is a measure of the loss of human development due to gender inequality (Schuler 2006, pp.162-163) There are also some difficulties in the GEEI measure comprising some fields which make up the GEEI comprising absolute values (girls' primary attendance, progression, and secondary enrollment) and one field comprising a relative value (women's inequality relative to men in the GDI). While each of these is a substantive problem in its own right, the concern of the project was to produce a measure that was a little richer in explanatory power and that drew on readily available sources of data. It is anticipated that field research and further discussion will lead to revisions of the GEEI.

The four measures in the GEEI were weighted unlike the GEI. While these weightings are open to the accusation of arbitrariness, we believe that a weighted measure better expresses the difficulties countries face in delivering gender equality and education than an unweighted measure, which suggests all processes are more or less the same in importance. While enrolling children in school is one challenge, keeping them there and ensuring they learn is as important as enrollment and attendance. Similarly, while progress to secondary school is an indicator of both success at the primary level and potential to contribute to advancing gender equality in the future, levels of gender inequality in a society point to difficulties for women in realizing some of the benefits of their education. The weightings to achieve a percentage are as follows:

- Girls' primary net attendance x 1.25
- Girls' survival through 5 years of primary school x 2.5
- Girls' net enrollment rate at secondary school x 1.75
- A country's GDI x 2.5

Thus, primary attendance was only half as important as survival through five years of primary schooling, secondary NER was somewhat more important than primary attendance, and the health and wealth dimensions of the society that the GDI point to were considered twice as important as primary attendance. (Full details on how the GEEI is calculated for Commonwealth countries in Africa can be found in Appendix A.)

Table 23.4 presents changes in the GEEI in Commonwealth countries in Africa between 1990 and 2000. Table 23.5 compares GEEI in 2000 with GEI in 2003.

Table 23.4: Changes in GEEI for Commonwealth Countries in Africa, 1990-2000

Country	GEEI 1990		GEEI 2000		% increase/ decrease, 1990-2000
	%	Rank	%	Rank	
Botswana	73	2	78	2	7
Cameroon	33	11	15	14	-55
Gambia	n.a.		n.a.		
Ghana	34	10	39	8	15
Kenya	36	9	26	10	-28
Lesotho	37	8	42	7	14
Malawi	20	15	26	10	30
Mauritius	89	1	81	1	-9
Mozambique	20	15	20	12	0
Namibia	62	6	72	3	16
Nigeria	26	13	20	12	-23
Seychelles	n.a.		n.a.		
Sierra Leone	n.a.		n.a.		
South Africa	64	5	66	4	3
Swaziland	68	4	60	5	-11
Tanzania	33	11	39	8	16
Uganda	24	14	54	6	125
Zambia	42	7	36	9	-14
Zimbabwe	73	2	42	7	-42

Source: derived from Unterhalter, Challender, and Rajagopalan (2005), p.73.

Table 23.5: GEEI, 2000, and GEI, 2002, in Selected African Countries

	GEEI 2000	GEI 2002
Botswana	78	0.959
Ghana	39	0.835
Kenya	26	0.923
Lesotho	43	0.861
Mauritius	81	0.973
Mozambique	20	0.661
Namibia	72	0.949
South Africa	66	0.952
Swaziland	60	0.961
Zambia	36	0.848

Source: derived from Tables 23.3 and 23.4.

A number of issues arise from considering Tables 23.4 and 23.5. First, the Commonwealth countries in Africa are clustered into two groups. In the early 1990s, there was a small group of countries with a relatively high GEEI (Mauri-

tius, Botswana, Namibia, South Africa, Swaziland, and Zimbabwe), and GEEI increased a small amount over the decade for most in this group, although Mauritius and Swaziland experienced a small decline in GEEI and Zimbabwe a catastrophic fall. However, the majority of countries had a GEEI of less than 50% at the start of the decade, and for some (Kenya, Nigeria, Zambia, and Cameroon) this fell even further over 10 years.

South Africa, with the largest economy and the highest GDP per capita on the continent, is not the country at the top of the rank order. Countries that ranked quite highly in the UNESCO EFA Development Index in 2004 (Swaziland and Zimbabwe) did not rank so highly on the GEEI. While a number of countries in Southern and Central Africa have had longer histories of large numbers of girls in school than those in East and West Africa, in 2004 Uganda had a higher GEEI than a number of these countries, and it was also the country with the most spectacular increase in GEEI over the decade. Countries with long and devastating histories of war (e.g., Mozambique) are at or near the bottom of the GEEI ranking, and they have not made significant progress over the decade, highlighting how vast the task of taking account of gender equality in reconstruction is. Countries with long histories of democratic government are at the top (Botswana and Mauritius) and remain there despite some decrease in GEEI for Mauritius and despite the harsh conditions of a decade marked by the effects of structural adjustment and the HIV/AIDS epidemic. Countries that have paid attention to reconstruction and governance also come near the top despite a history of war and a past marked by undemocratic government (Namibia and South Africa) and maintain a position in the top half of the table over the decade. Countries for which the decade was marked by periods of military rule or internal repression (Nigeria and Zimbabwe) have experienced significant decreases in GEEI. Conversely, countries that have paid particular attention to policies to advance girls' enrollment and retention (Malawi and Uganda) have seen great gains in GEEI. (Unfortunately this data does not reflect the effects of the introduction of free education in Kenya in 2003). Countries such as Uganda, Namibia, and South Africa with high levels of women's activism or concerns with gender equality, even if this is not necessarily in the sphere of education, score higher than countries where there have been minimal mobilization on these issues or where the mobilization have been sporadic and generally "top down." Countries where economies have been squeezed by structural adjustment (Zambia, Zimbabwe, Kenya, Ghana, and Tanzania) are much lower in GEEI than they might have been given the resource infrastructure they built up in the 1970s and 1980s. Countries with vast regional inequalities (Kenya, Ghana, and Nigeria) have considerably lower GEEI than countries where regional inequalities are not an issue on this scale (Mauritius, Botswana, Namibia, Swaziland, and Lesotho).

Some interesting differences arise in comparing GEEI and GEI in Table 23.5. Some countries with reasonable levels of GEI, that is, gender parity at different levels of schooling, have reasonably high levels of GEEI (Botswana and

Mauritius). However, other countries with reasonably high levels of GEI do not score well on the GEEI, for example, South Africa, Swaziland, and Kenya. This suggests that women in these countries have considerable difficulty in translating their access to education into quality of life with regard to health and earnings. While it is not surprising that the country with the lowest GEI (Mozambique) has a low score on the GEEI, countries with adequate levels on the GEI (Lesotho, Ghana, and Zambia) have lower levels on the GEEI than this might suggest.

Table 23.6: Percentage Increase in GEEI 1993-2003 in Commonwealth Countries in Africa and Percentage Increases Needed to Reach a GEEI of 95% by 2015

	% increase GEEI 1993–2003	% increase GEEI needed 2005–2015 to reach GEEI 95%
Mauritius	-9	17
Botswana	7	22
Namibia	16	32
South Africa	3	44
Swaziland	-11	58
Uganda	125	76
Lesotho	14	126
Zimbabwe	-42	126
Ghana	15	144
Tanzania	18	144
Zambia	-14	164
Kenya	-28	265
Malawi	30	265
Mozambique	0	375
Nigeria	-23	375
Cameroon	-55	533

Source: Derived from Table 4 and Unterhalter, Challender & Rajagopalan (2005), p.73.

Table 23.6 looks at the percentage gain in GEEI of Commonwealth countries in Africa in the 1990s and shows the extent of the challenge they face in scaling up both from small-scale good-practice initiatives and in relation to the further effort needed to meet the Millennium Development Goals (MDGs) by 2015. The assumption is that a GEEI of 95% points to achievements in MDG2 on education and MDG3 on women’s empowerment. A GEEI of 95% is attained when a country has a 90% or more net attendance rate for girls at primary school, a 90% survival rate of girls over five years in primary school, a secondary NER of 60% for girls, and a GDI of 0.800—equivalent to gender inequality relative to HDI in life expectancy, education, and income a little higher than Mauritius, Trinidad, or Mexico in 2000. Table 23.6 shows the percentage gain in GEEI needed by Com-

monwealth countries in Africa to achieve this. The graph in Figure 23.1 shows how steep the rise needs to be for countries with a GEEI over 60% circa 2003, while the graph in Figure 23.2 looks at this for countries with a GEEI under 60% circa 2003. Figure 23.3 graphs increases needed for countries with GEEI that fell or had no increase between 1993 and 2003, resulting in a GEEI below 60%.

Figure 23.1: Increases in GEEI since 1993 and Projected to 2015 for Countries with GEEI above 60%

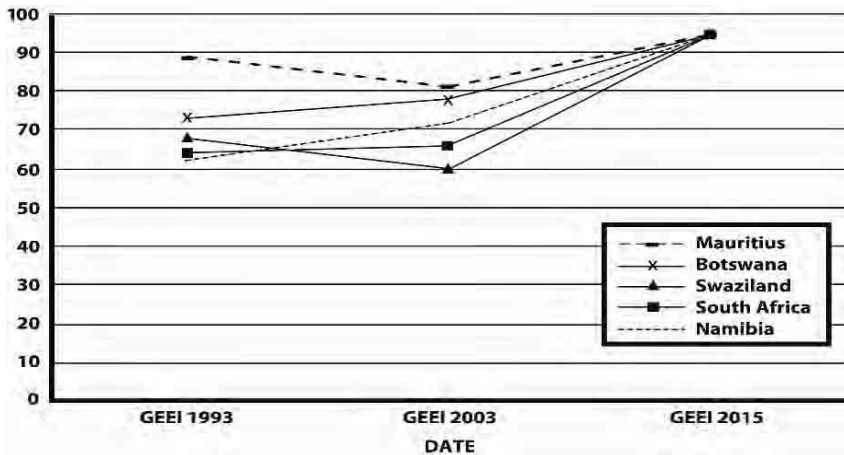


Figure 23.2: Increases in the GEEI since 1993 and Projected to 2015 for Countries with GEEI below 60%

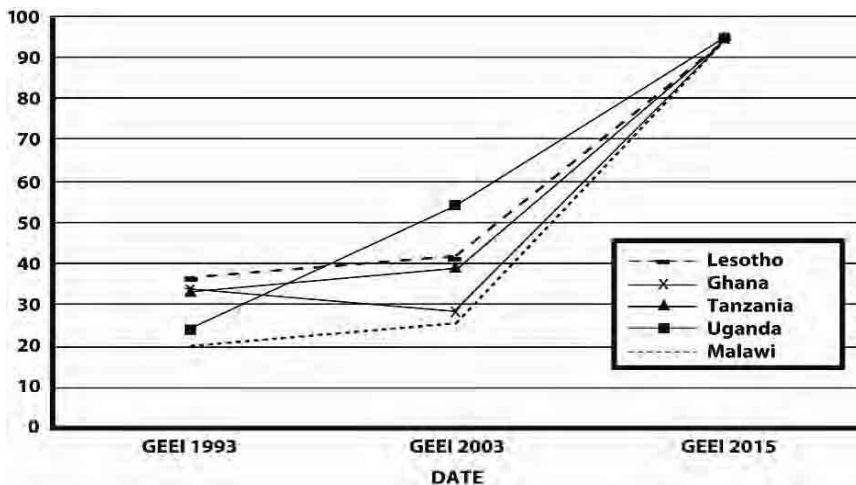
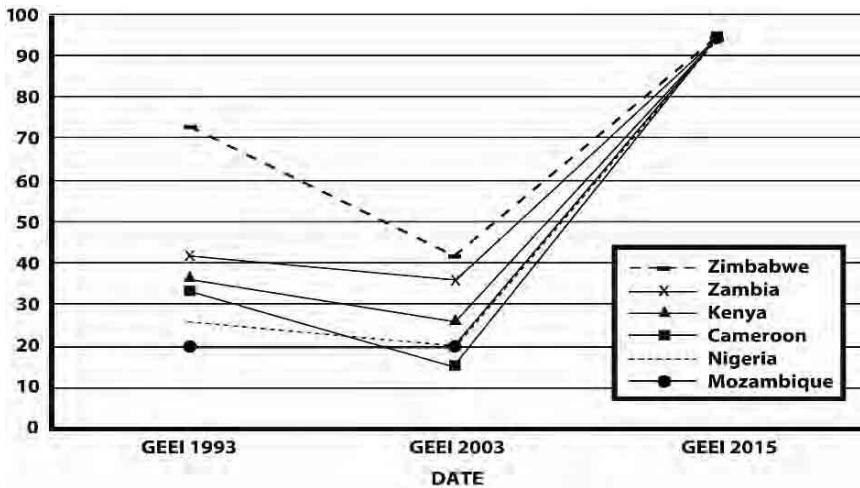


Figure 23.3: GEEI 1993-2003 and Projected to 2015 for Countries with No Increase in GEEI



It is evident from Figures 23.1 to 23.3 how huge the task of mobilizing resources in people, time, ideas, political commitment, and money must be in Africa and in support of African Commonwealth countries by global organizations and institutions if the MDG aspiration for education and gender equality are to be reached. Mapping the scale of the challenge as these tables do is hopefully part of a rallying call to help meet it.

Table 23.7 attempts to map the policy climate for gender equality in Commonwealth countries in Africa. It was based on a survey of governments in the region (Unterhalter, Kioko-Echessa, Pattman, Rajagopalan & N’Jai 2005), accounts provided in EFA reports (UNESCO 2000), specific policy papers compiled by governments and IGOs (Kenya 2003; UNICEF 2003a), and reviews conducted by NGO coalitions (Global Campaign for Education 2003; Elimu Yetu 2005), academics, and practitioners (Aikman & Unterhalter 2005).

As mapped in Chart 1, GEEI clusters are in Group 1 with some distance to travel to reach a GEEI of 95%, but on the basis of the relatively high levels of GEEI this appears possible whether countries are in Group 2 (Chart 2) with a GEEI below 60% but a steady rise over the period 1993 to 2003 or in Group 3 (Chart 3) with falls or no increase in GEEI between 1993 and 2003 and a GEEI level in circa 2003 below 60%.

This information was analyzed for two periods: the period immediately after the Jomtein Conference on Education for All (1990 to 1995) and the period of the lead up to the Dakar World Education Forum in 2000 (1996 to 2000). Countries were grouped in terms of those with a vigorous policy approach to gender equality in education through legislation and well supported programs; those that

Table 23.7: Legislation and Policy on Gender Equity in Education in Commonwealth Countries in Africa, 1990-2003 by GEEI Clusters

	Legislation and policies enacted 1990–1995	Legislation and policies enacted 1996–2000	GEEI clusters
Botswana	S	S	1
Cameroon	N/a	N/a	3
Gambia	L	S	n/a
Ghana	S	V	2
Kenya	L	S	3
Lesotho	N/a	N/a	2
Malawi	S	V	2
Mauritius	S	N/a	1
Mozambique	L	S	3
Namibia	S	V	1
Nigeria	L	S	3
Seychelles	N/a	N/a	N/a
Sierra Leone	N/a	N/a	N/a
South Africa	L	S	1
Swaziland	N/a	N/a	1
Tanzania	L	S	2
Uganda	S	V	2
Zambia	L	S	3
Zimbabwe	S	L	3

V = Vigorous policy and legislation backed up by well supported programs

S = Some policy and legislation backed up by some programs

L = Limited policy or legislation with only some implementation

N/a= No information on policy or legislation available

had developed some policy, projects, and programs regarding gender equity, which may or may not have been accompanied by relevant legislation; and those with a limited policy environment (Unterhalter, Kioko-Echessa, Pattman et al. 2005, p.11). This classification of legislation, policy, and provision for gender equality in education has been mapped against the changes in countries' GEEI between 1990 and 2000.

All the countries with relatively high scores on the GEEI have a vigorous or strong policy climate for one of the two periods or for both periods. All the countries with low levels on the GEEI or falling GEEI scores have limited policies or legislation on gender equality in education either for one of the periods or both. Countries that have made steady increases in GEEI indicated a vigorous or adequate policy climate in one of the periods. This suggests that legislation and policy do have an impact on increases in GEEI and that lack of policy and legislation is associated with decreases in GEEI. This happens irrespective of regional or "cultural" processes.

What does this analysis tell us about the political, economic, and social climate in which enhanced gender equality will be achieved? It points to a number of features outside the education system (narrowly conceived) that appear crucial in sustaining initiatives to enhance girls' access to and retention in schooling, and hence increases in GEEI, and these are peace and democratic governance, a thriving women's movement or widespread concern with gender equity, a well-supported and well-resourced public schooling system where regional inequalities are being redressed, and an integration of public policy with regard to education, health, and economic issues. Some key issues are concerned with the extent to which women and girls are included in the formulation of policy and programs, how these initiatives conceptualize gender equality—for example, does an initiative address only equal numbers in access and achievement—and how the interface between the private realm of the family and the public realm of schooling is managed.

Conclusion: Refining Measures of Inequality in Education

This chapter has argued that existing measures of access to education, educational attainment, and progress on gender equality are inadequate to assess the complex ways in which education inequalities intersect with other dimensions of poverty. The discussion of how gender inequality in education has been measured highlights how the social indicators used focus on gender parity and do not take into account other measures of inequality. The GEEI is an attempt at a summary measure of education and aspects of quality of life. Utilizing the GEEI in conjunction with gender parity measures indicates how a focus on gender parity underplays the extent of inequalities in Africa.

Three key areas for further research emerge. First, studies are needed that examine district-level education data in conjunction with data on poverty, health, and political participation drawn from the census and general poverty surveys. Many existing indicators—be these NER, GEI, or GEEI—rest on fragile data. One precondition for good policy is good data. Thus, a second area for further research relates to developing excellent quantitative and qualitative data to make all social indicators robust. Social indicators have encountered much criticism because they have become associated with managerialist approaches to public policy development that manages consultation but does not engage seriously with difficult issues on which there may not be agreements. A third area for future research is how to develop indicators that are publicly accountable, take account of local diversity, and provide some kind of map of how social transformation in the face of manifest inequalities can be achieved.

Annex 23.1 Calculating the GEEI

The GEEI was constructed using four measures deemed useful as indicators of

girls' access to and retention in school: girls' primary attendance, girls' survival rate over five years of primary schooling, girls' secondary NER, and the GDI.

Table 23.A1 provides the information with regard to these measures for the Commonwealth countries in Africa using data from the *EFA Monitoring Report 2003*, UNICEF's *State of the World's Children 2003*, the *Human Development Report 2003*, and countries' own EFA 2000 assessments where necessary.

Table 23.A1: Selected Indicators of Girls' Access to and Retention in Education circa 2000

	Net girls' primary school attendance % 1992-2002	Girls' survival rate over 5 years in primary schooling % 2000 ^a	Girls' secondary NER 2000 ^a	Gender Development Index (GDI)
Botswana	85	89.0	63.0 ^b	0.611
Cameroon	71	n.a.	n.a.	0.488
Gambia	40	62.8 ^b	23.2	0.457
Ghana	74	65.2	28.3 ^b	0.564
Kenya	73	45.8	22.8 ^b	0.488
Lesotho	68	80.5	25.7	0.497
Malawi	73	42.6	22.8 ^b	0.378
Mauritius	94.5 ^c	78.7	65.4	0.770
Mozambique	47	37.2	7.6	0.341
Namibia	78	92.9	43.8	0.622
Nigeria	54	50 ^e	28 ^d	0.450
Seychelles	n.a.	n.a.	n.a.	n.a.
Sierra Leone	39	n.a.	24.0	n.a.
South Africa	84	62.5 ^b	67.0 ^b	0.678
Swaziland	71	85.4	47.2	0.536
Tanzania	51	93.2	4.6 ^b	0.396
Uganda	87	94.3	10.1 ^b	0.483
Zambia	67	78.1	17.7 ^b	0.376
Zimbabwe	86	73.1	38.7 ^b	0.489

^a Where no figure for 2000 is available, the latest year given in the countries' EFA monitoring reports is used. This is generally 1997 or 1998, but the Malawi NER is for 1995 and the Nigeria NER for 1996.

^b UNESCO Institute for Statistics estimate.

^c No UNICEF figure on primary school attendance is available for Mauritius. The girls' primary NER for 2000 is used instead (extracted from UNESCO 2003).

^d No secondary NER available. Secondary GER is used extracted from UNICEF, 2004.

^e Estimate based on UNICEF (2003a).

Sources: Kenya Ministry of Education, Science and Technology (2000); Malawi Ministry of Education (2000); Seychelles Education Planning Division (2000); Tanzania Ministry of Education and Culture (2000); Uganda, 2000; UNESCO, 2003; UNICEF 2003, 2004; UNDP, 2003; Zambia Ministry of Education (2000); Zimbabwe Ministry of Education, Sports and Culture (2000).

On the basis of the information contained in Table 23.5, a scoring system was developed on a scale of 1 to 5 with regard to the four different measures. The thinking with regard to the scoring system was related to the 2015 MDG and the Beijing Declaration of 1995 which are as follows:

Table 23.A2: Criteria for Scoring Achievements With Regard to Access and Achievement in Girls' Education

Score	Criteria to achieve the score
5	Excellent conditions. Already at or extremely well positioned to achieve gender equity in 2015 and fulfill the aspirations of the Beijing declaration.
4	Very good conditions. Substantial achievement with regard to gender equity and well on the path to achieving 2015 goal with regard to access; some gains needed with regard to improving retention.
3	Good conditions. Achievement towards 2015 evident, but further work necessary with regard to access and retention.
2	Poor conditions. Achievement towards 2015 slow. Considerable and intensive work needed with regard to access and retention.
1	Very poor conditions. 2015 unlikely to be reached without massive mobilization on all fronts to secure access and achievement.

Using the criteria outlined in Table 23.A2, the following scoring system (Table 23.A3) was developed with regard to the selected indicators.

Table 23.A3: Scores and Indicators

Score	Net girls' primary attendance	Girls' primary survival rate	Girls' secondary NER	GDI
5	90% and above	90% and above	60% and above	0.800 and above
4	80–89%	80–89%	50–59%	0.700–0.799
3	70–79%	70–79%	40–49%	0.600–0.699
2	60–69%	60–69%	30–39%	0.500–0.599
1	59% and below	59% and below	29% and below	Below 0.499

On the basis of the scores developed in Table 23.A3, all the countries were given raw scores in the four areas of measurement (Table 23.A4).

Table 23.A4: Raw Country Scores in Four Areas of Measurement

	Score on net girls' primary attendance	Score on girls' primary survival rate	Score on girls' secondary NER	GDI score
Botswana	4	4	5	3
Cameroon	3	n.a.	n.a.	1
Gambia	1	2	1	1
Ghana	3	2	1	2
Kenya	3	1	1	1
Lesotho	2	4	1	1
Malawi	3	1	1	1
Mauritius	5	3	5	4
Mozambique	1	1	1	1
Namibia	3	5	3	3
Nigeria	1	1	1	1
Seychelles	n.a.	n.a.	n.a.	n.a.
Sierra Leone	1	n.a.	1	n.a.
South Africa	4	2	5	3
Swaziland	3	4	3	2
Tanzania	1	4	1	1
Uganda	4	5	1	1
Zambia	2	3	1	1
Zimbabwe	4	3	2	1

The raw scores in Table 23.A4 were then weighted to develop an overall percentage score. The weighting was designed to reflect the relative importance of the measures with regard to indicating improvements in access and retention. The following modifiers were applied:

- Girls' primary attendance x 1.25
- Girls' survival rate in first five years of primary schooling x 2.5 (twice as important as attendance)
- Girls' secondary NER x 1.75 (slightly more important than primary attendance as an indicator of progression and potential to educate future women teachers and administrators with concerns for gender equality)
- GDI x 2.5 (twice as important as primary attendance as an indicator of women's status in the society)

The weighted scores are presented in Table 23.A5.

Table 23.A5: Weighted Scores in Four Measures and Final GEEI

	Net girls' primary attendance (Score Table 23.A4 x 1.25)	Girls' primary survival rate (Score Table 23.A4 x 2.5)	Girls secondary NER (Score Table 23.A4 x 1.75)	GDI (Score Table 23.A4 x 2.5)	GEEI (sum of weighted measures divided by 4)
Botswana	5	10	8.75	7.5	7.813
Cameroon	3.75	n.a.	n.a.	2.5	n.a.
Gambia	1.25	5	1.75	2.5	2.625
Ghana	3.75	5	1.75	5	3.875
Kenya	3.75	2.5	1.75	2.5	2.625
Lesotho	2.5	10	1.75	2.5	4.188
Malawi	3.75	2.5	1.75	2.5	2.625
Mauritius	6.25	7.5	8.75	10	8.125
Mozambique	1.25	2.5	1.75	2.5	2.000
Namibia	3.75	12.5	5.25	7.5	7.250
Nigeria	1.25	2.5	1.75	2.5	2.0
Seychelles	n.a.	n.a.	n.a.	n.a.	n.a.
Sierra Leone	1.25	n.a.	1.75	n.a.	n.a.
South Africa	5	5	8.75	7.5	6.563
Swaziland	3.75	10	5.25	5	6.000
Tanzania	1.25	10	1.75	2.5	3.875
Uganda	5	12.5	1.75	2.5	5.438
Zambia	2.5	7.5	1.75	2.5	3.563
Zimbabwe	5	7.5	3.5	2.5	4.625

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Notes

¹ This chapter builds on and further develops work commissioned from the *Beyond Access* project at the Institute of Education, University of London, in 2004-2005 by the Commonwealth Secretariat. The initial research was published in Unterhalter, Kioko-Echessa, Pattman, Rajagopalan and N'Jai (2005). We are grateful to the Commonwealth Secretariat for permission to publish the material in this chapter that draws on that work.

² The Human Development Index (HDI) is a summary measure of human development. It measures the average achievements of a country in relation to health (life expectancy at birth), education (adult literacy and enrollments at primary, secondary, and tertiary levels), and standard of living (GDP per capita measured by purchasing power parity in US dollars; UNDP 2005, p.341).

³ Gini coefficient is a measure of unequal distribution of wealth. The measure can vary from 0 in the case of a highly even distribution of income to 1 in the case of a highly unequal distribution.

⁴ Net enrollment rate (NER) is the enrollment of the official age group for a given level of education (primary, secondary, and tertiary) expressed as a percentage of the population in that age group. In some countries this is difficult to calculate because births are not officially registered.

24

Education Inequality and Academic Achievement

Donald B. HOLSINGER & W. James JACOB

In this concluding chapter, we return to a persistent question in the study of education inequality that asks about its relationship with student learning. The question could be formulated in a variety of ways but our summarizing choice is this: what impact, if any, do costly efforts to achieve an equal distribution of school completion rates have on student learning as measured by standardized achievement tests? Or course the flip side of this question would inquire about the costs in terms of comparatively low student learning outcomes and ultimately human capital formation of doing nothing to equalize education opportunity. Many countries are precisely in this situation.

The matter of the consequences of education inequality is one that, up to now, has not been satisfactorily answered due primarily to data limitations. Achievement data, of course, are commonplace in this era of preoccupation with human capital formation through schooling. However, similar measures of education equality are just beginning to surface, and in most countries they still do not exist at the sub-national level. A correlation analysis across nations could be done using national education Gini coefficients and national test scores from the International Association for the Evaluation of Educational Achievement (IEA), Programme for International Student Assessment (PISA), and similar sources. However, rarely do learning achievement tests purport to be representative of the entire school age population. In many country cases, only a small fraction of school children attend school, thus casting considerable doubt on the meaning of a comparison between a measure of the distribution of education attainment based on an entire age group and an achievement test score based on a school sample biased in favor of children from urban wage-earning families.

We were pleased recently to discover a fascinating study from Brazil, little known to English language readers of inequality themes. This year 2000 study published in Portuguese is based on data from 2000 (see Waltenberg 2005) and presents compelling evidence of the connection between a highly unequal distribution of education attainment and learning achievement of students in one of the world's largest countries. Well known for its first place ranking among nations in terms of its unequal distribution of income, Brazil's education system

has long been identified by some scholars as a principal contributing factor. However, the specific connection of the system's highly refined education screening process to learning had not been examined previously. Waltenberg, having the good fortune of access to PISA data for Brazil, was able to examine this relationship.

Waltenberg notes that Brazil was last among the 32 participating nations in each of the three areas evaluated by PISA (reading, mathematics, and science). Many reasons were advanced in the Brazilian press from ranking education authorities: (1) the relatively low income per capita level of Brazil; (2) the comparatively high level of income inequality in the Brazilian labor force; (3) the number of students aged 15 included in the Brazilian sample who had experienced grade repetition is higher in Brazil than in other countries; (4) the rapid rise in coverage of the education system in Brazil in the immediate last decade brought into the education system students of low socioeconomic background.

Not satisfied with any of the reasons for Brazil's low PISA performance, Waltenberg conducted his own careful analysis. Following a series of ordinary least squares regressions, the author noted that the Brazilian results, like those for many other countries, confirmed his hypothesis of a strong family wealth impact on the achievement scores of students. He believes such unequal results are the product of years of unequal education conditions or, in different words, highly variable school quality contexts as much as to family wealth because family income determines the quality of school students attend in Brazil. In short, Waltenberg's work is consistent with the central thesis of this concluding chapter, which is that inequalities in the distribution of education opportunities have a strong relationship with inequalities in the distribution of cognitive achievement.

Vietnam and Education Equality

We return to the case of Vietnam already well covered in Chapter 13 by Joshua Rew because that country represents an exceptional opportunity to examine the relationship between inequality of education attainment and student achievement. This opportunity is the result of the publication of the World Bank supported Reading and Mathematics Assessment Study (December, 2004) that reports Grade 5 achievement test scores for robust representative samples of Vietnamese schools that permit generalization at the provincial level. At about the same time, Holsinger (2005) published education Gini coefficients for Vietnam covering all 61 provinces, thus setting the stage for a rare look at the relationship between the two independent characteristics and preliminary estimates of the possible effect size and direction of influence.

The correlation matrix below (Table 24.1) presents initial bivariate relationships. We invite attention to the Combined Reading and Math Benchmark that shows a moderate to strong and significant relationship to the education Gini

of $r=-.54$. There is little room for doubt that the more equal the distribution of education attainment in a Vietnamese province, the higher are its average Grade 5 test scores on this carefully constructed examination of math and reading. The correlation of the education Gini coefficient with the PISA score is slightly higher than the correlation of the Human Development Index (HDI) to test score performance ($r=-.46$).

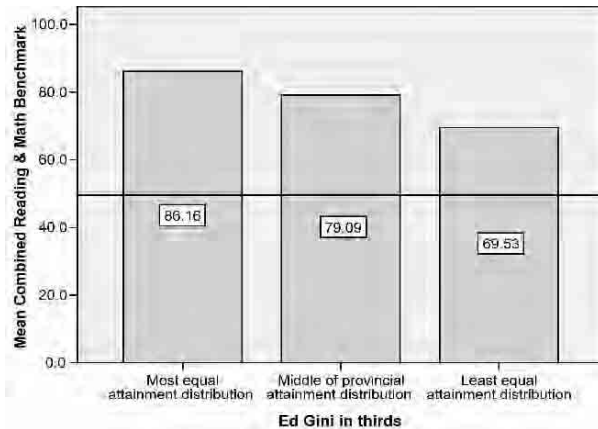
Table 24.1: Correlations among Education Gini Coefficients, Achievement Scores, and HDI Rank for all Vietnamese Provinces

		Correlations				
		Combined Reading & Math Benchmark	Education Gini Coefficient	HDI rank	Math Independent Benchmark	Reading Independent Benchmark
Combined Reading & Math Benchmark	Pearson Correlation	1	-.541**	-.461**	1.000**	.921**
	Sig. (2-tailed)		.000	.000	.000	.000
	N	61	61	61	61	61
Education Gini Coefficient	Pearson Correlation	-.541**	1	.403**	-.541**	-.624**
	Sig. (2-tailed)	.000		.001	.000	.000
	N	61	61	61	61	61
HDI rank	Pearson Correlation	-.461**	.403**	1	-.461**	-.479**
	Sig. (2-tailed)	.000	.001		.000	.000
	N	61	61	61	61	61
Math Independent Benchmark	Pearson Correlation	1.000**	-.541**	-.461**	1	.921**
	Sig. (2-tailed)	.000	.000	.000		.000
	N	61	61	61	61	61
Reading Independent Benchmark	Pearson Correlation	.921**	-.624**	-.479**	.921**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	61	61	61	61	61

** Correlation is significant at the 0.01 level (2-tailed).

This same relationship can be visualized graphically in the Figure 24.1.

Figure 24.1: Student Learning by Degree of Inequality



Skeptics might claim that the relationship is spurious owing perhaps to the overall improved socioeconomic conditions in provinces with more equal distributions of education attainment and that these conditions rather than equality or inequality cause the variation in achievement scores. This is a reasonable hypothesis and should be carefully examined. However, our initial efforts to control for a wide range of positive social contextual variables (summarized here by the HDI) did not confirm this suspicion. This fact can be clearly seen in Table 24.2 below displaying the partial correlation coefficient ($r = -.44$) between the education Gini and the combined achievement score controlling for HDI, and it is still significant at the .001 level.

Table 24.2: Impact of Controlling for HDI Level on the Bivariate Relationship between the Education Inequality Index (Gini) and Grade 5 Achievement Score

HDI Level	Education Inequality Index	Grade 5 Combined Achievement Mean
Highest Third	More equal	88.8
	Less equal	76.6
Middle Third	More equal	83.5
	Less equal	69.8
Lowest Third	More equal	83.1
	Less equal	63.5

Education inequality is and has been low in Vietnam for several decades. A probable outcome of its socialist tendencies, Vietnam has paid close attention to the needs of its female, ethnic minority, and rural populations, the usual culprits when accounting for high levels of inequality in the distribution of education attainment.

Not only has Vietnam steadily increased overall amounts and budget share to education at the primary and secondary levels, but it has perhaps the highest level of equality in the distribution of education attainment in the developing world. Like other socialist-orientated societies, Vietnam has attempted to provide an equal distribution of education attainment and succeeded to a remarkable degree. Nonetheless, substantial variation exists within the country.

The decade of the 1990s saw a push toward universal coverage at the primary level. That this has been achieved attests to the tenacity of the government and the common thirst for education. It also reflects the unwavering support of the World Bank for primary-level schooling principally on the basis that primary schooling is a public good with high private and social rates of return.

The figures for enrollment change for the period 1994 to 2000 are presented in Table 24.3. We use 1994 as the base comparison because of the World Bank's foundational study on education finance of that year.

Table 24.3: Secondary Enrollment Changes between 1994 and 2000

Year	Lower Secondary	Upper Secondary
1994	3,679,104	727,435
2000	5,918,049	2,194,933
Growth	2,239,049	1,467,498
Percent change	60.8	201.7

Source: Vietnam Ministry of Education and Training

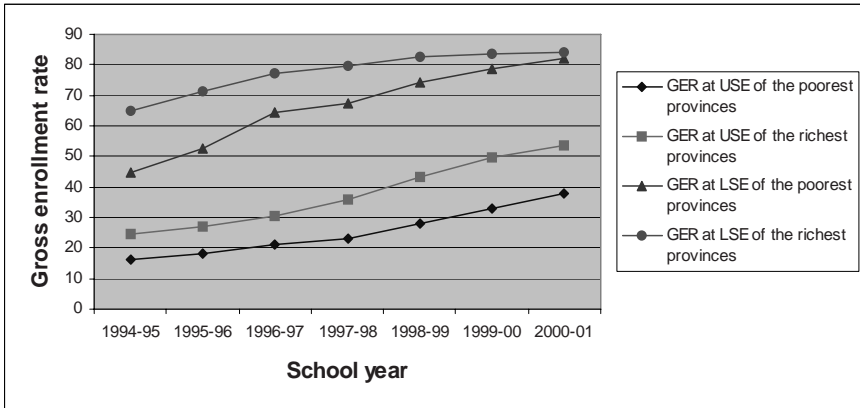
As in other developing countries, lower secondary education (LSE) in Vietnam has increasingly become aligned with primary schooling in a continuous cycle of compulsory or basic schooling. In part owing to its alignment with primary schooling, enrollments at the lower secondary level have risen remarkably. With a 61% increase since 1994, we can conclude with some finality that Vietnam is on its way toward achieving universal basic education that includes lower secondary in that definition.

However, it is at the upper secondary education (USE) level where the most surprising change occurred. Dramatic would certainly not be an overstated description of a 202% increase in enrollments in just six years. Indeed, this may be the most spectacular increase in secondary enrollments in modern history. Whereas upper secondary school coverage is lagging behind progress at this level elsewhere (except in Sub-Saharan Africa), the lower secondary expansion has been impressive. In the next decade, enrollment increases at this level should bring Vietnam to parity with other countries of East and Southeast Asia. Clearly, Vietnam is doing well in terms of student enrollments at all levels. When considering its GDP rank (101 of 161) among all nations according to UNDP statistics, the enrollment performance of Vietnam is nothing short of phenomenal.

In a system so thoroughly dominated by the state sector, it is legitimate to ask whether or not government spending is equitable or even pro-poor. Were a larger share of schools owned or operated by the private sector, as is increasingly the case in many developing countries, we might expect to see wealthier provinces pull substantially ahead in their ability to enroll students. However, this is not the case in Vietnam except at the upper secondary level, and the growing spread between rich and poor provinces is very slight indeed.

For our look at enrollment trends by income levels, we divided the 61 provinces into four groups of approximately similar levels of GDP per capita. We then plotted gross enrollment rates (GER) for each quartile at each year between 1994 and 2000. The results, presented in Figure 24.2, show a rather unanticipated convergence of lower secondary enrollment rates between the poorest quartile and the richest quartile. Indeed, at the present time there is almost no difference between the rich and poor provinces—a noteworthy accomplishment.

Figure 24.2: Enrollment Trends between Rich and Poor Provinces, 1994 to 2000



Source: Vietnam Ministry of Education and Training data, author calculations

Distribution of Education Attainment as a Policy Tool

Despite the widely and justifiably acknowledged success of Vietnam, the quantitative expansion of education has obscured the question of the equal distribution of education attainment among and within the 61 provinces. As Rew documents in Chapter 13, considerable variation exists among the 61 provinces in terms of geography, economic performance, average wealth, the socioeconomic status of individuals, and the proportion and concentration of ethnic and religious minorities. The education attainment for ethnic minorities is substantially lower than that of the ethnic majority. Additionally, the difference in education attainment between these groups is due to the fact that the minorities live in less productive areas with difficult terrain, poor infrastructure, and lower accessibility to the market economy (Belanger & Liu 2004).

Knowledge of the actual distribution of education attainment is important for several reasons. First, the equitable distribution of education attainment is itself an important education policy objective for the government of Vietnam. Second, despite the laudable effort to extend full access equitably to all children, there is still a long way to go; the absence of reliable information on the distribution of education in Vietnam is therefore significant. Third, the recent effort to move toward a “market-oriented socialist economy” has made the distribution of education attainment and the quality of education in the labor force an item of paramount importance.¹ Fourth, with the increase in both the privatization and de-regulation of the economic system, the national government has begun to shift the locus of education decision-making authority to the provincial and district levels of government. Provincial governments have inherited the principal burden from the education decentralization movement with both increased re-

sponsibility and influence. Provinces are held accountable for policies and programs that target minorities and other underserved populations in their respective districts and communes.

Education Inequality in the Quest for Growth

Poor countries have invested massively in education with the expectation of a population with higher mean education attainment levels, higher earnings, and stimulated economic growth. Yet in several instances, economic growth has not materialized at the envisaged rate probably because education attainment was not distributed equitably within the population. As a result, some developing countries, having followed the conventional human capital policy advice, were left with a skewed distribution of education attainment and slow economic growth. According to Thomas,² a skewed distribution of education attainment has a deleterious effect on economic growth.

A common finding among those countries experiencing slow economic growth due to an unequal distribution of education attainment is that an elite minority has captured a majority share of public expenditures for schooling. As a result, this population, usually consisting of high-income, urban, or dominant tribal or religious groups, has benefited more than others. In addition, poor countries with slow economic growth have often invested disproportionately in tertiary education. Higher education investments typically display lower economic returns than result from investments at the primary and secondary levels. A pattern of public spending, which provides large amounts of support to a narrow group of beneficiaries rather than broad equality of opportunity at a basic level, does not constitute a prudent use of scarce public resources.

Typically, when a minority proportion of the population has the majority share of education attainment, this same minority proportion of the population also has the majority share of income. Inequities in education attainment and income inequality are positively correlated. The inequality of education attainment reinforces income disparities. Similarly, the way in which education is distributed will have a profound impact on the distribution of income and the nature of growth. Education attainment inequality generates income inequality, and income inequality impedes economic growth. Equalizing the distribution of education attainment and income produces a larger and more diversified population participating in the economy with access to a larger share of the total wealth of the country. Mass participation in education is requisite for economic growth, at least of the sustainable variety. In our view, economic development of the self-reliant sort occurs via equitable investment in education, and educational expansion coverage should include an equal distribution of education attainment to contribute to economic development.

Summary and Recommendations

The inequality in the distribution of education in numerous countries is staggering. Table 24.4 presents the evidence for this conclusion.

Table 24.4: Mean Education Gini Coefficient by Major World Regions

World Region	Gini	N	SD
Sub-Saharan Africa	.610	27	.197
South Asia	.570	5	.202
Middle East and North Africa	.452	6	.255
Central America	.405	6	.107
Oceania	.385	2	.332
Southeast Asia	.381	7	.165
Caribbean	.360	4	.207
South America	.295	12	.067
Europe	.212	13	.082
Asia	.205	6	.105
North America (incl. Mexico)	.200	3	.121
Western Europe	.183	15	.080
Central Asia	.143	3	.049
Central Europe	.125	2	.035
Total	.368	111	.224

If people's abilities are normally distributed across income levels, such skewed distribution of education would seem to represent some of the largest welfare losses to society. Awareness of education attainment inequality at all levels of system administration has significant education policy relevance everywhere in the developing world. As national, provincial, and district education authorities attempt to formulate education policies targeted at marginalized and underserved groups, it should prove helpful to identify specific locations according to the size of their respective education Gini coefficients. By establishing baseline inequality measures, governments at all levels will be able to demonstrate empirically the progress their education policies and investments have produced. Where the evaluation of policies in terms of economic growth is of principal concern, governments will be aided by the systematic use of the education Gini coefficient, a powerful tool to measure the current status of and improvements in the quality of a nation's labor force.

Education investments that improve the distribution of education attainment in the labor force of any country will be a major factor in its international competitiveness in the future. Our contention that education spending of governments is biased toward the rich is hardly a novel idea. There is also a large literature providing ample evidence that such bias is ultimately a political decision. A political bias resulting in income inequality is frequently disguised as

“meritocratic” especially where access to successive levels of schooling is determined through high stakes examinations. In the past two decades, the rise of equity as an explicit objective of development assistance to education has become a ubiquitous feature. In practice, however, the policy focus has been on parity of subgroups within populations, most particularly gender and ethnicity. However, the distribution of education attainment or education learning achievement has rarely been measured partly because there was little understanding of the use of the Gini coefficient as an indicator that could be used to examine this dimension. Our contention is that the systematic inclusion of the education Gini coefficient as a standard policy instrument will help focus attention clearly and more precisely on one of the largest remaining problems in the public provision of education among the poor of the world.

We should all care about the unequal distribution of education because its causes and consequences are detrimental to human well-being and economic self-reliance. Poor children who leave school prematurely become unproductive, dissatisfied adults. Highly unequal distributions of education are associated with low per capita wealth and perpetual dependence on external aid.

So what can be done? Concentrating public spending on primary and lower secondary education improves the chances that the poor will benefit, and hence will improve the distribution of education in a country. However, experience has shown that efforts to target the poor in this way have not made much difference to the distribution as measured by the education Gini coefficient. There are several reasons for this.

For many years, the World Bank signaled its strong preference for financing education investments for quality enhancement and enrollment expansion at the level of the primary school. At the same time, it aggressively discouraged projects related to secondary and higher education. Many client countries benefiting from the Bank’s primary education-only policy, redirected their own resources toward secondary education and erected barriers to entry at that level in the form of high stakes entrance examinations.

The unanticipated result has been that relatively wealthy households increase the probability that their children will succeed in this examination by hiring tutors. Underpaid school teachers are happy to offer their services as after-hours tutors. Thus, a parallel private system operates in such a way as to ensure that at each successive level of schooling the children of comparatively wealthy households capture the education spending of the government. The same pernicious arrangement may exist in the transition between lower and upper secondary and between secondary and tertiary levels.

Vietnam’s approach is worth considering. It has attempted and largely succeeded in providing schooling through lower secondary to all children equally. It has invested heavily in provinces that are disadvantaged, mountainous, or populated by non-Vietnamese speaking minorities. The Government of Vietnam has

for many years explicitly encouraged the education of girls and is one of the few countries at its income per capita level with equal enrollments between boys and girls. Vietnam has concentrated government expenditure on primary and lower secondary, and has expanded upper secondary through the use of school fees. By concentrating spending at lower levels, it has achieved a remarkable level of equality. However, Vietnam has not been able to eliminate the examination and its ubiquitous partner, private tutoring. Further reduction of the education Gini may be difficult to achieve for that reason.

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Notes

¹ The economic performance of market economies is highly influenced by the distribution of education in the labor force.

² Vinod Thomas, Director of the World Bank Institute, when his book *The Quality of Growth* was published in 2000. This book, particularly Chapter 4 on education, was a rich source of inspiration for our work.

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