

**POLICY DEVELOPMENT AND REFORM PRINCIPLES
OF BASIC AND SECONDARY EDUCATION
IN FINLAND SINCE 1968**

by

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and Secondary Education in Finland since 1968**

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Foreword

In early December, 2001, Finnish educators received some stunning news: their students had outperformed peers in 43 other nations—including such powerhouses as the United States, Germany and Japan—on a new international assessment of reading, mathematics and science skills. Finland, the Organization for Economic Co-operation and Development (OECD) study declared, produced the world’s most literate citizens. What’s more, Finnish schools were uniformly good, displaying the narrowest gap between high and low scorers.

There was barely time to digest these unexpected results before the first of more than 100 official delegations began arriving for a first-hand look at Finland’s school system. The traffic has yet to abate. Finland went on to ace a subsequent OECD assessment in 2003, and exchange scholars, policymakers, researchers, even journalists from such prominent publications as *The Washington Post* and *The New York Times* have flocked there ever since. What all these “educational pilgrims,” as Finns dubbed their visitors, hoped to discover was: How did this small and remote country, with its reputation for average educational performance and relatively meager per-pupil spending, suddenly surge to the head of the class?

Many factors have contributed to Finland’s academic success, from highly trained teachers to a culture that encourages reading. One key—and exportable—ingredient often gets overlooked, however. Finland’s remarkable performance today springs directly from education policies and reforms set in motion four decades ago. Although the process sparked criticism and political debate, there now is general agreement that the early policy decisions of the 1970s were correct and helped to create the celebrated school system of today.

This book examines the development of education policy and reform principles in Finland over that 40-year span. The 1960s and 1970s were times of drastic change as the country evolved from an agrarian society to a Scandinavian welfare state. To facilitate this transformation, the education system, which maintained the inequities of the class society for which it was designed, needed a total overhaul. Adopting a “comprehensive school reform” approach, Finnish educators and policymakers scrutinized everything from curriculum and textbooks to salaries and administration. At the same time, teacher training underwent substantial revision, with the goal of raising teacher education to the university level. Significant resources were also invested in adult education and higher education. Structural change not only led to a

complete revamping of the education system; the reformed system also, in turn, created opportunities for Finland to move toward a post-industrial information society.

The 1980s built on reforms commenced in the 1970s. The decade saw the dismantling of centralized management systems and preparations for the challenges posed by major shifts in the economy, increased international competition and technological change. This was also a period of preparing intellectually and culturally to become an integrated part of the European Community.

In the early 1990s, Finland endured a deep economic depression. Like other public institutions, the education system had to adapt to sharp cutbacks in funding. At the same time, however, the downturn spurred new educational efficiencies and forced decision makers to seek fiscally sustainable solutions. Indeed, the education system played a central role in helping Finnish society cope with the problems of high unemployment. Meanwhile, membership in the European Union brought new possibilities as well as notable challenges.

This long period of examination is reflected in the book's presentation. Part I details the first two decades (1968–1980) of the education system's development, with a focus on comprehensive school (primary and lower secondary) reform. The following decades, concentrating on upper-secondary education, will be discussed in more detail in Part II. The final section describes the role of education in contemporary Finnish society and tries to understand the factors behind the system's success in recent international educational comparisons. We hope this book will give readers a retrospective on the social and political developments underpinning Finland's education system. At the same time, we hope it will offer deeper insights on the development of Finnish education policy and reform principles. Since our focus is on pre-tertiary education, we have omitted discussion of adult education and higher education.

So what explains Finland's success? Although we firmly recognize that explaining the success or failure of any education system is a highly risky business, we come to four broad conclusions in this book:

(1) Comprehensive schools that offer all children the same top quality, publicly financed education—not only excellent teaching but counseling, health, nutrition and special-education services as well—seems to play a key role in building a high-performing education system. Good school for all, not for some, is the core value that drives education in Finland.

(2) Education reform has been evolutionary rather than revolutionary in Finland. From very early on, all stakeholders accepted and understood that there are no quick fixes in building a system to provide good education for all—and that very few short-term changes will be sustainable. Finnish schools have learned to change and changed to learn.

(3) Success of the education system is politically, culturally and economically intertwined with other sectors of society. The same factors that promote a well-functioning economy, strong public institutions, the rule of law and a democratic civil society embedded into a dynamic welfare state also support academic achievement. To analyze and understand an education system, one also must examine its political, social, and economic contexts.

(4) A stable political environment is crucial. But Finland has succeeded in creating sustainable leadership and education reforms because policies and principles have been based on firm long-term vision, hard work, good will, consensus, and respect for the professionals whose knowledge and understanding ultimately yield the best solutions and decisions.

Although we have written this story following chronological policy developments we would also like to provide our readers with another organizing framework to guide the journey through the coming pages from 1960s to date. We have identified seven elements of policy development and reform principles that have been typical in Finland and that are also at the core of the four above-mentioned conclusions. These seven elements form what Hargreaves and Dean (2005) call sustainable leadership in education development. These elements of sustainability are described in more detailed in the end of the book and they are: **(1) Depth:** Purpose of schooling has focused on holistic development of personality that includes knowledge, skills, values, creativity and interpersonal characteristics. Schools have remained as places for learning and caring where learning comes before testing and achievement is defined in relation to one's own development and growth rather than universal standards. **(2) Length:** Education policy development has been built upon a longer-term vision and strategic principles, such as equal opportunity for all and putting learning before teaching. Rather than seeking short-term gains education development has focused on consolidating these basic values in education. **(3) Breadth:** Education leadership has been gradually distributed from the centre to the local level. Leadership is not only limited to daily managerial duties and administration, but also addresses specifically the responsibility and right to lead the continuous development of the education system. **(4) Justice:** Achieving the goal of offering equal opportunities to good education for all

has required creating and maintaining a socially just school network that consists of equally good schools. This equity principle has been the leading policy idea since the early 1970s. **(5) Diversity:** School network is based on the idea of inclusive education that promotes diversity in schools and classrooms. Steering of teaching and learning has never been based on written standards but rather guidelines that encourage creative solutions in increasingly diverse social and human environments. **(6) Resourcefulness:** Young talent and creative individuals were appointed to lead schools, local education offices and central departments with the belief that competencies often override routine experience. Systematic and research-based ways of preparing and continuously developing leaders and maintaining their knowledge and skills was introduced in the 1980s. **(7) Conservation:** Education development has been balanced between bringing in new innovations and utilizing existing good practices. There has been a public recognition that many of the needed educational innovations already exist somewhere in the system. This was an important acknowledgement of teachers' wisdom and the realization that learning from past experiences is equally important as introducing totally new and often alien ideas in schools.

We believe this book will contribute to the evidence that it is possible to build an education system that serves all citizens equally well, and is the key driver of economic and social transformation. At the same time, we also would like to caution policymakers against seeking quick results through fragmented reforms. As Finland's example demonstrates, success requires both long-term orientation and a clear, shared vision for the education system. Understanding the principles of sustainable leadership, investing in credible education policies and building bridges between the different players prove to be the major ingredients in Finland's recipe for educational excellence.

The three authors represent different experiences and generations in developing education in Finland. Erkki Aho was the Director General of National Board of Education between 1972 and 1991, and is one of the leading figures in planning and implementing the education reforms described in this volume. Kari Pitkänen is the Deputy Director General of the National Board of Education (1991–present). Since 1973, he has held different positions in the Ministry of Education, most recently as Director of the Budget and Finance Department. Pasi Sahlberg served as a Counselor of Education in the National Board of Education between 1991 and 2000, advising and implementing key pedagogical reforms in the 1990s.

Executive Summary

Education plays an important role in Finnish society. Building a welfare state with a highly competitive economy and strong social cohesion out of what was a poor agrarian country in the 1960s would not have been possible without a major contribution of human capital, especially education and training. Recent international comparison studies of student achievement (PISA 2000 and 2003) suggest that Finland is doing particularly well in reading, scientific and mathematical literacy. More importantly, practically all Finnish children have good schools close to home, which makes school choice and private schooling less of an issue than in most other countries.

Understanding how the education system in Finland is functioning today requires a retrospective look at how education policies and practices have developed as part of the evolution of a modern Northern European democratic society. Since education is interdependently linked to other social sectors and also to political-economic developments, it is necessary to analyze education policies within these wider contexts. This volume therefore provides a chronological narrative of the social and economic politics of the past four decades. The Fact Sheet that follows the Executive Summary offers a basic numerical description of education in Finland.

Part I: Comprehensive school reform

In 1968 Finland embarked on a top-down reform of both primary and secondary education. Until then, the education system had been based on two parallel tracks that began after four years of elementary education and determined the future academic and professional paths of youth. The new comprehensive school offered all children equal access to a nine-year basic school that was practically the same for all. The three-level options in some subjects that were initially included in the first Comprehensive School Curriculum of 1972 were abolished in the mid-1980s. As the demands for teachers' professional knowledge and skills increased as a consequence of the reform, the teacher education system was restructured and all teachers were prepared in academic universities from late 1970s onward.

The introduction of the comprehensive school in 1972 launched an active political and public debate. An open dialogue that brought together State authorities, teachers, and the business sector turned out to be the key factor that sustained the reform and helped to keep the

focus on the agreed equity principle in education policy. As the reform was implemented nationwide, surprisingly strong consensus and mutual agreement appeared, enabling sustainable political leadership and continuous development of an education system in line with the agreed principles and values.

Comprehensive school reform was implemented province by province. The School System Act of 1968 required every municipality to draw up plans for executing its provisions, including how local school systems would be restructured. Regional implementation plans were also prepared by the education divisions of the 11 State Provincial Offices in cooperation with the National Board of General Education (NBGE), which reviewed and then approved these plans. The Cabinet of Ministers endorsed the final blueprints of these local plans. Implementation of the new comprehensive school curriculum was hence strictly centralized. The NBGE, whose authority included approving teaching arrangements and textbooks for schools, endorsed the curriculum prepared by the Curriculum Committee as the basis for the national curriculum. This was sometimes seen as limiting the autonomy of municipalities and local schools.

Comprehensive school reform achieved all of its goals on the structure and accessibility of education before the end of the 1980s. The comprehensive school had become a basic school for all children and it provided the whole age cohort with real opportunities to continue their studies in upper-secondary schools. Especially in the 1980s, some worried that comprehensive schools would lower the academic knowledge and intellectual skills of future generations, but those fears never materialized. International comparison studies on student achievement in the 1980s and 1990s put Finland in the same top-tier as other Nordic countries and Japan as having the least variation in learning outcomes between schools. The same studies found that Finnish 13-year-olds were internationally at the average level in mathematics. In physics and chemistry the results were of a higher standard and on a par with Japan. Meanwhile, domestic studies revealed that cohorts of students who had completed the new comprehensive school showed improved academic achievement compared with their counterparts in the former parallel school system of the 1960s and early 1970s.

While the comprehensive school reform had restructured compulsory education according to the equity principle, the upper levels of comprehensive school, i.e. grades 7–9 (or lower secondary school) still included relics of the parallel school system. Pupils still had only

two options for further study: either general upper level courses that would allow them to attend vocational college or university, or a terminal course that stopped after vocational school. The Government decided that vocational education should be developed into a competitive alternative to the upper-secondary general school, but as long as the new comprehensive school produced two levels of competency, that could not happen. The government's solution: comprehensive school graduates would receive the same basic certification, making them eligible to attend all upper-secondary schools. From the mid-1980s onward, the development of comprehensive school and the upper-secondary level were operationally connected.

Part II: Secondary school reform

At the end of 1980s, the logical next step in reforming the education system was to extend the comprehensive school principles to post-compulsory education. Before the restructuring, students who enrolled in grammar school continued their studies in academic upper-secondary school on their way to higher education and the rest continued in vocationally oriented programs in lower and upper-secondary school. Vocational education had two tracks. The first funneled students into school-level studies, while the second provided college-level vocational education. School-level education and training varied from six months to two years. The more demanding college-level studies required three to four years. According to today's international classification, college level vocational education would fall between upper-secondary and higher education.

The major area of secondary school reform since the 1980s concerned vocational education. The purpose of the reform was to make vocational education more competitive, even on a par with upper-secondary general education in leading to studies in higher education. In 1984, a decree was issued on the eligibility of college graduates for entry into different university faculties. According to the decree, at least 5 percent, but no more than 25 percent of the entry slots in universities should be reserved for non-matriculated students from vocational colleges and schools. By 1995, the total number of these vacancies was supposed to reach 2,100. The decree was later repealed, however, and fewer than half of the reserved spaces ever materialized. The actual enrollment in 1995 was 900, and one third of those had completed some examination abroad.

Along with opening the vocational route to higher education, policymakers originally aimed to decrease the number of students in general upper-secondary education. The Ministry of

Education set a target of 20,000 to 22,000 new students in general education annually, i.e. approximately one third of the age group. They also fell short of this goal, and in 1988 there were 32,200 new students in general secondary education, or about 55 percent of the age cohort.

Upper-secondary general education went through fundamental structural and pedagogical changes from 1985 on. The aim in developing a new upper-secondary general school curriculum was to create a more flexible pedagogical structure for municipalities and schools. At the same time, an experimental program did away with year-long content taught by grade level and instead based learning and teaching on modules or courses. Thus, curriculum reform focused first on reorganizing each subject or discipline into a series of smaller units, typically quantified as 38 teaching lessons. This course-based upper-secondary school debuted throughout Finland in 1982.

The government ratified the reallocation of teaching hours, the National Board of General Education accepted the new core curriculum and the time-credit system was used to determine teaching resources. The integration of secondary education into Finland's reformed education system was stronger vertically than it was horizontally. Cooperation between secondary and basic schools came naturally, given that at the time, one fifth of the approximately 470 upper-secondary general schools were small institutions with fewer than 100 pupils. In a small town, basic and upper-level schools had to work together to survive, since they often shared the same subject teachers. Integration with vocational institutions improved with the introduction of course-based curricula.

A main objective of the secondary school reform was to offer all graduates from basic school and upper-secondary general school higher education that would lead to a certified profession. In 1988, there was a vocationally-oriented study place at the upper secondary, college or higher education level for practically all school leavers from basic and upper-secondary general school. General upper-secondary school received 55 percent of the basic-school graduates; in 1972, that figure was 40 percent. Thus, vocational education institutions and colleges received the bulk of matriculated students from upper-secondary general education. Special study programs were designed for them with courses of shorter duration than for basic-school graduates.

The planning and implementation period of the secondary school reform lasted two decades, from 1974 to 1992. Over those two decades, enrollment in secondary education doubled. In 1970 some 20 percent of Finland's population had graduated from upper-secondary

education or universities. By 1989, 40 percent of the population had at least an upper-secondary level of qualification. However, secondary school reform was not able to narrow the gap between the popularity of general and vocational schools as was expected.

Part III: Education today and the road ahead

A key objective of Finnish education policy since 1968 has been to provide all citizens with equal opportunities to receive a high-quality education, regardless of age, domicile, economic situation, gender, or mother tongue. Education in Finland is publicly financed from pre-school to higher education. The network of education institutions still covers the entire country although the number of closed schools and merged institutions has been increasing since the recession in the 1990s. Finland's current education system differs from many others, most notably in the absence of ability tracking or other structures that separate students early on into academic or vocational education, as well as in its flexible accountability structures that place a strong emphasis on trusting schools.

The National Board of Education (NBE) approves the national framework curriculum, but municipalities and schools are obliged to prepare the school curriculum, and have right to choose textbooks and select instructional methods. Teachers also create their own ways to measure student progress, and learning-oriented assessment is an integral part of daily school life. The school and teacher autonomies are commonly seen as the factors that positively affect the high quality performance of schools and entire education system. The adopted flexible accountability system also promotes the use of alternative strategies for raising student achievement in classrooms. Except for the National Matriculation Examination, Finnish students face no entrance, exit, graduation, or other externally mandated standardized tests.

As with basic school, the NBE decides the objectives and core content of subjects and study modules for both general and vocational upper-secondary schools. Schools with local authorities determine how best to meet the National Framework Curriculum goals. The modular and non-graded structure of upper-secondary education permits students to take both general and vocational courses. Students' knowledge and skills are assessed upon completion of each study module (typically five or six times per year) by teachers, and a qualification certificate is awarded when the student completes all of the studies in his or her individual study plans.

The National Matriculation Examination is held twice a year, in spring and in autumn, in all Finnish upper-secondary general schools. Approximately half of the age cohort takes part in

this examination every year. A candidate must complete any one exam (e.g. mathematics) within three consecutive examination periods, though it also can be completed in one period. The examination consists of at least four subject areas. All candidates must take the mother tongue test; they then may choose three other exams from the following four domains: second domestic language (Finnish or Swedish), foreign language, mathematics, and general studies (consisting of social and natural sciences). The candidate may also include exams in one or more optional subjects.

Finnish people believe that education has a direct impact on well-being as well as on Finland's high-performing economy. Indeed, Finland is ranked top in economic competitiveness, corruption-free governance, level of use of information and communication technologies, and implementation of environmental policies. Interestingly, while achieving all this, Finland has been able to maintain the core features of a welfare state: publicly financed health care, well-covered social protection, and quality education for all—old and young.

Finnish education policies may be characterized by sustainable and stable rather than conflicting reforms and fundamental shifts in political directions. Therefore, one macro-level explanation for the success of Finland's education system is that there have been only a few radical reforms that have changed basic values structures. Rather than revolution, the Finnish education system has experienced a gradual evolution that has benefited at each new turn from what had been achieved earlier and has been steered by common longer-term vision.

A significant feature of education in Finland is the role of local authorities and schools in education management and sector development. Most schools are owned and operated by the municipalities. The new reform legislation made municipalities fairly autonomous in arranging their public services, including education. The entire education management structure is therefore light and simple. The Ministry of Education is in charge of policy, the legislative framework, and financing of education. The NBE takes care of curriculum development and evaluation of education, and provides professional support services to schools and teachers.

Sustainable and vision-driven education leadership since the 1960s has enabled schools to focus on the essentials: learning and teaching. Longer-term systematic development has also provided individuals and institutions with appropriate time to learn to use all possible opportunities to make schools perform well. Indeed, optimum use of flexible structures and learning arrangements rarely happen in the early stages of reform. Furthermore, transforming

schools from what they used to be to creative learning and caring organizations requires learning not only from all individuals involved but also from the organization. What has been typical among schools in Finland since 1990 is a widespread recognition of the need to change the culture of the school as a condition for any significant and sustainable changes in teaching and learning.

Many questions have been raised about why Finnish education is doing so well. There are many explanations—some simple, some complex; some true, some not. Six characteristics that may explain the success are described below.

Same nine-year basic school for all. Finnish children start compulsory nine-year basic school in August of the year when they turn seven years old. Today it is widely recognized that the nine-year basic school is the cornerstone of education for all Finnish citizens. Research shows that investment in primary education, when children learn the basic knowledge and skills and adopt the attitudes of lifelong learning, are paying off in later grades through better aptitude and learning skills as well as good overall outcomes.

Good teachers. The teaching profession has always enjoyed great public respect and appreciation in Finland. Parents trust teachers as professionals who know what is best for their children. Teachers therefore have considerable independence in the classroom in terms of choosing appropriate pedagogical methods. A teacher's work is considered to be an independent, high-status profession that attracts some of the best secondary school graduates. Indeed, only about 10 percent of some 5,000 applicants are accepted each year to the Faculties of Education in Finnish universities. All teachers in Finland need a Master's degree to qualify for a permanent teaching job.

Sustainable leadership. Education sector development in Finland has been based on the continuous adjustment of schooling to the changing needs of children, families, and society. Nevertheless, the basic values and the main vision of education as a public service have remained unchanged since the 1960s. Governments from left to right have respected education as the key public service for all citizens and relied on the belief that only a highly and widely educated nation will be successful in world markets, especially in increasingly competitive Europe. As a consequence, sustainable political and educational leadership has enabled schools and teachers to concentrate on teaching and learning rather than adapting to new external changes and reforms.

Recognition and appreciation of existing innovations. During the last 30 years, the culture of innovation has taken root in the education system. The intensity and diversity of these innovations expanded in the 1990s, when central control was abolished and municipalities and schools received almost full autonomy in developing the daily delivery of education services. Throughout the four decades of education sector development the existence and value of good ideas and practices in schools have been recognized and respected by education leaders. There has been a healthy balance between externally delivered reforms and internally created innovations as sources of renewing the education system in Finland.

Flexible accountability, i.e. focus on deep learning, not testing. Finland has not followed the Anglo-Saxon accountability movement in education that believes in making schools and teachers accountable for learning results. Traditionally, evaluation of student outcomes has been the task of each teacher and school in Finland. The only standardized high-stake assessment is the Matriculation Examination at the end of upper-secondary school before students enroll in tertiary education. Prior to this Matriculation Examination, no external national tests or exams are required. This has helped both students and teachers to focus on learning in a fear-free environment. At the same time, creativity and risk-taking have also become common features in Finnish schools.

The culture of trust. The Finnish education system was centralized when the great reforms in the 1970s were introduced and rolled out nationwide. Schools were strictly regulated by the central agencies and a dense network of rules and orders regulated the daily work of teachers. The gradual shift toward trusting schools and teachers began in the 1980s, when the major phases of the initial reform agenda were completely implemented and consolidated in the education system. In the early 1990s, the era of a trust-based culture formally began in Finland. The culture of trust basically means that the system, that is, the Ministry of Education and the National Board of Education, believes that teachers together with principals, parents, and their communities know how to provide the best possible education for their children and youth.

But Finland is not without serious challenges. Finland's population is aging rapidly. As the number of school-age children declines and migration from rural parts of the country continue to bring more families to the cities, rural schools are gradually losing enrollment. Urbanization and an aging population confront the education system with a new set of challenges. Recently, many suburban schools in Finland have experienced increasing social and

behavioral problems as more pupils live in broken homes, engage in drugs and alcohol at a younger age, and spend more time with computers, video games, and television. Schools in Finland must now compete with media and entertainment and work hard to offer youth more attractive activities than they find in the streets. Sustaining the genuine interest of pupils in learning is the premier goal for education development in the future.

Fact Sheet: Education in Finland

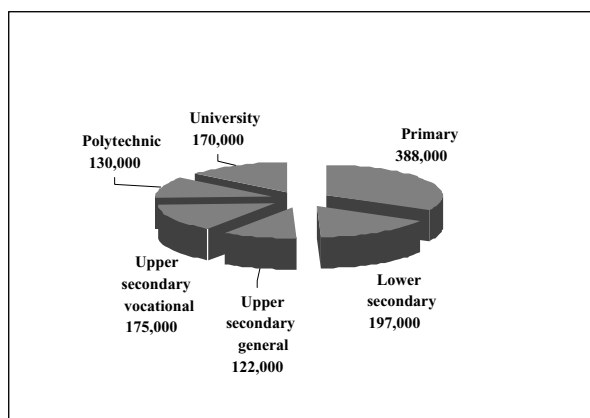
Some international benchmarking

- Total number of lessons in comprehensive school (grades 1–9) 100 hours lower than OECD average
- Share of upper-secondary graduates 90% (OECD 82%)
- Schooling expectation of males 18.5 years (OECD 16.6), females 20 years (OECD 7.2)
- Tertiary education (Type A) net entry rate 73% (OECD 53%)
- Participation in adult education 57% (one of the highest in the OECD countries)
- WHO: Finnish pupils have the least homework and feel uncomfortable in schools (WHO 2004)
- Teachers' salaries at the OECD average level (about euro 35,000 per year at mid-career)
- Pupil/teacher ratio 16:1 (Korea 31:1, Britain 20:1, Italy, Denmark, Hungary 11:1)
- 38 % of teachers over 50 years old (32%)
- Average class size (grades 7–9) 19.9 (OECD average 23.6)
- 1 computer per 8 students (OECD average 1:13)
- GDP share of education 5.8% (OECD 5.9%, Korea 8.2%, Denmark 7.1%)
- The share of private expenditures on educational institutions 2.2% (OECD 11.6%)
- Top ranking in the OECD PISA 2000 and 2003

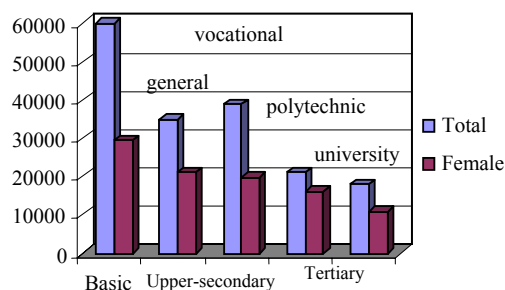
Size of the education system

- Population of the country: 5,200,000
- The average age cohort of school-aged children: 60,000

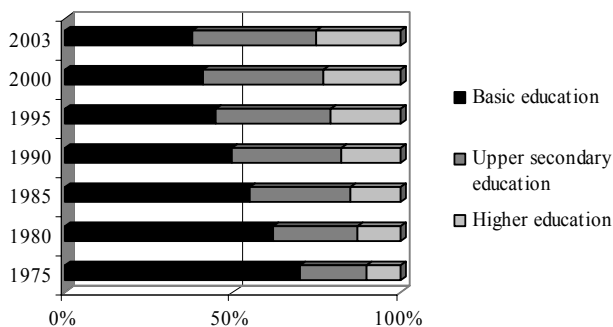
Number of students (2004)



Number of graduates (2003)



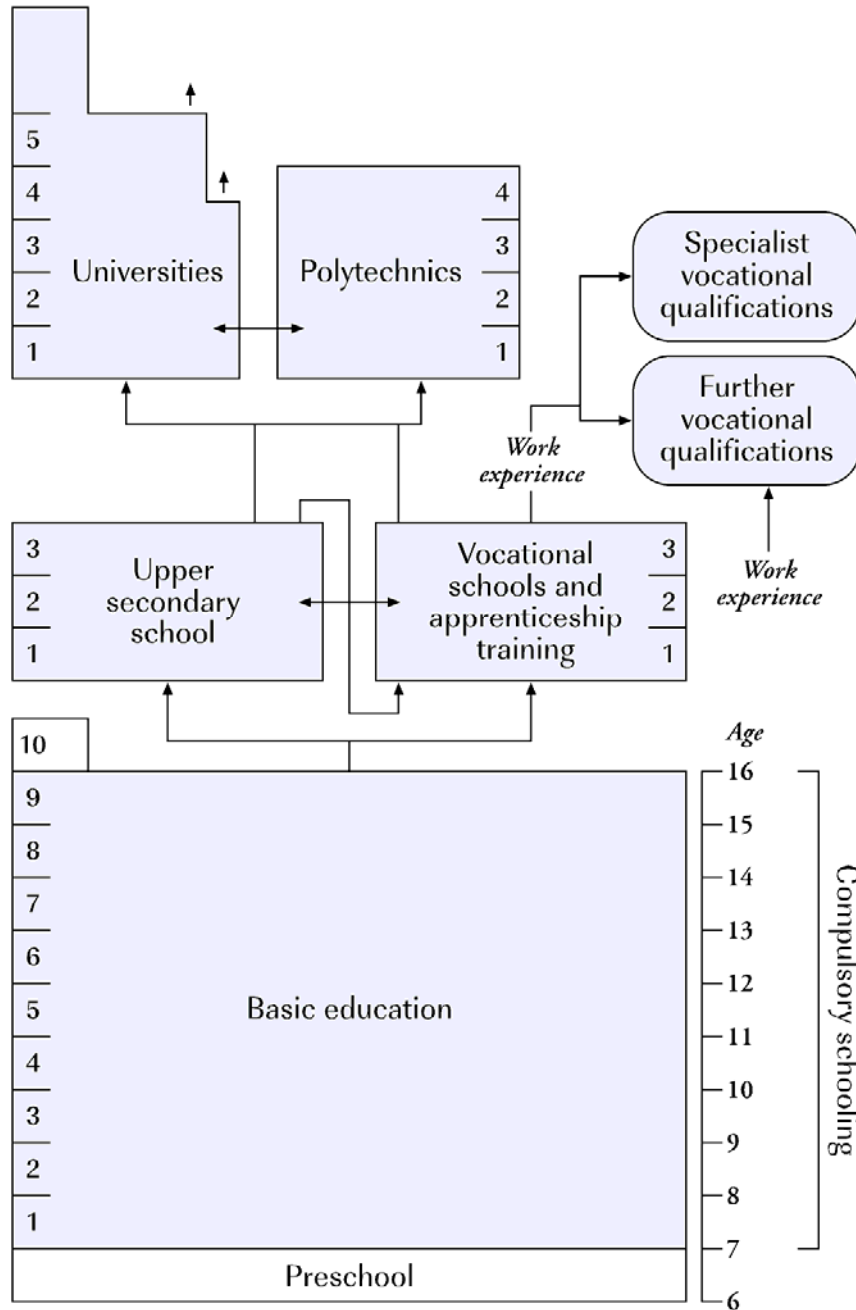
Education level of the population (% of over 15-year olds)



Number of schools (2003)

Basic schools	3,500
Special basic schools	220
Upper-secondary general schools	470
Upper-secondary vocational schools	190
Polytechnics	29
Universities	20
TOTAL	4,429

The Finnish education system



PART I: COMPREHENSIVE SCHOOL REFORM

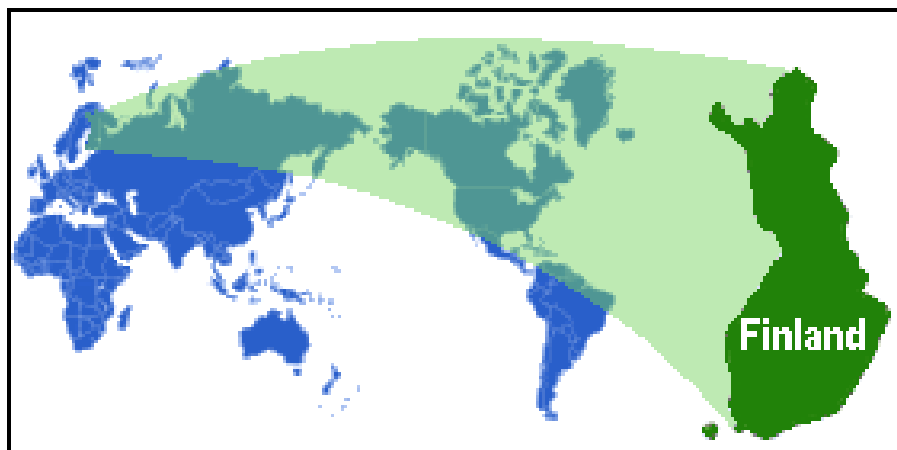
1. Short Introduction to the History and Today

The purpose of this book is not to analyze the current education system in Finland. Readers who wish to explore this topic in greater depth are invited to visit the Ministry of Education's Web site (www.minedu.fi) or the National Board of Education (www.oph.fi). International comparisons and other detailed information can be found on the European Union's education database www.eurydice.org/Eurybase/frameset_eurybase.htm/. To appreciate the policy developments and reform principles of the past four decades, however, it is first necessary to know something about Finland's history and how its education system works today.

1.1 Political and historical context

Finland is a sparsely populated parliamentary democracy in the northernmost part of Europe whose 1,269 kilometer border with Russia forms the European Union's eastern edge. Ten percent of the country's 338,000 square kilometers is water and 69 percent is forest. The climate is marked by bitter winters and mild summers.

Figure 1.1 Finland in the world



Finland's widely scattered population poses enormous challenges in organizing and delivering public services, particularly education and health. While two-thirds of its 5.2 million people live in urban areas, 1 million just in the capital area around Helsinki, Finland's overall density of 17 inhabitants per square kilometer is among the lowest in the world. The most northern region, Lapland, covers one-third of the country with only 4 percent of the population.

Finland was part of Sweden until 1809, when the country was handed over to Russia and became a Grand Duchy under the emperor, or czar. Both countries continue to influence Finnish cultural and everyday life. Upon gaining independence in 1917, Finland fell into a bloody civil war. Two years later, the country adopted a constitution and the parliamentary system of government. In 2000, the first female President of the Republic, Mrs. Tarja Halonen, was elected head of state. Today, the 200 elected members of Parliament represent eight parties. Current government consists of the Centre Party, the Social Democratic Party and the Swedish People Party.

Figure 1.2 Historic milestones in Finland

1155	First missionaries arrive in Finland from Sweden. Finland becomes part of the Swedish realm.
1809	Sweden surrenders Finland to Russia. The Czar declares Finland an autonomous Grand Duchy with himself as constitutional monarch represented by a governor general.
1906	Finland acquires its own national parliament, elected by equal and universal suffrage, a development that makes Finnish women the first in the world to be granted full national political rights. Women not only could vote, but stand for election to the national Parliament.
1917	Finland declares independence from Russia on December 6.
1919	The constitution is adopted and Finland becomes a republic with a president as head of state.
1921	Laws on freedom of religion, compulsory education, and military service are enacted.
1939–40	The Soviet Union attacks Finland and the Winter War ensues.
1941–44	Fighting between Finnish and Soviet forces resumes in the Continuation War. Some territory is ceded to the Soviet Union but Finland is never occupied and preserves its independence and sovereignty.
1955	Finland joins the United Nations and, in 1956, the Nordic Council.
1995	Finland becomes a member of the European Union (EU).
1999	Finland backs European monetary union.
2002	Banknotes and coins of the EU's single currency, the euro, enter circulation.

Finland has a long tradition of local governance. Municipalities, on average around 12,000 people, can levy taxes. Tax rates vary from 16 percent to 20 percent of salaries, with the average hovering around 18.3 percent. Municipalities also take care of most public services, including compulsory education. (Universities are all owned and run by the state.)

Finland's robust economy rivals that of many larger nations. In 2004 per capita GDP was 27,400 USD, and Finland has been ranked as the world's most competitive country in three of the four surveys done this decade. Exports—mainly electronic and technical goods, chemical products and timber—generated 49 billion euros in 2004, or roughly 26 percent of GDP. The

high-tech sector offers one clue as to how quickly the economy has shifted. Since 1968, the electro-technical industry's share of exports has grown from a 1 percent sliver to 55 percent in 2004.

Figure 1.3 Share of gross domestic product (%) by industry, 1995–2004

	1995	1998	2001	2004
Agriculture, forestry, hunting, and fishing	4.6	3.7	3.6	3.2
Industry	29.0	28.8	27.2	25.5
Construction	4.6	5.5	5.8	5.4
Trade	10.2	10.8	10.3	10.7
Hotels and restaurants	1.6	1.5	1.5	1.4
Transport, storage, and communications	9.8	10.2	10.8	11.1
Financial intermediation	4.0	3.6	3.9	3.2
Real estate and business activities	15.6	16.4	17.7	18.8
Administration, compulsory social security	5.5	5.1	5.0	5.2
Education	5.4	5.0	4.91	}15.5
Health and social work	8.7	8.1	8.1	
Other services	0.8	1.1	1.2	
Gross domestic product at basic prices	100	100	100	100
Primary production	4.7	3.6	3.6	3.2
Secondary production	33.6	34.3	33.0	30.9
Services (other industries)	64.7	64.5	66.1	68.2
- general government	20.3	18.6	17.9	..
- private	44.4	45.9	48.2	..
Financial intermediation services indirectly measured	-3.0	-2.5	-2.6	-2.3

1) This statistical approach differs from the one used by the OECD in measuring education's share of GDP.
Source: Web-sites of the Statistics Finland.

Several factors have contributed to Finland's economic prowess. The country provides a welcoming environment for large international companies. Finland also offers well-trained and competent employees and an economic policy that is both transparent and predictable. The justice system is impeccable, and Finnish society is remarkably free of corruption.

One of the key drivers of Finland's success, however, is a uniformly high-quality education system which helped speed the country's social and economic internationalization in

the 1990s. Currently, Finland ranks 19th in the world in the percentage of GDP invested in education, and second in research.

1.2 Comprehensive education

A central objective of Finnish policy is to provide all citizens with equal opportunities to receive a high-quality education, regardless of age, domicile, economic situation, gender or mother tongue. Thus, all children from pre-primary school onward attend free of charge. The central government and local municipalities not only cover the cost of tuition, but welfare services and school meals as well—even at private schools. Non-profit private schools, which number in the dozens, must follow the same legislative requirements and curricular directives as municipal schools, and cannot collect fees or other forms of payment from parents. The public sector also pays for learning materials and text books for students up to the upper-secondary level. Travel to and from basic school is arranged by the education provider.

Figure 1.4 Education in Finland

EDUCATION IN FINLAND
<ul style="list-style-type: none">• Optional pre-school begins at age 6• Compulsory comprehensive school: ages 7–16• Upper-secondary school or vocational school: ages 16–18• Pupils in Finland, ages 7–16, spend less time in school on average Compared to the peers in many other countries• Publicly financed higher education places for 65% of age cohort• Second highest public spending on higher education

While many countries share these objectives, Finland’s education system differs markedly in several major respects. To begin with, Finnish pupils start their compulsory education later, typically in August of the year they turn 7, and spend fewer hours in school than do their peers in other developed nations. Until age 6, children can attend daycare centers (kindergartens) or smaller family daycare groups in private homes, all of which charge reasonable fees according to parental income. Since 2001, all six-year-olds have had the right to a free pre-primary education, and 98 percent of them now participate. Local authorities can decide whether to provide this education in schools. Roughly 1 percent of six-year-olds start school a year early; in that case, parents must obtain a certificate proving the child's readiness to attend.

Finland's unified system, which does not distinguish between "lower" and "upper" levels or grades, also differs from the norm in other nations. The Basic Education Act did away with such distinction in 1999. Today's basic or "comprehensive" school lasts nine years. For the first six, instruction usually is given by the class teacher, after that by the subject teacher. Guidance counseling, considered key to boosting achievement and lowering dropout rates, gets integrated into regular instruction during the first six years of basic education. Municipalities typically assign pupils to a school near home, though parents are free, within certain limits, to choose the comprehensive school of their preference.

Municipalities, school administrators, and teachers enjoy an enviable degree of autonomy. They follow the same calendar (the school year lasts 190 days, from mid-August to early June, with schools open five days a week) and must meet certain minimums. But the National Board of Education does not dictate lesson plans or even require standardized tests. While its National Core Framework Curriculum includes guidelines for teaching arrangements, learning goals and assessment criteria, schools and municipalities are free to plan their own curriculums to reflect local concerns. Teachers choose their own instructional methods, select their own textbooks, create their own assessments based on common learning goals—and report each student's progress to both parents and the authorities.

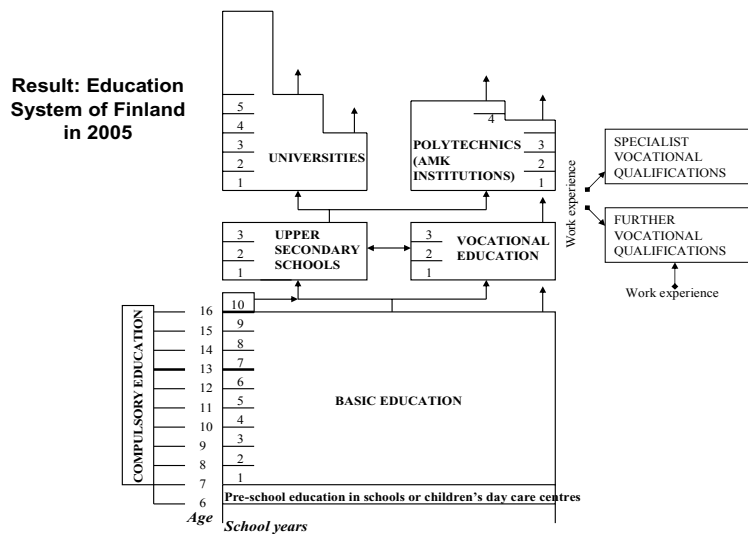
There are no national regulations on class size, nor is there a final examination or state-mandated test that students must take in basic school. The minimum number of lessons per week can vary from 19 to 30 depending on the grade and on the number of optional subjects. While classes normally contain pupils of the same age, many small schools teach mixed-age groups.

Finland has two official languages, Finnish and Swedish, and 5 percent of students attend schools in which the language of instruction is Swedish. Other educational institutions provide part of their lessons in a foreign language, mostly in English. Municipalities are required to provide education in Sámi in those regions of Lapland where that language is spoken, and care is also taken to secure educational opportunities for the Roma people and other minorities as well as for persons using sign language.

After finishing their nine years of basic education, students can continue on to either general upper-secondary or to vocational upper-secondary education. Selection often depends on their past performance and aptitude. Or, students can leave school forever, though few do. Approximately 54 percent enroll immediately in general upper-secondary education and another

37 percent opt for the vocational track. Students who complete either route become eligible for university studies. Approximately 2 percent of compulsory school leavers enroll in 10th grade of comprehensive school to prolong their entrance to secondary education and to enhance related basic knowledge and skills.

Figure 1.5 The Finnish education system



- 1) An additional 10th form in basic school is voluntary, giving pupils an opportunity to improve their grades and clarify their career plans.
- 2) Vocational upper-secondary education and training takes place in vocational schools (including at least six months of on-the-job learning) or in the form of apprenticeships. Adults can obtain vocational upper-secondary qualifications also by passing competence tests.
- 3) The Ministry of Education has granted permission to a number of polytechnics for post-graduate degree pilot programs for 2002-2005. This new level of higher education was formalized in 2005.

Finnish upper-secondary schools also diverge from their counterparts in, say, the United Kingdom or the United States. Students determine their own learning plans and pace, choosing courses from the school's offerings, which can include vocational studies. Because the syllabus is module-based, subjects are divided into courses taught over five to six terms or periods during the year. Students move flexibly in groups that vary by the number of participants, and they may have different teachers even in the same subject. Instead of receiving a final year-end grade, students are assessed upon the conclusion of each term. Indeed, tests and grades are surprisingly absent in Finnish upper-secondary general schools. After completing all their required courses, students can sit for the National Matriculation Examination. But that is their only major

assessment. The rationale behind this “non-graded school” approach is to encourage students to become responsible, make their own decisions, and learn to plan their own life.

The notion seems to work. More than 60 percent of today’s young generation is enrolled in Finland’s 20 universities and 29 polytechnics.

1.3 Matriculation examination

The Finnish education system has two upper-secondary tracks: general and vocational (see figure 1.5). Content varies between tracks, as Annexes 3–5 outline in greater detail. Students who have passed the required courses in upper-secondary general school are eligible to take the National Matriculation Examination. The test is organized by the Matriculation Examination Board and administered at the same time in all schools nationwide. There is no national examination for students graduating from upper-secondary vocational schools. Instead, vocational schools assess the form and content of certification examinations. Students who successfully complete either track can apply to institutions of higher education, namely polytechnics or universities. However, vocational-school graduates make up a tiny share of total enrollment in tertiary education.

Finland’s Matriculation Examination first debuted in 1852, as the University of Helsinki’s entrance test. Among its requirements: Students had to show sufficient evidence of general academic knowledge and be proficient in Latin. Nowadays, the purpose of the examination is to discover whether students have assimilated the knowledge and skills the curriculum requires, as well as whether they have reached an adequate level of maturity in line with the goals of upper-secondary general school. Students take tests in at least four subjects. Passing the Matriculation Examination, which is given only in upper-secondary general schools, entitles candidates to continue their studies at tertiary-level institutions.

The Matriculation Examination Board is responsible for administering the examination, for preparing the tests and for grading the answer sheets. The Ministry of Education nominates the chairman of the Board and its members (approximately 40) after consultation and recommendations from universities and the National Board of Education. The members represent the various subjects covered on the Matriculation Examination. About 330 associate members assist the Board in preparing and marking the tests. Technical arrangements, such as printing and distribution of the examinations, are taken care of by the Secretariat, which has 22 employees.

The Matriculation Examination is held twice a year, in spring and in autumn, in all Finnish upper-secondary general schools. A candidate must complete any one exam (e.g. mathematics) within three consecutive examination periods, though it also can be completed in one period. The examination consists of at least four subject areas. All candidates must take the Mother Tongue test; they then may choose three other exams from the following four domains: Second Domestic Language (Finnish or Swedish), Foreign Language, Mathematics, and General Studies (consisting of social and natural sciences). The candidate may also include exams in one or more optional subjects.

Some exams have two different attainment levels, and candidates may choose which to sit for, regardless of their course of study in upper-secondary school. Mathematics and Foreign Languages offer the advanced course and the ordinary course, while the Second Domestic Language has advanced and intermediate levels. The candidate must pass an exam based on the advanced course in at least one elective test. Candidates who have passed an exam may try to improve their score one time, except for the General Studies test, which can be taken twice more. A student who has passed the Matriculation Examination can supplement those scores by taking extra exams in subjects that were not included previously.

A candidate receives a certificate after successfully passing all of the compulsory tests. The Matriculation Examination Certificate shows the compulsory and the optional exams passed, and their levels and grades on a seven-point scale. The grades and corresponding points are as follows: *laudatur* (L) 7, *eximia cum laude approbatur* (E) 6, *magna cum laude approbatur* (M) 5, *cum laude approbatur* (C) 4, *lubenter approbatur* (B) 3, *approbatur* (A) 2, *improbatur* (I) 0.

Instead of a national examination, vocational students take a school-level assessment of learning outcomes and skills. The principle behind the assessment is to develop positive self-image and growth in students with different kinds of competencies. Students are gauged according their own self-assessments as well as in interviews with their teachers. In addition, their on-the-job training instructors participate in workplace assessments. Performance is graded from 1 (satisfactory) to 5 (excellent). A score of 4 or 3 is considered good, while 2 rates as satisfactory. In the absence of a national vocational-education examination, the National Board of Education issues norms and recommendations to ensure equality in school-based performance assessments.

A current topic of debate in vocational education is how to assure the quality of

certification from school to school. Parliament recently passed an act on this issue. Certification now will include both the teachers' assessment and a demonstration of skills to prove that a student has achieved the vocational proficiency set out in the curriculum. These skills demonstrations are to take place, wherever possible, at work sites, mostly in conjunction with periods of on-the-job learning. Representatives of employers and employees are to take part in assessment. Depending on the program, students can expect to undergo from four to ten demonstrations during the course of their studies.

1.4 The phases of education reform

The following chart depicts the timing of the most important decisions and phases in Finland's education reforms. While many other factors and events helped shape the debate, in the interest of space, this report will concentrate only these most pivotal points.

In 1968 Finland embarked on a top-to-bottom reform of both primary and secondary education that has become a continuous—and, since the successful transformation of basic education in the 1970s, accelerating—process. For two decades, the system was centrally steered and managed. A push to decentralize emerged in the late 1980s and intensified over the following decade. At first, the reforms were politically driven. After 1985, however, experts and professionals replaced politicians as the main architects of reform, though the government and Parliament still decide all basic matters concerning the education sector.

Finland's flourishing economy undoubtedly contributed to the education system's smooth transition. No studies confirm the potentially positive correlation between national economic development and increasing education levels. However, it is interesting to examine Finland's economic growth against a timeline of educational reforms. It might be unjustified to suggest that education reforms helped propel economic growth, yet, the interactions are intriguing.

Figure 1.6 Change in gross national product (%) 1953–1992

	1953–61	1961–73	1973–79	1979–88	1988–92
Finland	5.5	4.7	2.3	3.5	– 1.5
OECD	4.9	4.7	2.4	2	2.3

Figure 1.7 Evolution of the Finnish education system since 1960s

Decade	1960	1970	1980	1990	2000
System		Municipal education system 1972–78 Provincial inspectorates transformed to planning units 1972–85	Report on education to the Parliament 1989 Unified education financing system 1986	Central administration reform 1991 Financing reform 1993 New Law on Education 1999	Education Evaluation Policy 1999 Decentralization of education 1991–
Comprehensive school	Parliamentary Decision 1963 of new comprehensive school Act on Basic Education reform 1968	Implementation begins 1972 New Basic School Curriculum Framework 1970	Tracking of pupils abolished 1985 New National Curriculum Framework 1985	Unified basic school (grades 1–9) 1999 New National Curriculum Framework 1994	New National Curriculum Framework 2004
Upper-secondary school	National Board of Vocational Education established 1968 Policy decision on vocational education reform 1973	Expanding secondary education 1975–90	Implementation of vocational education reform 1980–90 New National Curriculum Framework 1985	State vocational schools to municipalities 1995–99 New National Curriculum Framework 1994	New National Curriculum Framework 2004
Decade	1960	1970	1980	1990	2000

The first cycle (1953–1961) represents a time of rapid industrialization in Finland. The next phase (1961–1973) saw much structural change; people moved from the countryside to urban areas and to neighboring Sweden as well in search of higher wages and better living standards. As demand for better-educated workers increased, so did provisions for grammar schools. During those years, the primary and lower secondary education system had a parallel structure. The third cycle (1973–1979) witnessed the extension of public welfare services and the creation of new ones, especially in the healthcare and social sectors. Those years also bracketed basic (compulsory) school reform and the expansion of vocational education and training. It is arguable whether the relatively strong growth of the Finnish economy between 1979 and 1988 can be explained by developments in the education system and the heightened educational levels of the general population, but at least the timing corresponds.

The Finnish economy plunged into a depression in 1990. The downturn’s impact on the education sector will be addressed in later chapters, but in essence, a lot of savings had to be wrung from the education system, resulting in a 15–20 percent reduction in the average per pupil expenditure. At the same time, poor job prospects pushed an increasing number of students to pursue upper-secondary and higher education, so that total public spending on education remained almost unchanged.

The crisis, which helped fuel liberalization of the national economy, also propelled changes in national education policy and the education system. Between 1994 and 1999, as the national economy gradually recovered and surged to a 4 percent average growth rate, Finland introduced a new form of higher education: the polytechnics. The first four years of this century witnessed a steady 3 percent average growth rate, during which upper-secondary education and training was unified to a three-year program of study.

The following tables show Finland’s structural and demographic shifts over the past six decades.

Figure 1.8 Distribution of population between rural and urban areas

Year	Urban (%)	Rural (%)	Total (1,000s)
1940	26.8	73.2	3.695
1950	32.3	67.7	4.03
1960	38.4	61.6	4.446
1970	50.9	49.1	4.598
1980	59.8	40.2	4.788
1990	61.6	38.4	4.999
1995	64.6	35.4	5.117

Figure 1.9 Population trends (in thousands)

Year	0 -14 years of age	15 - 64 years of age	65 and over	Total
1950	1208.2	2553.2	266.5	4029.8
1960	1339	2775.8	327.5	4446.2
1970	1118.6	3052.2	427.5	4598.3
1980	965.2	3245.2	577.4	4787.8
1990	964.2	3361.3	673	4998.5
1997	961.3	3433.5	752.5	5147.3

Figure 1.10 Labor force (in thousands) and share of total population

Year	Total population	Labor force	Percent of total population
1940	3696	2017.4	55
1950	4029.8	1984.3	49
1960	4446.2	2033.3	46
1970	4598.3	2118.3	46
1980	4787.8	2220.1	46
1990	4998.5	2332.2	47
1995	5116.8	1932.7	38

Source: Statistical Yearbook of Finland, 1996 and 1998.

1.5 The situation after World War II

The seeds of Finland's education reform were planted in the wake of World War II. The war ended for Finland in 1944 when a truce was struck with the Soviet Union. However, war operations in Finland continued until the following spring, when the last German troops were driven out as required in the truce agreement.

The conditions of peace were strict. Finland had to cede 12 percent of its territory to the Soviet Union. Finland also had to pay war reparations, which represented approximately 7 percent of its GDP. A military base near the capital had to be leased to the Soviet Union and was handed back to Finland in 1956. Still, Finland had fought for its existence and survived, preserving its parliament and social system based on Western democracy—as the 1947 Peace Treaty of Paris validated.

A period of political reorientation followed, during which Finland had to build trusting relations with the Soviet Union. Ironically, the hardship of having to pay reparations spurred radical diversification of the economy and accelerated the country's industrialization. Traditionally, the wood-processing industry had dominated the economy. Soon after the war, however, the metal industry soon became the dominant driver.

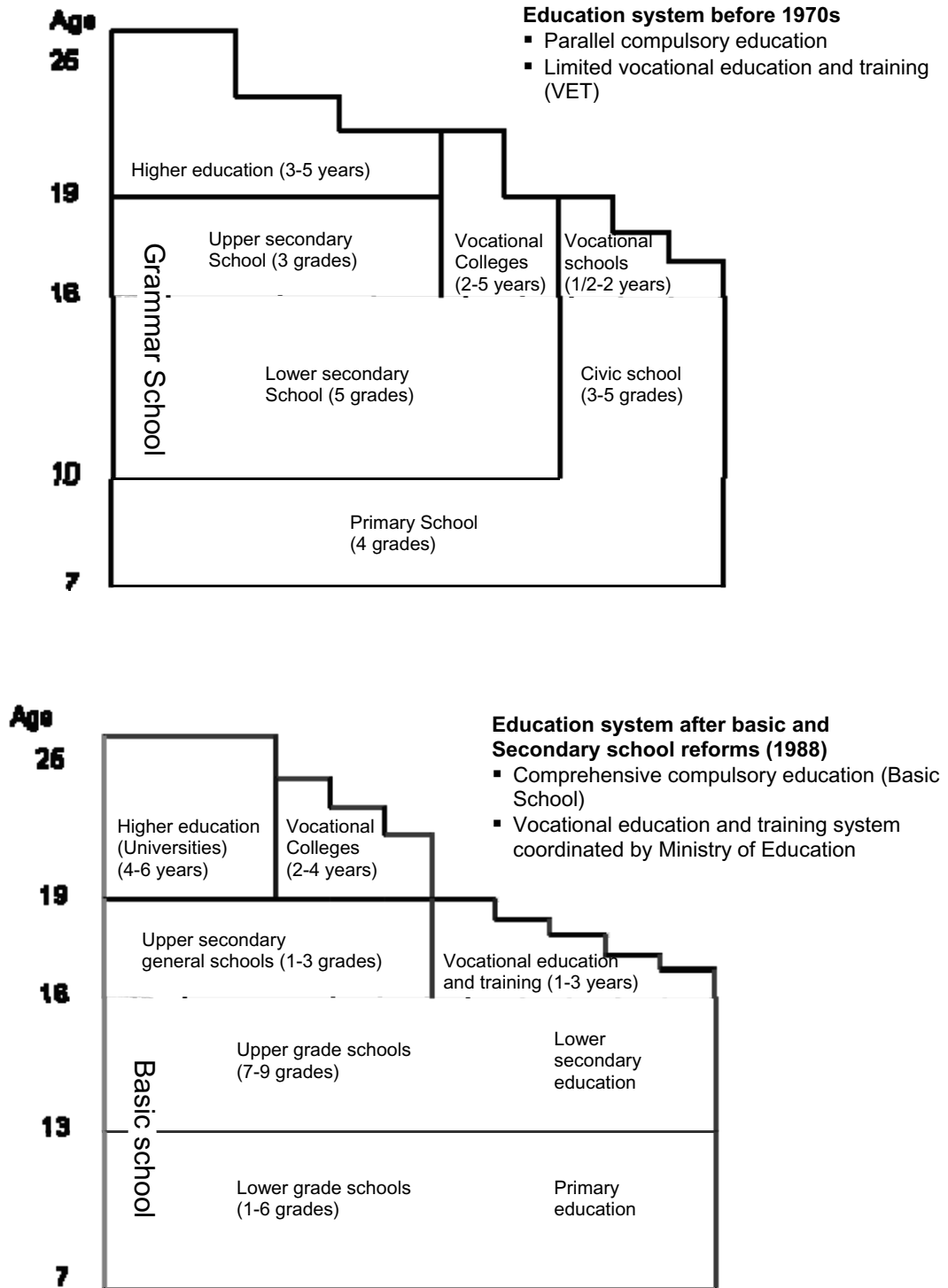
At the same time, massive land redistribution strengthened the country's traditional agricultural base. Some 10 percent of the population—roughly 428,000 people—lived in the ceded territory and had to be resettled. In addition, veterans, disabled soldiers, and the families of fallen troops had been promised property. The result was the vast colonization of approximately 30,000 km² of newly distributed land, which resulted in the establishment of about 100,000 new farms. The majority of these farms were small properties cultivated by the owners. This turned out to be a blessing in disguise, since Finland lacked the financial and intellectual resources to modernize its economy rapidly enough to employ all those who needed jobs.

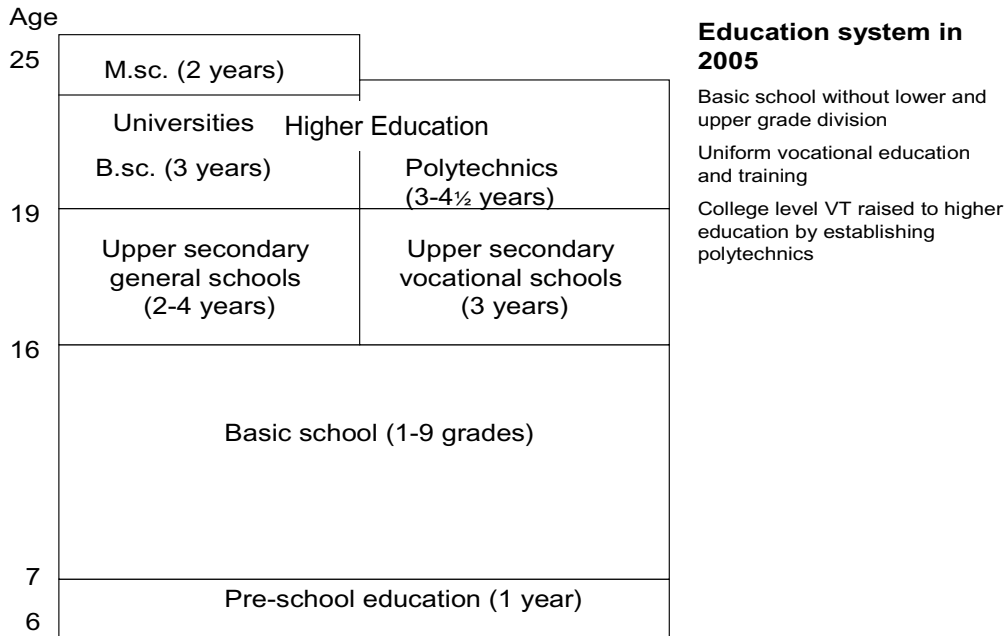
Social policy decisions in the 1940s and 1950s underscored the economic importance of family farms, and the general image of Finland remained quite agrarian despite rapid industrialization and agriculture's shrinking contribution to the GDP. The Finnish economic structure in 1950 corresponded quite closely to Sweden of 1910. Those traditional values have endured: they include such cultural hallmarks as a law-abiding citizenry, trust in authorities, and commitment to one's social group, awareness of one's social status and position, and patriotic spirit.

Finns have believed in the power of education for centuries. The same spirit surfaced after World War II. The country launched a massive school-building program as well as a complete overhaul of curricula. Though the war had decimated the ranks of teachers, solutions were devised and the number of pupils attending grammar school increased considerably. Still, the educational structures remained unchanged. At the end of the 1940s, however, a government committee took the first step toward reform by outlining a new, three-tiered hierarchy for schools. The elementary school would turn out workers for the labor force. The lower grade (lower secondary) of grammar school supplied middle managers, while those who attended the upper-secondary level of grammar school were expected to assume leading positions in society.

Despite discussions about the need for reform, the existing education system of elementary school with continuation to civic school (see Annex 1 for definition), plus a limited number of vocational institutions, continued to satisfy society's needs. Schools helped introduce youths to traditional values, supplied the labor force with trainable, literate workers, and attended to pupil selection in a satisfactory manner. The commencement of the reform required structural and social change, which, after a delay, Finland embraced all the more fiercely.

Figure 1.11 The three phases in the restructuring the Finnish education system





Education and society are closely interrelated, though it is impossible to define the exact impact of reforms on the general development of the nation. Some political observers have claimed that Finland has been lucky because the tough decision to reform the education system resonated so favorably with the social and economic development of the nation.

The education system's three stages of evolution mirror the country's economic development as follows (See Routti & Ylä-Anttila, 2006):

1. Transition from a northern agricultural country to an industrialized society.
2. A Nordic welfare society with growing service sector and higher technological level.
3. A high-tech internationalized country.

As Olavi Riihinen, a Finnish professor of political science, noted in 1990:

The 1960s can be seen as a decade in which the society gave up its old values and its traditional institutions began to change. Finland conserved its old established structures and opinions for a long time, and when the time for the decisive change came, its speed confused and surprised the people. Already the 1950s were a time of a rapid change in the economic structure, but especially the 1960s have been characterized as record-breaking by international comparisons.

But what really happened in Finland back then?

First of all, Finland joined the league of industrialized countries that made economic growth their primary goal. This was stated for the first time in a report by the Finance Committee, which operated from 1959 to 1960. The ideological authority behind this notion in Finland was Professor Pekka Kuusi with his book “Social Policy of the 1960s” (Kuusi, 1961). Social expenditures had traditionally been considered a factor that decreased productivity. But Kuusi believed that they increased consumption, and thus demand for goods, services, and social activity. Kuusi emphasized that realizing any new social policy also required rational community planning. Belief in the power of planning found increasing favor with politicians as well as economic policymakers and leaders. At the same time, Finnish researchers had been tracking the international discussion over the theories of human growth and “human capital,” which argue that investment in people is the best investment. Education, some researchers believed, could explain as much as one quarter of Finland’s economic growth.

Before long, the agricultural economy could no longer absorb the post-war baby boom generation, and the era of artificially maintained small farming drew to a close. Huge numbers of Finns migrated from the countryside or left the country to seek work, primarily in Sweden. Net emigration to Sweden was 220,000 people. A substantial share of the 600,000 people relieved of their farms transferred straight to the service sector—a development increasingly driven by advanced public sector services associated with the construction of Finland’s welfare state. In contrast, the country’s highly automated wood-processing industry and modern metal industry were able to employ only a relative handful.

Diminishing agricultural business opportunities also had other implications: Huge numbers of people started to move from the countryside to cities. There was a risk that Finland’s rural areas would become desolate, as housing projects sprang up near large cities to accommodate the migrants. The exodus added to public anxiety and general insecurity. Meanwhile, changes in the political arena promised to accelerate social and structural changes.

1.6 The political and economic context of education reform in the 1960s

The most significant change in the political field was increased support for left-wing parties, resulting in their majority in the 1966 parliamentary elections. The coalition consisted of Social Democrats, the biggest party in Parliament, and the Finnish People’s Democratic Party, which included the Communist Party and the Agrarian Party. This left-wing majority

government made education reform its primary goal, and set out to mold primary and lower secondary education into a comprehensive basic school for all children.

At that time, children were divided at the age of 11 or 12 into two educational tracks. Some went to the civic school, others to grammar school. Increase the length of basic or compulsory education to nine years, reformers argued, and the level of general education would rise for all graduates. The political motivation for the left was not only to increase social equity; many also believed that improving education would have a positive influence on the country's economic development. Neighboring Sweden, with its higher living standards and strong public services, offered an excellent model for Finland's new basic school—though its application had to be on a national scale.

In terms of education policy, the change in direction of the Agrarian Party (now the Centre Party) in the 1960s was just as important as the rise of the left. The youth wing concluded that the party could no longer survive with only the support of rural constituents, and saw educational policies becoming a major instrument in regional politics. The left-wing parties had traditionally emphasized the importance of social and economic equality. The Agrarian Party now injected the demand for regional equality into the political debate. A united front of workers and peasants began gaining momentum. Among its major goals: restructuring the education system. In 1966, the majority government, forged from a coalition of the Social Democrats, the Agrarian Party, and the Finnish People's Democratic Party, incorporated comprehensive school reform in its political agenda.

The 1960s also ushered in a period of strong growth for the trade union movement. Before then, only 18 percent of the labor force belonged to unions. By 1970, that share had jumped to 43 percent. Significantly, trade unions no longer focused exclusively on nominal wages, but also on demanding services in line with other Nordic welfare states. Soon, social rights, such as access to a good education and health services, ranked on par with basic political rights. Labor organizations became increasingly engaged in developing reforms and pushing legislation. Trade unions in particular saw the link between class boundaries and their children's educational opportunities, making workers among the top supporters of the leftist parties' restructuring goals. Indeed, as corporations grew more powerful in the ensuing decades, social-policy reform became an almost continuous process.

The deterioration of traditional conservative values first surfaced among academic teenagers and university students. The peace movement, which protested America's military involvement in Vietnam and pushed for nuclear disarmament, spotlighted the problems of developing countries and forged international solidarity. Birth control pills and changing social mores encouraged young Finns to experiment and take a more liberal attitude towards sexual freedom. Existing norms and good manners were deliberately broken, sometimes resulting in legal proceedings. As the old educated classes emphasized the importance of education and an individual's duties towards the nation, radical youths valued the individual and his or her right to self-expression.

The electronic media played a crucial role in shaping these changing world views and calling traditional social values into question. The number of televisions surged during the decade, from 100,000 sets in 1960 to over a million 10 years later. The media's importance became clear in 1965, when the new director of The Finnish Broadcasting Company (YLE) allowed public radio and TV to air harsh social criticism.

Although trade with the Soviet Union dominated Finland's foreign commerce, policymakers and legislators understood that economic growth required access to the West's lucrative markets and so pressed to expand trade relations. In 1961, Finland joined the European Free Trade Association (EFTA), opening new markets and creating new business rivals. The act sent a clear message: To be competitive, Finland had to substantially boost investments in education and research.

Again, Finland looked to Sweden—the pioneer and exemplar of the modern Nordic welfare state—for reform models. Intense immigration and the increased mobility of the Finnish people made it possible to compare basic services in the two countries, prompting politicians and officials to increase cooperation with their Swedish colleagues. The fruits of that collaboration could be seen most clearly in the education-policy arena, with the distinctly Swedish influence on the structure of Finland's new comprehensive schools as well as on the teaching content.

The influence of restructuring and reform was profound and immediate. Eager to improve their children's economic and social opportunities, Finnish families turned to the education system. In 1955-56, the nation's grammar schools enrolled approximately 34,000 pupils. Five years later, enrollment had swelled to 215,000 and continued to soar, hitting 270,000 in 1965 and 324,000 in 1970. Finland's old system could barely hold together as parents demanded an

improved and more comprehensive basic education for their children in the hope of securing them better lives.

Such pressure brought a new theme to the education-policy debate: the individual's potential for growth. Young researchers argued that people's abilities and intelligence always rose to the level required by society, and that education systems merely reflected those limits or needs. An agricultural country has different educational needs than a high-tech industrial powerhouse.

Education reform thus came to play a more central role in Finnish social policy and planning. The old structures, which served Finland's class-bound, farm-oriented society well for decades, could no longer meet the demands of a changing population and rapidly expanding industries. Along with better general education and higher level vocational training, Finland also needed a system that could deliver an equally rigorous education whether a student hailed from the sparsely populated countryside or a privileged urban neighborhood.

1.7 Early policy principles: length and justice

Legislators and educators rallied to craft a blueprint for reform. After much committee work, experiments, pilot programs, input from the elementary school teachers' union and above all, vast political support and consensus, the Finnish Parliament decided in 1963 to reform compulsory education using the comprehensive school model.

The education of preschoolers also entered the debate for the first time. Three trends helped force daycare onto the political agenda. First and foremost, women were surging into the workforce. Second, politicians, seeking ways to support demand for social equality pushed to adjoin preschools to primary education. Third, in discussing how to reform teacher education, policymakers had to take a stand on the training of daycare-center personnel as well.

If the pupils, educational objectives, and working culture of the planned comprehensive school were to produce better results than the old dual-track school system, teacher training also had to undergo reform. In 1964, Parliament enacted urgent measures to reorganize basic and continuing education so that teachers could meet the new needs of comprehensive schools, and the following years a committee was assigned to prepare and implement these reforms.

Along with approving changes in the compulsory education, Parliament also put Finland on the path to reform secondary education. In 1966, the government appointed a committee to examine the development of general and vocational upper-secondary schools according to the

principles of comprehensive school reform. Vocational education became a particularly active field. Several committees looked into developing specialized education and training programs in such disciplines as technology, economics, health care, home industries, and food production. UNESCO and OECD reports on the importance of continuing education sparked interest in establishing programs for adult learners.

The push for reform produced the fastest results in higher education. In the spring of 1966, Parliament passed the Higher Education Development Act based on groundwork laid by a working committee assigned by then-President of the Republic, Urho Kekkonen. The law, which remained in place until 1981, enabled the rapid growth and regional expansion of Finland's higher education institution by incorporating the committee's suggestions for how universities could help build an internationally competitive economy. The resulting programs were also instrumental in building Finland into the high technology leader that it is today.

2. Reform Principles

2.1 The comprehensive school reform: the three-pronged approach

By the mid-1960s, it had become clear that Finland faced a fundamental re-engineering of its education system. Every child deserved a good basic education, and it was up to the government to provide it regardless of family income, social status, or place of residence. Delivering high quality educational services would support the intellectual and material development of sparsely populated areas. Moreover, the general level of education had to rise to support the nation's economic growth. This required not only better comprehensive schools, but high-level vocational education for all graduates. The third educational objective was to instill a sense of civics and patriotism by teaching youngsters about their national culture and heritage, and familiarizing them with the political system of a democratic state.

Because Finnish social structures were shifting so rapidly, any effort to reform education had to take place quickly. Since the whole educational field was in transition as well, the reforms had to span a wide front, with programs and progress carefully monitored and evaluated. The initial strategy to improve the structure, content, and quality of education might be called the three-pronged or "triple spearhead" approach. The three spearheads essentially aimed at revamping first the primary school, then the lower secondary grades of grammar school,

and at the same time tackling the teacher education system. Each effort required fast political decisions and an almost immediate commencement of operations.

At the same time, however, technology and the accelerating pace of change meant that the entire field of education was in constant flux. That meant reforming content and curriculum—not just teaching methods—and helping teachers acquire new skills and techniques. Indeed, perhaps the most important element of the reformers' three-pronged approach was in getting teacher “buy in” by building their commitment to change.

It would have been easy to tinker at the margins, crafting new in-service education and training for teachers. But Finland's policymakers understood that for comprehensive school reform to work, the entire teacher-education system had to change. It was to be a time-consuming process that would require cooperation with universities. The goal: transform teaching by raising the educational bar and requiring university-level training and a degree in the subject to be taught. The massive undertaking was seen as a valid investment in Finland's future, and indeed it helped secure the continuous improvement of education that continues to this day. The following sections discuss the progress of each spearhead effort and how the three interacted to produce Finland's current high-performing education system.

The Parliament required that comprehensive (basic) school reform should begin in remote and rural regions, which meant northern Finland. A clear majority voted in favor of this reform. Parliament also approved the 1968 School System Act. But preparations to implement these reforms raised a host of challenges. Four of the most important in terms of education policy and strategy will be discussed below.

- (1) How to get teachers to commit to reform?
- (2) How to get the support of increasingly powerful special interest groups?
- (3) How can drafting the new comprehensive school's curriculum succeed, and how will it be possible for it to unify Finland's century-old pedagogic tradition of dual-track, or parallel, school systems?
- (4) How to assure the reform's execution?

There were many nuts-and-bolts factors in executing the reform that raised suspicion and even fear among teachers. First of all, there was the question of the teachers' formal position when they switched to the new system. Would they maintain seniority and salary levels? Further complicating matters, teachers had different employers. Municipalities, the state, and private

associations all owned and operated elementary, civic, and grammar schools, and salaries and other terms of employment varied accordingly. Classroom teachers in elementary schools typically earned less than subject teachers in grammar or lower secondary schools, for example. There were two teacher unions divided along similar lines. The big sticking point: in combining elementary and lower secondary schools into one comprehensive school, which salary scale would apply and how would it affect future income?

Another fear, primarily of grammar school teachers, was that elected or politically appointed municipal education committees would lead to political impact in teacher recruitment. There was also concern about the pedagogical requirements of the nine-year comprehensive school, and whether every youngster could pass the upper grades of basic school. Grammar school teachers did not believe that all children could master the demanding syllabus of those upper grades. In addition, teachers worried that the reform's centralized planning and execution would stifle their traditional didactic freedom. Would teachers become mere public officials whose main function was to carry out instructions from above?

In retrospect, such fears seem overblown. But Finland was in the midst of a powerful—and unsettling—transition during the 1960s and 1970s. The old class society was collapsing. Traditional Finnish values of hearth, home, religion, and fatherland had come under assault, particularly by youth. Student and school organizations demanded democratization of the education system's internal management. Many teachers remained uncertain about just which values the new school system would embrace, and how they might affect instruction.

The starting point for those managing the reforms was gaining the support of teachers by tapping their expertise as professionals and reassuring their unions that change would not weaken employment security or salaries.

Early experiments with reform helped ease concerns and win the teachers' professional commitment. By 1965, some variation of the new comprehensive school system had spread to 25 municipalities. The teachers involved in these experimental programs had participated in developing the curriculum. That sent an important message to their colleagues: Teachers were strongly involved in creating the contents of the new school system and the relevance of their professional knowledge and experience was not only recognized by policymakers, but welcome.

Essential to gaining the teachers' professional commitment was the wide use of their expertise in laying the groundwork of reform. Teachers remained deeply involved in the

planning and development phase, even though the political and administrative guidance was strictly centralized. Another important factor was that most of the work fell to committees, which permitted greater collaboration between teachers and government officials. A good example of this is the Comprehensive School Curriculum Committee (1966–1970). Because the scope of the task was so enormous, dozens of teachers representing a host of different subjects took part in designing the new frameworks. As is often the case in education, disagreement among committee members on the number of optimum teaching hours for each subject compounded the difficulty of their task. Ultimately, however, the committee’s efforts were adopted as the foundation for the national curriculum.

The two teachers’ trade organizations, which still existed during the reform’s development, set a pair of crucial goals. First, teachers had to be able to switch to the new system as “old employees”—thus maintaining seniority and salaries. Second, teachers deserved higher compensation for the more demanding work and higher professional training the new comprehensive schools required. The goal was to establish a system in which teachers’ wages would not be prescribed by law but negotiated with employers.

The organizers achieved all these goals before comprehensive school reform even commenced. Shortly after the so-called transfer regulations shifting teachers from elementary, civic, and grammar schools to comprehensive schools were approved, the first collective bargaining contract was signed in January 1971. This helped convince teachers’ organizations to commit to reform, and the two unions soon started negotiating a merger.

Finland has been characterized as a “contract” society, a nation where important social policy decisions are accords between the Government and labor organizations. In education reform, the most important of these organizations were the Central Organization of Finnish Industry (STK) and the Central Organization of Finnish Trade Unions (SAK). One quarter of the members in the Confederation of Unions for Academic Professionals (AKAVA) were members of the teachers’ unions, which gave teachers a lot of influence. Local governments were represented in these negotiations by three central municipality organizations: one group for towns, a second for rural municipalities and the third for Swedish-speaking municipalities. It was sometimes said that even Parliament was left out of the real power loop when the government announced that certain legal prescriptions already had been agreed on in tripartite negotiations.

The influence of labor organizations strengthened toward the end of the 1960s, the crucial preparation phase of comprehensive school reform. A worldwide recession had enforced Finland to hunt for an economic stabilization policy that the government, trade unions and employers' organizations could all support. In March 1968, the first national income policy agreement was signed, strictly regulating wages, prices and rents. Thus, the new tripartite concept was born. At the same time, the trade unions got employers to agree to collect union dues and distribute them to unions. This created a solid financial foundation for the trade union movement and spurred the formation of a new teachers' union.

Tripartite policy came to education with the advent of comprehensive school reform. After the two teacher unions merged, almost every plan and decision concerning the new education system was negotiated between the Ministry of Education, often the Ministry of Finance as well, the new Teacher Union and the three municipalities' central organizations. Decisions concerning reform of the upper-secondary grades also involved the central labor organizations STK and SAK. The National School Council, in connection with the Ministry of Education, acted as a permanent negotiation body in which all parties were represented.

Corporations, which lobbied for employers and employees, also played a key role in developing comprehensive schools. All of these competing interests may have restricted some of the freedom to experiment. However, one could argue that perhaps the main reason behind the sustainability of Finland's school reform is the tripartite participation in education policies. By applying Finnish "contract" society rules to education policies, planners were able to build consensus, win support, and ultimately create a system that could change with changing times.

Even a stellar blueprint for reform can stall during implementation if social or economic conditions are not ripe. Finland was fortunate to have several key preconditions for success. Among the most important ones were:

- World War II's shared hardships and common experiences created unanimity and eased tensions between social classes and political parties. That helped spur the development of the welfare state.
- The simultaneous emphasis on economic growth and social equity enjoyed solid grounding in Keynesian doctrine and was backed up by economic and academic social theory. This scholarly support gave education reform credibility among politicians and ordinary people alike.

- The multi-party system fosters compromise and consensus-building. Parliament enacts laws by a simple majority, and throughout the reform period, a large majority voted in favor of the reform principles. In many countries, a two-party system often polarizes debates and splits public opinion between governing and opposing-party camps, making essential and sustainable reforms impossible. In Finland the differing political interests of the leading parties were combined to form the basis for reform.
- Involving all relevant stakeholders in the reform process is essential. There are always opposing opinions and attitudes on any reform proposal. By establishing committees where professionals and other stakeholders could hash out their differences, Finnish policymakers were able to win consensus and tap valuable and varied expertise. When the government appointed members to the reform committees, for instance, it took pains to select a balanced mix of people with different political ideologies, professions, experience, and areas of expertise—including scientists and teachers.
- Parliament launched the reform by issuing a School System Act that included all of the major elements of the new basic school system as well as the action plan for implementation, establishing the framework for future reform. Finland has a tradition of respect for the rule of law. The new legislation was originally prepared by the Ministry of Education in cooperation with the National Board of General Education, the central agency that would be responsible for its implementation.
- Finnish civil servants might be more pragmatic than they are in some other countries. They filled even the highest positions overseeing the reform's design and thus understood that they as bureaucrats would be responsible for the practical implementation of the planned changes and activities.
- Though governments used to last an average of 18 months between the mid-1960s and 1983, strong administrative structures at the central, regional, and local levels guaranteed the sustainability and consistency of the ongoing reform process. Since 1983, governments have lasted through the whole four-year electoral cycle, creating stability that has led to even more goal-oriented education policies.
- The restructuring of the education system made it possible for municipalities to raise the education level of their young people and to invest in educational institutions.

State subsidies for both investment in schools and operating expenses were high. Politicians at the national level also represented the regional and local interests of their electoral districts. Thus, they were inclined to support reforms in a way that would have a positive impact at the local level.

- Resistance to reform stemmed from the old administrative structures and people who had a vested interest in maintaining them. Thus, reorganization of school administration was an important prerequisite for building confidence in the feasibility of reform.

In addition, the role of the Ministry of Education was reinforced as the chief administrator of education policy and planning. By consolidating several agencies that oversaw vocational education into the National Board of Vocational Education, then putting that central office under the Ministry of Education, the foundation was laid for future reform of the upper-secondary grades. The National Board of General Education also underwent reorganization. At the same time, regional management of the education system was put in place.

Organization of the reform driver, the National Board of General Education (NBGE), followed the outline of the two-track or parallel school structure. Two months after Parliament issued the School System Act in 1968, a new act reconfigured the NBGE in preparation for comprehensive school reform. The new agency abolished the old borders between elementary and grammar schools, and replaced them with two new departments. The School Department generally oversaw school structure, network and planning for their rebirth as nine-year institutions, and the Education Department became responsible for educational content, curriculum, teaching methods, learning materials, textbook approval, pilot programs, research activities, and special education (see Annex 2). Later on in 1970s, teacher education moved to universities and the Ministry of Education assumed authority over teacher training.

Oversight and inspection duties, which had fallen directly under the NBBG, were merged into 11 provincial state offices. These later became Provincial Education Departments, a key link over the next two decades between policymakers and the teachers, administrators, and officials responsible for carrying out the reforms in local classrooms.

The organization of the Ministry of Education had been static and stable for two decades. Before the reforms, it had three main branches: the School Department, the General Department and the University and Science Department (see Annex 2). In 1974, the Ministry

was reconfigured to create new departments for the arts, sports, youth, and international affairs. A special Planning Secretariat also was established to strengthen the Ministry's analytical abilities.

All levels saw the ranks of planning and administrative staff swell, an enlargement that continued until the middle of the 1980s. The following list shows how decision-making was divided up among the various education governing agencies.

Figure 2.1 Distribution of authority within the education sector in 1972, 1980 and 2005

	1972	1980	2005
Time allocation in curriculum	NBGE	Cab	Cab
Curriculum	NBGE	NBGE	NBE/SB
Class-size	Cab	Cab	Mun
Establishing:			
Primary school	NBGE	Mun	Mun
Lower secondary school	NBGE	MoE	Mun
Upper-secondary school	NBGE	MoE	Mun
Vocational school	MoE	MoE	MoE
Hiring teachers	Mun/NBGE	Mun/NBGE/NBVE/MoE	Mun
Teacher qualification	Cab	Cab	Cab
Textbook control	NBGE	NBGE/NBVE	SB
State funding	NBGE	NBGE/NBVE	MoE
Budget allocations to schools	NBGE	NBGE/NBVE	Mun

Cab = Cabinet of Ministers
 MoE = Ministry of Education
 NBGE = National Board of General Education
 NBVE = National Board of Vocational Education
 NBE = National Board of Education
 Mun = Municipality
 SB = School or School Board

As in many other countries, the structures as well as the other main components in the national education system are decided by Parliament.

2.2 New curriculum: towards diversity and depth in learning

First and foremost, in Finland the curriculum is considered to be a pedagogical document that describes the teaching and learning goals as well as the subject syllabi. It therefore details the most important measures the school aims to take to achieve its goals. But the curriculum is also an important instrument of education policy, especially when the school system is undergoing profound structural reform.

Ultimately, it was the curriculum that broke Finland's century-old tradition of two paths of education, and the division of children into two ability—and often social—groups. The curriculum laid the professional foundation permitting cooperation among teachers who had received two different kinds of training and who had worked in two distinct work cultures. The curriculum also introduced students to the values of democracy, equality, and individual freedom. The quality of the curriculum determines whether or not the school system succeeds in its task of qualifying its pupils. Educational tracking solutions included in the curriculum can indicate if a school will function as an institution that supports equality or endorses the stamp of the selection system.

The daunting task of revising the curriculum began in the mid-1960s. The prevailing opinion of political critics and many teachers was that the nine-year, standardized compulsory education school was pedagogically too demanding. That is the rationale for requiring that at least at the upper grades, teaching would be divided into different levels of courses, thus preserving some of the old system's parallel track inside the comprehensive school. Another hurdle was the difficulty of combining the grammar school's theoretical and the civic school's practical educational content. A third problem had to do with the division of work inside the nine-year comprehensive school between grammar school teachers and their civic school colleagues. Finally, there was the question of what subjects and how much to teach—a topic that generated much lobbying on the part of various teachers' organizations and pressure groups.

As these minefields were well known, the work proceeded carefully. The process took five years (1965–1970) and at the time was the country's most massive curriculum undertaking ever. The groundwork included the cultural background and the influence of ongoing social change on the proposed reforms. Special attention was paid to children's talents and how children's distinctive characteristics affected the reform. Experts drafted reports based on research concerning children's psychological and physical development. The work was marked by a sincere desire to take a student-oriented approach and to capitalize on the researchers' versatile expertise. Because the future comprehensive school was to be a school for the whole generation, a separate project was launched to draft a curriculum for children with special education needs.

Curriculum proposals were completed in 1970 and consisted of two parts: general principles and the syllabi. The general principles of the curriculum are still considered relevant

today, because they explain the most important measures with which the school aims to achieve the educational goals.

Teachers embraced the proposed curriculum. Former elementary and civic school teachers would teach the first six grades of the new school, while former lower secondary or grammar school teachers would teach in the upper grades (7–9). As will be seen later, the comprehensive school's new time allocation for different subjects was a compromise that put stronger emphasis on the knowledge-based curriculum of the grammar school. This was a way to respond to charges that the comprehensive school would result in declining knowledge and skills among future generations. But the conflict between secondary and elementary school teachers never became serious. Later, many concluded that the comprehensive school curriculum project fulfilled the pedagogical as well as the political expectations of teachers and officials.

Traditionally, the subjects taught in elementary and grammar schools were determined by legislation, but the power to set the national curriculum belonged to the National Board of General Education. The government had approved national curriculum frameworks. However, it could not supersede local decision-making authorities. This was one of the basic pillars of municipal autonomy, and the preparations for comprehensive school reform were based on this tradition. During the planning stages, serious conflict arose over the division of subjects and it threatened to delay preparations. This could not be allowed, so the Cabinet of Ministers confirmed the division of subjects and required the committee to continue the work on the curriculum guidelines.

Thus, a new decision-making procedure was created and it became permanent. Parliament continued to decide the basic components of the education system. The government determined how much instructional time to allot to each subject as well as the general goals of education, while the National Board of General Education's experts prepared and decided on curriculum.

This indicated to some observers that the government wanted to tighten its administrative grip. The next step towards a unified national curriculum was taken in 1972, when the Ministry of Education ordered that the proposed new comprehensive school curriculum should be introduced in all schools. This was a significant step towards centralized decision-making and steering.

Officials soon had another worry: ensuring textbooks for the new curriculum would be available when the comprehensive schools finally opened. Historically, private publishing houses have published Finland's textbooks. However, the National Board of General Education had to approve textbooks before they were printed. Because of the tight reform schedule, a working group made up of members of the Curriculum Committee, textbook authors and education authorities was set up to coordinate efforts. The authors could follow the preparation of the new curriculum and get the information needed to renew the textbooks. The National Board of General Education also adopted a new procedure: It accepted the use of textbooks for experimental purposes for one school year. These processes, plus vigorous competition among publishing companies, guaranteed that the textbooks landed in schools according to schedule.

2.3 Piloting educational planning

Comprehensive school reform represented a profound shift in social policy. It furthered Finland's democratization process and eroded traditional class structures and boundaries. Thus, education reform roused political passions—particularly given the short, five-year time frame in which it had to be organizationally executed. The roll-out started in sparsely populated northern Finland, where the educational infrastructure was least developed. Its impact was immediate, affecting the position of teachers and requiring close cooperation in every school between two groups of educators who used to work apart. Furthermore, reform brought pedagogical challenges: new curricula and learning materials also meant new instructional methods. Thus, its execution had to be carefully planned. Taking comprehensive school reform from planning to practice became the most demanding project in the history of Finnish education. To make it work, a multilevel guidance system was developed to gather input and connect the various national, regional, and local planning groups.

Education reform was implemented province by province. The School System Act required every municipality to draw up plans for executing its provisions, including how local school systems would be restructured. Regional implementation plans were also prepared by the education divisions of the 11 State Provincial Offices in cooperation with the National Board, which reviewed and then approved these plans. The Cabinet of Ministers endorsed the final blueprints.

These regional plans not only determined the timing of each municipality's transition to the new system. They also helped coordinate the reform's implementation nationwide. For

instance; the smallest municipalities did not have enough pupils to sustain the upper grades (7–9) of basic school. Thus, inter-municipal cooperation agreements were needed. Indeed, almost half of the municipalities found it impossible to maintain the upper-secondary general schools that were integral to the revamped local education systems. The National Board and the State Provincial Offices supervised the execution. If municipalities disagreed on the arrangement of their local school networks, it was up to the central government to settle the controversy.

The national government kept tight control over the process, thus guaranteeing that the reforms would be executed according to the schedule Parliament had set. Equally important, the regional planning program ensured local commitment to reform by tapping homegrown pedagogical and education policy experts and incorporating their ideas. In essence, municipalities became the key to organizing and implementing comprehensive school reform—a capability that eased the transition to a new vocational education system in the 1980s and 1990s.

Implementation of the new comprehensive school curriculum also was centralized. The National Board of General Education, whose authority included approving teaching methods and textbooks, endorsed the curriculum prepared by the Curriculum Committee as the basis for the national curriculum. This generated some criticism, because it was seen as limiting the autonomy of municipalities and local schools. The National Board justified its decision on two grounds. Given the reform's tight schedule, municipalities would not have had time to prepare their own curricula. Moreover, the Curriculum Committee had demonstrated how difficult it was to gain consensus, and officials wanted to avoid renewed squabbling between teachers of different subjects and other special-interest groups.

2.4 The price of reform

The Ministry of Education assigned a separate committee to estimate the financial consequences of school reform. Among other things, the committee had to consider the impact of extending the number of grades, of classifying pupils in a different way, of covering private school fees and of expanding the work of subject teachers. Only once, in 1976, under the pressure of the Ministry of Finance, was the government planning to prolong the reform implementation. The motivation for that was that the execution was reaching the metropolitan region; thus, the rise in state expenditure was to be at highest level. However, such a vast political resistance was received that the government had to withdraw the bill.

The baby boom generation of the post-war years had finished school in the 1960s and moved on either to upper-secondary education or into the workforce. The number of school-age children decreased, and this demographic dip is credited for Finland's ability to shoulder most of the costs of education reform. Nevertheless, critics claimed that the new system would become so expensive that the government would not be able to afford it—particularly given that Finland was undergoing a costly reorganization of public health services at the same time.

The state assumed financial responsibility for the reform and subsidized municipal education institutions. Because municipalities varied so widely in wealth and solvency, the government established a 10-step sliding scale for aid, with the poorest communities designated Class 1. State funds were portioned out for teacher salaries (81–90 percent), school transportation and pupil accommodation (84–93 percent) and other operating expenses (5–77 percent). There were no student fees, and pupils received their traditional free daily meal. The community organized transportation for school trips longer than five kilometers. The limit dropped to three kilometers for first-grade pupils. In some parts of the country, the journey to upper-level basic school (grades 7–9) became so long that municipalities arranged accommodations in dormitories or private homes for those pupils who needed it.

The high levels of subsidies made it easy for local governments to cover extra costs generated by the reform. Because teacher wages comprised 70–80 percent of total operating expenses, and the state subsidized as much as 81–90 percent of salary costs in communities that often had a 15 percent tax rate, hiring teachers could bring direct financial benefits. The windfall increased if education's positive effect on the local economy were taken into account.

Comprehensive school reform's solvency scaling system, which was revised annually, created another huge benefit for local authorities: providing new schools that were uniformly good throughout the country. For the National Board of General Education, this state subsidy system, which was based on real expenses, meant new bureaucratic and time-consuming administrative procedures.

While a relatively loose financial framework promoted the execution of education reform, it also put municipal education institutions under more strict central control. But comprehensive school reform could not have occurred without adequate rules, regulations, inspections, and financial arrangements all aimed at keeping expenses in check and the books balanced. For example, detailed instructions regulated the minimum and maximum sizes of

teaching groups. The teachers' salary system added complexity, as it gradually became very difficult and time-consuming to manage.

3. Implications for the Education System

3.1 Origins of upper-secondary school reform

In 1968, Parliament required the reform of upper-secondary education and its alignment to the new comprehensive school. As the decision stated:

Working life and technological development demand more and more from society and the workforce, and therefore the Parliament requires that the Government presses forward with plans and arrangements which aim to develop technical, commercial, agricultural and other special schools and fields of study, which would open channels to corresponding higher education.

At the same time, Parliament required the preparation of an overall plan to develop the whole education system. This plan had to take advantage of the new prospects opened by the advent of comprehensive schools.

Comprehensive school was constructed on the foundation of Finland's old parallel education system, a two track arrangement that essentially split students into university-bound learners and plodders headed immediately to work. The upper level of secondary school was organized into new school units containing the three highest grades (6–8) of the former grammar school. New upper-secondary general schools (grades 1–3) together with lower (grades 1–6) and upper (grades 7–9) basic schools were incorporated into municipal education systems. This produced a radical change in the institutional structure of general education by bringing the state grammar schools and majority of the privately run grammar schools under municipal ownership.

The popularity of upper general secondary education grew mainly because it offered the only path to higher education at the time. Also, graduates of the new comprehensive school and their parents hoped that attending upper-secondary general school would buy time before having to choose a career path or profession. Clearly, there was a need to raise the status of vocational education and make it an attractive upper-secondary option.

Why was it so important to have an alternative to upper-secondary general school? One prime motivation came from Finland's developing industrial sector and its need for better trained

workers. However, the most important reason was that the continuing popularity of the upper-secondary general school guaranteed that graduates would take up all of the seats in universities and college level vocational schools. Pupils who only completed compulsory school would wind up in the same position as children who had only attended civic school in the old parallel school system—which would maintain, or even deepen, educational inequality. To shake this status quo, vocational education had to become as viable a route to university studies as upper-secondary general education. Vocational education in essence should extend the comprehensive school principle into post-compulsory school education.

Thus began the second phase of reform. The Education System Structure Committee (1967–69) produced an evaluation of the quantitative goals of vocational and university-level education through 1985. The committee also discussed structural issues, concluding that the three-year upper-secondary general school was becoming too extensive. The 12-year general education path resulting from ever-growing attendance also was deemed too long.

Part II of this book will explore the development of upper-secondary education policy and reform principles in greater detail.

3.2 Teacher training reform

Even before comprehensive school reform got underway, elementary school teachers and administrators recognized the need for more extensive teacher education. From 1967 on, teachers could take summer courses on comprehensive school pedagogies, including the social implications of reform and the challenges that instruction presented. Courses on teaching mathematics and foreign languages proved particularly popular, but attendance was voluntary.

When the reform commenced in 1972, teachers agreed in their collective bargaining contract to three days of in-service training every year. An Act of Parliament had mandated two days of teacher training in the first three years following their municipality's switch to the comprehensive school system. Thus, during the comprehensive school's first three years, compulsory teacher training consumed five days each year. A network of instructors, led by so-called national level instructors, was created to manage this training. Each province had its own group of pedagogic instructors, and schools had mentors to assist and help teachers to adapt to the new school culture.

It was clear that teacher in-service training alone would not suffice to ensure successful implementation of comprehensive school reform. The new schools required better-trained

teachers and therefore the level of teacher training had to be raised. The new teacher training had to promote equality between different groups of teachers and encourage cooperation in building skills as well as increase opportunities for continuous professional development. That included increasing the interaction between teachers in general and vocational schools. Finally, an integrated education system required wider opportunities for teachers to advance professionally.

In 1965, the Ministry of Education formed a commission to map out teacher-education reforms. The guidelines proposed by the unanimous panel formed the foundation for the training system that evolved after several years in development.

Among the committee's recommendations:

- All teacher education is to be based on the Matriculation Examination, the national final examination of upper-secondary general school.
- Training for all teachers must last at least three years and result in a bachelor's degree at minimum.
- Classroom teachers and subject teachers must be given pedagogical training in the same institutions.
- A teacher's status should not be determined by the grade level they teach, by their pupils' age or by the subjects taught. Wages must not be tied to their office but to their degree.
- The teacher is more of an adviser and learning guide than a deliverer of information or lecturer.
- The quality and quantity of teacher training in schools has to be increased.
- A teacher's suitability for the profession needs to be examined.
- Teachers' studies have to include general studies, subject studies, pedagogical studies, and training in schools. Class teachers' subject studies are divided into general and specialized levels.

The reform proceeded rapidly. In 1968, class teachers began a three-year training program based on the Matriculation Examination. Teachers of the old primary school were given opportunities to study for a bachelor's degree and to upgrade their pedagogical knowledge and skills. Universities had yet to enter the picture, however, so this early teacher training was delivered in seminars and at colleges throughout the country.

The next phase brought a decisive step towards academic education and training of teachers. In 1971, an Act of Parliament codified the new organization of teacher training. Seven universities launched teacher training units. An eighth unit was founded in a Swedish speaking university, while four other universities had teacher-training affiliates. The availability of teacher training in a dozen locations reflected the strong regional policy of the 1970s that aimed at ensuring the supply of teachers in rural eastern and northern Finland.

The Ministry of Education was assigned to oversee teacher training. Universities retained their autonomy but answered to the National Board of General Education, which was responsible for designing and implementing the new teacher-education programs.

More profound reforms involving the content of teacher training grew out of the 1974-1975 general university degree reform. Based on the recommendations of a government-appointed commission, the Master of Science degree became the basic teaching degree. It encompassed a number of educational programs and training for class teachers, subject teachers, and education experts. Some 160 credits were required to complete the degree, with one credit equal to 40 hours (one week) of studies. The degree reform was made final in 1978, and training according to the new plans commenced in 1979. Since the middle of 1980s, Finnish general education has been supported by rigorously academic and highly trained teachers.

3.3 Sustainable leadership during political instability

The beginning of the 1970s brought turmoil to domestic policy and the short-term caretaker and minority governments that oversaw it. The majority government returned in 1972 with the Social Democrats and Centre Party at its core. When emergency law allowed President Urho Kekkonen to continue to serve until 1978, it caused political pressure to build.

Finland's 1973 decision to sign a trade agreement with the European Economic Community (EEC) marked an important foreign-policy milestone. However, the Finnish economy was reeling from the global oil crisis resulting from the Yom Kippur War. That ended cooperation between Social Democrats and the Centre, unemployment soared, and the President dissolved Parliament and called new elections. The financial crisis deepened, forcing the temporary government to slash the budget, threatening to delay and to cancel the implementation of comprehensive school reform.

The President declared a national state of emergency and forced the political parties to join a broadly-based temporary emergency government. This Government was also dissolved

and the financial situation only deteriorated. By 1977, Finland was into a third year of zero growth. Domestic consumption decreased for the first time in two decades. Over 140,000 workers were unemployed—twice as many as when the temporary government was formed. This forced the parties into a more constructive dialogue, resulting in the formation of a majority government. In the summer of 1977, the new government announced a financial revival package to improve the economy. Domestic policy finally settled down after all of the major parties supported the re-election of President Urho Kekkonen in the 1978 elections.

During these tumultuous times, Finland scored a major foreign policy coup. In 1975, after several years of difficult negotiations, Helsinki hosted the closing meeting of the Conference on Security and Cooperation in Europe (CSCE).

The political and financial turmoil raises intriguing questions. How did Finland manage to pursue education policies and reforms whose impact on society and the public economy were so significant? How could a decision from the Cabinet of Ministers launch not only important comprehensive school reform, but upper-secondary education planning projects as well?

To answer these questions, one must first examine the changes that took place in Finland's political structures in the early 1970s. In addition, it is necessary to analyze the development of party positions and action policies as well as positions taken by the increasingly strong labor organizations. Finally, though it went unrecognized at the time, the link between foreign policy and education policy undoubtedly played some role.

Education policy issues were among the many points on which Social Democrats and their Centre Party colleagues disagreed, but the debate did not derail the cooperation both parties had forged since 1963. Since the beginning of the 1970s, the Ministry of Education had operated under a two-minister system. Though the arrangement often led to disputes, it was a real strength in preparing to reform the upper-secondary grades.

The two parties divided the duties. Social Democrats took responsibility for overall education policy. Vocational education fell to the Minister of the Centre Party. While a Social Democrat oversaw the groundwork, every decision required both leading parties' close cooperation. As a result, only workable solutions and strategies emerged because both parties could endorse them. This proved to be a key factor behind the continuity of Finnish education policy, and the cooperation continued in various forms until 1987.

Another salient factor was both parties' commitment to strong, centralized social-policy planning and the optimism that underlay their affinity for state administration. The foundation for the good working relationship can be traced back to the governmental budget of 1967 which for the first time granted financial support for political parties. The then-Prime Minister, a Social Democrat, defended this move by arguing that the state's decision-making process would be hamstrung without functioning party organizations. At the same time, the parties had begun to detach from their traditional bases of support and to seek new political objectives, such as building stronger educational institutions. Soon, the parties lost their trademark trappings of a populist movement and began acting inside the government's administrative structures to "connect to the machinery of the State through parliamentary politics and politicized bureaucracy" (Nousiainen, 1990).

This meant, for example, the assignment of special political advisers in the 1970s to help the ministers. The parties also established expert groups which not only allowed them to weigh in on educational issues and help craft programs, but also to support their party's leadership in practical day-to-day administration. All of the major parties had their own education policy programs. This resulted in a politicized planning system, with committee assignments strictly controlled for party representation. Nominations to governmental management positions were similarly political—even at the local level. Despite the partisan nature of appointments, the fact that these important posts were filled permanently helped preserve continuity in education policies. It also strengthened the bond between political parties and public administration, thus guaranteeing that education issues could advance even when domestic policy was in turmoil and the economy foundering.

The third factor behind Finland's continuity of education policy in the 1970s was the rise of trade unions, which strengthened their influence in the decision-making process. The newly unified teachers' organization, for instance, became a strong opinion leader both in steering issues and setting education policy. By the mid-1970s, the new Teacher Union was already the group deciding which educational experiments the teachers would participate in—and on what terms.

This partnership with labor—in both the planning and implementation stages—was one of the main reasons that reform enjoyed such widespread popular support. At the end of the 1960s, central trade unions suddenly emerged from years of dormancy and decline. By 1980,

membership in the united Confederation of Finnish Trade Unions (SAK) exceeded one million. The power of white-collar and academically educated labor unions also increased in the 1970s. When the focus of reform shifted to upper level schools, these professional organizations showed increased interest and became tightly integrated into the planning system as well as the political process. The Confederation of Finnish Trade Unions, for example, approved a sweeping education-policy program at its 1976 meeting of delegates. Employers undertook similar efforts, partly to offset the trade unions' increased influence and partly in response to the growing number of enterprises and their rapid organization into a central confederation of industry. The interests of agricultural producers were forwarded by their own strong central union.

Labor's burgeoning influence can clearly be seen in the makeup of official bodies. In 1960, labor organizations had 95 representatives in committees or other official organs. By 1980, that total had grown to 495 persons (Borg 1990). These figures do not include the hundreds of teachers who participated in curriculum development and other planning efforts. Employers saw their number of representatives grew from 136 to 361 over the same period. Significantly, employees and employers negotiated continuously in these official planning groups in a collaboration that is rare even in Scandinavia, facilitating consensus-building and preventing conflict and disputes from derailing reform.

It is easy to see why researchers argue that labor organizations changed from external political pressure groups into stakeholders in governmental decision-making. Their opinions on important education-policy issues did not change whenever the ruling party or government did, and thus guaranteed continuity in politically difficult times. Labor's strengthening position was even seen as a threat to parliament.

Economic imperatives have been a key factor affecting Finland's international position. Small countries like Finland need foreign capital and access to international markets if their economies are to develop and thrive. Thus, Finland sought to conclude trade agreements, first with the European Free Trade Association (EFTA) and then with the European Economic Community (EEC). Finland joined the Organisation of Economic Co-operation and Development (OECD) in 1969. The negotiations were made even more difficult by the pressures of Cold War politics and Finland's uneasy proximity to the Soviet Union.

To avoid alarming the Soviet Union, Finland's foreign policy leaders aimed to increase cooperation with their Eastern neighbor. Some feared such moves would give the Soviet Union

excessive influence over Finnish politics. So, Finnish foreign policy also included an ideological imperative (Väyrynen 1990). In other words, cooperation with the Soviet Union was not meant to obscure the differences between their two social systems. As President Kekkonen told Secretary General Hrushchsev, “Even if the whole world were to adopt Communism, Finland would still maintain the social system based on Scandinavian democracy.” One of the cornerstones of President Kekkonen’s statement was Finland’s well functioning education system, which supported its democratic society and the development of a market economy.

The connection between foreign policy and education policy has not been studied to a large extent. Finland’s situation in the 1970s is worth exploring. On the one hand, the school system helped support and maintain trusting relations with the Soviet Union. In practice, this meant mainly the exchange of information between experts about education-system development. On the other hand, this cooperation underscored the role of Finnish education policy as a builder of a democratic society and a key component of economic growth. Although no documented data can be found, estimates from the 1970s lead one to believe that the ideological imperative indirectly did affect public opinion and attitudes, especially those of Finnish businesses and employers, and their political supporters. Even though employers adopted an attitude of constructive criticism towards several education reform suggestions, they supported the new school system’s development. Improving Finland’s competitiveness required better education, but strong schools were also a thumb on the scale in comparing different societal systems. This was especially important during the 1970s, when conservatives on the right regarded the Soviet Union’s increasing influence as a threat.

In the 1970s, education policy came to the forefront. This was partly because Finland was industrializing, and production required higher skills and knowledge. That is why education reform had to be extended to the upper levels. But in the 1970s, education was also seen as an increasingly important factor in strengthening democracy and social equality. This notion is especially visible in the social and education policy goals approved in 1971 by the new Education Committee. Education policy became an area of intense political debate, but the commitment of the parties and corporations to the ongoing reforms grew even stronger. In many ways, a well-functioning education system became a crucial element in strengthening Finland’s national identity during the ideological battles of the Cold War period.

3.4 From structural reforms to quality improvement

When comprehensive school reform began in the beginning of the 1970s, its basic goal was to guarantee all children equal opportunity to a nine-year basic education regardless of their parents' socioeconomic status. Education was free of charge, with a comprehensive school curriculum that was taught pretty much the same way throughout the whole country. Disparities between regions were reduced by launching the reform in the poorest parts of the country, first from northern and then from eastern Finland. As has been mentioned, the upper grades (7–9) of the comprehensive school had a selective pedagogical structure. This meant that only studies in the upper ability groups guaranteed pupils a chance to continue on to upper-secondary general school and higher-level vocational institutions (colleges). Originally, policymakers presumed that this inequitable two-track structure would disappear after the new system took root across the whole country.

Pressure to abolish the tracking system grew more rapidly than expected. Upper-secondary school reform was partly to blame. Its implementation would require comprehensive schools to produce graduates eligible to take their studies to the next level. A more serious reason was that studies and feedback from the field indicated that ability groups were a factor in maintaining and deepening regional, social, and gender inequality. Those who chose the lowest ability groups were disproportionately students living in remote areas, with weak social backgrounds. Boys outnumbered girls. Left unchecked, tracking threatened to jeopardize the central goals of comprehensive school reform.

The question of whether to do away with ability grouping dominated the agenda both in the 1977 Parliament hearing on the education policy report, and in the preparations for the Development of Upper-secondary Education Act. In the latter case, Parliament took a stand in favor of abandoning ability grouping. When this important decision was made, the capital region was only beginning to transfer over to the new system. There was no experience of having an upper level comprehensive school that lacked ability grouping. It was left to administrators, researchers, and teachers to figure out how Parliament's political instructions could be put into practice. The comprehensive school model faced a period of intensive internal development even as the reform's tight time schedule added to the pressure.

The 1974 Policy Decision of the Cabinet of Ministers implied that the structure of post-comprehensive school education would remain parallel or two-track. The Development of

Upper-secondary Education Act required the development of the upper-secondary general school and vocational education curricula. The focus shifted from the structural reform to improving the quality and relevance of education.

The government's Policy Decision of 1974 directed policymakers to develop comprehensive schools that bestowed general eligibility for further education on any of several post-compulsory school institutions. This was achieved by elevating the level of the lower ability groups. But the ultimate goal was to give up pupil tracking completely, and a committee was assigned to figure out how to accomplish this.

At the same time, however, the global oil crisis started to pound the economy. In the spring of 1974, the government made a series of cost-saving decisions that also affected the comprehensive school, especially the pedagogical structure of its upper level. One central provision drastically reduced the number of optional subjects. The move saved money and helped unify the pedagogical structure. But administrators and especially teachers criticized the decision for being motivated by financial reasons. They saw versatile alternatives in the upper level comprehensive school curriculum as a primary way to satisfy the needs of children who had different kinds of learning styles and interests. The Teachers Union launched on a vast program of obstruction, which denied teachers a role in almost all voluntary school development. The government did not retract its decision and the focus once more shifted to pedagogical development.

3.5 Political consensus

Both the expert committee mentioned previously and the upper-secondary grade reform management group, composed of both the Ministry's and the Board's top management, recommended that ability grouping be abandoned. At that time, the Development of Upper-secondary Education Act was ratified. By law, comprehensive schools were to be developed in a manner that would allow all graduates to seek further education. In November, 1978, the Cabinet of Ministers told educational management to prepare the necessary plans for implementing the Act. Administrators and school officials had spent the previous three years launching pilot programs and other experiments to see if the abolition of tracking could be implemented and justified. Without politicians to push them, however, such rapid change would not have been possible.

The Cabinet of Ministers specified a timeline in 1979. Students completing comprehensive school in 1986 had to have general eligibility for further education as Parliament prescribed. Instead of organizational separation, pupils could be differentiated within teaching groups. Finally, the Cabinet of Ministers required the new grouping principles to be put into classroom practice starting in the fall of 1983.

The tracking decision was the most difficult challenge in the entire comprehensive-school reform process. It was politically difficult, because teachers had serious doubts about its prospects for practical implementation. To win teacher support, the union pushed for class-size reduction, a move that demanded a considerable increase in funding expressly for teaching the upper grades of basic school. In the summer of 1981, the Ministry of Education reiterated its requirement that teaching groups must be heterogeneous and that grouping may not be based on the pupils' abilities or personal characteristics. Pupils could, however, be placed in groups based on their learning qualifications, but the groupings could not be permanent or set up in a way that would affect a pupil's chances for further education.

The political will to carry out these reforms was strong. Now, the question was how to ensure professional and pedagogical commitment? Education reform could only proceed if it gave teachers a way to maintain their pedagogical freedom, creativity and sense of professional responsibility. Responsibility requires authority. The strict and detailed administrative orders coming from above could no longer define the formation of teaching groups or the practical work organization. Thus, a new management system had to be created that would maintain the national regulation of education expenditures and school resources, but give schools the right to manage themselves in a pedagogically appropriate way. Time had come to start dissolving the centralized management system.

The solution was the introduction of a so-called time credit system, which set the maximum number of lessons for a school. Schools were given a fixed amount of teaching hours based on the number of students in different grades and allowed to decide on how to use their resources to fulfill them. The system was tested in the beginning of 1982, when the Cabinet of Ministers approved the first program to allocate resources depending on school size. Control over the curriculum also shifted. The National Board of General Education still set national content and standards, but municipalities and schools now had the power to choose textbooks and learning materials, and to determine the best way to cover the curriculum.

After much discord and discussion over abolishing ability grouping, Parliament at last embraced the concept. The reform's importance was eloquently revealed in a speech by then-Prime Minister Kalevi Sorsa:

With the law now in preparation, the comprehensive school is made into a real comprehensive school. The children and young people are guaranteed to receive an equal basic education and equal possibilities to build a career after having concluded their compulsory education. It has already been decided that the building of the post-comprehensive school education should be continued in the same atmosphere. With the following reform, the upper-secondary general school and vocational education will be reformed by keeping as a starting point the widening of the citizens' equality and the improvement of the quality of the nation's well being.

The public sector's financial problems forced postponement of the law's implementation until August 1, 1985. When the Act became effective, the National Board of General Education confirmed the new curriculum, thus securing national uniformity. At the same time, however, the reform spurred municipalities and schools to develop their own curricula. The government was still mulling the time allocation system for teaching hours in comprehensive schools.

With this new legislation, the comprehensive school reform process that had started in 1963 finally concluded. The law represented a remarkable step in human rights. It removed the authority of local educators to free a disabled child from compulsory teaching time. Disabled students now were included in compulsory education—and expected to graduate and be eligible to take the next step up the academic ladder.

4. Finland's Changing Society

4.1 New technologies and education

The high-tech revolution hit Finland at the end of the 1970s. Industry believed it was essential to pick up the pace of technological development to remain competitive, and technology was considered a prerequisite of economic growth. In the spring of 1979, the government formed a committee to evaluate the situation and recommend ways to hone Finland's competitive edge. The committee concluded its work in 1980. Its main recommendation: all age groups must learn the basics of developing technologies.

In August, 1982, the government approved a technology policy. It said that the basics of information technology must be taught starting in comprehensive school. Teacher training needed revision, and educational institutions must be equipped with the necessary textbooks and teaching materials. In 1985, the government made a Policy Decision defining more specifically the number of teachers to be trained and the plans for acquiring equipment and programs. It also prescribed that technological literacy instruction should start in basic schools by 1988. (Such measures had already been taken in upper-secondary general schools and vocational institutions.)

In 1984, both Boards of Education (general and vocational) initiated a joint project to prepare new curricula for schools, training plans for teachers, and suggestions regarding the necessary educational materials and equipment. The task force also recommended the establishment of a regional support network to help the schools and teachers to adopt new technology in education and incorporate technology into classrooms.

During the era of accelerating technological development, there was a risk that the school system would not be able to respond quickly enough. Or that it would end up in turmoil, with the supply of technology directing development more than the needs originating from the schools. In the beginning of the 1980s, the close cooperation of economic planners, political management, and educators produced a constructive solution that satisfied both the education system and business and industry.

4.2 Marketization of education management: breadth of leadership

President of the Republic Urho Kekkonen, who had been in office since 1956, became seriously ill in the autumn of 1981 and had to resign. The new president, chosen in 1982, was the former Prime Minister, Mauno Koivisto. He was Finland's first left-wing president. But this by no means meant a major shift in power for the political left wing. In fact, the non-socialist majority strengthened in the 1983 parliamentary elections, though Finland never experienced the dominance of conservatives as the United States had with Reaganism or Great Britain under Margaret Thatcher.

Nevertheless, something new could be perceived in the political atmosphere. The comprehensive and upper-secondary school curriculum reforms required centralized decision-making. The reform periods were characterized by very detailed central steering, which in the 1980s was experienced as heavy bureaucracy. Local administrations had developed enough strength finally to accept more responsibility and freedom in organizing education. Also, the

principals and teachers of the schools were well educated, and they clamored for greater independence to do their jobs. There were also demands to create more diversity in education management and institutions. Bureaucratic management systems were quite expensive, as local authorities often protested.

Similar demands for delegation of authority and decentralization started to appear more generally in society. The central government and its agencies were criticized as “the bureaucracy of czarism.” The ministers of the new government, chosen after the election of President Koivisto, raised their profiles by suggesting the termination of several central administrative boards such as, for example, the National Board of General Education. It started to seem that centralized management, which had served Finland so well by building the welfare state and its management systems, had reached its end.

The next government put words into action. It convened a committee at the beginning of 1984 whose goals were to decentralize management and reform the public administration apparatus in a way that would improve efficiency, democratic control, and legal protections, such as a citizen’s right to use his or her own native language when interacting with the authorities. The committee was asked especially to examine the necessity of special central administrative boards, which were separate entities from government departments.

This was the beginning of a transfer-of-power process that continued until the end of the 1990s, and was supported by the liberation of financial markets, general economic liberalization, and increasing international competition. As a result, a lot of decision-making was pushed down to the local level. Central management steering systems were restructured, and the management structures rationalized. Norm and resource management was replaced by data-driven results-based management. As a result, significant amount of authority and responsibilities were distributed to the local levels.

Interestingly, critics of the system in the late 1980s became somewhat critical of education policy, especially regarding the comprehensive school reform. Nevertheless, there were no radical shifts in education policy, but rather an accumulated need to explore alternatives to a system that had been led for so long by the Social Democrats and Centre Party. Politicians and teachers voiced their criticism. According to them, the fanatic emphasis on social equality had led to impartiality and suppression of individuality. Without exaggerating the importance of

one politician's speech, the Prime Minister's comments at a November 1987 principals' meeting set the new tone:

When believing that anyone can learn everything, the goals of the comprehensive school are set too high. When trying to educate the whole population to the unattainable comprehensive school level, the financial and mental resources of a small nation are being wasted on a hopeless task. These same educational resources would be badly needed to educate those who have proven to be talented in different areas to international high standards. Only that way can we maintain Finland's position in the hard international competition in science and the economy.

The time of regulating the economy was over, and the education system had to support the transition of Finnish society into a more liberal market economy. It is important to bear in mind, too, that the political and economic structures of the Soviet Union were starting to falter even as then-Soviet leader Mikhail Gorbachev was trying to build a democratic totalitarianism. The first strains of capitalism's victory fanfare could already be heard.

At the same time, social policymakers discussed the future of the nation state. Can a traditional national state cope with global economic pressures and an integrating Europe? This question had relevance for education policies as well, because particularly in Finland, the identity of the nation state had been built on national education. As mentioned earlier, high-level education, which covered the whole country, was also a cornerstone of the Nordic welfare state, and Finland, a culturally homogenous country until the 1980s, identified strongly with its tenets.

Would globalization and strengthening multinational corporations lead to a situation where national education policies would also have to compromise on sovereignty? Will the demand for corresponding degrees and the mobility of employees mean that education will become standardized on command from the European Union, OECD, United Nations, or the World Bank? If Europe is to become a competitive economic region, will education policy-making gradually transfer to the European Commission and the European Parliament? As national decision-making shifts toward municipalities and schools, and centralized management declines, what role will national education policies play? Researchers raised these and many other queries. The questions were carried to the education policy agenda in the 1990s, when Finland joined the European Union (1995) and Finnish enterprises became more international to survive and expand amid increasing economic competition.

4.3 Outcomes of comprehensive school reform

Education reform is an evolutionary process, and evaluating its results can be difficult. At the end of the 1980s, Finland once more faced structural changes that were to affect both the educational structures and the curriculum. The following paragraphs will briefly examine the goals and characteristics of the reform started in the 1960s, and evaluate to what extent the goals were attained.

The central goal of comprehensive school reform was to strengthen educational and social equality. Most of all, policymakers sought to attain regional and social equality, but in a country of two official languages, it was also important to secure the interests of the linguistic minority, the Swedish-speaking children. To attain these goals, the comprehensive school structure had to be transformed from a parallel system to a unified one. Comprehensive school services also had to be simultaneously ensured and extended to remote areas.

The 1970s highlighted the role of educational policies as an instrument of social policy. The primary issues had now become elevating the population's general educational level and continuing to develop education in a scientifically, technologically, and socially sound manner. An additional goal was to reinforce educational equality and to reform educational content to reflect democratic values and attitudes. Yet another goal was to reform the education system so that a larger proportion of citizens would be able to continue their studies at upper-secondary and tertiary levels and to become lifelong learners.

The central goal of practical politics became, according to a Government Policy Decision in 1974, the development of post-compulsory schooling by raising the level of vocational education and opening up vocational education opportunities for an increasing number of students. This required creating a compulsory school that would provide general eligibility for further education for all. The focus changed from structural reform to curriculum development and improvement of education quality—always taking into account the demands of scientific and technological progress, equality, and democratic development of Finnish society. These goals were achieved and the number of students enrolling in upper-secondary schools began to climb rapidly.

Both comprehensive school and upper-secondary level reforms were executed centrally under the direction of the Ministry of Education in collaboration with central and regional authorities. This was supported by qualitative and quantitative educational planning, which in

Finland started to develop in the 1960s. Without going into the details of this process, we would like to point out three important features:

- (1) Versatile use of expertise and the strengthening role of research;
- (2) Speeding up the process by quickly changing the focus from basic education to the upper-secondary grades; and
- (3) Strong role of politics in pedagogical issues, especially in central decisions concerning educational content.

Development of the education sector was almost solely the responsibility of educational authorities and teachers until the mid 1960s. This could be seen in the composition of the committees, and in the development of curricula and textbooks. This satisfied the education policy needs of a relatively static society that aimed mainly for measurable growth. The reform process that started as a result of structural changes during the 1960s had completely new requirements. First of all, expertise in many fields was needed. Pedagogic research gained renewed vigor from teacher-training reform and school administrations increasingly utilized the services of universities and research institutes. Without a doubt, the versatile use of expert knowledge was a central means of proceeding with the democratization of society and building every citizen's ability to exert influence.

When comprehensive school reform was launched in 1972, the Parliament required the preparation of a universal education-sector development plan. It would secure the transformation of the whole education system and harness the potential of the new comprehensive school. The starting point was a classic propagation strategy, which first reforms the foundation of the school system and then moves to the next level. As described above, the structural changes of the 1960s started with delay, yet zeal for reform burned all the more fiercely. At this point, the focus shifted in a major way from comprehensive school to the upper-secondary grades. The Cabinet of Ministers' decision in 1974 meant that both reforms could proceed simultaneously, and that the need for change could be anticipated in the higher education arena as well. Teacher training seemed a good place to start.

Overhauling an entire education system requires close interaction between policy and practice. Decisions must also be sequenced so that the process proceeds harmoniously. However, the comprehensive and upper-secondary school reforms advanced particularly in the political field. When the Government suggested in 1977 that the comprehensive school should not be

built on the idea of tracking pupils into ability groups but rather on flexible curriculum design and optional subjects, the idea was based primarily on experiences from 11 experimental schools during one year. After that, the objective of these test programs was to demonstrate that the government had made the correct decision.

When the comprehensive school curriculum committee did not manage to attain an agreement on the division of teaching hours between subjects, the Cabinet of Ministers made the decision. When the pedagogical structure of the comprehensive school started unify and ability grouping was abolished in the mid-1980s, the process took place under strict political guidance. If corresponding results had, for example, been obtained by waiting for the results of experimental programs and research, decisions would have been delayed and possibly would have proven impossible to realize, according to the pedagogues. Similar political power structures can also be found in vocational education and curriculum development. Political decisions often led to good practices, proof that they were based on reality and on the recognition that many good ideas already existed in schools and in classrooms.

Comprehensive school reform achieved all of its goals regarding the structure and accessibility of education before the end of the 1980s. The comprehensive school had become a basic school for all children and it provided the whole age cohort with real opportunities to continue their studies in upper-secondary schools. Especially in the 1980s, some worried that comprehensive schools would lower the academic knowledge and intellectual skills of future generations. Those fears never materialized. International comparison studies on student achievement put Finland in the same top-tier as other Nordic countries and Japan as having the least variation in learning outcomes between schools. The geographical location of Finnish schools had only a small affect on the measured performance. The same studies found that Finnish 13-year olds were internationally at the average level in mathematics. In physics and chemistry the results were of a high standard and on a par with Japan. Finnish pupils in the upper level of comprehensive school placed in the international average. Meanwhile, domestic studies revealed that cohorts of students who had completed the new comprehensive school showed improved academic achievement compared with their counterparts in the former parallel school system of the 1960s and early 1970s.

The main goal of comprehensive school reform was achieved: all children now had an equal right to good quality basic education and access to upper-secondary studies based on their

choice. The integrated and inclusive structure of the education system did not decrease the level of knowledge as was dreaded. Research showed that even a good education cannot compensate for the influence of the socioeconomic status of a pupil's parents. Though the financial status of families no longer was a decisive condition for educational success, the importance of family circumstances remained an important factor in determining a child's future educational path.

PART II: SECONDARY SCHOOL REFORM

Like a stone cast in still water, comprehensive school reform rippled through Finland's education system. In creating equally good primary schools for all children, policymakers then had to develop equally good options for their young graduates. Today's post-basic education bears scant resemblance to the parallel system of the early 1970s, which channeled pupils toward universities or vocational training at a relatively tender age. Instead of two separate and very unequal tracks, the current system puts vocational education on a par with academic learning and either route can qualify a student for higher level studies.

5. Political Context in the 1970s

5.1 Economic development and education reform

The groundswell to extend education reform to secondary schools had its roots in Finland's rapidly changing economy. In 1967, primary production accounted for only about 13 percent of the labor force. Industry and construction's share was 34 percent, while the service sector stood at 50 percent. As late as the early 1970s, the largest industrial sectors, forestry and the metal industry, shared about the same value. The traditionally robust forest industry supplied about 70 percent of Finland's exports. A few years later, by the middle of the 1970s, that share had declined to 40 percent. By contrast, the metal industry's share of exports, including electricity and electronics, jumped from 20 percent to 36 percent.

Foreign investments, whether they were Finnish enterprises expanding abroad or transnational firms investing in Finland, remained quite modest until the beginning of the 1980s. Just 10 percent of the country's exports were to countries outside of Scandinavia (20 percent), the Soviet Union (25 percent) and Europe (45 percent).

As Finland's economy grew, so did the need for educated workers, particularly in the burgeoning industrial and service sectors. The education sector expanded to meet demand with new upper-secondary paths beyond basic schools and wider access to university-level studies. This additional round of reforms built upon the same social and economic dynamics as

comprehensive school reform did, including the belief that developing human capital was an important and worthy goal.

Along with increased capital investments, the 1960s saw a relatively high level of growth in human capital, too. The proportion of students attending upper-secondary grade of grammar schools doubled from 1960 to 1970. During that decade, enrollment in vocational institutions went up by 50 percent, while universities experienced a 60 percent jump. The increased interest in higher education already had commenced in 1960s, before the school reforms, as the post-war baby boom generation surged through the school system. In addition, the productivity of businesses and labor was growing at a much higher clip than the average in other OECD countries and more education was needed to keep apace.

Many schools and universities had far fewer seats than students who could fill them. In 1972, the number of 17-year-olds hovered around 83,000. Vocational education and training institutions had only about 45,000 study berths—enough to accommodate just over half (54 percent) of the average applicant age group. Lower-level vocational education had space for 45 percent, and higher level institutions (colleges) could accommodate just 9 percent. At one point, the disparity between Finland's 11 provinces in terms of the supply of vocational education hit a record 10 percent of units as compared with age cohorts.

There were even bigger disparities between provinces in the number of places they could offer students in upper-secondary general schools. Overall, upper-secondary general schools could accommodate 40 percent of the average age group. The availability of seats varied from the Helsinki area's high of 52 percent to just 30 percent in the Eastern provinces. The supply of higher education also varied from province to province. In 1972, universities could provide study places for just 19 percent of Finland's 19- to 20-year-olds.

5.2 New secondary education policy

The logical next step in reform thus became extending comprehensive school principles to post-compulsory education. Before the restructuring, vocational education had two streams or tracks. The first funneled students into school-level studies, while the second provided college-level vocational education. School-level education and training varied from six months to two years. The more demanding college-level studies required three to four years. The same institutions typically offered both levels of vocational education. According to today's international classification, college level vocational education would fall between upper-

secondary and higher education. To avoid confusion, this book's use of the term "upper-secondary" includes both school-level and college-level vocational education and training.

In 1971, the government established a committee to analyze Finland's economic, social, and cultural transformation and to revise education policies to help deliver the social reforms needed to build a democratic welfare state. It was widely acknowledged that Finland's overall success and the well-being of its people would depend on education—particularly on the knowledge and skills of its labor force. Ultimately, the committee came up with suggestions for reconfiguring Finland's education system that would secure the envisaged economic and social progress.

The committee issued its recommendations in 1973. It proposed that basic education should start when a child turns six and last 11 years. After that, basic school graduates, by then age 17, would continue their studies in youth school. The committee suggested dividing the upper-secondary level of education into two broad categories that reflected the world of work. One would have corresponded to traditional upper-secondary general education, which made students eligible for higher education studies in humanities and science. The other broad track would lead to an upper-secondary certificate or higher education studies in different vocational or professional fields. The idea was that basic school graduates should receive several years of studies in upper-secondary level before having to choose a career path or pursue specialized higher education.

Had the proposal been adopted, it would have prolonged the length of general education two years. Committee members argued that this approach to upper-secondary education would solve the problems that arose in the old parallel track system and expand vocational education, thus allowing workers to move more easily in and out of the labor force.

The idea drew fierce criticism, mainly from conservative, right-wing parties and employers' confederations. They objected to extending compulsory education and closing traditional upper general secondary schools (formerly the upper grades of grammar school). Employers in particular regarded the suggestion as a threat to the quality of vocational studies as well as their workforce, since it delayed the entry of young people into jobs. Upper-secondary general school principals and teachers also fought to block the changes, which would have done away with their schools.

One of the main drivers of resistance was the general respect accorded the traditional Matriculation Examination. Established in 1852, the trigeminal examination was the entrance test to the University of Helsinki. Over the decades, its purpose shifted to an assessment of whether pupils had the knowledge and skills, and had reached adequate level of maturity, to pursue studies at the higher education level. Only students who passed the Matriculation Examination were eligible to continue on to higher education.

A wide sample of opinions confirmed that the committee's recommendations would not fly. The government went back to the drawing board to search for a politically palatable solution that also would continue the reform process.

In May, 1974, the Cabinet of Ministers approved a measure that included plans to develop an education system which spanned from preschool to higher education. This is particularly noteworthy because Finland did not begin offering preschool education until 2001. The Policy Decision was significant in another major respect: it shifted the decade-long focus of reform from comprehensive schools to upper-secondary education.

The aim was to unify the comprehensive school as well as align it with the next levels of the education system. Although basic school reform had restructured compulsory education according to the comprehensive-school principle, the upper levels (grades 7–9, or lower secondary) still included relics of the parallel school system. Pupils still had only two options for further study. They could either choose a general upper level course that would allow them to attend vocational college or university, or one that stopped at vocational school. The Cabinet decided that vocational education should be developed into a competitive alternative to the upper-secondary general school. But as long as the new comprehensive school produced two levels of competency, that could not happen. The government's solution: comprehensive school graduates would receive the same basic certification, making them eligible to attend all upper-secondary schools. From that point on, the development of comprehensive school and the upper-secondary level were operationally connected.

The Ministry of Education sought input on the committee's proposals from all relevant stakeholders. After receiving a wide sampling of public opinion, the government searched for a feasible solution that would gain sufficient political support. The effort culminated in the 1974 Policy Decision, which created rigorous new post-primary paths while invigorating vocational education. In a way, the directive, which raised the level of vocational training and made it as

attractive an option as traditional academic paths by connecting it to higher education, was a blueprint for the development of the whole national education system.

The decision did not shake the position of upper general secondary education, however. Thus, the upper-secondary school system continued on in parallel or dual-track fashion for quite some time, the exact opposite of what the committee had proposed.

The main points of the 1974 Policy Decision were as follows:

1. Vocational education will be developed into a competitive educational path leading to higher education. However, workforce requirements come first.
2. Young people who have graduated from comprehensive school shall have equal competency for both general and vocational upper-secondary education.
3. If the comprehensive school does not provide sufficient general competency for college-level vocational education, the problem will be solved by elevating the comprehensive school's educational level and performance.
4. Upper-secondary vocational education will be organized according to broad basic lines that after a general introduction will differentiate into specific vocations and professions, each with different skills and training levels.
5. Upper general secondary school will provide a three-year general education. After devoting their initial year to general studies, students may choose to continue in general (academic) or vocational education.
6. In all university faculties as well as in all institutions having the Matriculation Examination as their entrance requirement, quotas shall be reserved for graduates from college-level vocational education.
7. Education in vocational education institutions and universities shall be developed so that students advancing via vocational and general paths will be able to earn their university degree at about the same age.

Following the principle of equal access to education, the Policy Decision set quantitative goals to make sure there were sufficient upper-level seats for all basic and upper-secondary school graduates. It took a lot to reach this target. In 1972, upper-secondary education only had places for 74 percent of the entering age group. Moreover, space varied greatly by region. Upper-level schools in Helsinki and southern Finland had capacity for 98 percent of students.

That proportion fell to 87 percent in the Southwest, dipping to 59 percent in the Eastern regions and 54 percent, in the northern province of Lapland.

5.3 The political economy of reform

Following the Policy Decision, the Ministry of Education launched a massive program in 1975 to prepare for the new round of reform. Officials had learned from their comprehensive-school experience how beneficial it was to pull stakeholders and experts into the planning process. To create commitment and win support, teachers, employers, unions and workers all had to have a say in shaping the new education system. And indeed, the Teacher Union, labor organizations and other associations worked closely with the government to restructure the upper grades.

The planning organization was composed of 15 main committees, each with dozens of sections. All told, the team totaled more than 1,800 members. In addition, 42 full-time and almost 500 part-time experts assisted the committees, and 2,500 other experts provided advice. The magnitude of the effort can be seen in the deluge of documents the process produced: 3,100 pages of committee reports and 81,000 pages of curriculum texts.

The planning organization concentrated on the line that divided upper-secondary vocational education from the rest of the school system, the structure of instruction, and especially the curricula. The scope of the government directive, however, required the committee to prepare other reform initiatives at the same time. Among them:

- Expansion of the network of vocational education institutions.
- Renewal of planning and decision-making methods and procedures.
- Defining the number of study places in upper-secondary general schools and the different fields of vocational education and training.
- Development of funding systems.
- New teaching and learning materials.
- Basic and continuing education of teachers and trainers.
- Financial implications and impact of the reforms.

While all relevant stakeholders had been consulted, conflict could not be avoided. Some vocational school principals and teachers, for instance, did not accept the objectives of the proposed reform. Yet opposition waned and attitudes turned positive as it became clear that the

reforms were really quite favorable for vocational education, especially in elevating its status and funding.

Although the government's Policy Decision did little to change upper-secondary general schools, the principals reacted with distrust. Employee organizations mainly supported the reform, but opinion was divided among employer organizations. Some representatives criticized, among other things, plans to include foreign languages in the instruction of vocational institutions. The shortsightedness of this view came home to haunt employers in mid-1980s, when the internationalization of Finland's economy created challenges for both employers and educators.

Key officials in the National Board of Vocational Education, many of whom had been transferred from ministries that oversaw different sectors to this new central education agency, did not always support the ongoing reform either. Plans were made to reorganize and strengthen the new Board by establishing a planning and development division and reducing the number of sector-based units, thus following the reform's general lines. While the task was not as difficult as reorganizing the National Board of General Education, it failed to win Parliament's approval and years passed before it finally became feasible.

The main purpose of the Matriculation Examination was to check that students were mature enough to continue their studies in higher education. Already in early 1970s, half of all grammar school graduates went on to vocational education institutions, mainly at the college level. The Ministry of Education had set a goal that by 1985, the entrance capacity of upper-secondary general schools should be 20,000 to 22,000 seats—enough to accommodate roughly one third of the students in that age group. In 1973, upper-secondary general education had space for 41 percent of the age class, but that would jump to 50 percent in 1985 because declining birth rates had created a “baby bust” trough in those age cohorts.

Government planners at the beginning of the 1970s set a goal to provide vocational education and higher education opportunities for 93 percent of students who sought them. The Ministry of Education estimated that 3–4 percent of the age group would not be able to succeed in vocational schools, and that a similar proportion of young people would not want to continue their education. Figuring that about 20 percent of students would pass two exams, government planners estimated that vocational education needed 74,000 slots to serve new entrants—an

increase of 10,000. The Development of Universities Act therefore stipulated an increase in enrollment to 11,600.

5.4 Vocational education and economic development

The national economy strongly affected education policy goal-setting. It was widely believed that social and economic progress required a well-trained and skilled labor force in every sector. In 1972, the first overall education blueprint set numerical targets based on estimated labor needs across a wide array of occupational fields. The plan also calculated investment in school buildings.

Disparities in the supply of study places reflected regional inequities. Finland was divided into development areas and provided with special state subsidies. The Centre Party, which received its major support from rural and developing areas, supported the expansion of vocational education in these target zones. In 1975, Parliament passed the Enlargement of Vocational Education in Developing Regions Act. It contained increased subsidies for municipalities that maintained vocational education and added benefits for the students in development regions. The act also set targets for increasing capacity in the developing regions, starting in 1976. Finland's growing unemployment, particularly among youth, prompted legislators to expand vocational education in the rural areas by 6,000 new entrants.

To establish permanent study places, the Ministry of Education prepared a program for building new premises for vocational institutions. The predicted demographic dip in school-age children brought forth the idea of enlarging the capacity of vocational institutions by temporary measures, such as renting facilities or intensifying the usage of existing school buildings. In organization and content, this temporary vocational education was designed to match the permanent system. The Vocational Education Act was amended to allow the state to compensate all expenditure on temporary vocational education.

The enlargement of capacity received full economic support from the State. By funding the building of new schools and covering the added expense of temporary facilities, the government helped win the support of local governments, principals, and teachers of vocational institutions. The prospect of creating temporary study places soon spread across the country. By 1980, temporary vocational education facilities accounted for 7,000 entry slots and 13,000 students. The arrangement did not become as temporary as originally envisioned. In 1992, almost

two decades later, some 10,000 students were in temporary facilities. It was not until a year later that almost all of these stopgaps were finally converted to permanent quarters.

Figure 5.1 The number of upper-secondary schools and their students in 1978

	Schools	Students	Average size
Upper-secondary general schools	460	104,578	227
- state	11	2,363	214
- municipal	415	93,468	225
- private	34	8,747	257
Vocational education institutions	533	139,032	261
- state	181	49,130	271
- municipal	196	71,060	362
- private	156	18,842	120

Private local initiative and the popularity of upper-secondary general education had led to the establishment of a great number of private grammar schools in 1960s. Most of them were handed over to municipalities during basic school reform in the 1970s. During those decades, local and regional associations and organizations representing different branches of business and industry had established vocational institutions. Both general and vocational private schools were semi-public because they had to follow all regulations for educational institutions and instruction. Student fees collected by private schools were minor, no more than 160 USD a year in current dollars, covering no more than 5 percent of an institution's annual costs.

A large share of local vocational institutions was owned by municipal confederations, that is two or more local governments. The role of the state as the owner and maintainer of both general and vocational schools was still strong at the beginning of the 1970s. Almost half of all vocational students attended state-owned schools.

The funding of secondary schools was inconsistent. State-owned institutions were funded from the national budget, except for the State Central Vocational Schools, which covered several vocational fields. Municipalities that had reserved study places in these schools had to pay a minor annual fee to the state. State subsidies for municipal and private vocational schools varied from 30 percent to 85 percent, depending on type of institution and range of offerings. The rest of the funds were received from municipalities, and by collecting money from the sale of goods and services as well as from the minor student fees. The state subsidy system was administratively extremely laborious and bureaucratic.

Different ministries had offices of vocational education, each with sovereignty over its own VET institutions. This tradition continued during the first years of the National Board of Vocational Education. Administrative procedures were unified to some extent, but in practice, every group of branch institutions had its own Helsinki headquarters in the different offices of the National Board of Vocational Education. The board administered in detail the functions of vocational institutions, such as deciding on acquisitions, teacher and principal travel, and recruitment of teachers. Gradually, authority was transferred to the institutional level. Still, at the end of the 1980s, the administration of vocational education remained quite centralized.

In the 1970s, the central agency was strengthened and there was a pilot reorganization program (it took until 1981 to consolidate the reform). The board's new Planning and Development Division hosted regional planning forums, oversaw the development of vocational education initiatives, and helped design the national framework curricula.

The education divisions of the Provincial State Offices supported the central government in the regional roll-out of comprehensive school reform, which administratively was completed in 1982. Thereafter, the provincial education divisions' main task became planning and follow-up on secondary education reform. New posts of Inspectors of Vocational Education were established in the Provincial State Offices.

Figure 5.2 Organization of the National Board of Vocational Education before the reforms (1971 Act)

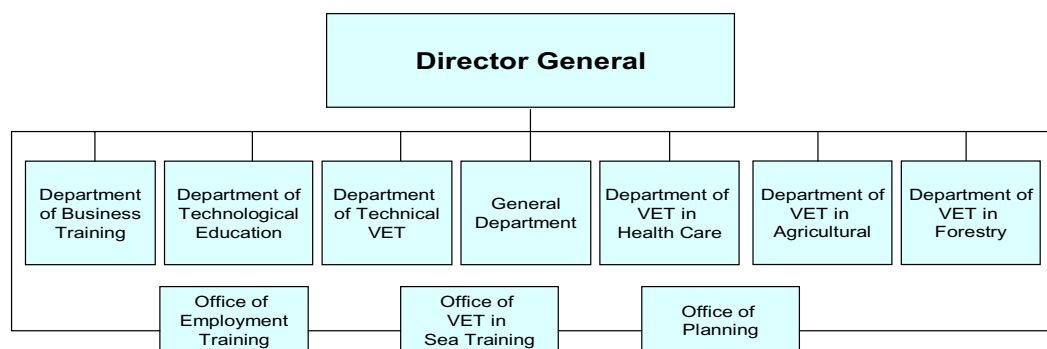
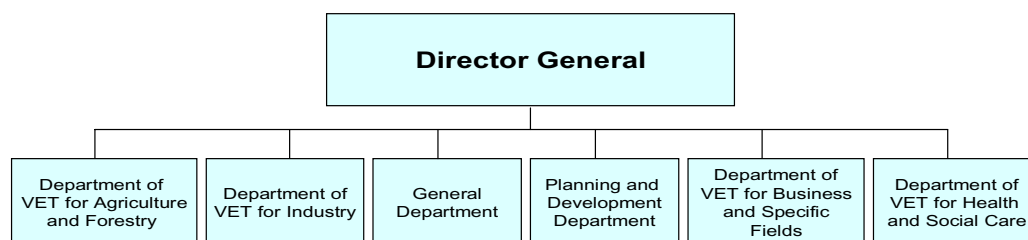


Figure 5.3 Organization of the National Board of Vocational Education at the start of the reform's implementation (1981 Act)



Vocational education reform was buoyed by the creation of a nationwide student selection system for upper-secondary education from 1977 to 1978. In this system, all applicants for upper-secondary education filled out a form in which they marked five priorities for study. The computerized system delivered the applications to all upper-secondary schools (both general and vocational). Following the National Board's criteria, the schools then chose students. There was a clearinghouse at the provincial and national level to show which institutions had openings that matched the applicant's priorities. The new system boosted enrollment and helped applicants find the most appropriate program. Moreover, it emphasized the basic principle that young people should be able to apply and to enter any school in the country, regardless of place of residence. The computerized records also provided lots of useful information on student follow-ups.

6. Strategy and Implementation

From 1974 to 1978, planning for the new infrastructure of upper-secondary vocational education was well underway and to some extent already bearing fruit. The machinery to implement the reforms had started to fall into place, and new curricula and content standards were in the draft phase. Thus, it was time for the Parliament to write the goals and reform principles into law.

6.1 The launch of the reform

The Development of Secondary Education Act confirmed the principles of the government's former Policy Decision but also incorporated recent developments in the education system:

- The new act set the goal of providing vocational or professional education and training for all graduates from comprehensive and upper-secondary general schools. Previously, the guarantee of upper-secondary education had been discussed as a public-sector obligation to provide a berth for all applicants. The act, however, expressed this not as an obligation but as a development target.
- The principle of the new act was to provide eligibility for higher education for students following the vocational route. There was a paragraph promising a later decree to reserve a certain quota of university seats for graduates of college-level vocational institutions.
- General upper-secondary education would shrink so that its entry capacity would equal approximately the number of Matriculation Examination-based study places in college-level vocational institutions and in universities. This was a tacit acknowledgement that general upper-secondary education could not be scaled down the way previous plans and laws had dictated. The new act also made clear that a large number of matriculated students had to be taken into account in planning the structure and content of vocational education.
- To increase access to higher-level education, the reform decreed that the first year of vocational education would be a period of so-called general studies that students in both the secondary and college level of vocational education could take part.

The act also established the Advisory Board of Education Reform within the Ministry of Education. Its members were representatives of political parties and key stakeholders. Similar planning committees were formed in every province.

A multi-level planning system was set up to implement secondary education reform. The Development Plan for Upper-secondary Education came out of a planning process in which plans and proposals progressed from the educational institution to the Provincial State Office and from there to the National Board of General Education (general schools) or the National Board of Vocational Education (vocational schools). The Ministry of Education prepared the

Development Plan based on the two boards' proposals for the government's endorsement. The plan's table of contents indicates the sweeping scope of the proposed reforms. Entries included: educational structure; the number of entrance places in general and vocational education by province and by both language groups (Finnish and Swedish); entry places itemized by branch and level of education as well as according to entry qualifications; promotion of gender equality; cooperation between educational institutions; apprenticeship training; content and arrangement of education and training; learning materials; remedial teaching; special education; on-the-job training; selection of students; guidance; pupil welfare services; the needs of teachers and other staff; research; experimental programs and other development activities; facility needs; equipment and furniture; and, economic impacts.

The most important element in the planning system was the vocational school-by-school division of entry groups according to basic fields and specialization. This marked the beginning of data-driven, detailed steering of upper-secondary schools. Within the framework of the national Development Plan, the National Board of General Education gave detailed orders to the Provincial State Offices regarding general secondary education. The offices then distributed the quotas to individual municipalities and schools.

An enormous amount of paper passed back and forth through this planning pyramid. The government's 1981 planning decision boiled down to a compact 29 pages, half of them containing tables on entry places.

Curriculum development was ready by the end of the 1970s. Decisions on the structure of upper-secondary education had been made. The timetable for implementation unfolded according to discipline. First the dairy and fishing industry in 1982, followed by business and administration the next year. Then came agriculture and forestry (1984); gardening, arts and crafts, home and institutional housekeeping (1985); technical and engineering (1986); health care (1987); and finally social welfare (1988).

The work done to prepare and process the plans was enormous. Yet because it involved so many hands, from local teachers to institutions, everyone had a stake in the reform's success—and thus provided their broad support. The planning and decision-making procedures were also fully transparent, improved by the Administrative Procedures Act, which stipulated, among other things, that all decisions made by public authorities must be justified. The government's development decision also bound the Ministry of Finance to helping carry out the

general lines of the reform, although officials considered the costs presented in the plan to be estimates and not a parliament-ordered target. In the middle of the 1980s, opposition to this heavy central planning apparatus said the process gave too little room for initiative at the local and school level. Evaluating the process from the vantage point of history, it now seems clear that decentralization should have been rolled out gradually starting around 1985 instead of the radical shift from centralized to decentralized decision-making in the 1990s.

6.2 Target setting versus realization

The first Development Plan was designed in 1981 in the Ministry of Education. In addition, the government confirmed three plans (1984–85, 1986–88, 1989–91) in which a lot of revisions were made, especially in the implementation of such measurable goals as enrollment quotas. The following is a description on the original targets of the reform, and an analysis and comparison of results:

Vocational education graduates eligible for university studies. The purpose of the Development Plan was to make vocational education more competitive, even on a par with upper-secondary general education in leading to studies in higher education. In 1984, a decree was issued on the eligibility of college graduates for entry into different university faculties. According to the decree, at least 5 percent, but no more than 25 percent of the entry slots in universities should be reserved for non-matriculated students. By 1995, the total number of these berths was supposed to reach 2,100. The decree was later repealed, however, and fewer than half the reserved spaces ever materialized. The actual enrollment in 1995 was 900, and one third of those had completed some examination abroad.

Decreasing entry in general secondary schools. Along with opening the vocational route to higher education, policymakers originally aimed to decrease the number of students in general upper-secondary education. The Ministry of Education set a target of 20,000 to 22,000 new students in general education, i.e. approximately one third of the age group. This goal also fell short. In 1988, there were 32,200 new students in general secondary education, or about 55 percent of the age cohort.

Vocational or professional education for all. Figure 5.3 compares the plan's goal with actual results and provides a reality check on reform.

Figure 6.1 Development of enrollment in vocational education and training and in higher education

	1980	Target 1988	Actual 1988
New students in vocational education	69,600	61,200	67,000
New students in higher education	12,700	12,400	14,100
TOTAL	82,300	73,600	81,100
Age cohort	76,700	60,300	61,200

A central objective of the reform was to offer all graduates from basic school and upper-secondary general school higher education that would lead to a vocation or a profession. This goal was not realized until the end of the 1980s. The actual figures reflected the real demand for vocational education, not an expert's projections. The increase in the number of new students stemmed from older age groups that had taken time off after graduation, or who had dropped out. A large share of the double count was caused by those who, after graduating from secondary vocational education, continued to college-level vocational studies.

In 1988, there was a vocationally oriented study place at the upper-secondary, college, or higher education level for practically all school leavers from basic and upper-secondary general school. General upper-secondary school received 55 percent of the basic-school graduates; in 1972, that figure was 40 percent. Thus, vocational education institutions and colleges received the bulk of matriculated students from upper-secondary general education. Special study programs were designed for them with courses of shorter duration than for basic-school graduates.

Study places for all matriculated students. An important rationale for reform was to offer a matriculation-based study place for all graduates, and this indeed happened. The Matriculation Examination, as described earlier, was originally a national university entrance test. By the beginning of the 1960s, however, the number of matriculated students had exceeded the capacity of universities to enroll them. Yet the Matriculation Examination still created eligibility for higher education. Because of the space crunch at the university level, the major share of graduates continued their studies at upper-secondary vocational and college-level professional education. Universities select their students according to their grades in the upper-secondary school graduation certificate and the Matriculation Examination. Most of the faculties use their own entrance instruments.

Because upper-secondary general education enrollments increased instead of declining, study places based on the Matriculation Examination also increased in vocational institutions. There were 27,500 graduates from the 1988 Matriculation Examination. Vocational institutions and universities reserved a total of 33,000 entry places for matriculated students—20,000 in vocational education and 13,000 in higher education. Thus, the goal of offering a Matriculation Examination-based study place for all matriculated students was more than met.

Reorganization of VET study programs. Originally, plans called for the reorganization of vocational education along general occupational lines to give students a broader background and to permit deeper specialization later. No matter their field of interest, students were to spend the first year in general studies, then be divided in two groups to continue either at the upper-secondary level or to go to college-level vocational education. The idea was to expose a student broadly to a vocational branch and then deepen the level of education and area of specialization.

In general secondary schools, the decision to create a period of general studies went nowhere. The main goal of upper-secondary general education was to prepare students for higher education through the Matriculation Examination. Therefore, the focus was on an academic curriculum. Vocational education was restructured as originally planned. However, the general studies period was abandoned and later on vocational students chose the main occupational branch and specialization level when they applied.

In making vocational education more general, the existing 700 or so specific lines of study lines were reassembled into 22 main occupational branches containing 220 specialties. In addition, there were 50 specific fields of study. The main occupational branches were: Agriculture, Gardening, Dairy, Fisheries, Forestry, Arts and Crafts, Building, Wood, Surface Treatment, Processing and Laboratory, Food, Restaurant and Hotel Services, Clothing, Graphics, Heating and Air Conditioning, Machines and Metal, Cars and Transportation, Electricity, Geodesy, Home and Institutional Economy, Business and Administration, Health Care and Social Services.

The duration of vocational education changed as well. Upper-secondary vocational programs became 2 to 3 years long, while at the college level they stretched anywhere from 3 to 5 years. For matriculated students, the corresponding durations were 12 months to 2 years at the upper-secondary level and 2 to 3.5 years at the college level.

Remedial and special teaching. The Development Plan called for an increase in remedial and special teaching in vocational institutions. The goal was to help students who had trouble applying skills and knowledge achieved in basic school to vocational studies. In 1980, approximately 1,100 entry places were reserved for students with special-education needs. Only 100 places fell within regular classes, 300 were in special education groups and 700 were in special vocational-education institutions. The development plan estimated that 7,000 of the new students in vocational education would need some kind special education. These new arrangements sparked the development and growth in remedial and special education that has become a lasting element of vocational education since then. The general tendency was to include the students with special needs in the same schools and classes with other students.

Matching labor market needs. Although vocational education had many new objectives, the primary goal was to ensure that the reformed system matched the labor-market needs of Finland's changing economy. During the reform's implementation stage, the vocational-education system expanded to cover the entire country and was thus made available to all young people. As a consequence, vocational education and training mirrored local economic development and could match the need for workers better than before the reform.

Financial impacts. Between 1975 and 1982, state spending on vocational education increased 31 percent in real terms—from 4 percent to 5 percent annually. The Development Plan had estimated that implementation of the reform would require about the same annual increase in funding. From 1980 to 1989, state expenditure on vocational education increased in real terms by 45 percent. During the same period, the number of students grew by one third. The increase in per student cost can be explained by the introduction of such new social-welfare services as free transportation and school meals, as well as the cost of developing new curricula, buying new equipment and investing in new facilities—all of which raised the quality of vocational education substantially. Thus, vocational education hit the 1990s with a relatively robust infrastructure.

Regional development. An absolute prerequisite for the comprehensive and consistent implementation of secondary-education reform was the consolidation of vocational education under one roof, in this case the Ministry of Education. Strong central governance provided by the new National Board of Vocational Education improved implementation at the provincial level by creating a massive, multi-level planning system that involved all players in the reform

process. Policies aimed at improving regional and local economies also helped bring reforms from the drawing board to practice. Vocational education was featured in legislation on regional development policies. Over the years, Finland's consistent education policy has influenced the balance of development in different parts of the country.

Curriculum reform in general secondary schools. The aim in developing a new upper-secondary general school curriculum was to create a more flexible pedagogical structure for municipalities and schools. The division of upper-secondary general school into two tracks, mathematics/science and humanities, ceased in 1975. At the same time, an experimental program did away with year-long content taught by grade level and instead based learning and teaching on modules or courses. Thus, curriculum reform focused first on reorganizing each subject or discipline into a series of smaller components. This course-based upper-secondary school debuted throughout Finland in 1982.

The Upper-secondary School Act took effect simultaneously with the new Basic School Act in August 1985. The government ratified the reallocation of teaching hours, the National Board of General Education accepted the new core curriculum and the time-credit system was used to determine teaching resources. The integration of secondary education into Finland's reformed system was stronger vertically than it was horizontally. Cooperation between secondary and comprehensive schools came naturally, given that at the time, one fifth of the approximately 470 upper-secondary general schools were small institutions with fewer than 100 pupils. In a small town, basic and upper-level schools had to work together to survive, since they often shared the same subject teachers. Integration with vocational institutions improved with the introduction of course-based curricula.

The secondary school reform's planning and implementation period lasted two decades, from 1974 to 1992. Over those two decades, enrollment in secondary education doubled. In 1970 some 20 percent of Finland's population had graduated from upper-secondary education or universities. By 1989, 40 percent of the population had at least an upper-secondary level of qualification. However, secondary school reform was not able to narrow the gap between the popularity of general and vocational schools, as was expected.

7. Changing Society

7.1 The harmonization of management

Despite decentralization efforts in the mid-1980s, education governance remained rather centralized until the end of the decade. Regulations stipulated in detail how teaching, schools, and administration were to be organized. But different schools developed their own organizational structures and spending plans based on their own needs and schedules. Thus, there were diverse management models.

In the 1980s, however, the government took some significant steps to diminish the bureaucracy's tight grip on authority. Some of the loosening stemmed from the educational establishment's own initiatives. But external pressure was by far the biggest driver of reforms that resulted in the modernization and harmonization of the educational management system.

In the middle of the 1980s, new welfare services went into effect for upper-secondary and college-level students. Schools had to offer all students a free daily meal. Education providers could receive state subsidies if they started to reimburse students for transportation to and from school. Moreover, the state also subsidized the cost of accommodating students with special needs.

In 1986, the state's vocational-education subsidies were harmonized with the general-education funding system:

- State subsidies for municipal and private vocational education in all branches were set at the same level as subsidies for general education, which ranged from 51 percent to 86 percent of operating expenses, depending on the municipality's poverty or wealth as ranked on a 10-class scale.
- The vocational students' home towns became obliged to fund the private and municipal vocational education institutions their youngsters attended. Municipalities also had to start to pay the state for students who attended state-owned schools.
- A formula-based state subsidy system was introduced. The aim was to decrease bureaucracy and improve control over expenditure and funding.

In 1987, numerous branch-specific laws were replaced by one Vocational Education Institutions Act. Still, every branch of vocational schools had its own detailed decrees. The act unified their procedures and governance.

Meanwhile, local education authorities pushed to update the governance system and delegate more decision-making. Following Sweden's model, a so-called free municipality experiment was launched in the mid-1980s. This pilot program helped accelerate the modernization of administrative systems. Without local pressure and initiatives, it is unlikely that the central education bureaucracy would have budged.

7.2 The Finnish education system grows larger

Covering the entire country with a network of schools was only possible with sustainable—and increasing—funding. Like the rest of Finland's economy, the education sector experienced constant growth in the 1980s.

Although comprehensive school enrollment declined by 100,000 during the decade, state expenditure on general primary and secondary education increased by 14 percent. The number of university students rose 33 percent, from 75,000 to 100,000. But budget legislation pushed higher-education funding up by 70 percent.

Despite the decreasing school-age population, the number of basic schools remained unchanged at 4,900. The average size of primary school was 120 pupils, reflecting the large proportion of small village schools in the nationwide total. The number of upper-secondary general schools grew from 440 to 470, while the number of vocational education institutions climbed to 540 from 490. While there were some relatively large schools, the average size of vocational education institutions was approximately 300 students.

The university network already covered the whole country at the end of the 1970s, so no new institutions were built. Increasing enrollments in the 1980s, however, resulted in crowded classrooms and pressure to hire staff. Vocational institutions began serving a new group of students: adults. In the 1970s, a network of vocational-course centers had sprung up mainly to retrain unemployed workers. During the 1980s, schools that provided vocational education for youth were encouraged to enroll adults, too. As a result, the number of vocational institutions providing education and training for adults increased from 50 to 180.

Finland's expanding economy had enabled much of the education system's growth. At the beginning of the 1990s, however, a deep global recession forced education authorities to downshift. State and local governments had to make painful budget cuts to wring savings from the education system. The belt-tightening prompted the government to shift decision-making to

the local level, bringing freedom of choice, competition, and marketization. Some observers call the 1990s a decade of neo-liberal education policies.

7.3 The new education policies

The Ministry of Education undertook a comprehensive review of the results of previous education policies and used it to develop a blueprint for future development. The Ministry revived a 1970s reform proposal to found upper-secondary “youth schools.” That was accompanied by a plan to establish a new higher education institution. The new polytechnic (AMK) system was a step beyond college-based vocational education. These initiatives, especially the youth school, received wide political interest and sparked heated debate. That led the Ministry of Education and the government to bring education-development policy into parliamentary discussions in 1989 (see Virtanen, 2002).

A wide review covered the whole education system. For the first time, the Finnish education system underwent governmental review that systematically benchmarked it against the systems and indicators of other countries. Before, the international impact on Finnish education consisted mainly of cooperation with Sweden and taking part in OECD education reviews. As Finnish industry and businesses went global, however, educational authorities took greater heed of international educational trends, and especially developments in European school systems.

Objectives for the education system largely followed the previous pattern. New emphasis was placed on international issues, the principle of lifelong learning and individualization of learning and curriculum. The review contained many new promises and expectations for education. It called again for the establishment of universal preschool for 6-year-olds, though no major changes were set for comprehensive education. Successful experiments with course-based programs caused the non-graded model to spread to all general upper-secondary schools. For the first time in Finland’s history, studies abroad and foreign language instruction gained major attention. The estimated funding increase for education was optimistic. The Ministry of Education calculated a 20 percent rise was needed in the 1990s—a figure that the Ministry of Finance questioned to the point of requiring a passage in the review indicating the estimates had been made by the Ministry of Education, and that any funding would be decided in the annual budgets.

Despite such discord, the review opened the door for the largest projects of the coming decade. They were:

- Creation of the “youth school,” a pilot project to forge ties between upper-secondary general and vocational schools—and thus increase student choice—by combining studies from each.
- The polytechnic experiment, which aimed at raising the level of vocational education from college to higher level and raise Finland’s education system to international standards.

The modernization of public management that had started in the 1980s accelerated in the early 1990s. The Ministry’s review suggested several realignments:

Changes in the organization of the Ministry of Education,

- Combination of the two National Boards of Education (general and vocational) into one expert agency, the National Board of Education
- Combination of separate planning system into a comprehensive development planning process covering all levels of education,
- Reform of the funding system,
- Demolition of centralized management, with more decisions made at the local and school levels,
- Rationalization of the school network,
- Transfer of state vocational and technical institutions to local governments, and
- Systematic evaluation of educational outcomes.

The ensuing parliamentary debate marked the start of an extensive reorganization of vocational education and training. The restructuring would unfurl in a far different economical and political environment than policymakers had expected and that had prevailed during the past two decades.

7.4 Dramatic change in economy

In the beginning of the 1990s, Finland’s economy drifted into its deepest crisis in peacetime. Several factors contributed to the downturn, including the Soviet Union’s break-up and its negative impact on exports, and the liberalization of Finland’s capital markets, which had caused the economy to overheat.

The recession’s impact can, without exaggerating, be described as catastrophic. After a zero-growth year in 1990, Finland’s GDP shrank by 12 percent from 1991 to 1993. Unemployment rates soared. In 1990, just 3 percent of the country’s 2.5 million workers lacked

jobs. By 1994, some 456,000 Finns—18 percent of the labor force—were unemployed. Although the government launched harsh saving measures in 1991, the national debt surged sevenfold from 1989, reaching 67 percent of GDP in 1995. Municipalities saw their economic position erode rapidly and dramatically. Finland’s credit rating plunged. What a contrast from the “casino years” of the 1980s, when capital markets opened, banks granted loans easily, property values soared, investments yielded reasonable interest rates, company share prices rose, and expectations for growth remained high.

Finland’s shifting fiscal situation forced education policymakers to adjust their focus. Instead of figuring out how to increase participation and ensure quality, they now had to concentrate on improving the school system’s efficiency and prepare students for a harsher job market.

7.5 Efficiency, savings, optimization and renovation

Preparations for the modernization of public administration started in the late 1980s. This meant, among other things, overhauling funding mechanisms and introducing new planning and management methods. The effort took on new urgency with the economic recession. In retrospect, the confluence of events now seems a lucky coincidence, since it resulted in the delegation of decision-making to local governments and schools. Perhaps that is why Finland’s education system could sustain heavy budget cuts in the 1990s without any major erosion in results.

Hard economic times in the early 1990s forced the government to adjust earlier education plans to these new and unanticipated political and fiscal realities. Over the decade, the education system managed to save the equivalent of one fifth of per-pupil expenditure. At the same time, high youth unemployment increased enrollment by 20 percent.

In the 1980s, the Ministry of Education had prepared two separate plans for the development of education: one for the university level and another for the upper-secondary level. The university plan guaranteed a certain annual increase in state funding and contained quantitative targets for enrollment expansion, teacher resources, and number of campuses.

Other parts of the education system were steered by legislation and by governmental policy decisions. From the 1970s, all state agencies and institutes prepared five-year action plans and fiduciary estimates. The ministries consolidated the plans into a general directive for their branches of administration. Similar plans were prepared by the municipalities. It took lots of time

and effort to develop these documents, so a major aim at the end of the 1980s was to reduce the number of these sector-based plans. That is how the Ministry of Education decided to prepare a comprehensive plan for the entire education system, including guidelines for developing and supporting university research.

In 1991, the government endorsed the first Development Plan for Education and Research. It covered the next four years, and though there were no major disagreements on the directions of education policies between the government and opposition political parties, the new education strategy contained several potentially contentious new goals, including adult education and individual choice in the selection of programs or schools. These were contained in a terse sentence:

The education system will be developed according to the principle of continuing education. The emphasis is on raising the level of education, on renewing of the contents of education, on the individualizing of education, and on increasing freedom of choice.

The document also set forth the following targets for general and vocational education:

- All upper-secondary general schools will change to the non-graded model in 1994.
- Renewing the Matriculation Examination will increase options. The timing of the examinations in different subjects will be on a set schedule,
- The structure of vocational education should become more flexible.
- For the first time, the government raised the prospect of basic school choice by indicating a desire to increase options and possibly permit the parents to select the school for their child outside the boundaries of their individual basic schools.
- The share of optional studies in the curriculum will increase and some teacher work will be transferred to counseling and guidance.
- The capacity of both general and vocational education shall remain almost unchanged.

The Development Plan reflected Finland's skyrocketing unemployment rates, which hit 34 percent for youth under 25. As a consequence, the education system had to find a way to save costs yet meet the rising demand for upper-secondary education.

Altered circumstances prompted the government to revise the development plan in 1993. The following passage was characteristic of the new orientation on employment and resources that the economic crisis imposed on policy:

The key development actions during the next few years are improvement of quality and promotion of internationalization, increasing the efficiency and development of the structure of the education system, safeguarding sufficient resources and orientating the education to relieve the impact of unemployment.

At the same time, the government signaled that education development and reform would continue despite economically difficult times, and that any savings realized from draconian measures from 1994 to 1996 would go to support long-term education policies.

The government faced a difficult balancing act. On the one hand, the government hoped to promote individual study programs and options. That normally would mean smaller classes and more of them—a costly proposition. On the other hand, cutting costs typically produced larger teaching groups. Meanwhile, high unemployment was driving up demand for higher-level education and training, adding to expenditures. For the first time since the 1970s, the government had to make system-wide cuts in all parts of education. In 1991, the Ministry of Finance's budget director was asked to wring savings from state programs. Among his numerous proposals was a long list of measures concerning education.

The following section describes how education policymakers struck that balance. The changes in primary, lower- and upper-secondary education each merit separate treatment.

7.6 Freedom and flexibility arrive

By the beginning of the 1990s, the basic school was firmly established. Because of Finland's vast territory, both schools and class size tend to be small, and thus per-pupil expenditure run high. The abolition of tracking in the mid-1980s, which had divided pupils into different ability groups, had added further costs. The number of teaching hours went up by 14 percent in grades 7 to 9 as local governments carried out nationally mandated changes in upper-primary education.

Still, municipalities had little incentive to close small schools, however expensive or inefficient, because generous state subsidies helped cover the extra costs. Indeed, in comprehensive school reform, the central government determined the structure of municipal school networks. Until 1990, a government decision was needed to establish upper level (grades 7 to 9) schools. The government could also order municipalities to cooperate in providing upper-level basic education.

Economic and demographic pressures in the 1990s altered that relationship—and the imperative for change. The network of primary-level basic schools (grades 1 to 6) quickly began to shrink with the population of school-age children. Decentralization, particularly the government’s new subsidy system, accelerated the contraction. State subsidies no longer were earmarked for education or other sectors; instead, a big share of sector subsidies was transferred to the Ministry of Internal Affairs to be distributed to municipalities as general funds. Subsidies for education were based on average per-pupil expenditure. The direct state subsidy via Ministry of Education dropped from 70 percent to 50 percent, but general funds from the Ministry of Internal Affairs made up most of the shortfall. In a nutshell, municipalities reaped the full benefit of the streamlined school system and the lowered expenditure.

Let’s do the math. Under the centralized system, municipalities used to receive only one fourth of the educational savings. The rest went to benefit the state as savings in subsidies. During the 1990s, the number of basic schools was trimmed from roughly 5,000 schools to 4,000. Closing village schools has long caused heated local disputes. But the only limit on municipal basic-school systems is contained in a paragraph that sets the maximum time for the daily journey to school: 2.5 hours for young children and 3 hours for 13-year-olds and above. Such limits provide a lot of room to reorganize.

During the implementation phases of comprehensive school reform, the central government gave detailed curriculum instructions to municipalities and schools. Local or school-based content or instruction was practically non-existent. This kind of micromanagement was considered necessary to ensure consistent results nationwide.

Since its inception in 1991, the new National Board of Education began planning the new core curriculum for basic and secondary-general education. After the Cabinet had determined the division of lessons between different subjects, the Board worked out the core framework curricula. Flexibility and freedom of choice were increased so that in lower-level basic school, approximately 10 percent of the instructional hours were left for schools to decide how to use them. Upper-level schools could set 20 percent of their teaching hours. This proposed national curriculum framework provided general guidelines for selecting the content and methods for teaching, and served primarily as a guideline for school-level curriculum planning. Schools were encouraged to create their own pedagogical profiles by specializing in some subjects or themes, and to emphasize them in teaching and other activities. However, basic schools did not become

special schools; the major part of instruction was the same for all. After the national Framework Curriculum for Comprehensive School and the Framework Curriculum for Upper-secondary School were issued in 1994, it took three or four years before all schools had revamped their curricula.

The division of lower- and upper-grade schools had meant that in the younger grades (1 to 6) of basic school, instruction was given by classroom teachers, whereas the older grades (7 to 9) had subject teachers. The school buildings were also separate for the most part. On one hand, this kind of a structure mirrors the former parallel school system. On the other hand, it reflects the international school-structure model, which depends largely on target enrollment populations and the need to organize primary education in village schools.

The administrative division of basic schools into two levels ended with the 1999 Acts on Education. Until now, this change has yet to have much impact, because school structure is set at the local level and bound to existing buildings and teachers. But in the long run, abandonment of a two-part comprehensive school system creates new prospects for providing instruction and wider solutions for the use of facilities. It will also safeguard the ability of small localities to provide education for the upper grades by allowing them to develop combined schools that have more pupils and teachers, thus providing economies of scale and more versatile educational programs. The new school structure particularly can help preserve access in areas that have experienced the steepest decline in number of children and families.

Following the new comprehensive basic school structure, the most recent National Core Curriculum issued by National Board of Education in 2004 sets learning objectives not only at the end of sixth and ninth grades but other grades as well, depending on the subject (for example, in second and fifth grade).

School district structure was an essential element of the former parallel system as well as in comprehensive school reform. Apart from the administrative advantages, strict school separation furthered one of the main tasks of basic school, namely the socialization of children. The view prevailed that school choice ran counter to the principle of comprehensive education for all children, which promotes social equality.

The 1999 Acts on Education granted families the right to choose schools with certain provisions. First, parents always have priority in selecting the closest school for their children. If they choose another school, they must pay transportation to and from school. With the

exception of some specialized schools, schools cannot use entry tests or select pupils in any way.

In some cases, school choice has challenged the equity principle. Parliament has been cautious about this. In the capital, Helsinki, for example, only 14 percent of lower-level pupils and 40 percent of upper-level students attend someplace other than their nearest school.

Critics claim that freedom of choice will increase the qualitative differences between schools. Especially in cities, the socioeconomic status of the neighboring residential areas has a significant effect on student-learning outcomes in different schools. The vast majority of politicians and administrators agree that dividing schools into “good” and “bad” should not be promoted. Thus, they have a cautious attitude toward free choice, even if no one expects a return of the former rigid school-district system.

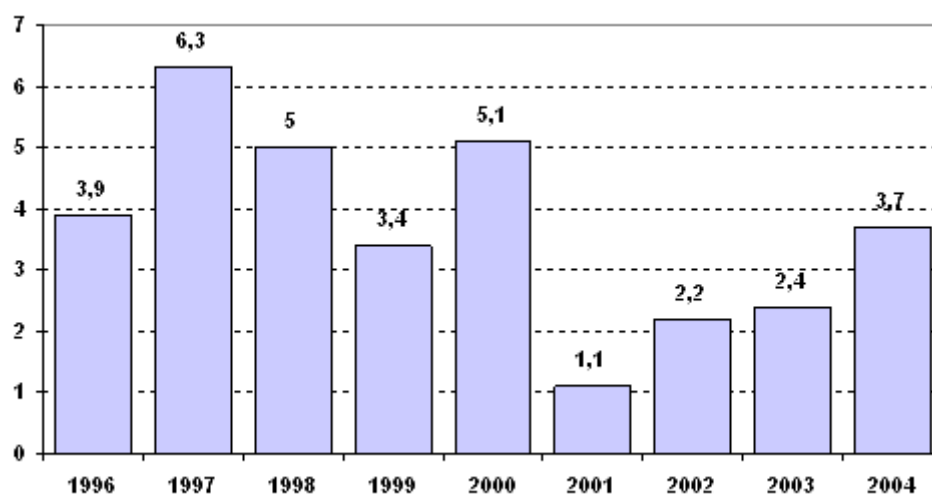
8. Education Reform in the 21st Century

8.1 Increasing flexibility

Finland recovered from the recession, but the economic crisis left its traces in the economy and the society. The unemployment rate, which jumped from 3 percent to 18 percent in the first years of the 1990s, remained high for the rest of the decade. Today’s unemployment rate hovers around 7 percent, and continues to create problems for society. In addition, the rapid growth of public debt created punishing repayments that, in turn, led to continued budget savings.

One reason Finland is such a successful nation now is the quick and determined rebound of both private and public sectors during the 1990s. The consequences of these structural adjustments include relatively high unemployment and unwillingness on the part of companies and public agencies to hire new staff. Education’s share of GDP has been declining since 1991, mainly because the economy has expanded. In that year, education accounted for 6.1 percent of GDP. In 2001, the share slid to 5.8 percent.

Figure 8.1 GDP growth from 1996 to 2004



Reform of the upper-secondary level of education was completed by 1992. The report to the parliament touched off the same kind of controversy and debate that Finland had experienced in the 1970s. The coming decade would bring new challenges and require new targets and solutions. Where would they come from? Does the political consensus exist to determine the next steps in education reform and to support those changes?

The principles included in the first comprehensive Development Plan for Education and Research (1991) gradually bore fruit during the decade. The non-graded secondary school model became permanent. At the same time, grade repetition or retention was abolished. The average length of upper-secondary general studies is three years, but in the non-graded system, students can take more or less time to complete their studies. Proper implementation of the non-graded model requires a rather large school, normally more than 300 students.

The general upper-secondary education's curriculum was renewed in 1994 according to the same principles as the core curriculum for basic school. The Cabinet made a decision on the division of time between subjects that left 30 percent of decision-making to the local level, most often to the school. To encourage school-based curriculum planning and local operational solutions, the National Board of Education released schools from detailed external regulation.

Cost-cutting measures also affected upper-secondary general schools, which saw class sizes increase. Declining budgets also prevented schools from exploring or exploiting all of the potential options of the non-graded system, although the new flexible time allocation for teaching increased the share of optional studies. Upper-secondary general schools did not close

because they were larger than basic schools and their disappearance would have had a serious negative impact on their communities.

The Matriculation Examination remained a strong fixture of the reformed system. There were no calls for revamping the upper-secondary level in a way that would radically alter the role or position of the national examination. Thus, the content of upper-secondary general education remained mostly unchanged. A pilot program was launched that had only one compulsory subject in the examination, namely mother tongue and literature. Numerous schools participated in this experiment, and most schools would have liked to join in, but a political disagreement erupted over formalizing this model. Finally, in 2004, the experimental model was made permanent.

The vision for developing the education system included two structural objectives: the experimental model for upper-secondary education and the polytechnics system. The Ministry of Education's "youth school" was not presented as a structural solution but rather as a development trend for upper-secondary education. A discussion on education policies resulted in the Education Experiment at Youth Level Act. Its purpose was to promote sharing and cooperation between upper-secondary general and vocational schools.

The youth-school model, which combined vocational and general studies, caused a political stir among right-wing parties as well as school principals and teachers. The youth education experiment was something of a compromise, in which both the general and vocational schools cooperated to offer study modules for each other's students. Each type of school retained its distinct identity and issued its own diplomas. One conclusion from the experiment is that reforming the delivery mode without changing the degree structures or requirements won't prove sustainable. To develop new educational paths, it is essential to also change the qualifications for the final certificates, since that coursework will count heavily on applications for further education or employment.

Officially, the experiment was terminated in 1999. A similar objective was included in the new General and Vocational Upper-secondary Education acts, which obliged schools to reorganize and coordinate with each other. Cooperative experiments have continued in many localities, but there are no systematic development programs to create a new structure in youth education. Schools cooperate in different ways, and on different scales. General upper-secondary

schools and universities also collaborate, allowing younger students to complete university studies.

At the same time, Parliament issued the Polytechnic Education Experiment Act. The aim of this pilot project was to raise the level of college education by converting it to non-university higher education as many other countries had done. Creation of the polytechnic system was the focal point of education policies in Finland during the 1990s, and was the top priority project at both the national and local level.

Polytechnic education offered upper-secondary school graduates an opportunity for higher education. Polytechnics also gave many cities the chance to establish a new higher education institution—a facility that not only brought prestige but the prospect of regional development as well.

8.2 The new institutional structure of vocational education

The roots of the present vocational education system date back to the 1950s and 1960s, when it was supervised by a host of ministries. Traditionally, vocational institutions tended to be quite small. In 1989, there were 544 vocational schools with 158,000 students; the average size was 290 students. The state had a significant share of vocational education; more than one third of the students attended state institutions. Some 56 percent attended municipal institutions, while private institutions enrolled 9 percent. The administrative, educational, and financial framework of private institutions was similar to that of public institutions.

For various reasons, there were four simultaneous changes in the institutional structure of vocational education.

1. The network of vocational institutions was built for the large cohorts of students in the 1970s and 1980s. The network had far too much capacity when the “baby bust” generation started moving through the school system. Budget cuts made re-engineering the system even more topical.
2. The distribution of vocational education into municipal and state institutions was no longer justified. The main mission of vocational education is to produce skilled workers who can contribute to their local and regional economies. The general guidelines on public-management reform deemed that the state should transfer ownership of its vocational institutions to local governments. The law

also aimed to put the new polytechnics in the hands of municipalities, federations of municipalities, or private associations.

3. The polytechnics were established as separate institutions, which meant the shift of former college-level education from upper-secondary level schools to the newly established polytechnics.

The basic idea behind the development of polytechnics was that they would become large, multi-branch institutions that would combine and administer all polytechnic-level education in a municipality or region. The same principle was applied in conceiving the upper-secondary level of vocational education.

The Development Plan for Education and Research (1991) launched a restructuring and rationalization process that resulted in the closing of 13 vocational-education schools, the merger of 90 others, and the transfer of 20 state schools to municipal ownership.

On the one hand, the formation of the new structure for vocational institutions was a top-down process. The Ministry of Education informed the municipalities that state institutions were to be handed over to them. On the other hand, the practical development work to establish the new institutional structure was a bottom-up process, where municipalities and regions were given freedom to develop their own solutions in the planning and formation of the new educational entities. The polytechnics involved another kind of process, which aimed to raise the level of education and had a clearly expressed target of establishing 25–30 new institutions. The central government steered this process, although here too the practical solutions emerged regionally and locally.

In 1996, six polytechnics received a permanent license. The number of vocational institutions had decreased to 400. At the moment of writing, all 29 polytechnics are large, multi-branch institutions that are owned mainly by municipalities. The number of vocational education providers has shrunk to below 200, and while there are still a number of small providers, the majority of vocational education is provided by large multi-branch educational institutions owned by the municipalities. The main movement today remains the consolidation of small schools into strong regional vocational-education consortia.

Figure 8.2 The institutional structure of upper-secondary education in 2004

	Schools	Students	Average size
Upper-secondary general schools			
- state	10	2,546	255
- municipal	430	108,133	251
- private	32	9,685	303
Vocational education institutions			
- state	5	469	94
- municipal	150	81,064	540
- private	36	12,156	338
Polytechnics			
- municipal	18	88,049	4,892
- private	11	42,718	3,883

The table above table reflects the education of both young people and adults. There was adult education in upper-secondary schools only on a minor scale in 1978.

Several facts explain the relatively fast implementation of new ownership and governance arrangements for vocational education:

- In Finland, municipalities have always been economically and administratively rather strong units. The main responsibility for reorganization of vocational education lay in the hands of regional center cities or hubs.
- The state gave local governments a strong position in the implementation of restructuring, especially the formation of polytechnics. Local politicians and authorities also had input in the reorganization of upper-secondary vocational education.
- Since the middle of the 1980s, home municipalities had been obliged to pay for their students attending state vocational education schools. Those fees were on a par with what the municipality spent on its own vocational schools, so the economic impact of the ownership transfer was neutral.
- The state handed over the property, buildings, land, and equipment without charge to the schools' new owners.

The state committed itself to funding the building projects it already had included in its five-year investment plan.

These radical changes in institutional structure took place in the times of recession. Looking back, it is clear that the economic crisis facilitated the reform's implementation. Similar challenges faced most parts of the public sector.

The need to cut education costs combined with the aim of handing over control of vocational education and training to the local authorities. To woo the municipalities into becoming partners in vocational consortia, the government needed to build consensus on what to do with the remaining schools. The result might not have been optimal. Central guidance would have yielded more economic and efficient results. On the other hand, such large institutional change needed a process that was locally controlled.

In establishing the polytechnics, one alternative was to set them up as state institutions. Many rectors of the polytechnics supported that idea and compared their institutions to universities. By affiliating polytechnic education with regional development and taking advantage of the general tendency to transfer decision-making powers to regional and local authorities, the ownership issue got resolved. But the issue remains under discussion.

Peppering the process was the opposition of school principals to the transfer. The rectors of state institutions in many cases strongly opposed the ownership change. They were used to a great deal of independence in managing their institutions and many were afraid that the municipal politicians would want to become too deeply involved in running the institutions, including deciding academic matters.

It is possible to imagine the vocational institutional structure evolving in other ways. But given the prevailing circumstances during the early 1990s when these developments took place, all other processes seem impossible.

8.3 New public administration

Developing equal welfare services demanded a strong administrative structure. In the 1970s and 1980s, the two central education agencies, the National Board of General Education and the National Board of Vocational Education had a firm position with a lot of management functions. The education divisions of the State Provincial Offices also had an important role in the chain of governance. Local governments, municipalities, and federations of municipalities were and still are the main executors of education policy in Finland.

Around the middle of the 1980s, discussions began around reforming governance. The Permanent Secretary of the Ministry of Defense headed a committee. His mission: propose ways

to reorganize the state administration system. The committee's main recommendation was to lighten central control. Such review and self-scrutiny should accompany many reform acts in public administration systems. After a lively discussion and strong resistance, the government made a Policy Decision that backed the committee's main proposals.

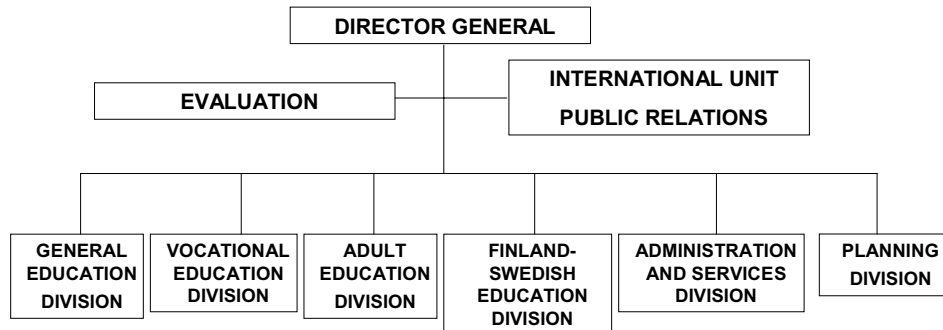
The former two education boards were abolished in 1991 and replaced with a single new agency: the National Board of Education. In practice, the reform meant consolidating the two former agencies. The middle of the 1990s saw many efforts to reform the governance of education. One consequence has been a sharp decrease in bureaucracy. The two former boards had 560 state-funded staff members; the current board has just 260. The board also employs a varying number of outside experts, but the net expenditure of today's National Board of Education is half the former level in real terms.

The main tasks of the National Board of Education include:

1. Determining the National Core Curricula for preschool, primary, and secondary general education, vocational qualifications for upper-secondary vocational education (52 including 113 study programs) and competence-based qualifications for adults (350),
2. Implementing education-development programs,
3. Evaluating learning outcomes using sample-based assessments that involve 5 percent to 10 percent of pupils,
4. Maintaining national and international databases and information services on education and the financing system for education and culture, and
5. Monitoring and anticipating vocational and professional education needs, overseeing the student selection system and the production of textbooks and other learning materials with limited circulation.

The National Board of Education is also responsible for such things as in-service training of educational staff, providing educational information, recognition and comparison of qualifications, and accounting for the funds the Ministry of Education dispenses to education providers. The National Board of Education still has some administrative functions, such as management of 18 state educational institutions. But in broad outline, central government reform has gone according to the original Policy Decision.

Figure 8.3 Organization of the National Board of Education (2003 Decree)

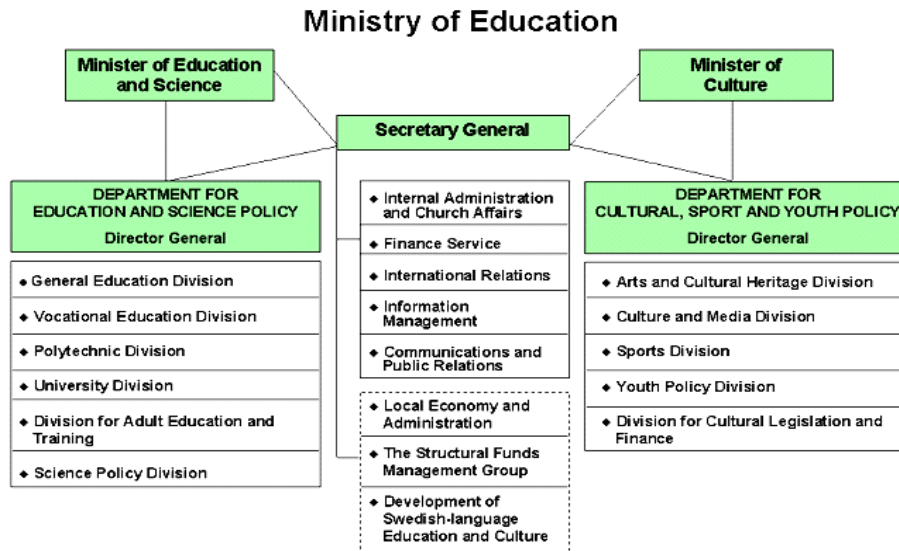


The 11 Provincial State Offices played a key role in the implementation of large-scale reforms. Their main task was to coordinate local education plans and arrangements as well as to conduct some kind of school inspection. During the 1990s, the Office's tasks were gradually reduced. They lost their inspection duties and as well as detailed administrative authority. Still, there is some overlapping of mission with other regional organizations. Fifteen regional federations, established by the municipalities, implement regional development programs such as European Union projects. In addition, the regional offices of some sector ministries (Labor, Agriculture and Forestry, Trade and Industry) were combined to form 15 Employment and Economic Development Centers. They concentrate on the state funding of regional labor policy, including employment training.

The Ministry of Education is the principal decision-maker concerning the maintenance of educational institutions. The Ministry oversees:

- 1) The annual state budget for education,
- 2) Preparation of education legislation,
- 3) Education strategy, which is expressed in the government's Development Plan,
- 4) Licenses for the providers of education,
- 5) Decisions on funding for providers of education,
- 6) EU affairs and international relations, and
- 7) Result agreements with state institutions and polytechnics.

Figure 8.4 Organization of the Ministry of Education 2005



Finland has a long tradition of strong local government. In 2005, there were 432 municipalities with a Municipal Council, government, and committees for different branches of municipal activities. Practically all municipalities have an Education Committee. A paragraph in the Municipalities Act stipulates that in bilingual municipalities, education administration must be divided into Finnish and Swedish-speaking sections. This is not as unusual as it may sound, given that schools must also offer instruction in Finnish or in Swedish starting from preschool.

Municipalities vary in size, averaging about 12,000 inhabitants. Most are tiny hamlets and cannot organize all municipal services for their citizens by themselves. So many municipalities join together in federations. This is the main organizational model for vocational and polytechnic education in Finland as well. There are also private models for the organization of education, but in most cases municipalities own these institutions. Practically speaking, for administrative matters there are two levels of governance: the Ministry of Education and the municipal level, with the National Board of Education overseeing curricula and qualifications.

Finland's aging population, the exodus of people from rural municipalities and the eroding municipal economic base has made municipal structure and its methods for providing such basic services as education and health a hot political topic these days. Some political groups advocate reducing the number of municipalities to approximately 100—a controversial proposal

to say the least, particularly given the rural base of the coalition government's Centre Party. And there is wide resistance at the local level to tinkering with municipal structures, but the central government is very decisive about performing such a change.

The state subsidy system underwent a complete overhaul in the early 1990s to calculate funding on a per-person basis. As a result, funding follows the students, not the schools. The timing of the funding reform was fortunate because it fell during the recession and encouraged vocational institutions to increase the number of students and to fill classes efficiently. Thus, the vocational education system was able to accommodate increasing numbers of students without having to increase total expenditure.

Per-pupil and per-student costs are based on the real average expenditure of different levels and forms of education. General index increases are included in the calculations. The Cabinet of Ministers annually decides sets the overall education budget and per capita funds. The Ministry of Education decides on and pays the subsidies to the education providers on the basis of data and calculations made by the National Board of Education.

The subsidy covers all levels of education: preschool, basic school, upper-secondary general school, and vocational and polytechnic education. Every autumn and spring semester, one day is set aside for a headcount, and to compile statistics on the number of pupils and students. The result is the total subsidy for municipal education systems. Current formulas call for the state to fund 57 percent of education costs, with municipalities picking up the other 43 percent, but cost-cutting measures make today's balance closer to 50–50.

While the principles of the state funding system are clear, the formula-based accounting system is complex. The aim is to account for local circumstances that might affect the cost of education in different municipalities, and thus their ability to deliver a learning experience as good as anywhere else. For instance, per-pupil funding in special education have increased by 40 to 50 percent. For the moment, small schools are being reimbursed by an increase in per-capita subsidies. Currently, the new act (2006) limits this compensation only to the most sparsely populated municipalities with fewer than four inhabitants per square kilometer. This would push municipalities to optimize their school networks and respond to the dwindling population of school-aged children. This change has raised national and local concerns with an appeal to save small schools.

State subsidies to municipal education systems are calculated in gross terms. The result is an estimate of municipal education expenditure based on the average spending of all municipalities. From this gross amount, a deduction is made based on the municipality's population and a per-inhabitant sum (for the moment about €600). As a consequence of the per-capita system, state money follows the pupils and students at a state-defined unit price. This financing procedure has increased efficiency in the education system. At the very least, it encourages local governments and upper-secondary school principals to compete for students and to keep class sizes cost-effective.

The municipal federations and private education providers receive the per-student state subsidy as a gross amount, without the deduction for the municipal share of funding. These subsidies are not earmarked, leaving it up to the owner of the educational institutions to allocate the budget to the different schools and programs as appropriate.

Each municipality's per-capita price differs according to its population density, linguistic diversity, and the number of students in special education. For vocational institutions and polytechnics, the unit prices are differentiated by each broad sector of education. The main principles of the state subsidy system are trust in the capability of municipalities and guaranteed free movement of students around the country.

In reforming the state subsidy systems, part of funding authority was transferred from the sector ministries to the Ministry of Internal Affairs, which is responsible for municipal administration. The Ministry of Internal Affairs grants general subsidies to the municipalities to level the playing field between areas with widely varying tax bases and other wealth. The formula-based budgeting reduces subsidies to municipalities with high local income and increases subsidies for poor ones.

Like in the state subsidy system, budgeting of state institutions also changed radically in the beginning of the 1990s. Today, state institutions, including universities and the National Board of Education, receive one lump sum without any earmarks in the annual budget.

In the beginning of the 1990s, quotas and other quantitative targets were eliminated for upper-secondary general schools. As a result, there are no limitations on enrollment rates, though no major growth has occurred. However, providers of education do need a license from the Ministry of Education to offer upper-secondary general education.

The detailed, multilevel planning system for vocational education was done away with in 1998. It was replaced by a license system parallel to the general upper-secondary schools. The process is more detailed than that of general upper-secondary, but still simple compared with the former system. The license for education and training provider contains regulations on:

- The municipalities in which vocational education is offered,
- The language of instruction,
- The branches and levels of vocational education,
- The maximum total number of students,
- Special educational assignments,
- The form of vocational education (e.g. apprenticeship training),
- Other regulations (such as experiments or other exceptions to the rules),

The Ministry of Education oversees the polytechnics through a three-year agreement made with each one. The contract is adjusted in annual negotiations between the Ministry and administrators and contains among other things the number of enrollment slots for different occupational branches.

In recent years, policymakers have examined ways to link funding to performance. From 2002 to 2005, a small portion of vocational-education money was distributed to schools that had shown improvement on such indicators as the employability of their graduates, placement of graduates in the next level of education, dropout rate, proportion of qualified teachers, and investment in staff training. This result-based funding is still limited—just 2 percent of total education spending. But it nevertheless has created a potentially powerful way to focus on—and achieve—the government’s goals for improving education. This system was made permanent in 2006.

New models for funding the polytechnics are also under development. The present plan is to start a new system in 2006. Some 75 percent of funding will still be determined by the number of students, but the rest would be calculated on the basis of the number of graduates.

8.4 Internationalization

The influence of Germany on Finnish cultural and educational life was significant until World War II. German was the dominant foreign language in Finnish grammar schools, the model for which came from Germany. Educational science, including curriculum theory and practice, also borrowed heavily from Germany.

After World War II, the emphasis changed. The influence of the Soviet Union permeated all sectors, especially in politics and economy. There was cooperation and exchanges with Soviet educational authorities, but such efforts were formal and rarely had any impact on the daily lives of schools. English quickly took over the lead as the first foreign language taught in schools. The influence of Anglo-Saxon culture gradually gained significance not only in Finnish society but in education as well. Student exchanges and teachers and scientists concentrated mainly on the United States. However, this trend also had little major impact on Finland's education structure. Gradually, after the collapse of the Soviet Union, the cooperation between Finnish and Russian education sectors and schools began increasing. This is important for the Finnish economy, also.

Sweden has been the most influential country regarding education policy development and reform principles in Finland. The creation of the comprehensive school was a domestic reform, but its blueprint was affected by the models adopted in Sweden. There was a tendency to follow the Swedish model in continuing the reform at the secondary level as well. However, that never happened. In any case, the overall impact of the Swedish welfare state on the development of public services and social security in Finland has always been very significant.

Finland joined the European Union in 1995. As a member of European Free Trade Association (EFTA), Finland became eligible to participate in the education programs of other EU member nations many years before joining itself. Finnish education institutions have been increasingly active in EU educational exchange programs, including Socrates, Leonardo da Vinci, and Erasmus that bring pupils, students, teachers, and experts together to work on a common project. The programs instantly proved popular. Today, Finland has one of the highest participation rates in EU education programs.

The EU Conventions call education a national issue. However, certain directives have guided the harmonization of European education systems. One of the main pillars of the EU is the free movement of labor. That is why the recognition and comparison of qualifications and examinations now require uniform arrangements among all member states. For example, the Bologna Declaration seeks to align the structures of higher education to promote the mobility of students within the European Community. The so-called Copenhagen process does the same in vocational education and training. The EU Structural and Social Funds offer a widely used program to develop education at the national, regional, or local level. For instance, Finland's Ministry of Education has used that program's money to develop on-the-job learning,

competency tests, prevention measures against youth marginalization, and career services for graduates.

8.5 New legislation on education in 1999

The reform of education legislation largely meant codification of previous development, deregulation, and modernization. New legislation was passed in June 1998 and came into effect in 1999. Every level of education has been touched by a succession of laws. New legislation continued the deregulation process and enhanced the decision-making powers of municipal authorities, individual schools, and institutions. It also aimed to encourage innovation in education and training at the local and institutional levels. The technical reason for the reform of legislation was to reduce the number of separate legislative acts, sections, and articles and to modernize education legislation. The number of separate acts plummeted from 26 to 9. The new legislation covers:

- Comprehensive Education Act,
- Upper-secondary General Education Act,
- Initial Vocational Education Act,
- Continuing Vocational Training Act,
- Liberal Education Act,
- Basic Education for Children in the Arts Act,
- Administration of Education Provided by the State and Private Organizations Act,
- University Education Act,
- Studies in Polytechnics Act.

In addition to the new framework legislation, a special Funding for Education and Culture Act, issued in 1998, covers all funding for all levels of education except for universities. The Employment Training Act was passed in 1990. There are also special acts concerning study grants for students as well as benefits for unemployed people participating in employment training.

The general rationale behind the new legislation was widely accepted by representatives of the education sector and by politicians. In many respects, legislation reform codified the education system's decades-long march. It settled former differences in opinions concerning the structure of upper-secondary education and the relationship between youth and adult education. Some members of Parliament wanted the general and vocational education sections to be written

in a common act. In the background buzzed previous ideas to create a uniform structure for upper-secondary education. The result was separate acts—and an obligation to keep reorganizing education until the boundaries between institutions blurred and each level cooperated with the others.

PART III: EDUCATION TODAY AND THE ROAD AHEAD

This final chapter discusses the current situation of education development in Finland with the aim of identifying the various factors behind Finland's success in recent international comparisons. Without viewing education in its wider political and economic context, however, such efforts will come to naught. Therefore, this discussion begins with a short description of the current education system, followed by a look at how the economic and political environment helps promote the high-performing education system. At the end of this chapter, we note some of the main challenges that lie ahead for Finland's schools and society.

9. Education Today

9.1 Pre-secondary education

Compared with their counterparts in other developed nations, students in Finland roughly spend fewer hours in school and do the least homework compared to their peers in most OECD countries (OECD 2004; 2005). Moreover, most students start their nine-year compulsory education at the relatively ripe old age of seven. Since 2001, all six-year-olds have had the right to free preschool, and all but a handful attend. Still, Finland definitely bucks the international trend toward providing universal preschool for children as young as three.

Finland's current system differs from the mainstream in others significant ways, most notably in the absence of ability tracking or other structures that separate students early on into academic or vocational education. The central level approves the national curriculum, but local schools and teachers are free to determine the best way of delivering it, right down to the choice of textbooks and creation of instructional methods. Teachers also create their own ways to measure student progress, and learning-oriented assessment is an integral part of daily school life. School and teacher autonomy are commonly seen as the factors that positively affect the high quality performance of schools and the entire education system. The adopted flexible accountability system also promotes the use of alternative strategies to raise student achievement in classrooms (Berry & Sahlberg, 2006). Except for the National Matriculation Examination, a battery of four to seven subject tests taken upon completion of upper-secondary school, Finnish

students face no exit, graduation or other mandated standardized test. Most graduates continue on for another three years of general or vocational education, and either path can lead to university-level studies.

9.2 Upper-secondary education

As with compulsory basic school, the National Board of Education decides the objectives and core content of subjects and study modules for both general and vocational upper-secondary education. And like comprehensive schools, local educators determine how best to meet the National Core Curriculum goals. The local curriculum is approved separately for education provided in Finnish, Swedish, and the Sámi language, and, as necessary, for education provided in any other language. The modular structure of upper-secondary education permits students to take both general and vocational courses. Students' knowledge and skills are assessed upon completion of each study module, and a qualification certificate is awarded when the student completes all of the studies in his or her individual study plans.

Critics claim that Finland's non-graded system leaves students alone to sort through their educational options and thus may be tilted against those who cannot progress on their own initiative. Others argue that disadvantaged students or those without educated parents may lack the necessary social reference group to see the rewards of higher education, especially in larger schools. That is why all the necessary individual decisions require efficient student counseling. Another consequence of the non-graded schooling has been the prolongation of graduation. Currently, 18.5 percent of upper-secondary students take more than three years to graduate, more than double the percentage in 1995. This trend is not sustainable given the relatively older ages at which Finnish students graduate, especially from universities.

Vocational upper-secondary qualifications can be taken as school-based classes or apprenticeship training. As in general schools, students choose subjects and chart their own educational course according to individual study plans. The restructured programs of study aim to build broad skills and knowledge for different occupations while also honing expertise in one specific field of examination.

Vocational education and training typically lasts three years and spans seven sectors of education and 52 vocational qualifications, including 113 different study programs (see Annex 6). Of the 120 credits necessary to graduate, 90 are vocational studies, including at least 20 credits of on-the-job learning in a real work environment, 20 credits of core studies in general subjects (Annex 4),

and at least 10 credits of free-choice studies. Optional studies can consist of vocational courses, core subjects, and courses to prepare for further study or for the Matriculation Examination.

On-the-job learning is a prime part of vocational education today. It includes focused, supervised, and assessed studies in the workplace that are planned by local educators and labor or business representatives. The periods of on-the-job learning differ according to occupational proficiency. Early on, students may spend brief spells in the workplace. As skills and knowledge accumulate, longer periods allow students to take responsibility for their assignments and learn what they need to know. Students also have the opportunity to complete some on-the-job learning abroad.

The idea behind assessment was to develop a student's self-worth and sense of confidence with different kinds of competencies. Proficiency is based on the students' own self-assessment as well as interviews with teachers. The on-the-job instructor also participates in assessments in the workplace, asking students to demonstrate their new skills before a panel of employers and employees. Depending on the study program, students might face four to ten demonstrations.

Apprenticeship training supplements the school-based vocational education system. The emphasis in apprenticeship training is on practical training. Apprentices are engaged 70 to 90 percent of their training time on the job in the companies, offices, institutions, or other organizations. The rest of training time is allocated to more theoretical studies at vocational education institutions. Training is based on an employment contract between the employer and the apprentice. The state provides financial compensation to both parties. The status of the certification of any vocational qualification in the apprenticeship training system is the same in the two systems, either school-based basic qualifications or competence-based qualifications. Apprenticeship training may also be used for additional vocational training although it would not lead to any certificate of qualification.

10. Economic and Political Context

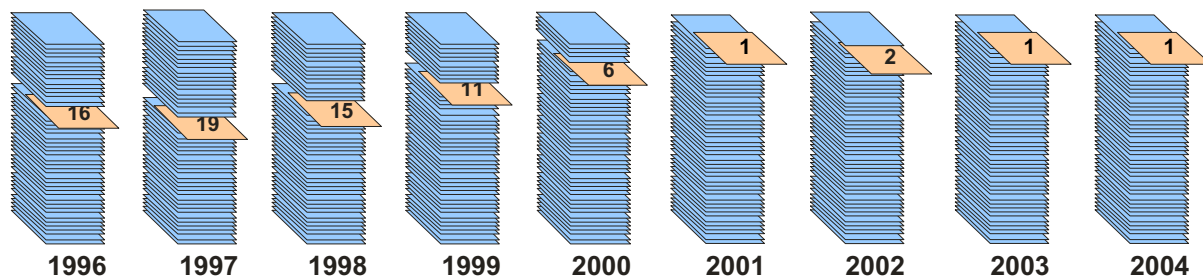
10.1 Competitive economy and education

The development of both Finland's economy and education system since the 1980s share several common features. Since weathering the serious economic recession of the early 1990s, Finland has experienced exceptional economic growth. The country had suffered a severe economic decline characterized by a major banking crisis. The unemployment rate exploded from 4 percent to 18 percent and public debt soared to over 60 percent of GDP, putting Finland

close to international lending limits (Routti & Ylä-Anttila, 2006). For the Finnish economy to recover, the country had to diversify its export structures and encourage business innovation. What drove these economic reforms were the emergence of new knowledge-based industries and the adoption of knowledge-economy concepts throughout the entire society.

During this decade, Finland has been ranked three times out of four as the most competitive economy in the world (Figure 10.1). This suggests that the country boasts a very high level of human capital, widespread use of information and communication technologies, and education and research institutions that have been redesigned to foster innovation and cutting-edge research and development. Indeed, Finland also ranks at the top in the advancement of global information and communication technologies as well as the implementation of environmental policies. Another important indication that Finnish society and its key infrastructures function well: Finland also ranks first on Transparency International’s list of least corrupt countries.

Figure 10.1 Finland in the World Economic Forum Growth Competitiveness Index Rankings 1996-2004 (Routti & Ylä-Anttila, 2006)



Finland also witnessed a measurable improvement in education during roughly the same time period. In the early 1990s, the education system did not particularly stand out on international comparisons except on two counts. First, Finnish ten-year-olds had emerged as the best readers in the world in the IEA literacy studies. Second, according to the OECD’s education indicators, Finland appeared to have the smallest deviation in student performance between schools. In other words, the school system was very homogeneous in terms of educational outcomes. Still, in other international student assessments, especially in mathematics and the natural sciences, Finland typically ranked close to average or below. And Finland’s participation rates in various levels of education during the 1980s represented typical OECD averages.

Not surprisingly, there was very little interest outside of Finland in the Finnish education system at the time. Ten years later, Finland's economy is flourishing and its world-class, top-performing education system has drawn a stream of international dignitaries, scholars, and other "educational pilgrims" for a first-hand look. These achievements are remarkable not only in light of the country's poor starting point in 1990. They are also an indication that a relatively small, peripheral country can transform its economy and education system into a showcase of the knowledge society.

There are some interesting parallels between educational and economic-development policies in Finland during the 1990s growth period. First, both education and economic development have been based on a long-term vision of future prospects and the needs of all of society's stakeholders (Sahlberg, 2006; Routti & Ylä-Anttila, 2006). This vision sprang from a broad consensus between government, the private sector, labor unions, and educators. Its sustainability was supported by specific institutions, such as the Committee of the Future, the Parliamentary Education Committee, and several think-tanks created jointly by industrial employers, public sector administration, and labor unions.

Second, both education and economic development have been steered by contemporary integrated policies. Education policy has been articulated through five-year development plans that cover the entire education and research sectors. These plans have formed a bridge between the political mandates of outgoing and newly elected governments; hence they became key instruments in creating sustainable political leadership in education. Economic development policies and strategies have integrated science and technology with industry and education sectors.

Third, both the education and economic sectors have adopted flexible and decentralized models of accountability. In education development, this means that Finland never followed global reform trends in introducing strong measurement and testing structures for schools and teachers. In Finnish schools, accountability is spread throughout the system and is based on development-oriented external- and self-evaluations. Assessment mechanisms are flexible—often created by the teachers who administer them—and no high-stakes standardized tests are used except the Matriculation Examination at the end of the upper-secondary school. Similarly, economic development has been driven by internal, collective accountability, management, and leadership.

Fourth, both education and economic development have relied heavily on trust in public institutions that are often the leading partners in planning and setting policy. The high caliber of public institutions, deep cultural respect for the law, and practically nonexistent corruption have all promoted the creation of consensus-building mechanisms that have been crucial in bringing the public and private sectors together to develop sound education and economic strategies. Policy development and reform principles have traditionally built upon the expertise of local players, whose experience, opinions, and abilities allowed them to indicate the best ways forward.

Flexibility is another common denominator between education and economic development in Finland. As described in Part II, the education system went through a major transformation in the early 1990s when most state regulations were abolished and pathways to educational opportunities expanded dramatically. For example, preschool became available for all children, horizontal mobility within upper-secondary education was enhanced, 29 new university-level polytechnics were established, and the volume of adult education was increased. Similarly, the private sector underwent deregulation and more flexible standards were introduced to foster networking between firms, universities, and public research and development institutions.

The recent political and economical history of Finland is characterized by close coordination and communication between the government, employers, and workers. This tripartite principle traditionally has also linked education to the interests of employers and labor confederations. From making policy decisions to implementing reforms and supporting change in schools and classrooms, these three parties have been working in close cooperation to secure good and meaningful education for all citizens since the 1960s. Today, the Confederation of Finnish Industries continues to play an active role in providing resources, taking part in the national policy dialogue, and guiding its members in putting jointly-made decisions into practice.

The main principles of Finnish education policy have not varied since long-term education reform first started in the late 1960s. Although Finland has a multi-party system and coalition governments that typically consist of three to six political parties, education has rarely been a bone of contention in the new government's programs. The main disputes that have arisen over the years are all related to schedule and choice, such as the time allotted to different subjects taught in school, or the extent to which pupils and parents should have the freedom to choose

their study programs and the obligatory role of certain subjects in curriculum, namely Swedish language and religious education. But there has been a wide consensus on increasing technology, environmental sciences, and entrepreneurship education in schools—all of which seem to contribute positively to economic development and growth.

10.2 Importance of education in the Finnish society

To understand the current state of education in Finland, it is necessary to stress the importance that society has traditionally placed on education as a key condition for survival and development. As a nation of little more than 5 million people living in a harsh Arctic climate and speaking a unique language, Finns have long seen education as the key to individual well-being and national prosperity. Although today education of all citizens is seen as the natural responsibility of the state and local governments (municipalities), educational opportunities for young and old are valued and appreciated by most of society. For a country with limited natural resources, education has been a door to economic growth, social cohesion, and further opportunities in life.

Education is also commonly seen as a joint concern of government, parents, employers, and the society in general. The historic development goal that every family should have a good school nearby has led to a situation where parents do not need to worry about the quality of their children's education. Typically, parent-school meetings do not gather big audiences in Finland simply because there seems to be strong trust in the school's capability to manage education and little concern about whether children would be mistreated or bullied in school.

There is an unwritten agreement between homes and schools that parents are mainly responsible for raising their children according to their own principles and values, and that teachers are in charge of academic and social education. The coordination of this division of labor has been strengthened significantly since the mid-1990s, when the autonomy of schools was increased and parents' views were needed in shaping the profile and basic mission of schools. Recently, the increased ethnic diversity of Finnish society and the appearance of such social problems as marginalization and dysfunctional families have led schools to take on some of the traditional duties of parents and guardians. Nevertheless, in most cases the communication between parents and teachers has remained open and constructive.

10.3 The role of the third sector

The “third sector” is an amalgamation of nonprofit and non-governmental organizations and the volunteer activities and donations that sustain them. These entities are a major component of many industries, including community health services, rural, education, housing, sports and recreation, and culture and finance. The third sector has been gaining recognition in most countries as an important but hitherto undervalued and under-researched player in civil society and the economy. Finland’s experience has led many to recognize that third sector organizations are key in creating a quality education system.

The components of the third sector vary greatly in different parts of the world. The Nordic countries are distinct from other EU countries, especially from those in southern Europe, and there is a big difference between Europe as a whole and the United States. These differences stem from long-term historic development and traditions. For example, the public sector’s wide purview in the Nordic countries results from the fact that government is responsible for many social duties that Central European countries and the United States have imposed on the private or voluntary sectors.

Compared with other countries, Finland has a huge number of third sector organizations. According to a Finnish study that is part of a Johns Hopkins University research project, the total number of nonprofits and other such organizations totals roughly 69,000. Since the third sector in Finland operates primarily on a voluntary basis, it can be considered to be highly self-supporting.

The third sector has played an increasingly important role in creating an education system that is more responsive to the needs and interests of all individuals. During the 1990s, when the education system was undergoing a major cultural transformation, youth groups and other organizations played an active role in the education policy dialogue as well as in implementation of reforms. For instance, youth organizations and sports associations focused on the learning and educational aspects of their activities in order to harmonize their goals with those of formal education provided by schools. This also was another avenue for involving more parents and other adults in the overall upbringing and education of youth.

10.4 Sustainable leadership in the era of change

In retrospect, Finnish education may be characterized by sustainable and stable rather than conflicting reforms and fundamental shifts in political directions. Therefore, one macro-

level explanation for the success of Finland's education system is that there have been only a few radical reforms that have changed basic values structures. Rather than revolution, the Finnish education system has experienced a gradual evolution that has benefited at each new turn from what had been achieved earlier, steered by a common longer-term vision.

Since the 1990s, the government's Development Plan for Education and Research has been the basic instrument in that evolutionary development process. These documents have typically covered a five-year span, and hence also formed the policy bridge between governments whose political mandate in a stable political environment is four years. These development plans have provided both qualitative and quantitative directions and targets for developing education and research systems. The latest version, for 2003–2008, is available online at <http://www.minedu.fi/julkaisut/koulutus/2004/opm08/opm08.pdf/>.

The Development Plan for Education and Research has become a basic policy instrument as well as an operational framework for development and financing education at the national and local levels. The Ministry of Education oversees the process of preparing these policies in broad collaboration with all of society's stakeholders. As a result, the Development Plan is normally based on consensus between the government, municipalities, education institutions, and key stakeholders, especially teachers.

10.5 Light central administration, strong local leadership

Until 1990, education management was centralized with strong role given to the two National Boards for general and vocational education, and to the Ministry of Education. During the following era of social and political transformation, the structural and legal framework of education administration changed. Authority was shifted to the municipalities and to schools. A new central agency, the National Board of Education, replaced the two National Boards. At the same time, regional administration lost much of its authority and as a result, provinces have only a limited role in current education management.

Key to understanding education in Finland is the role of local authorities and schools in education management and sector development. Most schools are owned and operated by the municipalities. The new reform legislation made municipalities fairly autonomous in arranging their public services, including education. The entire education management structure is therefore light and simple. The Ministry of Education is in charge of policy, the legislative framework, and education financing. The National Board of Education takes care of curriculum

development and evaluation of education, and provides professional support services to schools and teachers.

This light structure of education management means that local leadership and management become key players in developing and maintaining the quality of education. Although there is notable variation in the ways local education management is arranged in Finland, in most cases it is the municipality or a cluster of municipal education institutions that oversee education sector development. Since education funds are no longer centrally earmarked, local political bodies and authorities make all financial decisions concerning schools independently from the government. This has led to a situation where the most important component of providing good education is the management and leadership skills of local officials and experts.

The role of school principals also has dramatically changed since 1990. Principals are not only the educational leaders of their schools but managers who are responsible for financing, personnel, and the results of their institutions. Previously, a school principal was an experienced, senior teacher who was promoted for good service to education. Today's school principal must be a qualified leader who understands education development and has solid management skills to lead a school. Selection of new school principals is often based on procedures more typical of the private sector, with interviews and psychological tests to confirm the suitability of the candidate. The top requirement for the position of principal is teacher-education and experience.

10.6 Vision-driven education development

Some might argue that education reforms in Finland have been too frequent and that too little time has been given to thoroughly implement the intended changes. In reality, the two main education reforms since 1968 are the comprehensive school and upper-secondary school reforms described in Parts I and II. Since the creation of the comprehensive nine-year school that is same for all children in Finland, education development has been built upon an earlier, much agreed upon, longer-term vision: to provide all citizens with equal opportunities to receive an education, irrespective of age, domicile, socioeconomic situation, gender, or mother tongue.

Education development since the comprehensive school reform of the early 1970s has been a systematic sequence of structural adjustments and alignments rather than radical change. Curriculum development at the national level has been a logical process of shifting from centrally mandated and controlled traditional curriculum (with specific syllabi) towards school-

based curriculum that emphasizes the process of schooling and learning more than teaching subjects and delivering content. Similarly, education administration has systematically evolved from rigid central administration to flexible local management and school-based leadership.

Sustainable and vision-driven education development has enabled municipalities and schools to focus on the essential: learning and teaching. Longer-term systematic development has also provided individuals and institutions with appropriate time to learn to use all possible opportunities to make schools perform well. For example, optimum use of flexible structures and learning arrangements rarely happen in the early stages of reform. Similarly, transforming schools from what they used to be to creative learning and caring organizations requires learning not only from all individuals involved but also from the organization. What has been typical in schools in Finland since 1990 is a widespread recognition of the need to change the culture of the school as a condition for any significant and sustainable changes in teaching and learning.

11. High-performing Education System

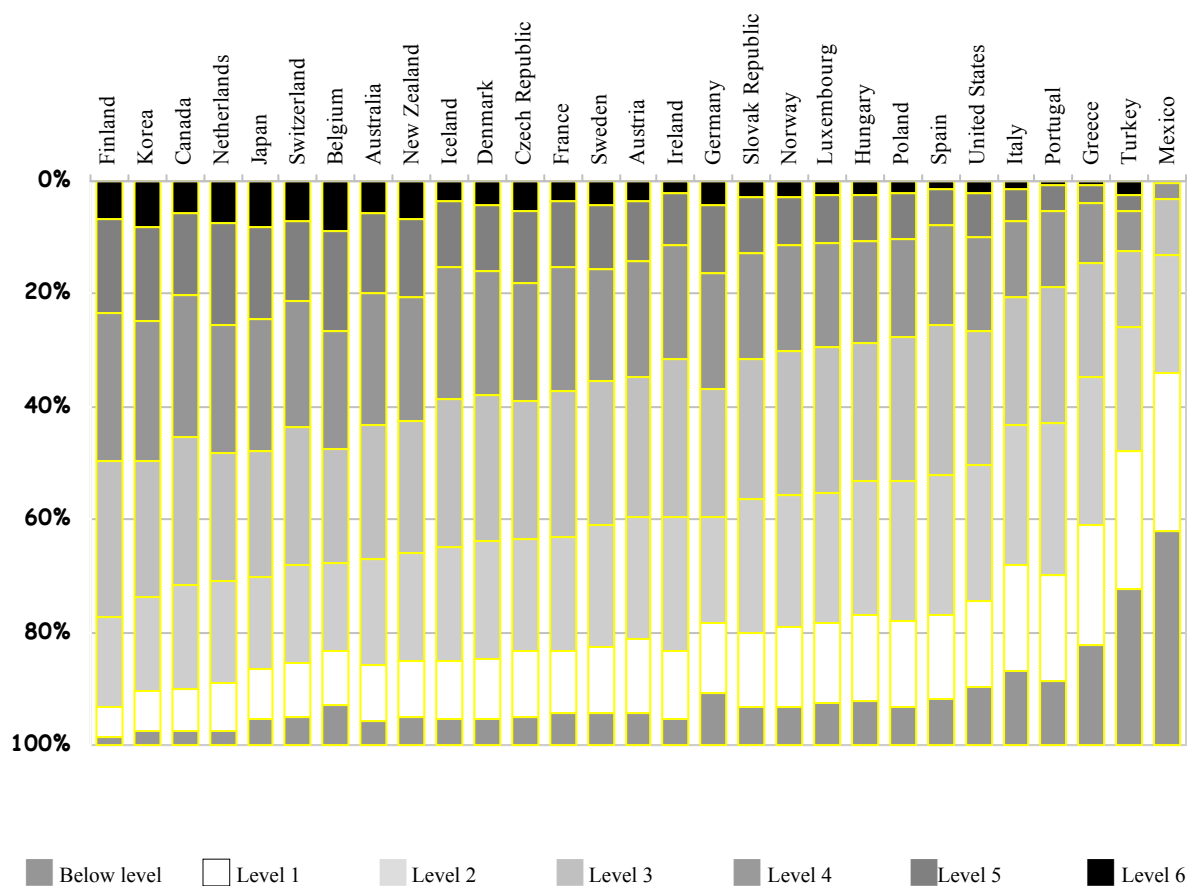
11.1 International comparison studies

One of the strongest pretexts for education reform has been international comparison studies of student achievement. The Trends in International Mathematics and Science Study (TIMSS), Progress in International Reading Literacy Study (PIRLS) and recently the Programme for International Students Assessment (PISA) are measures commonly used to compare the performance of education systems. Combined with the Indicators of National Education Systems that is coordinated by the OECD, these studies have highlighted the differences between education systems of different countries.

PISA seeks to measure student competency in core subjects needed to operate in modern democratic societies and knowledge-based economies. PISA is therefore a forward-looking assessment of pupils' knowledge and skills that they have acquired in or out of school. PISA assesses to what extent students near the end of compulsory education have acquired some of the knowledge and skills that are essential for full participation in society. In all cycles, the domains of reading and mathematical and scientific literacy are covered not merely in terms of mastery of the school curriculum, but in terms of important knowledge and skills needed in adult

life. PISA has provided two cycles of results; the first data were collected in 2000 and the second in 2003 (OECD, 2001; 2004; 2005).

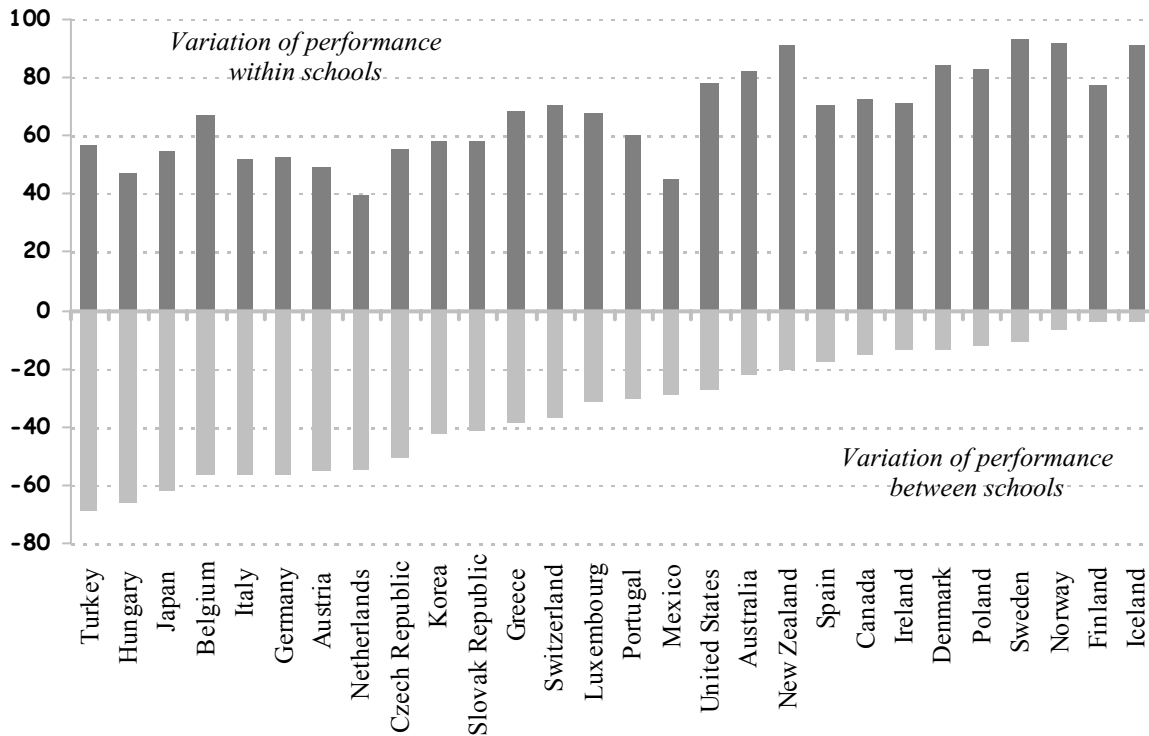
Figure 11.1 Percentage of students at each proficiency level on the mathematics scale in 2003 (OECD 2004)



Finland performed remarkably well in both PISA cycles. Figure 11.1 shows how almost 80 percent of Finnish 15-year old students reached proficiency level 3 or higher in 2003. The national mean score in mathematics scale was 544 (the OECD mean is 500), the highest of all countries participating in PISA that year. Indeed, the overall performance improved from 2000 to 2003. In addition to Finland’s high level of student learning performance in reading literacy, mathematics, science and problem solving, the variance between the high and low performing schools is the smallest among all participating countries. The significance of international student achievement and education system performance comparisons like PISA is that they indicate both lateral and chronological consistency of good education outcomes. The high

performing schools seem to be scattered evenly throughout the country. This may indicate Finland's success in implementing its long-term vision of creating an egalitarian education system for all citizens.

Figure 11.2 *Variation in student performance in mathematics (OECD, 2004)*



Readers should be reminded that the Finnish students who take part in these international assessments have virtually no experience taking standardized tests. Finland's education system does not have any state-wide high-stake tests, except the Matriculation Examination in the end of the upper-secondary school. By the time the randomly selected Finnish students take part in PISA, they have never sat for any such tests. Teaching and studying for tests or exams in nine-year comprehensive school in Finland is practically nonexistent. Teachers whose students have been picked to do the PISA and other student-learning studies have reported that there is very rarely any anxiety or stress among students in the testing situation, most likely due to Finland's lack of such a testing culture. One of the authors witnessed some of the testing situations during the 2000 PISA cycle in Finnish schools, and it was obvious that most students answered their questionnaires and test papers in a relaxed and encouraging atmosphere.

It is necessary to emphasize that international comparisons, studies, and indicators do not only compare the academic performance of students in different countries. They also provide useful information regarding other features of education systems, such as the impact of social or economic factors on educational performance. The quality of any education system cannot be determined by using students' test results alone. For example, the education indicator system created by the OECD provides comparative information about participation and completion rates, as well as spending on education. One important dimension in determining the quality of education is how evenly the quality is dispersed throughout the system (Figure 11.2). Although Finland had never before acquired any specific reputation as an education nation until PISA, the education system has for some time been recognized as one of the most equitable in terms of variance between the learning results in different schools (OECD, 2004). Finding a good school close to any home has been one of the education system's most widely appreciated features among parents in Finland since early 1970s. Ensuring relatively good public schools in every town and village has also kept the pre-tertiary education system free from privately funded-schools. Notably, establishing a private school in Finland requires a decision by the central government and approval of the appropriate municipality.

11.2 The complexity of explaining excellence

Breaking news in early December 2001 broadcast an unexpected message to Finnish educators: Finland had outperformed all traditional education powerhouses, including Germany, Sweden, Japan, and the United States, on the new PISA study of student reading, math, and science literacy. Until then, Finland was considered little more than an average education nation with excellent young readers who performed moderately well in mathematics and science.

These results prompted much speculation and confusion in Finland's education community. How could an education system that previously had been ranked as average and that had undergone massive budget cuts in the recession a decade earlier reach such heights? There was barely time for the Finns to figure out something to say before the first delegations from other countries arrived to learn the secrets of their high performing education system. Between January 2002 and summer 2003, Finland welcomed over 100 official delegations. Many more arrived through institutional exchange. All of them wanted to know how Finland did it.

So did their hosts. It soon became clear that explaining the excellence of schools and the system as a whole is extremely complex and sometimes even confusing. Linear, cause-and-effect

explanations are rarely credible in education. Interestingly, some delegations were left with conflicting impressions when they were told that the stellar performance of Finnish students and schools was the result of one factor or the other, depending on who the officials asked.

The problem that many “educational pilgrims” experienced was that they looked for explanations in what they saw. Visiting beautiful school buildings filled with well-trained teachers, state-of-the-art technology, and fancy textbooks provides little clue about how the system operates. More importantly, understanding how Finland has been able to develop such a system from where it was in the beginning of the 1970s requires more than observing what is in schools and universities today. Some have argued quite correctly that the Finns benefited at least as much as their visitors. Questions and doubts presented by the visitors and journalists have helped Finland’s education community see what is valuable in their system and, most importantly, to understand that explaining the excellence of their school system is not a straightforward tale.

One purpose of this book is to shed more light on the cultural and political history of Finnish education policy development and reform principles since the late 1960s. We believe, along with many others, that political and cultural dimensions are necessary in understanding the peculiarities of some current aspects of the Finnish education system. A common mistake in benchmarking education systems and their performance is to think that studying the present, visible characteristics of schools will reveal the secret drivers of a well-performing system. One concrete benefit for Finland from the scores of international visitors has been the need to better understand why education systems differ so dramatically from country to country.

Attempts to understand and explain the differences between education systems in terms of students’ learning outcomes and variation of the quality of schools has raised some questions about the role of country-specific characteristics. For example, authorities in countries that have not performed well in PISA have claimed that the particular tests do not adequately measure what is taught in schools. Some also argue that champions of mathematics and science Olympiads are proof of high quality education systems. It is true that standardized international tests can never completely match teaching and learning practices, and hence please all participating countries.

Some international observers have argued that Finland has been able to develop high performing education system because of its peculiar characteristics. It is important to realize that

education systems indeed operate as integral parts of the wider society, including its political system. However, one has to be careful in establishing credible causal relationships between performance and national characteristics. The following four myths have been used to explain Finnish education success (see Sahlberg, 2006).

Finland is a small country. It has been argued that good results in education are easier to achieve in a small country than in a large one. Although size may matter in this case, it is hardly a significant explaining factor. Countries of similar size, for example Norway, Denmark, Ireland or Luxemburg, perform far differently.

Finland is culturally homogeneous. While this may have some impact on the learning results, it is difficult to make the link when other countries with similarly homogeneous populations don't do as well as Finland in international assessments. For example, Denmark, Norway, Hungary, and Poland—all similar to Finland in terms of their social and cultural structures—have very different PISA results. It should be noted that Finland is a bilingual country with two official national languages.

PISA tests fit the Finns. Some observers have argued that especially the test items used in PISA cycles favor Finnish students because they are more aligned with the current curriculum in Finland than in many other countries. This belief may well be true, and if it is, then the curriculum deserves more attention in understanding Finland's success. However, it should be noted that each and every country has to accept all test items used in PISA, and in that way confirm that they are at least somewhat aligned with what should be taught in schools.

Finland is a cold and remote country. The most extreme statements expressed by some educational commentators claim that living in a cold and dark arctic country turns Finnish youngsters into nerds because they have fewer attractions and hence spend more time indoors on educational activities. This is pure nonsense. According to international surveys, Finnish pupils spend less time with homework than do their international peers. Secondly, the climate in the parts of Finland where most people live doesn't significantly differ from the climate in other Nordic countries, Canada, or the northern United States.

Education system performance has to be seen in the context of other systems in the society, e.g. health, environment, rule of law, governance, economy, and technology. It is not only education that is well-performing in Finland. Schools are one part of a well-functioning, democratic welfare state. Attempts to explain the success of Finland's education system should

be put in the wider context of the overall function of such institutions in a democratic civil society. In his policy brief to the Lisbon Council, Schleicher writes that, “One element of Finland’s success has been the capacity of policy makers to pursue reform” (Schleicher 2006: 9). Economists have been interested in finding out why Finland has been able to become the most competitive economy in the world since 1990. A well-performing society is rarely the result of any single parameter. The entire system needs to perform well.

11.3 Six success factors

The authors are well aware of the dangers of explaining why students in some countries seem to learn better on average than in others. The purpose of this section is not to present an exhaustive or exclusive explanation for Finland’s success in the first two PISA cycles measuring student competencies. What follows, instead, is the authors’ analysis of the possible factors in the Finnish education system and society that may contribute to its recent achievements (see Sahlberg, 2006; Simola, 2005; Välijärvi et al., 2002).

1. Same comprehensive basic school for all

Finnish children start compulsory nine-year basic school in August of the year when they turn seven years old. Normally class-based primary school lasts six years followed by three-year lower-secondary school, although the new law allows some variation. Today it is widely recognized that this six-year primary school is the cornerstone of education for all Finnish citizens. Research shows that investment in primary education when children learn the basic knowledge and skills and adopt the attitudes of lifelong learning are paying off in later grades through better aptitude and learning skills as well as good overall outcomes.

All basic school teachers need to hold a higher academic degree in order to be employed permanently. This means a master’s degree in education from one of Finland’s (or Europe’s) universities. Primary-school teacher preparation was converted from a three-year program at teachers’ colleges to four- or five-year university faculties in the late 1970s. Most primary school teachers today have a higher university degree. All post-primary school teachers are required to have either a bachelor’s or master’s degree. The issue of teachers will be discussed in more detail below.

Basic schools are typically small and well-equipped. Since the mid-1990s, the number of comprehensive schools (grades 1 to 9) has declined dramatically as the number of pupils has

decreased (from 4,453 in 1995 to 3,476 in 2004) and municipalities have cut budgets. Primary schools (grades 1 to 6) typically have fewer than 300 pupils and class-sizes are by international standards average or below average. In 2004, more than one-third of comprehensive schools had fewer than 50 pupils; just 4 percent of all schools have 500 or more pupils.

Because most basic schools are small, with small classes, they often forge close educational communities between teachers and pupils. Most teachers in primary schools are highly educated individuals who continuously update their professional knowledge and skills. Curriculum reform has made primary schools a place where play and learning are combined with alternative pedagogic approaches to help children master basic academic knowledge and skills. Many primary schools therefore have become learning and caring communities rather than mere instructional institutions that prepare pupils for the next levels of schooling.

The fact that all children enroll in the same comprehensive school regardless of their socioeconomic background or personal abilities and characteristics has created a system where schools and classrooms are heterogeneous in terms of pupil profiles and diverse in terms of educational needs and expectations. Comprehensiveness, which has been the leading idea in implementing the basic values of equity in education, also means that all students receive a free two-course warm meal each day, free health care, transportation, learning materials, and student counseling in their own schools. It is interesting to note that Finnish children start compulsory schooling one to three years later than children in most other countries. This means that pupils in Finland learn relatively better in a shorter time period as compared with their international peers. Finnish education policy has never challenged the principle of extended childhood at the expense of increasing the time spent on formal education. In Finland, children still have time to be children.

2. Teachers

In Finnish society, the teaching profession has always enjoyed great public respect and appreciation (Simola, 2005). Traditionally, parents have trusted teachers as professionals who know what is best for their children. Teachers therefore have considerable independence in the classroom in terms of choosing appropriate pedagogical methods. Consequently, primary schools in particular are quite independent in designing their curriculum, teaching and learning arrangements, and use of public funds. This means that a teacher's work is considered to be an independent, high-status profession that attracts some of the best secondary school graduates.

Indeed, only about 10 percent of some 5,000 applicants are accepted each year to the Faculties of Education in Finnish universities. This means that university teacher-education departments can select from some of the country's best students from among the top scorers on the entrance examination. Most of these excellent young teachers-to-be are women. It has been difficult to attract an adequate number of men to apply to the teaching profession.

As mentioned above, all teachers in Finland need a master's degree to qualify for a permanent teaching job. There have been occasional arguments about whether primary school teachers need a master's degree or not. Nevertheless, despite pressure to reduce study time and increase the internal efficiency of post-secondary education, teacher preparation has remained in universities.

For primary schools, this decision has had several positive consequences both for teachers and society at large. One significant factor is that a master's degree in education not only qualifies someone to teach school but opens the door to employment in public administration or in the private sector. Indeed, young graduates with a master's degree in primary-school teaching are much sought after by human resource departments in business and industry. Most importantly, however, a master's degree guarantees access to post-graduate studies that have been made widely available in most Finnish universities nowadays. The primary school teacher who joins the labor market after graduation doesn't feel that her professional career is limited only to primary school work. Many teachers, especially in primary schools, seize the opportunity of continuing their academic studies. During the past decade, Finnish schools have seen an upsurge in the number of school principals and teachers with Ph.D.s in education.

In international comparisons, Finnish teacher education stands out for its depth and scope. The balance between theoretical and practical learning in these programs helps young teachers understand the various teaching methods as well as the science of teaching and learning. Curriculum reform in the mid-1990s showed that teachers with such high professional competency are very motivated and easy to involve in the school development processes in their own schools as well as in national and international projects. They also tend to work just as hard to continue developing their own professional knowledge and skills.

Teachers in Finland are conscious and critical consumers of professional development and in-service training services. As the professional level of the teaching cadre has gone up over

the past two decades, so has the quality of professional development support for teachers. Most of the compulsory, traditional in-service training has disappeared. In its place are school- or municipality-based longer term programs and professional development processes. Continual upgrading of teachers' pedagogical skills has become a right rather than an obligation. This shift in teachers' learning conditions and styles is often reflected in the ways learning has been arranged for pupils in classrooms.

3. Sustainable leadership

The success of Finnish education is not the result of any major education reform *per se*. Although, as this report notes, comprehensive school reform at the end of the 1960s and early 1970s may well deserve the label of “major reform,” education sector development in Finland has been based on the continuous adjustment of schooling to the changing needs of children and society. Nevertheless, the basic values and the main vision of education as a public service have remained unchanged since 1968. Governments from left to right have respected education as the key public service for all citizens and relied on the belief that only a highly and well educated nation will be successful in world markets.

Sustainable political and educational leadership has enabled schools and teachers to concentrate on developing teaching and learning. Rather than allocating financial resources and time to implement new reforms again and again, teachers in Finland have been given professional freedom to develop the pedagogical knowledge and skills related to their individual needs. After a decade of centralized in-service training following the launch of comprehensive school reform in the 1970s, the focus of professional development has been shifting to meet the demands and expectations of schools and individuals.

The sustainability of key education values and principles has also given schools and teachers better opportunities to take the lead in improving schools according to local needs and their own potential. In education systems that undergo wave after wave of reforms, the emphasis is often on implementation and consolidation of what are usually externally designed changes. In Finland, however, education policies have increasingly sought to invite schools to design their own development plans and implementation strategies based on the national framework and oversight systems. As a consequence, decentralization and increased local autonomy has not only enabled schools to have more freedom to establish optimal teaching methods and learning

environments, but has also given them true leadership and responsibility in education development and school improvement.

4. Recognition and appreciation of existing innovations

Comprehensive school reform in the 1970s was designed and supported by a wide range of experimental projects and initiatives carried out by municipalities and by schools. In the 1980s, for example, several schools piloted integrated approaches to teaching and learning that focused less attention on specific subjects and more on the holistic understanding of knowledge. In all cases, these experiments were authorized by the central administration and monitored using university researchers. During the last 30 years, the culture of innovation has taken root in the education system. The intensity and diversity of these innovations expanded in the 1990s, when central control was abolished and municipalities and schools received almost full autonomy in developing the daily delivery of education services.

The success of the 1994 national curriculum reform may have many explanations. One of them is definitely the highly trained and motivated teaching force. A second factor is related to the improved management and leadership capacity of schools due to the systematic preparation and selection of school principals. But something more than these staff-related factors have had a significant influence on today's high performing education system: the recognition and appreciation that many schools have valuable ideas and know how to be successful. The key challenge therefore was not how to deliver all the necessary information about the new curriculum to schools and teachers, but rather how to find ways to help schools and teachers come together and share what they have learned about productive teaching techniques and effective schools. In other words, the main philosophy driving the implementation of the 1994 curriculum and related pedagogical ideas was the creation of professional learning communities first in each school and then between the schools. In highly professional teacher communities like Finland's, this strategy appeared to be the right one given the rapid pace of curriculum reform and its implementation.

One of the most interesting efforts to promote professional learning among teachers and creating a culture of networking and clustering was the so-called *Aquarium Project*. This effort from the 1990s was coordinated by the National Board of Education and financed in partnership with the government, municipalities, and schools themselves. The main aim of the Aquarium Project was to bring schools and teachers together to create educational innovations and new

practices that would improve the quality of teaching and learning. The method of operation was an open human resource network model that emphasized the role of personal interaction and the sharing of locally tested practices and enriching ideas. Nearly 700 schools and 5,000 teachers took part in this project, which continues to have a positive impact in schools six years after its conclusion.

5. Flexible accountability, i.e. focus on deep learning, not testing

Finland has not followed the Anglo-Saxon accountability movement in education that believes in making schools and teachers accountable for learning results. Traditionally, evaluation of student outcomes has been the task of each teacher and school in Finland. The only standardized high-stake assessment is the Matriculation Examination at the end of upper-secondary school before students enroll in tertiary education. Prior to this Matriculation Examination, no external national tests or exams are required.

Flexible accountability has had a major positive impact on teaching and hence on student learning. First of all, assessment of student learning is based on teacher-made tests rather than standardized external tests. By fifth grade, pupils no longer receive numeric grades that would enable directly comparing pupils with one another. In fact, grades are prohibited by law. Only descriptive assessments and feedback are used. It is not unusual for teachers to view regularly arranged teacher-led classroom tests as occasions for learning as much as for assessing achievement. Primary school especially is to large extent a testing-free zone reserved for learning to know, to do, and to sustain natural curiosity. Second, teachers have much more real freedom in curriculum planning when they do not need to focus on annual tests or exams. Increased teacher and school autonomy in the 1990s has led to a situation where schools can not only arrange teaching according to their optimal resources, but also allocate teaching time differently from one school to another within the national framework. This is rarely possible in more rigid and test-heavy education systems. Third, the focus of schooling is almost totally on learning rather than on testing. Different teaching methods are commonly used throughout the school system. New innovations are fairly easily accepted by teachers as they are considered appropriate for learning. Stress and anxiety among pupils and teachers is not as common as it is in education systems with more intensive accountability structures.

Naturally, flexible accountability that relies on the teachers' and schools' ability to assess their pupils' achievement doesn't come without shortcomings. Some doubt that students who

leave the 9th grade and enroll in upper-secondary education are treated equally as opposed to being selected based on teacher-made assessments and grades. Indeed, there are sometimes significant differences between the criteria teachers use to evaluate their students, even within the same school. A related problem appears when students move from one school to another and carry grades they may have earned under expectations that are different from those in their new schools. Regardless of these and other distortions, parents, students, and teachers seem to prefer flexible forms of accountability that enable schools to keep their focus on learning and allow more degrees of freedom in curriculum planning compared with the external standardized testing culture that exists in some other countries.

6. The culture of trust

Much of what has been said above is only possible when parents, students, and authorities genuinely trust teachers and schools. It is necessary to remember that the Finnish education system was very centralized when the great reforms in the 1970s were introduced and rolled out nationwide. Schools were strictly regulated by the central agencies (National Board of General Education and National Board of Vocational Education) and a dense network of rules and orders regulated the daily work of teachers. The gradual shift toward trusting schools and teachers began in the 1980s, when the major phases of the initial reform agenda were completely implemented and consolidated in the education system. In the early 1990s, the era of a trust-based culture formally began in Finland.

The culture of trust basically means that the system, that is, the Ministry of Education and the National Board of Education, believes that teachers together with principals, parents, and their communities know how to provide the best possible education for their children and youth. In Finland, this transition from bureaucratic central administration to the decentralized culture of trust happened at a time of deep economic crisis and public budget cuts. It was argued that the culture of trust was introduced in the society because local authorities did not want centralized bureaucrats making the difficult financial decisions that would affect their children and schools. Fortunately, depending on local wisdom in deciding what is best for the people seemed to work well also with the most difficult issues, such as reducing expenditures and realigning existing operations to new budgeting realities.

The culture of trust can only flourish in an environment that is built upon good governance and close-to-zero corruption. It is telling that Finland also performs extraordinarily well in international good governance rankings. Transparency International named Finland the least corrupt nation among 146 countries. Public institutions generally enjoy high public trust and regard in Finland. Trusting schools and teachers is therefore a natural consequence of a generally well-functioning civil society. Honesty and trust are often seen as some of the most basic values of Finnish society (Lewis, 2005).

Inviting teachers and schools to take part in social development had an enormous positive impact on the education sector in the 1990s. This trust had two different dimensions. First, teachers could see that the system believed that schools and communities were the places where decisions concerning the curriculum and the overall arrangement of schooling should be done. Teachers, with their high professional and moral qualifications, mostly welcomed this new responsibility. Second, schools very quickly embraced new roles in leading change through the culture of trust. School improvement not only exploded in Finland as a consequence of this new trust, but also became much more diverse than before. Each school, at least in theory, could design its own change strategy with mission statements, vision, and implementation methodologies and schedules. It is this latter dimension of trust that has had the most significant role in propelling Finland's education system past those of many other countries.

11.4 Sustainable education policies and leadership

By many standards, Finnish education authorities and taxpayers should be happy with their education system today. Essentially, all children now go to school and complete their basic education on time. Most families have a publicly funded good school nearby. Participation rates in secondary and post-secondary education are high. Finland achieves strikingly above average learning outcomes with less-than average spending outlays. In short, Finns in general seems to be quite content with their existing educational situation. Indeed, there is no need for major education reform at the moment in Finland, unlike many neighbors. Still, there is no guarantee that the current good situation will last as society and the economy change.

Another perspective that helps to understand the achievements of Finnish society in general and the education sector in particular is to look at longer-term progress through the

lens of sustainable social, economic, and political development. Andy Hargreaves and Dean Fink have presented a useful set of seven principles of sustainability in education change and leadership (Hargreaves & Fink, 2005). Table 11.3 is a brief analysis of the sustainable education leadership policies in Finland since 1968 as presented in this book. The conclusion is that Finland seems to be particularly successful in creating and maintaining the seven key policies that constitute sustainable educational leadership and change. It is noteworthy that these seven principles of sustainability were written in the early version of Finland's education policies in the 1970s. While the principle of justice, i.e. equity and equal opportunity, have been the leading values of Finland's long-range education vision, strong and systematic emphasis on leadership at all levels of education began to emerge in the 1980s. Throughout the decades it has been clear that education policies need to be based on depth, length, and breadth of leadership, and that diversity and resourcefulness are the conservative drivers of educational change. Finally, one of Finland's key success factors has been the early recognition that learning from past experiences can build a better future.

Sustainability is one of the cultural characteristics of Finnish society and it cuts across several walks of life. Sustainability certainly was the foundation of the Development Plans for Education and Science that were adopted as the main policy instrument in the early 1990s. Moreover, the comprehensive school reform discussed in Part 1 was built upon the vision of a good school that is common to all children in Finland. Regardless of ruling parties or political administrations, these core values of education policies have always been respected.

Good governance and continuously improved professional capacity of public administration guarantee sustainable policies and leadership. Rather than unifying the education system through centralized decrees and standards, education policies have nurtured cohesive diversity and developed material and human resources. The good quality of public institutions is indeed the driving force of education performance and economic competitiveness in Finland.

Figure 11.3 Seven principles of sustainable leadership and their presence in education development in Finland since 1968

Principle

Description (Hargreaves and Fink, 2005)

We must preserve, protect, and promote in education what is itself sustaining as an enrichment of life: the fundamental moral purpose of deep and broad learning (rather than superficially tested and narrowly defined achievement) for all in commitments to and relationships of abiding care for others.

Length: Sustainable leadership lasts.

It preserves and advances the most valuable aspects of life over time, year upon year, from one leader to the next. The challenges of leadership succession, of leading across and beyond individual leaders over time, are at the very heart of sustainable leadership and educational change.

Breadth: Sustainable leadership spreads.

It sustains as well as depends on the leadership of others. In a complex world, no one leader, institution, or nation can control everything without help. Sustainable leadership is distributed leadership – as an accurate description of how much leadership is already exercised, and also as an ambition for what leadership can, more deliberately, become.

Justice: Sustainable leadership does no harm to and actively improves the surrounding environment.

It does not raid the best resources of outstanding students and teachers from neighboring institutions. It does not prosper at other schools' expense. It does no harm to and actively finds ways to share knowledge and resources with neighboring schools and the local community. Sustainable leadership is not self-centered; it is socially just.

Diversity: Sustainable leadership promotes cohesive diversity.

Strong organizations promote diversity and avoid standardization. In sustainable communities, alignment is an ugly word. It perpetuates hierarchical dependency in linear systems that are brittle and break. Sustainable leadership fosters and learns from diversity in teaching and learning and moves things forward by creating cohesion and networking among its richly varying components.

Resourcefulness:

Sustainable leadership develops and does not deplete material and human resources.

Sustainable leadership recognizes and rewards the organization's leadership talent in earlier rather than later career. It takes care of its leaders by getting them to take care of themselves. It renews people's energy. It does not drain its leaders dry through innovation overload or unrealistic timelines for change. Sustainable leadership is prudent and resourceful leadership that wastes neither its money nor its people.

Conservation:

Sustainable leadership honors and learns from the best of the past to create an even better future.

Amid the chaos of change, sustainable leadership is steadfast about preserving and renewing its long-standing purposes. Most change theory and change practice has only a forward arrow. It is change without a past or a memory. Sustainable leadership revisits and revives organizational memories and honors the wisdom of their bearers as a way to learn from, preserve, and then move beyond the best of the past.

Appearance in education system in Finland

Purpose of schooling has focused on holistic development of personality that includes knowledge, skills, values, creativity, and interpersonal characteristics. Schools have remained as places for learning and caring where learning comes before achievement and testing and has been defined in relation to one's own development and growth.

Education policy development has been built upon longer-term vision and strategic principles. The Development Plans for Education and Research have been the key instruments of sustainable leadership. Rather than seeking short-term gains, education development has focused on consolidating the basic values in education.

Education leadership has been gradually distributed from the center to the local levels. There has been a strong focus on systematically improving leadership and management at all levels since the 1980s. Leadership is not only limited to daily managerial duties and administration, but is especially addressing the responsibility and right to lead the continuous development of the education system.

Achieving the goal of offering equal opportunities to good education for all children and youth has required creating and maintaining a school network that consists of equally good schools. This equity principle has been the leading policy idea since the early 1970s. School choice was limited until 1995 when the school network had already been well-developed.

School network is based on the idea of inclusive education that promotes diversity and recognizes complexity in schools and classrooms. Steering of teaching and learning has never been based on external standards but rather on guidelines that encourage creative solutions in increasingly diverse social and human environments. Moreover, streaming and ability groupings were gradually abolished as the system developed in the 1980s. Partnership, networking, and clustering have become leading ideas in education development.

Leadership and management policies were dramatically adjusted in the late 1980s. Young talents and creative individuals were appointed to lead schools, local education offices, and central departments with the belief that competencies often override routine experience. Systematic and research-based ways of preparing leaders and maintaining their knowledge and skills were introduced in late 1980s.

Education development has been balanced between bringing in new innovations and utilizing existing good practices. There was a clear recognition in the 1990s that most of the needed educational practices already existed somewhere in the system. This was an important acknowledgement of teachers' wisdom and a realization that learning from past experiences is equally as important as introducing totally new ideas in schools.

12. The Future of Education Reform

12.1 Need for conservation and change

This book has described the development of education policies and related reforms since 1968. One key conclusion is that reforming the education system simply for the sake of reform will not yield good result. Instead, education policies should follow the principles of sustainable leadership and educational change. This is where the magic ingredients of Finland's success will ultimately be found. The recipe includes long range planning, consensus-based education policies, and working in close partnership with other sectors of a democratic society. Although the situation in terms of education is very bright in Finland right now, that is not a good reason to rest on our laurels and let things coast along as they are.

Finnish society is in transition culturally and demographically. Faced with globalization and the increased internationalization of its economy and trade, Finland's once monolithic society is becoming more and more culturally diverse and complex. This creates challenges to education even as it transforms society (see Sahlberg 2004). Basic education values, namely equity and equal opportunities for good education for all, include everyone living in Finland. The inclusion principle in Finnish education means that all children will attend the same schools. There are no special schools or classes for immigrants or non-Finnish speakers. Finnish schools of the future need to be at least as good as they are today in welcoming all children to enjoy and learn in schools. The curriculum needs to put increasing emphasis on cultural diversity, to develop tolerance and mutual respect among people, and to teach future citizens how to care better for our environment.

Like many Western societies, Finland's population is aging rapidly. As the number of school-age children declines and migration from rural parts of the country continue to bring more families to the cities, schools in the countryside are gradually losing enrollment. Urbanization and an aging population confront the education system with a new set of challenges. During the last decade or so, many suburban schools in Finland have experienced increasing social and behavioral problems as more pupils live in broken homes, engage in drugs and alcohol at younger ages, and spend more time with computers, electronic games, and television. Schools in Finland must now compete with media and entertainment more than ever. Sustaining the genuine interest of pupils in learning is the premier goal for education development in the future.

12.2 Certain and unpredictable future

Since the economic crisis of the 1990s, Finland has experienced constant growth. Except for the relatively high 7 percent unemployment rate, the nation's development has been nothing but robust. Finland has integrated successfully into the European Union. At the dawn of the third millennium, it continues to perform extraordinarily well in many key areas, from the economy to technological progress, social well-being, and environmental protection. Finland has largely reinvented itself over the past 35 years, revamping its education system, transforming its healthcare structure, and creating a new high-tech sector that, thanks to the cell phone manufacturer Nokia, has become an international player. Today, Finland regularly gets cited as one of the world's best in any number of indexes and comparisons as summarized in Figure 12.1.

Figure 12.1 Finland report card 2005

- Finnish 15-year-olds score first in the industrial world on comparative tests of their academic abilities arranged by the OECD.
- Finland invests more of its gross domestic product in research and development than any country except Sweden, according to OECD statistics.
- The World Economic Forum ranks Finland as the most competitive economy in the world.
- Yale and Columbia universities rank the nations of the world in a "sustainability index" that measures a country's ability to "protect the natural environment over the next several decades." Finland is first in the rankings.
- According to Transparency International, Finland is perceived as the least corrupt country in the world.
- Finns read newspapers and take books out of libraries at rates higher than any other country.
- Finland trains more musicians, per capita, than any other country.

Regardless of the positive performance of many sectors of society, Finland faces the same demographic problems as most European countries. Many problems lurk in the future. Those that bear directly on the education system include:

1. *The population of Finland is aging.* As the post-war baby boom generation heads into its retirement years, more money will have to flow to social services and healthcare. Among all OECD countries, Finland also has the greatest discrepancy in education levels between the young and older generations. That is why special programs have been launched to increase the vocational education and training of adults and thus keep the aging labor force in step with developments in the labor market.
2. *The high retirement rate* in the coming years will create a labor crunch in most sectors of the economy. More people are retiring than the education system can produce

graduates to replace in the workforce. There are programs to extend working years and to postpone the retirement of elderly employees. Adult education may help ease the strain. So, too, might increased immigration.

3. *Too high a school-life expectancy.* Today's typical Finnish 5-year-olds are forecast to spend 19.2 years in school. The corresponding average for OECD countries is 16.9 years (OECD, 2005). Since 1995, the time Finns spend in school has increased by 12 percent. The so-called "intermediate years" or "gap years" that many matriculated students take off before heading off to higher education, are increasing the average graduation ages even more. A decrease of one year in the average graduation age would boost the labor force by 60,000 people. At present, the government is paying a lot of attention to the problem of overly prolonged graduation times. Even if long education can be seen as an asset, in Finland, the length of study is too long, especially considering the coming labor shortages.

4. *Too extensive higher education.* There are contradictory opinions on the magnitude of higher education and upper-secondary vocational education. Finland sends more graduates on to higher education than any other country in the world—about 60 percent. In addition to exacerbating the labor crunch, business, industry, and education fear that the trend will have a profound effect on the practical vocations for which the upper-secondary sector is training them.

5. *Geographical education disparities increase.* The decline in the number of pupils and students in sparsely populated regions and municipalities causes problems for preserving a school network dense enough to guarantee equal educational services in all parts of the country. Preconditions for maintaining schools are disappearing in many localities. Cross-border cooperation between neighboring municipalities is needed. Also, the Internet and e-learning can alleviate the problem of maintaining regional equality.

6. *Too many small municipalities.* Something should be done to change the municipal structure. Increasing cooperation between agencies is a start, but combining municipalities into regional units would create a more sustainable solution. Regional organization of education is possible when implemented as it has been in Kainuu, a region that has been losing population, particularly youngsters and children, at the highest rate.

7. *Lack of teachers.* The average age of Finnish teachers is quite high, but retirement isn't the only reason their ranks are thinning. Educated teachers make very attractive employees and other professions lure many from the classroom. The Ministry of Education recognizes the problem and has worked with universities to increase enrollment in teacher training. The high level and attractiveness of the teaching profession has been a fundamental element in keeping education standards so high in Finland. While teachers are still valued, there are signs that the sheen may be wearing thin.

8. *External problems are entering schools.* There is a growing need for enhanced guidance counseling for students. Schools mirror society, and as educational arrangements have become more complex, so have the problems pupils bring with them from home. More counseling and student welfare services are clearly needed—an idea that was recently endorsed in new laws and development programs.

There are some signals that Finland's vaunted education system may be showing signs of strain. In previous PISA results, its schools were the world's most equal, displaying the lowest standard deviation in outcome. Lately, small performance gaps seem to be widening between schools and between regions. The government is paying attention to this dawning development.

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Annex 1 Glossary of terms

This glossary explains the education terminology used in this report. The explanations refer to the Finnish education system and its development phases.

Ability groups means grouping of pupils in different teaching groups according to their assessed ability to learn.

Act on Administrative Procedures gives instruction and indication on good governance for public organizations and civil servants.

Act on Education Experiment at Youth Level created from the beginning of the 1990s the framework for experiments which aimed at combining studies in upper-secondary general and vocational schools. At the end of the 1990s this act was replaced generally by an acted obligation for cooperation between educational institutions.

Act on the Experiment of Polytechnic Education was the legislative basis for launching polytechnic education.

Act on School System was issued in 1968 as a framework act and directive for the governance of education to conduct the education reform.

Act on Development of Upper-secondary Education was enacted in 1978 to indicate the guidelines according to which both general and vocational upper-secondary education was to be reformed.

Advisory Board of Education Reform was founded in connection with the Ministry of Education to give advice to the Ministry in the planning and implementation processes of the upper-secondary education reform. There were representatives of different ministries, employers' and trade unions' central organizations, teachers, provinces, and municipalities.

Advisory Board of Education Reform (regional) was established in each province in connection with the Education Department of Provincial State Offices. Their mission was to give advice in the planning and implementation processes of the upper-secondary education reform.

Apprenticeship training. The trainee, an employer, and the educational authority make a contract for on-the-job learning of the trainee. The trainee also receives periods of theoretical studies in vocational schools.

Basic education means in the old system (parallel) of compulsory education which required continuation of education to the age of 15 either in the civic or in the grammar school. In the new system (comprehensive), basic education means education containing grades 1 to 9 of the basic school.

Basic school reform meant the abolishment of the parallel structure in elementary education by creating the comprehensive basic school.

Civic school provided continuation to primary school parallel to the lowest grades of grammar school for those who did not apply for or pass the entrance test for grammar school.

Classless school (model). See “non-graded school” below.

Competence-based basic qualifications are defined in a certificate, which certifies that an individual has passed the competence-based tests that measure skills and knowledge in the specific basic vocation.

Competence-based vocational qualifications are tested by tests which are organized by Qualification Committees. The test exists independent of the way in which the required skills have been reached.

Comprehensive school is a 9-year compulsory basic school.

Comprehensive school reform is synonymous with basic school reform.

Compulsory education before the reform lasted to the age of 15. After the reform, it normally refers to completion of the basic school. If there is a failure in studies, the compulsory school age extends to the age of 17.

Core Framework Curriculum contains the directives given by the National Board of Education. It included, before 1994, both the target-setting and the main contents of education for different levels and fields of primary, lower- and upper-secondary education. Since 1994, the national core curricula concentrate mainly on the targeted results of learning and skills.

Corporation (corporatism) refers to the interest groups in the society and labor markets, mainly employers’ organizations and trade unions.

Curriculum is the document on which the syllabus of school is based. The municipality approves the curriculum and, generally, creates a common local part in it.

Day-care of children. Formerly, day-care of under-seven-year-old children took place in municipal or private kindergartens or in supervised family day-care. Now the majority of six-year-olds (98 percent) attain pre-school education either in kindergartens or in schools.

Development plan for education and research is a plan for four to five years decided by the Central Government indicating the main development goals and action plans for the coming years.

Educational guidance for pupils and students is provided by ordinary teachers and by specialized study counselors at the upper grades of education. Guidance aims at helping pupils and students make decisions on the selection of studies, subjects, courses, and further education at the following level as well as to decide vocational choices.

Elementary school is a synonym for the present basic school and the former parallel education consisting of primary school and civic school.

Federation of Municipalities (municipal federation). Two or more municipalities establish an organization to take care of regional services. This is the way by which the majority of vocational education was and is still organized.

Financial capacity classes of municipalities. Formerly the municipalities were categorized each year into 10 graded classes according to their financial solvency. That was the basis for scaling the state grants to municipalities. Nowadays this scaling is replaced by a formula under which the state grants are distributed to municipalities to balance their tax and other own revenue level.

Grammar School refers to the former parallel structure of general education. Pupils applied for a study place in grammar school after having passed the elementary school grades 4 or 5. Entrance tests were organized for admittance. Grammar School contained the lower-secondary level (grades 1 to 5), called intermediate school, and the upper-secondary level (grades 6 to 8) culminating in the national Matriculation Examination.

Grammar school education. See above.

Matriculation Examination is a national examination, which is based on education in the upper-secondary General Schools (formerly Grammar Schools). It is a nationally organized examination that is arranged at the same time in all upper-secondary General Schools. Formerly the mandatory tests were mother tongue, Swedish language, foreign language and general knowledge or mats. Now the minimum number of examination subjects is still four, but the only mandatory subject is mother tongue and literature. In addition, there are optional subjects so that the maximum number of tests, which was formerly six, is now seven. The Matriculation Examination gives general eligibility for tertiary education, and its scores are of importance in applying to university or polytechnic studies.

Matriculation Examination Board is an independent body supervised by the Ministry of Education. It prepares and organizes the Matriculation Examination tests in upper-secondary general schools and organizes the assessment of the test results of candidates. The members of the Board are university professors, subject experts from educational administration, and teachers. The Board has sections for each subject consisting of the members, which are also the graders of the test. Before that the school teachers assessed the test results.

Ministry of Education (MoE) is responsible in practical terms for all education, science, culture, youth, and sports affairs.

Ministry of Finance (MoF) is responsible for, among other things, state finances and budget.

Ministry of Internal Affairs (MoIA) is generally responsible for, among other things, provincial, regional, and local administration.

Ministry of Labor (MoL) is responsible for labor market services, including purchasing training courses for unemployed people.

Municipal education system was created in the execution of the basic school reform. Primary, lower-, and upper-secondary schools belong to the system. Education and schools are administered by the municipal education committee and its office. Vocational schools may also be a part of the municipal education system.

Municipality is a local entity that is autonomous to act and to organize services obeying national legislation. The elected municipal council is the highest decision-maker. Municipal government is the executing authority, which to varying degrees delegates decision-making powers to the education committee of the municipality. There are, for the moment, 432 municipalities. The average population in municipalities is 12,000.

National Board of Education (NBE) was founded in 1991 on the basis of its predecessor's two boards (NBGE and NBVE—see below). It is an expert body under the MoE with missions to prepare and decide on national core curricula and qualifications, to lead educational development programs, to conduct follow-up evaluations of the performance of the education system and schools, and to provide support services. The major administrative part of the former Boards was abolished in this reorganization of central level educational governance.

National Board of General Education (NBGE) was established in 1869 to govern the education and schools in the country (still under the regime of the Russian Empire). After its founding, the Board was the central administrative body of general education. The Board was responsible for steering the practical implementation of basic school reform.

National Board of Vocational Education (NBVE) was established in 1968 under the Ministry of Education. Gradually all vocational education was passed to its control from sector Ministries. NBVE was responsible for implementing the practical administration of vocational education at the central level, including the implementation of upper-secondary vocational education reform. The principles and framework were decided by the Parliament, Cabinet of Ministers, and the MoE.

National income policy agreement is an agreement on salaries connected sometimes to other terms of employment, which is acceded by all or at least a great majority of employers' organizations and trade unions.

National School Council was an expert body in connection with the MoE giving advice and expressing opinions on the execution of basic school reform. The body consisted of representatives of the MoE and the MoF and education stakeholders, e.g. municipalities, provinces, and teachers.

Nationwide student selection system is one channel by which students can apply for studies at upper-secondary general schools. The schools make decisions on the enrollment of new students according to the criteria decided formerly by the national boards and now by the MoE.

Non-graded school means an organization of school education which is not based on grades but rather performance in courses. This is the way in which upper-secondary general education is generally organized in Finland.

PISA is the Program for International Student Assessment organized by the OECD. It measures the level of performance of 15-year-old students in reading literacy, mathematics, and scientific competencies. The participants are members of the OECD and some other countries.

Policy Decision is made by the central government to give directives on the development objectives and measures for the governing organizations and responsible civil servants. In 1974, this kind of Policy Decision was made on the development of lower- and upper-secondary education.

Polytechnic experiment was started in the beginning of the 1990s to lead to the permanent new form of tertiary education.

Polytechnics are higher education institutions parallel to universities. They provide professional higher education. The first polytechnics were institutionalized after the middle of the 1990s.

Pre-primary education comprises pre-school education for 6-year-old children, which was launched in 2001. It is voluntary for participants but mandatory for municipalities to organize.

Private schools. Before the reforms a lot of grammar schools were private. The majority of those were merged into the municipal education systems. There are still a handful of *private general schools*. Before and after the reforms, the private schools were semi-public. The owners of them are associations that can collect only minor student fees. They have to follow the same national acts, decrees, and curricular directives as the public schools owned by the municipalities. At present, the establishment of a general private school needs the approval of both of the municipal council and the central government. The same principles concern the *private vocational schools* and *polytechnics*. They are mainly owned by the municipalities and differ only from municipal educational institutions by their organizational form.

Provincial inspectorates had, before the reform, a mission to inspect school education. During the reform they were attached to the State Provincial Offices. Their tasks were concentrated on the planning and steering of reform in the provinces. Inspection was abolished at the end of the 1980s.

Provincial State Offices are the State agencies responsible for the tasks of the State at the regional level. Formerly the number of offices was 11, which was in middle 1990s reduced to five.

Provincial Education Department is the unit inside the Provincial State Offices responsible for educational and cultural issues. Their functions are supervised by the MoE.

Qualifications Committees are set up by the NBE to organize tests for competence-based qualifications. The composition of the committees follows the tripartite principle.

Regional Employment and Economic Development Centers are operating at the regional level by acquiring among other things employment training for unemployed people.

Remedial education provides for a limited time extra lessons for pupils and students with difficulties in learning in some subjects.

School-based basic vocational qualifications are defined with a certificate, which certifies successful completion of studies in vocational school.

Special education is provided and organized for pupils and students with physical or mental difficulties or disabilities or major difficulties in following the syllabus.

States' Central Vocational Schools were state-funded technical and vocational schools mainly in the centers of the regions. Now they are owned and maintained by federations of municipalities.

Tenth (10th) grade of basic schools is a continuation of basic education for those who want to improve their marks on their basic school certificate or to have one extra school year to decide on a further education route. The organization of 10th grade education is voluntary for the municipalities. The participation rate at present is 2 percent of pupils.

The secondary level reform started in 1972 as the comprehensive school (grades 1 to 9) reform extending in 1978 to the lower-secondary level (grades 7 to 9) of education. In the beginning of the 1980s, the reform continued at the upper-secondary education level (general and vocational) through the beginning of the 1990s.

Third sector is constituted by all organizations that are non-profit and non-governmental acting largely on a voluntary basis for a defined purpose.

Time credit system is based on a formula by which the maximum number of teaching hours for a school year is counted and defined formerly by national and now by municipal authorities. In this framework, the practical organization of education is decided by individual schools.

Tracking (streaming) of pupils. Pupils are divided either into different schools or differently leveled subject courses according to their assessed learning abilities.

Training Committees together with the MoE and NBE give advice on the development of vocational and professional education and training, including vocational qualifications and curricula. These tripartite bodies are composed of representatives of employers' organizations and trade unions, teachers, and other experts.

Upper-secondary education contains general and vocational education based on the completion of basic education. The duration of upper-secondary general education has been during the whole reform period 3 years. The length of studies in vocational education varied in the old system

from 1 to 3 years. In the present system vocational education is uniformly organized in 3-year study programs.

Upper-secondary grade (education) reform was planned in the 1970s and launched in the beginning of the 1980s and contained both general and vocational education and schools.

Vocational Adult Training Centers are educational institutions that have specialized in further and additional training of unemployed and employed adults.

Vocational education refers to education and training in different occupational fields. Vocational education was formerly classified as school-level and college-level education. Now all vocational education is classified as upper-secondary education, and college-level vocational education has been turned into polytechnic education, which is classified as tertiary education.

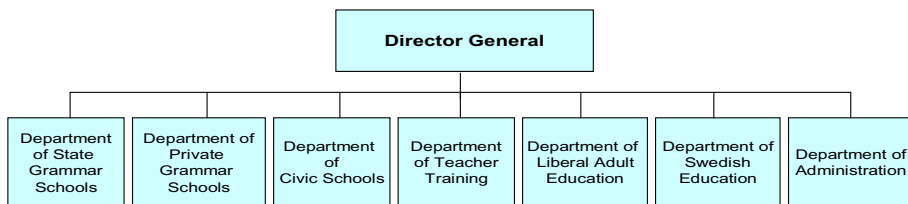
Vocational school is the institution which organizes vocational education.

Welfare services, like school transportation, school meals, health services, etc., are offered for students in varying degrees depending on the level of education.

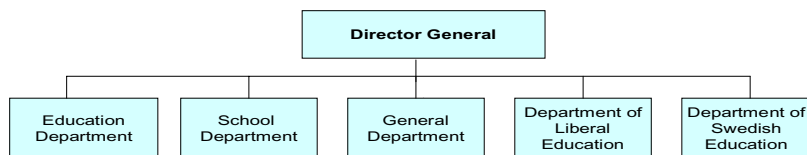
Youth school is a general term for the comprehensive upper-secondary education model, in which education is not sharply divided into general and vocational education. That is the way in which upper-secondary education is organized, for example, in Sweden.

Annex 2 Organizational development of education management during the reforms

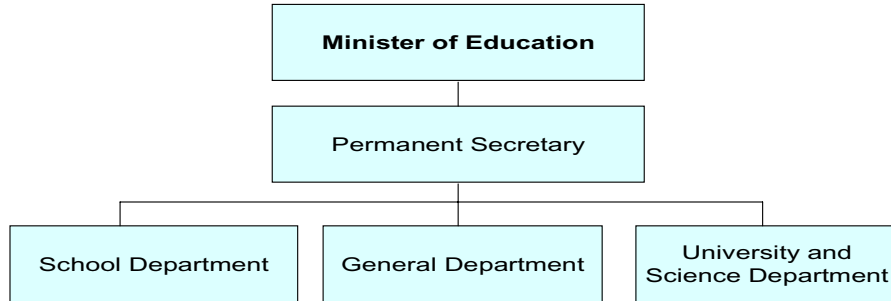
Organization of the National Board of General Education before the reforms (1957 Act)



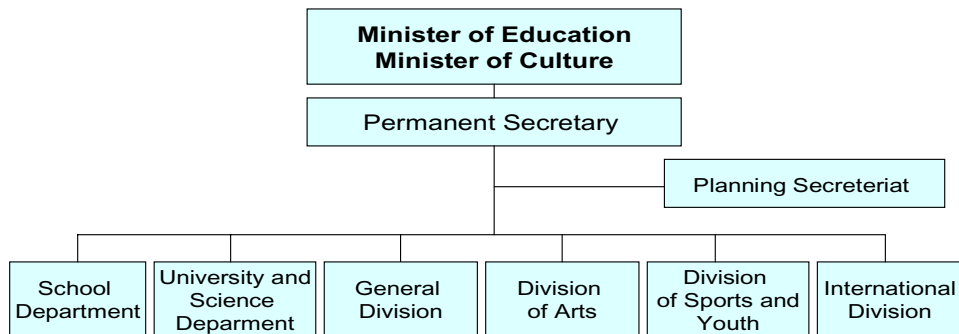
Organization of the National Board of General Education in the beginning of the reforms (1968 Act)



Organization of the Ministry of Education before the reforms (1966 Act)



Organization of the Ministry of Education in the first phase of reform (1974 Act)



Annex 3 Study modules in the core subjects in upper-secondary vocational qualifications

	Compulsory	Elective
Native language (Finnish/Swedish/Sámi)	4 credits	0–4 credits
Other national language (Swedish/Finnish)	1 credits	0–4 credits
Foreign language	2 credits	0–4 credits
Mathematics	3 credits	0–4 credits
Physics and chemistry	2 credits	0–4 credits
Social, business, and labor-market subjects	1 credits	0–4 credits
Health education	1 credits	0–4 credits
Physical education	1 credits	0–4 credits
Arts and culture	1 credits	0–4 credits
Environmental studies	0–4 credits	
Information and communications technology	0–4 credits	
Ethics	0–4 credits	
Other cultures	0–4 credits	
Psychology	0–4 credits	
Entrepreneurship	0–4 credits	
Total	16 credits	4 credits

Annex 4 Example of vocational study modules in vocational qualification

Hotel and restaurant services (since 2001)

(A student has to choose 80 credits from 1–6 and 10 credits from 7–13. On-the-job learning periods are included.)

1. Basic hotel and restaurant services	30 credits
2. Hotel, restaurant and meeting services	20 credits
3. Hotel reception functions	20 credits
4. Restaurant kitchen functions	20 credits
5. Preparation of restaurant dishes	20 credits
6. Restaurant dining room functions	20 credits
7. Banqueting services	10 credits
8. Café and fast food services	10 credits
9. Staff restaurant services	10 credits
10. Restaurant specialty food functions	10 credits
11. Sales and congress services	10 credits
12. Ship catering services	10 credits
13. Other elective studies	10 credits

Annex 5 Division of courses between subjects in upper-secondary general school

1 course = 38 lessons of 45 minutes i.e. one weekly lesson in a year

Subject or subject groups	Compulsory courses	Specialization courses
Mother tongue (Finnish/Swedish)	6	3
Compulsory foreign or second national language (language A)	6	2
Compulsory second national foreign language (language B)	5	2
Other foreign language		16
Mathematics		
▪ Short course	6	2
▪ Advanced course	10	3
Biology	2	3
Geography	2	2
Physics	1	7
Chemistry	1	4
Religion/Ethics	3	2
Philosophy	1	3
Psychology	1	4
History	4	2
Social studies	2	2
Physical education and aesthetic subjects	5	
Physical education	2	3
▪ Music	1 or 2	3
▪ Art	1 or 2	3
Health education	1	2
Careers education and guidance	1	1
Compulsory courses	47 – 51	
Specialization courses	10	
TOTAL MINIMUM	75	

Annex 6 List of upper-secondary vocational qualifications (since 2001)

Qualification/Study program	Title
1. NATURAL RESOURCES SECTOR	
Vocational qualification in agriculture	
▪ Study program in agriculture	Rural entrepreneur
▪ Study program in horse care and management	Groom
	Riding instructor
▪ Study program in fur farming	Fur farmer
Vocational qualification in horticulture	
▪ Study program in horticulture	Gardener
▪ Study program in landscape industries	
▪ Study program in floristry and horticultural business	
Vocational qualification in fishery	
▪ Study program in fishery	Fish processor
	Fish farmer
	Fisher
	Fishing instructor
Vocational qualification in forestry	
▪ Study program in forestry	Forest worker
▪ Study program in forest machinery	Forest machine operator
▪ Study program in multiple use of forests	Forest ecosystem worker
Vocational qualification in natural and environmental protection	
▪ Study program in environmental protection	Environmental operator
▪ Study program in nature-based services	Entrepreneur in nature-based services
▪ Study program in reindeer farming and nature-based production	Entrepreneur in nature-based production
2. TECHNOLOGY AND TRANSPORT SECTOR	
Vocational qualification in shoemaking	
▪ Study program in shoemaking and leather dressing	Shoemaker
Vocational qualification in textiles	
▪ Study program in textiles technology	Textiles maker
Vocational qualification in clothing	
▪ Study program in accessories production	Milliner
▪ Study program in dressmaking	Dressmaker
▪ Study program in fur-dressing	Furrier
▪ Study program in tailoring	Tailor
Vocational qualification in publishing and printing	
▪ Study program in layout design	Printing assistant
▪ Study program in printing technology	

Vocational qualification in metal work and machinery	
▪ Study program in automation technology and maintenance	Automation assembler
▪ Study program in casting technology	Maintenance fitter
▪ Study program in manufacturing technology	Founder
	Foundry patternmaker
	Precision mechanic
	Mechanical fitter
	Machinist
	Plater/welder
	Instrument maker
Vocational qualification in building maintenance technology	
▪ Study program in property maintenance	Property maintenance operative
▪ Study program in heating, plumbing, and ventilation engineering	Heating, plumbing, and ventilation fitter
▪ Study program in technical insulation	Technical insulator
Vocational qualification in vehicle technology	
▪ Study program in vehicle body repairs	Vehicle body repairer
▪ Study program in vehicle painting	Vehicle painter
▪ Study program in car sales	Car salesperson
▪ Study program in vehicle technology	Vehicle mechanic
▪ Study program in part sales	Parts salesperson
Vocational qualification in aircraft maintenance	
▪ Study program in aircraft maintenance	Aircraft maintenance technician
Vocational qualification in air traffic control	
▪ Study program in air traffic control	Air traffic controller
Vocational qualification in logistics	
▪ Study program in transportation services	Driver
▪ Study program in storage services	Warehouse operative
Vocational qualification in electrical engineering	
▪ Study program in automation technology and maintenance	Automation assembler
▪ Study program in electronics and telecommunications technology	Electronics assembler
▪ Study program in electrical engineering and energy technology	Electrician
Vocational qualification in construction	
▪ Study program in infrastructure construction	Infrastructure builder
▪ Study program in earthmover operation	Earthmover operator
▪ Study program in construction	Builder
Vocational qualification in land surveying	
▪ Study program in land survey technology	Surveyor
Vocational qualification in wood processing	
▪ Study program in wood-based panel technology	Panel process operator
▪ Study program in joinery	Joiner
▪ Study program in sawmill industry	Sawmill processor operator
Vocational qualification in boat-building	
▪ Study program in boat-building	Boat builder

Vocational qualification in upholstery	Upholsterer
▪ Study program in upholstery	
Vocational qualification in surface treatment technology	
▪ Study program in painting	Floor layer Painter
▪ Study program in industrial wood surface treatment	Surface treatment finisher
▪ Study program in industrial surface treatment	Corrosion prevention painter Surface treatment finisher Process operator
Vocational qualification in chemical engineering	
▪ Study program in chemical engineering	
▪ Study program in biotechnology	
Vocational qualification in laboratory technology	Laboratory technician
▪ Study program in laboratory technology	
Vocational qualification in paper industry	
▪ Study program in pulping	Paper process operator
▪ Study program in paper and cardboard manufacturing	Paper process operator
▪ Study program in paper conversion	Paper converter
Vocational qualification in food production	
▪ Study program in food technology	Food maker
▪ Study program in baking	Baker/confectioner
▪ Study program in meat processing	Meat products processor
▪ Study program in dairy production	Dairyperson
Vocational qualification in seafaring	
▪ Study program in deck and engine repairing	Repairer
▪ Study program in electrical operation	Ship's electrician
▪ Study program for engineer officers	Watch-keeping engineer officer
▪ Study program for deck officers	Deck officer
Vocational qualification in watch making and micromechanics	
▪ Study program in watch making	Watchmaker
▪ Study program in micromechanics	Micromechanic
Vocational qualification in plastic and rubber technology	
▪ Study program in rubber technology	Rubber mechanic
▪ Study program in plastics technology	Plastics mechanic
Vocational qualification in technical design	Design assistant
▪ Study program in technical design	
Vocational qualification in safety and security	Security officer
▪ Study program in safety in security	

3. BUSINESS AND ADMINISTRATION SECTOR

Vocational qualification in business and administration	Merkonomi
▪ Study program in customer services and marketing	
▪ Study program in information and library services	

- Study program in business administration
- Study program in office services and information management

Vocational qualification in business information technology

Datanomi

- Study program in information technology services and marketing
- Study program in information systems development

4. TOURISM, CATERING AND HOME ECONOMICS SECTOR

Vocational qualification in tourism industry

- Study program in tourism activities
- Study program in tourism sales and information services

Tourism activities organizer
Travel counselor

Vocational qualification in catering

- Study program in catering and customer services
- Study program in institutional meal production

Service organizer
Cook, institutional caterer

Vocational qualification in hotel and restaurant services

- Study program in hotel services
- Study program in restaurant meal production
- Study program in restaurant services

Hotel receptionist
Restaurant cook
Waiter

Vocational qualification in cleaning services

- Study program in cleaning services
- Study program in textiles care

Site facilities operator
Textiles care operator

5. HEALTH AND SOCIAL SERVICE SECTOR

Vocational qualifications in social and health care

Practical nurse

- Study program in emergency care
- Study program in rehabilitation
- Study program in children's and youth care and education
- Study program in mental health and substance abuse welfare work
- Study program in nursing and care
- Study program in oral and dental care
- Study program in care for the disabled
- Study program in care for the elderly
- Study program in customer services and information management

Vocational qualification in dental technology

- Study program in dental technology

Dental laboratory assistant

Vocational qualifications in pharmaceuticals

- Study program in pharmaceuticals

Pharmaceutical assistant

Vocational qualification in hairdressing

- Study program in hairdressing

Hairdresser

Vocational qualification in beauty care

- Study program in beauty care

Beauty therapist

6. CULTURE SECTOR

Vocational qualifications in crafts and design

- Study program in handicraft design and production
- Study program in textiles and clothing design and production
- Study program in environmental design and construction

Artisan

Vocational qualification in audiovisual communication

- Study program in audiovisual communication

Media assistant

Vocational qualification in visual expression

- Study program in visual expression

Visual expression
assistant

Vocational qualification in dance

- Study program in dance

Dancer

Vocational qualification in music

- Study program in music performance

- Study program in instrument maintenance and music
technology

Church musician
Singer
Accompanist
Ensemble musician
Music technologist
Piano tuner

7. LEISURE AND PHYSICAL EDUCATION SECTOR

Vocational qualification in sign language instruction

- Study program in sign language instruction

Sign language instructor

Vocational qualification in child care and family welfare

- Study program in child care and family welfare

Children instructor

Vocational qualification in physical education

- Study program in physical education

Physical education
assistant

Vocational qualification in youth and leisure instruction

- Study program in youth and leisure instruction

Youth and leisure
instructor



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This book examines the development of education policy and reform principles in Finland over a 40-year span. The 1960s and 1970s were times of drastic change as the country evolved from an agrarian society to a Scandinavian welfare state. To facilitate this transformation, the education system needed a total overhaul and educators introduced a new comprehensive school that was similar for all pupils. The 1980s saw the rise of secondary education and a dismantling of centralized management systems, and provisions were made for the challenges posed by major shifts in the economy, increased international competition, and the technological revolution. In the early 1990s, as Finland endured a deep economic depression, the education system had to adapt to sharp cutbacks in funding; however, the downturn spurred new educational efficiencies and forced decision makers to seek fiscally sustainable solutions.

Within this context of school reform, secondary education has become a key element in creating well performing education systems that simultaneously provide good learning opportunities to a growing number of diverse student populations and flexibly respond to the needs of a democratic knowledge society.

Recently, Finland has gained an international reputation with its well performing education system. Although explaining the success or failure of any education system is difficult, this book cautiously suggests four broad success factors: comprehensive school that offers all children the same high quality, publicly financed education; education reform that has been evolutionary rather than revolutionary; systems thinking, or the idea that performance of the education system is politically, culturally, and economically intertwined with other sectors of society; and, a stable political environment coupled with respect for and trust in teachers and headmasters whose knowledge and experience ultimately yield the best solutions in practice.

The findings, interpretations and conclusions expressed in this paper are entirely those of the authors and should not be attributed in any manner to the World Bank, its affiliated organizations or to the members of its board of executive directors or the countries they represent.

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