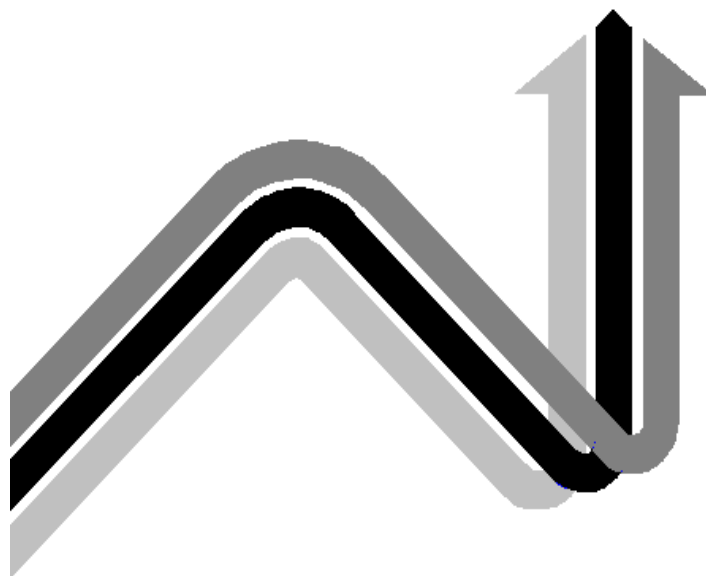


THEMATIC REVIEW OF THE TRANSITION FROM INITIAL EDUCATION TO WORKING LIFE



SWEDEN

BACKGROUND REPORT

NOVEMBER 1998

THIS REPORT HAS BEEN COMPILED BY A WORKING PARTY WITHIN THE MINISTRY OF EDUCATION AND SCIENCE CONSISTING OF INGRID LINDSKOG, STEN LJUNGDAHL, ANDERS PLESNER, ULLA-STINA RYKING, MYRNA SMITT AND JOHAN STÅLHAMMAR.

"The Ministry of Education and Science in Sweden has granted the OECD permission to include this document on the OECD Internet Home Page. The views expressed in the document are those of the authors and not necessarily those of the Ministry, the OECD or its Member governments. The copyright conditions governing access to information on the OECD Home Page are provided at <http://www.oecd.org/copyr.htm>"

OCDE



OECD

TABLE OF CONTENTS

1. CONTEXTUAL AND INSTITUTIONAL FACTORS	3
1.1 Main economic development.....	3
1.2 Main trends in overall and youth employment.....	3
1.3 Main developments in the Swedish educational system	6
1.3.1 Pre-school.....	6
1.3.2 Pre-school classes and school child-care services	6
1.3.3 Compulsory school	6
1.3.4 Upper secondary school	7
1.3.5 Adult education	7
1.3.6 Post-upper secondary level education.....	7
2. CLARIFICATION OF PERCEPTIONS	10
2.1 Demography.....	10
2.2 Employment.....	12
2.3 Broad structure of the education and training system and its interface with the labour market	12
2.3.1 The organisation of school.....	13
2.3.2 The organisation of higher education	14
2.3.3 Study grants.....	15
2.3.4 The pre-school, the pre-school class and the after-school children's leisure activity centre	16
2.3.5 The nine-year compulsory school	16
2.3.6 The upper secondary school.....	18
2.3.7 Adult education	23
2.3.8 Higher education	26
3. TRANSITION PROCESSES AND OUTCOMES.....	28
3.1 Concerns	28
3.2 The interfaces between the education and training system and the labour market	33
3.3 The labour market.....	38
4. CHANGING EXPECTATIONS AND OBJECTIVES	43
5. POLICY CHANGES.....	45
5.1 The policy formation process	48
5.2 Monitoring and research	50
REFERENCES	52
Appendix 1. Sweden's educational system	54
Appendix 2. Timetable for compulsory school.....	55
Appendix 3. National programmes and branches in the upper secondary school	56
Appendix 4. The upper secondary school core subjects	58
Appendix 5. The employment market in the 1990s	59
Appendix 6. The number and percentage of first-year upper secondary school students studying on programmes during academic years 1996/97 and 1997/98.....	60

1. CONTEXTUAL AND INSTITUTIONAL FACTORS

1.1 Main economic development

Sweden experienced a rapid rate of growth in the 1950s and 60s. The public sector was developed and a series of social reforms were implemented. In the 1970s the growth rate fell drastically, partly due to the international oil crises and a rapid increase in wage costs without any corresponding increase in productivity. The state of the economy deteriorated, industrial profitability and investments fell, the labour market contracted and there was a large deficit in the balance of payments. The size of the Government budget grew as did the national debt. However competitiveness was improved by means of currency devaluations, at the same time as inflation and wage costs increased.

The credit market was deregulated during the latter half of the 1980s, after which household and corporate borrowing rose substantially. The Swedish economy faced overheating and interest rates increased significantly.

At the start of the 1990s, economic policy was concentrated primarily towards combating inflation and protecting the fixed exchange rate. The rate of inflation fell, but employment rose. Expectations of an impending devaluation of the Swedish krona led to considerable outflows of currency from the country. Attempts to maintain the fixed exchange rate were unsuccessful. This resulted in September 1992 in a major indirect devaluation of the Swedish krona.

In the economic crisis which followed in the first half of the 1990s, financial institutions experienced substantial credit losses. This forced a more restrictive lending policy, both to private individuals and to companies. Household consumption fell. Through efficiencies and cut backs within the public and private sectors, public consumption also fell.

The weak exchange rate of the Swedish krona meant an upturn for exporting companies. Sweden's low rate of inflation and the improved global trading conditions contributed to the beginnings of a slow recovery for the domestic industry. From autumn 1994, economic policy has been aimed at achieving balance in public finances and low inflation in order to promote growth and employment. Public finances have been improved from a deficit equivalent to 10.3 % of gross national product (GNP) in 1994, to balance in 1998.

1.2 Main trends in overall and youth employment

For a long time Sweden experienced low unemployment levels. During the period from 1970 to 89, unemployment did not exceed 4 % in any year. The labour market was characterised until the beginning of the 1990s by an increasingly high level of employment and low unemployment viewed from an international perspective. The deep recession which arrived in 1990 affected the labour market for everyone, but especially for young people. The open unemployment rate has been around 8 % since 1993. The Swedish economy has been successively strengthened during the last year, which has meant that the

labour market situation has been improved. In September 1998, the open unemployment rate had fallen to 5.9 %, which is 1.8 percentage points lower than the same month last year.

Despite the upturn in the business cycle, unemployment is still high. This is due among other things to the fact that industry increased both its productivity and efficiency during the recession. The percentage of job opportunities in manufacturing companies is falling, above all in the export industry, while the ratio of job openings is increasing in companies in the service industry. There is a net reduction for the low-educated in all sectors of industry and a net increase of well-educated labour. A large percentage of the low-educated workers have gone from work to unemployment. Employment has fallen in the labour-intensive industries compared with the knowledge-intensive sectors. This reduction is most obvious within the labour-intensive sectors of industry.

The growing sectors of the economy are to be found primarily among the private financial, insurance and service-oriented sectors, technological industry and within other education and research-oriented businesses.

The percentage of low-educated workers in employment is falling quicker than the corresponding percentage of the general population. Unemployment is higher among the low-educated than amongst the highly educated. In 1996, unemployment increased among those who left school at the age of 16, while the situation was largely unchanged for the other groups. In 1996, unemployment was 10.6 % among those who left school at 16, 8.9 % for those with upper secondary school education, and 4.0 % among those with a college or university education. Unemployment has affected those entering working life for the first time and younger workers particularly hard. Employment levels among immigrant workers have also deteriorated significantly during the 1990s.

Labour and employment, ages 16-64 years, 1990, 1993-1998

Percentage of population ¹						
Year	Employed	Unem- ployed	Outside the labour force (studies etc.)	Total	Number 16-64 years	Unemploy- ment in % labour force
1990	83.1	1.3	15.6	100	5398500	1.6
1993	73.3	6.0	20.7	100	5462025	7.6
1994	70.9	5.8	23.4	100	5498750	7.5
1995	71.5	5.8	22.7	100	5523575	7.4
1996	71.0	6.0	23.1	100	5537875	7.8
1997	70.0	5.7	24.2	100	5549525	7.6
1998	70.3	4.9	24.8	100	5558950	6.5

Source: SCB, AKU

¹The data refers to the average value of AKU's figures for February, May, October and December for the respective years. The data for 1998 refers to the average value for February and May.

²Labour force = employed + unemployed

The fall in the percentage of employed does not only depend on the labour market situation, but also on the fact that the percentage who take part in education has increased. The three-year upper secondary school, which is divided into programme specialisations, was introduced during the period 1992/93-95/96. The extension of the upper secondary school's vocationally-oriented education programmes with a third

year has affected the percentage of employed in the 16-19 age group from and including the 1997/8 academic year. During the 1980s and 90s, certain tertiary education courses have also been extended, e.g. courses for pharmacists and nurses. The numbers of people studying within adult education has increased. In the group outside the labour force, the numbers of part-time students has increased significantly. Part of this is due to the "Adult Education Initiative" (see p. 25).

The labour market situation for young people

At the beginning of the 1990s the demand for labour fell dramatically, which resulted in special difficulties for young people. The open unemployment for young people amounted in 1996 to just under 14 % of the labour force and was relatively evenly-distributed among young men and young women.

Unemployed and the percentage outside the labour force according to age, 1990 - 1998

År 1	Unemployed (% of labour force)			Outside the labour force (studies etc.) (% of the population)		
	16-19	20-24	25-34	16-19	20-24	25-34
1990	4,9	3,3	1,6	55,1	18,3	8,2
1991	6,2	6,2	4,5	59,3	22,0	9,9
1992	9,1	10,9	6,2	67,9	27,3	11,9
1993	17,0	16,4	9,5	73,5	33,5	13,2
1994	13,8	15,6	9,2	77,9	37,3	16,7
1995	12,3	15,1	9,1	77,1	37,5	15,7
1996	11,1	15,5	9,3	79,2	40,5	15,7
1997	11,6	15,1	8,8	79,6	40,7	17,8
1998	10,4	12,3	7,5	79,7	40,3	18,3

Source: SCB, AKU

¹The data refers to the average value of AKU's figures for February, May, October and December for the respective years.

²The data for 1998 refers to the average value for February and March.

During the 1990s, long-term unemployment among young people has risen considerably. A young person is considered to be long-term unemployed after 100 days. The labour market has become somewhat brighter since autumn 1997. Unemployment among young people has fallen significantly, both among young men and young women. At the end of September 1998, 5,000 people in the 16-24 age group were long-term unemployed, which is 12,000 fewer than a year ago. At the end of August 1998, 6 % of the population in the 16-24 age group were unemployed.

In 1990, nearly 50 % of young people between 16-19 were in the labour force but this percentage had fallen to 26 % by 1996. During the same period the percentage of young people in the 16-24 age group in the labour force has fallen from 82 % to 63 %. The primary reason for this is that more and more young people are in education, among other things as a consequence of the extension of the upper secondary school's vocationally-oriented education programmes from two to three years, the fact that almost 98 % of all young people go on from the lower secondary to the upper secondary school, and the fact that tertiary education is expanding greatly. The majority of young people between 16-19 are thus still in the educational system. Many young men also undergo compulsory military national service straight after completing their education. Structural transformation in industry has meant that many less-qualified work tasks, which previously could have been carried out by young people of 16 years old, have disappeared.

1.3 Main developments in the Swedish educational system

The Swedish population in general is well-educated as a result of the investments in education over the decades. In relation to GNP, the total public education costs have increased in recent years. In the 1994/95 budget year, the overall costs of national, local authority and county council education services amounted to 7.46 % of GNP, which from an international perspective, is a relatively high percentage.

A fundamental principle is that all children and young people, irrespective of gender, geographical residence and social and financial circumstances shall have equal access to equally good education in the state school system. Curricula, syllabuses, timetables and grading criteria are therefore uniform.

The Swedish education policy has created an open educational system without any cul-de-sacs. We have had a common compulsory nine-year basic education open for everyone for over 30 years. The recently-implemented upper secondary school reform entails an upper secondary education for everyone, where all programmes, including those with vocational orientation, provide basic qualification to higher educational.

1.3.1 Pre-school

The foundation for life-long education is established in pre-school. On 1st July 1996, the responsibility for pre-school activities and school child-care services was transferred from the Ministry of Health and Social Affairs to the Ministry of Education and Science. This was an indication of the significance the Government attaches to pre-school education as the first foundation stone in the educational system and the life-long learning process. Subsequently, the pre-school has been given a special curriculum which has come into force for the 1998/99 school year.

1.3.2 Pre-school classes and school child-care services

The pre-school class was introduced on 1st January 1998 as a separate type of school for 6-year olds. Education in the pre-school class shall stimulate each child's development and learning. It shall form the foundation for continued schooling. By integrating pre-school, school and school child-care, the children's opportunities for learning during their first important years at pre-school and primary school level are strengthened. Therefore the compulsory school's curriculum has been adapted to also encompass pre-school classes and after-school care centres.

1.3.3 Compulsory school

The uniform nine-year schooling, which is compulsory from the age of 7 years old, aims to provide all pupils with an equal education, where children with different requirements and from different backgrounds come together. The education shall provide the pupils with knowledge and skills. The school shall, in co-operation with the home, promote the pupils' harmonious development into responsible people and members of society. The education shall also take the specific requirements of individual pupils into account.

The school has an obligation to provide genuine opportunities for all pupils to achieve the schools' requirements, which include knowledge goals for years five and nine. For those pupils who have difficulty in achieving the goals, the school authority therefore has an obligation to allocate special support.

Results in the Swedish nine-year compulsory school are to all intents and purposes good, and sometimes very good from an international perspective. 94 % of the pupils who left the nine-year compulsory school in spring 1997 attained a full leaving certificate, i.e. a grade in every subject. This result is essentially unchanged in comparison with the previous year.

1.3.4 Upper secondary school

The most important objective for the reform of the upper secondary school, which was adopted by parliament in 1991 with reference to government bill *Develop with knowledge* (bill 1990/91:85) was "to raise the general educational level and prepare everyone for life-long learning, where recurrent education is becoming more common". The background was the rapid developments in working life where new occupations are developed with more complex content, which are also erasing the boundaries between the classical blue and white-collar roles. The upper secondary school was made more flexible in order to equip young people for a changeable future. Vocational education shall not be a cul-de-sac and instead shall provide the basis qualification for further studies. The reform extended all the upper secondary school programmes to three-years.

Students undergoing three-year upper secondary school education normally finish at the age of 19. Some students though take a break in their studies, e.g. to study abroad. Some students study full-time for a period of four years.

The National Agency for Education measures the percentage of students who have completed their upper secondary education within four years of starting their studies. The agency records in report no. 148 that 80 % of the students who started year 1 at the upper secondary school in autumn 1993, had completed their course four years later.

1.3.5 Adult education

The aim of the local authority adult education, which includes basic-level adult education, upper secondary school education for adults, continuation studies and the special "Adult Education Initiative" project, is to provide adults with the opportunity to acquire new knowledge and to supplement previous education in line with developments in society and the requirements of working life. It is the individual's own wishes and requirements which shall govern these provisions.

A special project called "Adult Education Initiative" is being carried out during the 1997-2002 five-year period as an element of the on-going reform of adult education. It is an important part of the Government's work to reduce unemployment, and by raising the educational level, will improve the competitiveness of the country as a whole. In addition, "Adult Education Initiative" shall also contribute to local authority and regional growth and development, and to break down the gender-segregated labour market.

1.3.6 Post-upper secondary level education

Universities and colleges

The last 50 years have involved an educational revolution. At the beginning of the 1940s, only 2 % of the population had a university education compared with approx. 25 % today. The expansion of post-upper

secondary level education during the 1960s, the development of the upper secondary school during the 1980s and extensive investment in further education for adults has meant that large parts of society now have an upper secondary or tertiary level education.

However, there are major regional differences in educational levels among the population. The majority of the country's less well-educated and persons with a maximum of a two-year upper secondary education live outside the university and major city regions.

In counties where there is a university or major city, about 30 % of the population between 20-64 years old have a tertiary level education while the percentage in other counties is around 20 %. Investment in higher education in recent years and the development of the smaller and medium-size universities and colleges have given significant results. This is shown among other things by the number of new students beginning tertiary education per 1,000 inhabitants in the 18-64 age group. In the mid-1980s, the university and major city regions had the highest numbers of new students. A change occurred at the end of the 1980s and beginning of the 1990s which meant that the counties of Västerbotten, Västernorrland and Norrbotten reported the highest figure for new college and university students.

A major expansion of universities and colleges has been underway since the mid 1990s, which has also involved a wider geographical spread.

There are still large groups of adults with an education which does not correspond to the requirements of modern working life. Furthermore, the highly-educated are very unevenly distributed in the labour market. Within the manufacturing industry, the percentage of persons with a university or college education is just over 20 %, while the corresponding figure within the public sector is over 40 %.

The Swedish Parliament has decided to provide 68,000 new university and college permanent places between 1997 and 2000. The greatly-increased demand for tertiary level education and expected increases in knowledge requirements within the labour market lie behind this expansion. At the same time, an investment in quality at universities and colleges is being carried out with, for example, special resources for postgraduate research studies and the development of knowledge and skills in order to obtain more lecturers with a doctorate in tertiary education.

Universities and colleges are now developing their pedagogy for the ever larger group which is starting to study at these institutions. This is necessary in order to maintain the quality of the education. The Government has therefore allocated funds for such measures.

The expansion of tertiary education has increased recruitment from all social groups. From homes where one or both of the parents has a post-upper secondary education (three years or more) 50 % of the age group born in 1968, and 63 % of the age group born in 1973 began tertiary level education before the age of 22. The corresponding percentage for young people with parents with only compulsory school education was 9 % for the age group born in 1968 and 16 % for those born in 1973.

The development of universities and colleges across the country is contributing to the increase in recruitment of students from lower white-collar and working-class homes. The percentage of these students is 50 % at the smaller and medium-sized colleges but is only 35 % at universities.

It is the longer educational programmes (three years and longer) which have increased the most. In the 1995/96 academic year, these courses constituted 80 % of university and college education. Priority has also been given over a long period to research and Sweden invests 3.3 % of GNP on research. Grants for

research and development during the last ten years have increased by approx. 50 % and has been almost doubled for basic research.

Qualified vocational education

Since 1st July 1996, a pilot experiment has been in progress on qualified vocational education at post-upper secondary level (KY). The aim of the project is to test new post-upper secondary level training using new pedagogical forms and new providers. The training shall amalgamate a practical element with a deepening of the theoretical knowledge. Less than a third of the educational hours are devoted to learning at work. The flexible forms of organisation of the training and close links to working life enable rapid adaptation to the demands of the labour market. In spring 1998, the project covered 5,618 places on 140 different educational courses within 12 educational areas.

2. CLARIFICATION OF PERCEPTIONS

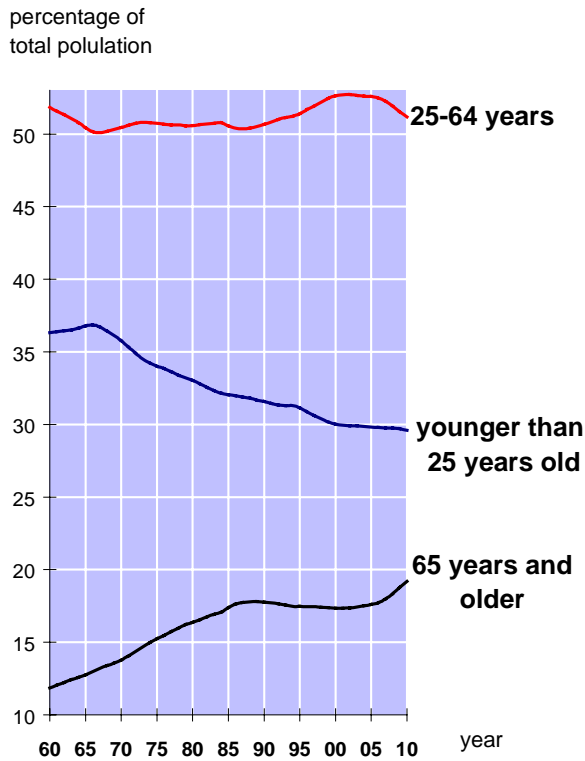
2.1 Demography

Sweden has a surface area of 450,000 km² and a population of 8.8 million, of which approx. 86 % live in the southern half of the country with special concentrations in the major cities of Stockholm, Göteborg and Malmö.

In addition to the fact that the population is very unevenly dispersed over the country, the country's considerable size on a north-south axis means that different parts of the country have very different economic geographical conditions. The percentage of people living in urban areas has increased steadily, but in some places these urban areas have also had difficulty in retaining their population. This applies in particular to sparsely-populated areas with poor transport facilities and few job opportunities.

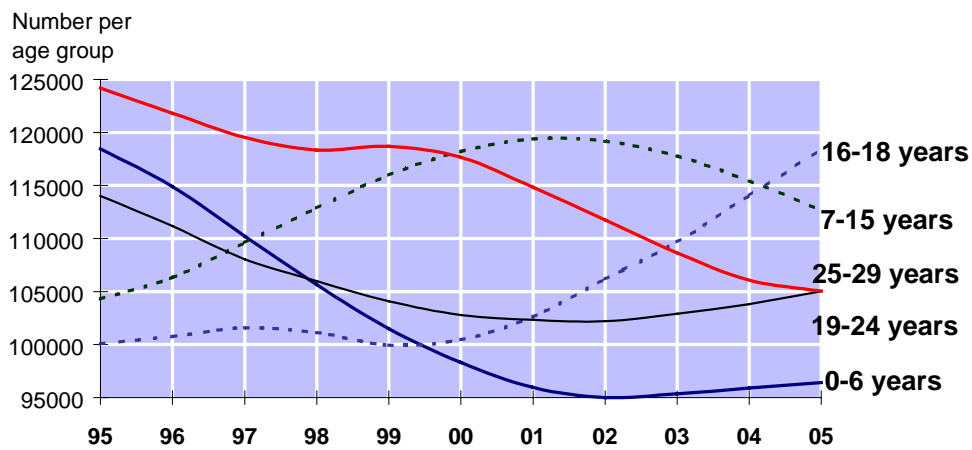
The percentage of the total population who is under 25 years old is expected to continue to fall until the year 2010. The percentage which is 65 years and over will increase towards the end of this period, which corresponds to the long-term trend that the percentage of older people is continuing to grow. The 25-64 age group, which covers the majority of those in work, will remain relatively stable and constitutes roughly half of the population.

The size of the age groups during the period 1960-2010, in percentage of the population, forecast figures after 1998



Source: SCB's population forecast 1997

The size of different groups of young people during the period 1995-2005, in average number per age group within different age intervals, forecast figures after 1998



Source: SCB's population forecast 1997

Two groups are expected to increase during coming years, both the compulsory school ages of 7-15 years old which will increase up until 2002, and the upper secondary school age group of 16-18 years old, which

is expected to increase very significantly after the year 2000. At the same time there will be a reduction in the number of children in the youngest age groups of 0-6 years old, and in the 19-24 and 25-29 age groups.

The birth rate has fallen significantly after a strong rise at the end of the 1980s and the beginning of the 1990s. In 1996, the average number of children per woman was 1.6 compared with 2.1 in 1991. During the period 1992-96 the average life expectancy was 79 years for men and 84 for women.

Immigration has fluctuated markedly during the post-war period. The immigration surplus in some years has exceeded the birth surplus. In 1995, just over every tenth inhabitant was born outside Sweden and a further 700,000 had a foreign or partly foreign background.

2.2 Employment

Employment according to industrial sector, in thousands

Sector	1990	1992	1994	1996
Agriculture, forestry and fishing	154	140	136	115
Manufacturing, mineral extraction and energy products	988	839	761	809
Construction	322	279	225	225
Trade and communications	897	840	770	762
Financial businesses, company services	392	404	396	433
Education and research	310	317	315	315
Health and care	884	846	818	794
Personal and cultural services, cleaning	293	292	293	300
Public sector	240	247	212	207
Information lacking	6	6	3	2

Source: Annual Statistics for 98, SCB (Statistics Sweden)

The average age of the population and the work force is higher than in many other countries. The number of young people who leave education and enter the labour market will therefore fall. For a number of years, nearly everyone has gone on from the nine-year compulsory school to upper secondary education. The percentage of young people who began work immediately after upper secondary education has fallen from 70 % in 1987 to 24 % in 1993, and increased somewhat in 1994 (32 % for women and 25 % for men). Unemployment has contributed to the fact that more and more are continuing to study after upper secondary education, which has resulted in a general increase in educational levels. In addition, postgraduate studies have become more common among those who have a first degree qualification.

2.3 Broad structure of the education and training system and its interface with the labour market

The Swedish principle is that basic education shall be provided at school. Nearly all basic education at upper secondary level, including vocational education, i.e. for the ages of 16-19 years-old, takes place at school.

The Swedish school model is based on the fact that everyone, irrespective of circumstances and background, shall receive a good foundation on which to stand. In addition to the equality and equal chance ideals on which this is based, there is also agreement with the parties in the labour market that a good foundation in general subjects is the most important prerequisite for both the individual's own development and in order to obtain a work force which can be developed further in the workplace. Early concentration solely on a certain sector or occupational field, without basic skills and a general education, entails a risk of poor flexibility in the labour market and possible exclusion from a rapidly-changing labour market. For the same reason skills and knowledge development for employees is exceedingly important, a concept on which the parties in the labour market are agreed. Today, there is a very strong commitment to educational issues within companies and their trade organisations. There is a uniform view that the current labour market and that of the future will require at least an upper secondary level education and, to an increasing degree, tertiary level education. In general, it is considered that more students will have to study scientific and technical subject areas.

A general outline of the structure of the educational system is shown in Appendix 1.

2.3.1 The organisation of school

Education has always been an important element of Swedish welfare policy. The state, local authorities and county councils have invested in the school system. An example of this is the school reforms which resulted in the introduction of a nine-year compulsory school, and which aimed to modernise the school and to raise educational levels. After extensive studies and research projects with a nine-year comprehensive school, the Swedish Parliament passed a resolution in 1962 for a nine-year compulsory school.

In 1970, the then upper secondary school, technical school and vocational education were brought together in a joint upper secondary school, where all forms of theoretical and vocational education were integrated. During the whole of the 1970s the upper secondary school was adapted to the requirements of the labour market.

The local authority adult education was introduced at the end of the 1960s. This offers the corresponding education which provides qualifications for adults. During the 1970s, basic education for adults and Swedish language tuition for immigrants were added. These reforms took place during a period of economic expansion and high employment.

From the mid 1980s, there has been an evident trend in administration policy in Sweden to give the local authorities, both primary local authorities and county councils, greater responsibility and broader self-determination. The demand of the general developments in society for decentralisation gradually led to a questioning of the high level of central control of the school system. With the parliamentary resolution in view of government bill *Responsibility for school* (bill 1990/91:18), much of the responsibility for the school was decentralised to the local authorities.

The division of roles and responsibility between central government and local authorities was changed, so that the local authorities were given full responsibility for the operation and management of schools and adult education. The detailed control by central government was reduced. Employer's responsibility for teachers and school staff was transferred from central government to the local authorities. The previous detailed control of regulations and resources was replaced by goal and result-oriented management. The national regulations, which are found in the new management system, state goals for education activities

while there is a high degree of freedom as to how to achieve them. Responsibility and authority have been shifted from central government to local authorities and individual schools.

Each local authority now receives a general grant instead of a large number of different government grants with detailed instructions for different purposes in the school and for other local authority tasks. This change has resulted in a great degree of local authority responsibility for the school system.

The local authorities are legally responsible for providing pre-school classes, nine-year compulsory schools, special schools, upper secondary schools and adult education. The education which the local authority cannot or will not provide from its own resources, must be provided through co-operation with other local authorities. The local authority is responsible for ensuring that education is carried out within the frameworks and in accordance with the guidelines which the Swedish Parliament and the Government have laid down (laws, rules and regulations governing forms of school, curricula and syllabuses).

The local authority adult education, including the special "Adult Education Initiative" project, shall provide adults with the opportunity to obtain new knowledge and to supplement their formal education in line with developments in society and the requirements of working life. It is primarily those who have received limited education who should have the opportunity of adult education in order to strengthen their position in working life, and also culturally and politically.

2.3.2 The organisation of higher education

Undergraduate study, postgraduate study and research are carried out at 10 universities and 26 colleges for which central government is the responsible authority. In addition there are a small number of individual education providers, which are also chiefly financed by public funds.

The National Agency for Higher Education is the expert body of the Government and the Swedish Parliament within tertiary level education. One major task of the agency is to scrutinise the activities within the tertiary education sector and to promote updating and improvement of higher education and research.

An important basis for tertiary educational policy is that it shall be open for all and free of charge. The state universities and colleges are public authorities. Their activities are regulated by the Higher Education Act, university and college statutory regulations and parliamentary resolutions on grant allocation, and educational orders.

Since 1993 universities and colleges have worked in a goal and results management system, which gives each individual university and college a great degree of autonomy. The universities and colleges operate extensive quality assurance work. This is being evaluated by the National Agency for Higher Education.

The Higher Education Act contains comprehensive regulations governing the activities of the universities and colleges, their management and organisation. University and college statutory regulations govern in more detail issues concerning the organisation, appointment of teaching staff, undergraduate study, postgraduate study, examinations and discipline.

Universities and colleges have (the 1996/97 academic year) approx. 300,000 undergraduate students and in addition just over 16,000 postgraduates. The percentage of women in the 1995/96 academic year was 57 %, a figure which has been unchanged for the last 15 years.

In order to promote contact with the external society, centres with different specialisations, e.g. education and school, have been established at several universities and colleges. Centres are often established jointly with the parties in the labour market.

2.3.3 Study grants

All full-time students in upper secondary education between the ages of 16 and 20 receive a student grant. This consists of a general grant at a level which is equivalent to the general child allowance.

The student grant system covers both students at universities, colleges and other post-upper secondary education, and students who are 20 or over who are studying at nine-year compulsory school or upper secondary school levels. Student grants are awarded for full-time and part-time studies, though a minimum of half-time study is required in order to qualify. The grant consists of a loan element which is to be repaid (SEK 5,125 per month) and a grant element (SEK 1,973 per month). The grant is linked to study achievement. The rate of study shall be at least 75 % of the curriculum requirements. Allowance can be made for personal circumstances, e.g. illness, if the results do not meet this requirement.

The special student grant for adults (SVUX) is aimed at adult students with a relatively short previous education and who have worked for a period of time. The grant is awarded for study at nine-year compulsory and upper secondary school levels, e.g. within local authority adult education. The size of the grant depends on the student's income before starting study and membership of the unemployment fund. The grant consists largely of a grant element, and a smaller loan element which is to be repaid.

There is a special student grant (SVUXA) for those who are unemployed. The regulations governing this special student grant for the unemployed are largely the same as for the normal adult student grant.

The special education grant, which is primarily aimed at unemployed with limited education, is equivalent to the amount the student would have been entitled to in payment from the unemployment fund. The grant can be applied for by persons between 25 and 55 years old for study at nine-year compulsory and upper secondary school level in local authority or state-run adult education, or at folk high-school.

School reforms in the 1990s

Comprehensive reforms have been implemented during the 1990s in both the nine-year compulsory and upper secondary schools, combined with a rise in ambition levels with regard to the upper secondary school in particular, which has now become a three-year course for all students. A restructuring of the upper secondary school was started at the end of the 1980s, which involved the amalgamation of all the many study programmes and special courses into 16 national programmes. The programmes are designed to provide a broad basic education within a vocational field and to provide a sound basis for further studies. The reformed upper secondary school was introduced in 1992/93 and implemented fully in the 1995/96 academic year.

From 1st January 1998, the education for six-year olds, which had been provided until then within the framework of the pre-school, now constitutes a separate form of school within the state school system for children and young people – the pre-school class. Education in the pre-school class shall stimulate each child's development and form the basis for continued schooling.

2.3.4 The pre-school, the pre-school class and the after-school children's leisure activity centre

At the end of 1997 pre-school education covered 72 % of all children in the 1-5 age range. The most usual form is the pre-school, but some of the children are also to be found in family day nurseries. The local authorities have a responsibility to provide places in pre-school education for children of parents who are working or studying. Children who require special support shall be given a place in pre-school even if the criteria for the parents are not met. Pre-schools have a curriculum (Lpfö 98) from autumn 1998 which states the pre-school's value basis and tasks together with educational goals and guidelines.

The first stage in the educational system is the pre-school class, which gives all six-year olds the right to at least 525 hours of free education. The local authority must provide pre-school class education and nearly 100 % of six-year olds attend, even though it is optional for the children. The curriculum for the compulsory school system also applies to the pre-school class. It is very common that pre-school teachers and compulsory school teachers work with integrated groups of children from the pre-school class and the first-year class from the compulsory school.

Children between 6 and 9 years old receive care before and after the school day at after-school children's leisure activity centres, which are often integrated in the school premises. The personnel, who consist of university and college educated recreation instructors, often work with compulsory school teachers during the school day. The leisure centres shall put into practice the curricula for the pre-school class, the compulsory nine-year education and the leisure activity centre. Approx. 58 % of children in the 6-9 age range are enrolled in leisure activity centres.

2.3.5 The nine-year compulsory school

School attendance is compulsory for all children between the ages of 7 and 16. If the parents so wish, children can already start school when they are 6 years old. Just under 8 % of six-year olds utilised this opportunity in the 1997/98 school year.

The compulsory school system includes the nine-year compulsory school, the Sami school and the compulsory special schools for the mentally handicapped.

The vast majority of schools in Sweden are found within the state school system. The normal situation is that the child goes to a local authority school near home. The pupils and their parents have the right, however, to choose another local authority school or a private school. In the 1997/98 school year, 2.7 % of children of compulsory school age attended private schools.

The private schools follow the same curricula as the state schools, they are open to all and must be approved by the National Agency for Education. The schools are financed by public funds and receive grants from their pupils' local authorities. The amount is determined in regard to the school's activities and the pupil's requirements.

Education at compulsory school level is free both in state and private schools.

Curricula, syllabuses and timetables

In autumn 1994, the compulsory school received a new curriculum (Lpo 94). The curriculum states the school's value basis and the fundamental guidelines and objectives. In addition, there is a nationally

determined syllabus for each individual subject with goals for the education in the subject. The goals are of two types; both goals which the school shall strive to attain, and goals for which the school is responsible that all pupils achieve in years 5 and 9 respectively.

On the basis of the curriculum and syllabuses, each local authority shall establish a school plan. The school plan, syllabuses and curriculum then allow scope for the individual school's principal, teachers and pupils to design the content, organisation and work methods. Local authorities and schools shall produce written annual quality reports.

The timetable (Appendix 2) states the minimum guaranteed time for which the pupils have the right to receive teacher-guided education in the various subjects. The periods of study which are allocated for pupils' own options mean that the individual pupil can study one or more subjects in more depth. In addition, a school can, within the terms of reference, use the study periods to allocate additional time to certain subjects than the minimum time which is stated in the timetable.

Goals and knowledge-related grades

A new knowledge-related grade system was introduced at the same time as the curriculum and syllabuses. Grades are awarded on a three-grade scale every term from and including year 8. A pupil who does not achieve the syllabus goals for year 9, i.e. does not attain pass grade standard, does not receive a grade for the subject, but has the right to receive a written report. During the whole compulsory school period, pupils and parents shall be informed regularly of the pupil's study results, which includes by means of progress meetings.

National tests in Swedish, English and mathematics in years 5 and 9 shall assist the schools to assess the standard and to evaluate the results of the teaching.

The introduction of the new goals and knowledge-related grade system has intensified the discussion on goal achievement and quality. New qualification requirements in order to be accepted for the upper secondary school's national programmes, from and including the 1998/99 school year, have highlighted the problem in respect of young people who do not attain the targets of the nine-year compulsory school.

Pupil and parent participation

According to the curriculum, the pupils and teachers shall have the opportunity to be involved in planning the daily work. The way in which this will actually work shall be determined by the principal after consultation with pupils and teachers.

Research is being carried out with committees where parents are in the majority and which also include the principal, staff and pupils.

The compulsory special school

The compulsory special school covers nine school years in either the compulsory special school or training school (school for severely mentally handicapped children). Pupils in the special school have the right to a tenth school year. Children who can learn to read and write attend the compulsory-level special school. The education at the training school is concerned with social training and practical skills.

The special school

The majority of hearing-impaired children and nearly all visually handicapped and disabled children receive their education in the nine-year compulsory school. There are state-run special schools for deaf and hearing-impaired children who cannot follow the education in the nine-year compulsory school. The special school covers ten school years and shall, as far as possible, correspond to the education which is provided in the compulsory school. There are five special schools for deaf and hearing-impaired children with regional admission areas.

In addition, there are three nationally-recruiting special schools for children who have a visual handicap, speech handicap, hearing impairment/deaf, as well as children with speech and language difficulties in addition to other handicaps.

The Sami school

Sami children can receive education with a Sami focus at the Sami school. The education shall correspond to the first six years of the nine-year compulsory school. Thereafter the Sami school pupils go over to the compulsory school. Sami children can also be offered Sami education which is integrated in the years 1-9 of the local authority compulsory school.

2.3.6 *The upper secondary school*

Upper secondary schools are chiefly provided by local authorities, and in some cases by the county council. The schools are led by a principal, sometimes called a school director, and one or more assistant principals. The number of pupils per school varies between 300 and 1,500.

The state upper secondary school is voluntary and free of charge. Organisers of private education can provide education which corresponds to that in the state school system. In the 1997/98 school year, approx. 3.1 % of upper secondary school students attended such private upper secondary schools.

The upper secondary school normally covers three years. However, by means of the system with courses and academic points, the student can attend for a shorter or longer period than the normal three years. In this way it is possible to better adapt the rate of study to the individual student's study circumstances.

Right to education, qualification requirements and admission regulations

The local authorities are responsible for providing upper secondary school education in a nationally or specially designed programme for all young people within the local authority area after their completion of the nine-year compulsory education up until and including the first calendar half-year when they become 20 years old. The provision shall encompass a balanced selection of the national education programmes. In order to be admitted to a nationally or individual programme, from and including the 1998/99 academic year, the student must have at least a pass grade in Swedish, English and mathematics from the compulsory school.

The student selects the programme he/she wishes to study. If this programme is not provided by the local authority in which he/she resides, the student has the right to apply to study in another local authority. If the student is admitted there, his/her local authority is obliged to pay for the education. If the number of

applicants exceeds the number of study places available, admission is based on the students' grades from compulsory school.

Upper secondary school education shall be stage in the life-long learning process. In future, higher education must, to a greater degree, be able to recruit students from working life; students who have a vocational training from the upper secondary school as a foundation. Therefore, vocational education must provide a broad range of skills and knowledge and also provide a sound basis for further studies. All study programmes, therefore, provide basic qualification for university and college education. However, some tertiary level courses also require special qualifications for admission.

Study specialisations and options

In addition to 16 national three-year study programmes (Appendix 3), there are also specially designed programmes and individual programmes. The national programmes are frameworks within which the students can choose various specialisations. All national programmes comprise a common core, so-called core subject courses (Appendix 4), which cover about a third of the study time. During the second and third years, some programmes have specialisation in the form of national options, but the opportunity also exists for a local authority to provide a local option, i.e. an education which is adapted to local conditions and educational requirements.

There is a limited scope within all programmes for the students' individual choice. They can, for example, choose to study an additional foreign language or choose courses from other programmes than the one they are studying. The programmes' specialisation is created by means of its grade subjects. Fourteen of the programmes have vocational subjects. Within these programmes, at least 15 weeks of the education duration shall be carried out in the workplace, so-called workplace-based education (APU). The natural sciences and social sciences programmes are designed more to prepare students for higher education. There is an opportunity with these programmes as well to include some work-based education, in addition to the opportunity to include subject-linked practice within the programmes.

For students who have other wishes than are provided within the 16 national study programmes, there is the opportunity for individual programmes. These are normally three-year and are on a par with the national programmes. A specially-designed programme shall always consist of the eight core subject courses but may then be comprised of courses from e.g. several different national programmes and locally-determined courses. Both theoretical and vocationally-oriented subjects may be included.

Specially-designed programmes can be put together by local authorities and are offered as an alternative when students apply for a place at upper secondary schools. However, local authorities cannot offer specially-designed programmes instead of national programmes. Individual students can also put together a specially-designed programme themselves. Together with the school, the student designs an individual education plan for the whole period of upper secondary education.

Course design itself, especially within the specially-designed programmes, but also within the national ones, provides very much greater opportunities than previously to keep education up-to-date, e.g. by replacing and changing courses.

The individual programme

The individual programme is provided to assist students who are not qualified to be admitted to the upper secondary school's national programmes, or to allow the possibility to combine a job which aims to provide vocational training with studies in certain subjects at upper secondary school. If the student is not motivated or unsure of his/her study choice, the programme has scope for several different opportunities, including introductory courses for young immigrants and follow-up initiatives. The individual programme aims in these cases to help the student to transfer later to a national or individual programme. The primary aim for students who need measures of a compensatory nature, is to provide the knowledge and skills equivalent to that provided by the nine-year compulsory school in those subjects which the student lacks. The student can subsequently transfer to education in a national programme. Since the individual programme shall be based on the student's needs, it can vary both in respect of its duration and content. The programme can also be used for education within special vocational fields or apprenticeship training combined with studies at the upper secondary school.

Other education which can be accommodated within the individual programme is that which concerns students with special needs, e.g. pupils from special schools. Pupils who have attended a special school and who are considered to be able to profit from education in the individual programme shall be given the opportunity for such education. Of the students who began at upper secondary school in 1997, 11 % of them began on the individual programme. The majority of students on the individual programme leave it after one year.

Pilot experiment with a new modern apprentice education

A new modern apprentice education is an alternative study option within the programmes with vocational subjects. The aim of the new modern apprentice education is to provide those students who wish to have the opportunity to undertake a large part of their education within a national programme in the workplace, and to give industry the opportunity to influence the content and organisation of the education.

The new modern apprentice education is a pilot experiment which encompasses 300 student places at 24 upper secondary schools. It is planned that it will become a standard scheme from and including autumn 2000. The apprentice education has the same programme and curriculum goals content as ordinary education in a national programme. The education provides basic qualification for tertiary level studies. The student follows the common parts of the programme during the first half of the education, approx. three terms, when workplace-based education is also included. Thereafter the apprenticeship part of the education is started. The content is regulated by means of a contract between the student, the school and the workplace. Parallel with education in the workplace, the student shall study core subjects and vocational subjects at upper secondary school. The local authority is the authority responsible for apprentice education, which means that student status applies during the whole period of education. Industrial organisations concerned and the parties in the labour market shall be represented in a programme committee which, together with the school, participates in the planning and organisation of the education.

Apprentice education can mean that students who have a long distance to travel to upper secondary school, can undertake a large part of their education at or near their home town. Apprentice education can also mean an increase of the individual school's course range within one or more programmes by means of a greater degree of co-operation with business and industry and the public sector within the separate admission areas. Apprentice education can also contribute to the regeneration of a skilled workforce

within narrow vocational fields or small businesses where training as part of a national programme is not suitable.

General objectives and timetable

On 1st July 1994, the upper secondary school and the other voluntary types of schools (upper secondary special school, the local authority adult education and adult education for the mentally handicapped) received a new curriculum (Lpf 94). This states the value basis, fundamental guidelines and objectives. The management documents which stipulate the educational requirements are programme goals, syllabuses and grading criteria.

Nationally-determined programme goals exist for all national programmes and programme goals are determined for the individual programmes by authority responsible for the school.

The upper secondary school is not divided into year forms. The timetable states course values for the education time per subject of the different national programmes for the three years in total. Each subject is divided into one or more courses. The number of upper secondary points each course is worth is stated in the syllabus. A full upper secondary education requires 2,150 points on the art, music and drama programme, and the natural science and social science programmes, and 2,370 points on the other programmes.

Courses and grades

The subjects are divided into courses in the upper secondary school. Grades are awarded after each completed course. Achievement is measured in relation to the goals of the course. Grades in the upper secondary school are awarded on a four-grade scale, of which the lowest is Fail.

There is a syllabus for each course which states the goals for the course. In addition, there are grading criteria for each course, which state the level of achievement which the student must attain for the different grade levels. There are both national courses with nationally-determined syllabuses and grading criteria, and local courses with syllabuses and grading criteria determined within local authorities.

The student receives a final grade at the end of his/her upper secondary education, which is a combination of grades in all courses which form part of the study programme. Students at upper secondary school can sit an examination in courses which are part of the programme before a grade is established or if the student has been awarded a Fail grade.

In the course-based upper secondary school, the student only needs to retake the course or courses which were failed. There is however an opportunity to retake a complete school year. Each student also has the right after completion of his/her upper secondary level education to resit examinations to try and gain a better grade.

The National Agency for Education has examined final grades from a sample of upper secondary schools during the 1998 spring term. As the sample is not entirely random, the results should be interpreted with a certain degree of care. The investigation shows that 14 % of the students who were registered on a national programme in autumn 1997 did not receive a final grade at the end of the 1998 spring term. There are large differences between the different programmes. Approximately one in five of those who did not receive a final grade in spring 1998 were expected to receive a final grade after examinations at the

beginning of autumn, while one in ten began a fourth year at upper secondary school. Of the others, about half had discontinued altogether or taken a break in their studies.

11 % were studying at local authority adult education in the following autumn term according to a study of what happened to the students who did not receive a final grade at the end of their third upper secondary school year in spring 1997. 4 % were enrolled at university or college during the autumn term after having resat examinations at the upper secondary school or local authority adult education.

Student influence

The syllabus gives the students a large degree of influence over the content and organisation of the education, and influence on the school situation otherwise. The national programmes also give students an individual choice, which covers approx. 10 % of the programme. Within this scope the student chooses the courses to be included in the programme. In trials, units for upper secondary school and local authority adult education can also set up committees with a student majority.

Students in need of special support

According to the Education Act and the curriculum, the school has a special responsibility to provide students with difficulties with the help and support they require at school. This may be a question of various forms of support, from technical aids and student assistants, to support for the disabled or visually handicapped, to special education by specially-trained teachers and remedial instruction.

Immigrant pupils

The subject, Swedish as a second language, gives the same qualification as the standard Swedish language subject and is found in all forms of school. Immigrant pupils have the right to study Swedish as a second language instead of standard Swedish if they need and wish to. Pupils who choose to study Swedish as a second language as a core subject have in addition the opportunity to study Swedish in the time available for individual options. Teaching in Swedish as a second language at upper secondary school is based on students having ability in the subject corresponding to the goals for the nine-year compulsory school.

Pupils who have recently arrived in Sweden and lack basic knowledge in Swedish have, from the age of 16, the right to Swedish tuition for immigrants (sfi). Many immigrants also receive extra instruction in Swedish within the framework for the upper secondary school's individual programme. A third of students on the individual programme in 1997 had a foreign background.

Native or first language can be studied as an individual option, expanded programme or can replace instruction in foreign languages. The right to native language instruction is restricted to seven years, unless the student has a special need of the instruction. An exception is made for the Nordic languages.

The upper secondary special school

The local authorities are responsible for providing places at upper secondary special school for those young people who do not have the necessary prerequisites to attend the upper secondary school. This applies, for example, to young people who are mentally handicapped.

The upper secondary special school provides, like the upper secondary school, national, specially-designed or individual programmes. The national programmes are fewer than in the upper secondary school and aimed at various vocational preparations. All programmes in the upper secondary special school are four-year and have a guaranteed 3,600 hours divided into core subjects and grade subjects.

2.3.7 Adult education

Folk high-schools and adult education associations are the oldest forms of adult education. The first folk high-school was established in 1868 and was intended for young adults and to provide a general civic education. Adult education associations also grew from within the popular movements, such as the revivalist and temperance movements. Since society at that time could not meet the need for individual knowledge and skills, this became a task for the popular movements. This first study circle was founded in 1902.

During the 1950s, evening upper secondary level education for adults arrived. The vocational schools also provided adult education in the form of part-time courses.

By means of the 1967 adult education reform, adult education was organised both as state adult education with countrywide recruitment and as local authority adult education (komvux) with local recruitment. Basic education for adults (grundvux) arrived in 1997, and has been an integrated part of komvux since 1992. The local authorities have been responsible for Swedish tuition for immigrants since 1986.

The state school system for adults comprises local authority adult education, education for mentally handicapped adults (särsvux) and Swedish tuition for immigrants. The state-run schools for adults (SSV) in Härnösand and Norrköping are a complement to komvux. The schools recruit on a countrywide basis and provide distance learning for adults in largely the same type of education as in komvux. The education is organised as distance learning by post, interval courses with periods at school, and IT-based courses. The number of students at the schools during week 42 in 1997 was 15,000. In addition to this, there are 11 adult education associations with activity throughout the country and 147 folk high-schools which receive state funding.

Local authority adult education

Local authority adult education comprises basic adult education, upper secondary adult education and supplementary education. Every local authority is responsible for organising local authority adult education. Each local authority resident over the age of 20 and resident in the country has the right to take part in basic adult education if he/she lacks skills or knowledge which is normally learned in the nine-year compulsory school. The education aims to give adults the knowledge and skills which they need in order to participate in society and working life. It shall also make further study possible.

The local authorities shall strive to provide upper secondary level adult education and supplementary education which meets demands and requirements. Upper secondary level adult education aims to give adults the knowledge and skills which correspond to those young people can learn at upper secondary school. If the number of places is less than the number of qualified applicants, preference shall be given to those with the greatest need of the education. In autumn 1997, 67 % of students at upper secondary level adult education were women.

Supplementary education aims to provide such education for adults which may lead to a new level within their vocation or a new vocation. In the 1996/97 academic year, 221,500 students took part in komvux.

The "Adult Education Initiative" project

The "Adult Education Initiative" project is part of the Government's strategy to combat unemployment, to strengthen the country's competitiveness and to increase growth by means of raising educational levels and the skills and knowledge of the work force. The "Adult Education Initiative" project shall also contribute to local authority and regional development and growth. At its full extent the project encompasses 140,000 places in addition to regular local authority adult education and costs SEK 3.3 billion per year. The project is aimed primarily at the unemployed who lack qualifications from the three-year upper secondary school. It is primarily those who lack skills and knowledge equivalent to the core subjects at upper secondary school who shall receive such education, but the updating and strengthening of participants' vocational knowledge and skills is also given great scope. Approx. 50 % of participants are over 30 years old.

Local authority and state-run adult education is free of charge.

Education for mentally handicapped adults

Adult education for the mentally handicapped (särvox) is a form of school with the same curriculum as the upper secondary school and the local authority adult education. The education is organised in the form of independent courses and aims to provide skills and knowledge corresponding to the compulsory special school and vocational training in the upper secondary special school. The students can choose to study just one course or different combinations of courses. The timetables in särvox state only the guide value. It is the student's ability and possibilities of attaining defined goals which govern. Särvox encompassed 4,000 students in the 1997/98 academic year.

Swedish tuition for adult immigrants (sfi)

The aim of Swedish tuition for immigrants is to provide adult immigrants with basic knowledge of the Swedish language and Swedish society. The local authorities have a responsibility to provide sfi education for persons who lack basic knowledge and skills from and including the second half of the year they reach the age of 16.

The education has a guide value of 525 hours, but it is the individual's chances of achieving the knowledge goals in the curriculum which are determining. The student begins studying at the language level determined by prior knowledge and skills and finishes studying when the goals have been achieved. For people who are illiterate, sfi education is combined with instruction in reading and writing at basic adult education.

Within basic adult education there is a supplementary course to sfi, the Swedish as a second language course. Sfi is organised by the majority of local authorities in connection with komvux. During the 1996/97 academic year, 41,000 people took part in sfi education. The average age of the students was 34 years old.

Popular adult education

Folk high-schools and adult education associations determine their own objectives for their activities. The overall aim of popular adult education is to reinforce people's opportunities to affect their living conditions. Popular adult education contributes to preserving and developing a popular culture and providing support and stimulus for study within non-government organisations and associations. It assists in providing everyone, but those with limited education in particular, good skills and knowledge and stimulates interest for new fields of knowledge.

The general courses at a folk high-school shall comprise a minimum of 15 % of the school's annual activities. The general courses are intended primarily for those who lack knowledge from the nine-year compulsory school and upper secondary levels. In the 1996/97 academic year, 29,000 people attended general folk high-school courses. During 1995 approx. 1.5 million people took part in study circles.

Vocational training courses

Vocational training courses, together with guidance and employment office services, are the most important employment policy instruments to support the individual. The term vocational training courses means the education which a person undertakes for employment reasons and for which a training allowance is paid. Vocational training courses shall promote economic growth by rapidly meeting the need for skilled labour and in this way facilitate adjustments in the labour market between the unemployed and vacant posts.

The role of vocational training courses is to provide the unemployed with such education that they can quickly fill the vacant posts which arise. An important task is to ensure that there are no gaps or bottlenecks in the labour market. An important difference between the standard education system and vocational training courses is that with the former the individual him/herself chooses the education direction, while the manpower requirements of the labour market determine the training that the unemployed can receive.

The county labour boards purchase vocational training courses from various education providers or utilise places within the standard education system. In September 1998, 46,000 people took part in vocational training courses.

Pilot experiment with qualified vocational education

The pilot experiment with qualified vocational education (KY) is a new form of post-upper secondary level education where at least a third of the education is based on the skilled application of the theoretical knowledge in the workplace. The aim of the pilot experiment is to gather experience concerning new courses, new pedagogical forms and new education providers. The period of study extends between year 1 and 2 depending on the course. The courses are based on close co-operation between business and industry and various education providers (upper secondary schools, universities and colleges, local authority adult education, companies). The courses shall be open to those who come straight from upper secondary school but also to those already active in the labour market who wish to develop their knowledge and skills within a definite field.

Statistics from 22 completed courses show that 75 % of the students have a job or have been promised employment within three months of the end of the course. Approximately half of these jobs concerned

companies which had taken part in the workplace-based part of the course. Today, KY covers approx. 140 courses within 13 different industrial fields. In accordance with proposals in the 1998 spring financial bill (bill 1997/98:150), Parliament adopted a resolution to extend the pilot experiment until and including 2001, and to increase the places to 8,000 in autumn 1998 and to 12,000 from spring 1999 until and including the end of the pilot experiment in 2001. The intention of the Government is that the pilot experiment will subsequently be integrated into the standard education system.

2.3.8 Higher education

Universities and colleges have a key role in the investment in knowledge and education. They are responsible for practically the whole of post-upper secondary level education in Sweden. The labour market of today and the future requires increasingly qualified and frequent education.

Increasing numbers of people apply for admission to tertiary level education. The number of students at colleges and universities has increased by just over 80 % over the last decade. The proportionally largest increase has been at smaller and medium-sized institutions, where the number of full-time students has increased by 260 % over the same period. Tertiary education will increase further in the future. In the year 2000, the total number of full-time students in tertiary level education is expected to be approx. 300,000.

The opportunities for distance learning are important in a country such as Sweden with large geographical distances. Today, tertiary level distance learning involves approx. 10 % of the students.

Admission

Basic qualification, and for some courses also special qualifications, are required for admission to undergraduate studies at universities and colleges. A completed education from upper secondary school with at least 90 % pass grades for the courses taken, provides basic qualification. People over the age of 25 and who have been in employment for at least 4 years are qualified if they have proficiency in Swedish and English equivalent to a completed national upper secondary programme.

The progression rate from upper secondary to tertiary level education has increased greatly. In 1987/88, the percentage of upper secondary school students going on to undergraduate study was just over 20 %. By 1993/94 this rate had risen to 37 %. Roughly 30 % of all young people between 19 and 25 go on to universities and colleges. It is estimated that at least 50 % of today's 20-year olds will have studied at universities or colleges by the time they reach the age of 35.

The interest for higher education is increasing. The number of new applicants, i.e. applicants who have not previously studied at a university or college, was 125,000 for admission in autumn 1997. In comparison the number was just 100,000 for the autumn 1994 intake. This increase has occurred despite falling age groups of young people. The competition for places has increased despite the expansion of undergraduate studies which is in progress.

Financing

Each university and college is awarded, through a parliamentary resolution, an educational grant which stipulates, among other things, the minimum number of examinations. Furthermore, frameworks are established for the range of specialisations of the educational courses offered, expressed as the highest

number of full-time results within the respective educational fields or groups of educational fields which can qualify for funding during a three-year period.

For each budget year, the highest total payment for full-time students and full-time results is stipulated – a so-called financial ceiling. An educational institute can also have specific commitments specified in its educational mandate.

The universities and colleges have, on the basis of their educational mandates, great freedom to design their own range of educational courses and to allocate the resources which the Government makes available. All universities and colleges are allocated funds for undergraduate and postgraduate studies in the form of a framework grant. Payments for undergraduate education are related to the results achieved – actually the number of students being awarded a degree. Funds are also allocated to each university and college for research and postgraduate studies.

3. TRANSITION PROCESSES AND OUTCOMES

3.1 Concerns

Practical labour market orientation in the nine-year compulsory school

The previous curriculum (Lgr 80) directed that every pupil should have 6-10 weeks practical labour market orientation (prao) during his/her period in compulsory school. Prao means that the pupil takes part in activity at a workplace and carries out simple tasks. Quality has, though, been variable due to difficulties in arranging good practical placements for all pupils, to weak links between education and the pupils' practical experiences or to poor supervision at the workplace. In recent years in smaller towns, competition had also arisen for places between the upper secondary school's APU, and the compulsory school's prao, where the compulsory school has drawn the shortest straw. The downturn in the business cycle has also meant that many smaller companies and institutions have not been willing to devote time to supervising compulsory school pupils.

In Lpo 94, the time allocated to prao is no longer stipulated, but the school's responsibility is emphasised for co-operation with business and industry, and also for the pupils' contact with society outside the school. The intention is that contacts with business and industry shall be a well-integrated and meaningful element in school activities. Prao shall be a means to achieve the curriculum's objectives rather than a "breather" and break in normal school activities.

Several studies reveal that prao in the compulsory school has reduced since the new curriculum was introduced. One reason is that the contacts with business and industry are sometimes viewed as something which is peripheral to the school's core activity – teaching. Another reason is also that the labour market is virtually non-existent for a sixteen-year old who leaves the nine-year compulsory school today. Few pupils enter the labour market straight from compulsory education, but do so during and after upper secondary education.

The new grade system based on goals and knowledge levels is experienced by many teachers and school administrators as though greater demands are being placed on the pupils in the respective subjects – and thereby greater demands on the teachers to "complete the course". Prao, subject-linked practical placement, and other contacts with working life appear to be things which steal time from normal education.

Many critics believe instead that contacts with working life should be given priority in school. All pupils attend school increasingly longer and the opportunities for work outside school hours and in the holidays have declined. The need is therefore greater that the school provides pupils with the opportunity to obtain experience from the workplace, as this is important for their learning and development.

The National Agency for Education has reported that half of Sweden's compulsory schools have reduced the extent of prao by between 20 and 75 %. In the majority of cases prao has been replaced by activities

which are more "theoretical" in nature: projects, study visits etc. The National Agency for Education sees problems with the increased variation between schools; a poorer base for pupils' future study and career choices and poorer opportunities to integrate the pupils' individual experiences of working life into the school's education. The Government has recently declared that all pupils in the compulsory school should have the opportunity of practical labour market orientation.

An important factor for the school's contact with working life is the teachers' own experience of other workplaces and careers than those found within the school. The teacher training committee (U1997:07) has, among other things, the task of discussing how experience of other careers can be put to use by student teachers both in the nine-year compulsory school and the upper secondary school and whether this can be part of the admission criteria.

Study and career guidance in the nine-year compulsory school

The responsibility for organising the study and career guidance activities (syo) so that pupils receive guidance in the face of the various choices which the school provides and in the face of future education routes, is the responsibility of the school principal.

Syo continues during the whole compulsory school period. There are special syo staff at many schools. The school staff shall inform, teach and provide personal guidance for the pupils on various study directions and career opportunities after the nine-year compulsory school

This counselling resource in the compulsory school has reduced in extent by 7.5 % compared with 1993 according to the National Agency for Education's report (UG 95). There may be several reasons for this reduction. The majority of pupils get into their first choice at upper secondary school and require less information on all the different study alternatives. The syo functions can also, to a greater extent, have been engaged in work with the upper secondary school individual programmes, where there is contact with workplaces among other things. On the other hand the work with obtaining work placements in the compulsory school has probably reduced as a result of the deregulation of prao.

Transition compulsory school– upper secondary school

An ever-increasing number of the pupils who leave compulsory school go straight on to upper secondary school studies: approx. 66 % in 1975, 87 % in 1985 and 98 % in 1997.

The young people who do not meet the qualification requirements for a national or individual program shall be offered education within the individual programme option.

New qualification requirements for admission to the upper secondary level national and individual programmes apply from and including admission for autumn 1998. In order to be qualified a student must have at least a pass grade in the subjects Swedish/Swedish as a second language, English and mathematics. Various estimations indicate that 6-7 % of a year group which completes year 9 will require supplementary studies within the upper secondary school's individual programme in one or more of these subjects which are lacking, before studies in a national programme can be started. Within the framework for the individual programme, courses from a national programme can be studied at the same time as the supplementary studies. Young immigrants who have for example arrived in Sweden at a late age in the compulsory school may be among those who do not meet the qualification requirements and are therefore to be found on the individual programme.

In general, the increased requirements should lead in the future to pupils beginning on the national and individual programmes with a better foundation.

Young people who do not begin at upper secondary school

The obligation of the local authority to provide education in national, individual or individual programmes at the upper secondary school for all young people resident within the local authority area and who have completed nine-year compulsory school or equivalent education, applies until and including the first six months of the calendar year the young person becomes 20 years old.

A local authority can continue to assume responsibility according to the law (1997:1268) on the responsibility of the local authorities for young people between the age of 20 to 24. The aim with this is to develop the individual's future opportunities to support themselves and to strengthen their opportunities to enter the employment market or to continue studying. Such responsibility applies from 1st July of the year the young person becomes 20 years old and until he/she becomes 25 years old and begins in employment, standard education or if a suitable labour market policy initiative cannot be provided within 90 days from the date the young person registered as seeking employment with the public employment office. The development initiative shall be offered within 10 days from the date the local authority's responsibility came into force and may last a maximum of 12 months. Young people who take part in such activity are guaranteed a certain payment per month.

Workplace-based education in the upper secondary school

The National Agency for Education's report *Co-operation school – working life* indicates that the workplace-based education (APU) often does not achieve the stipulated extent of at least 15 weeks per year. This applies to all programmes with vocational subjects. 63 % of students on all the programmes receive the APU to which they are entitled.

There is a great difference between the different programmes. Programmes which are successful are the Health Care programme and the Child Recreation programme. Less successful programmes are the Media and Electricity engineering programmes.

The situation is divided with regard to the financial payments for APU workplaces. According to a study in 1995 by the Swedish Association of Local Authorities, 48 % of the APU employers did not request any payment from the local authorities, 33 % were paid by the local authorities, 3 % paid compensation to the school and 9 % reported other forms of compensation.

The workplace shall provide trained supervisors in connection with APU. The training of supervisors shall be financed and organised by the school. Only 46 % of the schools which participated in the study have organised basic training for supervisors.

The workplaces/supervisors say that they have the opportunity to receive students for APU. The schools on the other hand state that there is a shortage of trained supervisors and state the fact that the activity range of certain workplaces is too narrow to suit the students' educational requirements as the main reason that the 15 week APU is not achieved. The students who do undertake APU rate it very highly and regard it as a good complement to their education.

Transition upper secondary school – tertiary level study

A substantial increase in the number of places available at colleges and universities has occurred since the end of the 1980s. The number of new students has increased by just over 50 % over the last ten years. The transition from upper secondary to university level education is made largely during the 3-4 years following the completion of upper secondary education. 35 % of those who had completed their upper secondary education in the mid-1980s went on to tertiary level education within ten years. With the corresponding figure ten years later, in the mid-1990s, roughly a third had started tertiary level studies within just two to three years.

7.2 % of the last year class at upper secondary school in 1996/96 went straight on to college or university. Despite the large expansion of universities and colleges during recent years, a large group (approx. 35,000) of qualified applicants were not able to be offered places for the autumn term in 1997.

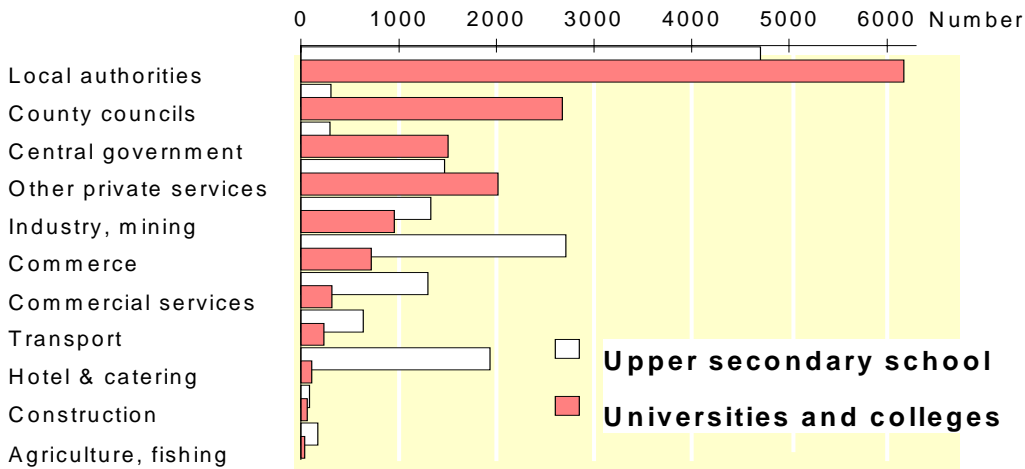
22 % of young women who completed their upper secondary level education in 1995/96 had started tertiary level studies within one year. The corresponding figure for young men was 12 %. Of those who completed upper secondary level education in the 1994/95 academic year, 22 % had started tertiary level studies within one year and 37 % within two years.

Transition from education to working life

In spring 1996, Statistics Sweden (SCB) carried out a questionnaire study among those who completed upper secondary level education in 1993 and those who completed undergraduate or postgraduate studies in the same year. 51 % of students completing secondary education had a job in March 1996 and for 37 % this was their main occupation. 38 % devoted themselves to full-time study. 16 % of leavers were unemployed or taking part in employment policy initiatives. Of all those who completed upper secondary education in 1993, 16 % were in permanent employment within one month of the end of their education, 23 % within three months, 34 % within one year and 40 % within eighteen months. The fact that over half did not have any regular job at all was certainly because they were not looking for employment due to tertiary level studies during the whole period. Overall there were no major differences between men and women with regard to how quickly permanent employment had been obtained.

88 % of those who completed undergraduate studies were in employment and this was the main occupation for 80 % of them. Unemployment including employment market initiatives was 5 % among those with tertiary level education. 89 % of those with postgraduate level education had employment as their main occupation and 3 % reported that they were unemployed. Of those who completed university or college education in 1993, 47 % were in permanent employment within a month of completing their degree, 60 % within three months, 76 % within a year and 81 % within eighteen months. 72 % of those with postgraduate level education were in permanent employment within one month of completing their course and 84 % within a year.

WOMEN

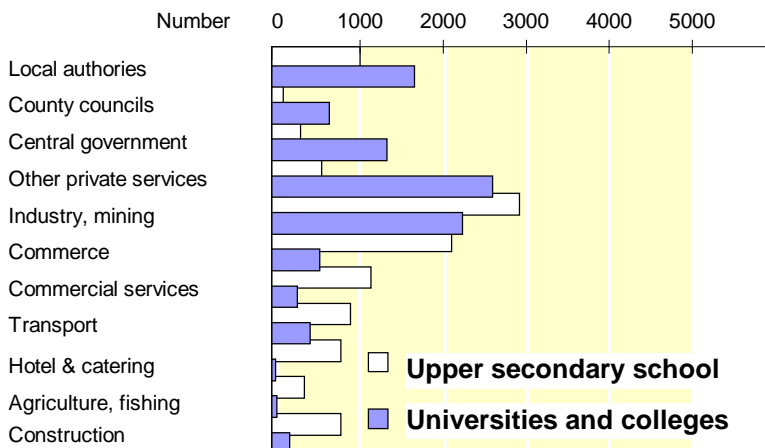


	Upper secondary school	University and colleges
Number of women completed	34 800	19 600
employed (diagram)	15 000	14 900

The diagram above illustrates those completing upper secondary school in 1995, those completing tertiary level education in the same year, and the division of the total in employment in 1996 per employment sector.

A large percentage of women who completed upper secondary school in 1995 and women who completed tertiary education respectively, were employed in the local authority sector (e.g. schools, pre-school/childcare). A relatively large group of women with university level education were employed within the county council (health care etc.) and various private sector service companies, while many of the women with upper secondary school education were to be found in the fields of commerce, and hotel and catering.

MEN



No. of men	Upper secondary school	Universities and colleges
completed	32 100	13 600
employed (diagram)	11 500	10 500

On the other hand, the majority of men with upper secondary and tertiary education were employed within for example the private service sector and within industry.

Vocational guidance/study guidance for those seeking work

The Swedish National Labour Board (AMS) is responsible for ensuring that guidance is provided for those seeking work. This shall provide insight into and knowledge of their own resources, on the opportunities in the employment market and the educational system and give the individual support to enable him/her to make decisions.

AMS provides study and vocational guidance at approx. 400 employment offices and about 100 labour market institutes. The aim is to expand the counselling services so that they can be provided at all locations where the employment service is established.

3.2 The interfaces between the education and training system and the labour market

Employment and education background

Young people who are trying to establish themselves in the employment market after the completion of their education face a harder competitive situation than those who are already in employment. With little or no working experience, it is largely young people and those who have recently completed their education who are affected when a downturn in the business cycle occurs and the recruitment of new workers falls. The reduced demand for labour in combination with investment to increase the number of places in education has resulted in an increase in the time it takes for those have recently completed their education to establish themselves in the job market.

Unemployment particularly affects young people with a low level of education who are about to enter the labour market. Over half of all unemployed people are under 35 years old. Unemployment is more than two and half times higher among the poorly-educated than among the highly-educated.

Educational background and unemployment in per cent of the labour force within the respective educational and age groups,1996-1998

Age	Compulsory level			Upper secondary level			Tertiary level		
	1996	1997	1998	1996	1997	1998	1996	1997	1998
16-19	11.3	11.6	9.6						
20-24	26.5	24.8	19.2	14.8	14.7	12.2	6.0	6.4	4.9
25-34	15.8	16.2	15.3	10.6	9.5	7.7	4.1	4.0	3.4
35-64	8.6	8.4	7.6	6.3	6.2	5.7	3.5	3.7	3.0
All	10.3	10.4	9.3	8.7	8.2	7.1	3.7	3.9	3.2

Source: SCB, AKU

The data for 1996 and 1997 refers to the average value of AKU's figures for February, May, October and December of the respective years. The figures for 1998 refer to the average value for February and May.

Employment ratio for various immigrant groups

The employment percentage differs for different nationalities. It is low among the large immigrant sections of the population who arrived at the end of the 1980s and during the 1990s. The latest immigration has largely concerned refugees and the reunification of family members, while immigration during the 1960s and 1970s was largely for employment reasons. Today, the situation for foreign citizens in the employment market is considerably worse than during recent decades. Unemployment among foreign citizens has increased from 4 % in 1990 to 22 % in 1996. Among non-Nordic citizens, the ratio of those in employment has fallen from roughly two-thirds to about a third.

Study and vocational counselling(syo) in the upper secondary school and adult education

Close co-operation with society in general is required in order that students shall have a basis for choosing their education courses, further study or career options. It is particularly important that the school co-operates with business and industry on vocational preparatory education. Therefore study and vocational guidance within education has great importance. Universities and colleges, employment offices, business and industry, parties in the employment market and business and professional associations all have important roles in the information process to the schools and their students.

According to the curriculum, the school shall strive to enable each student to develop self-awareness and the ability for individual study planning. The student shall be able to make a conscious decision on his/her future study and career direction. The school shall also strive towards providing the student with knowledge of the conditions of working life and awareness of changes in vocational fields in step with technological development, changes in social life and increased international co-operation.

It is stated in the school guidelines that the staff shall assist in providing the foundation for the student's choice of education and career. The students shall be informed and given guidance on choice of courses, further studies and career options. Limitations which are based on gender and social or cultural background shall be counteracted. It is important in the information and guidance counselling to utilise the knowledge which is possessed by the students, school staff and in society outside school. The knowledge which the students have acquired on working life and social life shall be utilised in the education process. The guidelines also state that contacts shall be developed with universities and colleges, and with supervisors and others in working life who can contribute to the achievement of educational goals. The contacts with the external society shall be utilised in the education process. Prospective students shall also be informed of the schools courses and programmes.

Study and vocational counsellors for the nine-year compulsory school and the upper secondary school are educated at colleges and universities. The training is a three-year course with a heavy pedagogical element. The training also includes knowledge of educational and vocational activities in Sweden and abroad.

Study guidance at universities and colleges

According to the regulations governing universities and colleges, the students shall be given access to study guidance and career information. The universities and colleges shall also ensure that information is available for those who intend to begin undergraduate studies.

Each university and college has study guidance organised so that guidance is given centrally for each institution. The guidance is comprehensive and is supplemented by the information which is provided for the different study programmes. Furthermore, university and college study counsellors have well-developed contact and co-operation with AMS, often through the local employment office. This co-operation develops a mutual awareness of education as the route to work.

Similar co-operation has been developed in some university and college towns, for example at the University of Trollhättan/Uddevalla which runs the so-called COOP project which is based on co-operation between the university and business and industry with regard to the design of syllabuses, periods of work practice etc. There are several examples which illustrate how university and college co-operation with the external society directly affects the range and design of courses and thereby increases the students' opportunities to gain employment after the completion of their studies.

Upper secondary education and the demand in the employment market

The development of the structure and content of the upper secondary level syllabuses is traditionally carried out in co-operation with the consumers, i.e. the parties in the employment market or representatives for higher education. This should in itself mean that education in the upper secondary school is correct in relation to the education courses which are available to students at the end of their education.

The following results are reported by Statistics Sweden in a report on students who left upper secondary school in 1996 entitled School-leavers from upper secondary school programmes.

Just over three-quarters of students who left compulsory school in 1993 had completed upper secondary education three years later. Among women this figure was 78 % and among men 76 %. The majority had had workplace-based education (APU) during their time at upper secondary school. The students were very satisfied with the supervision, work tasks and the opportunity to try out the equipment, materials and work methods. The average APU duration varied between the programmes. Students on the Construction programme had had an average of 24 weeks during the three-year course. Those who had studied on the Electrical Engineering programme had had the shortest APU duration with an average of 8 weeks during the three-year programme.

One year after completion of upper secondary education, it was more common that students who had had extra jobs during the duration of their education were in employment than those who had not worked during their period of their studies. There was also a link between both APU and work one year later. The highest percentage with work were found among those who had had extra jobs during their studies and also had had APU at upper secondary school.

One in three students were in employment in March 1997, roughly one year after the completion of upper secondary education. One in four had work as their primary occupation and the rest worked in addition to other activities. Just over 40 % of women were in work compared with 24 % for men. One explanation for this is that nearly half of the men were undertaking military national service at the time of the study.

Six in ten of those in employment who had studied on vocationally-oriented programmes had a job which was largely within the vocational field for which the programme was aimed. There was no difference in this connection between women and men. Many who had studied on the Health Care programme had a job for which the education was intended. Those who had studied on the Media programme had the greatest difficulty in gaining employment within the appropriate vocational field.

Approx. 40 % of those who completed upper secondary school in 1996 and who were in employment in 1997 had a permanent job. The percentage in permanent employment was lower among women (37 %) than among men (48 %). About 1 % of those who had employment were self-employed. The other 60 % had temporary or other jobs limited in time. In recent years the percentage of temporary workers has increased at the expense of permanent positions.

5 % of both men and women who completed upper secondary education in 1996 were unemployed in March 1997. In addition, 18 % of the women and 8 % of the men took part in employment market initiatives on the same date. Of those who took part in initiatives, 60 % considered that their chances of obtaining permanent employment within five years were quite good or very good. The remaining 40 % believed that their chances were quite small or very small.

Those who were already in employment, but also those who studied at universities and colleges, had a more positive view of the future and their opportunity to gain employment. Approx. 70 % of the women and 80 % of the men believed that the opportunity to obtain work within five years was quite good or very good.

In March 1997, 42 % of the women and 25 % of men who completed upper secondary school in 1996 were undertaking some form of education. Just over 20 % of the women and 10 % of men were studying at university or college. The second most common form of study was local authority adult education (komvux) where 10 % of the women and 5 % of the men were studying.

In addition to the 20 % of women and 10 % of men who had already studied at university or college, 51 % of women and 37 % of men intended to start tertiary level studies within the next five years. The interest for higher education was greatest among those who had studied on the natural sciences or social sciences programmes.

One project within the Federation of Swedish Industries which was carried out in 1996, "*The supply of knowledge and skills*", with the aim of analysing and proposing measures for skills and knowledge requirements of companies in the long-term, has presented the following experiences in a sub-report which is called "*Assessing and planning companies' knowledge and skills*". It is evident that the companies which say that they are satisfied with their supply of knowledge and skills are those which have ongoing and co-operative contact with schools, and universities and colleges. The effects of these efforts are long-term and general. Companies which open their doors for vacation work practice, exam project work and similar obtain short-term and very obvious results.

A pilot study from the National Agency for Education, *The upper secondary school, consumers and the knowledge and skills of young people*, indicates that only four out of ten young people three years after the end of their education are employed within the vocations for which their education was intended. The study covers the private service sector, commerce, hotel and catering, and tourism. According to this study, the majority of young people and employers have a similar opinion, i.e. that the education is badly suited to the vocation in question. Conversely, barely half considered that the education was quite well-suited or very appropriate. Both employers and young people demanded more and better opportunities for work experience and support with regard to study and vocational guidance.

According to the study, the majority of employers believed that the education was not very appropriate for the work. Barely half considered that the education was quite well-suited or very appropriate. The employers also believed that the students should receive more and better work experience and that they ought to have greater self-confidence. They emphasised the importance of the right personal qualities in the work situation, a good self-confidence level and the significance of the school in developing these.

Some of the employers offered opinions on the school's work methods and believed that the school ought to find new methods of stimulating the students' learning and inquisitiveness.

Universities and colleges and vocational education

Besides the upper secondary school vocationally-oriented education, the major part of vocational education takes place within tertiary level education. Universities and colleges provide both courses which the students can choose freely among and which end in a general degree qualification: bachelor, master and other degree-level qualification. The courses can also be organised in a fixed programme which concludes with a special vocational qualification. These may be shorter vocational courses such as e.g. education for technicians which covers study over two years or more traditional longer vocational education, such as medical or veterinary studies; both of which are over five and a half years.

As the Swedish labour market is not regulated, it is not unusual that students break off their undergraduate studies before they have finished their degree in order to start work. Relatively few career fields in Sweden require a degree certificate in order to enter the employment market. The incidence of degrees is higher in fields where this is required, e.g. careers within the health service.

There is a tendency that the prevalence of degrees has fallen during the recent the survey period; from 67 % of students who received their degrees within five years of beginning their studies in 1979/80 to 55 % for students who began their studies in 1989/90. The survey period corresponds, however, with the period when the previous line system was still in force, which is why comparison with the present situation is difficult. The current qualification system was introduced in 1993.

Furthermore, statistics indicating the incidence of degrees are affected by the large number of students who choose individual courses. This category of student completes a degree qualification less frequently. The degree pattern is not unambiguous even though some characteristics are evident. The incidence of degrees also varies between the sexes in the favour of women students. This may also depend on the fact that women choose vocations where a degree is required in order to attain qualification for the profession, e.g. within the health and teaching professions. The younger students also achieve a degree earlier.

It is sometimes stated that students tend to remain in further education studies longer today due, among other things, to employment market conditions. However, it is the case for some student groups that they are recruited to jobs before they have completed their degree. This applies for example to certain teachers in metropolitan areas and graduate engineers who specialise in information technology and systems analysis.

At present the demand for employees with natural science and technical education is very high. The main focus in the expansion of higher education between 1997-2000 lies within the fields of natural science and technology. The number of graduate and postgraduate engineers from colleges and universities will be doubled during the 1993-99 period from 4,500 to 9,000.

The development of knowledge and skills within the technical fields is increasing very rapidly. Representatives from business and industry, therefore, often call for the education of more graduate engineers. In addition, both industry and students are demanding changes in skills and knowledge. In spring 1996, the Government allocated the task of developing and updating engineering education to Linköping University in co-operation with other universities and colleges. The project will continue until 1st March 1999.

One element in recruiting students to natural science education has been to introduce a natural science foundation year. This has provided the opportunity for preparatory studies in mathematics and natural science subjects for students from non-natural science-based upper secondary school programmes. This is organised both by the universities and colleges, and also by the local authority adult education. In 1996/97, there were 3,100 foundation-year places and 4,000 places within local authority adult education.

In 1995 Parliament adopted a resolution to provide the opportunity for 9,000 students to study technology or natural science courses with a favourable study finance arrangement. The National Agency for Higher Education has had the task of following-up this arrangement and submitted a report as recently as December 1997. The report indicates that the interest for this education has been very high and all the places have been taken. According to the conclusions of the National Agency for Higher Education, the experience and results from this NT education are in the main positive.

The universities and colleges' co-operation with external society

Co-operation with the external society is, in addition to education and research, the most important task of tertiary education institutions. This has been emphasised in the Higher Education Act. Tertiary education is dependent upon this external stimulation. Knowledge grows, in addition to within the scientific system, also as a response to questions and problems which are formulated from outside science – in general, by companies, organisations, media and ordinary people. Universities and colleges are increasing their contact with business and industry – for example through more sandwich training, more practical experience and more lecturers with experience of the world outside the higher education environment. With these contacts, the skills and knowledge required by business and industry and society in general are noted very quickly.

3.3 The labour market

During the 1990s it has become increasingly difficult to gain employment after education. The difficulty is greatest for those who have left compulsory or upper secondary school, but it has also become tougher to gain a foothold in the employment market for those with a university or college qualification. Among those who completed upper secondary education in 1989, 70 % were in employment a year later while the corresponding figure for 1994 had fallen to 36 %. The equivalent figures for those with a higher education qualification were 86 % and 74 %.

The number of those in permanent employment has fallen during the 1990s. At the same time the number of temporary workers and those outside the workforce has increased. This may be a sign that we are on the road to a different employment market, where a lesser number than previously have a secure foothold in working life and where increasing numbers enter and exit the labour market with various fixed-term employment contracts.

Problems in the employment market during recent years have affected young people to a very great extent. In the 20-24 age group, 70,000 more women and nearly 80,000 more men would have been in employment in 1995 if the percentage of those employed had remained at the 1990 level. The pattern for women and men is very similar up to about the age of 45 years old, but then women have managed better than men after reaching that age.

Rationalisation, restructuring and shutdowns within industry and the construction business have affected all age groups, while the reduction in the numbers employed in the health and care sector has probably

primarily meant that recruitment of new personnel has fallen drastically. The average age of those employed within this sector has therefore risen by 2.5 years between 1990 and 1995.

For both men and women, those with only compulsory level education have experienced the greatest reduction in the percentage in employment. It is not only the younger people who have recently entered the labour market who have had problems. The downturn in the business cycle has also had a hard effect on those who were already established in the labour market in 1990, with a high level of unemployment as a consequence. It is primarily among those with limited education that the number in employment has fallen, both within industry and the construction sector as well as the public sector. Care assistants and assistant nurses have had to make way for nurses. Within childcare pre-school teachers have been appointed instead of nursery nurses.

The situation is particularly difficult for young immigrants. Seven years after leaving the compulsory school, one in four young people with a foreign background have not completed any further education programme. Many are unemployed and among those who are in employment fewer have a job within the vocational field for which their education was intended.

Seven years after the end of compulsory school, 25 % of the young people with a foreign background had only compulsory level education or short special courses as their highest educational qualification. In the majority of cases the short special course was a so-called ITK course (Introductory course for immigrants). The corresponding percentage of those with limited education among young people in general was 16 %. The situation in the employment market does not allow young people to obtain employment straight after completing compulsory school. One of the most important initiatives against unemployment has therefore been to increase the number of education places available. This has also meant that the percentage of those studying has risen considerably. Many of those with limited education now have the opportunity to supplement their education, at the same time as the number of higher education places has been increased. The extension of the two-year upper secondary education to three years has also contributed to a growing percentage of young people who are studying. Never before have so many young people been undertaking education as at present. Those who are outside the educational system are covered by the responsibility of the local authorities for following-up young people up to the age of 24. This percentage has, due to the economic downturn, been high (approx. 6-7 %) during the 1990s.

Legislation and the downturn in the employment market

It is stated sometimes that legislation governing the employment market constitutes an obstacle to reducing unemployment through new recruitment in companies and the public sector. With regard to the recruitment of young people, it is sometimes referred to the fact that high initial wage levels and the right to reemployment for staff who have been laid off previously can constitute an obstacle for young people to gain employment.

There are however examples of sector-specific agreements which make it easier for young people to gain employment in order to complete their training after leaving upper secondary school. Where these agreements have been entered into, the intention is to provide young people with the opportunity to complete their training within the vocational field after leaving upper secondary school. The aim is that they will remain in the industry or business sector in which they were trained and that they will obtain their first job after the end of their training.

The demand for trained labour – a bottleneck problem

It is important in the present economic upturn which Sweden is experiencing to counteract the emergence of skills shortages.

Society and business and industry – the consumers – have a common responsibility for ensuring that the recruitment requirement for certain vocational fields can be met. Co-operation between tertiary education and the external society provides the opportunity to adopt a greater long-term perspective and common view in the assessment of certain labour force requirements.

There are however signals that various forms of labour shortages have occurred or will arise in the near future. On the basis of the various reports which are currently available, the conclusion can safely be made that there is a significant national labour shortage for certain occupational groups.

These shortages affect various types of computer personnel, technicians and teachers. The shortage of personnel within the IT field applies primarily to system analysts, programmers, computer engineers and IT co-ordinators. The shortage of engineers is primarily with regard to postgraduate and graduate engineers within the electronics and computing, mechanical/machinery, chemical and road construction and water fields. The shortage of teachers concerns primarily natural science and language teachers in upper secondary schools and compulsory school teachers for years 4-9. The greatest need is for natural science and technology teachers.

It can also be concluded from the existing reports that there are regional and local shortages which are not as significant at national level. For example, there is currently a shortage of certain categories of skilled workers within manufacturing industry in the industrial areas in south and mid-Sweden.

Everything points to a continued very high demand in the coming years for various types of IT personnel, engineers and teachers.

Analyses by the Federation of Swedish County Councils indicate that within a few years there will be a national shortage of health care assistants/assistant nurses in local authorities and county councils. The analyses also indicate that the supply of doctors is currently in balance, but that a shortage will arise a few years into the new millennium as a result of retirements. Already today there are shortages within certain occupations within the health and care sector. The number of newly-registered vacant jobs is increasing rapidly while full-time unemployment is falling. The Government has appointed a commission with the task of investigating recruitment requirements and to propose measures to facilitate recruitment to the health and care sector. The Swedish Association of Local Authorities reports that during the period between 1995-2005 around 50 % of school staff will need to be recruited (recruitment requirement approx. 80,000 yearly employees), as will around 60 % of personnel within care services for the elderly and the handicapped (approx. 90,000 yearly employees) and approx. 50 % of the personnel within other local authority services (around 60,000 yearly employees).

The National Labour Market Board (AMS) describes the development in various scenarios up until and including the year 2003. According to AMS, there are a number of common trends. New jobs are arising primarily within the private service sector. According to AMS, young people will be favoured in the labour market as the average age at many workplaces is high. During the next few years it will be chiefly jobs which are dominated by men which will arise. However, in the next decade, women will have a successively better employment market as a consequence of the fact that they have a better level of education than men, e.g. two-thirds of those studying in the "Adult Education Initiative" project are

women. According to AMS, more educational places will be required in future in order to counteract the shortages within the technology, computing and teaching fields.

From a social perspective, in the short and medium term there are two comprehensive risks associated with various types of labour shortages. There is a risk that a more widespread shortage situation will lead to such wage increases that they will have negative consequences for growth and thereby for the opportunities for increased employment. Another risk is that shortage situations within the public sector can also lead to losses in welfare. In the long-term, shortages of various types of labour may lead to a negative effect on the national economy from other causes than those reported above. An example of this can be that Sweden is losing new business start-ups because the need for labour with the right skills and knowledge cannot be met.

University and college qualifications

Students have varying degrees of difficulty in obtaining employment depending on their study specialisation. University qualifications and the transition to employment will be reported in a joint consumer study for the National Agency for Higher Education and the National Agency for Education. This study is a prerequisite of the OECD-INES project, Network D. A report of the Swedish study is planned for the beginning of 1999.

The development of skills and knowledge in working life

The development of skills and knowledge in working life has great importance for the opportunities of business and industry to compete with ever tougher international competition, and for the quality of public sector activities. The success and development ability of a business are dependent upon the ability to quickly alter working methods, products and production systems, which in turn place high requirements on the skills and knowledge of the personnel and their readiness to embrace change, and the way in which the organisation of work is designed. The continual development of skills and knowledge is, at the same, time necessary in order to avoid bottlenecks in the supply of labour. Efforts for the development of knowledge and skills can for that reason have a positive effect on employment and growth.

The development of knowledge and skills is not just a question of formal education but to an increasing extent on training in the everyday work situation. This type of learning is promoted by a deliberate design for the work organisation in such a way that enables learning to be a natural element of the work. Today, the development of knowledge and skills takes place to a large extent in the work situation, which is why the company itself has the chief responsibility for the supply of skills and knowledge and the development of its employees. This is of great importance for the individual employee's effectiveness, security and well-being. Both the employee's skills and knowledge and the design of the work organisation are thereby significant factors for the development of the economy and working life.

The Government has previously emphasised the life-long learning which is a cornerstone in the struggle for a good society and against unemployment. In addition, the Government stresses in a government statement of 19 September 1997 that the development of skills and knowledge in the workplace is necessary in order to develop the employees' opportunities and the strength of business and industry in the future. The aims are threefold: to contribute to the updating of the work organisation, to stimulate the development of skills and knowledge and to facilitate the determination of wages.

In February, the Government appointed a working party for the development of skills and knowledge in working life, in which the parties in the labour market were invited to participate. The working party's task was to examine and report on the requirements for further investment in the development of skills and knowledge, and to report on the parties' common view on how such investment can be promoted and the investment that the parties are prepared to contribute. The working party would also propose systems for the development of skills and knowledge in working life, where the Government's initiatives facilitate the responsibility commitment of the parties in the labour market. The working party has, in its concluding report, proposed that the Government, the employers' associations and trade union organisations enter into an agreement which includes the provision by the Government of impetus and motivation for the development of knowledge and skills. The impetus shall lead to a qualitative and quantitative increase in vocationally-related knowledge and skills for the employees.

4. CHANGING EXPECTATIONS AND OBJECTIVES

The development of technology and the increased international integration increases the demand for well-educated employees at the same time as the opportunities of employment are shrinking for workers with limited education and poor qualifications. One of the foundation stones of Swedish employment policy is therefore a consistent investment in education and the development of skills and knowledge at all levels.

The requirements placed on job applicants have increased during the 1990s. In August 1998, employers required a higher education background for a third of the situations vacant which were registered with the employment offices. For only 10 % of the jobs was there no educational requirement.

The range of courses and students' choices in the upper secondary level school

As mentioned previously (section 2.3.6 The upper secondary school), a local authority has the obligation to provide all young people in the local authority with upper secondary education on a national, specially-designed or individual programme. The provision shall cover an all-round selection of national programmes. According to the Education Act, the number of places on the different programmes shall be adjusted to meet the wishes of the students.

Just over 40 % of students study on the natural science or social science programmes. The interest for the natural science programme increased by approx. 3 % between the 1996/97 and 1997/98 academic years.

The percentage of young women on the natural science programme in the 1997/98 academic year amounted to 41 % (Appendix 6).

Not all local authorities have an upper secondary school. In autumn 1997, upper secondary level education (including individual programmes) with a local authority as the responsible authority was provided in 279 of Sweden's 288 local authority areas. However, the individual programme only was provided in 62 local authorities. The majority provided education in three to nine programmes. Only a few local authorities provided education in all the programmes. However, these are presumably the largest local authorities with many upper secondary school units.

A local authority's provision of upper secondary education shall cover education which is organised within the local authority or in another local authority or county council. Two or more local authorities which together provide education in a national programme form a co-operation district. They enter into a co-operation agreement which includes an agreement for the payment of the education (inter-local authority payment). Of the qualified applicants to education in a co-operation district, those students who are resident within the co-operation district are selected first.

The student chooses the programme which he/she wishes to study. If this programme is not provided within his/her own local authority or in the co-operation district, the student has the right to apply to study on the programme in another local authority. The percentage of students who are admitted to their first-choice programme in upper secondary school has been roughly 85 % in the last three academic years.

A student also has the right to apply to an private upper secondary school. If the student is accepted, his/her own local authority is liable for the payment of the education.

The interest for higher education

Statistics Sweden carried out a study in spring 1993 on the interests of upper secondary school students in higher education. The most recent report was carried out during autumn 1997. In November 1997, almost 60 % of the students in the last year at upper secondary school (65 % of the women and half of the men) were planning to commence university or college education within three years. A quarter of the students had not yet decided.

The fact that more women than men state that they are interested in tertiary level studies is due to the fact that there are fewer women than men who choose a vocational education at upper secondary level.

Since the first study of the interests of upper secondary school students in higher education, the percentage who state that they intend to continue in higher education has increased by approx. 10 percentage points.

Many of the students who did not intend to continue in education felt tired of studying and did not want to study during the next few years. 41 % of the women and 47 % of the men stated school fatigue as the reason for not beginning university or college studies. This was a significantly smaller percentage than in the previous few years.

The majority of students in the last year at upper secondary school who were planning to start at university or college believed that a higher education was necessary in order to do well in the employment market. Four out of ten considered that a higher level education would make them more attractive in the employment market. Almost as many responded that they required the education for the career they were intending. 7 % of women and 5 % of men felt that they might as well continue with higher education since it was hard to find employment.

5. POLICY CHANGES

The central objective of economic policy in Sweden is full employment combined with healthy public finances and stable prices, economic growth and an equitable division of the general good. This is also the aim in labour market policy, the central task of which is to facilitate and improve the balance between supply and demand within the various sectors of the labour market. Employment policy aims to strengthen the whole education system at all levels and to meet the requirements of both the individual and the labour market.

Sweden has for many years placed great emphasis on the right of everyone to a good basic education. All children and young people shall have an equal opportunity for equal education of a high quality. The objective is a democratic school system which meets the changes in working life and society.

Sweden invests heavily in education in order to achieve a high growth rate and increasing employment. The foundation for society's and the individual's development is already laid at pre-school and continues in compulsory and upper secondary education. In the local authority adult education, adults with limited previous education can acquire upper secondary level qualifications in order to be better able to meet the demands of modern society and to make the most of the opportunities it offers. The opportunity for adults to achieve an upper secondary level education has increased substantially through the "Adult Education Initiative" project. At the same time a considerable expansion of tertiary level education is being carried out throughout Sweden and pilot experiments with qualified vocational education are being increased.

The basic education shall qualify students for life in a democratic society, for an evolving working life and for further studies. It is therefore important that all education at upper secondary school level provides a broad basis for personal development, further studies and lifelong learning. Therefore, the basic education must provide good opportunities for all citizens to gain employment and participate in social life. It is important to have a broad base of knowledge and a readiness to develop skills and knowledge, which means that a person's services are in demand and he/she is employable in a relative wide spectrum of employment sectors. A solid foundation for continued learning is also necessary for those who go directly from upper secondary school to employment. Today an increasing number also require a higher education qualification as a platform for skilled tasks in working life.

The Swedish employment market is characterised by a rapid rate of change and an increasingly knowledge-intensive production. This places high requirements on knowledge and skills, proficiency and flexibility. The foundation is established in pre-school and school. No-one will be allowed to leave school with deficiencies in basic knowledge. The compulsory school and upper secondary school shall provide a sufficiently good and broad base in order to stimulate mobility in the labour market and to prevent educational cul-de-sacs. Adults shall have the opportunity to acquire new knowledge and to plug gaps in their earlier education in order to increase their skills and knowledge. Independent citizens with a good degree of self-confidence provide a flexible employment market and good opportunities for the development of individuals, companies and society.

Investment in education at all levels reduces the risk of exclusion from the employment market and wider gulfs in society. School for children and young people shall prepare the way for further study. The percentage of young people who continue on to higher education needs to rise. For this reason, and for reasons of fairness, all children and young people must be guaranteed a high-quality basic education. Equivalence is a cornerstone in the Swedish educational policy. Educational policy demonstrates great belief in the individual's will and ability to choose and influence his/her education. This concerns, among other things, the opportunity through strong student and parent influence to be able to influence his/her everyday situation and his/her own school, as well as choosing which school to attend. Young people's own choice governs the upper secondary school's range of courses. The students' interest and ability to choose an education which corresponds to the requirements of the employment market has been shown to be superior to central forecasting and national determination of the size of the range of educational courses. At the same time vocational education in Sweden offers such a wide range of skills and knowledge, both for working life and further studies, that any wrong choice in relation to the immediate requirements of the employment market can be corrected through further education.

The school shall also prepare students for active citizenship. Society is becoming increasingly complex and places increasingly high demands on knowledge and skills. This applies not only to the role as a citizen and active participant in the democratic process nationally and internationally. The individual also requires greater knowledge in the role as a private individual, in order to make use of his/her rights and to live a rich cultural and social life. This aspect of education is being awarded greater significance in working life as well. Today, social and cultural skills and knowledge, together with the purely vocational requirements for skills and knowledge, are important factors in recruitment within working life. The general level of education must be adapted on an ongoing basis to the developments in society and working life.

Within the school's area, the Government is giving priority to work on reinforcing the quality of education and to ensuring equality. The most urgent investment is an increase in quality in the compulsory school so that all pupils have the opportunity to achieve the compulsory school's objectives. All pupils must acquire such knowledge that they can assert themselves well in society and acquire further knowledge through education at upper secondary level. One element of this work is the integration of pre-school, school and school child care services. The aim of the integration is to create a pedagogical unit which strengthens children's development and learning from an early age. Another urgent issue is to increase the number of students within the technical and natural science fields. The decentralised system with goals and results steering requires a heavy emphasis on follow-up, evaluation and quality assurance at all levels. Greater emphasis is being placed on active quality efforts at every school and in every local authority.

All adults – unemployed and employed – shall be given real opportunities to update and improve their knowledge and skills on an ongoing basis. Adult education must be so flexible and adaptable that it can meet each individual's prerequisites and requirements at the same time as its content is at the same level as in the compulsory school. The updating of adult education has been started within the framework of the "Adult Education Initiative" project.

Ten point action programme for quality and equivalence in the school

In April 1998, the Government presented a ten point programme for quality and equivalence in the school. Through this, work is continuing on reinforcing quality and equivalence in the school in accordance with the direction in the national development plan. Special effort is being made so that the national objectives will be achieved in all schools. Quality control is being strengthened at central and local level. A National Agency for Education inspection committee is being established. A strategic investment is being made in

an ICT programme for the school. SEK 1.5 billion is being invested over a three-year period to strengthen ICT in the school. The schools' task to provide an equivalent education for all pupils embraces a compensatory issue of fairness – to provide all pupils with knowledge and skills in order to utilise ICT as a preparation for working life. The school has a special responsibility to counteract the emergence of new knowledge gulfs between those who have access to ICT in the home environment and those who do not. All young people leaving school must have basic skills and knowledge in order to be able to use the computer as a modern information tool.

The new technology alters the conditions for learning, which affect the school. ICT is a pedagogical tool which can contribute to developing pupil-interactive work methods and to updating education. The classroom is expanded by means of access through ICT to vast extensive information sources. However, the huge range of information places demands on pupils that they are able to formulate problems and to do so critically so that they can distinguish the relevant information. The skills and knowledge of teachers with regard to the use of ICT in pedagogical activities has great importance for the development of learning in the school.

The school shall be opened up to business and industry so that definite forms of co-operation can be introduced with the parties in the labour market. The local business and industry shall have greater opportunities to participate in upper secondary school education.

Government bill – The upper secondary school under development

The Government has stated priority areas for 1997/98-98/99 in the national development plan. For the upper secondary level this includes developing the quality of programmes with vocational subjects. In May 1998, the Government presented a bill concerning the upper secondary school (bill 1997/98:169) which contained proposals aimed at raising the quality in education; e.g. strengthening the links between business and industry and the upper secondary school. Co-operation that works well between business and industry and the upper secondary school is a prerequisite for the school's ability to be able to provide an education with the required relevance and quality. Therefore, it is important that the involvement of business and industry in upper secondary level education is increased. Co-operation between school and working life must be developed in order to increase the quality levels in all upper secondary level education; in vocational education in particular. Special bodies for co-operation in defined forms, e.g. programme committees, should be established in every upper secondary school. The Government intends to appoint a special group, which will include the parties in the labour market, with the task of throwing light on the way co-operation between school and working life can be further developed.

The introduction of a technological programme was proposed from and including autumn 2000, but the introduction of the programme should be implemented in the form of a number of pilot projects starting in autumn 1998. This research activity aims, among other things, to test various forms for the involvement of business and industry in upper secondary level education and to create the conditions for a quality-guaranteed expansion of a technological programme. The programme aims to broaden the range within the natural science and technological sectors and to increase the percentage of students within these fields. The programme shall have many and diversified specialisations; both classic technical specialisations and specialisations within new technological fields, e.g. energy, environment, information technology, medical technology, media technology and biotechnology.

During autumn 2000, a new modern apprentice education will be introduced as an alternative study route within national programmes involving vocational subjects. Experience from the research project which is now in progress with pilot projects shall be taken into account in the final design of the education.

The objective is that all young people shall have an upper secondary level education. Therefore, the upper secondary school should develop flexible alternatives which support this objective. For young people who for a variety of reasons do not begin a national or individual programme straight after compulsory school, the individual programme provides the conditions to go on and complete such studies. It may be more stimulating for some students to combine work experience with studies in vocational subjects immediately following compulsory school. Individual programmes with a programme specialisation, where the student can combine work experience and courses at compulsory school level with courses at upper secondary level and APU for then to transfer at a later date to a national programme, should be provided for those pupils who are not qualified for national programmes.

The students' influence on school activities must be developed. They must be given the opportunity to influence their own learning and thereby be able to assume responsibility for their education. Responsibility and influence go hand in hand. A person who has influence is also prepared to take responsibility, while a person who is not granted any influence cannot simply feel a deeper responsibility. The importance of students' responsibility and influence is emphasised in the curriculum, which establishes that the democratic principles of being able to influence, participate and assume responsibility shall encompass all students. The Education Act also enjoins all those who work in school to work for democratic ways of working. Despite this, the studies by the National Agency for Education among others indicate that students themselves consider that they have little influence in the upper secondary school. The students must have influence over their everyday situation, not only for democratic reasons, but also because participation is an important prerequisite for learning.

Budget proposal for 1999

The school's task is to ensure that all students acquire the basic skills and knowledge which are a must in today's society. Gaps which arise in the basic education are both difficult and expensive to repair later in life. Therefore, the work must be intensified to improve and ensure the quality of education in all types of school and at all levels. Therefore special efforts must also be made to reduce the percentage of students who leave basic compulsory education with incomplete qualifications.

Work on reforming and updating adult education is an important element in the "Adult Education Initiative" project. Greater weight will be placed on the development of the content, pedagogy and work methods. Special attention will be paid to the development of distance learning and work on reaching new groups.

The important changes include the development of research at all universities and colleges and continued efforts to provide the opportunity of higher education to more students.

5.1 The policy formation process

Sweden's form of government is a representative and parliamentary democracy, i.e. the Government and its policy shall have the trust of Parliament – the popularly elected. Parliament establishes laws and determines government income and expenditure. This means, among other things, that the Government presents proposals to Parliament in the form of bills and determines rules and regulations to carry parliamentary resolutions into effect. Furthermore, the Government controls the funds which Parliament allocates in the budget for various purposes and controls government activity, and supervises the operations of administrative authorities and in some cases examines appeals against the decisions of

national agencies. An important task of Parliament is to check that parliamentary resolutions are effected by the Government and the national agencies.

The members of the Government, the prime minister and the other cabinet ministers work for a common political programme. Normally, cabinet ministers are elected members of parliament. When members of parliament are appointed cabinet ministers, their deputies look after their parliamentary business. The Government is a collective based around the prime minister.

The Government has a staff of civil servants at its disposal. This staff comprises nearly 2,000 persons, excluding the Ministry for Foreign Affairs. They are assembled in a government office, where the ministries form the framework.

Government committees or commissions are often appointed in order to facilitate the Government's work in planning and implementing initiatives. A committee can consist of members of parliament from different parties, representatives of trade organisations, experienced officials, specialists on various issues etc. The Government issues directives for each committee's work. The committee investigates and then presents its findings or proposals to the Government.

Ministries and national agencies

Parliament and the Government have the overall responsibility for the state financed education system. A characteristic of the Swedish administrative system is the division of responsibility between the ministries and national agencies. Ministries are relatively small, comprising an average of 150 staff, and prepare and process the Government's bills and resolutions. National agencies have the task of working in various ways for the achievement of national objectives and for ensuring regulations are applied correctly. The agencies take decisions on their own responsibility in accordance with regulations and guidelines from Parliament and the Government.

Nearly all education – pre-school, pre-school class, compulsory school, Sami school, special school, upper secondary school, adult education and higher education and research – belong to the field of responsibility of the Ministry of Education and Science.

The administration authorities within the educational field are the National Agency for Education, the Swedish Agency for Special Education (SIH), the National Agency for Higher Education and the National Agency for Services to Universities and University Colleges (VHS).

The National Agency for Education has the task of following-up and evaluating the school, developing and supporting the quality assurance in the school, exercising supervision of the education and contributing to the development of the school. The National Agency has a co-ordinating responsibility for research and the school system, and is responsible for national school principal training and providing strategic support for the further education of teachers.

SIH's task is to facilitate school attendance for students with a disability by providing advice and support and by developing and adapting teaching aids. SIH provides free of charge specialised pedagogical support to the local authorities' school and childcare services and the independent schools which are under state supervision.

The National Agency for Higher Education is the central agency for activities in universities and colleges. The National Agency has responsibility for following-up and supervising university activities. An impor-

tant task of the agency is to examine and assess the level of quality at universities and colleges. The Government continually allocates investigation assignments to the agency.

The National Agency for Services to Universities and University Colleges shall, at the request of the universities and colleges, assist with the admission of students and with purchasing, primarily of equipment.

The parties and trade organisations in the labour market

Issues on education and work are looked after and developed not least by the trade union organisations and equally by the organisations on the employers' side. It is primarily the central organisations which have a major interest in issues of this type: Swedish Trade Union Confederation (LO), Swedish Confederation of Professional Associations (SACO), Confederation of Professional Employees (TCO) and the Swedish Employers' Confederation (SAF). It is therefore normal that these organisations are reporting instances for official studies within the field.

Through the fact that local authorities and county councils are the responsible authorities for the state school system, their organisations – the Swedish Association of Local Authorities and the Federation of Swedish County Councils – have great importance in the policy-making process.

Other important reporting instances in educational issues are for example the Swedish Teacher's Union, the National Swedish Federation of Teachers (LR), the Association of Head Teachers and Director of Education, the School Student Union of Sweden, Home and School in Sweden and the National Swedish Association of Independent Schools.

Mass media

The role of the mass media in the policy-making process within the educational field has become more evident during the last year, among other things as a consequence of the fact that issues on schools and education have become a high-priority political issue.

5.2 Monitoring and research

Follow-up and assessment

The state has the overall responsibility for supervision, follow-up and assessment of the pre-school, school and higher education. From 1994 the responsibility for the information in the official statistics have been partly with the Statistics Sweden (SCB), and partly with other national agencies including the National Agency for Education and the National Agency for Higher Education. State responsibility for national assessment is exercised by the agencies in their respective fields.

When the National Agency for Education was formed on 1 July 1991, the agency was given responsibility for the national follow-up and assessment of the state school system for children, young people and adults. From and including 1 January 1998, the agency has assumed this responsibility within the pre-school area from the National Board of Health and Welfare. The National Agency for Higher Education is responsible for assessment, follow-up and analysis at national level within the tertiary education field. The National Labour Market Board (AMS) is responsible for the national labour market statistics. The National Board

for Youth Affairs is an agency whose tasks include assessing youth activities and spreading knowledge on the conditions for young people.

Various trade organisations and trade union organisations also compile information within their respective fields of interest.

Research

The National Agency for Education controls state funds which are used for research within the school system. Funds are paid in the form of grants to universities and colleges for special research assignments. Funds for educational research concerning the universities and colleges are distributed primarily by the Council for Research in the Humanities and Social Sciences and the Central Bank of Sweden's Jubilee Fund. The National Agency for Higher Education shall, within its mandate, convey the research results back to the activities of the universities and colleges.

REFERENCES

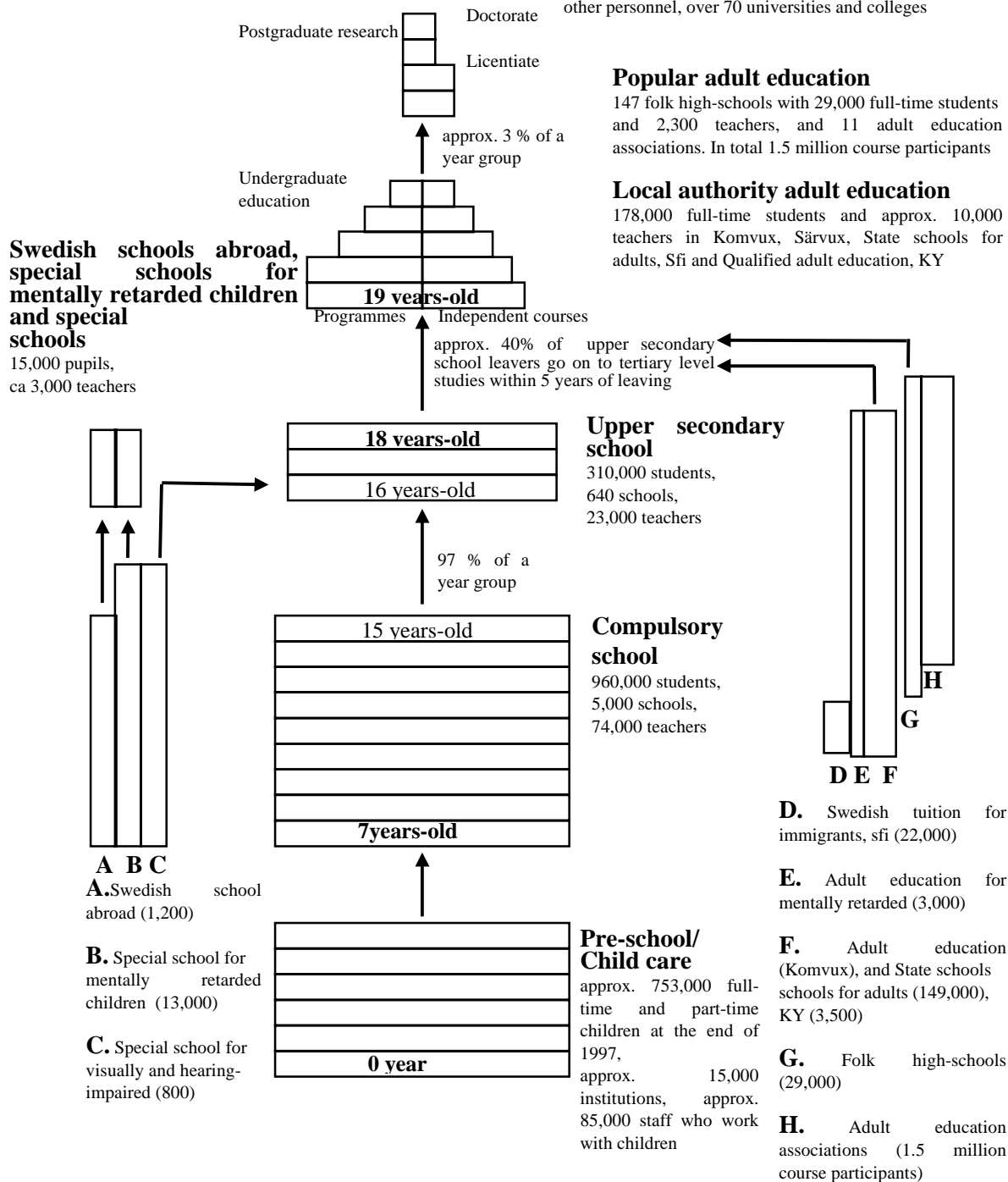
- Arbetskraftsbarometern 97. Information om utbildning och arbetsmarknad 1997:4, SCB
- Avgångna från gymnasieskolans program, SCB (U 83 SM 9701)
- Budgetpropositionen för år 1997 (prop. 1996/97:1)
- Budgetpropositionen för år 1998 (prop. 1997/98:1)
- Budgetpropositionen för år 1999 (prop. 1998/99 Budgetpropositionen för år 1998 (prop. 1997/98:1):1)
- Gymnasieskolan, avnämarna och ungdomars kompetens, Skolverket juni 1997
- Inträdet på arbetsmarknaden, SCB (U83 SM 9601)
- Lärandets verktyg – nationellt program för IT i skolan (skr. 1997/98:176)
- Proposition 1990/91:85 Växa med kunskaper
- Proposition 1997/98:6 Förskoleklass och andra skollagsfrågor
- Proposition 1997/98:150 1998 års ekonomiska vårproposition
- Proposition 1997/98:169 Gymnasieskola i utveckling – kvalitet och likvärdighet
- Resultat från en kunskapsmätning 1995, rapport nr 139 Skolverket
- Samverkan skola – arbetsliv, rapport nr 150 Skolverket
- Skolan i siffror 1998: Del 2, rapport nr 148 Skolverket
- Skolan – Jämförelsetal för skolhuvudmän, delrapport mars 1998, Skolverket
- Slutbetygen i gymnasieskolan vårterminen 1998 (dnr 1998:2151), Skolverket
- Statistisk årsbok 98, SCB
- Svensk ungdomsstatistik, Ungdomsstyrelsen 1997
- Tre städer – En storstadspolitik för hela landet (SOU 1998:25)
- Utanför arbetslivet. Information om utbildning och arbetsmarknad 1997:6, SCB
- Utvecklingsplan för förskola, skola och vuxenutbildning – Kvalitet och likvärdighet (skr. 1996/97:112)

Övergång gymnasieskola – högskola. Gymnasieungdomars studieintresse läsåret 1997/98. Statistiska meddelanden U 36 SM 9801, SCB

Övergång utbildning-arbete för utbildade inom teknik, ekonomi och vård. Information om utbildning och arbetsmarknad 1997:5, SCB.

Appendix 1. Sweden's educational system

(Information concerning the 1997 budget year or 1996/97 academic year)



Universities and colleges

Just over 260,000 full-time students of which 250,000 were undergraduates, 21,000 lecturers and researchers, 7,000 in post-graduate research service and 17,000 other personnel, over 70 universities and colleges

Popular adult education

147 folk high-schools with 29,000 full-time students and 2,300 teachers, and 11 adult education associations. In total 1.5 million course participants

Local authority adult education

178,000 full-time students and approx. 10,000 teachers in Komvux, Särvox, State schools for adults, Sfi and Qualified adult education, KY

Personnel and student figures concern full-time equivalents (annual study places etc.) if not otherwise stated. **Education/training which is not included in the statistics includes:** Police Academy, military education, labour market and personnel education (estimated at approx. 200,000 full-time students).

Appendix 2. Timetable for compulsory school

Swedish	1,490 hours
English	480 hours
Mathematics	900 hours
Geography, History, Religion and Social Studies (in total)	885 hours
Biology, Physics, Chemistry, Technology (in total)	800 hours
Art	230 hours
Domestic Science	118 hours
Sport and health	500 hours
Music	230 hours
Handicraft	330 hours
Language options	320 hours
Pupil options	382 hours
Of which school's options	600 hours
Total hours, minimum guaranteed educational time	6,665 hours

Appendix 3. National programmes and branches in the upper secondary school

<i>Programme</i>	<i>Branches</i>
<i>The Child Recreation Programme</i> For work within e.g. childcare, leisure activities, keep-fit, sports and libraries.	
<i>The Construction Programme</i> For work within the construction sector with house building and construction, e.g. roads and highways.	<ul style="list-style-type: none">- Constructional metal work- Painting- Building and construction
<i>The Electrical Engineering Programme</i> For work within installation, repairs and maintenance of electrical, telecommunications and electronic equipment.	<ul style="list-style-type: none">- Automation- Electronics- Installation
<i>The Energy Programme</i> For work in energy-technical plant, e.g. power stations and energy companies, heating, ventilation and sanitation installation and work aboard ship.	<ul style="list-style-type: none">- Energy- Marine engineering- Heating, ventilation and sanitation
<i>The Arts Programme</i> Broad basic education for work within artistic activities.	<ul style="list-style-type: none">- Art and design- Music- Dance and theatre
<i>The Vehicle Engineering Programme</i> For work with repairs and maintenance of cars, trucks and machinery.	<ul style="list-style-type: none">- Aircraft engineering- Coachwork- Vehicle engineering- Transport
<i>The Business and Administration Programme</i> For work within commercial and administrative tasks within the public and private sectors.	
<i>The Handicraft Programme</i> For work within various craft occupations. A large part of the education is based outside the school environment and in the workplace.	
<i>The Hotel, Restaurant and Catering Programme</i> For work as for example, a receptionist, conference host, waiting staff or cook.	<ul style="list-style-type: none">- Hotel- Restaurant- Mass catering

The Industrial Programme

For work within industrial production which includes programming and processing with computer-controlled machinery.

- Industry
- Process industries
- Timber industry
- Textile and clothing manufacture

The Food Programme

For work within the production and sales of food products.

- Bakery and confection
- Fresh and cured meats

The Media Programme

For work within advertising and graphic design and print production.

- Information and advertising
- Graphic media

The Natural Resource Use Programme

For work within agriculture, forestry, gardening or with animals.

The Natural Science Programme

Aimed at further studies in mathematics, natural sciences and technology among others.

- Scientific
- Technological

The Health Care Programme

For work with people in all ages within the health and care sectors and dental care.

- Health care
- Dental nursing

The Social Science Programme - Economics

Aimed at further studies in social science subjects, economics and languages.

- Liberal arts
- Social sciences

Appendix 4. The upper secondary school core subjects

<i>Core subjects</i>	<i>National values for the extent of the education in hours for all programmes</i>
Swedish/Swedish as a second language	200
Mathematics	110
English	110
Social studies	90
Science	30
Religion	30
Art, music and drama	30
Sport and health	80

Appendix 5. The employment market in the 1990s (Ura 1998:5)

During the 1990s, the number of permanent jobs has fallen by almost 18 %, while the number of temporary jobs has increased so that today they account for nearly 14 % of all work (9 % in 1990). People who have begun their working life as unemployed often have problems with employment in the future, which indicates that the temporary jobs can be valuable in a transitional period. At the same time, there is a clear risk that people who alternate temporary jobs with periods of unemployment experience problems in gaining a foothold in the regular employment market in the long-term. It seems as though the rate of increase in the percentage of temporary jobs has abated somewhat now that business conditions have improved.

Type of employment	1990	1991	1992	1993	1994	1995	1996	1997
Permanent	3 632	3 580	3 384	3 219	3 020	3 042	3 040	2 989
of which part-time	821	818	795	745	711	693	652	618
Temporary	405	391	396	406	471	500	489	510
of which part-time	164	157	155	162	185	198	208	224
Self-employed and assistants	411	401	415	428	436	447	434	423
Total	4 485	4 396	4 209	3 964	3 928	3 986	3 963	3 922

Appendix 6.

The number and percentage of first-year upper secondary school students studying on programmes during academic years 1996/97 and 1997/98

Programme	Academic year 1996/97 No. of first-year students on 15 oct. %	Academic year 1997/98 No. of first-year students on 15 oct. %
Social Science	26 419 21,9	26 432 22,5
Natural Science	22 182 18,4	22 244 19,0
Child Recreation	7 456 6,2	6 105 5,2
Business and Administration	6 204 5,1	5 727 4,9
Arts	5 541 4,6	5 586 4,8
Hotel, Restaurant and Catering	5 239 4,3	5 382 4,6
Electrical Engineering	4 970 4,1	4 998 4,3
Health Care	4 321 3,6	3 686 3,1
Vehicle Engineering	4 632 3,8	4 487 3,8
Media	3 705 3,1	3 615 3,1
Industrial	3 224 2,7	2 495 2,1
Construction	2 691 2,2	2 188 1,9
Natural Resource Use	2 536 2,1	2 654 2,3
Handicraft	1 502 1,2	1 491 1,3
Energy	916 0,8	956 0,8
Food	859 0,7	798 0,7
Specially designed	4 396 3,6	5 015 4,3
Individual programmes	13 781 11,4	13 406 11,4
All programmes	120 474 100	117 265 100

Source: National Agency for Education report no. 130, The School in Statistics 1997:Part 2 and National Agency for Education report no. 148, The School in Statistics 1998:Part 1.