



REGERINGSKANSLIET

Ministry of Education and
Science
Stockholm, Sweden

The Development of Education

National Report of Sweden

by

The Ministry of Education and Science

and

The National Agency for Education

Spring 2001

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NATIONAL REPORT ON THE DEVELOPMENT OF EDUCATION in SWEDEN

1 The Swedish education system at the end of the 20th century

General

Structure

Education in Sweden is mainly organised within the public sector. Parliament and the government have the overall responsibility for the state financed education system: Pre-school (early child-hood education, year 0-6), pre-school class and compulsory school (year 6-16), upper secondary school, general education as well as initial vocational training (year 16-20), adult education and higher education and research. The Ministry of Education is responsible for all education except employment training, which comes under the Ministry of Labour.

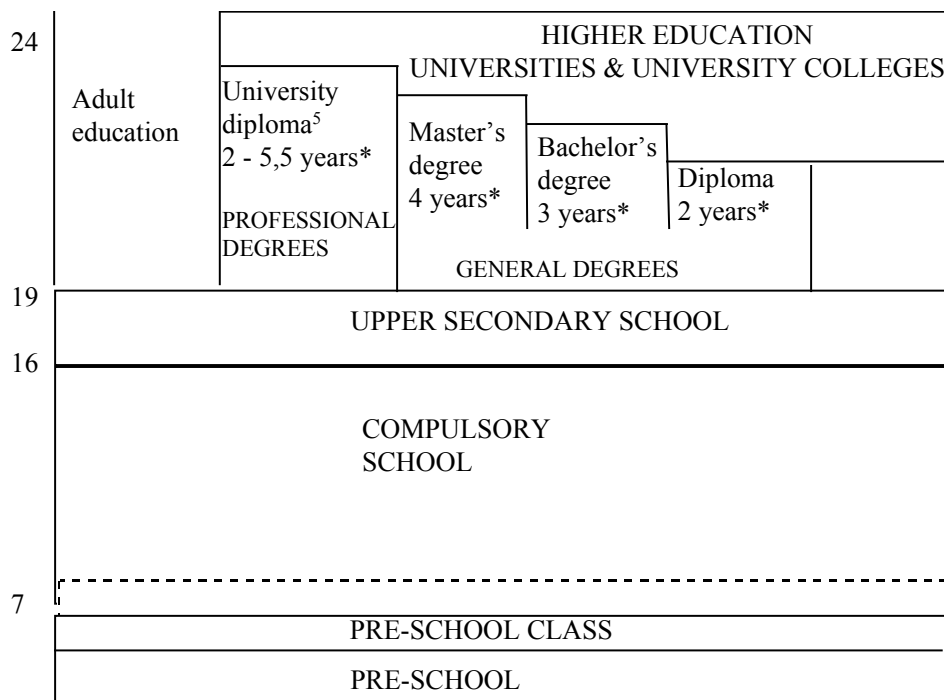
Municipalities are under a statutory duty to offer pre-schools, pre-school classes, compulsory schools, special schools, upper secondary schools and municipal adult education. The Government and Parliament decide the aims of education (Schools Act, curricula, programme objectives for the 17 upper secondary school programmes and syllabuses) and the results to be achieved. Municipalities are responsible for ensuring that schools function within the framework and according to the guidelines set by Parliament and the Government. Schools and teachers are responsible for the choice of teaching methods.

Higher Education is with a few exception run by the State.

State subsidies to municipalities take the form of general and equalisation grants. The State grant provides a supplement to the tax revenues of every municipality and is also aimed at equalising differences between municipalities. State funding, then, has nothing to do with school organisation; the municipalities are at liberty to deploy the grounds for various service purposes as they see fit.

The following diagram shows the structure of the Swedish education system.

General structure of the education system



* Minimum requirements

Formal education below university level

Basic principles – equal access

One fundamental principle of the Swedish education system is - as stated in the Education Act that all children and young people must have *access to equivalent education*, regardless of sex, social and economic background as well as residential locality. Compulsory school and upper secondary school are both comprehensive schools, designed to accommodate all members of the coming generation, and all schools are co-educational. The curricula for pre-school, compulsory and upper secondary education have nation-wide validity, and contain both values and goals.

Adult education in Sweden has a long history and options for further and recurrent education are available in many different forms throughout the country. Education for adult's equivalent to the education conferred by the compulsory and upper secondary school is part of the public school system. Swedish education is thus a structurally uniform system from elementary level through to upper secondary schooling and adult education.

Administration

Central level

The Swedish Ministries are rather small units mainly concerned with preparing the government's bill to Parliament, issuing laws and regulations. The operative part of the central state administration is in the hand of *National Agency for Education*. Its foremost tasks include responsibility for national follow-up, evaluation and supervision of all school activities, and for central development work within the school sector.

Local level

The local authorities are bound by law and regulations to provide a number of basic services for which they receive subsidies from the national government.

Legal framework

The legal framework for the education system in Sweden is the following:

* Law Education Act of 1985 for education below university level. In addition we have three nation-wide curriculums' that contain binding regulations for the school and thus steer its activity. It sets out the basic values of the school, its tasks and provides goals and guidelines for the school. It also states who is responsible for specific activities in the school and what this responsibility involves. It not only defines the obligations the State places on the school but also the demands and expectations pupils may make on the school as well as those that the school makes on pupils. These three curriculum's are:

- for pre-school education (LpFö 1998)
- for Compulsory schools (Lfo 1994)
- for non-compulsory education (Lpf 1994), which covers upper secondary schools, special upper secondary schools, municipal adult education and state adult education centres.

As complement to national curriculum there are

* Nationally decided syllabuses and core-curricula for compulsory and upper secondary education with binding regulations in which the government specifies the aims of teaching of different subjects pupils should have learnt upon completion of the syllabus/core curricula.

* Programme objectives for non-compulsory education

Introduction

During the 1990s, a radical reform of Sweden's education system was carried out, covering preschool activities, compulsory and secondary schools, and the public adult education system. Changes were introduced in steps throughout the 1990s. In 1991, a decentralization of the school system

was effected, meaning that municipalities now share the responsibility of education with the state. Changes have been made to curriculum and the grading system. Continuous reform of, above all, secondary and adult programs is also being undertaken.

Early childhood education and care (age 1-6)

Enrolment in early childhood education and care and schools in Sweden, October 1999.

Preschool programs 372,000	After-school care 348,100
Preschool classes in the school 112,300	

Compulsory school (age 7-16) and upper secondary (age 16-19)

Compulsory schools 1,034,900	Compulsory schools for the intellectually impaired 12.400	Compulsory schools for deaf or impaired hearing 800
Upper secondary 305,600	Upper secondary for the intellectually impaired 4800	Swedish schools abroad 1200

Adult education programs (age from 20 years)

Adult education under municipal administration 350,900	Adult education for the intellectually impaired 4200	Adult education under national administration 10.600	SSL for immigrants 34,700
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1.1 Major reforms and innovations introduced in the education system during the past decade

(a) The legal framework of Swedish education

The current Swedish Education Act came into effect in 1986 and replaced an earlier Act from 1962. The Education Act stipulates the legal framework for education, and more detailed specification of regulations are given in the statutes for the different types of schools. The teaching and course curricula

also state the education objectives, and for upper secondary and adult education also express program objectives.

Since the new Education Act came into effect, all administration of the public school system has undergone extensive change and the Act has been amended more than 50 times. The aim to integrate childcare and schooling in a life-long learning process has meant that regulations concerning early childhood education and care have been transferred from the Social Services Act to the Education Act. Regulations concerning adult education were also introduced to the Education Act in 1991.

Since 1999, a comprehensive review of the Swedish Education Act has been underway, the goal of which is to bring the Act up to date. This includes bringing the Act better in line with the goal-oriented management of schools and the current division of responsibility between state and municipality.

In 1985, Swedish Parliament took a decision in principle to the effect that all children, from 1-1 ½ years to school age, would be provided access to an organized form of preschool by 1991 at the latest. In 1995, the legislation in this area became more stringent and municipalities became obligated to provide places, without undue delay, for children requiring childcare. According to the Education Act, municipalities are now obligated to provide preschool and after-school care to the extent required with respect to the parents' gainful employment or studies, or according to the needs of the child. This obligation applies to children from 1-12 years.

Preschool activities are run in the form of preschools, in-home daycare centres and drop-in preschool centres, as well as after-school care in the form of recreation centres, in-home childminding centres and drop-in recreation activities.

The first curriculum for Swedish preschool was issued in 1998, in the form of a statute with legally binding directives for the municipality and the preschool. Earlier, the pedagogic program for preschools took the form of general recommendations.

Part of the gross expenditure for early childhood education and care in Sweden is financed by fees collected from the parents. The difference in fees from one municipality to the next has often been considerable and Swedish Parliament has therefor taken a decision to introduce an upper limit for fees the municipality may collect, effective 2002.

In 2003, general preschool of not less than 525 hours/year free of charge for 4- and 5 year-olds will be introduced. Municipalities will be obligated to provide preschool activities for this age group, while participation will remain voluntary.

As of 1997, 6 year-olds have been permitted to start school if the parents so choose, in which case, the municipality is obliged to provide places for these children in compulsory school.

Preschool classes were introduced in the public school system as a program for 6 year-olds in 1998. At this time, the 1994 compulsory school curriculum was adapted to accommodate the new age group in the school and in after-school care.

During the 1990s, new teaching and course curricula that contain goals to strive towards and goals to be attained stipulating standard achievement levels, were introduced. The school curriculum also defines the values that shall permeate all school activities. Respect for a person's dignity, his/her individual freedom and integrity, gender equality, appropriate care for special needs children, an intercultural perspective, and taking responsibility for one's actions, are fundamental values upon which school activities shall be based. Swedish schooling is not a neutral ground when it comes to values, but instead shall foster equality and the view that all people deserve to be respected and heard.

The idea is that the curriculum should clearly state this basic value system and orientation upon which education is based, while not limiting the ambitions of the school. Since the quality of education must be allowed to develop through knowledge gained, the management objectives employed must reflect the quality striven for in the day-to-day work of the school. In order to enable comparisons on a national level, achievement goals have also been set.

A new grading system and entrance requirements for secondary school were introduced to the Swedish education system during the 1990s. A central set of goals to attain are now in place for the knowledge and skills pupils shall have achieved to receive a passing grade in Swedish, English and mathematics, in order to continue to national programs in upper secondary education. The National Agency for Education has decided on criteria for awarding marks of categories Pass with credit and Pass with distinction. The compulsory school leavers of 1998 were the first to be given final grades (i.e., upon completion of the 9 years) based on the new knowledge-related grading system.

The 9-year Swedish compulsory school follows a nationally approved timetable, during which, every pupil is guaranteed a predetermined number of teaching instruction hours in each subject. The latest approved curriculum provides considerably greater leeway than earlier curricula with respect to how resources may be used, in that it does not stipulate the grade level at which the subjects must be covered, and in that it allows some room for school- and student options. A comprehensive 5-year trial that includes dispensing with timetables is now being conducted in Sweden. In 79 municipalities approximately 900 schools are liberated from the time-table per subject or group of subjects in the national curricula. The amount of teaching will thus become a pedagogical tool. The trial is being closely monitored and careful evaluation will follow.

Number of instruction hours (in 60-minute lessons) for compulsory school teaching shown by subject and subject group

<i>Swedish</i>	1 490
<i>English</i>	480
<i>Mathematics</i>	900
<i>Art</i>	230
<i>Home and Consumer Economics</i>	118
<i>Physical Education and Health</i>	500
<i>Music</i>	230
<i>Textiles, Woodwork and Metalwork</i>	330
<i>Social studies:</i>	
<i>Geography, History, Religion and Civics (can be studied separately or combined total)</i>	885
<i>Science:</i>	
<i>Biology, Physics, Chemistry and Technology (can be studied separately or combined total)</i>	800
<i>Language options</i>	320
<i>Student electives</i>	382
<i>Guaranteed total minimum instruction hours</i>	6665
<i>Whereof school-determined options</i>	600

In Sweden, upper secondary education is free of charge and also voluntary. However, Swedish municipalities are obligated to provide all persons up to the age of 20 years with the opportunity to commence a secondary program in the municipality where they live, or, by special arrangement, in another municipality.

During the 1990s, a great deal of reform has occurred in the secondary system. Students starting secondary programs in the autumn term of 1993 were the first cohort for which the majority began their studies in the new course-oriented upper secondary programs.

At present, there are 17 national programs at the upper secondary level, all of which are 3-year programs. In 2000, a new program in technology was added.

Number of students enrolled/municipalities offering upper secondary programs (Autumn term 1999)		
<i>Programme</i>	<i>Students</i>	<i>Municipalities</i>
<i>Social Sciences</i>	75,800	206
<i>Natural Sciences</i>	58,900	196
<i>Arts</i>	14,600	124
<i>Hotel & Restaurant</i>	14,200	128
<i>Child Care & Recreation</i>	13,100	172
<i>Business & Administration</i>	12,800	154
<i>Electrical Engineering</i>	12,700	159
<i>Media</i>	11,500	87
<i>Vehicle Engineering</i>	10,600	148
<i>Health Care</i>	9700	122
<i>Use of Natural Resources</i>	6800	50
<i>Construction</i>	6200	117
<i>Industry</i>	5600	150
<i>Handicrafts</i>	4100	67
<i>Energy</i>	2100	46
<i>Food</i>	1700	28
<i>Specially-designed programme</i>	21,800	145
<i>Individual programme</i>	20,100	275
<i>Other</i>	3100	33
Total	305,600	

The subject areas in Swedish upper secondary are divided into individual courses. Grades are awarded upon completion of a course and the scope of a course is expressed in number of credits. For every course, there are expressed objectives and criteria for grading.

In order to guarantee a broad general education, all national secondary programs include a number of core subject courses, courses specifically related to the subject area and elective course options, as well as project work and individual electives. A complete upper secondary education, i.e., a national program, comprises 2500 credits.

List of credits for upper secondary programs

<i>Core subjects included in all national and specially-designed programs</i>	<i>No. credits</i>
Swedish/Swedish as a Second Language	200
English	100
Mathematics	100
Physical education and health	100
Civics	100
Religion	50
Science	50
Art	50
<i>Subjects specifically related to the selected program including projects totalling 100 credits</i>	<i>1450</i>
<i>Student electives</i>	<i>300</i>
<i>Total credits</i>	<i>2500</i>

The national programs offer a broad general education and basic eligibility to study at the college or university level. In practice, however, the vocationally-oriented programs sometimes do not qualify a student for post-secondary studies since post-secondary institutions have higher admission requirements.

The Education Act stipulates that municipalities must offer a well-rounded choice of national secondary programs and that the number of available spaces in programs and specializations be adapted according to student interest. Thus, in principle, students have the right to receive their first choice of program. Youth who do not meet eligibility requirements for a national program shall be offered education in the form of specially-designed or individual programs.

In 1992, independent schools were assured municipal funding. The number of independent schools grew during the 1990s. The total number of compulsory schools in Sweden is currently 5048, whereof 371 are independent. This means approx. 3% of children attending compulsory school are in independent schools. Of 595 upper secondaries in total, 72 are independent. As of the 1997/98 school year, independent schools that receive municipal funding may no longer charge a fee for education.

Sweden's teachers and childcare workers maintain a generally high level of education – 86% of compulsory school teachers and 81% of secondary teachers have pedagogic training. In the late 1990s, aptitude testing of school, preschool and after-school care workers was under debate and under investigation. As of 1 January 2001, new legislation stipulates that persons seeking employment in preschools, schools and after-school care must provide the employer with a criminal record check stating that they have no prior convictions for sexual abuse, involvement in child pornography, or other offences involving a demonstrated disregard for another person's life or well-being.

(b) The organization, structure and management of the education system

Swedish Parliament and Government have the overall responsibility for Sweden's publicly-financed education. The state formulates national education policy and stipulates education objectives in laws, statutes and curriculum. Together with the curriculum and approved timetables, the objectives guide school activities, the aim of which is to ensure that everyone receives an education of equal value. The new division of responsibility entails a shift from regulatory and resource-oriented management to result-oriented management by objectives. In the regulatory administration of schools, the organization of the schools and the content and work methods used in education were to a large degree decided at the national level. In our increasingly complex and rapidly changing society, this highly regulated approach has been deemed less viable.

The aim has therefore been to transfer more authority for decision-making, regarding the organization and development of work, to the local actors. The epicentre of decision-making has thus been moved to the schools themselves, and flexibility at the local level has increased. Administrators in the school now have more responsibility and have more leverage in the control of school activities.

Municipalities have considerable freedom to decide how activities will be carried out, at the same time as they are also held accountable for the activities undertaken. This implies the administration, follow-up, supervision and development of educational activities based on the objectives set at the national level. Every municipality shall have an education plan which is approved by the local government and which defines how the school system in the municipality is to be shaped and developed. Every school shall also have its own action plan describing how the national objectives and the goals of the municipal plan are to be achieved. Included in the individual school's responsibility is that school administrators and teachers work together with the pupils to give their school work content and structure. The responsibility of developing and improving teaching also lies with the individual school.

Municipalities are also obligated to submit data concerning school and early childhood education and care, as well as to participate in the evaluation of activities in these areas.

(C) Evaluation policies, methods and instruments

The responsibility of maintaining statistics on childcare, schools and adult education belongs to the National Agency for Education. The Agency provides up-to-date information on the status of Swedish schools and childcare to Government, Parliament, the municipalities and the general public. Data relating to the organization of schools and related activities, expenditure, and results achieved, is gathered on an annual basis. In-depth analyses are also carried out in order to provide a more detailed picture. The National Agency for Education also conducts controls to ensure that those responsible for schools and early childhood education and care are meeting the national standards stipulated foremost by the Education Act and approved curriculum.

The generation of statistics has, in recent years, increased in scope due to a rising interest on the part of the media, municipalities and the general public.

Since 1998, federal school inspectors have monitored the quality of education in schools according to special topics decided by the government. These inspectors examine the possibilities and difficulties schools may be having in meeting the national objectives, and make recommendations concerning possible changes needed. The inspectors also report to Government.

The purpose of Sweden's national examination system is to aid teachers in the grading process, to ensure equity in the grading system and early identification of weaker students in need of support. The exams are, however, also used in the assessment of whether national objectives are being met. National exams in Swedish, English and mathematics are given in years 5 and 9 of compulsory school and throughout upper secondary. Diagnostic material is also available to compulsory schools for the lower grades, and in recent years a test bank of computer-based exams has been compiled, enabling the use of multimedia (video, graphics, sound and text), that serves as a source of support for the teacher.

According to the new grading system, grades are given in years 8 and 9 of compulsory school according to three possible grades – *Pass*, *Pass with Distinction*, and *Pass with Special Distinction*. The grade awarded shows the student's achievement level in relation to the national objectives. In upper secondary, grades are given upon completion of each course. At this level, they include also the grade of Fail for cases where the minimum requirements of a course have not been met. Secondary students in Sweden are permitted to retake a test in an attempt to achieve a passing grade.

In addition to assessment in the form of grades, teachers shall also keep the student and his/her guardian informed of the student's progress in school. A meeting between the teacher, student and guardian shall be held at least once per term to review how the student's learning and social development can best be achieved. Upon the request of a student's guardian, the teacher shall also submit a written account of the student's progress in school. The parent-

teacher-student interview is thus the school's most important means of keeping the parent or guardian informed, as well as providing the school feedback from the student and guardian. The purpose of these meetings is to give a general picture of how the student is doing in school and to promote the child's development. This serves as a barometer of the child's learning, ambition, work habits, behaviour, ability to concentrate, ability to work with others, creativity, self-image, social development, and how the child perceives and feels about the school environment.

Once a child has come of age, the school is no longer obligated to contact the parent or guardian in matters concerning the child's situation in school.

In the 1990s, new methods were successively developed to assess the results and quality of the education system. Quality indicators have been identified to assist this work in development of the local school.

Since 1997, every municipality and school conducts a systematic yearly review of their activities, which are presented in the form of a quality report. The quality report shall include evaluation and analysis of the goals achieved and a description of the quality of activities. The report shall also include an assessment of the measures needed in cases where objectives have not been met. The principals shall, in cooperation with other staff and student advocates, be responsible for preparing the school's yearly reports, which in turn constitute the basis for municipal reports on municipality-wide quality trends. The quality reports are primarily designed as an aid in the school's own work in quality development, but may also be used in information to parents of as a source of reference for parents when choosing a school for their children. On the basis of its review of these quality reports, the National Agency for Education extends support to municipalities to help them fulfil their objectives.

Advancements in computer technology have enabled, and made it natural for, information on achievement and quality to be made available over the Internet, in an effort to stimulate improvement. During 2001, the National Agency for Education is constructing an extensive database, containing such quantitative and qualitative figures on education for all levels – national, municipal and local – that will be made available on the Internet.

(d) Objectives and principal characteristics of current and forthcoming reforms

In the fall of 1988, Swedish Parliament made the decision that school administration would in future shift from being characterized by regulatory management practices to a more goal-oriented management, with fewer rules and clearer objectives. A comprehensive review of the education system began in 1989, at which time it was decided that national regulation of teaching and guiding positions would also cease, meaning that municipalities took over the responsibility of employer for all personnel in the schools.

Before this, school administration had for many years been highly centralized. As the regulatory system became increasingly detailed, it was perceived as an obstacle to development. The central and regional administration of the federal administrative body was big and costly.

The purpose of the decentralization that occurred in the 1990s was to streamline national administration and render it more cost-efficient, through reducing administration and cutting costs, with an end to enhancing further development of education activities.

As of 1993, every municipality is responsible for the allocation of resources for schools in their jurisdiction, and thus must weigh this funding against allocations to other activities in the municipality. Only in cases of exception will the state provide grants directly to the school. Another purpose of the decentralization was to give citizens living in the community better insight and more opportunity to influence the access to, and quality and content of, public sector activities.

The political leaning toward a holistic view of all pedagogic activities, geared to fostering and supporting children and youth in their education and development, has led to the responsibility of early childhood education and care being transferred from the Ministry of Health and Social Affairs to the Ministry of Education and Science, in 1996, with the National Agency for Education becoming sectoral authority for childcare.

The intended impact of the new grading system introduced in the 1990s was to place clear demands on the school with regard to taking proper measures and applying resources where needed.

The idea behind allowing the establishment of independent schools is the creation of more diversity in the school system, thereby safeguarding the cultural diversity found in the community and allowing for variation in educational approaches.

The purpose of reforms in upper secondary education is to improve the quality of teaching by deregulating and decentralizing activities, and by constructing a secondary school system with enough flexibility to be able to change and keep up with the times. The thought behind widening the scope of secondary education is the desire to create the conditions necessary to provide all students in all programs a general knowledge of a variety of subject areas and a basic platform from which to launch continued studies or perform other tasks in tomorrow's society. The subjects studied by all students include basic courses in Swedish, English, mathematics, physical education and health, social studies, religion, science and art. Over and above these core areas, upper secondary shall also work to meet students' wishes with respect to offering programs that meet their interests and needs. Changes made to the upper secondary system apply, above all, to former vocational programs, which have been lengthened to 3 years, like all other

secondary programs. The biggest change to the vocational programs is an increased emphasis on general theoretical subjects.

In 1997, the largest project ever in Swedish adult education history began – the Adult Education Initiative, a 5-year project whose ultimate goal is to reduce unemployment, develop and bring innovation to adult education, reduce the growing gap in levels of education, and provide more opportunities for growth. The efforts exerted in this project are expected to lead to the emergence of innovative new adult programs that are better adapted to the needs and demands of the individual, the labour market and 21st century society. The primary target group is unemployed adults who lack upper secondary qualification, in part or in full, though the program also accepts other adults if space permits.

1.2 Major achievements attained over the past decade

(a) Access to education

According to the Swedish Education Act, all children and youth shall have equal access to education in the public school system. For children whose parents work or study, the municipality shall also provide places for these children in childcare where needed, with a waiting period of no longer than about 3 months. Adults shall be given the occasion to complete or supplement their education, as required, in the public adult education system.

Due to rapid expansion of childcare which accelerated during the 1990s, virtually all municipalities are now able to meet the requirements stipulated by the Education Act concerning providing places in early childhood education and care “without undue delay” for the children of parents who work or study. Children in the age group 10-12 years, and those whose parents are unemployed or on parental leave, are still largely unprovided for in the early childhood education and care. The possibility of paid parental leave, for children 0-1 years, has virtually eliminated the need for public early childhood education and care in this age group. As from the first of July 2001 the right to early childhood education and care not less than 3 hours/day for children whose parents are unemployed will be introduced.

**Number of children enrolled in early childhood education and care and after-school programs
(In percent of total number children in population)**

	<i>1-5 years</i>	<i>6-9 years</i>	<i>10-12 years</i>
1999	75	66	7
1990	56	49	8

As from January 1, 2002 the right to early childhood education and care not less than 3 hours/day for children whose parents are on parental leave with a new child.

The Education Act stipulates that school is mandatory for children residing in Sweden, and that mandatory attendance is reflected in the right of all children and youths to receive an education in the public school system. Mandatory attendance applies to the 9-year compulsory school, separate schools for the intellectually impaired and other special schools, and ceases upon completion of the spring term of the calendar year when a child turns 16 years.

A municipality is obligated to offer all youths (up to the age of 20 years) in the municipality the opportunity to attend upper secondary school, either in their own municipality or, by special arrangement, in another municipality. Municipalities shall provide a well-rounded selection of programs and, within the national program framework, adapt upper secondary education according to student wishes. During the 1990s, several municipalities have opened their own secondary schools and existing schools have started a number of national programs and augmented the available choices. Even smaller rural municipalities have started new upper secondary programs.

Nowadays, the labour market for students with no secondary education is extremely limited. Students unable to complete their studies in upper secondary therefor have the option of completing these studies in the adult education system. In Sweden, almost all students leaving 9-year compulsory school carry on to upper secondary.

Extensive investments made in adult education during the 1990s led to an increase of students in adult programs. Before the Adult Education Initiative began, 4.6% of adults between the ages of 20-64 years participated in municipally-run adult education programs. By the school year 1998/99, the corresponding figure had risen to 6.6%. The project has augmented course options available in adult education and promoted cooperation between municipalities, county councils, national schools for adults, and other adult colleges and companies in the education sector. The traditional range of theoretical courses offered has been complemented with a large increase of vocational courses. All of Sweden's municipalities have participated in the project and the objectives set by the state, with respect to volume, have been attained.

(b) Equity in education

The Education Act stipulates that the education offered in all forms of schooling shall be equivalent no matter where you are in the country. Swedish education policy strives for this goal of equivalence – that the conditions necessary to attain national education objectives be created for all students, regardless of background or where they live. The challenge in achieving equity lies in providing for students with different conditions, requirements, knowledge and experience, and creating environments that

enable students to meet the national objectives with respect to values and knowledge.

No system can guarantee complete equity and fairness, but one way to improve the conditions for equity is by taking the student's individual needs into consideration when designing education programs. Students at risk of failing to achieve national goals shall be offered the support necessary to help them to reach the goals.

Number of compulsory school children receiving remedial tuition at some time during the school year 1997/98 (In percent of total enrolment)

	<i>Girls</i>	<i>Boys</i>	<i>Total</i>
<i>Years 4-6</i>	28	41	35
<i>Years 7-9</i>	15	26	21
<i>Year 9</i>	7	14	11

Despite the high level of support given, the need for special support is still perceived as large and growing. The resources required to respond to this need in full are lacking. Cutbacks in the 1990s led to a reduction in special education programs.

Swedish schools measure up well in international comparisons. Statistics show that 80% of Swedish compulsory school students are achieving the set goals with respect to knowledge. There is, however, a large difference in the results achieved between schools.

A certain degree of variation within the framework of the decentralized system can be expected, and perhaps even desired, but there is some indication that the variation is so great that it suggests a lack of equity. Differences between schools may include the allocation of resources, local follow-up and evaluation of activities, and the rate of development, which can explain the difference in goal achievement.

There are also large differences in the underlying conditions for different schools. Schools with a large percentage of new immigrants, with poor skills in Swedish, face a much bigger challenge than other schools. In Sweden, there is also a factor of segregated living, which has increased during the 1990s, and which presumably works against equity.

In order to create and improve existing conditions for equity, efforts to assess and follow-up school activities were intensified, and specially-targeted national projects were carried out during the 1990s.

(c) Quality and relevance of education

According to the Education Act, early childhood education and care shall be based on the needs of the individual child, and properly trained or experienced personnel shall work to meet the child's needs for care and sound education activities. The composition and size of children's groups, as well as the premises used, shall also be properly suited to the purpose. Other crucial factors in maintaining high standards in care, are a highly skilled staff, continuity in children's groups and staffing, and productive cooperation with other levels and organizations involved. Early childhood education and care has a particular responsibility regarding children in need of special support.

Number of children enrolled in child- and after-school care per full-time employee (1999)

Preschool	5.7
In-home daycares	5.5
Recreation centres	17.8
Preschool classes in the school	7.7

In international contexts, the tie between different forms of education and care in the Swedish preschool model is often described as "educare", and is perceived as high quality, highly flexible activities that are rich in variation and incorporate great respect for the child. Employees working in early childhood education and care have a high level of education, which has also risen during the 1990s. The fact that the expansion that occurred in the 1990s did so within unchanged budget constraints has meant that the size of daycare groups and the child per personnel ratio have grown. While 30% more children are being accommodated in early childhood education and care, the gross expenditure has not increased.

Compared to other countries, Sweden invests a large amount in education and early childhood education and care. The ambition is to create the conditions necessary to enable all school children to achieve the national objectives.

In the spring of 1999, 90.3% of children leaving compulsory school met the requirements for eligibility to continue to national programmes in upper secondary. From an international standpoint, this figure is high. With respect to the national objectives and the variation seen in the results of different schools, however, from a Swedish standpoint, it is not high enough. Economic conditions in Sweden in the early 1990s, and the ensuing cutbacks, have had an impact on the quality of Swedish schooling. Although the teacher-student ratio is still relatively high, from an international

standpoint, it has nevertheless fallen from 9.1 to 7.6 teachers per 100 students since the beginning of the 1990s.

The purpose of the upper secondary reform was to improve quality in the programs offered by introducing national objectives and, at the same time, grant schools the freedom to shape their own educational practices.

In order to increase the relevance of upper secondary education, the reform also included parts of the education being conducted in the workplace. This on-the-job training and education given in the classroom was to be tied together in a course system. In this way, changes in the working world could also influence schooling. Implementing this part of the reform has proven somewhat problematic and led to rather cumbersome administration. It has been difficult to establish workplace-based training that follows a curriculum and runs a minimum of 15 weeks. There are, however, also many examples of workplace-based education that have been successful, and that have had a positive effect on students. Students perceive the opportunity of combining work experience and education as positive. It provides opportunities for development and to establish contacts that may lead to future employment.

One of the projects aimed at increasing the quality and equity in Swedish education is that of information technology (IT) in the schools. Through considerable efforts in this area in 1999-2001, 40% of compulsory- and upper secondary teachers are being offered the opportunity to enhance their IT skills and schools are being provided access to computers and the Internet. 86% of municipal (public) compulsory schools and 95% of public secondaries are connected to the Internet.

Adult education has undergone a big increase. Since 1997, approx. 700,000 people have participated in upper secondary education for adults. The courses offered in this form of schooling shall be in keeping with the needs and demands of the individual students. In order to meet the demand for adult secondary education, the relative proportion of vocationally-oriented courses, primarily in the fields care and computers, has increased.

To enable more comprehensive assessment of quality in Swedish education, extensive work is being done to develop methods that enable us to measure and define quality. Among other things, a quality indicator system is being tested.

(d) Participation by society in the process of educational change

The school is of interest to many groups in society, groups that may also initiate and influence changes in the education system. In Sweden, the debate on this topic is lively and ongoing. Many groups participate, and the work in education reform regularly involves these interested parties.

1.3 The lessons learned in the process of changing and reforming education systems: Approaches adopted, successful/unsuccessful strategies, major difficulties encountered, etc.

Thus far, the experience gained from the reform is that municipalities assume responsibility for education based on their specific local conditions, and that in some municipalities this responsibility has been lacking. Local conditions differ considerably from municipality to municipality, and have a large impact on how management is designed within a municipality. The variations found in municipal administration of schools are therefore great, which is also an expected outcome of management by objectives and results.

The decentralized education system is founded on early childhood education and care and schooling being evaluated by local actors. During the 1990s, municipalities developed their own assessment programs. Although an increasing number of municipalities and schools use a quality reporting system to evaluate their activities, development in this area has not moved as quickly as planned. Despite the requirement, as of 1997, that municipalities perform quality reporting, many did not get started on it until 2000.

One thing we have learned from the sluggishness of municipalities to assume responsibility, in keeping with the intentions of the reform, is that extensive change requires not only time but also a large amount of support and proper follow-up. To a certain degree, the state made the assumption that municipalities could bear the new responsibilities if only given the chance. It became apparent, however, that more support was necessary, more comprehensive information etc. was needed, and municipalities and schools should perhaps also have been more actively encouraged to cooperate and learn from each other – especially since earlier forms of regional support for the school, such as county authorities, disappeared in connection with the reform. Offering a high degree of support also entails striking a difficult balance between extending the required support yet not sending the message that the state does not trust the efforts of the local actors.

The Swedish education system has gone from being highly centrally-administrated to a decentralized system where the municipality is responsible for distributing resources in such a way that schools achieve the national objectives. However, in the beginning of the 1990s in particular, municipalities wrestled with dwindling resources, which led to the state having to allocate considerable development funding in order to promote educational activities.

One of the primary factors inhibiting education development is the lack of time for evaluation and planning. Goal- and result-oriented administration of education presupposes that schoolteachers use local action plans and grading criteria, and evaluate educational activities. The teachers, however, feel there is no time for this. The new agreement in the middle of the 90s between trade unions and trade associations will have a better preference for

common planning due to the fact that the teaching load is not any more nationally regulated.

There is a tendency in many municipalities for the responsibility of education to be fragmented among different actors – politicians, administrative bodies, school administrators and teachers – between whom cooperation in education development is wanting.

Education reforms have led to a general heightening of requirements and ambitions of the school, and the new grading system has served to shed light on the results achieved. Along with the positive effects of this, have also come increased stress and an academic focus on Swedish, English and mathematics in compulsory school.

Experience gained from the upper secondary reform shows that the design of courses and the increased number of options have led to secondary education becoming more open and flexible. Students have gained some influence in their area of specialization through the choice of courses, and the possibility of studying at one's own pace has increased. Having students from different programs share a number of courses has also enabled schools to make more efficient use of available resources. At the same time, however, providing more options in upper secondary programs has meant that administration of the programs has become extensive, and the cost for this is a slowdown in the development work being done at the local level.

1.4 The main problems and challenges facing national education as we enter the 21st century

In the 1990s, the independent (private) school system underwent substantial growth, though it still constitutes a relatively small part of schooling alternatives. The number of independent compulsory schools more than doubled in the 1990s.

<i>Number of compulsory schools</i>		
<i>School year</i>	<i>Municipal schools</i>	<i>Independent schools</i>
<i>1993/94</i>	<i>4650</i>	<i>170</i>
<i>1994/95</i>	<i>4680</i>	<i>220</i>
<i>1995/96</i>	<i>4690</i>	<i>240</i>
<i>1996/97</i>	<i>4660</i>	<i>270</i>
<i>1997/98</i>	<i>4680</i>	<i>300</i>
<i>1998/99</i>	<i>4655</i>	<i>331</i>
<i>1999/00</i>	<i>4671</i>	<i>371</i>

Independent schools provide a challenge for education development in the future, in that they spawn innovation and improvement in the public school system in an effort to avoid inequality in opportunities and conditions, and in order that social segregation not increase. However, even in the future, the public school system must to some degree continue to provide continuity and equity to all students across the country.

Sweden's ambitions with respect to goal achievement are high – that all youths receive a 3-year upper secondary education and that 50% of those leaving secondary continue on to post-secondary study. For students mentally retarded or with other severe learning difficulties, there are compulsory school for mentally retarded and upper secondary school for mentally retarded. Now that almost all children continue on to upper secondary from compulsory school, the marked difference in underlying conditions and achievement results of students is evident. To help students with learning difficulties achieve the national objectives, these students must be identified early. Methods for local supervision and follow-up must be honed and intensified.

With the introduction of goal- and result-oriented management in the school, was also created, as mentioned above, the new, essentially goal-related grading system. The new system stipulates minimum achievement levels for a passing grade, which are linked to the “goals to be achieved” as stated in the curricula for the different subjects. A comprehensive national examination system has been designed to aid teachers in measuring a student's performance and achievement against the national objectives. Compiling statistics from exam results and grades, has enabled the creation of a database of results from different schools across the country. It has also led to an increased focus on these figures, not least by the media, and how they change from year to year.

The National Agency for Education has elected to see this as a way of publicizing the results, spurring discussion on the topic, showing changes and inciting schools to further develop and improve. The Agency is aware, however, that statistics based on grades and national exams tell only part of the story, and emphasize that this should be kept in mind in any use of this data. At the same time as statistics suggest a wider distribution of grades, i.e., a greater number of students receiving the highest grades, they also reveal a higher percentage of students leaving compulsory school (since the introduction of the new grading system 3 years ago) with a failing or incomplete grade in one or more subjects. Possible reasons for this negative trend, and how it may be turned around, remain to be determined. The dilemma is that national funding designated to remedy, at least in the short-term, what are considered bad grades, has decreased in size and strength, and has instead been transferred above all to the local actors.

At the same time, those who work with education development are fairly convinced that there are no quick fixes or national shortcuts to better results and development in individual schools. It is instead a question of long-term,

sustainable efforts to support and follow up those who bear the local responsibility and their activities – by demonstrating that development and improvement of education is possible and showing confidence in the efforts made by local actors, as well as teachers and students themselves. Advancement also rests upon demonstrating the value of self-evaluation and continual discussion of how improvement and change can be effected. Administration of the school by national objectives builds to a large degree on what we could call “participatory goal-orientation”, in which school personnel must reshape and process national objectives to fit the conditions in their particular schools and student groups.

One of the challenges for upper secondary education is predicting what types of education will be needed in the future. This likely implies the necessity of creating more flexible and less regulated programs.

Despite many times a difficult working situation, teachers in Sweden are doing a good job. Implementing reforms with shrinking resources, often in rundown working environments and larger classes, takes a toll on their energy. The percentage of teachers who experience a drastic increase in workload rose significantly during the 1990s. In order to recruit teachers in the future, the conditions of the teaching profession must be improved.

But despite the failings of the work environment, the majority of teachers and students like school. Nevertheless, an increasing number of students are also feel pressured by school, and dealing with discrimination and bias in the school is a challenge that schools, like other workplaces in Sweden, must face in the future.

2. Educational content and learning strategies for the 21st century

2.1 Curriculum development, principles and assumptions

(a) The decision-making process

Since Parliament gained the ability to take a stand on the basic principles of educational objectives and guidelines, these have been issued by Government.

Course curriculum for individual subjects and subject areas state objectives that apply to the entire country. The curricula are drawn up by the National Agency for Education in accordance with governmental directives.

To support work being done in the school, the Agency publishes special commentaries explaining the purpose and motives of national objectives and gives examples of how they can be concretized. These commentaries are not meant to be prescriptive but are based on scientifically substantiated knowledge and proven experience.

(b) Curriculum planning and design

One of the basic ideas in the structuring of school curriculum is that every type of school consolidates and builds upon what pupils have already learned.

But in considering the successive building of knowledge throughout a child's education, adjustment is also made to the conditions characteristic of different types of schools and their purposes.

The reform of the 1990s shifted the responsibility of a number of issues traditionally associated with curriculum, e.g., the content of teaching and how it is organized, to the school. Every school must now determine how to organize activities in order to fulfil the national objectives. How the teaching itself is carried out and what materials, work forms and methods are used, is decided by the teacher and the students.

(c) Teaching and learning strategies

The task of Swedish education is twofold – to pass on a heritage of cultural values, traditions, language and knowledge from one generation to the next, and to prepare students to live and function in society of tomorrow. The content of this work changes as society changes. School also plays an important part in teaching children how to process and sort large amounts of information. It has become increasingly important to know how and where to acquire information, as well as how to interpret, process and evaluate it. A fundamental part of this is developing a rich and expressive language, though perceiving connections, problem-solving, analysis and reflection, model-aided thinking, interpreting symbols, looking at things from different perspectives, formulating and arguing a standpoint, evaluating, and the ability to form and express ideas, feelings and moods, etc., are also of growing importance.

The curriculum also expresses the importance of taking a holistic approach to the learning-, as well as social- and emotional, development of children and youths.

The actual organization and content of the school's work is not determined at the national level, but decided at the local level as well as by the professionals working in the schools. During the 1990s, work and organization of work in the schools and childcare sector underwent extensive change.

Swedish schools emphasize the importance of children learning how to learn, and taking responsibility for their own learning. Group projects are commonly used to give students practice in working together to seek knowledge and in making decisions concerning the division of labour. Interdisciplinary study has become increasingly common.

Collaboration between teachers occurs more and more in the form of work teams. Organizing work into teams is seen in many schools as a precondition

to dealing with the increase in student options and more individual work forms now used.

(d) Assessment policies and instruments

In the Swedish education system, grades are used starting in year 8 of compulsory school. To aid teachers in assessing student knowledge and setting grades, there are national exams. National exams are based on approved course curriculum. For the lower years, there are diagnostic tests.

2.2 Changing and adapting educational content

(a) Why change? (Factors that motivated or are motivating curriculum reforms)

In the existing goal- and result-oriented administration of Swedish schools, school curriculum plays a central role. The curriculum states the objectives of an education program and guidelines for teaching instruction and other work done in the schools. The goals must be formulated in such a way that they can be objectified and defined at the local level, as well as allow for measurement and evaluation of achievement. The message sent by the curriculum to the teacher must be clear and precise. One of the reasons for the reformulation of curricula in the 1990s, was to ensure they would work with the new goal- and result-oriented management of the schools.

The complete reform of upper secondary and adult education also required changes to the teaching and course curricula of schools working in this area.

Changing the curriculum was also motivated by development and changes in society that should be reflected in school curriculum. Advances in technology, environment and immigration, Sweden's relation to other countries, and structural changes in business and industry, have had an impact on what knowledge and skills are perceived as important. Such development trends also place changing demands on work methods, forms of cooperation, and influence.

(b) Who must change? (Principal institutions, organizations and individuals participating in the process of changing and adapting educational content)

In the beginning of the 1990s, a committee was formed by Government to shape new curricula for compulsory school, upper secondary, and adult education programs. The committee's task was to submit proposals for legislation and directives that would allow municipalities to create a local profile, leaving ample room for student options, and which would lead to improved quality in education.

In carrying out this task, the curriculum committee conferred with the parliamentary commission in charge of drafting the new grading system. It also worked with a reference group made up of representatives of professional organizations within the education sector, as well as maintaining contact with other government authorities, committees and commissions involved. Publishers of educational materials were also kept informed throughout the process. Experts from different disciplines – environment, internationalization, changes in the working life, etc. – were also consulted. Experts who solicited ideas and opinions from other reference groups were also linked to the work on the curricula, as well as consultations held with experts from the National Agency for Education.

Proposals for course curricula and grading criteria were drawn up by the National Agency for Education. The government decide on the course curricula for compulsory schools. Government also issued a directive stating that, due to the constantly changing world we live in, starting in 1998, all curricula should be revised every 5 years at the least.

(c) What needs to change? (Areas covered, i.e., all aspects of the curriculum, introduction of new disciplines, revision of the content of existing disciplines, topics of priority in educational content, etc.)

Swedish Government has assigned a parliamentary committee to investigate and submit proposals for future selection of courses of study offered in secondary school. Upper secondary programs shall run, as they now do, 3 years, but the committee shall conduct a revision of program structure and content. The selection of programs offered shall be looked at from the standpoint of future labour market needs, the educational needs of individual students, and requirements related to preparation for continued study. The new structure of upper secondary schooling shall generate a broad base for recruiting to post-secondary studies, and an increased number of students in the sciences and technology.

(d) How will these changes be effected? (Strategies adopted in the design, implementation, follow-up and evaluation of curriculum reforms)

In order for the curriculum reforms of the 1990s to succeed, extensive efforts have been made in the area of implementation. An important part of implementing the changes of the reform is skills enhancement of school administrators, teachers and other personnel. Financial support from the federal government has been provided for skills enhancement of workers in the school as well as for promoting the exchange of experience by establishing networks. Information regarding the intentions of the reform has been published in the form of written material and via the Internet, as well as given to various target groups at events such as conferences and seminars.

Teacher- and principal training plays a key role in development of the competence needed to realize the intentions of the reform. The task of principal training programs is to promote development of the principal's expertise by setting up meeting places for experience exchange and offering

support in his/her role as leader. Places and occasions to discuss and analyze the task of Swedish education and to reflect upon the purpose of school curriculum and the responsibility of the administrator in realizing education objectives in the school's day-to-day work are also needed.

A comprehensive national study was conducted using the new curriculum as a starting point. The study focused on evaluating a number of general areas of knowledge, including:

- Understanding the context and being able to orient oneself in the Swedish education system,
- Taking a conscious stand with respect to ethics,
- Understanding and applying democracy,
- Creative ability, and
- Communicative ability.

A positive point indicated by evaluation is that youths demonstrate a high level of confidence in their ability to influence their future, and high involvement in environmental and global issues. However, the evaluation also showed that students have difficulty gaining a general view and understanding the structure and context of the knowledge mediated by the school in the areas of science and social studies. According to the curriculum, democratic principles shall apply to all students, allowing them to take part, take responsibility and have an influence on their learning. The evaluation shows that students would like more influence than they now have, but also recognize the existence of democratic values in the school. The National Agency for Education's studies show that girls do consistently better in school than boys, also with respect to the general objectives of the curriculum. Several studies also indicate that there exists a certain democratic deficit when it comes to boys.

How legislation and directives are interpreted and used is also being looked at to provide a basis for future revision.

Work in finding ways to assess quality in preschools, in terms of results and goal achievement in relation to curriculum objectives and guidelines, is also being conducted.

(e) Achievements: Problems encountered and solutions adopted to overcome them; urgent issues to be tackled

Successful skills enhancement of workers in the school requires both time and money. In-service training and opportunities for discussion and reflection are necessary to implement the new curriculum. Time is an important factor for many people in the schools and different forms of early childhood education and care, and sets constraints on opportunities for continuing education.

During the 1990s, substantial change took place in the school sector at the same time as Sweden's economic climate forced cutbacks in funding.

Resources to the schools are gradually increasing again, but a number of municipalities continue to cut back, and reports indicate that some schools have difficulty living up to the goals of the new curriculum. Swedish Government has now taken a decision to direct federal grants to the school sector to increase personnel per child ratios. The extra funding is expected to have a significant impact in helping special needs students meet the objectives, as well as improving conditions and enabling time and occasions for school personnel to assess their work and participate in continuing education.

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