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Chapter III The vocational education and training (VET) system

3.1. Historical development of vocational education and training

Industrial development and shifting skill requirements in society

3.1.1.

Development from the 19th century onwards can be divided into different epochs based on employment patterns and qualifications needed by people. Agricultural society dominated up until the early part of the 20th century, but was then gradually replaced by an industrial society undergoing rapid expansion. This new development became the norm until the middle of the 20th century, dominating craft based production in Swedish industry. With the transition from an agricultural to an industrial society, the demand for competence increased. The new work tasks required a higher degree of specialist competence on the part of skilled labourers and technicians. The 'old' competence profile had been acquired as a result of long experience in work. Master craftsmen, journeymen and apprentices were terms connected with that era and the development of competence took place entirely in workshops and enterprises.

3.1.2.

Rapid industrial expansion after the second world war changed the demand for competence quite noticeably. Taylorism and the break-up of work tasks for the assembly line became the basis on which industrial expansion took place. Industry was characterised by mass production and large volumes. The specialist knowledge of craftsmen was no longer needed and industrial workers without any particular vocational skills were often recruited. In this way the demand for competence was considerably reduced in large parts of the industrial sector.

Vocational training before 1950

3.1.3.

Vocational education has a long history. In the pre-industrial society the apprentice system was the traditional way of ensuring practical skills were transferred from one generation to the next. During the 18th century mercantilist ideas on the systematic improvement of labour skills led to the establishment of the first vocational schools or education centres in Sweden. However, these schools were often of short duration. Technical schools were founded in Stockholm and Gothenburg in the early 19th century. They were originally oriented towards vocational education, but later developed into technical schools at the upper secondary level and, ultimately, technical universities.

When the guild system was abolished in 1846, apprenticeship began to lose its dominant position in vocational education. At this time, new industries demanded labour with at least elementary skills. As a consequence, a considerable number of part-time vocational schools (Sunday and evening schools) were founded from the middle of the 19th century onwards.



3.1.4.

Up to the beginning of the 20th century, vocational education depended mainly upon private initiatives. Despite these efforts, technical and commercial education in Sweden lagged behind most other European nations at the beginning of the 20th century. However, in 1918–21 several parliamentary decisions were taken concerning vocational education. They included the first regulation of vocational schools (*yrkesskolestadga*), financial support to vocational schools run by municipal boards and private institutions, and the establishment of workshop schools as well as a training institute for teachers in vocational schools. Vocational education was then supervised by the National Board of Education (*Skolöverstyrelsen*). In contrast to previous periods, the State became engaged in the provision of vocational education.

3.1.5.

The main objective was to establish a widespread system of vocational education, intended mainly for young persons with little or no education over and above primary schooling. In reality vocational education also became a way of reducing youths unemployment, with special courses being arranged for unemployed young persons. These courses, however, had few practical elements. They were dominated by lectures intended to uphold the morale of the unemployed youth, e.g. lectures on civics, trade, hygiene and occupational safety. The Swedish economy went through a severe depression in 1921–22, recording unemployment rates of 25 %. Throughout the 1920s, unemployment never dropped below 10 %. It is not surprising that the number of participants in vocational courses run by local authorities trebled in the 1920s.

3.1.6.

The depression of the 1930s did not hit Sweden as hard as most other countries, but it still caused severe unemployment, particularly among young people. In 1932, promises to combat unemployment helped the Social Democrats win the parliamentary election. As a consequence, more money was allocated to vocational education from 1933 onwards. Simultaneously, courses for the unemployed were expanded. By the end of the 1930s, however, new ideas emerged with respect to the purpose and extent of vocational education.

3.1.7.

A governmental commission on workshop schools (*Verkstadsskoleutredningen*) was appointed in 1937. In the previous year the commission on rationalisation had started its work. The latter commission came to the conclusion that existing vocational education was insufficient and partially obsolete. In particular, it was emphasised that the demands for labour skills were about to shift from manual to more intellectual skills (technical knowledge, intelligence, alertness, etc). To meet these demands, it was considered important that vocational education included general education as well as specific training. The commission on workshop schools agreed and pointed out that the organisation of vocational education needed to be strengthened. As a result, the Board of Vocational Education was established in 1944. Furthermore, central workshop schools were founded, and the capacity of municipal and private trade schools was increased.

The period from 1950 to 1990

3.1.8.

In the aftermath of the Second World War, the entire educational system in Sweden was thoroughly reviewed. The existing system was considered inadequate and obsolete, particularly in its inability to function as a 'vehicle of change'. By providing more and better education, it was hoped that more equal participation in social, political, and cultural affairs would take place. During the 1950s, education was increasingly regarded as a vehicle of economic change. The systematic provision of skills, to young people in particular, would increase the productivity of labour, thus benefiting both individuals and society. This led to a substantial increase during the 1950s and 1960s in the resources allocated to education in general and vocational education in particular.

3.1.9.

The first consequence in vocational education was a shift of emphasis in the types of courses offered. Traditionally, the greater part of vocational education took place in part-time evening courses. These were, in many cases, considered inadequate and ill-adapted to the needs of young people with little or no experience of gainful employment. Therefore, full-time day courses were expanded from 1955 onwards. This shift in emphasis was obviously needed, as the demand for vocational education from young people, and the willingness of local authorities to meet the demand, exceeded all forecasts. The quantitative target for municipal and private trade schools (the dominant form of vocational education at the time) projected for 1970 was reached only a few years after 1955, and since then expansion has continued.

3.1.10.

In 1971, the system was changed radically. From an organisational point of view, the reform implied that vocational education, in principle, became a part of 'integrated secondary school', the other parts being, longer (3 or 4 years) and shorter (2 years) theoretical study programmes. This reform was the first step in merging the gymnasium school tradition with the ideas and culture from vocational schools in a comprehensive upper secondary school system. The municipal and private trade schools were transformed into vocational study programmes, most of them two years in duration and incorporated into the integrated secondary school. The organisational changes were justified by the need to make vocational education not only more general, making pupils more flexible in a rapidly changing labour market; but also more attractive to prospective students, not least to pupils from 'upper' social groups. Subjects with general application (e.g. Swedish, English, mathematics) were expanded in the curriculum. Partly as a consequence, the length of the education programmes was increased. The normal study programme took two years to complete, and in addition, a large number of 'special courses' of varying length were introduced.

3.1.11.

Another aspect of the reform was that a principle – all youngsters are entitled to upper secondary schooling – was stated. This implied a continued expansion, in particular of vocationally oriented study programmes. The quantitative target was reached in the early 1980s. In the late 1980s, more ambitious qualitative targets were set.



Vocational education and training as part of modern adult education

3.1.12.

Municipal adult education (*kommunal vuxenutbildning* or *komvux*) has developed out of non-formal popular adult education, from evening classes and correspondence education. Popular education was the dominating forum in which adults pursued education up to the late 1950s.

3.1.13.

Increasing demand for competence in the labour market and for higher educational qualifications among adults in order to provide access to further training became even more important when people chose their own education. This was the main reason for adult education for competence being separated from popular non-formal education, as the latter was almost never aimed at formal skills and certificates. Four main reasons for the concentration on formal adult education were mentioned in the government bill in 1967. These were:

- bridging the gap in education in society;
- creating opportunities for the individual;
- completing or supplementing education in school;
- providing the labour market with well-educated workers.

As a result of the international debate on recurrent education and lifelong learning, as well as strong demand from the trade unions, the redistribution goals in adult education policy came increasingly to the forefront. The government bill for education in 1971 stressed that the bridging goal for adult education was to reduce differences in the standards of living. The ongoing reforms during the 1970s also clarified the financial conditions for adults to take part in education. Education policy maintained through legislation the right to leave of absence for study purposes and various forms of study assistance, giving priority to those with poor or insufficient education. During the first part of the 1970s, basic adult education was provided for adults with insufficient knowledge and skills in reading, writing or mathematics.

3.1.14.

The ongoing changes in work organisation and working life during the 1980s with increasing demand for competence among workers led to rapid growth in in-company or personnel training i.e. education which is organised, and/or paid for, by employers' organisations or commissioned for employees. The in-house training provided by companies and public authorities expanded faster than any other form of adult education during the 1980s. In 1992, roughly 1.5 million employees or 35 % of the total number of employees received some form of in-house training. The figures for 1993 showed a considerable decline to 23 %, mainly due to increasing unemployment. In 1995, however, around 40 % of the labour force participated in in-company training.

3.1.15.

Employment training (*arbetsmarknadsutbildning*) (for definition, see Annex 4) forms part of an active labour market policy aimed at reducing unemployment, promoting economic growth and supporting disadvantaged groups. This form of training was created in the 1950s, but it developed mainly during the 1960s and 1970s. During that period some 100 training centres were built in various parts of the country in order to meet the need for employment training. Parliament and government allocate funds for labour market policy programmes through the national budget. One third of this allocation is applied to employment training.

Employment training primarily takes the form of courses purchased by county labour market boards or an employment office. County labour market boards and employment offices plan their purchase of employment training with reference to the needs of the labour market and their knowledge as to which job seekers have difficulty in finding work.

Educational leave

3.1.16.

The 1975 Educational Leave Act (*lagen 1974:981 om arbetstagares rätt till ledighet för utbildning*) states that all employees are entitled to leave of absence for studies which normally can only be pursued during working hours. The act entitles an employee to leave of absence if he or she has been working for the same employer for the past six months or for a total of 12 months in the past two years. The employee is entitled to trade union education regardless of standing. The choice of study programme rests entirely with the individual; nor are there any restrictions on the duration of studies. Studying privately (i.e. without being at an educational institution) as such, however, does not come within the purview of the act. The right to educational leave is distinguished from entitlement to financial compensation. This means that, once educational leave has been awarded, the employee must either obtain compensation for loss of earnings by special agreement with the employer or else apply for financial compensation through, for example, the adult study assistance scheme. The act does not lay down any rules concerning employment benefits during educational leave. In other words no pay or other financial benefits are guaranteed. On the other hand, there are job security rules applying to persons exercising their right to leave of absence. The act also includes provisions concerning the rights of people wishing to discontinue their studies to return to work.

Stronger links between vocational and popular education

3.1.17.

Traditionally, there have been quite distinct profiles for vocational and popular adult education. The role of popular education is to enhance the individual's personal development, to strengthen democracy and to support cultural development, while vocational education promoted more occupationally defined goals. During the early 1990s, new resources were allocated to popular adult education to provide new courses and alternative horizons for adults who were unemployed or temporarily redundant. This background justifies the inclusion of popular adult education in a report on CVT in Sweden.

3.1.18.

Popular adult education comprises studies at folk high schools (*folkhögskolor*) or residential colleges for adults or studies, usually in the form of study circles, under the aegis of adult education associations. A declared objective of popular education is to develop basic democratic values in society by giving all citizens the opportunity of developing their general knowledge and skills, strengthening their self-confidence and increasing their understanding and respect for the opinions of other people. Popular education activities are partly State subsidised, but the various organisers are at complete liberty to decide the focus and content of the activities



themselves. There are no curricula or syllabuses formulated by external bodies, nor are certificates issued in this type of education.

3.1.19.

Residential adult colleges – folk high schools – are Sweden's oldest form of adult education. The first school was founded in 1868 as a means of providing landowners with the education needed to discharge various public responsibilities. About half of the over 130 schools are run by popular movements, such as the labour movement, the temperance movement and various free church denominations. The others are operated by municipalities and county councils. All folk high schools organise long- as well as short-term courses and many schools offer special courses in a particular subject field, e.g. drama, music, immigrant studies or youth leadership. Certain courses confer eligibility for post-secondary education. Candidates for folk high school must be at least 18 years old and must have completed compulsory school or its equivalent. Tuition is free of charge but students pay their own board and lodging.

3.1.20.

Commissioned education is a relatively new element in Swedish education. Initially it was the universities and university colleges that were given the opportunity of providing education on a commercial basis. During the 1980s, similar conditions were created for general adult education as well. In 1986, however, a statutory amendment made it possible for local education authorities, folk high schools and the adult education associations to sell general or customised education to companies, organisations and other interests. The educational activities thus provided must be fully paid for by the customer and not be State-subsidised nor may commissioned education detract from the availability or development of normal educational activities.

3.2. Initial vocational education and training (IVT)

Reforming initial vocational education

3.2.1.

The Swedish Parliament took a decision in 1991 on reforming the upper secondary school system. This reform was implemented over a five-year period that began in the academic year 1992/93.

3.2.2.

Both parliament and the government laid down in the School Act, the goals and guidelines that are to apply to all school activities. The School Act provides the framework for municipal decisions concerning the school. The curriculum and the syllabus as well as the time schedule determine the contents of activities in the school.

3.2.3.

As a result of the decision by Parliament in 1991, upper secondary education is organised in 16 nationally determined three-year programmes – 2 theoretical and 14 vocational. Thus vocational education now forms an integrated part of the upper secondary school and includes a larger number of general subjects. It also provides a broader and more general knowledge of vocational subjects.

Figure 13. Major events in the development of vocational education and training in Sweden

1842	The introduction of the <i>Folkskola</i> Act
1868	Starting of the first folk high school (<i>Folkhögskola</i>) with a combined civic and vocational character
1898	Swedish Trade Union Federation, <i>LO</i> , is organised
1902	Swedish Employers Confederation, <i>SAF</i> , is organised
1907	Study circles (<i>studiecirklar</i>) develop within popular movements
1918	Parliamentary decisions on reforming vocational education
1937	Governmental commission on workshop schools (<i>verkstadsskola</i>)
1944	National Board of Vocational Education is established and central workshop schools are set up
	Swedish Federation of Professional Employees, <i>TCO</i> , is organised
1946	Appointment of a new governmental school commission (1946 års skolkommission) for reforming youth education
1947	Swedish Confederation of Professional Associations, <i>SACO</i> , is organised
1955	New full-time vocational schools are organised
1962	Parliamentary decision on establishing nine-year comprehensive school (<i>Grundskola</i>)
1969	Widened access to higher education
	Municipal adult education (<i>Komvux</i>) is established
1970	New curriculum for upper secondary education (<i>Lgy 70</i>)
1971	First integration of VET into traditional gymnasium
1975	Act on educational leave of absence and major adult education reforms
1977	Reform of higher education, dividing it into labour market sectors
1985	Parliamentary decision on Swedish Education Act (<i>Skollagen</i>)
1991	New reform of upper secondary education (16 three-year programmes)
	Total integration of VET and traditional gymnasium
1993	New higher education reform focusing on academic values, quality of education, efficiency and increasing autonomy of universities and university colleges
1994	New curriculum for compulsory education (<i>Grundskola</i>) (<i>LPO 94</i>) and for upper secondary schools, (<i>LPF 94</i>)
1996	Introduction of advanced vocational training for employees with short formal education
1997	Adult education promotion reform (<i>Kunskapslyftet</i>) adult rights to upper secondary school programmes
	New three-year upper secondary school fully implemented

SOURCE: SWEDISH EU PROGRAMME OFFICE.



3.2.4.

Vocational education programmes are built on the basis of cooperation between the school and working life. At least 15 % of the students' total time in the vocational national programmes must be spent at a workplace. School boards are responsible for the procurement of training opportunities, and for supervision of the students during their workplace training. During this part of their education, the students have a purely student status.

3.2.5.

Vocational education should to a greater extent than hitherto provide a broad basic education within a vocational area and be oriented towards providing knowledge that is fundamental and generally relevant. The proportion of general subjects should increase and the responsibility for obtaining specialist competence be undertaken externally by companies. Teachers are always responsible for awarding grades. With the introduction of education located at the workplace, supervisors from companies will, however, play an important role in evaluating the performance of students.

3.2.6.

The emphasis on a core curriculum of Swedish, English, civics and mathematics in vocational programmes is not only an adjustment to the growing needs for knowledge and skills in working life. It is also a platform for lifelong learning and further studies at higher education level. By extending the two-year programmes to three years, initial vocational education in Sweden will be able to aim at a better integration of theory and practice as a result of this reform.

3.2.7.

Since the 1970s there has not been any general apprenticeship system in Sweden, although the social partners have established their own systems for employees after upper secondary schooling within certain branches, e. g. the building trade. In 1992 a possibility opened to integrate apprenticeship in the individual programme as a temporary measure to handle school fatigue or disaffection for certain individuals. As a pilot project apprenticeship systems will be introduced in 15 municipalities during 1998. The effect of the system is a prolongation of the period in upper secondary school to four years. During the third and fourth years the students will be apprentices at work places for a total of 500 hours.

3.2.8.

Since 1 July 1992 municipalities have been obliged, under the School Act, to provide upper secondary schooling for all pupils leaving compulsory school. This applies to all residents up to and including the first six months of the year of their 20th birthday wishing to enter upper secondary schooling. A compulsory school leaving certificate qualifies the pupil to enter upper secondary school, irrespective of the optional subjects taken at the senior level of compulsory school. However, in accordance with a decision in parliament in autumn 1993, pass grades in Swedish, English and mathematics from the compulsory school were introduced as eligibility requirements for the national programmes in the school year 1998/99. The great majority of upper secondary studies take place in schools coming under municipal control. Studies in agriculture, forestry, horticulture and certain health care occupations, however, take place in schools run by the county councils.

Participation and transition rates

3.2.9.

Of those students leaving compulsory school in spring 1995, 98 % studied in the upper secondary school in the autumn of the same year. They accounted for the major part of the students in the first year of the upper secondary school, but there were also students changing programmes in the upper secondary school. Of those starting the first year of a programme, around 90 % complete their upper secondary studies within a four-year period.

Figure 14. Completion of compulsory schooling, transfer to upper secondary and higher education.



The transition rate from upper secondary education to higher education has increased significantly during the last decade. Nowadays, every third upper secondary education graduate continues to higher education within three years. There is, however, a significant variation between different study programmes. The transition rate from vocationally oriented study programmes in the former upper secondary system was, with a few exceptions, very low. At the same time, transition rates in the science programme exceeded 80 % of the students graduating from the programme.

The table overleaf illustrates the increasing transition rate during the decade 1985/86 to 1994/95.

**Table 8.** Percentage of graduates from upper secondary education who started higher education within 10 years

Graduation Year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
1985/86	8	14	21	24	27	29	30	31	33	34
1986/87	8	15	21	25	28	30	31	33	32	
1987/88	9	16	22	26	28	31	32	34		
1988/89	11	18	24	28	31	33	35			
1989/90	12	22	28	32	35	37				
1990/91	16	26	32	36	39					
1991/92	18	28	34	37						
1992/93	18	29	35							
1993/94	18	30								
1994/95	22									

SOURCE: STATISTICS SWEDEN 1997. U 36 SM.

New programme structure

3.2.10.

The former system of upper secondary education was divided into about 25 different lines (*linjer*) of two or three years' duration and some 500 specialised courses. In the new upper secondary school – fully implemented in the year 1997/98 – all education is organised in study programmes of three years' duration. The new vocational programmes are designed to confer wider and deeper knowledge compared with vocational studies previously. Students are also given increased choice with respect to the content of their own education, as well as greater opportunities to influence the learning situation and the forms of evaluation.

3.2.11.

There are 16 nationally determined programmes, 14 of which are primarily vocationally oriented and 2 preparing primarily for university studies. Most national programmes are divided into branches for the second and third year. In addition to the national branches drawn up centrally, municipalities may choose to set up local branches adapted to local needs and conditions.

The educational aims of the national programmes are set out in programme goals. The programmes must provide a broad basic education within the vocational field, as well as providing the foundation for continuing studies on completion of the upper secondary school.

Students who are unsure of what to study may also study in individual programmes of varying length and content. After having studied in an individual programme, the student may transfer to one of the national programmes or a specially designed programme.

Structure of national programmes

Mainly theoretical programmes

- Natural science programme – directed towards further studies in mathematics, science subjects and technology
- Social science programme – directed towards further studies in social sciences, economics and languages

Mainly vocational programmes

- Arts programme – broad basic education for work within arts-related professions
- Business and administration programme – for work in commerce and administration in private business and public administration
- Child and recreation programme – for work in child-care, after-school and recreational activities, health-care, sports and libraries
- Construction programme – for work in the construction industry, building or civil engineering
- Electrical engineering programme – for work on installation, repair and maintenance of electrical, telecommunications and electronic equipment
- Energy programme – for work in, for example, electricity and power stations, heating, ventilation and sanitation installations as well as related work on board ships
- Food programme – for work within food processing, sales and distribution
- Handicraft and trades programme – for work within different handicraft and trade professions with a large part of the education being located at the workplace
- Health care programme – for work within the health, dental care and support service sectors
- Hotel, restaurant and catering programme – for work as e.g. a receptionist, conference organiser, waiter or chef
- Industry programme – for work within industrial production, including programming and operating computer-controlled machines and processes
- Media programme – for work within advertising, various forms of design and production of graphic media
- Natural resource use programme – for work in agriculture, forestry, horticulture and animal husbandry
- Vehicle engineering programme – for work in the repair and maintenance of cars, lorries and machines.

3.2.12.

Students who have special requirements other than those provided for within the national programmes can opt to follow a specially designed programme, for which the school, in active collaboration with the individual student, designs an individual syllabus for the whole period of study. These are three years in duration, formally conferring general eligibility for further studies at post-secondary level and they have the same core subjects as the national programmes. The rest of the time includes combinations from both theoretical and vocational subjects from two or more programmes.

3.2.13.

Municipalities must offer a comprehensive selection of national programmes, and admissions capacity for the various programmes must be adapted to student



preferences. If a municipality is unable to provide all programmes, it may make agreements to cooperate with other municipalities.

Most programmes are divided into various branches that pupils choose to study from the second year onwards. Specialisation is also provided through different courses, especially where there are no branches. Not all schools or municipalities offer all programmes or courses. There may also be local branches.

Programme structure and participation

3.2.14.

The number of pupils in upper secondary education in various programmes is summarised in the table below. The two theoretical programmes are the biggest ones with 30 % of the total number of pupils. Generally, however, study oriented programmes are taken by less than one third of the Swedish upper secondary school population.

Figure 15. Number of pupils in Swedish upper secondary education, 15 October 1996

	Men	Women	Total
National programmes	143 498	138 446	281 994
<i>of which:</i>			
Arts	4 762	9 721	14 483
Business and administration	8 416	8 907	17 323
Child and recreation	5 140	16 297	21 437
Construction	7 559	187	7 746
Electrical engineering	13 467	188	13 655
Energy	2 357	68	2 425
Food	909	1 262	2 171
Handicrafts	598	3 391	3 989
Health care	1 831	10 554	12 385
Hotel and catering	5 979	7 413	13 392
Industry	8 088	533	8 621
Media	4 227	5 722	9 949
Natural resources use	3 308	3 567	6 875
Natural sciences	35 224	22 521	57 745
Social sciences	29 858	47 818	77 676
Vehicle engineering	11 775	297	12 072
Specially designed programmes	4 864	3 273	8 137
Individual programmes	8 583	7 437	16 020
International baccalaureate	282	458	740
Special courses and lines	2 382	3998	6 380
Total	159 609	153 612	313 221

SOURCE: NATIONAL AGENCY FOR EDUCATION, 1998.

3.2.15.

In total, there are 641 upper secondary schools in Sweden. Almost 50 % of the schools are rather small, with less than 200 pupils. A few schools have only around 10 pupils and 75 schools provide only the individual programme. The largest school has more than 2 400 pupils and almost one upper secondary school out of five has more than 1 000 pupils. Upper secondary schools provide theoretical and/or vocational programmes. Some vocational schools are oriented towards specific sectors of society and might provide a few or just one or two programmes. This is common for some industrial schools working closely with an industrial corporation such as Volvo or ABB. Also in the health sector, there are relatively few programmes per vocational school. The introduction of more liberal rules and generous financial support for independent schools has also had an impact on upper secondary education and especially vocational schools, e.g. media.

A common core of subjects in all programmes

3.2.16

The core subjects shown in Table 9 are common to all programmes, with a minimum guaranteed tuition-time per three-year programme.

Table 9. Minimum hours in core subjects

Minimum hours in core subjects	Minimum hours guaranteed
Swedish	200
English	110
Social studies	90
Religious studies	30
Mathematics	110
Science	30
Sport and health studies	80
Aesthetic activities	30

In addition, students take subjects which are specific to their programme. All students carry out a project during their course of studies. In all programmes, time is set aside for local supplements or practical work connected with subjects, as well as for individual options to allow students to choose additional subjects and courses within the national programmes.

3.2.17.

The time schedules, which are now incorporated in the School Act, express in units of 60 minutes the minimum guaranteed teacher or supervisor-led instruction time. This amounts to 2 400 hours for the vocationally oriented programmes, workplace study schemes (APL) included and 2 180 hours for theoretical programmes, over the three years. The local education authority or school decides when different subjects are to be studied and how long the lessons should be.



Subjects of a more substantial length are broken down into courses, each of them having a specific content, to be chosen, studied and marked upon completion of the course. The higher number of teaching hours for vocational programmes arises from the need for practical instruction and exercises and also to provide scope for core subjects.

3.2.18.

An overview of some major characteristics of the new upper secondary education reform is presented below.

Table 10. Some facts on upper secondary education

The reform means

- Each municipality is obliged to provide education for all young persons up to 20 years of age.
- 16 national three-year programmes.
- Individual programmes.
- Specially designed programmes.
- Modular programmes.
- Minimum guaranteed teaching hours for the student, expressed in 60 minute teaching hours per subject/subject area.
- Goal-related grades with four levels:
 1. Fail
 2. Pass
 3. Pass with credit
 4. Pass with distinction.
- Grades are awarded as each course is completed.

How a national programme is designed

- Most programmes are divided into branches.
- The programmes cover core subjects and subjects specific to a study programme, which consist of one or more courses.
- Each course has a number of points.
- In all programmes, apart from the individual programme, there are compulsory courses in the core subjects: Swedish/Swedish as a second language, English, social studies, religious studies, mathematics, science, sport and health studies, aesthetic activities.
- Each programme also includes courses in subjects specific to the programme, which provide a special focus for the programme.
- Special projects and individual options are a part of the education.
- In most programmes, there is work place training (*APU*).
- The programmes may cover local branches and local courses.

Work place training (APU)

3.2.19.

In the vocationally oriented programmes at least 15 % of the students' total time is to take the form of training at a place of work (*APU, Arbetsplatsförlagd utbildning*). This is syllabus-guided training. Only vocational courses may be transferred to a place of work. Local decisions determine which parts of these courses are to be located at a place of work. The board of the school is responsible for supplying workplaces and for seeing that *APU* meets the demands placed on the training. The advisory bodies for cooperation between schools and local trade and industry, vocational councils or programme councils, are very important in planning such items as the provision of training, the purchase of equipment, *APU* and the training of supervisors.

3.2.20.

Training at place of work requires close cooperation between the school and the workplace. School boards at municipal or county levels are responsible for the procurement of training opportunities and for supervision of the pupils during their workplace training. During this part of their education, pupils have a purely student status. Supervisors from the company play an important role in evaluating the performance of pupils. Through this training, pupils come into direct contact with working life. They also come into direct contact with companies of which may wish to employ them. For the companies, this participation in work place training allows them to influence the content, planning and implementation of the training and also to form an opinion of the individuals they may wish to see as future employees.

The reformed upper secondary vocational education includes core subjects of a more general nature such as Swedish, English and mathematics than before. It also gives a more general and broader knowledge of vocational subjects. This means that a student who has gone through the new form of vocational education is more of a generalist than a specialist. Specialisation will be a matter for the future employer. Vocational education should not be a dead-end but the first step in a process of lifelong learning.

Further development of choice options – course based schools

3.2.21.

The upper secondary school is now developing in a more course-based (modular) direction as distinct from the former subject-oriented upper secondary school with its relatively rigid study organisation and choice patterns. There is, as described above, a greater amount of time set aside for individual choices. The eight core subjects take about one third of the time, but the rest can be put together according to the individual choices of the student – provided that the actual subject and course is given in the municipality in question. The regular upper secondary school is three years in duration. In the course-based school the pupil can take more or less time to finish his or her programme. It must, though, be of the same extent and quality as the national programmes.



3.2.22.

The advantages of making the upper secondary school more course-oriented include the following. It:

- allows pupils to have more influence on their own education;
- offers opportunities to renew education in step with the changing needs of working life by substituting or updating courses (modules);
- allows municipalities to focus their education to meet local needs;
- makes it possible to create education with a more clearly defined vocational orientation than provided by the national programmes and branches;
- allows pupils to combine vocational courses with preparatory courses for further studies and to create their own study programmes based on individual choice;
- allows pupils to go more slowly or quickly through the upper secondary school than the normal three years;
- allows pupils to start their studies at their own level of competence, which makes the link with compulsory school easier.

As the upper secondary school moves in the direction of a more course-based school, it will be possible to realise what has long been on the political agenda, namely closer cooperation between the upper secondary school and upper secondary adult education in the municipalities.

Towards a continuous reform evaluation

3.2.23.

The evaluation and monitoring of the results of upper secondary education is a shared responsibility between the State and municipalities. In addition to the work of the National Agency for Education, the government has appointed a commission on the assessment of the development of upper secondary school to follow up the reform. It has published two reports (*SOU 1996:1* and *SOU 1997:1*) and summarised the first experiences of the new reform. With regard to *APU* it stressed the fact that only one school out of three had implemented the *APU* model in its stipulated length. Furthermore it discussed the options of extending the use of *APU* to theoretical programmes. This idea was proposed in the government bill on education and approved by parliament in 1996. Thus, it is now possible for the municipalities to put this proposal into practice.

An overview of the government's assessment of the development of the school system is also presented in the National Development Plan for pre-school, school and adult education (Ministry of Education and Science, 1997). One of the issues analysed in the National Development Plan is the role of the core subjects at upper secondary level.

The reform of the upper secondary school led to a significant raising in the levels of knowledge goals. The introduction of core subjects for all the programmes in the upper secondary school has led to educational policy ambitions being set substantially higher. This together with the fact that the upper secondary school is in practice open to all young persons in a given age group, means that reforming the upper secondary school cannot be implemented without special efforts.

A problem that has emerged concerns the lack of initial knowledge of those beginning their upper secondary education. Currently available statistics on grades awarded in the upper secondary school obtained from schools before pupils have completed a programme, show that the vast majority of pupils (around 93 %) have achieved approved results in the core subject courses that they have completed. The Commission into the development of the upper secondary school in its latest interim report shows that despite the difficulties of making comparisons, the distribution of the lowest and highest grades does not tangibly differ between the present and previous grading systems. Under both grading systems, there is a small proportion of pupils who lack initial knowledge in some subjects when beginning their upper secondary education. In order to make graduates from *grundskolan* better prepared for upper secondary education new admission rules will be introduced from the school year 1998/99.

3.2.24.

Municipalities are obliged to provide students with an all-round range of national programmes and the number of places made available should reflect the interest and demands of students. In general, this is the situation. However, especially where it concerns certain popular educational programmes (e.g. hairdressing in the crafts programme, the media programme) the students have not always been able to have their first choice satisfied.

During the first three years of the upper secondary school reform, many schools have, to varying degrees, gradually changed the supply, organisation and contents of their programmes. At the same time, the management structure has also changed. In the initial phase of the reform, many municipalities made rapid decisions to introduce programmes with a special focus, often by establishing local branches and local courses. Especially in large towns and other areas with good public transport, it was generally appreciated at an early stage that schools must be as attractive as possible, since each student is an important source of income (and costs).

3.2.25.

There is a possibility for upper secondary schools to establish local branches with a focus that differs from national branches. Local branches used to be open to applicants from all over the country, but due to a new government policy the parliament has decided to restrict local branches to applicants from the municipality or cooperating municipalities. A number of different reasons exist for developing local branches. One is to attract applicants from other municipalities. Another is to satisfy labour market and educational needs at both the regional and local level. The ambition is also to develop new, modern, educational programmes for the future, but in a number of cases this has so far only resulted in re-creating previous educational courses.

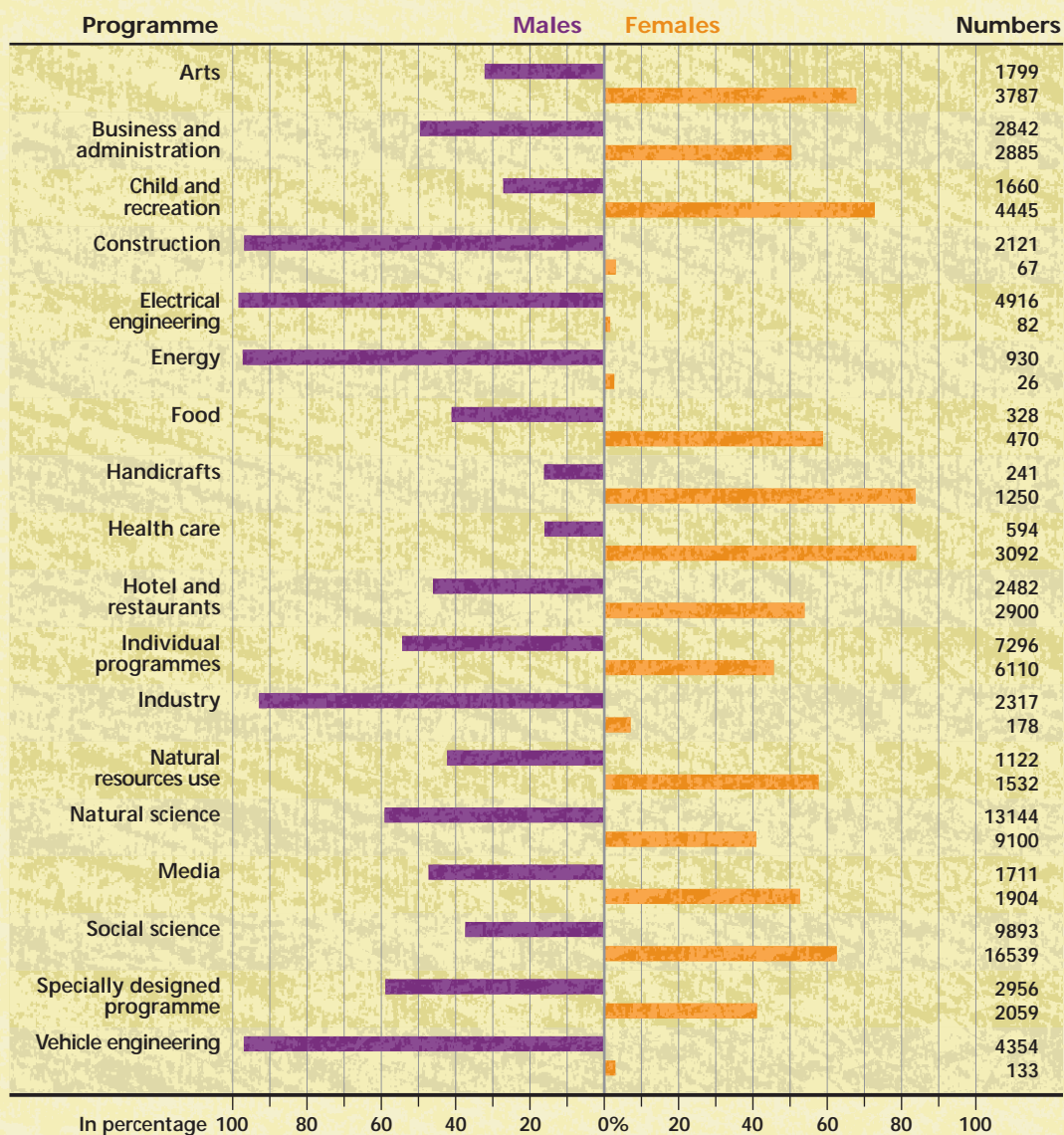
Continuing gender bias in upper secondary education

3.2.26.

Upper secondary education in Sweden is dominated by both gender and social bias. Social background still influences or dominates the individual's choice of programmes. Gender bias has not changed significantly over the last decade. Only in seven out of eighteen programmes is there an equal distribution of the sexes. In the technical programmes, there are no more than 10 % female pupils. In two former study lines (electricity-telecommunication and vehicles-transport), there was not a single female participant.



Figure 16. Gender bias among new students 15 October 1997, at upper secondary level



SOURCE: STATISTICS SWEDEN 1998. YEARBOOK OF EDUCATIONAL STATISTICS.

The individual programme as an essential element in upper secondary education

3.2.27.

The individual programme was created to give a new start for pupils not making sufficient progress in compulsory schooling or who were uncertain over their future educational or vocational choices. During the autumn of 1995 there were over 17 000 pupils enrolled in the individual programme, which was somewhat less than 10 % of the total number of participants in initial vocational education. Some pupils dropped out of other programmes and continued their second or third year in the individual programme. Others were able to move from the individual programme to a vocational programme. As a result, internal movement within the upper secondary education system is quite extensive. It is difficult, however, to estimate the total number of pupils who change programme during a single year. The number of pupils leaving upper secondary education before completing their education is around 1.3 %. Others choose to continue later in municipal adult education. All in all, this means that the time to complete upper secondary education studies might exceed three years. Given the combination of the individual programme and adult studies later on, some pupils, probably a very small minority, will take between four or five years to complete their upper secondary studies.

Table 11. Number of students following an individual programme

Year	Total	Immigrants within total
1992	>10 500	2 100
1993	13 595	2 236
1994	16 496	3 234
1995	17 233	3 032

SOURCE: NATIONAL AGENCY FOR EDUCATION 1995. REPORT 93.

The upper secondary school reform requires new forms of organisation and new thinking

3.2.28.

Management by objectives raises the central issue of what knowledge students should attain, at the same time as there is a reduction in the rules governing how studies and work should be organised. To draw up programmes and courses and apply the national goals involves a considerable amount of work. Current approaches to planning school work have been challenged, not only by the goals in the curricula, the programmes and the syllabuses, but also by the new, more knowledge-related, grading system. Changes confront teachers with new questions on their approach to learning and knowledge, as well as the role of the teacher vis-à-vis students. In addition, changes are demanded in basic attitudes to management and the distribution of responsibility – all of which are time consuming.

There is much evidence that the rate of innovation and the ability to find new solutions is accelerating in many schools. At the same time, differences in thinking and organisation between schools have increased. This could result in schools with



great capacity to change rapidly creating their own networks and, in terms of development, leaving other schools behind.

Goal documents and grades have been widely discussed

3.2.29.

Upper secondary schools have in recent years found themselves in a 'field of tension' between a traditional, line-oriented school and an upper secondary school with modular programmes. Staff and students have continually been confronted by new steering documents and directives from both national and municipal levels. This has often resulted in a stressful work environment.

The initial phases have focused on issues concerning the organisation of studies. Later, grading criteria have created intensive discussions amongst teachers and students. These discussions deal with, for example, the knowledge students should acquire, an understanding of educational approaches, grade levels and the design of test instruments. As a result of the issues involved in the grading system, students have become more actively involved in discussions over the reform. The criticism of the upper secondary school reform often expressed by teachers centres on a lack of clarity and, for some teachers, contradictory messages (e.g. concerning management by objectives and management by time). This criticism reflects not least problems related to the large number of changes to be implemented in a short period of time. Many have expressed their support for the content and basic ideas of the reform. However, it is clear that there are difficulties in seeing the reform from an overall 'holistic' viewpoint. The reason for this is, amongst others, that the curriculum came after programmes with preliminary syllabuses had been introduced. Headteachers seem to have been active agents in the transformation process, but have themselves also been affected by the reorganisation.

Different vocational traditions – an obstacle to cooperation

3.2.30.

Many stages in the reform require close cooperation within and between different categories of staff and representatives of different subjects. Historically important differences between vocationally oriented courses and preparatory courses for further studies, and between teachers in different types of subjects, create problems when educational reform is to be implemented. Schools try different models to bring about cooperation, such as work groups, teacher teams, programme councils, etc. However, in the current phase of the reform, interpretation of the syllabuses and criteria for grading in courses or subjects appears to have consumed so much energy that cooperation across traditional subject boundaries has not progressed and sometimes has become even less than before the reform.

Students in the new upper secondary school have to make choices. This implies *de facto* some competition over students. Guarantees of teaching hours have in some schools led to teachers 'protecting their hours'. This can also make cooperation more difficult. Instead of the guarantee over teaching hours being understood as a guarantee of the student's right to teaching, there has been a tendency for it to become a factor determining how many teaching hours a course should always provide.

3.2.31.

So far the reform has not noticeably changed established social structures in the upper secondary school. Differences in culture, attitudes and status, not least between students in the more vocationally and higher education oriented programmes, still remain. In general, students are very aware of these patterns, whilst staff may have difficulties in observing them. Sometimes, educational programmes may appear as different worlds where segregating factors and patterns originating from older forms of education are apparent. Even though the reform in a formal sense means increasing freedom of choice for students, there are social and cultural attitudes connected to different programmes, which affect how students make their choices. Students' own attitudes as well as the attitudes of the surrounding world on 'possible' alternative choices, and thus on freedom of choice do not appear the same in the science programme compared with, for example, the industrial programme.

Teaching groups have become more heterogeneous

3.2.32.

Almost everyone finishing the last year of compulsory school now starts upper secondary school. Broader access routes to the new school programme have led, amongst other things, to great variations in students' starting knowledge and levels of ambition within certain programmes. This has been particularly noticeable in the social science programme, where there are more students than any other programme. Common solutions for handling more heterogeneous classes within different subjects and courses – especially mathematics and languages – have been to provide students with opportunities to choose courses with different requirements concerning starting knowledge. Schools have also gradually begun to organise teaching so that students have the opportunity to choose a specific course with a lower or higher number of teaching hours, i.e. creating more flexible ways of managing guaranteed teaching hours.

As courses in core subjects are a part of each student's education, it is mainly in this area that the major differences in knowledge are noticeable. Discussions have thus often dealt with the question of differentiating educational goals for students in different programmes and with different preconditions. So far having the same educational goals for students with different starting knowledge and different needs for pedagogical support is regarded as being somewhat problematic.

3.2.33.

Other ways of preventing and solving difficulties connected to variations in the student's previous knowledge have involved ongoing discussions between teachers or other staff and the student. Other steps have been taken with the help of diagnoses and staff with specialist competence, or through the development of local courses to compensate for shortcomings in basic knowledge. Often, however, it seems that strategies have not been developed for satisfying the needs of students who are regarded as not having successfully completed courses. Remedial measures adopted within the framework of the class have often appeared to be of an ad hoc character, even though they may have been effective. On the other hand, solutions for helping students to continue their upper secondary education have involved students transferring to more individual courses within the framework of a more limited national programme or to an individual programme itself.



A vital issue appears to be the extent to which course content corresponds to the different needs of individuals. Examples indicate that this can happen when students are able to exercise some influence over the content of, and approach to, their education. In schools that have been relatively successful in this area, teachers in different subjects have worked together and teaching in the core subjects has had less 'traditional academic content'.

Workplace training is highly valued

3.2.34.

In an investigation in spring 1995, upper secondary students in programmes and lines were surveyed on their views regarding workplace training (*APU*) and practice. Almost nine out of ten students on vocationally oriented programmes stated that they were satisfied with *APU* and work practice where they were applying what they had learnt in school. A slightly larger proportion (90 %) were either very or quite satisfied at being able to learn new skills at the workplace. Students in the nursing line and the health care programme were the most satisfied. Students were also satisfied with the supervision they received at the workplace. They appreciated being able to see the connection between the knowledge they acquired at school and the demands imposed by working life. Students were more critical of the school's follow-up of their training at the workplace, as well as over the cooperation between the school and workplace.

Despite the positive picture given of *APU*, many schools regard this as a difficult area requiring major efforts in terms of both planning and implementation. The opportunities for arranging *APU* varies, however, between programmes. Schools are dependent on the links they have established with individual organisations, and the local industrial structure, in addition to how well established cooperation generally is between schools and companies/institutions. These difficulties reside mainly in being unable to arrange a sufficient number of places to secure high quality in workplace training connected to the goals of education. This is an area where workplace supervisors regard themselves as having insufficient knowledge.

Freedom of choice imposes demands on information and guidance

3.2.35.

Information on the different alternatives within and between programmes, on the upper secondary school generally, as well as on eligibility for higher education has become increasingly important as a result of the reform. A course-oriented upper secondary school imposes greater demands for guidance. It also requires new approaches to guidance, information and study planning as well as careful consideration of the range of courses the school provides. The decision to introduce programmes was taken rapidly by some municipalities. This led to difficulties in circulating information on what was available. Students have expressed their dissatisfaction with the information in different ways. They have also been critical about not being able to have their choices satisfied. This has been particularly true of courses where there was scope for individual choices. The schools have been forced to restrict the initial 'smorgasbord' of courses they offered students for financial or timetabling reasons. Another issue students highlighted is that they were not able to obtain satisfactory information on the value of different courses in relation to eligibility and selection criteria for higher education.

Upper secondary adult education

3.2.36.

The same curriculum applies now to upper secondary adult education as to the upper secondary school. This has had less effect on adult education compared with the upper secondary school, since a major part of what is new in the reform of the upper secondary school is similar to what applied earlier in municipal adult education. Some of the similarities concern the division of subjects into core subjects and subjects that are specific to a programme, as well as the division of subjects into courses. Also expressing the range of a programme in terms of hours resembles the earlier demand for a leaving certificate in municipal adult education.

Headteachers and teachers within upper secondary adult education are generally positive towards the reform of the upper secondary school. Their view is that the status of adult education has been raised by having the same curriculum and syllabuses as for the upper secondary school. The goal documents have had a direct, beneficial effect on cooperation between teachers. In discussions, the dominant issues have been about knowledge and learning as well as the planning and organisation of teaching. Staff have a basic attitude that is positive to the reform but at the same time, there is some concern that activities within the upper secondary school may have an excessively dominating effect on municipal adult education.

Teachers at municipal adult education schools emphasise that the increased knowledge requirements of the syllabuses could create difficulties for weaker students. Students very often experience the tempo as high. Teachers also regard it as difficult to obtain an overall view of students in the new system, where it is unusual for a group to study a number of courses together. As a result schools have experienced difficulties in finding general solutions for students with problems in their studies.

3.3. Continuing vocational training (CVT)

Vocational training in municipal adult education

3.3.1.

It is difficult to draw a clear line between initial and continuing vocational training. A substantial part of initial training in Sweden takes place within the public school system for adults. This component of IVT is regulated under the School Act. The system comprises:

- municipal adult education,
- adult education for the intellectually handicapped, and
- basic Swedish language instruction for immigrants.

As is the case with youth education, responsibility for this part of the education system rests with the municipalities and to some extent the counties.

3.3.2.

Municipal adult education, for persons over 20 years of age, has existed since 1968. As of the school year 1992/93, it includes:

- basic adult education,
- upper secondary adult education, and
- supplementary education for adults.



Studies within municipal adult education lead to formal qualifications in individual subjects or to the equivalent of a complete leaving certificate from the compulsory school and/or the upper secondary school. Education is organised in the form of separate courses, which should be arranged in such a way that students can combine studies with employment. Students are free to choose their own study programme and they can also combine studies at basic and upper secondary level. There are, in principle, no entrance requirements or leaving examinations.

3.3.3.

Basic adult education confers knowledge and skills equivalent to those conferred by the compulsory school. Basic adult education is a right for the citizen and is mandatory for the municipalities.

3.3.4.

Upper secondary adult education confers knowledge and skills equivalent to those conferred by youth education at upper secondary level. It can offer the same programmes and subjects (with the exception of aesthetic subjects and sports) as the upper secondary school. Adults do not have an automatic right to upper secondary education, but the municipalities are obliged to make an effort to provide opportunities corresponding to demand and individual needs. The time schedules applied in the national programmes within the youth sector apply as a guiding principle to upper secondary adult education.

3.3.5.

The purpose of supplementary adult education is to provide vocational courses which are not available in the youth sector. These courses lead to higher professional competence or to competence in a new profession.

3.3.6.

The municipalities are obliged to provide basic Swedish language instruction for adult immigrants (see paragraph 2.2.15). In the past the Swedish for immigrants (SFI) programme usually comprised a total of 525 hours. In recent years, however, the government has introduced a more flexible system adapted to the needs of the learner. Thus, in many cases the provision of teaching hours is lower, while extra teaching resources are directed towards weak language learners with a low level of education.

3.3.7.

As a supplement to municipal adult education there are two national schools for adults (see paragraphs 2.2.16 to 2.2.18). Instruction in these schools is partly by correspondence. Participants are recruited from all over the country and the schools cater primarily for students who for various reasons are unable to attend ordinary courses. These schools are run by the State. Formal education is widely distributed over the country and distance education has been regarded as a supplementary form of distribution and not as a special system.

3.3.8.

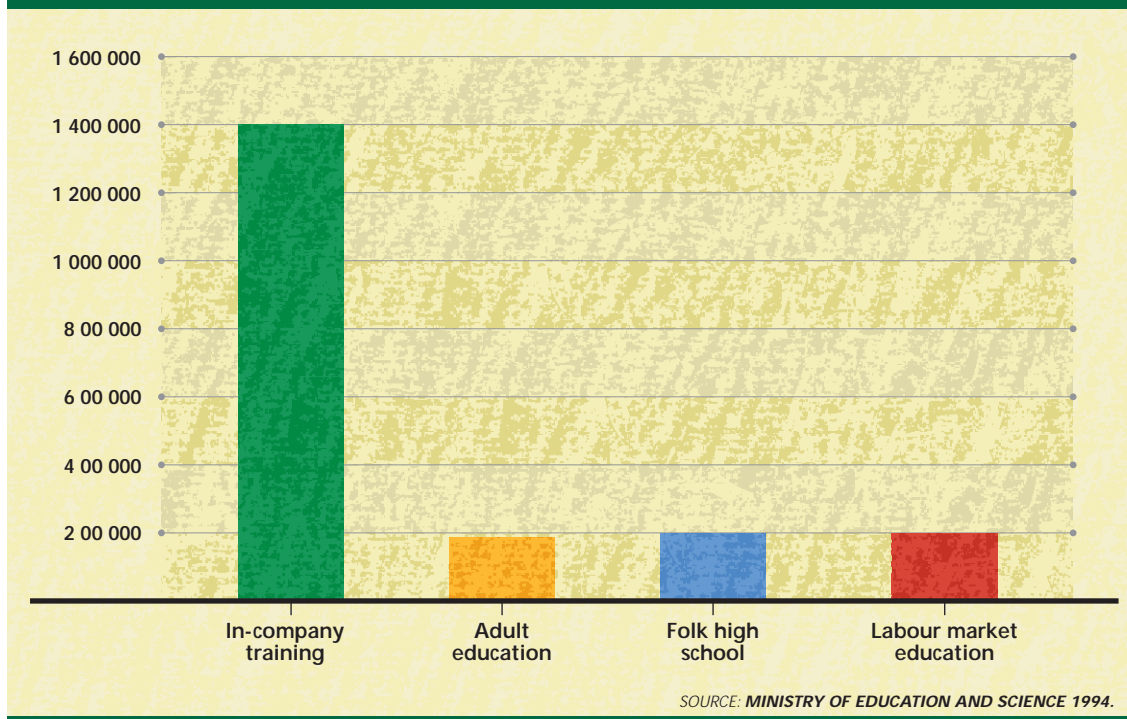
The introduction of new information technology, more flexible hours at work and the need for educational upgrading of the work force has influenced the government to launch a nation-wide development programme to promote new forms of distance education in the early 1990s. Furthermore, mention should be made of the important role played by the Swedish Educational Broadcasting Corporation (*Utbildningsradion*) which over a period of more than two decades has produced both credit and non-credit courses.

Participation in CVT and municipal adult education

3.3.9.

The figure below gives information on the extent of participation in continuing vocational training for the whole labour force. The figures for 1995 and 1996 will probably be higher due to a significant decrease in personnel training in 1993.

Figure 17. Participation in continuing vocational training and other forms of adult education, 1993



3.3.10.

Figures from the fiscal years 1991/92 and 1993/94, show that approximately 3 million people participated in some form of CVT of varying duration. Most in-company training consists of courses ranging from 3 to 5 days while municipal adult education is often full-time. More than 1.3 million people have participated in in-company training, i.e. education paid for by the employer. This amounts to 28 % of the total labour force of 3.9 million people. This form of training has most relevance to their present job. Folk high schools have about 180 000 participants, in their long and short courses. Due to high unemployment, popular education also provides courses for unemployed persons. These measures have encompassed well over 10 000 persons in short courses. In employment training (labour market education) there were 168 000 participants during the fiscal year 1993/94.

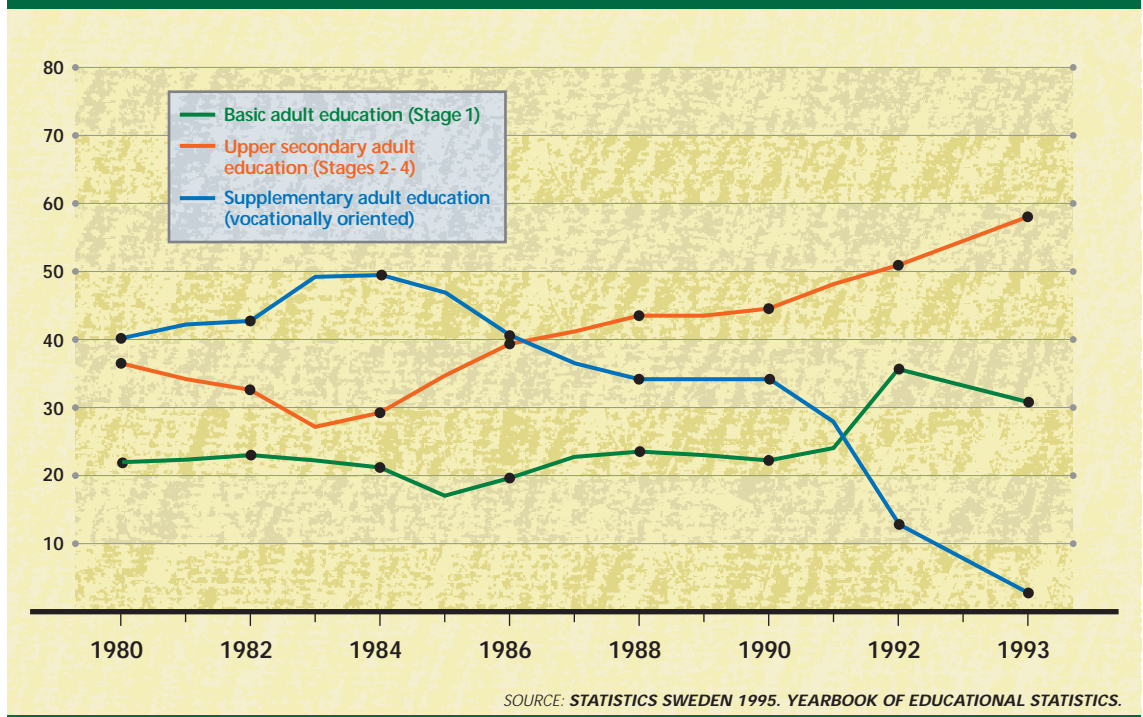


Municipal adult education

3.3.11.

Municipal adult education (*komvux*) at upper secondary level encompassed some 141 000 new students in a single week in autumn 1993. Over the whole school year the number of student was greater. The proportion of studies corresponding to compulsory school amounted to 27 %. Approximately 66 % participated in studies corresponding to the upper secondary school and 7 % in supplementary (advanced) education. The total number of new *komvux* students during the academic year 1994/95, amounted to more than 195 000. It is important to make a distinction between individuals and course participants, since an individual may participate in one or more courses.

Figure18. New enrolments in municipal adult education by type of course, autumn 1980-93, in %



3.3.12.

It is interesting to observe that although *komvux* is expanding, there has been a considerable drop in enrolments in vocational courses. The educational background of *komvux* students has been relatively stable during the last few years. In municipal adult education, the largest group of participants by level of education is those with compulsory education. Their share (about 30 %) has remained stable over the years. The proportion of students with short upper secondary education has decreased during the last few years, while the proportion of students with longer education has increased. In municipal adult education the proportion of immigrants was 28 % in 1993. The share is greater in adult education corresponding to compulsory education (56 %). The share of women in municipal adult education was 62 %.

Labour market policies and employment training

3.3.13.

Employment training is primarily intended to help unemployed people and hard-to-place job seekers lacking occupational skills. The training is provided by the public employment service and is expected to lead to permanent employment. The training programme is primarily vocational, but it can also include introductory and general theoretical instruction as a necessary adjunct of vocational training. During the last few years of high unemployment, training in Sweden has been increasingly oriented towards applicants with both occupational experience and a relatively good educational background – a shift in priority from risk groups to resource groups. As a rule, access to employment training is conditional on current or imminent unemployment. In addition the applicant must be at least 20 years of age and registered with the public employment service as a job seeker. Participants receive tuition and training allowances. The allowances are paid at the same rate as unemployment insurance compensation in the case of those entitled to such benefits.

3.3.14.

Employment training forms part of an active labour market policy aimed at reducing unemployment, promoting economic growth and supporting disadvantaged groups. It primarily takes the form of courses purchased by a county labour board or an employment office. However, in some cases training allowances are granted to persons who attend other courses, e.g. within municipal adult education or at the upper secondary school. County labour boards and employment offices plan their purchase of employment training with reference to the needs of the labour market and their knowledge as to which job-seekers have difficulty finding work. Training lasts, on average, for about 20 weeks, usually 40 hours per week.

3.3.15.

Employment training is mainly vocationally oriented. From 1 July 1997 the adult education initiative programme (*kunskapslyftet*) operates for a five-year period. Adults missing a complete upper secondary education will get the opportunity to study core subjects at upper secondary level with a special education grant corresponding to their unemployment allowances. Priority will be given to unemployed adults, but employees with only a short education can be admitted if there are student places. It will be possible to combine vocational and theoretical subjects. Adult education at compulsory school level will also be considered.

3.3.16.

Since January 1994, County Labour Market Boards and employment offices have been required by law to buy employment training courses in accordance with the Public Procurement Act which came into force as a result of the agreement over the European Economic Area. They can purchase training from the Employment Training Group (*AMU*; a State-owned company) or other tendering companies, municipally commissioned education companies, higher education establishments and other organisations. A dramatic shift in the providers' organisational structure has taken place during the last decade giving more scope for general educational upgrading at the cost of traditional vocational training. Training activities focus mainly on manufacturing industry, caring services and office/administrative occupations. Parliament and government allocate funds for labour market policy programmes through the national budget. One third of this is applied to employment training.



3.3.17.

The National Labour Market Board distributes these funds to the 21 county labour market boards with reference to labour market conditions in the various counties. The Board also issues general guidelines and follows up activities in the counties. Within the counties, the county labour market boards are responsible for labour market activities. A part of the funding for labour market policy programmes goes to the employment offices, which decide whether applicants meet the requirements for employment training and help them to choose a suitable programme.

The *AMU* centres offer employment training courses to semi-skilled workers, skilled workers and unemployed persons as well as courses introducing young people to the labour market. The training courses are regulated in the Employment Training Ordinance of 1987 and are based upon very close collaboration between the social partners. Due to fundamental transformation of the market for training enterprises, the *AMU* centres have been significantly reduced in numbers over the last 10 years. During 1996 the *AMU* team met a very tough competitive situation with respect to other providers such as training companies and municipal adult education. Furthermore, the government announced that the regional labour market boards should reduce the level of vocational training and give higher priorities to employment development schemes.

Overview of labour market training programmes

3.3.18.

To accomplish the objectives of labour market policy, a variety of different programmes is used. The most important are job placement services and programmes that influence labour supply, encourage demand for labour and generate employment for jobless and occupationally handicapped people. In addition, there are unemployment insurance programmes whose purpose is to compensate jobless individuals for lost income.

Sizeable investments are being made in fields other than labour market policy to counteract the negative effects of joblessness. One important way of combating higher unemployment, while raising the skills level in the labour force, is to operate various skill-enhancement programmes as part of government educational policy. The government is expanding the number of openings in the higher education system and upper secondary schools, as well as in other alternatives such as the municipal adult education system and the folk high schools (mainly small and residential). Overall, more than 90 000 new openings were added in these educational programmes during 1995/96.

Programmes to improve the match between jobs and job-seekers

3.3.19.

The Employment Service, which has access to the whole arsenal of labour market programmes, is the fundamental instrument of government labour market policy. Its main tasks are job placement and vocational counselling. Its primary purpose is to create a closer fit between labour supply and demand. A range of instruments developed within the Employment Service are intended to improve the matching process. These include job clubs and similar activation programmes, designed to give job seekers the requisite knowledge and self-confidence to track down job vacancies

themselves. There have also been efforts aimed at expanding and raising the quality of the Service's contacts with companies.

The work of the Employment Service has been computerised to, among other things, improve information services related to job vacancies. The Employment Service has moved increasingly toward management by objectives and decentralisation. It has shifted many employees from administration to job placement work. It has a large share of the job placement market and handles sizeable volumes of vacancies and job seekers. During 1994 about 40 % of all job vacancies in Sweden were reported to the Service.

Programmes to encourage demand for labour and generate employment

3.3.20.

The purpose of these programmes is to maintain the demand for labour during periods of weak demand. They also give unemployed individuals workplace experience that can make job placement in the regular market easier or can form the basis for choosing an occupation or training programme. Programmes to encourage demand for labour and generate employment were previously of minor importance in Sweden, but today they dominate labour market policy programmes. They can be targeted to individuals or companies.

Programmes aimed at supporting individuals

3.3.21.

The employment development (*Arbetslivsutveckling - ALU*) programme was introduced in 1993. It aims to take advantage of the desire of unemployed persons for activity and personal development, as well as to make it easier for them to return to the regular labour market. In addition, *ALU* prevents people from exhausting their unemployment benefits, because they qualify for a new period of benefits after completing the programme.

ALU projects may not compete with tasks normally performed in the regular labour market. The government covers the entire cost, and participants receive benefits equivalent to those they would otherwise receive while unemployed. Maximum enrolment is for six months. The average monthly participation in *ALU* during the activity year 1995/96 was 48 200 participants. In total over 200 000 participants were enrolled during 1995/96 at a total cost of SEK 8 billion.

Table 12. Number of participants in employment development (ALU), by age and sex, 1995/96

Age	Men	Women	Total
<19	98	69	167
20-24	9 267	5 856	15 123
25-34	14 243	11 348	25 591
35-44	32 632	29 924	61 296
45-54	26 737	21 395	48 132
55-60	24 857	18 387	43 244
61+	4 262	2 847	7 109
Total	112 096	89 196	201 292

SOURCE: NATIONAL LABOUR MARKET BOARD 1997. RAPPORT APRA 1997:2.



3.3.22.

Start-up grants (*starta eget bidrag*) have become an increasingly important programme in recent years. They are available to people who are unemployed or at risk of losing their jobs, so that they can support themselves initially while establishing their own new business. Applicants must present a viable business plan. During 1995/96, 29 610 individuals, more men than women, received this grant. It is equivalent to the benefit that would otherwise have been paid from an unemployment insurance fund, but it can also be provided to people who are not entitled to such benefits. It is normally payable for six months but can be extended for a longer period.

3.3.23.

Workplace introduction (*arbetsplatsintroduktion*) is a new programme that began in July 1995. It replaces a number of older programmes that provided traineeships for young people, immigrants and graduates.

Table 13. New enrolments in workplace introduction, 1991/92 to 1995/96

Category	Participants	Fiscal years				
		1991/92	1992/93	1993/94	1994/95	1995/96
Youth practice	Total	30 542	139 414	145 572	92 266	2 267
	of whom					
	under 25	97.50%	98.90%	99.40%	99.10%	98.90%
	foreigners	3.90%	5.40%	5.60%	5.10%	3.00%
Academic practice	Total			1 765	2 654	
	of whom					
	under 25			0.50%	4.70%	
	foreigners			4.10%	4.10%	
Immigrant practice	Total			2	7 873	
	of whom					
	under 25			0.0%	14.40%	
	foreigners			100.00%	97.20%	
Youth introduction	Total				10 388	
	of whom					
	under 25				99.70%	
	foreigners				7.20%	
Workplace introduction	Total					141 611
	of whom					
	under 25					40.00%
	foreigners					19.60%
Total	Total	30 542	139 414	147 339	113 181	143 878
	of whom					
	under 25	97.50%	98.90%	98.20%	91.00%	40.90%
	foreigners	3.90%	5.40%	5.60%	11.70%	19.40%

The blank spaces result from the introduction, or abolition, of different systems during the period

SOURCE: NATIONAL LABOUR MARKET BOARD 1997. RAPPORT APRA 1997:2.

Unemployed people who are found to need a period of workplace training, and who cannot be given an ordinary job or be accommodated in another suitable programme, may train for up to six months in the business or public sector. For occupationally handicapped youth, this period may be extended. During this traineeship, participants receive workplace introduction counselling services and practical vocational training.

The workplace introduction programme is targeted at unemployed people aged 20 or over. However, those under 25 may participate in the programme providing the employer undertakes to give them a regular job for at least another six months after the traineeship. Municipal, government and non-profit organisations are exempt from this requirement.

Participants in the workplace introduction programme receive a training grant equivalent to the unemployment compensation they would otherwise be entitled to.

In total, this measure enrolled almost 144 000 participants during 1995/96, illustrated in the Table 13.

3.3.24.

Recruitment subsidies (*rekryteringsbidrag*), which have existed since 1984, are primarily intended to facilitate employment in the private sector. This programme can be used to accelerate the hiring process and influence an employer's choice of job seekers.

Computer workshops (*datortek*) are currently being established throughout Sweden by municipal governments and employment service offices. Their purpose is to give unemployed youth aged 20 to 24 an opportunity to familiarise themselves with modern information technology. These young people are also encouraged to apply for jobs or obtain information on training programmes.

Contracted workplace job introduction (*avtalad arbetsplatsintroduktion*) in the business sector is a programme offered to unemployed young people aged 18 to 19. It has, however, diminished in importance in recent years. These jobs are based on agreements between employer and employee organisations, and their purpose is to give unemployed youngsters work experience. Employers receive public grants covering a portion of their wage costs for six months.

Programmes aimed at companies

3.3.25

Educational leave replacements (*utbildningsvikariat*) have the dual purpose of training existing employees and giving temporary jobs to unemployed persons. The programme entitles an employer to pay reduced social welfare contributions providing a substitute referred by the employment service is employed to replace a regular employee away on educational leave.

**Table 14. New enrolments in educational leave replacements 1995/96**

Age	Men	Women	Total
<19	422	1 444	1 866
20-24	3 194	9 570	12 764
25-34	3 499	10 289	13 788
35-44	1 659	6 163	7 822
45-54	934	3 968	4 902
55-60	175	717	892
61+	31	118	149
	9 914	32 269	42 183

SOURCE: NATIONAL LABOUR MARKET BOARD 1997. RAPPORT APRA 1997:2.

3.3.26.

The employment service can also apply its funds to encouraging urgently needed training for established employees, especially in small and medium-sized companies. This training can be aimed at preventing lay-off or personnel cuts or at helping to adjust the skills of employees in connection with technical changes or changes in work organisation. Training is the employer's responsibility and can take place within the company or on the premises of an outside provider. The employer continues to pay the employees' wages during training. In recent years the number of persons taking part in corporate personnel training has amounted to 28 000, 1.23 % of the labour force, and the average duration of training has been about 200 hours.

Employment training

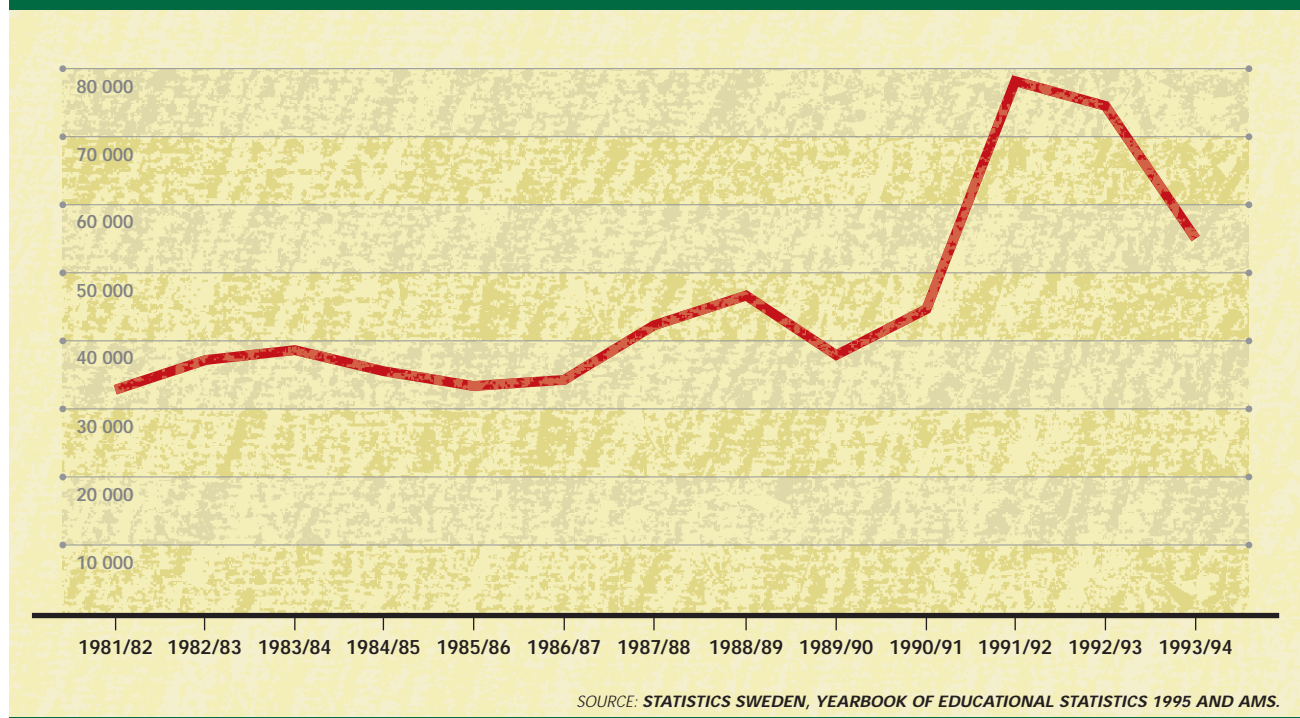
3.3.27.

Some 183 000 persons, or about 4.7 % of the labour force, received some form of employment training or education during the year 1995/96. Only 9 % of them attended education and training within the regular education system (upper secondary schools). About half of the participants were women and a quarter were immigrants. Around 15 % were occupationally handicapped. Rather less than half of all employment trainees have received no more than nine years compulsory schooling and the same number have attended upper secondary school. Most people who begin employment training also complete it. For many years about 70 % of all students in vocational courses were able to find jobs within six months of completing their studies. In the current employment situation, this figure has fallen to around 25 %. Ordinary education has increased during the last few years. About 35 % of the total in employment training attended such courses in the fiscal year 1992/93. We also saw a sharp rise in employment training in the fiscal year 1990/91 due to the economic recession.

3.3.28.

A more recent overview illustrates the peak of 1991/92 followed by a marked decrease in provision, see figure below.

Figure 19. Average number of participants in employment training, 1981/82 to 1993/94



3.3.29.

Another interesting trend is that employment training has shifted its focus by giving higher priorities to middle-aged or older employees with relatively good education at the cost of a reduction in young employees or groups with low level education.

Table 15. Participants in employment training by age group, as % of total, budget years 1989/90 to 1993/94

Age	1989/90	1990/91	1991/92	1992/93	1993/94
< 24	32	32	36	28	13
25 - 34	37	36	34	38	42
35 - 44	22	22	20	22	27
45+	9	10	10	12	18
Total	100	100	100	100	100

SOURCE: STATISTICS SWEDEN, YEARBOOK OF EDUCATIONAL STATISTICS 1995 AND AMS.

**Table 16.** Education background (by %) of those beginning employment training in budget years 1991/92 to 1995/96

Fiscal year	Compulsory school		Secondary school		Post secondary school	
	< 9 years	9 years	2 years or less	>2 years	2 years or less	>2 years
1991/92	8	32	36	16	3	5
1992/93	8	29	37	17	3	6
1993/94	7	24	38	19	4	8
1994/95	6	23	38	21	4	8
1995/96	6	22	37	22	4	9

SOURCE: NATIONAL LABOUR MARKET BOARD 1997. RAPPORT APRA 1997:2.

This development reflects a dilemma in modern labour market policies aiming at full employment. Employability is today increasingly related to education level, vocational background and social competence. A majority of the low level educated part of the labour force needs fundamental educational renewal at very high cost to society. Other groups with a better educational position might adapt and modernise their employability with less educational intervention.

Giving priority to groups that can more easily attain a good position on the labour market will, however, widen education gaps in society. Employment training also shows an emerging trend in catering for better educated students. Swedish education policies generally underline the importance of the role of equity and learning rights for all citizens. To a large extent, however, this policy is channelled through popular adult education and basic adult education in the system of municipal adult education.

In employment training as well as in municipal adult education, a large proportion of participants have attended school only to the compulsory minimum level. In times of rising unemployment, persons with least education are the first to become unemployed. It is therefore not surprising that the proportion of participants with a low level of education is high. Within popular education almost half of the participants have an education below upper secondary level. This reflects the figures in municipal adult education, and the pattern is even more pronounced in folk high schools.

3.3.30.

Another fundamental transformation in employment training concerns the institutional change in type of providers for retraining courses purchased by the Employment Service. The position of the *AMUGruppen* (Amu-Group limited), the State-owned competence corporation, has been successively weakened. First it was exposed to competition from course providers in the formal system of education; later on it became quite obvious that training enterprises and private competence corporations had dramatically increased their share of customised employment training purchased by the regional labour market boards.

Table 17. Participants in purchased employment training, by different providers as % of total, 1989/90 to 1993/94

Providers	1989/90	1990/91	1991/92	1992/93	1993/94
<i>AmuGruppenn</i>	74	69	55	52	41
Municipal adult education (basic)	2	4	5	5	3
Upper secondary education	6	4	5	3	3
Municipal adult education (upper secondary)	8	8	10	9	7
Folk high school	1	2	2	3	2
Universities or university colleges	1	1	1	<1	<1
Adult education associations	1	2	4	5	6
Training companies	7	9	18	22	37
Other providers	<1	<1	<1	<1	<1
Total	100	100	100	100	100

SOURCE: STATISTICS SWEDEN, YEARBOOK OF EDUCATIONAL STATISTICS 1995.

The privately owned training companies strengthened their position during 1994/95 and 1995/96 by increasing their share of participants to 45 % and 48 % respectively, at the cost of a slight decrease for formal adult education and the *AMUGruppen*.

3.3.31.

The current condition and future prospects of the Swedish employment training system are very uncertain, not least because of financial and organisational crises. This stems partly from major changes in the competence market, with increasing competition from other training enterprises and from the formal adult education system providing general subject and formal upgrading at a lower cost than vocationally based courses. In addition, the current situation is determined by governmental policies on the balance between vocationally oriented courses and more extensive workplace learning schemes.

Recently, the government has decided that the major purchaser of employment training measures, the National Labour Market Board with its regional offices should heavily increase working life development schemes (*arbetslivsutveckling, ALU*) at the expense of vocational training. The *AMUGruppen* has to strike a balance between market and State interests.

3.3.32.

The employers' and the employees' organisations have set up funds for certain measures for competence development for redundant employees or employees at risk of redundancy. *Trygghetsrådet SAF-LO* (for blue collar workers in private companies), *Trygghetsrådet* (for professionals in private companies) and *Trygghetsstiftelsen* (for public employees) are three of the main funds for different labour market sectors.



In-company training (ICT)

3.3.33.

In-company training provided by companies and public authorities expanded faster than any other form of adult education during the 1980s. In spring 1992 roughly 1.5 million employees or 35 % of the total number of employees received some form of in-house training. The participation rate in in-company training has almost doubled over the last decade. The level of access and participation dropped significantly during 1993, but by 1995 it had been restored to above its former level (42 %). Statistics for the first half of 1997 show that 38 % of Swedish employees participate in in-company training activities, that is roughly 1.5 million employees.

Table 18. Participants in ICT in thousands and as % of employees

Year	Numbers (1 000)	Share (%)
1986	969	23
1987	1 110	26
1989	1 425	32
1990	1 493	33
1992	1 503	34
1993	926	23
1994	1 553	38
1995	1 699	42
1996	1 609	40
1997	1 513	38

SOURCE: STATISTICS SWEDEN 1995, YEARBOOK OF EDUCATIONAL STATISTICS AND STATISTISKA MEDDELANDEN U 39 SM 9701.

An average person spent 3 % of their working hours in education and training. Civil servants and salaried employees, the middle-aged, full-time employed and women were groups above the average in terms of education and training.

Female employees and employees with Swedish citizenship participated to a greater extent in in-company training than male employees and employees with non-Swedish citizenship.. This is due to the fact that immigrants often work in those sectors with the least training. There has been a significant increase in participation rates in 1994 and 1995, reaching 40 % for males and 45 % for females in 1995 in comparison with 22 and 34 % for non-Nordic citizens.

3.3.34.

In-company training (ICT), by definition, is financed by employers. To a great extent, it takes place during working hours, but there are also cases of training being financed or otherwise supported by employers outside working hours. Both the proportion of employees receiving such training and the scope of the training itself is commensurate with employees' educational and salary levels. Public sector employees in relative terms are offered more training than private employees, women are offered more education than men, and white collar workers more than blue collar workers.

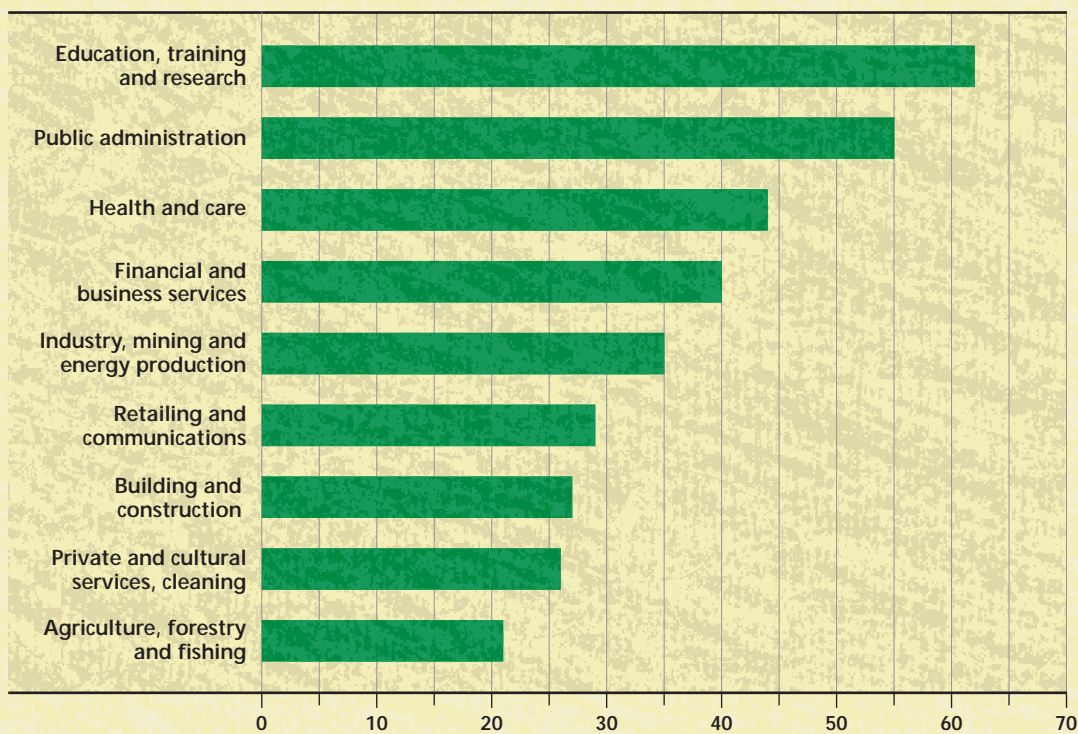
3.3.35.

In-company training is organised partly by companies and administrative authorities, but it has also generated a market for education in which municipalities, through their schools, the *AMUGruppen*, universities and university colleges as well as private educational consultants are active. There is no legislation governing entitlement to or influence on this type of education. Decisions relating to in-company training are made by the employer, but the trade unions are able to exert various degrees of influence.

3.3.36.

In-company training is unevenly distributed within the labour force. Both the proportion of employees receiving adult education, and the scope of the education itself are commensurate with employees' educational and salary levels. In the enterprise sector, the biggest investments in in-company training are made by relatively large and profitable concerns in expanding industries. Training is also more widespread in services than in manufacturing industry. This in turn leads to great regional differences in expenditure.

Figure 20. Percentage of employees participating in ICT in various sectors, first half of 1997



SOURCE: STATISTICS SWEDEN 1997. STATISTISKA MEDDELANEN U 39 SM 9701.

The following table expresses by level of education the percentage of in-company training each group has received. Those with higher education received more training than those with less education. This pattern has not changed over the years. In 1995, 28 % of employees with no more than compulsory education participated in ICT, while the figures for those educated at upper secondary level



and higher were 39 % and 60 % respectively. The surprising decrease in 1993 seems to be more of an exception than the rule. All in all, ICT is developing into a major form of continuing vocational training in Sweden.

Table 19. Participation in in-company training by level of education, as % of the age group (16-64 years), 1986 to 1994

Education level	1986	1987	1989	1990	1991	1992	1993	1994
Compulsory education	14	16	18	19	n.a.	21	14	25
Upper secondary school 2 years or less	22	24	28	29	n.a.	34	22	36
Upper secondary school more than 2 years	29	31	38	37	n.a.	35	21	35

n.a.: not available.

SOURCE: STATISTICS SWEDEN, 1995 B.

3.3.37.

Access to in-company training is more influenced by sectors of the labour market than by age, sex or working hours (see Figure 21, below).

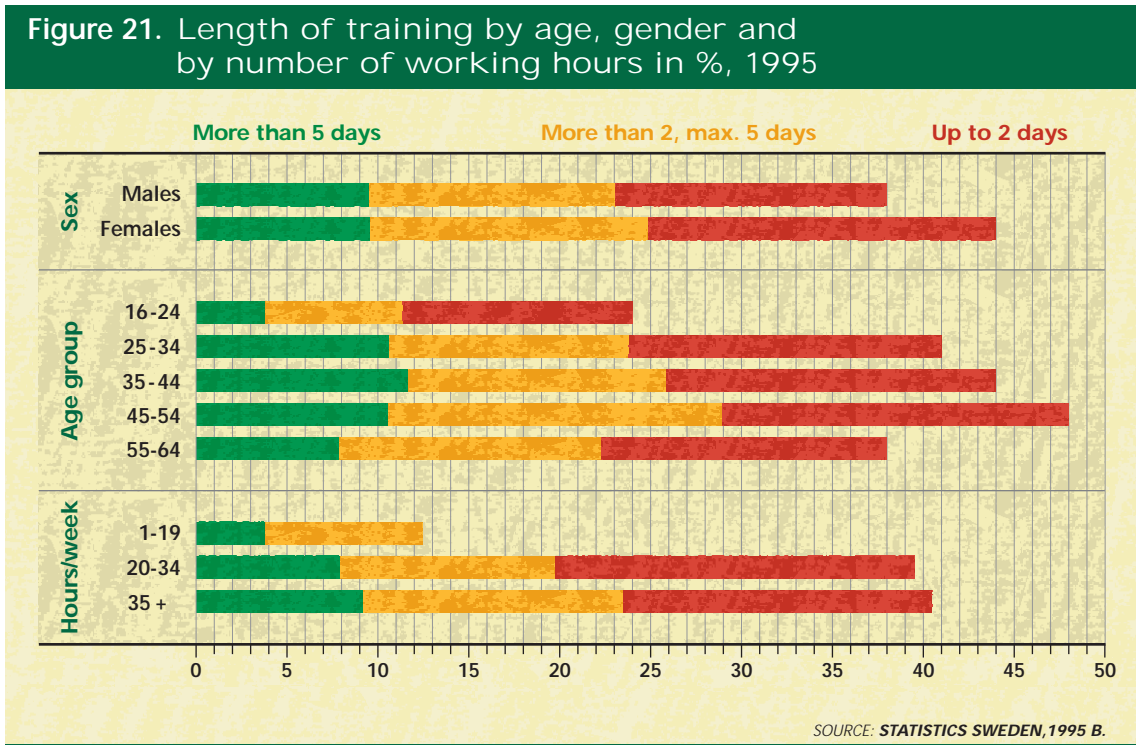


Table 20. ICT for the total labour market by age group

Age	First six month 1997					Change			
	Total employed		Those in training			1995-97		1996-97	
	1 000	1 000	%	Days per trainee	%	Days per trainee	%	Days per trainee	
16-24	452	109	24	5.2	0	-1.1	-1	-0.6	
25-34	972	338	35	7.1	-7	-0.9	-3	-0.2	
35-44	958	397	41	7.8	-4	0.0	-2	1.5	
45-54	1 079	471	44	5.8	-4	0.3	-2	0.6	
55-64	566	197	35	4.6	-3	-0.2	-1	-0.6	
Total	4 027	1 513	38	6.4	-4	-0.3	-2	0.4	

SOURCE: STATISTICS SWEDEN, 1995 B.

In-company training by size of enterprise

3.3.38.

Table 21 shows the share of employees participating in in-company training by size of enterprise. The bigger the enterprise, the more training the employees receive. More people participate and the duration of the training is longer in the larger companies. The self-employed are the group participating least in in-company training in terms of both the number and length of opportunities.

Table 21. In-company training by size of enterprise, first half of 1996

Size of workplace	Share receiving 0.1 to 5 days (%)		Share receiving more than 5 days (%)		Total (1 000)	
	Men	Women	Men	Women	Men	Women
<9,	82	82	18	18	110	94
10 - 49	83	81	17	19	186	232
50 - 99	76	76	24	24	84	85
100 - 249	73	79	27	21	104	72
250 - 499	76	84	24	16	67	44
500 - 999	78	81	22	19	67	54
1000	76	75	24	25	177	214
Unknown	80	78	20	22	5	13
Total	79		21		1 609	

SOURCE: STATISTICS SWEDEN, 1997, STATISTISKA MEDDELANDEN, U 39 SM 9701.



The provision of in-company training has increased substantially in the last few years. Due to the economic recession, it decreased substantially in 1993 but increased to its former level in 1994. Municipal adult education has an opposite curve with peaks in the number of persons in 1987/88 and again in the last few years. There are marked variations in the supply of in-company training (ICT) between the public sector with the highest provision, and the traditional sectors and SMEs with the lowest supply of training options.

3.3.39.

There are, as indicated earlier, very few collective agreements concerning ICT. One exception is teaching, where ICT is regulated by law and in collective agreements. Thus 49 % of employees in pedagogical professions receive in-service training, which is by far the highest figure. Other occupational/professional groups where a large number receive training are health and child care personnel and white collar professions. Occupations with the least training are cleaning, driving and painting.

Providers of vocational training or corporate learning

3.3.40.

Providers of CVT can be subdivided into public institutions, trade unions, employers' associations, private enterprises and training companies. As mentioned earlier, Sweden has a large number of training companies. A number of these offer not only education, but also consultancy and technology services. There are also training institutes providing education for manual workers. Some training companies are very much concerned with the training of senior executives.

The table below illustrates the provision by different suppliers as a percentage of the total number of participants in ICT.

Table 22. Suppliers of in-company training as % of total number of participants, first half of 1997

The employing corporation	68.0
Other corporation	21.0
Higher education	2.0
Trade unions	1.0
Interest organisations	1.6
Study associations	1.5
Others	1.4
<i>Komvux</i>	0.7
Governmental agencies	0.5
<i>AmuGruppen</i>	0.4
Folk high schools	0.2

SOURCE: STATISTICS SWEDEN 1997. STATISTISKA MEDDELANDEN U 39 SM 9701.

Educational institutions account for a relatively small share of the total volume of training activities. Various surveys have indicated that only around 20 % is provided by external training companies.

Trade unions

3.3.41.

Sweden's employee organisations, the Swedish Trade Union Confederation (*LO*), the Swedish Confederation of Professional Employees (*TCO*) and the Swedish Confederation of Professional Associations (*SACO*), have extensive study programmes of their own. These are designed to give union members a solid background in union affairs and other social areas. They also supply trained union officials at local, regional and national levels. Most courses are residential and last one or two weeks, but some last for up to six months. There are no government subsidies for these programmes.

Forms of arrangements for inter-company provision of CVT

3.3.42.

Various federations of employers and different federations/organisations of employees have together, or individually, created institutes for pursuing and providing education. Examples include the Institute for Industrial Management, the Swedish Management Group and the Council for Education of Salaried Employees.

New initiatives to broaden higher education

3.3.43.

It is a question of definition whether the system of higher education should be included in CVT models. Firstly higher education aims at education support and certification of certain professions, and additional educational steps in this context might be labelled continuing professional education or continuing higher education. Excluding degree programmes at undergraduate level and research training components in the system of higher education, examples of CVT could be picked from the wide provision of shorter courses used for occupational upgrading. Other examples are shorter vocational programmes for technicians (*yrkesteknisk högskoleutbildning, YTH*).

Even if vocationally oriented study programmes at higher education level leading to academic professions (civil engineers, medical doctors, dentists, psychologists, social workers, etc.) are excluded, there are still various models of continuing vocational education. Firstly, it is quite obvious that the broad provision of shorter or 'one-off' courses is meeting the need for continuing vocational education for a variety of adults. Secondly, higher technical vocational education, introduced in the early 1970s, represents another form of CVT. The third form is a newly started programme for supplying qualified vocationally oriented higher education.



3.3.44.

In the late 1960s, a number of political initiatives were taken to broaden social recruitment to higher education e.g. widened admission and decentralisation in the provision of courses and programmes. Special attention was paid to new vocationally oriented courses of a sandwich character. New options for distance education were another instrument used, in addition to the creation of shorter vocational programmes for technicians. Today, the need for a new expansion of higher education opportunities is an idea shared by the major political parties in Parliament (*Riksdagen*). The former government launched an expansion plan for higher education. Furthermore, a governmental commission has analysed the need for continuous vocational training at higher education level, and made suggestions such as increasing enrolment in higher education from 30 % to 50 % of the population, especially among young people. The experimental scheme started on this basis more limited in size and ambitions.

3.3.45.

A new experiment with advanced vocational education (*kvalificerad yrkesutbildning*) at higher education level has been launched by the government (Bill.1995/96:145). In total 1 700 new student places were introduced during 1996 in order to gain experience from different providers, educational models and new programmes. The purpose of this developmental approach was to analyse and assess the needs and interests of employers and educational providers. The government gives priority to models and solutions that will promote interest in science and technology among women. The general purpose of this educational organisation is to deepen the theoretical and practical knowledge needed in order to cope with the skill requirements of both autonomy and teamwork reflected in a modern and integrated work organisation. A task force appointed by the Ministry of Education and Science will monitor and assess the progress of this experiment in advanced vocational education at post-secondary level.

3.3.46.

The programme is a three semester long university education with a total of 60 points (one week's study equals 1 point). The aim is to give broader and deeper knowledge within a vocational area. The eligibility requirements are a minimum of four years of work within the actual occupational sector after having completed upper secondary vocational education. Persons lacking upper secondary education should have six years of work experience. The first part of higher technical vocational education is spent on basic subjects, such as Swedish, mathematics, physics, chemistry and computers. Those who have not studied for some time are advised to prepare themselves by studying mathematics for one term at a municipal adult education course. The teaching of vocational subjects at higher technical vocational education is carried out by people from the same sector of the labour market. Study visits and projects are important parts of the education.

Concluding comments on access to, and provision of, CVT

3.3.47.

Basic or initial vocational education is provided at upper secondary level. It is not compulsory in theory, but nowadays it is a necessary, but not always sufficient, condition for future employment. Very few young people without upper secondary education will be able to compete in the labour market of today and tomorrow. Continuing vocational training is supplied by public adult education, through employment training as part of labour market policies and also in various forms of in-company training and personnel education. Despite such a broad provision of adult learning options, there is still a significant social bias in access. People with higher education are more generously treated than individuals with little or no education after formal schooling. The provision of in-company training also varies between different sectors of the labour market and decreases for immigrants and employees with part-time jobs.

