

EQUITY IN EDUCATION THEMATIC REVIEW

COUNTRY ANALYTICAL REPORT

FINLAND

Finnish Ministry of Education

Mars 2005

TABLE OF CONTENTS

SECTION 1: COUNTRY CONTEXT AND CURRENT EQUITY SITUATION	4
CHAPTER 1. CULTURAL AND SOCIAL FACTORS	4
1.1. Historical background.....	4
1.2. Comprehensive school.....	4
1.3. Confidence in the significance of education.....	5
1.4. Teachers' social prestige.....	5
1.5. Social and cultural homogeneity.....	5
CHAPTER 2. THE EDUCATION SYSTEM IN FINLAND.....	6
2.1. Pre-primary education.....	6
2.2. Comprehensive school (basic education).....	7
2.3. Secondary education.....	7
2.4. Tertiary education.....	9
2.4. Adult education.....	10
2.5. Teacher training.....	11
CHAPTER 3. RESOURCES, SYSTEMS AND PRACTICES	15
3.1 Human and financial resources	15
3.2 Student financial aid system.....	16
3.3 Public library system.....	17
3.4 Coping with the heterogeneity of pupils	17
3.5 Participation of civil society by level of education	18
CHAPTER 4. QUESTION OF EQUITY	19
4.1 History of interpretation	19
SECTION II. OPPORTUNITIES AND OUTCOMES	22
CHAPTER 5. PROFILE OF EQUITY IN EDUCATION.....	22
5.1 Participation.....	22
5.2 Educational attainment	23
5.3 Education, income and employment	24
5.5 Evidence from cognitive skills tests	26
5.5 Equity among the adult population.....	32
5.6 Student financial aid and equity	34
SECTION III : CAUSES AND EXPLANATIONS	35
CHAPTER 6. LONGITUDINAL TRANSMISSION OF EQUALITY.....	35
6.1 Equality of opportunity in higher education.....	35
6.2 Equality of opportunity and the impending labour shortage	38
6.3 Outlook for educational opportunities in the 2010s	39

CHAPTER 7. INSTITUTIONAL BARRIERS	40
7.1 Pre-primary education	41
7.2 Basic education.....	42
7.3 Secondary level education	43
7.4 Higher education	45
7.4 Financial aid to students and equality	46
7.5 Conclusions	47
CHAPTER 8. EDUCATION AND GENDER EQUALITY	47
8.1 Gender differences in achievements and subject choices.....	47
8.2 Differences in educational choices.....	48
8.3 Gender policy in education and training.....	51
8.4 Gender equality in the curriculum development	52
8.5 Programmes/projects aiming for improved equality	52
SECTION IV : POLICIES, PROGRAMMES AND INITIATIVES.....	54
CHAPTER 9. ACTIVE EDUCATIONAL POLICIES BEARING ON EQUITY	54
9.1 Development plan 2003-2008	54
9.2 The Youth Participation Project	55
9.3 Youth Workshops.....	55
9.4 Immigrant education.....	56
9.5 The problem of Roma pupils.....	56
9.6 Development lines in special needs education	58
9.7 Project for the quality development of special education 1997-2001 (“LATU”-project)	58
9.8 The development of pedagogy in comprehensive school.....	59
9.9 The development of instructional practices; some examples	60
9.10 Adult education policy	61
CHAPTER 10. NON-EDUCATIONAL POLICIES INFLUENCING THE EDUCATION SECTOR	63
10.1 Education and training guarantee.....	63
10.2 Housing policy.....	64
SECTION V : CONCLUSIONS.....	65
CHAPTER 11. CONCLUSIONS AND ASSESSMENT	65
11.1 General remarks	65
11.2 Development of the education system	66
11.3 Student financial aid	68
REFERENCES	70
WWW REFERENCES:.....	76

SECTION 1: COUNTRY CONTEXT AND CURRENT EQUITY SITUATION

CHAPTER 1. CULTURAL AND SOCIAL FACTORS

1.1. Historical background

1. The church had a central role in the early days of literacy teaching in Finland. Reading literacy spread effectively in the 16th century, after the Reformation, without any real school system. The Protestant doctrine required that everyone should be able to read the Holy Bible. The Bible was translated into the vernacular, which also established the status of Finnish as a written language. The 1686 Church Law obliged every young person to learn to read. The home and church education model succeeded in training a literate population, and also placed special emphasis on women's literacy. This led to female literacy rates which were as high or higher than male literacy rates in the 17th century (Johansson, 1977).

2. In 1866 the Diet issued a statute on the establishment of the public school system. One of the conditions for admission to public school was, however, the ability to read fluently, thus, the initial teaching of reading still remained the task of the church and the home. By 1880, almost 98% of the population were able to read but only about 12% were able to write (Lehmuskallio, 1983).

3. After Finland's independence in 1917, the establishment of a school system catering for the whole population became an important goal. In 1921, the Law on Compulsory Education established the right of every child, from the age of seven, to receive instruction in public schools for six years. Nevertheless, the traditional view prevailed: it was for the parents to teach the basics of literacy.

1.2. Comprehensive school

4. The Finnish comprehensive school was implemented throughout Finland in the 1970s, but it is only recently, in the 1990s, that it reached the entire age cohort, when mentally handicapped children were included. The comprehensive school curriculum of 1970 stressed the ideas of pluralism, pragmatism, and equity were stressed. In the early stages of the comprehensive school, equity was seen as equal access to education. More recently it has also been seen as equal opportunity for learning within the school.

5. In the comprehensive school, literacy is given a central position. Pupils were to be directed towards independent comprehension of texts and the expression of their own ideas in writing. In the 1990s, school-specific curriculum development was believed to augment and further develop the teachers', parents' and students' commitment to the curriculum. In literacy instruction, the objectives and practices are designed to match an individual pupil's interests, experiences and strategies as well as to make full use of the pupil's strengths in educating thinking, self-confident, and critical learners who can cope with different situations and cultural contexts.

1.3. Confidence in the significance of education

6. The Finns regard education as very important. In a survey in 1993-94 Finnish adults were asked how they consider the Finnish comprehensive school to have succeeded in reaching its core objectives (3). Up to 66% of the adult respondents considered the school to have succeeded in developing skills and knowledge which support students in their further studies, as well as in promoting study motivation (60%), mediating a healthy lifestyle (53%) and educating good citizens (52%). The respondents were less convinced, however, about the statement that the comprehensive school enhances the self-confidence of young people (only 30% agreed with this).

7. Young people also believe in the significance of education. A survey conducted in 2002 (Youth barometer 2002) showed that Finnish adolescents and young adults (15–29-year-olds) still take a very positive view of education and have strong faith in the significance of education for employment and active citizenship. The youth barometer indicated that 95% of the young people believed that education improved their chances of finding a job. As many as 78% of young people considered that sustained employment calls for continuing education. Views about the comprehensive school were very positive as well. Nearly four fifths (78%) of the young people in the 2002 survey gave the comprehensive school a good grade of 8 (on a scale of 4 to 10) and 18% even an excellent grade of 9 or 10.

8. Teachers regard the Finnish school system as being of quite a high standard. In the opinion of teachers, the comprehensive school and vocational education are generally, however, undervalued. Nor were they happy with the appreciation of their own profession, the teachers of vocational institutes being the least satisfied.

1.4. Teachers' social prestige

9. A recent doctoral thesis (Vanttaja 2002), which investigated the best-performing upper secondary school graduates' occupational preferences, clearly showed that the profession of schoolteacher has been the most popular one in past decades, clearly more so than that of physician, ICT manager, secretary, or university teacher. This popularity has been in a slight decline in recent years but still is high. Particularly high performing female upper secondary school graduates have often wanted to become teachers and still do. In contrast, their high-performing male peers primarily favoured the medical profession in the 1970s, but in the 1980s and 1990s managerial tasks in the ICT field began to gain popularity. Nonetheless, many well-performing male students have also wanted to become teachers. Among upper secondary school graduates in the 1970s and early 1980s, the teaching profession was ranked as the second or third choice by men; at the end of the 1980s it was the fifth. In national surveys, adult Finns rank the status of the teaching profession high, as high as the medical profession, lawyers or professors.

10. In recent years, the teaching profession has lost some of its popularity. ICT-related fields and rising pay levels in the private sector attract the best upper secondary school graduates into technological fields of education. Hence, one education policy objective for the coming years is to increase the appreciation and attraction of teaching as an occupation.

1.5. Social and cultural homogeneity

11. In Finland, the pupil's family background does not affect the selection of school in basic education because all children go to similar comprehensive schools and, in most cases, to the nearest one although parents have had a free choice of school since the 1990s. Thus, the parents' socio-economic status has little influence on the selection of schools at the basic education stage (age 7-16). In PISA results, the influence of family background was less marked in Finland than in the OECD on average. The impact of

parental education or family wealth on reading literacy performance was less pronounced than that of parental occupational status.

12. In the long term, the development of the Finnish comprehensive school has rested on a broad cultural and political consensus about the main lines of national education policy. Throughout the 20th century, educational services were developed evenly and in accordance with the needs of different population groups and regions. Today – largely thanks to high-quality teacher training – education of uniformly high standard is provided in every school and in all regions of the country. This, too, is reflected in Finland’s below-average variation in educational outcomes between schools at both the individual and system levels (Väljärvi et. al, 45).

13. Owing to cultural homogeneity, it has been comparatively easy in Finland to reach agreement on national education policy and the means of developing the educational system. In the 1960s and 1970s there was a broad national consensus that the parallel system (streaming/tracking after the 4th year) should be replaced by a more equal comprehensive system. To date, education has seldom been a subject of major political or social controversy in Finland.

14. Changes in the structures and operating principles of the education system in the 1990s – decentralisation, cutbacks in expenditure, removing the line between the upper and lower stages of the comprehensive school, specific-profile schools and increased evaluation – have been controversial to some extent. The gravest concerns relate to the deterioration of equality and especially to widening differences between the schools of richer and poorer municipalities and different parts of the cities. In addition, the closing down of small schools, growing class sizes and disturbance at schools have provided issues for public discussion. All this seems to imply that it may be increasingly difficult in the years to come to find common values and a political consensus about central educational aims in Finland, too.

CHAPTER 2. THE EDUCATION SYSTEM IN FINLAND

15. The Finnish education system consists of pre-primary education, the comprehensive school (basic education), secondary education - comprising post-compulsory general and vocational education - higher education and adult education (see Figure 1 at the end of this chapter). Formally, day-care centres for pre-6-year-old children are not considered part of the formal educational system.

2.1. Pre-primary education

16. In accordance with the Basic Education Act (1998), as from 1 August 2001 each child has the right to pre-primary education, which generally starts one year prior to the commencement of compulsory education, i.e. in the year that the child has his/her sixth birthday. In addition, each local authority is obliged to provide pre-primary education for children within extended compulsory education (children with special educational needs) and for children who start basic education one year later than stipulated.

17. Each local authority may decide whether to provide pre-primary education in a school, a day-care centre or a family day-care facility referred to in the Act on Children’s Day Care or at some other appropriate venue.

18. The objective is to create a continuum of early childhood education and care, pre-primary education and basic education. The intention is to continue developing the content of early childhood education and care referred to in the Act on Children's Day Care in close cooperation with the development of pre-primary and basic education.

2.2. Comprehensive school (basic education)

19. Basic education is governed by the Basic Education Act (1998), the Basic Education Decree (1998) and the Government Decree on the objectives and distribution of lesson hours in basic education (2001).

20. Compulsory education starts in the year when a child has his/her seventh birthday, unless the child has special educational needs. Age is the only admission requirement, because every child is subject to compulsory education. A child has the right to start school one year earlier, if his/her readiness to attend school has been proved in psychological tests (and medical, if necessary). Based on these tests, the education provider can also grant permission to start school one year later.

21. The comprehensive school is a uniform school that lasts nine years. In addition to this, local authorities may provide those who have completed basic education with additional basic education up to 1,100 hours. This '10th form' is voluntary for the pupils and the local authorities decide whether it is provided.

22. Most basic education is given in municipal comprehensive schools. In addition, there are several private comprehensive schools, which are also connected with local authorities.

23. The objective of basic education is to support pupils' growth towards humane and ethically responsible members of society, and to provide them with the knowledge and skills they will need in life. As part of early childhood education and care, pre-primary education provided in connection with basic education is designed to improve children's prerequisites for learning. The instruction is geared to promote equality in society and pupils' opportunities to participate in education and otherwise develop themselves during their lives.

24. For the first six years of comprehensive school, the children are usually taught by a class teacher, and during the last three years by specialised subject teachers. There is no streaming or ability grouping in the comprehensive school. All pupils have the same core subjects and similar contents of instruction. However, about 20% of the classroom hours are reserved for elective studies freely chosen by the pupil and his/her parents. Pupils learn in heterogeneous groups.

25. There is no school-leaving examination in the comprehensive school. Once the pupil has completed the comprehensive school syllabus, the final certificate is granted. The grades are based on teacher assessment. The certificate opens the way to all secondary education options, i.e. different types of vocational training or academic upper secondary schools.

2.3. Secondary education

Upper secondary schools

26. Secondary education consists of general upper secondary schools and vocational schools. The upper secondary schools offer a three-year general education curriculum, at the end of which the pupil takes the national matriculation examination. The matriculation examination gives general eligibility for higher education. Upper secondary schools are not divided into forms, which means that students' progress in their studies is not tied to year-classes. Students choose when to take the courses provided by the school.

Students must complete the syllabus within a maximum of four years and may be granted a continuation of the completion period only for well-founded reasons.

27. The purpose of the matriculation examination is to determine whether students have acquired knowledge and skills, as determined in the upper secondary school curriculum, and achieved a sufficient level of maturity in accordance with the objectives of general upper secondary education.

28. The objective of general upper secondary education is to promote the students' development into good, balanced and civilised individuals and members of society and to provide them with knowledge and skills needed for further studies, working life, the pursuit of their personal interests and development of their personalities. In addition, the education must support students' capacity for lifelong learning and lifelong self-development.

29. The network of general upper secondary schools covers the whole country. The schools follow a national core curriculum, but recently the range of choice has been broadened. Individual schools can cultivate a distinct profile; some upper secondary schools specialise in the arts, sport or some other field.

30. The matriculation examination is set nationally, and there is a centralised body to check its individual tests according to uniform criteria. Vocational programmes do not have any final examinations.

Vocational education

31. Finnish vocational education and training has been institutional to a very large extent. Taught courses form the core of the programmes but on-the-job training is nowadays included in all the study programmes. From 2001 onwards all the qualifications have been based on three-year courses. It is also possible to gain a vocational qualification through apprenticeship training. In addition, a vocational qualification can be taken as a competence-based examination evaluated by an examination board.

32. There are 75 initial vocational study programmes. These provide extensive basic vocational skills for various jobs in their field and more specialised expertise in one sector of the study programme, and also provide general eligibility for higher education. The extent of the study programme is 120 credits (one credit being equivalent to an average study effort of 40 hours), including 90 credits of vocational studies and relevant on-the-job training, 20 credits of general core studies and 10 credits of free-choice studies. Student primarily learn in vocational institutions, except for the supervised on-the-job training (at least 20 credits).

33. Cooperation between education providers and the world of work is regarded as necessary at all levels of education, in order for education to meet working life requirements. If for no other reason, cooperation is necessary because the Finnish education system is very institution-centred. Representatives of working life are involved in advisory bodies at both the central and local levels. Students' orientation to working life, on-the-job training and fixed-term studies at the workplace are included as regular elements in vocational and polytechnic degree programmes. Moreover, students in comprehensive and upper secondary schools may also include workplace experience in their studies.

34. Approximately 95% of each age group start general or vocational upper secondary studies and some 82% complete it (see the statistical annex). The completion of upper secondary education is regarded as being the minimum requirement for performance in working life and for lifelong learning. In 2002 about 55% of the school-leaving age group started general upper secondary studies and 37% vocational studies, 2% opted for additional basic education, and 6% did not immediately continue studying.

2.4. Tertiary education

Polytechnics

35. The Finnish tertiary education system includes two parallel sectors: universities and polytechnics. The polytechnics were established after a piloting process in the 1990s, and today there are 29 polytechnics operating under the Ministry of Education. Moreover, there is Åland Polytechnic (*Högskolan på Åland*) under the jurisdiction of the self-governing Åland Islands and the Police College of Finland, which operates under the Ministry of the Interior. Thus the polytechnic network covers the entire country from the north to the south and from the east to the west, catering for the speakers of the two national languages, Finnish and Swedish.

36. Polytechnic degrees are Bachelor-level degrees with a professional emphasis and take 3.5 to 4.5 years to complete. The aim of the polytechnic degree programmes is to provide specialised professional competence. According to the Polytechnics Act (2003), the mission of these institutes is to provide training, support the professional growth of individuals, engage in R&D which promotes regional development, and offer adult education.

37. The Finnish polytechnics were developed during the 1990s with a view to creating a non-university sector in higher education. They are based on the former post-secondary vocational institutions, which were upgraded and developed into a nation-wide network of regional higher education institutions. Most polytechnics offer education in several fields and operate in several units. They are maintained by municipalities, municipal consortiums or private organisations. The core funding is provided by the government (57%) and local authorities (43%).

Universities

38. There are 20 universities in Finland, ten of which are multi-faculty institutions and ten specialised institutions: three universities of technology, three schools of economics and business administration, and four art academies. In addition, university-level education is provided at a military academy under the Ministry of Defence. Combined, the universities provide a student place for almost one third of the age group and covers the whole country.

39. Universities focus on scientific research and education based on it, and they have the right to award doctorates. The present university legislation (1997) defines their four tasks as follows: to promote liberal research; to promote scientific and artistic education; to offer the highest research-based teaching; and to educate the youth to serve their country and the world.

40. The first university degree, Bachelor's, can generally be attained in three years of full-time study and the higher, Master's degree, in five years. There is an optional pre-doctoral degree of licentiate, which can be completed in two years of full-time study after the Master's degree. Full-time studies for a doctorate take approximately four years following the Master's degree.

41. All universities are State-run. The decision-making system of the universities is highly independent. The Ministry of Education and the universities conduct performance negotiations to agree on the objectives of the universities' operations and to set field-specific targets for Master's degrees and doctorates for each university. Universities select their own student. Competition for student places in higher education is stiff, and *numerous clausus*, i.e. an annual intake quota, is applied in virtually all fields of study. Various types of entrance examinations are a major part of the selection process.

2.4. Adult education

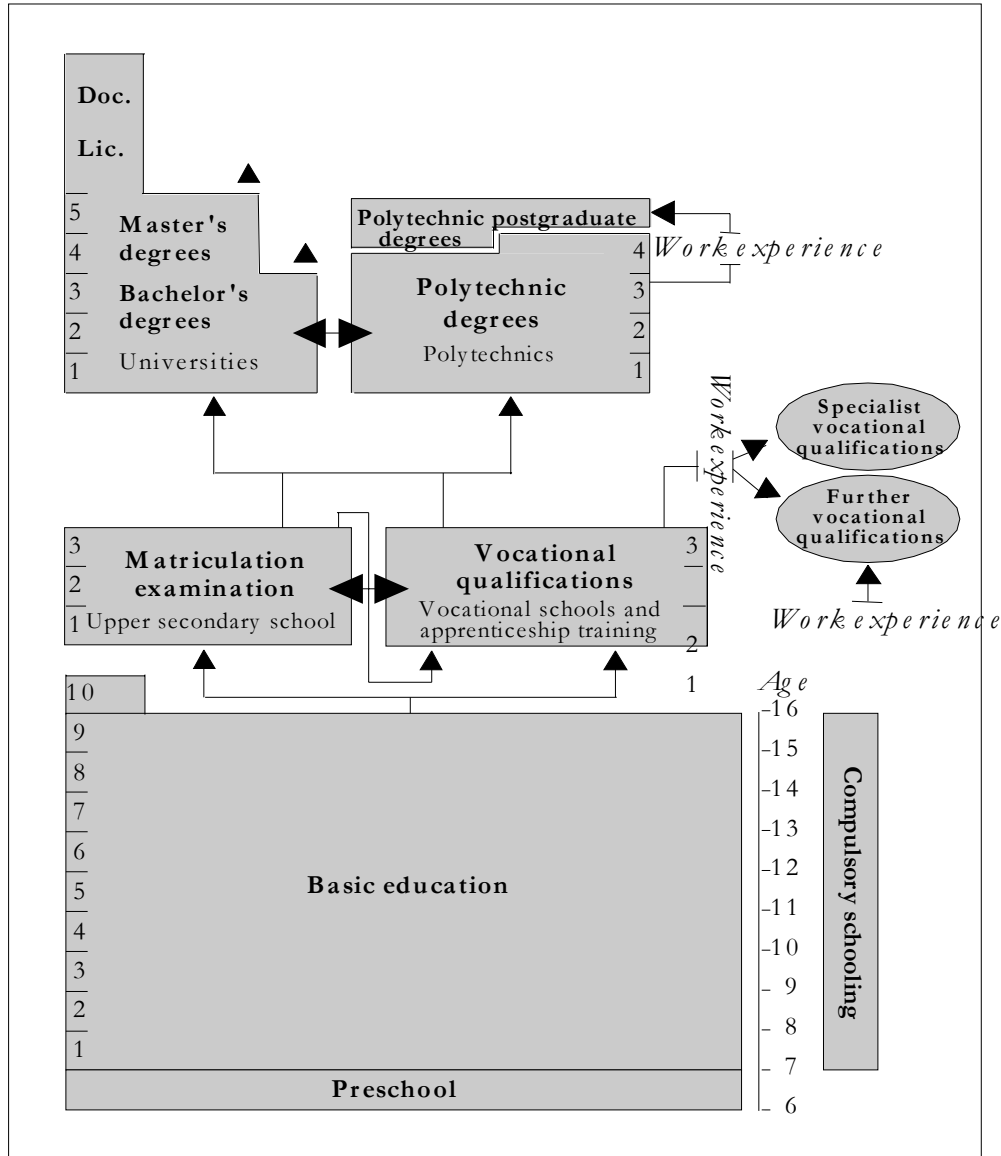
42. The Finnish adult education and training system is the result of a historical process. It did not come about as a result of consistent decisions designed to effect structural changes, but each adult education organisation has been set up to satisfy specific educational needs. Thus, each adult education organisation has its own aims, mode of operation and target group.

43. Adult education is offered in some 1,000 educational institutions and universities. Adult education means organised education or training specifically aimed at adults. Indeed, it is typical of Finnish adult education that it is clearly distinct from education intended for young people. All levels of the education system, except undergraduate education in universities, offer education and training specially designed for adults. It is possible for adults to study for a qualification or a degree.

44. Adult education is also available in the form of apprenticeship training, supplementary and continuing education geared to update and extend vocational and professional skills, and purely recreational liberal education. Each year, about one million Finns participate in adult education.

Figure 1. The education system in Finland

■ EDUCATION SYSTEM



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2.5. Teacher training

Teacher training in universities

45. University-level teacher training is provided at eleven universities, three of which are art academies and one of the universities provides teacher training in Swedish. Teacher training is provided by subject faculties, faculties of education and their teacher training departments. Eight of the universities have teacher training schools that provide opportunities for teaching practice. The following types of teachers are trained at universities:

- Class teachers who teach all subjects in grades 1–6 in basic education and who are also qualified to work as pre-school teachers;
- Kindergarten teachers who are qualified to work as pre-school teachers in basic education or at day-care centres;
- Subject teachers who teach one or more subjects in grades 7–9 in basic education, in general upper secondary schools, in vocational education and training or in adult education and training.;
- Special needs teachers, special class teachers and special kindergarten teachers who teach learners with special needs;
- Guidance counsellors who provide educational guidance and career guidance in basic education and general upper secondary education.

46. The *class teacher qualification* is a 160-credit higher academic degree with an educational main subject (one credit being equivalent to approximately 40 hours of work). When the new qualifications structure is adopted on 1st August 2005, the scope of the class teacher qualification will be 300 ECTS points. The studies last five years and the qualification comprises the following study modules: language and communication studies, major subject studies, school pedagogy, multidisciplinary studies in subjects taught at comprehensive school, 1 to 2 minor subjects and elective studies. The objective is for students to familiarise themselves with holistic human development, teacher/learner interaction, as well as with scientific theories on education, learning and development and their applications to practical educational and teaching work.

47. The target is for students to become capable of independently analysing and solving problems in education and teaching and of developing their work through research. Completion of the degree provides eligibility for postgraduate studies in educational subjects.

48. Degree programmes with different emphases have been launched in class teacher training, for example, English-language class teacher training with international focus as well as programmes focusing on education in technology, media and communications pedagogy. Several universities offer solutions based on multiform studies to cater for working adult students.

49. *Subject teachers* take a higher academic degree with a scope of 160 or 180 credits, which can be completed in 5–6 years. When the new qualifications structure is adopted on 1st August 2005, the scope of the qualification will be 300–330 ECTS points. Subject teacher students study the subject that they intend to teach as their main subject and they need to complete the pedagogical studies for teachers as part of their degree or as a separate study module. Studies in the teaching subject promote command of the subject as required in teaching work. Completion of the higher academic degree provides eligibility for postgraduate studies in the main subject.

50. Subject teachers can specialise in various subjects that may be subjects taught in basic education, general upper secondary education, core subjects taught in vocational education and training as well as subjects taught in adult education and training. These include, for example, mother tongue and literature, foreign languages, religion, history, social studies, biology, geography, psychology, philosophy, mathematics, physics, chemistry, computer studies, home economics, textiles work, technical work, physical education, music and visual arts.

51. *Pedagogical studies for teachers* (currently 35 credits, a minimum of 60 ECTS points from 1st August 2005) provide students with the pedagogical capabilities required for teaching assignments in basic

education, at general upper secondary schools and at other educational institutions. The studies have a didactic focus and provide specialisation options in teaching in basic education and upper secondary schools, at vocational institutions or in adult education and training. The studies include teaching practice, which is completed at teacher training schools run by universities and at affiliated schools. The duration of pedagogical studies is 1–1.5 years and their aim is to produce teaching professionals who are able to develop their own work and their working community.

52. The Master's degree leading to *guidance counsellor* qualification includes an educational main subject, the teachers' pedagogical studies either as part of the main subject or as a separately completed study module and studies in guidance counselling (currently 35 credits, a minimum of 60 ECTS points from 1st August 2005). Studies in guidance counselling provide capabilities for guidance counselling tasks.

53. Education for *special needs teachers and special class teachers* leads to a higher academic degree. It includes special pedagogy as the main subject and teachers' pedagogical studies, either as part of the degree or as a separate study module and studies in special education (currently 35 credits, a minimum of 60 ECTS points from 1st August 2005). Students specialising as special class teachers also complete multi-field studies in subjects taught in basic education.

Vocational teacher training

54. Vocational teacher training is provided by five vocational teacher training colleges that operate in conjunction with polytechnics. Swedish-language vocational teacher training is provided by a Swedish-language university. Vocational teacher training colleges provide pedagogical training for students specialising in teaching assignments within vocational education and training. The scope of pedagogical training for vocational teachers is 35 credits (60 ECTS points from 2005). The study programme includes basic studies in education, studies in vocational pedagogy, teaching practice and other studies. Teacher training colleges do not have their own training institutions, instead teaching practice takes place at affiliated educational institutions and through different working life assignments.

55. Vocational teacher training is built on two basic requirements: an appropriate degree or qualification and work experience in the field. The objective of vocational teacher training is to provide students with the knowledge and skills to guide the learning of different students. Applicants aiming to become teachers of vocational studies are required, in addition to holding an appropriate degree or qualification in the field and three years of work experience in practical work assignments within the field in question. Therefore, student teachers are invariably professionals in their own fields and they are not studying for their first qualification. Vocational teacher training is provided free of charge.

56. Vocational special needs teacher training and student counsellor training is provided by two vocational teacher training colleges and one Swedish-language university.

Continuing training for teachers

57. Continuing education here refers to further education and training, which aims to help individuals to keep up with recent developments in their chosen professional field. Thus, continuing education can take the form of either relatively clearly defined vocational continuing education and training or more general education and training that can be applied more easily.

58. Provision of continuing education for teachers is the responsibility of the employer, which is the local authority in most cases. In such cases, training is provided in accordance with the public service collective agreement (VESO training) and the minimum scope is three working days per school year outside school terms. This type of training is provided free of charge for participants and they receive full salary benefits for the duration of their training.

59. Decisions on the mode of provision and the contents of the training are made by the employer. Continuing education days organised by local authorities and school-specific continuing education sessions are the most common forms of VESO training.

60. Typical topics for continuing education provided as per the public service collective agreement include contents of the subjects taught and other issues dealing with the curriculum, the use of ICT in teaching as well as local topical issues. Employers may organise the training independently or they can procure it from a training provider, such as a university, a polytechnic, an organisation or a private training provider. Studies indicate that some teachers (3.5%) do not receive continuing education based on the public service collective agreement.

61. State budget funds are used to organise *continuing education focusing on educational policy priorities*. The contents and priorities of this type of training are defined annually as part of the state budget. Topical issues have included contents of the subjects taught, curriculum-related work, the use of information and communication technology in teaching, working life contacts in education, on-the-job learning, competence-based qualifications, social issues pertaining to training and education, strategy for lifelong learning and training for heads of educational institutions. The training is provided free of charge for participants. It is up to the employer to decide whether teachers can participate in training during working hours, whether they are entitled to full salary benefits and whether they can be reimbursed for any travel or accommodation costs incurred.

62. The Ministry of Education has assigned responsibility for the practical organisation of state-funded training to the National Board of Education, which purchases the training from universities, polytechnics and the National Centre for Professional Development in Education. Typically, the scope of the training provided is 3–5 credits (equivalent to 5–8 ECTS points in the future). The amount allocated to training from the state budget is approximately EUR 8–10 million annually and around 15,000 teachers participate in training financed in this way every year. The training provided is available for teachers working within basic education, general upper secondary education, vocational training and education and non-formal adult education.

63. Teachers participating in *self-motivated continuing education* may receive support from their employer to cover some training costs. The employer decides whether the person is allowed to participate in training during regular working hours.

Participation in continuing education has no effect on the teachers' career and salary development.

64. Studies indicate that there are significant differences in terms of the amount of continuing education available both regionally and in terms of different teacher groups. During the three-year review period, some of the teachers (3.5%) did not receive any training, while one fifth (22%) received 5 days of training during the same period. The average number of days spent in continuing education during the review period was 32.5 days. Vocational education teachers received the most continuing education, while general upper secondary school teachers and 7th, 8th and 9th grade teachers at comprehensive school received the least continuing education. In addition, Swedish-speaking teachers received less continuing education than their Finnish-speaking colleagues and teachers and school heads working in towns and cities received more continuing education than their colleagues working in rural areas.

65. Studies also indicate that teachers spend a great deal of their own time participating in training: during the three-year review period, 41% of teachers had spent at least ten days of their own time participating in continuing education, whereas 16% had not spent any leisure time training.

66. The main financial support for teachers' continuing education comes from the employer (41%), although in many cases the employer and the teacher together met the costs arising from continuing education (24%). 70% of teachers had used their own money to finance their own continuing education, one third of them had spent 100–500 euros. Nearly one fifth had invested 500–800 euros in their own training during the same period. Ten per cent of teachers stated that they had met the whole cost of their own continuing education themselves.

67. Employers are more likely to pay all continuing education costs for men than for women. There was a clear difference in the way that men and women participated in paying for their own training: women spent more of their own time participating in training and paid for the training themselves more often than men. Those with the highest level of education most often participated in financing part of their training themselves.

68. The largest providers of continuing education include universities, polytechnics and the National Centre for Professional Development in Education. In addition to training and education provided by the maintaining authority of the teachers' employing educational institution, most teachers participated in training provided by one or more of the three training providers mentioned above. Continuing teacher education is mostly given in the form of individual training days. 75% of continuing education provided was comprised of short courses lasting 1–5 days. Only 10% of the training provided was worth more than 5 credits. According to the survey, teachers preferred short courses to other forms of training.

69. Key topics for continuing education included information technology, subject-specific training and curricular issues. Half of the teachers had received training in these topics during the three-year review period. When asked what subjects they would like to receive training in, the most popular ones mentioned by teachers were subject-specific training and the use of ICT in teaching. Induction training for new teachers or other similar support measures are only used in a few individual cases.

70. The National Board of Education monitors continuing education financed from the state budget by collecting feedback as well as information concerning participants and costs annually. Systematic monitoring and evaluation of the continuing education situation in municipalities and at schools is made more difficult by the fact that in addition to incomplete statistical information, research into continuing education is scarce in Finland. The need for research into the impacts, content-related and methodological solutions as well as training and education needs is apparent, however.

CHAPTER 3. RESOURCES, SYSTEMS AND PRACTICES

3.1 Human and financial resources

71. In Finland, educational expenditure, counted as a percentage of GDP, fell from 6.3% in 1995 to 5.8% in 1999, the decline being 0.1 percentage points in tertiary education and 0.4 percentage points for the other levels. This decrease can be largely attributed to the rapid growth of GDP at the time, which had less strong impact on the public sector (EAG 2002).

72. Finland's regular education system is financed almost entirely from public funds. No tuition fees are charged for basic and general upper secondary education or education and training leading to a qualification or a degree. At the primary and lower secondary levels, pupils receive free tuition, free

learning materials, warm school meals, health and dental care and, if necessary, transport and accommodation. At the higher levels, some of the cost of education is paid by the students themselves, but the government has sought to assure equal access to education for all by means of student grants and housing support. Private funding has been insignificant in Finnish education.

73. In international comparison, Finnish teachers' salaries are quite low and rise slowly in the course of their careers. Teachers' initial salary in Finland is only a half (\$ 20,720 a year at the lower secondary level) of the initial salary in Switzerland (\$ 41,048). In 1999, the Finnish annual salary after 15 years in public lower secondary education was USD 28,225. It was about the same in the OECD countries on average (\$28,629). In Finland salary per teaching hour was USD 43, which was higher than in the OECD countries on average.

74. Finnish teachers' working hours, when measured in contact teaching (from 485 to 656 teaching hours depending on the subject), are among the shortest in the OECD countries. (EAG 2002) Teaching duties vary between 15 and 23 weekly lessons according to the type of institution and subject. At vocational institutions, weekly teaching duties amount to between 20 and 25 classes.

75. There are 185-190 school days in a year. Teachers are not obliged to be at school on days when they have no lessons or other specific duties. Nor are teachers required to work without a specific reason during school holidays. However, many teachers participate in various professional seminars and training courses during their summer vacation.

76. Principals'/Rectors' salaries vary according to the type and size of the institution. Their initial salary in 2002 was between 2,410 and 3,504 euros and their final salary between 3,179 and 4,762 euros per month. Salaries may be even higher if the institution in question pays extra for such merits as a higher academic degree, i.e. Licentiate or Doctor's degree. Rectors generally have a long teaching experience.

77. Although the pay level is only average internationally, young people find teaching quite an attractive option. This means that applicants to teacher training are usually an outstanding, highly motivated and selected group; for instance, only 10% of the candidates gain entry to classroom teacher programmes (Luukkainen 2000). Teacher training tends to attract multi-talented students, who are not only high-achievers in academic subjects but also good in arts, music and physical education. In secondary education (year-classes 7 to 9), where teachers are mostly specialised subject teachers, the situation is not as good: there is a growing shortage of teachers e.g. in mathematics, science and English.

78. In basic education, 70% of the teachers are female, but two in three headteachers/principals are men. Over 90% of the teachers have the required formal qualifications.

79. As regards the comprehensive school, each education provider, whether a local authority, a municipal consortium or a private body, can decide which administrative body is responsible for appointing new teachers. It may be an education committee or some other committee, the municipal board, the school board or the rector.

3.2 Student financial aid system

80. Student financial aid is intended to provide an income to financially needy students whose parents are not under obligation to finance their studies and who are not eligible for aid under some other provisions. In order to qualify, a student must have gained admission to a school, study full time, and be in need of financial assistance.

81. Financial aid is available in the form of study grants, housing supplements and government guaranteed student loans. The study grant is regarded as taxable income. The amount of the aid depends on

the type of school, age and marital status of the student, and the mode of accommodation. The student's overall financial situation is also taken into account. When the need for financial aid is assessed, the student's own income and, under certain circumstances, the parents' or the spouse's income is taken into account.

82. Student financial aid is available for full-time post-comprehensive studies lasting at least eight weeks at an upper secondary school, a folk high school, a vocational school, or an institution of higher education. Financial aid is also available for studies abroad. The study grant ranges from €21.86 to €259.01. The housing supplement covers 80 percent of the acceptable rent and ranges from €26.90 to €171.55. Students who are not qualified for the housing supplement (student families) can apply for a general housing allowance. In addition, Student Housing Foundations offer moderately priced accommodation for students. Most rents are between €120 and €220 a month.

83. Part of the aid granted to students studying in Finland is loan (€160-€360 per month). The rate of interest, the terms of repayment and other credit terms are agreed by the bank and the student. Because the loan is guaranteed by the state, no other security is required. The interest is partly capitalized (added to the loan principal) as long the student is enrolled in education. The student has to pay interest at a rate of one percent twice a year. When repayment begins, the interest is 3.5-4%. Interest assistance is available to all those who have a low income and who no longer receive financial aid. Students may benefit from tax arrangements to the extent that the interest of study loans is deductible in taxation.

84. As to other benefits, students in upper secondary schools or vocational institutions get free meals and student welfare services. Students in upper secondary schools and vocational schools whose travel to and from school is long and costly can also get financial aid for school travel. Full-time undergraduate and Master's students get concessions when using public transport. Student cafés receive government subsidy and undergraduate and Master's students get meals for a subsidised price. University students have to pay a health care contribution (€31.62), which is included in the student union fee. This entitles students to use the services of the Finnish Student Health Service. There is no separate fee for the services of physicians or public health nurses.

85. With regard to indirect support, all parents of students aged under 17 get child benefits whether the child is in school or not. There is no further indirect student support (specific family allowance or tax relief).

3.3 Public library system

86. The excellent public library network in Finland covers the whole country, and Finnish pupils/students are very active users of municipal libraries, which offer not only literature but also music and access to computers. The PISA results revealed that Finnish students are the most active book borrowers. The public library network is dense in Finland. Some 80% of the libraries offer access to the internet (1998). The circulation of daily newspapers per 1000 inhabitants is higher in Finland than in any other EU country (1997): 474.

3.4 Coping with the heterogeneity of pupils

87. The heterogeneity of pupils is taken into account in the Finnish education system, but pupils are not streamed in any way during compulsory schooling. By the age 16 practically all pupils have completed the comprehensive school and are eligible for further studies at the secondary level.

88. In Finland the overall strategy in the comprehensive school is mainstreaming (inclusion); that is, the school system seeks to respond to pupils' special needs within mainstream school instruction as far as

possible. Since the 1990s, pupils with profound mental disabilities have been taught in comprehensive schools; only 2.5% of pupils go to separate special-needs schools.

89. Mainstreaming naturally requires highly professional — both theoretically and pedagogically qualified — teaching staff, as well as appropriate systems for guidance counselling and special needs education. Teachers need to be able to differentiate their classroom teaching in order to cater for a variety of pupils (11).

90. How is it possible to teach the entire age cohort in heterogeneous groups? Comprehensive school pedagogy differs considerably from the pedagogy applied in systems characterised by explicit streaming and ability grouping. Heterogeneous groups necessitate highly educated teachers, genuine pedagogical experts. This is largely because the task of the teacher in comprehensive systems is to take care of every individual pupil. As shown by studies conducted in the 1970s and 1980s when the Finnish comprehensive school was being introduced and more recently confirmed by PISA findings, heterogeneous grouping appears to be of the greatest benefit to the weakest pupils. The performance of the best pupils, in contrast, seems to remain virtually the same, irrespective of how the groups are formed (Väljjarvi et al. 2002, 40-41).

91. Special needs education has always played an important part in helping pupils who have problems with learning. In Finland, special needs education is usually integrated into mainstream teaching. At the primary level (year-classes 1-6), where children are mainly taught by class teachers, special education mostly centres on reading and writing skills and mathematics. At the secondary level, a pupil who has problems in a given subject or subjects typically studies once or twice a week in a small group of 2-5 pupils or individually with a special teacher. The special teacher may, alternatively, be present in regular classes. Finnish school legislation provides for the pupil's right to special needs education.

92. Every pupil is also entitled to guidance and counselling. Schools must provide guidance in study skills, in various choices (e.g. the choice of elective courses) and in the planning of post-compulsory studies. In year-classes 7 to 9, every school has access to a counsellor who provides individual guidance to those who need or want it.

93. A heterogeneous learner population further presupposes efficient small teaching groups and readiness on the part of the school to reorganise groups if necessary. The PISA results show that in Finland the average number of students in study groups is among the smallest in the OECD. Nonetheless, Finnish teachers are constantly worried about what they see as oversized groups, finding it difficult to look after the individual needs of different students. (Väljjarvi et al, 41-42.)

3.5 Participation of civil society by level of education

94. In Finland, there is community involvement in education at all levels of the education system.

95. In pre-primary education, cooperation with parents/carers is emphasised. In order to ensure children's satisfaction, growth and learning, it is important for the pre-primary staff to create a trusting relationship with the children's parents/carers. An important tool in this cooperation is each child's own pre-primary plan, which is drawn up in cooperation with parents/carers, who can also influence the preparation of the institution-specific pre-primary curriculum, the objective-setting in particular.

96. According to the Basic Education Act, schools must cooperate with homes. In practical terms, this means, for example, parent-teacher meetings, where parents and teachers have chances for private discussions. Home-school cooperation also uses written notes, etc. Parents may participate in local curriculum design and in planning their children's learning. The school governing bodies often include representatives of pupils' parents/carers.

97. Under the Upper Secondary Schools Act, general upper secondary education must also be conducted in cooperation with students' families. In practical terms, cooperation at the upper secondary level takes the form of discussions and information meetings for parents/carers. Parents can also participate in the development of the school curriculum. The upper secondary school governing bodies also often include representatives of students' parents/carers.

98. The Vocational Education Act provides that special attention should be focused on working life needs in education. Vocational education and training must be organised in cooperation with business and industry and other employers. There are field-specific training committees, which are appointed by the Ministry of Education. These and the various governing and advisory bodies are the most important channels through which the social partners and representatives of business and industry contribute to the planning of vocational education and training. Usually, vocational institutions seek to establish networks for interaction with local business life.

CHAPTER 4. QUESTION OF EQUITY

4.1 History of interpretation

99. In the course of history, the concept of equity has been given different emphases. In the late 19th century, the Finnish national philosopher J. V. Snellman stressed the common responsibility to educate all citizens. The father of the Finnish school system, Uno Gygnaeus, had staunchly philanthropic ideas about the importance of educating the least advantaged population groups in particular. As a result of these ideas, Finland created a public elementary school system, albeit clearly later than the other Nordic countries.

100. For a long time, the school system was dual, comprising the folk school and the grammar school. Folk schools were created mostly for people in the countryside and it was not possible after graduation to continue studies in grammar schools and further in universities. Grammar schools served mostly bourgeoisie social class and inhabitants of the cities and they guided their students into university studies. The idea of a uniform comprehensive school was already expressed by Gygnaeus in the late 19th century, but was not implemented until the 1970s. At that time, the stress was on everyone's equal right to be educated and to advance in and through education. One major aim was to offer the whole cohort the same opportunities. Another strongly stressed aim was to make full use of the talent reserve in the country.

101. Many school reformers emphasised equity in school achievement alongside equal opportunity in education. Each person should be guaranteed equitable chances to advance in the education system. This thinking is related to the Nordic welfare society, where universality is a strong principle: everyone must have an equal right to the benefits after having contributed to their cost. Basic education must be free and as uniform as possible.

102. The ideal of equal opportunity in education gained an additional meaning during the consensus era in the sixties and seventies. It was not enough that everyone had equal opportunity for education, the aim in education policy was to ensure as uniform learning outcome as possible. This was a two-edged sword. It raised doubts not only about equality and liberties, but also about the possibility to ensure equity in education. The first response to these doubts was to introduce streaming in the comprehensive school. There were three streams in mathematics and languages. After streaming was abolished, the doubters became active again, pointing out the contradiction between quality and equity.

103. In the 1990s, neo-liberal ideas invaded Finland. Especially business executives aired their doubts about the feasibility of uniform education and training. The stress was on individual freedom of choice and the education of the exceptionally gifted. The neo-liberal phase soon passed, however, and many such welfare state ideals as regional equity and the aspiration to reduce the effect of learners' social backgrounds were raised again on the eve of the 21st century. According to this thinking, differentiation in basic education adds to the differentiation and exclusion caused by the structural change in industry and the economy. Understood as equal competition between individuals, equity seemed to lead to inequality between citizens.

104. In view of this, we may well ask to what extent the community can change the terms of equity before the whole concept falls apart. If the school is no longer the same for all, can education as a societal good be distributed equitably?

105. The education policy of the 21st century clearly involves tensions as regards equity. Where the right-wing liberals consider equality as a hindrance to individual freedom, social liberalism considers the equity project to entail measures which even out individuals' opportunities. Where right-wing liberalism wants to invest in high-achievers, social realism calls for support to the less advantaged. As regards the school, the choice is whether to allocate resources to schools which produce good results or to schools with problems. Who need resources – those who have problems or those who are doing well already?

106. The education policy of the nineties juxtaposed the go-ahead middle classes and dropouts at risk of exclusion. In fact, the trend towards equity appeared to have come to a halt. The reason was a determined aspiration to use education and training as an instrument of social competition. But according to the theses of Pierre Bourdieu, the decision-makers alone are to blame for reluctance to level out social divides. What was instigated was in fact competition between families at the community level, which led to differentiation in the standard of schools. On the other hand, legislators gave parents a free hand in the choice of school for their child. The intention was to enhance the quality of schools by means of competition, but the upshot was not only better schools but also worse schools. However, according to the OECD PISA survey, this trend has not yet advanced very far in Finland.

Dimensions in debate

107. The ideal of educating everyone, irrespective of their social status, was in evidence in the very early development of the education system in Finland, and the introduction of the uniform school in the seventies significantly improved equal opportunity in education. The education system was differentiated along the divides of the class society until 1921, when legislation was passed which assigned the obligation to provide education to the local authorities. The introduction of the comprehensive school system in the 1970s further alleviated inequality in educational opportunity.

108. In the early stages of the comprehensive school system, pupils were streamed according to their aptitude in mathematics and foreign languages. As equality in society at large became more of a concern, streaming was abolished in 1985 and everyone received the same level and amount of education. Growing freedom in the choice of subjects in basic and upper secondary education made for a greater variation in the content of individuals' schooling. In this sense, basic education is not identical across cohorts of students. The possibility to direct one's studies according to one's own inclination and aptitude can be seen to equalise educational opportunity and to maximise the individual benefit gained from schooling.

109. Regional equity was addressed in the development of the Finnish education system before social equity. The network of schools expanded rapidly, and legislation was passed in the late 19th century to ensure that physical accessibility did not become an obstacle to schooling. In a country with vast sparsely

populated areas, a landscape fragmented by water systems and a poorly developed transportation network, this required considerable effort and public investment.

110. Similarly, regional higher education policy has alleviated regional differences in access to higher education and created new economic, technological, and cultural capital in university regions. Another factor has been the link between the development of society and higher education policy. In the 1940s and 1950s there was a rapid increase in the number of university graduates, with the focus on traditional humanistic fields and on natural sciences. Active development of the welfare state in the 1960s and 1970s expanded public services and increased demand for education in social sciences. Subsequently, the focus has shifted to fields which promote technological and economic development.

111. The current discussion on the connection between higher education policy and the economy mainly concerns the efficacy of the university system in producing graduates for the labour market. The goal of providing higher education for half of each age cohort and a concern for over-education seem to alternate in the analysis of current developments. Equality remains an issue, no longer so much in terms of physical accessibility as in terms of socio-economic characteristics of the student population, the financing of studies and placement after graduation. However, the creation of polytechnics has increased the regional availability of higher education in Finland. This alternative pathway in higher education may also reduce competition for places in tertiary level education.

112. Participation in in-service training is more common among highly educated white-collar employees. Women and those residing in urban areas are also active participants in work-related continuing education. Overall, participation in adult education and training increased from 32% of the 18-to-64 age bracket in 1980 to 48% in 1995. The increase was larger among blue-collar workers and those with a lower level education than among white-collar workers and tertiary degree holders. Older, previously less active, age groups also increased their participation more than the younger groups. Thus, the current trend in adult education and training appears to be towards greater equality.

113. All in all, the introduction of the basic education system is credited with delivering general equity in education in Finland. It has decreased differences in lifetime educational attainment between socio-economic groups and regions. However, inequality in educational opportunity arguably still exists in Finland, and evidence for this is presented in the next chapter.

SECTION II. OPPORTUNITIES AND OUTCOMES

CHAPTER 5. PROFILE OF EQUITY IN EDUCATION

114. In Finland — as in other Nordic welfare states — the central goal has been to provide equal educational opportunities for all, i.e. to level the playing field for children and youth coming from different social backgrounds. In this spirit pre-primary, primary, secondary and tertiary undergraduates education are free of charge. Every child has a statutory right to pre-primary and primary education. The service provider, i.e. the local authority, charges moderately for its pre-primary services according to the parents' income. The National Insurance Institute (KELA) provides student financial aid from age 17 years onwards for studies at secondary or tertiary level. Various municipal institutions also provide different forms of indirect student support related to the student's age, life situation, housing arrangements, disability etc.

5.1 Participation

115. The participation rate in primary education, from age of seven to fifteen, is practically 100%. Basic education in Finland covers two stages: primary education (year-classes 1-6; ages 7 to 12) and lower secondary level (year-classes 7 to 9; ages 13 to 15). In the transition to the lower secondary level, the participation rate decreases by a fraction. Some 2% of the age group fail to complete basic education.

Table 1. Participation in basic education 2003/2004.

	Pupils	Corresponding age group	Participation rate
Pre-primary (< age 7)	12 400		
Year-class 1 (age 7)	61 019	61 019	100.0 %
Year-classes 2-6 (age 8-12)	327 660	327 718	100.0 %
Year-classes 7-9 (age 13-15)	191 721	196 263	97.7 %
TOTAL	580 400	585 000	99.2 %

Sources: National Board of Education (http://www.oph.fi/info/tilastot/tilastot_082004.pdf), Statistics Finland (<http://statfin.stat.fi/statweb/start.asp?LA=fi&DM=SLFI&lp=catalog&clg=vaesto>)

116. Roughly, about five sixths of the age group participate in post-compulsory secondary education. When calculated from the number of 17-to-19-year-old students in upper secondary institutions in 2002 and the corresponding age group, the participation rate is 83.9%. However, when taken into account that some, 10,464 to be exact, in these same age bracket were already in tertiary education (in 2002), the participation rate rises to 89.0%. Hence, the best estimate for the participation of a specific age group is 89.0%. The majority (50.2%) participate in general education (“lukio”), while the participation rate in vocational education (“ammattillinen”) is 33.7%.

Table 2. Participation in upper secondary education 2002

Upper secondary	Students	Corresponding age group	Participation rate
Vocational (age 17- 19)	67 179	199 455	33.7 %
General (age 17- 19) *	100 245	199 455	50.3 %
SECONDARY TOTAL	167 424	199 455	89.0 %

* Includes 10,464 tertiary students (aged 17-19)

Sources: Statistics Finland, Oppilaitostilastot: Annexes 1 and 8

117. The participation rate in tertiary education, from age twenty to twenty-four, is two fifths, which is about half of the figure for secondary education. The difference between the participation rates for universities and polytechnics is small: polytechnics 21.8% and universities 18.2%. Hence tertiary education in Finland comprises two equally large sectors in participation terms. When we take into account the under 20 year old entrants (10,464) the overall participation rate rises to 46.2% as compared to the participation rate in upper secondary general education (“lukio”) 50.3%.

Table 3. Participation in tertiary education 2002

	Students	Corresponding age group	Participation rate
Tertiary (age 17 - 19)	10 464		
Universities (age 20 - 24) –	59 592	327 262	21.0 %
Polytechnics (age 20- 24)	71 343	327 262	25.2 %
Tertiary (age 25-)	203 426	3 628 894	5.6 %
TOTAL AGE 20-24	130 905	327 262	46.2 %

Sources: Statistics Finland, Oppilaitostilastot: Annexes 1 and 8

118. It is estimated that in Finland 70% of the age group participate in tertiary education; 40% in the polytechnic sector and 30% in the university sector. According to our calculations, participants in tertiary education in 2002 added up to less than half of the relevant age groups (46.2%). Hence, the 70% ‘benchmark’ reported by the OECD is still quite far in Finland. From Table 3 it can be calculated that the majority (59%) of participants in tertiary education are over 24 years of age and account for only 5.6% of the corresponding age groups (over 24 year olds), i.e. of the ‘working-age population’. Hence, in order for the aim of a participation rate of 70% to be realised, more working-aged participants would be needed in tertiary education. This would be in conflict with the Government’s goal of raising the overall employment rate to 75% from the present 62%.

5.2 Educational attainment

119. Tertiary degrees are the most common among the 25-29 year olds (22.2%). The corresponding figures for the 30-34-year-olds and 50-54-year-olds are 21.4% and 12.8%. According to Statistics Finland (http://www.stat.fi/tup/suoluk/taskus_koulutus.html), as many as 81.5% of the 20-to-24-year-olds and 85.7% of the 25-to-29-year-olds have an upper secondary qualification. However, the multiple vocational and general upper secondary qualifications means that in reality the educational attainment of each cohort (in parentheses in Table 4) is very different. The highest attainment rate when multiple education is taken into account is reached by the age of 34 (76.2%). It is also interesting that the attainment rate for those aged 24 is about the same (64.5%) as for the 54-year-olds (64.0%).

Table 4. Educational attainment of adult population in 2002.

Qualification/degree	Age 20-24	Age 25 - 29	Age 30-34	Age 50-54
Vocational	68 843	150 478	134 455	127 661
General	128 547	3 386	41 759	84 397
Upper secondary, total	197 390	153 864	176 214	212 058
Tertiary	13 802	71 009	68 843	53 171
Corresp. age group	327 262	319 485	321 645	414 266
TOTAL	81.5 % (64.5 %)	85.7 % (70.4 %)	83.1 % (76.2 %)	66.6 % (64.0 %)
Tertiary	4.0 %	22.2 %	21.4 %	12.8 %

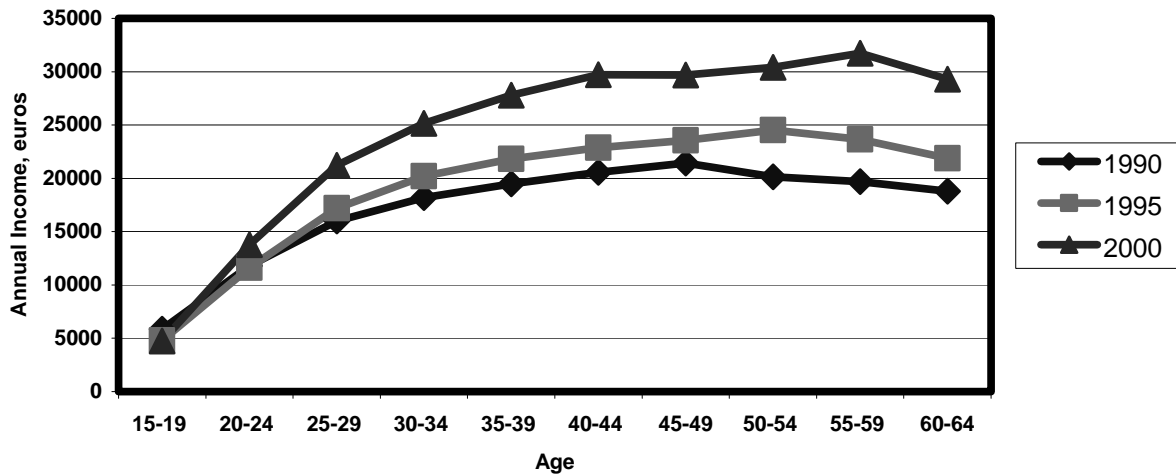
Sources: Statistics Finland, Oppilaitostilastot: Table 2.5; http://www.stat.fi/tup/suoluk/taskus_koulutus.html

120. Basically, each age group in Finland fully completes basic education by the time they reach the age of 25. Slightly more than one fifth had a tertiary degree by the age of 30. The best estimate for vocational attainment is three fourths of an age group.

5.3 Education, income and employment

121. The correlation between incomes and education as well as differences between the incomes in different age groups are visible. The differences between the income of different age-groups have increased during the 1990s. The level of income has risen in all age-groups but the rise has been most rapid in the over-40 age groups. The income development is only modest in the 20-to-39 age bracket and negative in the youngest 15-to-19 age group.

Figure 2. Annual Income by age in 1990, 1995 and 2000, euros



122. The annual income has changed especially in those groups who have upper secondary certificates or university degrees. The rise in the income level of persons with only basic education has been very modest.

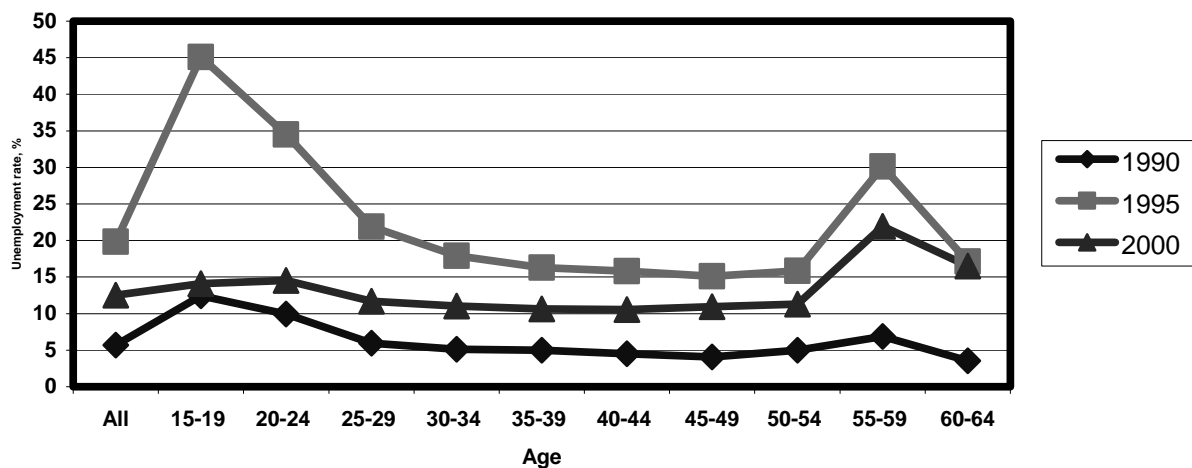
Table 5. . Change in annual income by education and age in 1990-2000, %

Qualification	Number of employed persons in 2000 '000	Age											
		15-64	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	
All	2220.3	44	-19	17	33	38	43	45	38	51	61	56	
Comprehensive school	523.9	34	-28	12	28	31	40	40	37	41	49	50	
Upper secondary school	161.2	43	1	22	40	57	60	59	32	53	50	36	
Vocational education	786.7	36	6	22	29	34	34	31	30	36	38	38	
Polytechnic	485.4	38	-11	26	27	29	31	34	24	36	39	30	
University	243.7	47		41	32	32	47	45	41	57	47	40	
Post-graduates	19.4	47		92	26	32	29	49	51	36	61	44	

123. The figures above refer to full-time workers. They would change if unemployed and part time workers should be included. There are also visible gender differences (see chapter 4)

124. The unemployment rate rose very rapidly in the early 1990s but went down towards the end of the decade. In 2000, it was still higher than ten years ago. There is also considerable variation in the unemployment of the age groups. The change has been biggest in the youngest age-groups from 15 to 29 but also considerable in the age groups 55-64, whose situation is critical because it seems that the increase in unemployment was fairly permanent. The situation for the younger groups in different: their unemployment rate very soon returned to the low level of the early 1990s.

Figure 3. The rate of unemployment by age in 1990, 1995 and 2000, %



125. The unemployment rate has been the lowest in the university and post-graduate group and highest among those who only have basic or vocational education.

Table 6. The rate of unemployment by education in 1990, 1995 and 2000, %

Qualification	Year	1990	1995	2000
All		6	20	13
Comprehensive school		7	26	19
Upper secondary school		4	20	8
Vocational education		7	22	14
Polytechnics		3	12	7
University		1	6	4
Postgraduates		1	3	2

The situation is similar in the age breakdown.

Table 7. The rate of unemployment by education and age in 2000, %

Qualification	Age									
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64
All	14	15	12	11	11	11	11	11	22	16
Comprehensive school	7	23	26	23	21	17	16	15	28	20
Upper secondary school	17	5	5	9	9	9	9	9	19	15
Vocational education	38	18	13	12	12	13	13	13	24	17
Polytechnic	56	15	8	7	6	6	6	6	15	12
University		5	4	4	4	4	4	4	6	6
Postgraduates		0	1	2	2	2	2	2	3	3

5.5 Evidence from cognitive skills tests

The Second International Adult Literacy Survey (SIALS)

126. The SIALS findings showed that there are large differences in the literacy of Finnish adults. There are both top readers and people whose literacy was not sufficient for the needs of modern society. Most - two thirds - of adult Finns read well, attaining level 3. They fulfil the literacy requirements of present-day society in the different domains of literacy. About one in five attain the highest level, typically required for demanding information processing.

127. However, one third of Finnish adults know how to read in the traditional sense, but their literacy remains at the two lowest levels. This makes it difficult for them to tackle new demands, such as learning new job skills. About a quarter of Finns perform at level 2 and understand what they read but their interpretation of the text is inadequate and uncritical. About ten% of the Finnish population remained at level 1. Nearly half a million, or 15% of adults performed at level 1 in some domain. Adults who were level 1 readers in all three domains were 250,000, or 8%. Development measures are especially needed to improve their literacy with a view to improving their knowledge and skills and to encouraging them to study and be more active in society, because they are clearly in risk of exclusion.

128. The most decisive explaining variable appeared to be the level of formal education. This correlation is consistent and strong in Finland. The longer the initial education, the better the literacy.

129. Combined, formal education and the influence of the parents' education have a very strong influence on literacy. Both the father's and the mother's education continues to exert a strong influence on

adults' literacy. The "long arm" of home culture seems to extend from one generation to another. The parents' education and their socio-economic status, which is more often than not linked with it, creates either an enriching or impoverishing home culture, which is reflected, for instance, in the attitude to education, in cultural activity, in the size of the home library and other reading material, and in the use of the media.

130. Alongside education, the age of the reader correlated with reading skills. The fear that literacy is deteriorating in younger generations proved to be a fallacy. The younger the age group, the better their literacy in all domains. The differences were large and consistent. There were poor readers in both the youngest (16-to-25-year-olds) and the oldest (56-to-65-year-olds) cohort, but in the latter they were more numerous.

131. The differences between the different age groups are largely explainable by the younger generation's higher level of education. But even with education attainment standardised, age played a major role. Especially the youngest age group, the 6-to-25-year-olds, did clearly better in reading tests than the other age groups. Young Finns were in a class of their own in document literacy, even better than Swedes.

132. Gender differences proved to be small in Finland, women being better in document literacy and men in quantitative literacy. There was no difference in the processing of documents. In the international perspective, gender equality seems to be fairly good in the Nordic countries overall. In Central Europe - Belgium, Great Britain, Portugal, Germany and Switzerland- equality was not as obvious, and there men did better than women in all the domains.

133. Literacy is also connected with employment. The literacy of unemployed persons is clearly poorer than that of employed persons. Findings indicate that poor readers also run a much larger risk of becoming unemployed than others. Further, literacy and reading activity also explain wage differences although the influence is mainly indirect. The strongest factors explaining salary differences are, however, gender (to the benefit of men), age and the experience it brings, and the level of education, which is also reflected in the occupation and work duties. Another important factor is use of computers.

134. The level of literacy varied regionally, with the highest level in the Helsinki Metropolitan Area. The level was also fairly high elsewhere in southern Finland, in western Finland and in the Province of Oulu. The lowest levels were found in the Provinces of Eastern Finland and Lapland. The explanation cannot, however, be found in regional differences but in the level of education and the age structure. The Provinces of Eastern Finland and Lapland have the largest relative number of Untrained people and the smallest proportion of higher education graduates. The relative number of young people is the largest in the Helsinki Metropolitan Area, and the Province of Eastern Finland has an above-average share of old people.

135. Cities proved to have a slightly higher level of literacy than rural area although these differences are largely explained by difference in the level of education: in relative terms, more people in rural areas have only basic education than in cities and towns.

TIMSS 99

136. According to the TIMSS 99 survey of 38 countries, the mathematical and scientific knowledge and skills of Finnish students (7th year-class) are fairly good. The results for Finland were clearly above the international average in both mathematics and science. In science only four and in mathematics only six countries were statistically significantly better than Finland.

137. A significant finding was the small variation in scores in Finland. Both in science and in mathematics, the differences in attainment across students were smaller in Finland than in the other countries. There were few truly top-performers, but the number of low-performers was small also.

138. In relation to the 14 participating OECD countries, young Finns' mathematics performance was OECD average and science performance good OECD average. In chemistry, Finnish students were at the international top, placing second among the 14 participating OECD countries and fourth among all the 38 participating countries. A strong area for Finns was the acquisition of scientific information, with the other domains very close to the OECD average. Finland was farthest behind the top OECD countries in geography.

139. Based on the international scores, the participating students were divided into performance levels: the best 10% on Level 5, the best 50% on Level 3 and the best 75% on Level 2, with the lowest performing students at Level 1. The relative number of Finns at Level 5 and at Level 1 were very small, but at Levels 4, 3 and 2 the relative share of Finns was larger than the international average, especially at Levels 3 and 2.

140. This means that Finnish students' learning profiles were nearly uniform in all the science areas, with about 2/3 of the students reaching at least Level 3 in each area. These students master and can communicate basic scientific information in different thematic areas. About 10% of the students performed at Level 1 in chemistry, biology and acquisition of scientific information. The number of students who performed poorly in the physics, geography, and environment and natural resources domains was slightly higher. The highest Level 5 was attained by 21% of Finnish students in chemistry and 19% in the acquisition of scientific information, which were also strong domains nationally. In biology and the environment and natural resources domain, Level 5 was attained by 15%.

141. The strongest explanatory factor for performance in science and mathematics proved to be the student's confidence in his/her own skills and attitude to the subjects. This correlation was strong and systematic both in Finland and internationally.

142. In international comparison, Finnish 7th-graders have strong confidence in their own mathematics skills: as many as 32% had strong confidence and only 14% poor confidence. Corresponding international figures were 18% and 15%. Yet, few Finnish students had a positive attitude to mathematics: only half of the international mean. In Finland, the proportion of boys who both had strong confidence in their mathematics skills and had a more positive attitude to it was statistically significantly higher than of girls.

143. In science, self-confidence and attitudes varied according to subject. In biology, nearly half of Finnish students had strong self-confidence in biology and geography and nearly one fifth had a positive attitude to them. In chemistry, too, some 40% of students had strong self-confidence. In physics, however, only one third has a strong self-confidence and nearly as many a weak self-confidence. Finnish students had the most positive attitude to biology and geography. The proportion of boys was significantly larger among those who had positive attitudes to physics and chemistry than girls. In biology, on the other hand, the situation was opposite. In geography, there were no significant gender differences.

144. Finnish students spend very little time on doing home assignments in mathematics and science. The proportion of Finnish students who spend more than one hour on mathematics at home was clearly the smallest among the participating countries. Most Finnish students (85%) used less than hour and 7% spent no time on mathematics homework. The corresponding figures for science were similar.

145. Students who spent most time on mathematics and science homework performed best in the TIMSS 99 survey. Students who spent no time and those who spent only little time performed at the lowest levels. The difference between those spending under and over one hour on homework was clear and statistically significant. This correlation was clearer in mathematics than in science.

146. TIMSS 99 also measured some characteristics relating to students' home backgrounds which indicate the general attitude at home to education. Finland ranked highest in the number of books. Both in Finland and internationally, the more books there were at home, the better the students did in both science and mathematics. The number of books also indicated the physical and intellectual potential of the home to support the student's school work.

147. The Finnish results showed that the number of books and good facilities otherwise seem to correlate with student performance in both mathematics and science. The home background had more impact on boys' than girls' performance. In mathematics, this difference between genders was even very significant statistically.

148. Regional and gender differences were very small in Finland. There were no major differences between boys and girls in mathematics and science. Finnish boys' performance scores were statistically significantly larger only in physics. In international terms, boys were better in mathematics and science than girls.

149. No statistically significant differences were noted across the regions in mathematics and science. In mathematics, there were small differences according to the form of municipality. Schools in urban areas performed best; there was a statistically significant difference with schools in rural areas. On the other hand, students in rural and urban areas were equally good in science.

OECD PISA 2003 results

150. Finnish 15-year-old students, who are in the final year of their basic education, are the best in mathematical literacy in the whole OECD. The same level of mathematical proficiency was found in the OECD countries Korea, The Netherlands and Japan and in the PISA partner countries Hong Kong-China and Liechtenstein. Mathematical literacy was statistically significantly lower in the other participating countries than in Finland.

151. Judged by the average results, there has been positive development in young Finns' mathematical literacy since PISA 2000. Young Finns' average score in mathematical literacy (544) is 8 point higher in PISA 2003 than in PISA 2000.

152. Young Finns reached a high level in all the measured aspects of mathematical skills, but their best area was quantitative reasoning. Despite these good mathematical skills, Finland will have to pay more attention to spatial and geometric skills in the years to come.

153. Finnish students' learning outcomes in mathematics are also characterised by a fairly uniform performance. Variation in learning outcome was again smallest in Finland. The Finnish results show that it is possible to achieve a high level of mathematical skills without extreme differences between the lowest- and highest-performing students. Although the variation in skills was negligible in Finland compared with the other countries, there are differences in learning outcome in Finland as well. The students are placed at six proficiency levels according to score points, with Level 2 marking the minimum base level at which the student has adequate mathematical knowledge and skills for coping with the demands of today's and tomorrow's society.

154. In Finland 93% of students perform mathematical tasks at least at Level 2, as compared to the OECD percentage of 79%. Finland had a smaller percentage (6%) of inadequately or poorly performing students than any other OECD country. The highest Level 6 was attained by 25% of Finnish students, and some 50% performed at Level 4 or above.

155. The reason for Finland's good overall performance was that it had the smallest percentage of poorly performing students in the OECD. The proportion of low-performers on the "space and shape" scale was a little larger than in the other performance areas in mathematics, in which the average variation was 1-2%.

156. Gender differences in mathematical literacy were fairly small in Finland. In mathematics boys traditionally outperform girls and the difference tends to grow towards higher year-classes. The overall difference in girls' and boys' performance scores was only 7 points in Finland.

157. The students' socio-economic background correlates with learning outcome in mathematics. Children from the highest socio-economic families outperform their less advantaged peers in all the participating countries. In Finland the impact of the family background was smaller than in the other OECD countries.

158. Differences across schools were smallest in Finland and in Iceland. Variation in school performance was very small in Finland (5%). Mathematical literacy is spread evenly across the country. One intriguing finding was that young Finns reported lower interest in and enjoyment of mathematics than young people in the OECD countries on average. Finnish boys were more interested in mathematics than girls.

Table 8. Development of performance scores in mathematical literacy, PISA 2000 and PISA 2003.

Country	PISA 2000	PISA 2003
Finland	536	544
Nordic countries	514	515
OECD	500	500
EU	491	475
United States	493	483
Japan	557	534

159. In PISA 2003 young Finns were again at the OECD top in reading literacy. They had statistically significantly better reading skills than their peers in other countries of high literacy, such as Korea (the difference between Finland and Korea is not statistically significant), Canada, Australia and New Zealand.

160. In average terms, there has been no significant change in young Finns' reading literacy from PISA 2000. Reading performance was more even, with the smallest differences in the OECD and a drop of 8 points in the standard deviation. Comparisons with the other participating countries show not only that the reading performance of Finnish students is excellent but also that a high standard of reading literacy can be achieved with relatively small differences between students.

161. The even distribution of reading literacy was also seen in the placement of students across the performance levels. Among the six performance levels, Level 3 is considered to be the minimum requirement for meeting the demands of present-day society. On average 80% of the Finnish students attained this level (PISA 2000 and PISA 2003). In 2003, 15% of Finnish students achieved Level 5 (scoring over 625) whereas the OECD average was 8%, with 33% performing at Level 6 (OECD average 21%) and 32% at Level 3 (OECD mean 29%).

162. Girls read better than boys in every participating country. In Finland, gender differences were smaller in PISA 2003 than in PISA 2000.

Table 9. Development of performance scores in reading literacy, PISA 2000 and PISA 2003.

Country	PISA 2000	PISA 2003
Finland	546	543
Nordic countries	514	508
OECD	500	493
EU	494	494
United States	504	495
Japan	522	498

163. In PISA 2003 four countries clearly outperformed the others in scientific literacy. These were the OECD countries Finland, Japan and Korea and the partner country Hong Kong-China. There were no differences in the performance of these four. Finnish students achieved very similar scores in 2000 and 2003. Young Finns surpassed the goal set in the national mathematics and science education programme Luma, which was to rank among the best performing 25% in the OECD. Other high-performing countries were Liechtenstein, Australia, Macao-China, The Netherlands, and the Czech Republic.

164. In PISA 2003, Finland improved its performance in scientific literacy from PISA 2000, achieving high and uniform standards. The standard deviation in young Finns' performance was among the lowest in the OECD. A notable feature in the results was that Finnish students outperformed their peers at all performance levels. Their scores at the lowest and average levels were higher than those of students from other countries. PISA 2003 results give a positive picture of Finnish students' performance, which will be in sharper focus still in PISA 2006, in which the main domain is scientific literacy.

165. Finnish students' performance was characterised by a high level and even distribution of scientific literacy. Girls outperformed boys by 6 points.

Table 10. Development of performance scores in scientific literacy, PISA 2000 and PISA 2003.

Country	PISA 2000	PISA 2003
Finland	538	548
Nordic countries	505	502
OECD	500	500
EU	492	499
United States	499	491
Japan	550	548

166. Finnish students' problem-solving skills are among the best in the OECD. With its score of 548, Finland (2nd) was on par with Korea, Japan and Hong Kong-China.

167. Here, too, the performance was very even across students and schools. Especially gratifying was the finding that Finland had the smallest relative number (5%) of poorly performing students who have not mastered problem-solving skills. On average, the relative number of low-performing students in the OECD countries was three times higher than that of Finland.

168. Problem-solving has many points of contact with the other PISA domains, the correlation with mathematics being the strongest. This is not surprising since both mathematical and general problem-solving require reasoning. The PISA 2003 results confirm the view that PISA has succeeded in assessing knowledge and skills which students need in their day-to-day life and in the future.

169. Finnish girls outperformed boys in problem-solving. Girls' good problem-solving skills seem to be a Nordic characteristic.

Table 11. Problem-solving scores in PISA 2003

Country	PISA 2003
Finland	548
Nordic countries	514
OECD	500
EU (18)	499
United States	477
Japan	547

5.5 Equity among the adult population

170. The level of education among the adult population has risen steadily since the 1950s. The expansion of education and training has not benefited all population groups equitably; the disparities between different age groups remain large. More than four in five young adults have at least a secondary qualification, but only three in five 50-to-54-year-olds and fewer than one in two over-60-year-olds. Owing to the rapid expansion in Finland, the disparities in education are larger and the link between an older age and poor education stronger than in any other OECD country.

171. As regards continuing education and training, there are inequity and large differences between different groups. The participation rates vary sharply according to age, gender, educational level, socio-economic status and the person's employment situation. The difference between men's and women's participation has remained roughly the same since the early 1980s. In the case of adults, the longer the initial education and training, the more likely they are to participate in continuing education and training. Senior officials are clearly more active in continuing training. The lowest participation rates are found among the least educated and lowest income groups. Adult education and training has not succeeded in halting this polarisation in society, rather it has conformed to it and strengthened it.

172. Inequity in education is especially exacerbated by the accumulation of education, notably as regards in-service training. In 2000, the relatively highest participation rates were found among 35-to-44-year-old white-collar workers who had higher education degrees. They had ten days a year of in-service training on average, whereas blue-collar workers had only four days. There were small differences between men and women. Female senior employees participate more in continuing professional education than their male counterparts, but less senior female white-collar and blue-collar workers participate less than men in similar positions.

173. Employed and unemployed adults have different education markets. Especially during mass unemployment, measures have been taken in Finland to provide labour market training to the unemployed. The employed enjoy the perk of in-service training, which is financed by the employer. In-service training is the largest form of adult education and training when counted in the number of participants, but labour market training has a longer duration. During 2003, about 80,200 people started labour market training. On average, there were 30,300 students in training at any given time. 11% of all starting labour market training were employed. The average duration of labour market training is about 5 months. The number of

participants in in-service training in 2000 was around one million, but the average duration was less than seven days.

174. In professional and work-related training, there are major differences between the participation of the unemployed and the employed. During 2000 over half of the employed but only one in four unemployed persons participated in professional or work-related training. The longer people have been unemployed the less they participate in education and training.

175. The difference between the participation of the unemployed and the employed in Finland is one of the largest in the OECD. It is particularly large in the older age groups. Two in five employed older people participated in professional or work-related training in 2000, whereas the corresponding figure for the unemployed was mere 3%.

176. Despite the extensive provision of labour market adult training in Finland, the unemployed participate in adult education and training only moderately: only one fifth in 2000; the corresponding figure for the employed was over 50%.

177. Those with no vocational training run the biggest risk of becoming unemployed. Nearly two fifths of unemployed job-seekers have no vocational training, whereas only one fifth of employed job-seekers are untrained. One of the overriding education policy aims in the 1990s was to encourage the unemployed to participate more actively in training. The reason was that the Finnish unemployment rate persists at a fairly high level in European comparison. Marginalisation from the labour market has become an everyday reality for hundreds of Finns. It was believed that education and training would help the unemployed to keep up with the ever stiffer competition, to find a new career at an adult age or to hold on to the edge of the labour market.

178. Labour market training is one of the active employment policy measures. The aim of the labour market training is to develop and maintain professional skills of adult people. It is financially subsidised learning which is aimed primarily at persons over 20 years of age who are unemployed or under the threat of unemployment. The training is cost-free to the participants and the training is organised by vocational adult education centres and other suppliers of training services. The studies normally include on-the-job practice which complements learning. Labour market training prepares for a basic degree, vocational examination or a specialized vocational examination. It can be additional training, retraining or training for entrepreneurs. In 2003, 58 % of all labour market training was vocational training, and half of that was competence based. Training produced jointly by the labour administration and employers has good employment impact and should be consequently stepped up. Adult labour market training will be developed so as to give it more relevance for the needs of SMEs.

179. In 2003, 74 per cent of those starting labour market training were unemployed. The people entering labour market training were usually 30-49 year old and about 40 per cent had no previous vocational qualifications. Of those starting labour market training in 2003, one in three had a secondary-level qualification and one in five had higher-level occupational training. In the same year 50 per cent had been unemployed less than half a year and 10 per cent of those starting labour market training had been unemployed more than one year. Of those starting labour market training 49 per cent were men and 51 per cent women.

180. The ongoing change in occupations and industries means that virtually all workers in all employee categories need different kinds of updating and upgrading. In Finland the rate of participation in continuing education and training financed by the employer is among the highest in the OECD when counted in teaching hours per employee.

5.6 Student financial aid and equity

181. The purpose of study support granted under the Student Financial Aid Act (65/1994) is to secure income during full-time studies. Student financial aid can be granted for post-compulsory studies to applicants aged 17 who are no longer eligible for family allowance (child benefit). The aid amount depends on the student's age, family situation, form of living and level of education. The amount of aid for an independently living student corresponds to the amount of the last-resort income support and a housing allowance paid to a person without income. Owing to a higher cost of living, the aid is usually larger for an independently living student than for a student living with his/her parents. Similarly, a higher cost of living during studies abroad is usually taken into account in student aid.

182. The total number of students eligible for student support is around 500.000, but only around 300.000 actually receive support (60%). This low percentage is due to the fact that support for students in secondary education under the age of 20 is dependent on parental income and due to the fact that about 50% of the university students study in part-time and often make their own living by working. The latter do not receive student support.

183. Part of the student financial aid is student loan; the purpose of this is to emphasise the nature of studies as an investment in one's own future. The student loan option is not very widely used. Some 40 per cent of students take a loan at some point during their studies. The number of students eligible for loans is around 300.000, but only 125.000 actually are taking up loans.

184. The housing supplement covers part of the student's housing costs. It is granted to a student with no family living independently in rented accommodation. Other students are covered by the general housing allowance scheme. The housing supplement is paid towards rent exceeding a given housing cost. An effort has been made to determine this limit on the basis of the housing cost norm used in the general housing allowance scheme. The housing supplement is inadequate especially in the Helsinki Metropolitan Area, where the housing costs are fairly high compared to other regions in Finland. The limit used in the housing supplement will be raised from 1 November 2005, which is expected to alleviate students' living conditions to some extent.

185. Particularly inadequate is the aid granted to students under 18 years of age who live with their parents. It is seen problematic in terms of equitable social support that the means-tested study grant may be smaller than the non-means-tested family allowance. An additional drawback is that student aid granted for secondary education is conditional not only on the student's own income but also, in the case of students aged under 20 with no family, also the parents' income. However, on grounds of indigence, it is possible to pay a larger study grant for a student under 18 years of age who lives with his/her parents. The students' own income is taken into account in financial aid granted to higher education students, most of whom are of age and live independently. Efforts have been made to set the income level in a way which allows the student to work alongside studies to a reasonable extent without losing the aid.

186. The criteria for granting student financial aid and the criteria for the parents' responsibility for providing for their children are complementary. Under the Child Sustenance Act (704/1975), the child's right to sustenance from his/her parents ends when he/she turns eighteen. The parents are responsible for providing for the child even after that if this is considered reasonable in view of the child's aptitude, the duration and cost of education/training and the child's chances of paying the cost of education himself/herself after graduation.

SECTION III : CAUSES AND EXPLANATIONS

CHAPTER 6. LONGITUDINAL TRANSMISSION OF EQUALITY

6.1 Equality of opportunity in higher education

187. Educational equality and inequality are most clearly manifested in higher education. When Martin Trow (1974) worked as an expert for OECD in the early 1970s he distinguished three phases in the development of higher education: elite higher education is accessed by less than 15%, mass education by less than 50% and universal education by more than 50% of the cohort. Returning to his report decades later (1999, 307-308), Trow could state that there is really only one aspect he was unable fully to forecast at that time. He could not foresee that the traditional enrolment rate counted from cohorts can no longer serve as an unambiguous criterion because the composition of the student body has changed. Trow's famous distinction was appropriate as long as higher education was accessed mainly by youngsters, but at the beginning of the 21st century, soon only half of all higher education students belong to the young cohorts, the other half being adult students complementing their education according to the principle of lifelong learning and those who take up higher education studies only for their personal recreation and interest. Access understood as 'enrolment' has to be replaced by the conception of 'participation' in lifelong learning.

188. All kinds of equal opportunity concepts involve the problem where to draw the line in terms of the equalisation of opportunities and at which point to hold it fair that individuals should make an effort on their own and compete with each other. (Roemer 2000) In the case of Finnish education, the government has sought to level the playing field first and foremost by the means of the comprehensive school, but just as forcefully by increasing study places in higher education and by establishing universities in different parts of the country – aiming at equality in regional policy terms.

189. As already shown above, the aims of equalising educational opportunities at the primary and secondary levels have been satisfactorily met. Therefore, the Finnish discussions on unequal educational opportunities focus on tertiary and especially in university education. The rapid regional expansion of the university sector in the late 1960s and early 1970s was mainly effected through the establishment of new universities. Since then the number of universities (20) has remained the same. Currently, 10 universities are as multi-faculty universities, but even among them the number and composition of faculties vary considerably. Four university towns - Helsinki (9 universities), Turku (3 universities), Tampere (2 universities) and Oulu (1 university) –offer the full range of university studies from arts and humanities to engineering and medicine. Turku is the only centre with two multi-faculty universities, one Finnish-speaking and one for Swedish-speaking.

190. General eligibility for university education is provided by the Finnish matriculation examination, the International Baccalaureate or *Reifeprüfung*. The eligibility is also provided by secondary vocational education and for the moment 30% of new entrants in Polytechnics and 5 % in universities come from vocational institutes. The annual intake is about 21,000, of whom 7,000 are 19 years old (i.e. 21% of

matriculated students and 11% of the whole age group). According to these figures, competition for admission to universities remains as keen as ever. About 5,000 of these 7,000 young students start their university studies in the four aforementioned university towns (Helsinki-Turku-Tampere-Oulu). In Table 12, university locations are ranked according to a specific elitist-coefficient (the ratio of the shares of tertiary-backgrounds and basic-backgrounds in the student body) calculated for 1995.

Table 12. Students (aged 20-24) in university centres and towns by father's educational level (basic and tertiary) in 1985, 1990 and 1995.*

University locations	FATHER'S EDUCATION						elitist coefficient
	Basic			Tertiary			
	1985	1990	1995	1985	1990	1995	
	%	%	%	%	%	%	
Helsinki	28	23	15	45	48	57	3.80
Tampere	42	31	21	25	32	39	1.86
Turku	37	30	22	31	34	39	1.77
Jyväskylä	45	38	22	22	27	39	1.77
Lappeenranta	38	33	24	24	30	36	1.50
Oulu	45	37	26	25	29	36	1.38
Kuopio	43	38	25	24	30	34	1.36
Rovaniemi	41	33	28	27	28	31	1.11
Joensuu	52	42	30	18	21	33	1.10
Vaasa	48	34	33	20	30	29	0.88

* The information available in the longitudinal Census data for 2000 is not directly comparable with years 1985-1995. Generally, however, we may say that the trend shown in this table continued in 2000.

Source: Census Data, Statistics Finland

191. Table 12 shows the changes in the 'social background' composition of students in different locations. Throughout Finland, except in Vaasa, the student body has become more elitist, in that the share of tertiary-background-students increased and that of basic-background-students decreased. Helsinki stands alone as the 'elite-magnet'. The second group comprises Tampere, Turku and Jyväskylä. One explanation of this regional phenomenon lies in broader educational selection mechanisms, i.e. the inflationary consequences of educational expansion (see Goldin 1999, Kivinen et. al. 2003 and Kivinen et. al. 2004). Educational expansion over generations means that the number of basic educated (fathers) peters out. Therefore, the next in line to be eliminated from the race for higher education are secondary educated fathers and so on. The most highly educated (tertiary) will, of course, widen their lead with or without the (regional) expansion (see Kivinen et. al. 2000, 2001, 2002).

192. The ground rule is that the selection of university students is made by the universities, their faculties or departments on the basis of the grades in the matriculation examination and in the school-leaving certificate and/or entrance tests. For a decade, the universities and the Ministry of Education have agreed on joint targets to speed up entry to studies by offering an adequate choice to the various groups of applicants, and to make more efficient use of student places. The aim has been a coordinated nationwide application system serving both applicants and universities. The system will be adopted soon. However, the most recent pressure for university development is a clearer orientation towards the labour market, again with the aim of speeding up entry to education, but mainly for the sake of providing labour force to fill in the vacancies left by the retiring baby-boomers. Last year the Finnish Government committed itself to a goal of reaching a 75% employment rate. Since then the employment rate has been on the same level, being 67% in 2004.

193. The number of university students has increased rapidly over the past ten years. At present, the participation rate of the 20-to-24-year-olds stands at 22% (Kivinen *et. al.* 2004). Women are in a majority in universities (53%). The average time taken to complete a Master's degree is 7 years, the formal time being 5 years. The polytechnic sector reports an average duration of 3.9 years and a discontinuation rate of 10% in 2003.

194. Traditionally equality of educational opportunities has been operationalised as differences in participation in higher education (e.g. Hermunen 1984, Soho *et. al.* 1990, Kivinen & Rinse 1995, 1996, Kivinen *et. al.* 2001, 2002, 2004). In Finland the differences in participation in university education between children of academic fathers and those whose fathers have only basic education remained large throughout the 1980s and 1990s despite a slight positive trend.

Table 13. Participation rates to university education of 20-24 year olds by father's educational level

Father's educational level	1985	1990	1995	2000*
	%	%	%	%
Tertiary (>4 yrs.)	45.2	47.8	48.0	43.2
Vocational II (3-4 yrs.)	22.9	24.0	25.1	23.6
Vocational I (<3yrs.)	10.1	10.1	10.7	11.9
Primary	6.4	7.5	8.5	9.5

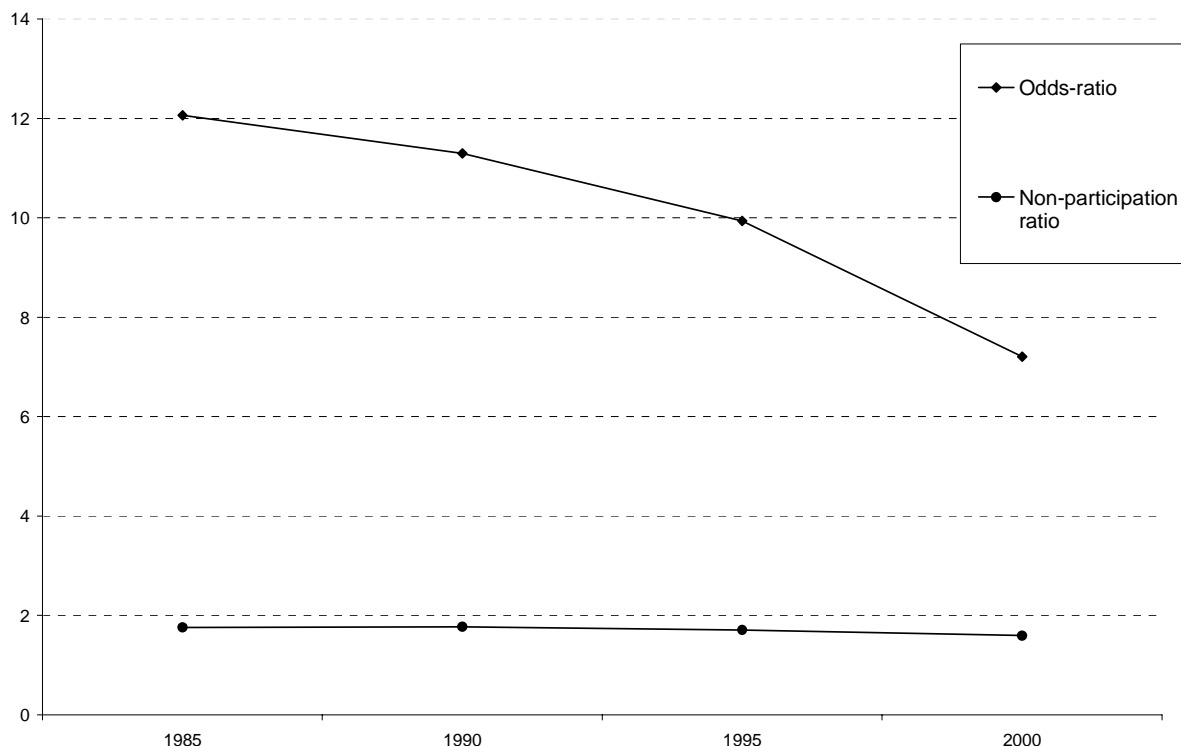
* In 2000 the father's education classification was updated by Statistics Finland. No alterations to these updated classifications were made for this table. However, it should be noted that in 1985, 1990 and 1995 tertiary means almost exclusively university education.

Source: Census Data, Statistics Finland

195. Table 13 shows the participation rates for 20-24 year-olds by the father's educational level. The stable trend from 1985 to 1995 seems to be disrupted in 2000: children of poorly educated fathers participated more in university education, and the children of highly educated fathers participated less. One explanation is odds ratios. The competition for university education has reached the stage of 'play-offs' among youth with favourable family background, while young people from less-favourable backgrounds still pre-dominantly do not participate (see Kivinen *et. al.* 2001, 2002).

196. The overrepresentation of the offspring of academic fathers, as indicated by odds-ratios in five-year terms from 1980, has been slightly decreasing, the odds being 13-12-11-10 until in 2000 it dropped to 6. As such, a six-fold chance for university education is still a great advantage as far as difference in participation at the university level education is concerned. In recent Finnish studies, both parents' educational attainment has been taken into account (Kivinen *et. al.* 2001, 2002). The results underscore the odds-ratio trend shown above; the participatory differences between youngsters with PhD parents and those whose parents have only basic education are substantial and persist, as indicated by odds ratios above 28 throughout the 1980s and 1990s.

Figure 4. Comparison of relative chances for participation (Odds-ratio; tertiary educated fathers=1) and relative risk for non-participation (Non-participation ratio; basic educated fathers =1) to university education in 1985, 1990, 1995 and 2000 among 20-24 year olds.



197. In terms of university level education, the relative chances (odds-ratio) of young people with tertiary educated fathers remained ten-fold or more throughout the 1980s and 1990s. At the turn of the century, the relative advantage attributable to a favourable family background was still more than six-fold. At the other end of the family background continuum, the relative risk of non-participation (non-participation ratio) of children of fathers with only basic education shows practically no change, remaining little less than two-fold. Altogether, as regards the family background of the 20-24 year olds, the situation remains that the offspring of tertiary educated fathers continue to participate in university education, while the offspring of basic educated fathers take full-time jobs or pursue other activities.

6.2 Equality of opportunity and the impending labour shortage

198. Under the threat of an impending labour deficit following the retirement of baby boomers, the Finnish government has decided to promote various means for stepping up the graduation of tertiary education students (20-24 year olds studying at HEIs) and getting them on to the labour market. As the figures above show, the 20-24 year-olds increasingly participate in tertiary education. Speeding up their entry to HEIs and to the labour market with a view to raising the employment rate will in fact reduce tertiary education, i.e. fewer 20-24 year-olds would be studying at HEIs. This, in turn, would conflict with the objective of equality opportunity in education. Therefore, the question with regard to this objective of almost 50 years' standing is how it will hold in pressures from the labour market and the inflated status and salary of tertiary-level graduates (see Goldin 1999, Kivinen et al. 2003, Kivinen et al. 2004).

Table 14. Employment and participation rates for 20-24-year-olds in 1980-2010.*

	1980	1985	1990	1995	2000	2010**
20-24 YEAR -OLDS	%	%	%	%	%	%
employment rate	64	58	59	55	51	54
tertiary participation rate	23	24	22	41	47	24
neither	13	18	19	4	2	12
TOTAL	100	100	100	100	100	100

* - Upper secondary not included in tertiary (1980-1990). The polytechnic sector included in tertiary (1995-2000).

** Expected rates in order to maintain overall employment rate at 62%. (Kivinen et. al. 2003; cf. *Työllisyystyöryhmän loppuraportti 2003*)

Source: Census Data, Statistics Finland

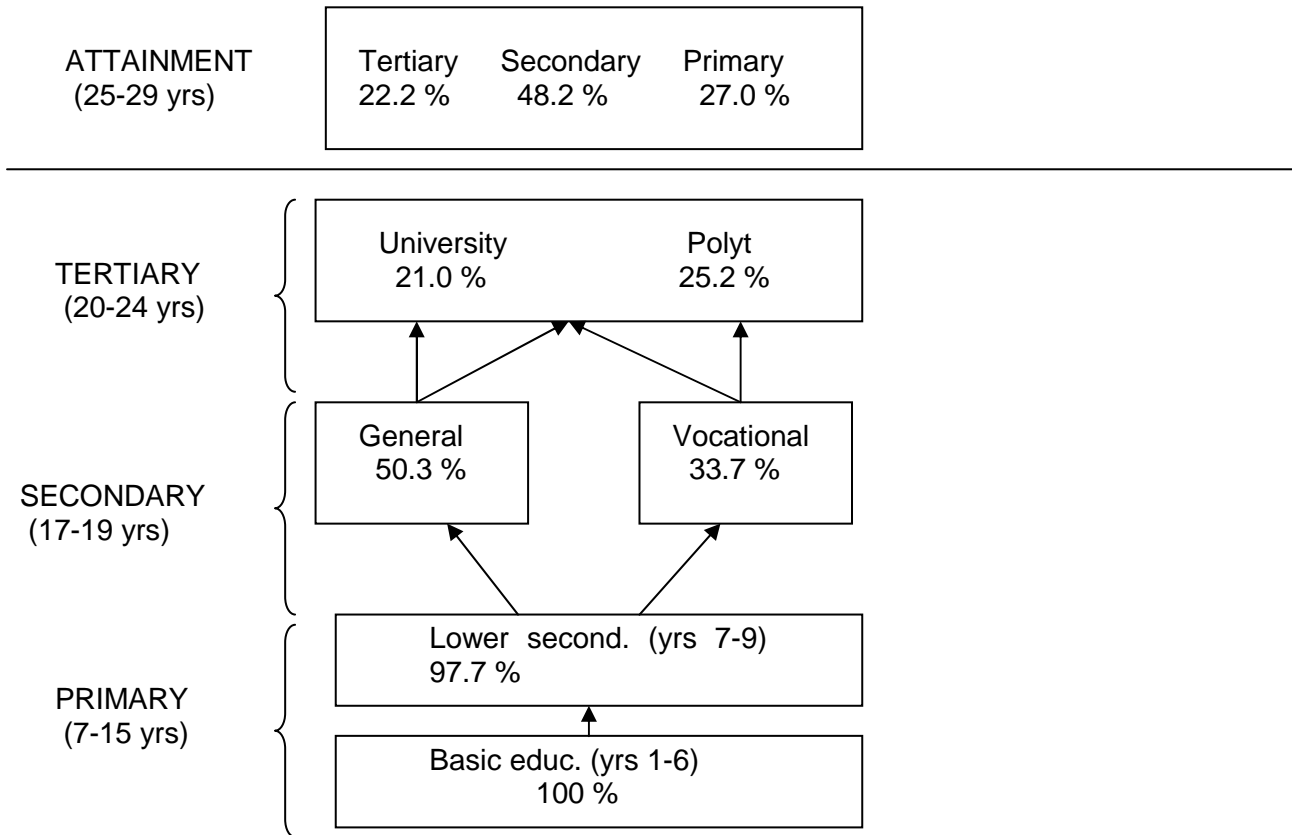
199. Table 14 shows the employment rates and the participation rates in tertiary education in 1980-2000 among 20-24 year-olds, and a projection for 2010. During the eighties and early nineties, participation in tertiary education was rising steadily and reached 47% in 2000. At the same time, the employment rate decreased steadily, being at its lowest (51%) in 2000. According to Census Data, 3% of all 20-to-24-year-old students were students who worked full-time in 2000. However, according to other surveys, the share of “working students” from university students tends to be around 60-70%. Kivinen et al. (2003) estimate that if the objective of maintaining the overall employment rate (62%) is taken as a guideline for higher education policy, the employment rate among the 20-to-24-olds will have to be raised back to 54%. This would lead to a participation rate of 24% in tertiary education and a large group of young people (12%) for whom there is no ‘ready-made’ tertiary education or employment. It will be trickier for a student to combine tertiary studies with work, because the government expect him/her to fulfil two different aims: to raise the overall employment rate and to capitalise on the equality of educational opportunities.

6.3 Outlook for educational opportunities in the 2010s

200. As concerns the retirement of the baby-boomers, not only must the labour market tackle the change, but the education system itself may also need to adjust to the dwindling flows of young people. As a starting point for further deliberation, we can summarise the current flows through the Finnish educational system. The educational attainment of the 25-to-29-year-olds is used as a reference for comparisons. As shown in Figure 5 the participation rates are high at levels of education. For Finland, the concept of dropout is often problematic because it does not fit in with the national strategy of lifelong learning. Figure 5 demonstrates a cumulative way to calculate the dropout rate at a certain age, in this case 29. As can be seen, the cumulative drop-out rate — 29-year olds starting/continuing their work careers with only primary education — is 27.0%.

201. The other “peculiarity” is the relatively low share (22.2%) of tertiary educated among 25-to-29-year-olds compared to the relatively high participation rate (46.2%) among 20-to-24-year-olds. This phenomenon was discussed above. Most tertiary students are “working students” and their graduation is delayed. Meanwhile, they are doing jobs suitable for secondary level graduates, which they all at that point are and may graduate if job openings gradually arise for tertiary graduates.

Figure 5. Flows of youth through the Finnish educational system



202. From Figure 5 it can be calculated that about half (48%) of the tertiary participants graduate by the age of 29. The other half start their (full-time) working careers as secondary graduates and graduate, if they graduate, by the age of 34. The most urgent need in appropriate adult education or egalitarian education policy measures concerns the drop-out rate of 27%, i.e. people who have only basic education by the age of 29. The fastest and least expensive strategy for raising the general educational attainment level in Finland, in the spirit of equal opportunity, is to focus on providing appropriate secondary education for drop-outs.

CHAPTER 7. INSTITUTIONAL BARRIERS

203. Equality between genders, regions and socio-economic groups is a fundamental principle in the Finnish basic education system. All basic, secondary and higher education is public in Finland, and thus free of charge to the student. As mentioned earlier, pupils in basic education used to receive different amounts of basic education because of streaming in certain subjects until the educational reform of 1985. Since then, basic education has been the same for all and, furthermore, the aim in the education system is that no one leaves schooling at only basic education. Previously, equity was seen quantitatively and measured by the network of schools and access to schools. Nowadays, when the goal is education of

equally high quality for everyone, individual learning outcome has become the preferred measure (Jakku-Sihvonen 2002).

204. Some features of the social security system in Finland provide strong incentives for school-leavers to continue in further education. Anyone younger than 18 is not eligible for unemployment benefits. Since 1997, entitlement to unemployment benefits for young people aged 18 to 24 has been conditional on their applying to and/or accepting a place in secondary education or training. This practice was introduced in the face of growing youth unemployment and the alarmingly high percentage of individuals without further training among the unemployed. In 1995, for instance, 90% of the recipients of unemployment benefits who were under 20 years of age had only compulsory schooling. As only 7% of all school-leavers in 1996 did not apply to further education the following year, the concentration of those without further education among the unemployed is inordinately large.

205. Empirical research on inequality in education in Finland has mainly examined cross-sections or pupil/student cohorts at a certain level or field of education. Most studies find some inequality owing to students' socio-economic background. Concerns over regional inequality are also often raised. Strong competition between schools at the local level is a potential source of inequality, but institutional differences do not necessarily determine individual attainment or learning outcome. Most of the research cited below evaluates education in terms of equality.

7.1 Pre-primary education

206. Every child has the right to participate in pre-primary education for a total of 700 hours before entering primary school. Local authorities are responsible for providing pre-primary education, and it is free of charge to the families. Participation in pre-primary education has increased rapidly since the early 1990s to 70% in 1998 (Statistics Finland 2003). According to the Ministry of Education (2003e), 75% of the six-year-olds received pre-primary education in 2003. In addition to formal pre-primary education there are day-care centers who take care of children under 7 years but do not provide formal pre-primary education. Also they are maintained by municipalities but administrated by the ministry of Health and Social Care. Although they are not formally part of education system, in practice their functioning does not differ much from that of other pre-primary institutes.

207. In 1998, 94% of pre-primary education was provided in day care centres, and the remaining 6% in comprehensive schools. Every child under the school age is entitled to public day care organised by the local authority either in a day care centre (public or private) or in private care. The public day care fees depend on the family income, ranging from 18 to 200 euros a month per child (Ministry of Social Affairs and Health 2003). Parents taking care of their children at home or buying child-care services from a private provider receive a subsidy towards their expenses. Pre-primary education is included in the day care fee.

208. Those children who are in private family care or at home with their parent(s) are less likely to participate in pre-primary education. When the majority of pre-primary education is linked to public day care, alternative forms of child-care constitute a potential source of inequality. Finnish children may start their primary school with different baseline skills. Some have the benefit of 700 hours of pre-primary education, while others may not have been exposed to interaction in a group or in teaching situations.

209. Research on the equality of pre-primary education is virtually non-existent in Finland. International comparisons of participation rates are also difficult because the commonly accepted definition of participation in pre-primary education concerns children aged 3 to 6 (Statistics Finland 1998). In Finland, although provided in day care centres, formal pre-primary education usually takes place during the year immediately preceding primary school, which begins at the age of 7.

7.2 Basic education

210. Pre-primary education is voluntary; primary and lower secondary education constitutes the compulsory schooling of Finnish children. Jakku-Sihvonen (2002) has examined to what extent the Finnish school system achieves the goal of equality in basic education. Her main research object was to find out if there are differences between lower secondary schools as regards school-specific learning outcome and pupils' attitudes towards learning. She examined equality in terms of gender, different socio-economic backgrounds, and regional equality.

211. The data in Jakku-Sihvonen's study comes from national assessments of the national core curriculum. Tests were administered in different subjects to pupils in the ninth grade, i.e. the last year of basic education, in 1998–2001. The tests were given to a nationally representative sample of pupils, and Jakku-Sihvonen (2002) created a meta-data set from the individual test scores. In her study, each school gets a school-specific performance score, which tells in percentage terms how well the pupils in the school did on average compared to the maximum score. The schools were then ranked according to the average scores, and schools in the highest and the lowest quartile were used in the comparison of learning outcome. The distributions of individual test scores within the upper and lower quartiles showed that there are pupils who go to a lower quartile school and do well in the tests, and vice versa. However, the differences in subject-specific tests between the upper and lower quartile schools varied between 13 and 21 percentage points. Jakku-Sihvonen concluded that a difference as large as this can create inequality in the pupils' opportunities to pursue further education after lower secondary school, given that the national assessment test scores predict grades in the pupils' final reports.

212. The national assessment tests included questions gauging how important pupils find a particular subject, whether they enjoy studying it, and how they feel they are succeeding. In general, girls' attitudes towards school and learning were found to be more positive than boys'. Similarly, better performing pupils generally had a more positive attitude. Accordingly, Jakku-Sihvonen (2002) found differences between the upper and lower quartile schools in the average attitude scores. Between boys and girls, she found a statistically significant difference in attitudes only in the lower quartile schools. Her conclusion was that the psychological learning atmosphere may differ according to the performance level of the school. Moreover, it seems that a low average performance in a school may increase the risk of gender inequality to the disadvantage of boys.

213. In order to investigate regional inequality in learning outcome, Jakku-Sihvonen (2002) divided the country into three regions: the capital city area, northern Finland, and other districts. First, she found that the distribution of the upper and lower quartile schools is uneven in Finland. There are fewer upper quartile schools in the northern districts than would be expected if the distribution were random. She observed a north-south gradient both among the upper and the lower quartile schools: for the upper quartile schools, the average performance increases from north to south, whereas for the lower quartile schools it decreases. This leads to polarisation of learning outcome across schools, especially in the capital city area. There, the best schools are very good and the least well performing schools include the worst in the country. The differences between the three regions in average scores were statistically significant, from which Jakku-Sihvonen concluded that there is evidence of regional inequality in learning outcome.

214. Despite these results, international comparisons rank Finnish basic education among the most equal in terms of learning outcome. In the PISA 2000 study, which surveyed over 30 countries, Finnish pupils came first in reading literacy tests, with the smallest variation in the scores. It is noteworthy that the effect of pupils' socio-economic backgrounds on performance was among the smallest in Finland. One explanation for Finland's success in such international comparisons is the general consensus in Finland concerning the importance of equity in education. In addition, there is no streaming in basic education and

pupils of different skill levels are taught together, which, according to him, promotes equality in learning outcome.

7.3 Secondary level education

Upper secondary schools

215. According to the National Board of Education (2003), 55% of Finnish school-leavers in 1999 continued in upper secondary schools the following year and 35% in vocational education. 3 % opted for voluntary additional basic education intended for students who, owing to poor school leaving reports or skills, cannot gain entry to the next level of schooling or the labour market. Only 7 % of students did not continue in education or training the following year. The fact that more than half of school-leavers prefer to continue in general upper secondary education is in line with the stated aim of Finnish education policy to raise the average level of education in the country.

216. The finding that there are considerable regional differences in learning outcome and that school performance is polarised has prompted further investigation of student selection procedures. Admission to upper secondary schools is based on “cream-skimming”. The lowest grade point averages entitling to admission to the most popular schools are very high (above 9 on the scale from 4 to 10), while there is virtually no screening in the least popular schools.

217. Kuusela (2003) examines the factors creating differences in learning outcome between upper secondary schools. His data included matriculation examination results for the years 2000–2002, a measure for the average education level of the parents of upper secondary school students, parents’ unemployment rate, average household income, and the proportion of households living in cramped housing.

218. Socio-demographic factors have a significant effect on performance in the matriculation examination. They operate through a selection mechanism, which is twofold: First, there is regional selection because families’ material and non-material resources for supporting their children’s education differ regionally (Kuusela 2003). The second is spontaneous selection relating to the choice of school: some children attend the school closest to their home, while others choose some other school. According to Kuusela (2003), those who transfer to a school other than their local school after their 6th year, i.e. at the transition from primary to lower secondary level, perform better in their further studies on average than students who stay in their local school.

219. It has been found that half of the observed differences between schools can be explained by socio-demographic factors. Kuusela (2003) uses mothers’ education in his analyses. The effect of mothers’ education is strongest in large urban areas, where there are several upper secondary schools to choose from and a greater variation in parents’ level of education. Thus, variation in learning outcome which would otherwise be confined to one school becomes variation between schools. In municipalities which only have one upper secondary school, the socio-demographic factors do not have the same significance. However, despite the selection of the best students into the best schools, especially in the capital city area, Kuusela does not find any evidence that this would affect an individual student’s success or learning outcome. It is worth noting that selection does involve potential inequality, even if individual results are not dependent on school-specific average results. Upper, and some lower, secondary schools which specialise in a subject, e.g. sports, art or music, select their students to some extent based on aptitude in these special fields. The cost of sport, art and other hobbies may to some extent exclude students from less affluent families from specialised schools.

220. Kirjavainen and Loikkanen (1995) studied the effects of school resources on learning outcome in upper secondary schools and found that the parents’ educational level has a significant effect on average

matriculation examination attainment. They also found that the proportion of female students in a school correlates with better matriculation examination results, which can be seen as further evidence for girls' more positive attitudes towards learning. Interestingly, Kirjavainen and Loikkanen's regional results show that schools in urban regions do worse than schools in less urban regions. They did not treat the capital city area separately, however, as Kuusela (2003) did, which may explain this somewhat contradictory result. There seems to be a threshold level in the size of the urban area, at which the average results equate to or surpass the national average and above which polarisation occurs. The two studies are also several years apart, and this development may have taken place after the first study. Kirjavainen and Loikkanen (1995) found no evidence that teachers' experience or education would influence matriculation examination results. Neither is there unambiguous evidence that teaching expenditures per student would be a significant determining factor in the results. This is not surprising, considering that virtually all upper secondary schools in Finland are publicly run, with nationally set curricula. The qualifications required of teachers are the same, so drastic differences in the qualities of teaching staff are unlikely to occur across schools.

221. Evidence on the connection between parents' and children's education is strong and abundant, and a potential source of inequality. Parental education can be considered a characteristic of the socio-cultural environment of the student, which is also influenced by the overall level of education and attitudes towards education in the community. Kuusela (2003) conducted a survey among the principals of schools whose good results in matriculation examinations he could not explain statistically. The explanations they offered included a close-knit community and communication between school and families. Such positive environmental and cultural factors seem to offset the effect of family background in determining the academic performance of upper secondary school students.

Vocational education

222. There is a growing trend among young people to acquire "double" education at the upper secondary level. Students start university studies four years after completing upper secondary school on average (Government of Finland 2003), often studying for a second (vocational) qualification at the secondary level. This may in some fields improve their chances in university admissions, but in other respects it is clear inefficiency. The percentage (10 %) of those acquiring double degree is still quite small.

223. This was also noted by Nurmi (1998) in a study on students entering tertiary education. Hämäläinen (2003) found further evidence of inefficiency relating to secondary and tertiary education: some university graduates already had a prior qualification, either from secondary or tertiary level. These individuals are more likely to end up in jobs that do not correspond to their university education and therefore tend to have a lifetime earnings profile similar to that of secondary level graduates, suggesting that vocational education is an obstacle to drawing full benefit from higher education.

224. According to Statistics Finland, dropout is most common in vocational upper secondary education. In vocational upper secondary schools, 10% of the students left the school during the school year 2002-2003. The corresponding number of general upper secondary school students was 2% during that year.

225. There are a lot of statistics available concerning students interrupting their studies but not much information about the significance of dropping out to the students themselves or about their experiences related to the phenomenon. According to Komonen's doctoral thesis (2000), school leavers are a heterogeneous group. Based on the study, many reasons can be found why students leave the school:

- Change of a study program,

- Studying in a vocational school works as a visit during which a student compares his or her abilities and professional expectations to the contents of study program,
- The contents of a study program do not match the hopes and expectations for future profession,
- Study place is not the student's primary choice,
- Studying in a school of secondary choice is considered to be one way to spend a year.

7.4 Higher education

Entrance examinations

226. There are two main sources of inequality in higher education. Firstly, most universities and disciplines select their students by means of entrance examinations. In 2003, on average 40% of those who took entrance examinations gained entry to universities (KOTA database). All young people do not have equal chances to prepare for the examinations and this may create inequality. Secondly, the financing of studies at the university level may put students on an unequal footing. Not all families can assist their children financially, and if one has to work alongside studies, the earnings may cause the public student financial aid to be cut. Issues relating to the financing of studies are discussed in Section 3.6.

227. Entrance requirements differ across institutions and fields of study. Generally candidates get points for matriculation examination grades and for the entrance examination. Entrance examinations are set on the basis of the upper secondary school curriculum and usually some additional literature, and/or, in some cases, material distributed with the exam questions. Some fields and institutions use interviews and aptitude tests (e.g. teacher education, social work). As universities are autonomous, they are free to determine their own entrance requirements, but often administer joint entrance examinations. For example, an entrance examination can qualify the applicant for studies in several universities (e.g. in biology five universities and in engineering and architecture eight). In some fields and universities, outstanding results in the matriculation examination entitle to “free” entry without an entrance examination (e.g. mathematics, physics and chemistry at the University of Helsinki). Interviews and aptitude tests are more commonly used in entry to polytechnics, where education is more professionally oriented and work-related. In polytechnics, too, applicants get points for the matriculation certificate and grades.

Universities: Preparation courses

228. Commercial coaching courses are an increasingly popular way of preparing for the rigorous entrance examinations. The course fees and materials are expensive, and a student preparing for entrance exams, on a course or otherwise, often cannot work full-time, and may need financial support from his/her family. This creates inequality between prospective students. A preparation course may cost hundreds, even thousands, of euros, depending on the field and the provider.

229. Ahola and Kokko (2000) conducted a survey among applicants to business programmes in Finnish higher education institutions. They found a clear difference in enrolment on preparation courses in favour of those from more advantaged backgrounds: 40% of the applicants whose fathers had a higher education degree attended a preparation course, as compared with only 20% of those whose fathers only had basic education. A preparation course gives a clear advantage: 47% of the applicants who had taken a course in addition to reading the set books were accepted. The admission rate among those who only studied the books was 17%. Other strategies, such as studying the entrance exam problems set in previous

years, produced outcomes in between these two extremes. One may, of course, admit that those attending preparatory courses may in general have better potentials to advance in their studies.

230. Moreover, there seems to be a connection between educational and socio-economic background and the effectiveness of a preparation course. Applicants from white-collar families attending preparation courses had an acceptance rate of 49%, while only 22% of those who did not attend gained entry. For blue-collar applicants, course attendance yielded an entry rate of 27%, while 20% of them gained entry without a preparation course (Ahola and Kokko 2002). Thus, not only are applicants from wealthier and more highly educated families more likely to take preparation courses, but they also benefit from them more than do applicants from lower socio-economic status families and with less educated parents. This is inequality based on economic resources, as well as regional inequality since private preparation course organisers generally operate in large (university) cities.

Polytechnics: The second best choice?

231. Nurmi (1998) has examined the relationship between polytechnics and universities in *Keiden koulutusväylät?* (Whose education tracks?). His focus was on selection into different educational paths, but he also touched upon the issue of equality in his discussion of students' socio-demographic backgrounds and career goals. His data came from a 1994 survey among applicants to polytechnics and universities in the Häme province in the fields of economics, social work and technology. At the time of the survey, polytechnics still operated on a trial basis, and this track had not established itself in the educational field. Nurmi applied principal components analysis in order to explore the effects of family background, prior education, and personal orientation regarding status or profession.

232. Nurmi found that selection before the decision to apply to a polytechnic or a university has more effect than the entrance examinations themselves. The selection procedures in both tracks seem to favour students from families of higher socio-economic status and larger educational capital. Nurmi's hypothesis was that status orientation is more prevalent among university students, and task orientation among polytechnic students. Status orientation, which means that the student considers the position and salary of the potential future job, was significant (prevalent?) among the university-bound individuals in the population. Contrary to Nurmi's expectations, task orientation did not turn out to be a significant factor for students in choosing the polytechnic track.

233. Polytechnic graduates have less certain employment prospects than university graduates. Polytechnics are a relatively new form of education in Finland, and the niche for graduates in the labour market is still somewhat undefined. According to Statistics Finland, marked differences exist in the average earnings of graduates from universities and polytechnic institutions (Partanen 2002). Engineers with a university degree who graduated between 1996 and 1997 earned on average 27,500 euros in 1998, while polytechnic engineers from the same year earned 24,200 euros. The difference was larger for business graduates, the average earnings being 25,000 and 18,000 euros, respectively. Interestingly, Nurmi (1998) found that while the family's educational capital (parents' education) was a significant factor in the choice of higher education in general, a high socio-economic background was a less important contributory factor in (had less influence on?) entry to polytechnic business programmes than engineering programmes, and was not statistically significant. Less equality in entrance to education seems to be associated with less equality in pay across the two tracks of higher education. This may imply the emergence of segregated fields in the labour market for those with university and polytechnic degrees.

7.4 Financial aid to students and equality

234. Financial assistance from family does not affect the amount of financial aid granted, but the student's own earnings do, which means that those who have to work because no family funds are available

may receive less financial aid despite their greater need. Secondly, in large cities, in the capital city region especially, housing expenditures are higher than in other parts of the country. Moreover, in large cities subsidised student housing is much harder to come by and many students have to rent on the more expensive private market. This leads to regional inequality, because the maximum housing supplement is the same all over Finland. Thirdly, lack of capital against which to borrow, and uncertain employment prospects and earnings after graduation may put students from poorer socio-economic backgrounds at a disadvantage as regards student loans. They may have to take larger loans than those whose families are better-off and therefore take a bigger risk than those who have family funds as an insurance against uncertainty.

235. In 2004, a new system was announced to take effect in August 2005 (Government of Finland 2004). The monthly amount of government-guaranteed student loan will increase from 220 to 300 euros, by 11%. After graduation, the payments of the loan are deductible from taxes up to 30 percent of a loan amount exceeding 2,500 euros for students who graduate in the target time of five years. This addresses some of the inequality issues better than pure market-based loans. However, a component providing insurance against uncertainty is needed, because to gain real benefit from the subsidy, the graduate must find employment.

7.5 Conclusions

236. The effect which socio-economic factors and regional variation in them have on selection and participation in education and training still seems to be a key source of inequality in the Finnish education system. First, as regards basic and upper secondary education, national assessments show that there are significant differences in school performance. Second, the transitions from one level of education to another are critical. Upper secondary schools select their students based on grades, and universities and polytechnics use entrance examinations. Studies indicate that there is a connection between the family background and attainment in basic and upper secondary education and admission to higher education. Inequality within institutions or within regions is not of an alarming magnitude as yet, but inequality between schools and regions may be growing and therefore constitute a potential source of inequality in the labour market. There are indications of interconnection between these kinds of inequality, which warrant empirical research in the future.

CHAPTER 8. EDUCATION AND GENDER EQUALITY

8.1 Gender differences in achievements and subject choices

237. Research shows (e.g. Lampela 1995, Lampela & Lahelma 1996) that although in principle basic education is equal, girls and boys are treated differently to some extent in everyday school work. This different treatment is visible in educational choices as early as in basic education. Girls and boys are taught according to the same curriculum, but different things are expected of them. Studies have revealed that better behaviour and better test results are expected of girls than from boys, for instance. It is often argued that girls are often rewarded for good behaviour and their success is seen to arise from hard work rather than talent.

238. There are also differences in learning between girls and boys. Based on evaluations made in the last year of basic education, girls clearly perform better than boys in mother tongue and in A1-level

English. Previously, boys have performed better in mathematics, but according to the latest assessments, girls have caught up with boys. As for natural sciences, girls perform slightly better than boys in biology and geography. Boys, on the other hand, perform clearly better in physics. When natural sciences are regarded as a whole, boys perform slightly better than girls. In general, girls are more learning oriented than boys. (See Hautamäki 2000; Lappalainen 2001; Mattila 2002; Rajakorpi 1999; Tuokko 2002.)

239. According to an evaluation study carried out by the National Board of Education, there is a statistically significant difference in attitudes between girls and boys on the basis of school-specific averages; girls relate in a more positive way to the study of the assessed subjects and to the usefulness of the subjects than boys. In Finland, apart from the capital city area, the difference between boys' and girls' performances is clear: girls perform better than boys. In higher-performing schools differences between boys' and girls' performances are smaller or non-existent. Factors related to schools' operating environments appear to be closely related to the education level of the surrounding community and socio-demographic characteristics. (See Jakku-Sihvonen 2002.)

240. The PISA study indicates that 50% of Finnish 15-year-olds are excellent readers, while the average in the OECD countries is 32%. Within the different kinds of reading skills, Finnish children were especially good in acquiring information and understanding and interpreting what has been read. According to the PISA study, only 7% of young people in Finland have poor reading skills, whereas the OECD average was of 18%. The results indicate that in all 32 countries girls have better reading skills than boys. In Finland, the difference between the reading skills of girls and boys is the largest in the OECD countries. Finnish boys achieved an average of 520 points in reading skills, which is the highest in the OECD countries and clearly higher than the OECD average for both girls and boys. (See Linnakylä & Sulkunen 2002.)

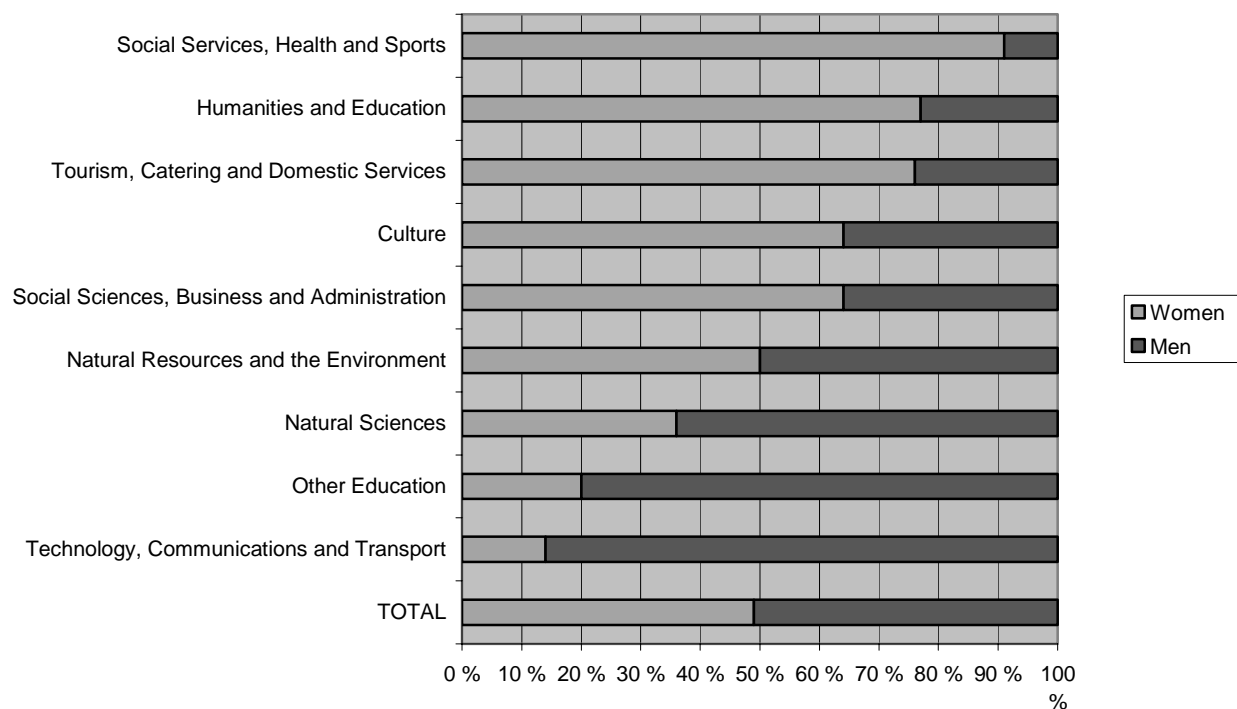
241. Girls tend to choose less optional courses in mathematics and in natural sciences than boys in basic education. In the year 2002, 45% of pupils choosing mathematics courses and 40% choosing natural sciences courses were girls. In the general upper secondary school, students can choose between a basic or advanced syllabus in mathematics. In 2002, 40% of the students who had chosen the advanced syllabus were women. The same year, 60% of the students who received general upper secondary school certificates were women. (See Opetushallitus 2003.)

8.2 Differences in educational choices

242. The genders differ in their educational choices after compulsory basic education. In 2002, 93% of pupils finishing basic education were accepted to upper secondary education immediately. Of them, 55% started general upper secondary education and 37% vocational upper secondary education. Two percent continued in voluntary additional basic education. Gender differences can already be perceived in this transitional stage between compulsory basic education and post-compulsory secondary education in terms of choice of education level and form. Of girls leaving basic education, 64% started general upper secondary education and 27% vocational upper secondary education. The corresponding figure for boys was 46% for both forms of education.

243. According to 2002 statistics, women constitute 49% of students in vocational upper secondary education. The proportion of female students is the largest in the field of Social Services, Health and Sports (92%) and lowest in the field of Technology, Communications and Transport (14%). (Figure 6)

Figure 6. The share of female and male students in vocational upper secondary education according to sector of education in 2002

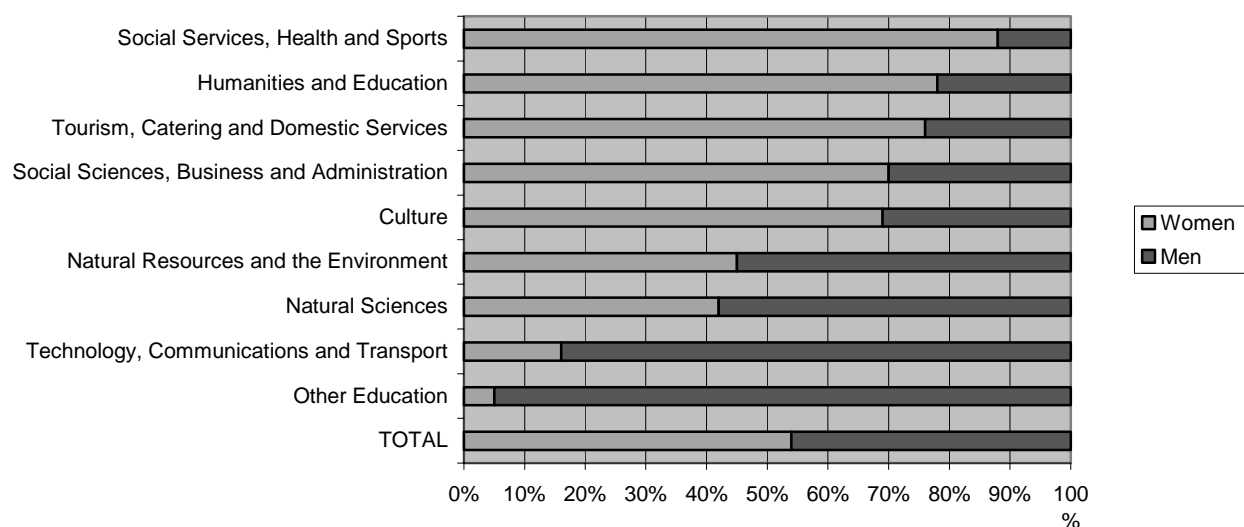


Source: Statistics Finland, educational institutions

244. In 2002, altogether 36,200 students completed the matriculation examination, of whom 58% were women. The share of women who got a study place immediately after the national matriculation examination was 38% while the corresponding figure for men was 41%.

245. The share of female students in polytechnics was 54% in 2002, but the sectors of education vary greatly. For instance, in the sector of Social Services, Health and Sports, women accounted for 88% of the students, and in Technology, Communications and Transport only 16%. (Figure 7)

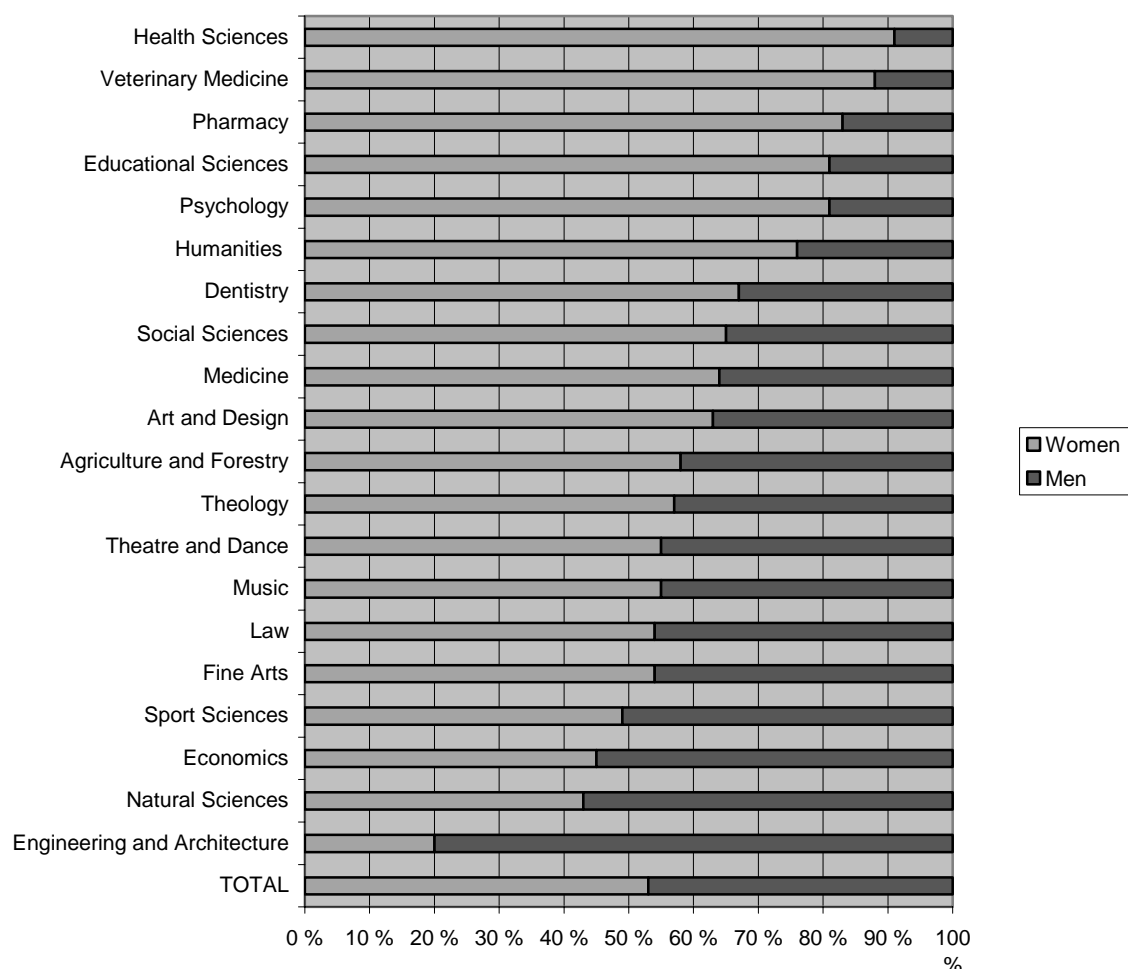
Figure 7. The share of female and male students in polytechnic education according to sector of education in 2002



Source: Statistics Finland, educational institutions

246. In 2003, women formed the majority in 16 sectors of education whereas men were the majority in only four of the 20 sectors of university education. The share of female students was the largest in health sciences (91%) and smallest in engineering and architecture (20%). The overall share of female university students was 53% and for new students the corresponding figure was 56%. The share of female doctoral students was 50%, but it should be noted that variation between the sectors of education is high. Most doctorates completed by women are in the sector of health sciences. (Figure 8)

Figure 8. The share of women and men in university education according to sector of education in 2003



Source: KOTA database

247. Despite a high level of education, women's average income was 82% of men's income in the second quarter of 2003 according to the Income Level Index of Statistics Finland. However, there are differences between different fields. Naumanen (2002) found that with the same level of education, men are likely to succeed better than women in the labour market.

8.3 Gender policy in education and training

248. The Act on Equality between Women and Men (8.8.1986/609) aims at preventing discrimination on the basis of sex and at promoting equality between women and men, and, to this end, improving the status of women particularly in working life. The Act is also applied to education and training. Authorities, educational institutions and other training and education providers must provide opportunities for education and occupational advancement for women and men, and ensure that instruction, research and instructional material promote the fulfilment of the aim this Act.

249. According to the Government Programme of Prime Minister Matti Vanhanen's Government (2003), promotion of gender equality is the responsibility of the entire Government. Together with the labour market organisations, the Government will promote equal pay and workplace equality through a long-term programme. The goal is to eliminate unjustified differences in pay between women and men.

The Government will amend the Act on Equality between Women and Men. Raising the employment rate will require solutions that help to reconcile work and family life. The Government will enhance the conditions for employment and entrepreneurship with respect to men and women, such as quality day-care and other public services. For example, separate assessment of spouses in taxation, work-based social security for employees and entrepreneurs, and loans to female entrepreneurs will encourage women to enter the labour market.

250. In terms of education provision, the Development Plan for Education and Research for 2003–2008 sets out the key contents and measures for national development. The Development Plan addresses the problem of balancing the gender structure in vocational and general upper secondary education. The national core curricula and the Development Plan guide the promotion of democracy, equality between men and women and well-being in all levels of education.

8.4 Gender equality in the curriculum development

251. According to the national core curriculum, the underlying values of basic education are human rights, equality, democracy, natural diversity, preservation of a viable environment, and the promotion of multiculturalism. Basic education helps to increase both regional equality and equality among individuals. Instruction will take the diversity of learners into consideration and promote gender equality by giving girls and boys the same capabilities on an equal basis and with the same responsibilities in society, in working life and in family life. These values should be reflected in the teaching goals and contents and in everyday activities.

252. Gender equality is not directly mentioned in the upper secondary school core curriculum. It briefly mentions that “general upper secondary education shall promote democracy, equality between men and women as well as well-being”.

253. According to the national core curriculum for vocational education, education and training must promote democracy, equality between men and women in all sectors of society, as well as general equality in working life and society.

Gender in the joint application system

254. In Finland, pupils in the last year-class of basic education apply for upper secondary education through a joint application system. Students are selected on the basis of their scores. In entry to upper secondary vocational education, points are given, for instance, for the prior study record (0-16 points) and work experience (0-5 points). The applicant's gender may also be relevant in the scoring. An applicant will get two extra points when applying to a field of education where fewer than 30% of primary applicants are of the same gender as the applicant.

8.5 Programmes/projects aiming for improved equality

255. Several equality projects have been carried out in Finland in order to encourage girls to choose technological fields and professions and study technology, mathematics and natural sciences. The goal has been to open new career opportunities for women in technological professions and thus to alleviate the division of the labour market into female- and male-dominated fields. In addition to desegregation, the goal is to find answers to problems with recruitment in technological occupations.

256. The projects promoting the recruitment of girls into technological and industrial professions have mainly been educational projects in which girls have been encouraged to make non-traditional choices regarding education and a career. Girls in their last year of basic education and general upper secondary school have been primary target groups for the projects. One concrete goal of these projects has been to get

more and more girls studying in the fields of technology and industry. Efforts to affect individual career choices are mainly being made through shaping attitudes and enlightening girls.

257. Finland has taken initiative for a joint Nordic project called "Different learners - common school" (2004-2005). The aim is to find ways to diminish the differences in learning results between the genders and to promote actions enabling both genders to utilise their own learning capacities to the full. There are also some Finnish projects with the objective of inspiring boys and men to work into female-dominated fields.

SECTION IV: POLICIES, PROGRAMMES AND INITIATIVES

CHAPTER 9. ACTIVE EDUCATIONAL POLICIES BEARING ON EQUITY

9.1 Development plan 2003-2008

258. Equity is a key concept in the development plan of the ministry of education 2003-2008. According to the plan, everyone should have an equal right to education and training according to their abilities and special needs and personal development irrespective of their financial means. Realising basic educational security is one element in the successful prevention of exclusion. Securing equal opportunities requires that measures geared to support participation are targeted to less active groups. Special attention will be paid to the identification of learning difficulties. Special needs education and remedial teaching will be increased.

259. With a view to ensuring individual careers, the quality of life and working capacity and preventing exclusion, post-compulsory education or training will be provided for the whole age group. In 2002, around 95% of young people leaving compulsory education continued their studies immediately. The target is that in 2008 at least 96% of comprehensive school-leavers begin an upper secondary school, in vocational education and training or in voluntary additional basic education. The aim will be that by 2015 the relative share of people with at least secondary qualifications among the 25-29-year olds will rise from the present 85% to at least 90%; and that the share of higher education graduates in the population aged 30-34 will rise from the present 40% to at least 50%.

260. In support of young people's career planning and educational choices, a project will be undertaken to develop guidance counselling, with a special focus on the last year-classes. The aim is to develop guidance services by means of intensified cooperation between basic education, upper secondary education, vocational education and training, the world of work, the public employment services, the youth service and staff-development training. Procedures will be devised for securing sufficient provision and high quality of guidance counselling in the last year-classes of basic education.

261. Additional basic education for school-leavers and its financing will be developed to make it available also at vocational institutions as orienting prevocational education geared to prevent dropout.

262. According to the Development Plan 2003- 2008, the quality and availability of guidance counselling will be improved. Student welfare services in upper secondary schools will be enhanced with a view to promoting students' mental and physical health.

263. An important aim in the development of vocational training is to decrease dropout rates. The key means to this end are to improve the quality of vocational education and training and its relevance to working life, to diversify teaching methods, to adopt skills demonstrations and to develop student financial aid. Student guidance gains more importance with increased individual choices and more demanding training.

9.2 The Youth Participation Project

264. The Youth Participation Project (2003-2007) is targeted at young people in the final stages of comprehensive school and particularly those who are experiencing difficulties during this stage. It aims at flexible and innovative cooperation between different bodies and at responding to local and regional needs, thus developing new opportunities for young people.

265. The aims of the Youth Participation Project are to:

- make sure that young people take up education or work after comprehensive school,
- reach at-risk groups and support them in their choices and,
- offer a broad range of models for problem-solving depending on the individual life situation.

266. The project operates on the basic value of enabling everyone to lead a full life and to participate in the management of their personal affairs and in joint decision-making.

267. The project consists of 39 local projects and involves a total of 75 municipalities in various parts of the country. Organisations involved include ministries, actors in the youth sector, the Association of Finnish Local and Regional Authorities, Evangelical-Lutheran parishes and labour market organisations.

268. The local projects develop:

- methods for an early identification of problems,
- measures of student welfare,
- guidance during the transition stages,
- co-operation between educational institutions and working life and
- co-operation between youth work, social work and education authorities.

269. The project aims at flexible, network-based cooperation between both locally and regionally based bodies. The networks provide the authorities with a forum for working with the young people - as opposed to only working on their behalf.

9.3 Youth Workshops

270. Youth workshops have become an important tool for providing training for people at risk of social exclusion as well as their integration into working life and society in general. Workshops offer young people and adults practical work-related training as well as guidance and support in managing their own lives, but they do not have the right to grant vocational qualifications. The workshops' main forms of operation include subsidised employment and practical training, job coaching, training cooperation, individual counselling and apprenticeship training. A long-term aim is to help as many students as possible to complete their studies and to provide new, flexible forms of study for students with different learning styles.

9.4 Immigrant education

271. The number of foreigners living in Finland at the end of 2002 was 103,682, amounting to 2.0% of the resident population. At the same time, the number of persons born outside Finland was 152,057 and the number of native speakers of other languages (than Finnish, Swedish and Saami) was 117,013.

272. The number of foreigners had remained fairly constant at something over 10,000 for a long time, so that where the exact figure in 1950 was 11,423 (0.3% of the population) it was still just 12,000 in 1976. A slow increase then began to take place during the 1980s, and it was followed by a wave of immigration beginning in 1990, when the Finnish-speaking Ingrians from the former Soviet Union were granted the status of "returning emigrants". This led to an immediate increase in immigration and made a significant contribution to the rise in the numbers of foreigners resident in Finland. The steepest annual rise of all was recorded in 1991, over 11,000 persons, the largest groups among whom were the Ingrians and refugees from Somalia.

273. The foreign population in 2002 included natives of 160 countries, among whom the largest group were Russian citizens, 24 428, and the second largest Estonians, 12 248, followed by Swedish citizens and refugees from Somalia and Yugoslavia.

274. The level of education among the refugees in Finland is fairly poor, because one in four Somalis and one in five Vietnamese has not finished basic education. Russian and Estonians are well educated: around 90% of them have at least upper secondary level qualifications (upper secondary school or vocational school or college). Slightly over 70% of the total population have at least upper secondary level qualifications.

275. In addition, nearly 40% of the Russian immigrants have university or polytechnic qualifications.

276. The aims of immigrant education, for both children and adults, are equality, functional bilingualism and multiculturalism. The objective is to prepare immigrants for integration into the Finnish education system and society while also maintaining their own culture.

277. According to the Development Plan 2003-2008, the public education and research system will be developed to cater for immigrants' special needs in response to growing immigration. The participation of immigrant girls and women in education and training will be encouraged. Education will particularly stress immigrant pupils' and students' proficiency in Finnish or Swedish, which provides a basis for further education and training and facilitates their assimilation into the Finnish society.

278. The objective is to extend the preparatory vocational education and training intended for immigrants to one school year. Measures will be taken to facilitate young immigrants' entry to upper secondary education. Especially opportunities for apprenticeship training will be improved. Remedial teaching and remedial teaching mentors and teaching by the medium of pupils native languages will be made available with a view to reducing immigrant students' dropout. The relative share of immigrant students in higher education will be raised through the development of student selection, language instruction and information targeted to immigrants and through access courses preparing for polytechnic studies. Measures will be taken to make better use of the education and training completed by immigrants abroad through more flexible recognition of prior learning and by means of necessary supplementary education.

9.5 The problem of Roma pupils

279. The Roma people are the minority living in Finland that has the greatest educational problems. According to legislation (628/1998) the Roma pupils have the right to have teaching in their mother

language. It is assumed that of Roma people living in Finland about 1700 are school age children. The official policy of Finland is to help Roma people to integrate into Finnish society also by using educational instruments. The intention is to strengthen by education the cultural identity of the Roma people. A big problem for school teaching has been that Roma language is a spoken language and there is great shortage of adequate study material. So far only in a few schools in bigger cities it has been possible to study the whole comprehensive school in Roma language.

280. In 2001-2002 the National Board of Education conducted a basic education project, geared towards improving the basic education of Roma children. During this project, a survey was conducted on the status the Roma children's basic education during the school year 2001-2002. According to the survey of the 859 Roma pupils that were attending school in 2000-2001, a total of 166, or 19 percent had stayed back at some point of education. Most often they had taken the first or second grade twice.

281. Major obstacles in Roma children's school performance were high absenteeism, emotional and social problems at school, relative poor grades, the extent of special education and dropping out of school before graduation, as well as problems arising from the upheaval in cultural identity.

282. Repetitive absenteeism had significantly affected the education of at least third of the Roma pupils. The schools attribute most of absences to illnesses. Secondary reasons were family issues, such as travel, visiting family and social issues. The third major reason was skipping school.

283. During the school year 2000-2001, 41 pupils, or 5 percent of the Roma pupils dropped out of school. The number is high as the average drop-out rate in the country is close to zero. 12 percent of Roma pupils changed schools mid-term, which is also a high number compared to the national average.

284. An uncommon number among the Roma pupils took part in special education. In 2002, about 20 percent of all pupils received special education in some form. Among the 859 Roma pupils in this survey, 430, or 50 percent of them received special education. A large number of Roma children in grades 1-6, 16 percent, studied according to a partly or completely adjusted educational plan. The national average is less than 5 percent.

285. The survey also looked into the availability of classes in the Romany language, which turned out to be very limited. During the school year 2000-2001, only 20 schools in Finland provided teaching in the language, which is about 6 percent of all the schools with Roma pupils in them.

286. A significant number of Roma children are home schooled. This practice lifts the responsibility off the school system to the guardians of the child. It is probable that the guardians are not familiar enough with the legislation to understand all the obligations they take on when signing up for home schooling.

287. Enrollment into preschool among Roma children was also surveyed. It proved to be very limited. Only about 2 percent of the Roma age group took part in any kind of pre-schooling during the survey.

288. A part of the survey was a questionnaire addressed to Roma families, collecting the parents' views on their children's education. The collection of data was performed by Romany field workers that interviewed Roma families. A similar questionnaire was addressed to the schools.

289. A lot of parents felt that skill and art subjects were their children's strong points, or at least their favorite and motivational subjects. The schools observed that just 10 percent of the Roma pupils do well in major subjects. Both the schools and parents emphasized the individuality of Roma pupils.

290. The schools saw socialibility as the strongest area of the Roma pupils, as well as good manners, at least partly. Parents also thought that socialibility was the children's strongest points.

291. The survey showed that the Roma have marginalized from the school system and also within the school system. Without education it is hard to find employment, which leads to difficulties in making ends meet. The lack of pertinent education together with a minority status is part of why Roma youth face marginalization in employment.

292. The National Board of Education is launching a new development project on the basis of this survey to ensure the basic education of the Roma children and to find solutions for the problems brought forth.

9.6 Development lines in special needs education

293. Special education in Finland is being developed as an integral and natural part of mainstream education. Pupils in special education are divided into teaching groups according to their educational needs and the curriculum approved by the education provider. Special education is provided both as part-time special education in conjunction with mainstream education and in small groups within full-time special education.

294. All curricula include two general syllabi; one of these is divided into subjects, while the other is based on functional domains. Instead of following the subject-based curriculum, the most severely disabled and ill pupils may study in accordance with functional domains (motor skills, language and communication, social skills, activities of daily life and cognitive skills).

295. Pupils studying in accordance with a general syllabus may be provided with a pre-primary education plan and a personal study plan for basic education.

296. Each pupil admitted into or transferred to special education is to be provided with an individual education plan (IEP), which is based on the curriculum and enables individualisation of the general syllabus.

9.7 Project for the quality development of special education 1997-2001 (“LATU”-project)

297. The first stage of the project for the development of quality in special education took place in 1997- 2001. The second stage continued in 2002-2004.

298. The aims of the project for developing the quality of special education are to maintain and enhance educational equality and prevent marginalisation.

299. The project includes all levels of education from pre-primary to vocational training. The target group comprises not only all students in special education, but also those students in mainstream general education who need special support.

300. The project is designed to help find solutions to the practical problems in special education and to develop models for the teaching of children and adolescents in need of special support

301. The target for quality enhancement in the municipalities is the teaching and support systems for those in need of special support as a whole, the aim being to introduce new practices into existing structures and action models. Of pivotal importance is the creation of systems of activity, steering, and evaluation in the municipalities. The point of departure of the whole project is cross-administrative and multi vocational work.

302. The objective is:

- to harmonise the structures of education, teaching, and support services (specifically to integrate general and special education)
- to develop joint steering of education, the service processes and various cultures to work consistently at the regional and municipal levels, in keeping with the principles of integration, and
- to ensure that everyone in need of special support is given the possibility to study in accordance with his or her age, potential and needs, and that their growth and development as individuals are being furthered.

9.8 The development of pedagogy in comprehensive school

303. The Finnish comprehensive school is not only a system. It is also a matter of pedagogical philosophy and practice at the school and classroom level. An intrinsic part of comprehensive school philosophy is the principle of equity, on which Finnish education practice is largely based.

304. Instruction and pedagogy at Finnish schools have accordingly been structured so as to fit heterogeneous student groups. Finnish teachers know, for example, that no student can be excluded and sent to another school. In line with this principle, the students' own interests and choices are taken into account at schools when planning the curriculum and selecting contents, textbooks, learning strategies, methods and assessment devices. All this calls for a flexible, school-based, teacher- and student-planned curriculum along with student-centred instruction, counselling and remedial teaching (Väljärvi *et al.* 2002, 40).

305. This requires heavy investment in teacher education. Teachers have also been trusted to do their best as true education professionals. From this it has followed that Finnish teachers have been entrusted with considerable pedagogical independence in the classroom and that schools have likewise enjoyed substantial autonomy in organising their work within the limits of the national core curriculum.

306. Recent studies show that the new competence requirements, which arise from the societal change, emphasise teachers' ability to meet children, young people and their parents, as well as colleagues as co-operative partners. Teachers cannot cope on their own under the pressures set by increasing requirements. A well-functioning multicultural school works as a community, whose results depend on its ability to employ the students' individual and special skills to benefit the common good. As a result of the increase in social problems and in the number of students who need special attention, teachers need both pedagogical and social knowledge and skills to work together when solving problems at school. (Luukkainen 200; Väljärvi 2000)

307. Teachers are also expected to be open at interacting with their environments. The teachership of the future means readiness to actively participate in discussions concerning the direction of society, the ability to influence the substance of the discussions and the will to steer development. At the same time, it shows itself in willingness to constantly build one's own teachership towards something new on the basis of these building blocks. In the social sense, teacher training will have to assume a much more active role than at present in terms of both research and participation in discussions as well as in training.

308. A factor undoubtedly contributing to Finland's high performance in mathematical and scientific literacy is the national LUMA programme. The programme, launched in 1996, aims at developing knowledge and skills in mathematics and science at all levels of schooling. Great effort has accordingly been put in the programme, for instance, for the following purposes: updating computer hardware and software as well as science laboratory equipment and material at schools; enhancing teacher training as

concerns both subject and pedagogical studies; and increasing experimental activities. Even though it is not possible to establish a causal link between the LUMA programme and Finland's mathematics and science performance in PISA, the programme has undeniably opened new educational opportunities and, above all, aroused new faith and enthusiasm for the development of Finnish mathematics and science instruction. (Väljærvi et. al 2002).

9.9 The development of instructional practices; some examples

Luku-Suomi (Reader Finland)

309. *Luku-Suomi* is one of the foremost projects of the National Board of Education for enhancing mother tongue teaching in 2001-2004. The project is targeted at comprehensive and upper secondary school students and aims to improve their literacy skills and knowledge of literature. The professional organisations of mother tongue and classroom teachers support the project. In practice, it is a network of schools and libraries, which organises training and provides information both on a national and regional basis. The *Luku-Suomi* network comprises schools and libraries in over 100 municipalities.

Book packages for schools

310. In 2002, the National Board of Education contributed to school libraries' collections by sending packages of 21 books to 100 schools. The packages include some classics but especially new books appreciated by young people in general and favoured by boys in particular.

Netlibris

311. Studying literature in virtual groups has become very popular in Finland. Netlibris is becoming a "brand name" for this method of literature teaching. Netlibris schools collaborate in offering an enriched literature programme to selected groups of students. The Netlibris web site contains information about the reading programme and a collaboratively published on-line magazine.

312. The core of the Netlibris method is discussion which takes place as an asynchronous threaded discussion among the members of the group. Each group has a tutor and 10–15 students from 3–4 different schools. The students keep journals when reading the books. The idea is to reflect on one's ideas and feelings and then share the thoughts with the group in the Netlibris discussion forum.

313. It is essential that the virtual groups also meet face-to-face. Most circles meet four to eight times a year to plan and select books or to evaluate the work. They can also meet authors; learn more about literature, reading and the use of ICT. A very important aspect is a sense of togetherness and celebration.

314. Netlibris attracts students from all over Finland, and although most are located in the south, some participating schools are situated 170 kilometres north of the Arctic Circle. The aim of Netlibris is to enhance literacy and the appreciation of literature, but the activities also develop ICT skills. Some literature circles connect schools across Finland using video conferencing.

315. In five years, the concept has spread not only geographically but also from the primary school level to the lower and upper secondary schools and from gifted students to readers of all levels. In the school year 2000/01 Netlibris involved about 50 teachers and 900 students– with some 32,000 messages posted. Now there are more than a hundred teachers and over 2000 students, including also groups of struggling readers.

316. Some discussions are open to all. "The Visiting Author" is a forum where popular Finnish writers chat with their readers. "Book Talk" is a platform for recommending good books to other readers.

317. Netlibris also has an active network of teachers, librarians and teacher educators. The pedagogic discussion forum is makes a very active contribution to methodological development. There are meetings, seminars, and special courses with the support of the participating municipalities and the National Board of Education.

318. The teacher works as a tutor, participating in the discussion and indicating different ways of interpreting the text. Tutors work in collegial teams, sharing planning, tutoring and evaluating responsibilities. Each team has one mentor who is more experienced or has training for the work.

Book hints

319. Libraries have been giving book hints and arranging training events for teachers since the early 1990s. At the training events, they introduce new books to children and young people and distribute lists of favourites. There are also presentations by researchers, as well as visiting authors.

320. Today book hints are offered over the net to all age groups and in dozens of theme areas.

Newspapers in education

321. The Finnish Newspapers Association has been active in promoting newspaper reading and arousing interest in newspapers by supporting a number of projects under the theme "Newspapers in education". In these projects the Association, together with teachers and students, seeks to find teaching methods and contents best suited to educational use of newspapers. Journalists are invited to schools and students are keen on work practice periods with different newspapers. Local papers in particular have published articles written by students.

9.10 Adult education policy

322. Up to the early 1970s, adult education was primarily the responsibility of liberal education organisations and focused on general education and recreational subjects. Towards the end of the decade, the focus increasingly shifted to vocational training. Adult education and training began to be considered a key means of controlling the rapid change in society and working life. Having long been regarded as a vehicle for educational and cultural self-development and voluntary education, it was now considered an economically profitable investment.

323. The shift in the focus of adult education to vocational training was associated not only with the change in the occupational structure but also to the constantly aggravating employment situation. Adult education was harnessed to the service of labour policy and industrial development. It was thought that adult education could not only create jobs but also upgrade the vocational and professional skills of the adult population. In a situation of concurrent unemployment and labour shortage, the portion of population that had the wrong knowledge and skills was to be transferred from the margins suffering from unemployment, equipped with the right competencies, to the sectors suffering from labour shortages.

324. Up to the mid 1980s, Finnish labour policy was centralised. Market orientation began to emerge in the public sector from the late eighties and was manifested more and more robustly in the adult education sectors. In the new adult education policy, which could be called a strategy for adjusting to the structural change, the watch words were individuality, flexibility and a response to demand.

325. In the 1970s, the stress in adult education was clearly still on the aim of social and educational equity. This principle was well-suited to the more general social and education policy thinking prevailing in the seventies. In the 1980s, there was a shifter from the humanistic focus towards more economically and technologically oriented thinking. As market orientation is gaining more and more ground, the

tradition of enlightenment and the "emancipatory mission" of education and training began to lose their hold. The notion rapidly invading lifelong learning in the 1990s was society which was changing at an accelerating pace and to whose demands the individual now had to adjust. The aims of equity and humanism scarcely come up in present-day social policy discussion.

326. Similarly, there was a growing demand for clear evidence of the outcomes and efficiency of education and training. The education policy discussion now used concepts endogenous to the world of business and industry. Adult education was permeated by the notion that there was no need to differentiate between population groups or social classes, as adult education consumers, or to favour the less-advantaged groups.

327. The shift to market-based adult education policy meant the most difficult adjustment to the new market realities for traditional liberal adult education. Especially older educational institutions had to forswear many of their old ideals in order to survive and rush out to the marketplace to sell useful and lucrative education and training products to those clients and payers that had purchasing power. The institutions of liberal education had to transfer the cost of training more and more to fees and rely on efficient marketing, which also necessitated renouncing many equity principles. In a demand-driven market situation, even those institutions which had held on with dear life to an equity-based and varied provision had to give in to the iron market laws in order to ensure continuity.

328. One dominant feature in the eighties and nineties was the increase in the influence of the Ministry of Labour. In the internal resource allocation in the education sector in the 1990s, adult education was at a disadvantage. Despite its growing importance, it lost its relative share of resources to the benefit of childhood and youth education.

329. There have been attempts to redirect adult education policy. In February 2002, an Adult Education Committee submitted its report, which contained three main points.

330. Firstly, the Committee proposed that adult education and training resources be targeted more robustly to vocational/professional continuing education and to adult education at universities and polytechnics. The aim is that all citizens have access to training of one-to-two weeks annually and to more in-depth upgrading and updating every 10 to 15 years.

331. The second proposal was that those in the active population who have no secondary training be offered opportunities to study for a qualification within a separate programme. The programme would be implemented as a five-year project annually catering for 8,000-12,000 full-time adult students aiming at secondary qualifications.

332. Thirdly, the Committee proposed that appropriate operational cooperation between adult education and training organisations be put in place in each sector with the aim of creating versatile and otherwise strong operators capable of responding to labour market needs and contributing to regional development.

333. The most progress has been made to implement the Committee's proposals within the *Noste* programme geared to raise the level of education among the adult population 2003-07.

Noste

334. In 2003 the Ministry of Education launched a programme for raising the level of education and training among the adult population in Finland in cooperation with the Ministry of Labour and social partners. The Finnish acronym for the programme is *Noste*. The aim of the programme (2003-2007) is to improve poorly trained adults' career prospects and satisfaction at work, to relieve the labour shortages due

to the exit of the large post-war age groups from the labour market and to raise the employment rate. The education and training offered within the scope of the Noste programme are mainly intended for working adults aged between 30 and 59 who have no post-compulsory qualifications. The aim is to offer opportunities for untrained adults to study for secondary qualifications. The aim is supported by general education and training in learning-to-learn skills. Adults' opportunities to take higher education degrees will also be improved by means of educational arrangements especially geared to working adults.

Information Society Skills for ALL

335. It has been estimated that over one million adult Finns lack ICT skills and access to information technology. Finland is implementing an "Information Society Skills for All" project as part of the national information society strategy. The aim is to increase the opportunities for citizens to acquire the ICT skills they need in their life situations. One concrete aim is that by the end of 2004 at least half of those currently lacking these skills will have acquired them and that in principle everyone has been offered the chance to acquire the skills they need in their life situations.

CHAPTER 10. NON-EDUCATIONAL POLICIES INFLUENCING THE EDUCATION SECTOR

10.1 Education and training guarantee

336. Ever since the 1970s the social partners in Finland have taken a stance on education and training, its content, aims and field-specific targeting. In the 1980s, the employee organisations in particular exerted strong influence on the creation of the study leave scheme. The 1986 collective agreement launched a scheme for adults' study support, which — similarly as part of the overall finance and income policy solution — was put in place on a permanent basis. The financial support for adult students started an influx of employed, unemployed and homemakers on the education market.

337. The idea of an education guarantee was first raised in the Finnish debate in the mid 1990s. They place especial stress on the need to fight unemployment by means of education and training. The Government stressed that the jobseekers' allowances should be developed towards active measures which enhance the jobseekers' employability on the labour market.

338. In their report in 1997, Tuulikki Petäjaniemi and Kalevi Kivistö, as a two-person committee, explored ways to develop a system based on an education and training guarantee. The first and second phases of this three-step scheme would relate to the training of the long-term unemployed and the short-term unemployed, respectively. The third phase would put in place a general adult student aid scheme, which would ensure the income of employed persons on study leave.

339. The financial aid for the long-term unemployed during studies meant that they would have an income guarantee corresponding to the jobseekers' allowance for the duration of studies they undertake on their own initiative. To be entitled to this financial aid, the applicant must have been unemployed for 12 during the past two years. In addition, the applicant had to have work experience of 12 years from the past 18 years. The second phase would replace the first one and relate to persons who have been unemployed at least for four months and who have a work history of 10 years from the past 15 years.

340. The third phase began at the beginning of 2001. Further preparations conducted under the Ministry of Social Affairs and Health produced a unanimous proposal of the social partners, the labour and education administrations in early 2000. According to it, persons who take study leave can get adult student support proportional to their wages/salary for studies they take on their own initiative towards vocational qualifications, including university and polytechnic studies.

341. Financial aid for adult students is composed of a fixed sum grant, an income-related part and government guarantee for student loans. The basic grant is financed from the state budget. The income-related aid is financed from an Unemployment Insurance Fund, to which each employee contributes according to his/her wages/salary. This is why the period for which it is granted depends on the duration of the work history. However, this benefit may be used as an "advance", in which case the allowance is calculated as an accumulation up to the age of 60. The maximum duration of the salary-related allowance is 18 months, which entails a work history of 40 years.

10.2 Housing policy

342. In Finland, student housing is mainly constructed by student organisations. Since 1967, the government has subsidised housing construction within the ARAVA Scheme. The relevant Act of Parliament was passed in 1971. Another important scheme was the equity capital subsidy, which has been included in the state budget since 1980. Student housing construction has been a success in Finland. Over 100,000 student flats/houses have been built during the 25 years of the ARAVA scheme. The following five principles are observed in the design and construction of student housing:

1. Student organisations and/or the local authority sets up only one student housing foundation or company in each municipality;
2. The loans for student housing are mainly provided by the government;
3. The student housing to be built comprises residences and not dormitories or similar;
4. They are not on campus but amidst the community; and
5. Student housing is available to all students.

343. Some students live at home or find a flat/house on the open rented housing market. In the early 1990s when the supply of private rented housing grew and the level of rents was low many students acquired a private rented flat. In the mid 1990 the situation changed and students increasingly apply for student housing.

SECTION V : CONCLUSIONS

CHAPTER 11. CONCLUSIONS AND ASSESSMENT

11.1 General remarks

344. In the new millennium Finland has to aspire to social and educational equity in a situation in which it is faced with many other problems, such as the ageing of the population, unemployment, globalisation, information society and uneven regional development.

345. Ageing means not only an increase in the number of retired and elderly people, but also dwindling younger age groups. With the demographic change, the number of elderly people will double and will approach half a million soon. The care-ratio will deteriorate, in other words, the number of people whom each employed person has to provide for in addition to him-/herself. This ratio has been 1:1 for a long time, that is, one wage earners has provided for one non-working person on average. Out of a population of five million, half work. With the high unemployment rate in the early 1990s, the care-ratio rose to 1:1.5. One hundred taxpayers had to provide for over 40 retired persons.

346. Ageing will influence the social service structures and public expenditure because older people need more social and health services. The supply of these services will grow more rapidly than the older age groups.

347. The decrease in the relative number of young people will lead to a situation in which basic education and all the post-compulsory levels will have fewer students. This means that the supply of children's and youth education will have to be cut and that the education system will produce fewer numbers of entrants to the labour market. There will be shortages of educated and trained work force in several sectors. Concurrently with the shortages there will be a record number of unemployed persons: over two hundred thousand according to Statistics Finland and three hundred thousand according to the Ministry of Labour, that is, depending the forecast method.

348. Globalisation means a growing mobility of goods, capital and people. In Finland, the first phase of growth in mobility took place when Finland joined the EU, with an additional impetus from the new member countries of 2004 and 2007. For Finland, globalisation above all means growing immigration and emigration. Since the emigrating Finns are generally highly educated, the education system has to replace the loss of human capital due to emigration. On the other hand, the integration of immigrants into Finnish society will entail education, training and support to their culture.

349. The mobility of goods, the mobility of people and the mobility of capital influence each other. If a country does not have a sufficient number of trained labour power, or if it is too expensive, capital will move to countries where the situation is favourable in this respect. This will mean dwindling production and employment, as well as growing importation from the countries where the capital has been invested.

350. The acute problem in Finland is not shortage but an excess of working-age population, with 200,000 unemployed persons. The problem is the level of knowledge and skills among the unemployed,

which does not meet the skill demands in the vacancies. This is due to a low level of education and outdated skills.

351. The foremost priority in policy aiming at equity and welfare is to raise the level of education among the unemployed to meet the demands of vacancies. This will enhance the employability of the unemployed, raise the employment rate and reduce both unemployment and costs.

352. Those who enter and end their schooling during this decade will be placed and work in expert jobs for the whole duration of their careers. This will first of all mean that higher education must be expanded, especially since it has remained at the same level for a long time. Secondly, the content aims in the education system must be targeted to create a foundation for academic continuing education and the development of information and problem-solving skills.

353. The third measure essential for maintaining and increasing well-being is an active immigration policy. The foreseeable labour shortages can be met with foreign labour, which is not; however, always ready for Finnish working life, it requires education, notably instruction in Finnish language and culture. Active immigration policy entails early and careful groundwork in education policy as well, because it is not possible to educate and train considerably larger numbers of immigrants without advance preparation

11.2 Development of the education system

354. Schools can level out and slow down the differentiation process deriving from and maintained by pupils' homes. The differentiation of home backgrounds entails growing input into action preventing exclusion and enhancing equality. The school must form part of the local community. Cooperation with pupils' families must be supported in a more effective way: Schools must reserve facilities for parents and their action. The division of lesson hours must also provide resources for a network for developing and supporting the comprehensive school.

355. Measures must be taken to further develop the school's possibilities to prevent exclusion and support equitable development. The conception of education for multiculturalism, internationalisation and European identity in basic education and the role of the school in community action must be further developed.

356. Growing cultural diversity, internationalisation and the growing role of culture underscore the importance of developing the facilities for multiculturalism, international and European action.

357. School attainment is in comprehensive school according to PISA and other studies quite high in Finland. There remains, however two unsolvable problems. The boys are getting good results in international comparisons but still there is a great difference between the attainment of boys and girls. The second problem is that according to many studies pupils do not find themselves very happy during their schooling.

358. Basic education should be the pupils' own intimate school. It cannot be only preparation for the next phase in the education career but the school has an important role in developing life skills which in addition to knowledge also develops proficiencies and attitudes needed in multiculturalism, internationalisation and European citizenship.

Secondary education and training

359. The target of the Government is to ensure to the whole age group after comprehensive school possibility for further training. The target in 2008 is that minimally 96 percent of those graduating from

comprehensive school will continue in secondary institutes or voluntary 10th class of the comprehensive school. This will be a big challenge for student counselling and teacher continuing training.

360. Those dropping totally out of the education system after comprehensive school are a real problem for education and labour policy. The aim of the government is to ensure all under 25 year unemployed a work place or training place 3 months after unemployment. This will demand new labour policy measures as well as intensifying the old ones.

361. There is also growing concern about the educational routes students choose in upper secondary level. Currently as many as three in four school-leavers opt for the general upper secondary school. Vocational education and training represents a dwindling share of secondary education. It is fear that Finland will be adopting an exclusively general form of upper secondary education without conscious political choice.

362. The traditional upper secondary school is not, however, the school for the whole age group, nor the way to develop vocational education and training. What is needed is a school which has renounced the dichotomy general-vocational and in which vocational studies are rewarded with a matriculation certificate. The aim should be an equitable, regionally balanced school for the whole age group which departs from student needs. One possible starting point could be to transfer both forms under the same administration and to merge all the separate administrative units, which hinder the emergence of the unified comprehensive secondary school.

Higher education

363. It can be assumed that intakes in universities and polytechnics must be increased substantially in the future. The resources of basic education in all disciplines and polytechnic R&D must simultaneously be increased.

364. The higher education system consisting of universities and polytechnics lacks coherence in structural terms. Measures are needed to enhance coherence and ensure pluralism in higher education. This is needed to cater for the constantly growing number of increasingly heterogeneous students.

365. Polytechnics must be developed into a true alternative to universities: the practical must challenge the academic. The research methods and procedures used in polytechnics must not, and cannot, be copied from universities. The key word in polytechnics is professional skills, their research and development. In polytechnics, students learn their profession by studying and developing it, not by studying and developing some other profession as in universities. The practical must challenge the academic to a contest about expertise and its status and tasks. This applies especially to the postgraduate polytechnic degrees to be adopted in autumn 20056.

366. Finland needs to explore ways to minimise the effect of social inequity. The division of degrees into lower and higher cycles, if this policy is implemented seriously, will create a corresponding division in working life, social status and salary structures.

367. One idea put forward in Finland very recently was to differentiate Finnish universities into international top universities and universities which serve regional needs. This kind of policy appears very artificial. Top-level units, as well as less successful units, exist in all universities. It would be wiser to enhance quality on the current decentralised university system.

368. The role of universities is changing. The university cannot succeed without ties to the local community. It is, however possible to do this from a global perspective. The university must contribute to the local community in all its variety and not restrict its contacts to businesses. The project-type studies

possible in the two-cycle degree system must be developed with a view to developing knowledge production skills on a genuinely individual basis.

Adult education

369. One of the most urgent education policy tasks for Finland is to reorganise adult education and training. The notion of lifelong learning must be translated into practice through lower boundaries between education and work. Studying is part of every work, and the alternative to work should not be unemployment but studies. Time and space must be reserved for studies as part of all activity.

370. The boundaries between educational units, labour and adult education markets and production units should not be mutually exclusive, but should all enable individuals to form entities which best suit their life situations. This requires that the responsibilities of the public and private sectors in the provision and financing of adult education and training are clarified and at the same time that the right and opportunities of the unemployed to education are increased.

371. Another aspect that requires closer inspection is the relation between youth and adult education and formal and non-formal learning. The demands of work are constantly growing. There is a growing diversity of jobs and their demands grow: machinery is run by computers, jobs increasingly involve customer service, and language skills and cultural knowledge gain more and more importance with the internationalisation of business and industry.

372. Everything people need in working life cannot be taught in school, learning has to be divided into several periods over the work career. This is a question of the right allocation of learning to youth (formal) education and on-the-job learning. The rational solution would be for educational establishments to focus on vocationally integrated education for basic skills (languages, mathematics, technology, psychology etc.) and for the workplace to provide actual practical skills.

373. The supply of and opportunities for general and self-development education for adults must be increased. A genuine knowledge society entails an ability to seek, acquire and process information (bits, texts, images, artefacts) and a capacity for creative problem-solving. In addition to a solid basic education, this requires educational supply —learning opportunities - throughout the lifespan. This is highlighted by the growing leisure time available to people both outside and in the labour market.

374. A special target group for adult education are immigrants. According to the statistics of the Ministry of labour in 2002 there were in working life 34 000 immigrants and the share of those unemployed was 42 %. The biggest groups among job seekers were Russian and Estonian citizens. Of all immigrant job seekers about one fifth had been unemployed more than one year. The greatest problems are faced by older and poorly educated immigrant persons.

375. Government has intensified special training for immigrant unemployed and a growing share of those educated that have succeeded to become employed has risen. Much more has to be done. The labour organisation is according to newest legislation obliged to organize 40 study weeks special training for rehabilitated immigrants. After that those willing to participate permanently in Finnish labour market have to pass language examination in Finnish language which corresponds to general European standards.

11.3 Student financial aid

376. According to the Development Plan for Education and Research 2003-2008, student financial aid must promote education policy objectives, as well as securing income for students. In terms of development, this poses certain challenges, especially as regards the grant/loan ratio. According to the Development Plan, the student financial aid scheme should be developed on the basis of the present

structure. The aim is that the aid secures an income for the duration of full-time studies, efficient studies and graduation in a reasonable time. Improvements in the aid granted for secondary studies entail an assessment as to how the aid scheme could enhance the attractiveness of vocational studies and reduce dropout in vocational training. The challenge with regard to higher education is to develop the student financial aid scheme to provide incentive for efficient studies and speedy graduation.

377. With a view to developing financial aid for higher education, the student loan will include an incentive for those graduating in the normative time. This incentive is in the form of a subsidy (a grant to be paid after graduation). At the same time the amount of the state-guaranteed loan will be raised to ensure adequate income. The purpose of the subsidy is to encourage students to graduate in the normative time, which will also support the implementation of the higher education degree reform. The Government proposal concerning the projected reduction of student loan will probably be submitted to Parliament during the 2005 spring session.

378. The financial aid of secondary students could be improved through a readjustment of the amounts of the study grant and the family allowance and through less stringent means-testing based on the parents' income.

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