CHAPTER ONE

The New Zealand Education System—Setting the Scene

INTRODUCTION

The focus of this brief is on the Government's interventions in institutionalised education and training. 'Institutional' in this context refers to formal education and training settings—schools, colleges and other structured education and training environments. Much 'education' does, of course, take place outside such environments (for example at home, among peer groups and on-the-job) and in contexts in which it is not possible, and maybe not desirable, for the Government to intervene. The importance of formal education and the enormous resources employed in it, demarcate the area as a prime one on which to focus attention.

The forms of intervention are, broadly, threefold. The Government *provides* education and training services and information about these services, it *subsidises* the consumers of its services and the services of other providers and it *regulates* the production of these services. Chapter 2 examines the functions of education, possible reasons for government intervention in education and the equity and efficiency aspects of the various forms of intervention which the Government might use to achieve its objectives. The resulting framework is then applied to the pre-school, primary, secondary and tertiary sectors in Chapter 3 to 6. Chapter 7 discusses pluralism and education policy, and Chapter 8 extends this discussion to the specific issue of Maori education. Chapter 9 examines the Government's

interventions in the supply of education for overseas students. Chapter 10 summarises the main conclusions reached as to the desirable direction of future government policy in each of the main sectors.

There is clearly much in the state education system with which to be satisfied. The OECD examiners who reported in 1982 were favourably impressed with what they saw of the New Zealand education system.[1] However the examination of government interventions in the various education sectors does raise a number of concerns. These concerns are intertwined but, for simplicity, can be separated out into three separate strands. Firstly, there is the concern that significant numbers of children and young people are disadvantaged in terms of the present institutional and financing structures. Secondly, there is the concern that these structures are inequitable in that they involve a transfer of wealth from lower to higher income groups. Thirdly, there is a concern that some educational outcomes are either declining or not improving to an extent commensurate with increasing educational inputs. The first two concerns suggest a greater focus on the disadvantaged and, consequently, on changes in subsidy arrangements. The third concern points to the need for institutional arrangements which give greater emphasis to accountability, and provide incentives for efficient delivery, including timely response to changing demand.

Education can be analysed in a similar way to any other service in terms of interaction and exchange in the face of uncertainty, information costs, scarcity, interdependence and opportunism. The section on education in Chapter 3 of the first volume of the Treasury's post-election brief is couched in those terms. Generally we would consider that such an approach is an analytically robust method which can generate useful insights. However, in education, as in various other specialisms, it can be useful for ease of communication to use an approach and terminology that is more familiar to those involved. Accordingly this paper adopts an approach that is more accessible to those involved in education by discussing the functions of education. In spite of the presentational shift our analysis and conclusions are consistent with those that can be derived from our more usual approach. This is demonstrated by the agreement between these chapters, and the section on education in Chapter 3 of Volume I of the post election brief.

The purpose of this initial chapter is to introduce the formal educational system in overall terms. Although the system is varied there are a number of common features and trends, and the system is, in large measure, motivated by common objectives. It is also the case that rather similar pressures are operating on all or most of its sectors. These and other aspects are discussed immediately following.

The Education System, Society and Policy Change

The education system in New Zealand is, to a very large extent, a state system. This state system is one of New Zealand's largest enterprises; it has an annual expenditure of about $3 billion (or nearly $1,000 for every man, woman and child) and a labour force of about 71,000. Though the private education sector is much smaller, there are also significant private resources invested in education. In total, the education system is a vast and complex enterprise absorbing very large amounts of private and public resources. State compulsion is a notable feature of the education enterprise in that all children are required to attend school between the ages of 6 and 15. One New Zealander in every three is directly involved in the enterprise either as a full-time or a part-time student. An OECD report has estimated that over 20,000 lay persons belong to school committees, boards and other bodies having formal educational responsibilities.[2]

The pervasive nature of education, the enormous resources employed by the system and the high degree of involvement in it by New Zealanders mean that education does not stand in isolation from the society in which it takes place. The educational system moulds, and is moulded by, the society around it. The pressures on it are cultural, social, economic and political. It is linked in a complex way to the process of economic and social development and high expectations are placed upon it. Given their volume, the productivity of the resources employed by the system is of crucial importance to society. A small change in the performance of the system as a whole can have a significant effect on the social and economic well-being of society.

The OECD examiners remarked on a sense of anxiety about the slowness of policy and decision making at a time of rapid change in demands on the system.[3] To some degree, this may reflect the difficulty in changing what is essentially a uniform, national system: any change tends to affect all relevant institutions not just a few innovative institutions at the margin. Also, consensus has been a key element in policy making and consensus building takes time. As the OECD examiners remarked in 1983.

> Insofar as it is possible to generalise about the style of educational policy-making of a whole society, that of New Zealand remains *consensual* and *incremental*, guided by a combination of individualism and tolerant conformity within what has been, at least until recently, a society characterised by common values to an unusual degree. [4] (emphasis added)

A third reason for the relatively slow pace of change has been that the groups most politically active on education policy (and most responsive to consultation) have, by and large, considered that current structural and financing arrangements are generally satisfactory and do not require substantial change. Their main concerns have been to obtain more resources via the present delivery systems, to

extend or improve existing programmes and to resist changes in the present delivery system.[5]

Clearly consensus, and the widespread consultation that is involved in consensus building, has its very positive aspects. Difficulties occur when change in society is very rapid and when policy changes depend on national consensus. In the first place, change to society and its demands on the education system can be faster than the ability to form a coherent national consensus. Secondly, changes in society may in fact lead to many varied demands on the system which are beyond the capacity of a single national system to deliver. The question is sharpened by current demands for more community involvement, and for Maori language, history and culture to be taught and, indeed, to determine the context and method of instruction. Incrementalism also has positive aspects. It avoids any possibility of sudden lurches in the wrong direction. But, as the OECD examiners also remarked in 1983, 'Frequent reviews and the making of many small adjustments have perhaps been responsible for the lack of major structural change in New Zealand's educational system.'[6]

There seems some grounds to believe that the national educational system, which has served many New Zealanders so well for many decades, is coming under strain in the current environment of rapid change. Technological change is, of course, a dominant factor. As the *Economist* noted recently:

> The industrial revolution took two centuries to recast society and alter the way people worked, culminating in 96 percent of the population in advanced countries working in factories, in offices and in the home—all fed by the 4 percent left working the land. In the technological revolution that is now happening, people will be lucky to be granted a couple of decades to come to terms with the changing nature of how to spend their lives, what new skills they must learn to survive, and whether they will, indeed, have the chance to spend the rest of their careers in gainful employment.[7]

The demands on the education system to fit *and refit* people for work are increasing enormously. Ironically, at the same time, rising unemployment, often linked to technological change, leads many to see the system as also having to prepare people for non-work, that is for unemployment and leisure. Thus a key current question to be addressed in this brief is whether the mechanisms for change in education policy, which worked well in more leisurely times, are up to the sudden gear shifts that are increasingly required if the system is to adapt to the fast changing and increasingly varied needs of society.

Educational Objectives and the Macro Context

It is impossible to consider the education system without discussing social objectives to which educational objectives can contribute. These include equality of opportunity, training for work, personal development, safe custody of children, economic growth, social mobility, training for citizenship, equality of provision, and more equal educational outcomes. The mix of objectives and the weight to be put on each at any one time can only be inferred: they do not appear ever to have been precisely defined and, perhaps, by their very nature it is not possible to do so. The 'objectives' appear to emerge from within the education and political systems depending on perceived needs of the time. Peter Fraser's well known dictum delivered in 1939 perhaps comes closest to a formal, though still incomplete, definition:

> The Government's objective, broadly expressed, is that every person, whatever his level of academic ability, whether he be rich or poor, whether he live in town or country, has a right, as a citizen, to a free education of the kind for which he is best fitted and to the fullest extent of his powers.

It clearly expresses the social ideal of equality of opportunity and, as C E Beeby has pointed out, it was 'the appropriate clarion call for the 1940s . . .'.[8] Current objectives will similarly reflect current societal needs. With rapid technological change, exposure to the competitive realities of the international market and rising unemployment, training for work will, as already suggested, be seen as a more important objective than it was, say, in the confident days of the early 1960s with minimal unemployment, secure links to the UK market and one of the highest standards of living in the world. Training for citizenship has always been an inferred, if not always directly expressed, objective of education. But in current times, the question 'citizenship for what?' is increasingly raised. It is not simply that technological change is changing the way we live, work and spend our leisure. In particular, cultural diversity, and the ideology of cultural pluralism which supports it, have become increasingly important in recent years—as the *Curriculum Review* of 1987 indicates.[9] What this means for state provision and funding of education is, as yet, not clear. Maoridom's call for Maori ways of doing things, not least in terms of education, is a major part of this trend. But for matters to do with Maori language and culture, the issue is not just one of cultural diversity. There is also the *constitutional* question of what the Treaty of Waitangi has to say to the state education system. These issues of cultural pluralism and Maori education are considered in Chapters 7 and 8.

In more recent years the emphasis would appear to have been on education policies based on 'the different needs of individuals and identifiable groups who are at a disadvantage'.[10] This emphasis on greater equity of outcomes is a feature of the recent report of the Education and Science Select Committee.[11] At one level

this is, of course, an admirable egalitarian objective. It suggests, as C E Beeby points out, 'respect and care for individual students, whatever their background, whatever their abilities'.[12] But, at a different level, this emphasis on needs may reflect more pragmatic concerns. Firstly, it may reflect the widespread concern at the failure of the state school system to meet the needs of certain groups as evidenced by high drop-out rates, truancy and lack of preparation for the world of work. It may also reflect concern at middle and upper class Pakeha 'capture' of much educational assistance and the consequent concern to redress the distributive balance in favour of the lower income, often non-Pakeha, individuals and groups. A third possible element behind the 'needs based' approach is simply the fiscal cost of a non-targeted approach to the provision of educational assistance. One implication of this last observation (and one unpalatable to many educationalists) is that those with less material need should contribute, or contribute more, to their education.

The preceding reference to the fiscal cost of the state's educational services raises the necessary, but usually neglected, observation that education costs. It is never 'free'. It may not be paid for directly by the immediate consumers (students and trainees) or their families but is paid for by the rest of the community. The relationship between educational objectives and society's broader objectives are rarely commented on in reports on education.[13] Ultimately, education objectives must be subject to, and moulded by, the society's overall social and economic objectives. Educational objectives and the expenditure needed to work towards them are not independent, unassailable givens. There are real choices not only between educational objectives but also between expenditure on education and other government objectives, including deficit reduction. In this context we note that the need for mutually supporting economic and social policies has been increasingly emphasised in recent years. It is essential, in this regard, that expenditure on social services is viewed as a necessary component of our total macro approach. A better fiscal position would, in present circumstances, help ease interest and exchange rate pressures, and generate greater confidence in future economic prospects. Clearly the social service votes must be viewed within this broader macro perspective. At any one time it is a matter for careful assessment whether greater investment in education or a greater emphasis on macro-economic objectives (for example debt reduction) is the better long-term investment for society as a whole. It is partly for this reason that reviewing education only in terms of its own education objectives is insufficient. In Chapter 2, we attempt to develop a broader framework within which to analyse the costs and benefits of various levels and forms of government intervention in education.

The Educational Process, Economic Analysis and Educational Research

It would seem important at this introductory stage to make some preliminary remarks about the educational process, economic research and their implications for policy prescriptions. The usual approach to assessing the efficiency of an enterprise requires known and measurable inputs and outputs and a causal relationship between the two. It also assumes that inputs can be varied so that the least-cost set of inputs to produce a given output can be calculated. A moment's reflection will lead to the conclusion that a production function approach to education (and indeed to many other 'industries') is fraught with difficulties. The relationship between inputs and outputs (production function) is unknown and must be calculated from uncertain data. Some important inputs cannot be changed or changed easily by policy-makers: these include characteristics of families, peer groups, and the innate endowments of students. Similarly, education 'outputs' often defy detailed definition, let alone measurement. A further difficulty in applying production function analysis to education is that education is cumulative over time: a student's current 'output' reflects 'inputs' at various stages in the past.

Notwithstanding conceptual and analytical problems it is important, not least because of the quantum of resources employed, to undertake research into education production functions. Regrettably, there appears to have been little undertaken in New Zealand. This has not, however, dampened the enthusiasm of pressure groups in demanding increases in educational inputs in the form of improved physical amenities, staff/pupil ratio reductions, and longer pre-service teacher training. Research in other countries suggests that we should be extremely cautious about making simplistic assumptions about the effect of increased inputs on educational outputs. The outcome of a recent survey of research into the economics of the US's public school system is revealing. The survey summarised results of 147 studies covering all regions of the US, different grades of school and employing different measures and statistical approaches. The studies sought to relate some or all of the basic determinants of instructional expenditure (teacher experience, teacher education and class size) with student achievement. The author, Hanushek, observes that:

> There exists, however, a consistency to the research findings that does have an immediate application to school policy:
>
> Schools differ dramatically in 'quality' but not because of the rudimentary factors that many researchers (and policy makers) have looked to for explanation of these differences. For example, differences in quality do not seem to reflect variations in expenditures, class sizes, or other commonly measured attributes of schools and teachers. Instead, they appear to result from differences in teacher 'skills' that defy

> detailed description, but that possibly can be observed directly. This interpretation of research findings has clear implications for school policy.[14]

Further he notes that:

> The results are startlingly consistent in finding no strong evidence that teacher-student ratios, teacher education, or teacher experience have an expected positive effect on student achievement. According to the available evidence, one cannot be confident that hiring more educated teachers or having smaller classes will improve student performance. Teacher experience appears only marginally stronger in its relationship.[15]

The US survey is of course about a very different educational system to that of New Zealand and research findings about the one may not apply to the other. Clearly, there are also considerable analytical and interpretative difficulties involved in such research. However, the outcome does, at very least, strongly challenge the common mechanistic assumption, that increased expenditure per child, smaller classes, longer teacher training and such like, lead automatically to improved student performance. In fact, it suggests that much of the substantial additional investment in recent years may have little, if any, positive return and that the resources could have been much better employed elsewhere. Again, it warns us to be cautious about pursuing current proposals to lower class sizes still further. In the secondary level, current proposals would cost a further $160 million per annum to complete. If the return is, in fact, negligible, as the US findings appear to suggest, the Net Present Value of about—$1,500 million would be comparable to the sum of losses in Net Present Value terms of *several* of our recent 'Think-Big' industrial projects.[16]

It is relevant to note at this point that there is very little research in New Zealand into the economics of education. The Department of Education has a strong research section but its work is very largely confined to specialised educational research to the exclusion of research into broader institutional and financing questions. This seems also to be the case with the New Zealand Council for Educational Research. Neither institution currently employs any economists for research work. There is also lack of research into the philosophy of education which might throw light on the purposes and goals of education.[17] Thus there appears to be a serious void in terms of overall policy research—another reason, perhaps, why policy changes have been minor and incremental. This lack of policy research is of particular concern at a time of rapidly changing pressures on, and demands from, the state education system.

It may be partly because of this relative lack of research into broader educational issues, that there still seems to be a high degree of optimism in New Zealand as to the potential of formal education to contribute to both economic growth and social equity. This optimism is not just fuelled by provider and student groups seeking to justify their demands for ever increasing resources, but

also by non-educational sources such as the Roper Committee on violence. This continuing optimism is, perhaps, surprising in view of the persistence of social, economic and educational inequalities, notwithstanding the substantial growth in school inputs. This optimism also contrasts sharply with other OECD countries. Indeed the current educational policy context in New Zealand is, in this respect, more like that of the majority of OECD countries in the 1960s. According to one commentator, by the 1980s the educational context in these countries included increasing doubts about the role of education as a means of attaining socio-economic objectives, lower political priority for education and drastically contracting public budgets.[18] Such comment should, at the very least, engender caution as to the way we spend our education dollars.

Some Features of the Education System

Subsequent chapters will discuss in some detail particular sectors of the education system. However, some features are common to all or most sectors. In the first place, the education system is, as already noted, predominantly a *state system*. The private sector is very small and, with the integration of many Roman Catholic schools, has grown smaller in recent years. For most people, the choice is greatest at pre-school where there is a variety of options including kindergarten, play centres and private day care. There is also a vigorous and fast growing Kohanga Reo movement providing Maori language and culture immersion for pre-schoolers. Choice at primary and secondary levels is largely restricted to those with incomes high enough to meet the high costs of private tuition. At the university level there are at present no non-state options within New Zealand apart from Te Wananga o Raukawa.

A second common feature is that the dominant form of state intervention is *direct provision* of educational services. There is, in fact, no *a priori* reason why government intervention should take this form. Substantial government assistance could, if considered desirable, be delivered through non-government institutions. A recent move that breaks away from the dominant pattern of state provision is Access training. Access subsidises training providers who can be private, as well as state institutions such as technical institutes. Another unusual feature of Access is that it provides a separate Maori delivery mechanism in response to Maoridom's call for Maori control over resources and a Maori way of providing education and training. In this last respect Access has clear parallels with the Kohanga Reo movement.

A third feature is that the Government's educational services are virtually *free to the consumers and their parents* right through to post-graduate level. In addition

to almost free tuition, income support is provided for the first five years of tertiary education. Additional support is provided for those with special needs (for example, the mentally or physically handicapped). Free transport to school is provided for many rural students. Apart from these provisions, there is very little targeting of assistance. Exceptions include the hardship grant for tertiary students, which is very little used, Access Training which is targeted according to the perceived degree of disadvantage facing the trainee, and the discretionary adjustment to some school grants according to local need.

A fourth common feature is the high degree of *centralisation of control.* This observation mainly applies to the dominant state system, though there are also state regulatory controls over private educational and training institutions. As will be discussed in later chapters in more detail, state school boards and committees have little control over, or influence on, vital aspects of administration such as input mixes, staff conditions of service, capital works, curricula or assessment. Control over teacher appointments varies, with, for example, secondary school boards having more say than primary school committees. The main reason for the high degree of centralisation is, presumably, the size of the student population which is smaller than that encompassed by many state, city or provincial education authorities in more populous countries. Other reasons may include the history of strong pressure by teacher associations to seek a national system of appointments, assessment, grading and promotion. Clearly this national structure has positive aspects. Standards are similar throughout the country. Teachers, in a unified work force, can be highly mobile. There can be economies in material and equipment purchases. At the same time, however, uniformity can lead to rigidity and slowness to react to changing demands. Te Kohanga Reo and Access can, perhaps, be seen as ways of by-passing a system that has failed to react sufficiently, or fast enough, to the needs of specific groups.

A fifth common feature of the state system, and one that follows from the previous one, is the *unified work force.* It is a national force with national terms and conditions of service and linkages between the terms and conditions for kindergarten, primary and secondary teachers. Again, there are costs and benefits. On the benefit side it allows teacher mobility and ensures common standards. On the cost side it militates against regional and subject differentials in pay and conditions that are necessary if sufficient teachers are to be attracted into regions and subject areas with recruitment and retention problems, and hinders the application of incentives for high performance and sanctions for poor performance.

Current Trends

Demography, Participation Rates and School Buildings

Demographic change and increased participation rates have led to considerable pressure on the supply of educational services. Primary rolls doubled between 1945 and 1966. A larger population and higher participation rates led to a quadrupling of secondary school rolls between 1945 and 1975. Primary rolls peaked in 1975 and are expected to decline until about 1990. Secondary school rolls peaked in 1978 and are expected to bottom out in about 1996. At present secondary school rolls appear to be levelling off, or possibly increasing, as a result of changes in assessment procedures in the senior school and increasing retention rates in the sixth and seventh forms.

TABLE 1.1: **Primary and Secondary School Enrolments**

	Primary (000s)	*Secondary (000s)*
1945	244	54
1960	426	119
1965	474	158
1970	518	187
1975	525	220
1980	507	226
1985	452	231
1990 (estimate)	425	210
1995 (estimate)	433	196

Source: Department of Education annual reports and estimates

Pre-school and tertiary enrolments have also increased:

TABLE 1.2: **Pre-school and Tertiary Enrolments**

		Tertiary (000s)	
	Pre-school (000s)	*Part-time (000s)*	*Full-time (000s)*
1965	28	29	23
1970	41	34	54
1975	55	37	69
1980	57	44	87
1985	61	45	93

Source: Department of Education annual reports

Participation rates at secondary school level have increased significantly, especially for females, although the levels are still well below those in most OECD countries.
Estimated rates at census years were:

TABLE 1.3: Senior Secondary School Enrolments

		1966 %	*1971 %*	*1976 %*	*1981 %*
Form 5	Male	67.7	76.8	83.5	84.0
	Female	67.6	77.8	87.6	87.6
	Total	67.6	77.3	85.5	85.9
Form 6	Male	35.4	47.0	47.6	51.8
	Female	26.6	42.2	50.7	56.6
	Total	31.1	44.7	49.1	54.2
Form 7	Male	11.1	15.6	15.9	17.0
	Female	5.2	9.0	11.3	15.6
	Total	8.2	12.0	13.6	16.3
First Year	Male	14.1	17.8	13.9	12.7
University	Female	8.0	12.3	11.4	11.5
(Entering from school)	Total	11.1	15.1	12.7	12.1

Source: Clark and Vere-Jones.[19]

Demographic change and increasing participation rates led to substantial increases in the number of most types of state educational institutions:

TABLE 1.4: State Educational Institutions

	Kindergarten	*Play-centre*	*Full and Contributing Primary Schools*	*Intermediate*	*Area (District High) and Secondary Schools*	*Technical Institute*
1960	200	141	1972	51	236	2
1965	243	299	2013	78	257	5
1970	305	542	2108	105	273	8
1975	401	697	2013	134	283	14
1980	524	684	1995	147	297	21
1985	545	666	2151	169	352	21
1986	552	657	2143	169	351	22

Source: Department of Education annual reports

Expenditure

The main determinants of state education expenditure are student rolls, pupil/teacher ratios and the level of teacher salaries. As outlined above, school rolls, after increasing substantially during the post World War II period until the mid/late 1970s, are now falling. Pushing in the opposite direction has been a significant reduction in class size.

State primary class sizes have reduced dramatically over the last 20 years:

TABLE 1.5: **State Primary Class Enrolments**

	Classes with 0–19 Pupils %	*Classes with 20–24 Pupils* %	*Classes with 25–29 Pupils* %	*Classes with 30–34 Pupils* %	*Classes with 35 and over Pupils* %
1965	na	na	na	22.5	47.1
1970	na	na	36.8	22.8	40.4
1975	12.4	13.2	22.2	35.3	17.0
1980	14.9	15.2	28.0	34.8	7.0
1985	17.7	16.0	25.1	33.7	7.4
1986	18.2	16.8	25.9	33.0	6.3

Source: Department of Education annual reports

Comparable figures for secondary schools are not available, but it appears that their teacher/pupil ratios have also reduced significantly in recent years. The teacher/pupil ratios for state primary and secondary schools in 1986 were estimated by the Department at about 1:21 and 1:16 respectively. While in recent years, primary teachers' salaries have generally kept up with inflation, salaries for secondary teachers have increased substantially faster than inflation. Between 1984–5 and 1986–7 average secondary teachers salaries increased by about 41 percent compared with inflation of 34 percent—a real increase of 7 percent. However, over the last ten years, average primary teachers' salaries have remained about the same in real terms, while those of secondary teachers have improved marginally.

The net effect of the above and other changes on total real expenditure on education, and on education expenditure[20] as a percentage of Gross Domestic Product and of total net government expenditure has been as follows:

TABLE 1.6: Expenditure on Education

Year ending 31 March	*Total Net Expenditure on Education in 1987 Dollars*	*Total Net Expenditure on Education as % of GDP*	*Total Net Expenditure on Education as % of Net Government Expenditure*
1961	947	3.3	11.2
1966	1331	3.7	12.9
1971	1847	4.7	16.2
1976	2527	5.4	14.1
1981	2646	5.6	14.0
1986	2379	4.5	11.4
1987	2595	na	na
1988 (Est)	2751	na	na

Expenditure on education has declined as a percentage of total government expenditure largely because of the increasing proportion required to service government debt.

Source: Department of Education annual reports and monthly abstracts of Statistics

The level of total real expenditure on education is now about where it was some ten years ago when school rolls peaked. Although school rolls have been declining over recent years, the cost of schooling per pupil has increased. This partially reflects the move towards lower pupil/teacher ratios. Unit costs seem to have fallen artificially between 1983/84 and 1984/85 as a result of the wage and price freeze regulations which applied over that period. (Similar falls in unit costs in technical institutes and universities occurred over the period as well.) The real cost per full-time equivalent university and technical institute student has been on a decreasing trend through the early to mid 1980s. This presumably reflects economies of scale as rolls in the tertiary area have increased. However, the recent trend, which shows real expenditure per student increasing, indicates that economies of scale of this sort cannot be indefinitely sustained. A symptom of this is that real expenditure on technical institute capital works increased by over 50 percent between 1985/86 and 1986/87.

TABLE 1.7: **Expenditure on Education per Student**

Year Ending 31 March	*Expenditure (1987 dollars)* *Per School Student*	*Per Full-time Equivalent University Student*	*Per Full-time Equivalent technical Institute Student*
1961	1,667		
1966	1,791		
1971	2,076		
1976	2,791		
1981	2,839	11,264	9,744
1982	2,909	10,777	9,845
1983	2,927	10,786	9,830
1984	2,705	10,449	9,174
1985	2,424	9,317	8,066
1986	2,468	10,122	8,085
1987	2,731	9,731	8,458
1988 (Est)	2,950	10,080	9,046

These figures are based on March inflation figures; there are other possible bases but it is not considered that they would produce significantly different results. The impact of GST may, however, cause some disturbance to year on year comparability.

Sources: Estimates of Expenditure, Consumers Price Index and Department of Education

Current Pressures on the State System

In recent years a number of pressures on the state system have become discernible. They are not just pressures for more and better of the same (such pressures always exist), but for different types of education service and, in some respects, a different kind of education structure.

At the pre-school stage pressure has been coming from a number of different directions. Maori people have clearly felt that the present state supported systems have not met their language and other cultural requirements. The considerable growth of Te Kohanga Reo is clear evidence of Maori concern for Maori language and culture to be taught in a Maori way. In effect, Maori people have stepped outside the existing state supported systems to provide their own (with state financial support). An opposing pressure is for the co-ordination and integration of the currently diverse range of services in the interests of quality of provision. A further pressure, partly arising from a feminist critique, is for child-care facilities to allow both spouses and solo parents to work. At a time of increasing family breakdown, pressure to allow the solo parent to work (or simply to have time-off from child-caring) is obviously going to increase. The transfer of responsibility for

the supervision of child-care services from the Department of Social Welfare to the Department of Education and the 1985 early childhood care and education forum were outcomes of these pressures and also raised expectations for greater government resources.

At both pre-school and school levels there has been increasing awareness that the state system and some elements of the state supported independent sector (for example kindergartens) are not catering for the needs of a significant number of students. This is indicated by non-use at the non-compulsory levels, lack of academic achievement, labour market disadvantage, increasing drop-out and truancy rates and other symptoms of disaffection with the education system. This may be partly due to the difficulties which face a unified state system when seeking to accommodate Maori language and cultural values. It may also be due in part to the fact that, as the OECD has observed, 'Instrumental, economic, job-orientated values . . . are less prominent in New Zealand than elsewhere . . .'.[21] Concern for non-achievers within the existing system has been one of the factors that have led to a review of the curriculum, a review of senior school assessment procedures and a series of reports on transition education and training. One of the outcomes of work on transition matters has been Access training which, as already noted, steps outside the formal state education structure, though state education institutions will play an important part as providers alongside, and in some respects in competition with, private providers.

It should be emphasised that lack of achievement and ill discipline in schools are not simply symptoms of an unresponsive state education system. These factors are also outcomes of deeper changes in society that impose considerable pressures directly on the system. These societal changes include family breakdown, often leading to poor parenting of, and behavioural problems in, children, and lack of parental support at home for what teachers are trying to do at school. Other influences would include the general loss of respect for elders, and for teachers in particular, in our fast changing and increasingly permissive society, and the effect of anti-social behaviour in television programmes and other media.

Fiscal constraints are putting the system under some pressure, though, hitherto, they have not led to any fundamental review of educational priorities and policies. Fiscal constraints are, however, sharpening awareness that state funded educational assistance at pre- and post-compulsory stages are largely 'captured' by middle and upper income, Pakeha groups. This awareness has led to some initial consideration of alternative funding mechanisms such as loans, capitation and voucher systems which would have equity as well as fiscal objectives. It is unfortunate that, thus far, the debate on such systems has been characterised by very little reference to analysis: a fact which may have something to do with the reduction of provider control that is implicit in entitlement or capitation schemes. In fact the recently introduced Access Training scheme has 'voucher like' features,

such as state funding for non-state providers and a (partial) capitation basis for funding.

The role of the private sector is, if not exactly a pressure point, an area of tension in view of recent reductions in private school subsidy levels. There does not appear to be a coherent view of the role of the Government in respect of the private sector. In so far as there is a debate it tends to concentrate on the issue (a very proper one) of divisiveness, that is, elitism versus egalitarianism. But there is also advantage in diversity especially in a pluralist society.

Some Underlying Questions

These pressures point to three underlying and related questions which recur at a number of points and in a number of guises in this brief. The first question centres around the issue of choice. At present, the incentive structure determined by the Government's interventions acts powerfully to direct the consumers of educational and training services to the state system. Such an incentive structure depends for its validity on the argument that a neutral (or less directive) incentive system would not lead to socially optimal outcomes (that is parents and students would make socially wrong decisions) or would be an abrogation of society's collective interests and responsibilities. This raises the further question whether there are, in fact, clear criteria to guide social policy making to optimal collective decisions. If there are none, or if the criteria are opaque, then in a democratic system we are left, as Klees [22] observes, with 'a messy, participative, negotiation-oriented collective process of defining, analyzing, and selecting among alternative public policy options, which in turn shape the incentives that individuals face'. Voluntary choice versus state direction is at the heart of much current debate.

The second question is an equity issue and has to do with funding. At present the state system is funded through the—essentially progressive—tax system and consumers are offered services at virtually no cost rather than on the basis of an—essentially regressive—non-targeted fee system. While in theory this seems to be an admirably equitable arrangement, it seems that in practice the 'free' provision of non-compulsory state educational (and other) services inevitably benefits the better-off disproportionately—the well known middle-class capture effect. This raises obvious equity questions.

Thirdly, there is a cluster of questions that centre around the concept of efficiency as applied to education. As there are considerable difficulties in defining the objectives of education and, as elaborated in Chapter 2, there are many points at which different objectives can conflict, it is difficult to relate 'efficiency' to any particular set of objectives. Also the definition and measurement of inputs and outputs are, as already noted, extremely difficult and often impossible. In view of

these difficulties, measuring efficiency in terms of rates of return on investment is a procedure of rather limited application to education. Nonetheless efficiency issues are crucial and need to be examined. Two immediate observations can be made. Firstly, in so far as the education system has the objective of assisting the emotional, educational and work skills development of all children, it is clearly not efficient in that significant numbers of those who would seem to most need assistance are missing out at pre- and post-compulsory stages and become disaffected at the compulsory stage. Secondly, there is a considerable body of micro-economic analysis of management issues that can be applied, in greater or lesser degree, to educational institutions in order to improve levels of performance.

These three sets of questions—choice, funding (or equity) and efficiency — often coalesce. For example any change made in subsidy levels to achieve greater efficiency will almost inevitably have results on equity since, in practice, those who pay the costs will not be those who receive the benefits. As Lester Thurow observes, 'Every time a tax is levied or repealed, every time public expenditures are expanded or contracted, every time regulations are extended or abolished, an equity decision has to be made'.[23] It will not always be the case that the same policy instrument will achieve improvement in, say, choice while at the same time enhancing (or, at any rate not diminishing) equity and efficiency. These difficult trade-off issues will be examined in greater detail in Chapter 2.

Summary

The education system in New Zealand is characterised by state provision at the school and post school stages of education which is virtually free to the user. It is also a national system imposing, to a high degree, uniformity of standards and delivery.

The system tends to run on its own track motivated by its own educational objectives which may be at variance with the other objectives, including macro objectives, of the Government. The amount of resources employed by the system is very large and is still increasing in real terms notwithstanding recent reductions in student rolls. That this is occuring reflects, at least in part, the political strength of the educational lobbies and the fact that educational policies are, to a large extent, determined on the basis of political, rather than analytical, considerations. Overseas research suggests that some of the real expenditure increases in the past and those proposed for the future may well represent very poor investments from the point of view of society.

There are considerable strains on the state system which, because it is national, because change is dependent on consensus and because control is highly centralised, can not adjust rapidly to the fast changing demands that are being put upon

it. In fact some recent developments involve departures from the state owned and state supported systems (for example Access and Te Kohanga Reo). State support at pre- and post-compulsory stages seems to be largely 'captured' by the more advantaged groups. These and other reasons suggest that some fundamental structural changes are required if the education system is to meet the needs of presently disadvantaged groups and if it is to become more responsive to the fast changing demands now being placed on it.

Notes and References

1 OECD. *Review of national policies for education: New Zealand*, Paris, 1983, p 96.

2 Ibid., p 19.

3 Ibid., p 14.

4 Ibid., p 10.

5 Some groups have not been satisfied with current arrangements, notably, perhaps, Maori people and some providers of early childhood services.

6 OECD, op.cit., (ref.1), p 18.

7 *The Economist*, December 20 1986, p 95.

8 See Renwick W L. *Moving targets*, Wellington, NZCER, 1986, pxxvi. *Note*: C E Beeby has contributed an extended introduction to this work.

9 Report of the Committee to Review the Curriculum for Schools. *The curriculum review*, Wellington, Department of Education, 1987.

10 Renwick, op.cit., (ref.8) p 44.

11 Education and Science Select Committee. *The quality of teaching*, Government Printer, Wellington, 1986.

12 Renwick, op.cit., (ref.8) p xlv.

13 An exception is the Education Development Conference's report on Aims and Objectives in Education, 1972.

14 Hanushek, Eric A. 'The economics of schooling: production and efficiency in public schools'. In; *Journal of economic literature* xxiv, September 1986, pp 1141–1142.

15 Ibid., p 1162.

16 The assumptions are that the scheme is introduced gradually with additional expenditures in the first three years being $40 million, $80 million and $100 respectively followed by expenditures of $160 million per annum subsequently. A 10 percent discount rate has been used.

17 See OECD, op.cit., (ref.1) p 92 for similar comment on the lack of research on the economics and philosophy of education.

18 The changing educational policy context in OECD countries is discussed by Soumelis C. 'The evolution of educational planning concepts and approaches' in: *Educational planning—a reappraisal*, Paris, OECD, 1983, pp 27 and 28.

19 Clark M and Vere-Jones D. *Science education in New Zealand: present facts and future problems*, Wellington, Victoria University, 1987, p 16.

20 The expenditure shown in this table is net Vote: Education expenditure. Various state-paid education and training is paid for out of other votes. Examples include various Labour Department and Maori Affairs training schemes. Education programmes have sometimes changed Votes over the years. For example, all training of nurses used to be undertaken by hospital boards and paid for out of Vote: Health. Since the early 1980s, more training of nurses has been undertaken in Technical Institutes funded through Vote: Education. The amounts in Vote: Education have increased in this respect, not because of real growth, but because of changed administration and place of training.

21 OECD, op.cit., (ref.1) p 18.

22 Klees, Steven J. 'Planning and policy analysis in education: what can economics tell us?' *Comparative education review*, November 1986, p 595.

23 Thurow, Lester. *The zero-sum society: distribution and the possibilities for economic change*, New York, Basic Books, 1980, p 17.