Swedish Universities & University Colleges

Short version of annual report **2002**

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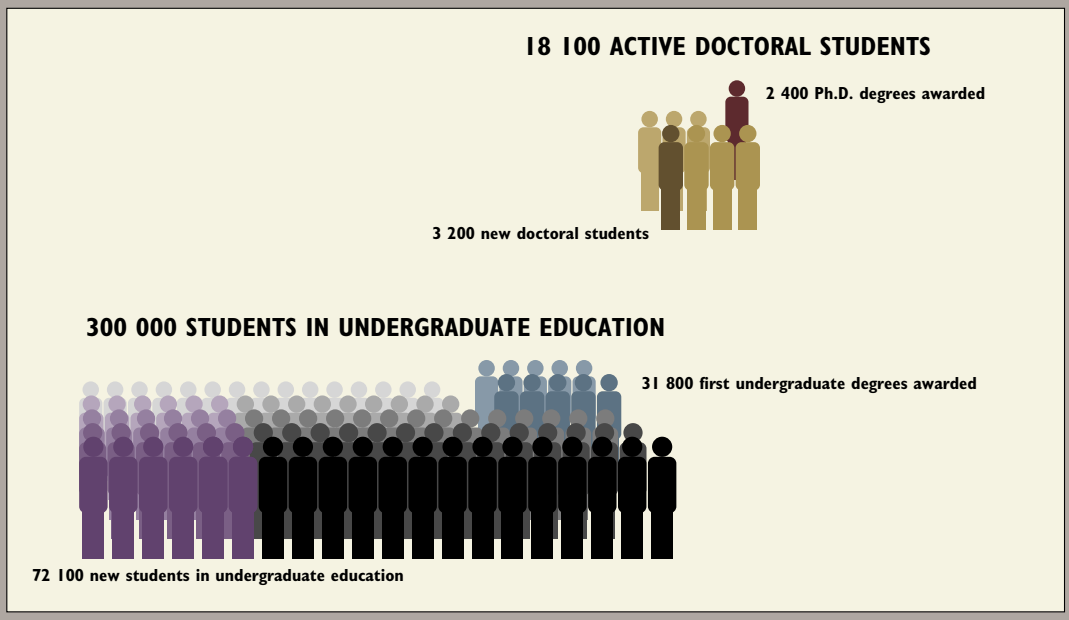
Table of contents



Number of students in undergraduate and postgraduate education academic year 2000/01.

Introduction

This summary of the *Swedish Universities and University Colleges Annual Report 2002* gives an outline picture of higher education activities in Sweden. The Report provides a basic description of the academic structure in Sweden and the regulatory framework under the heading *Higher education in Sweden*. Subsequent sections of the report summarize developments prior to and including 2001 fiscal year and cover state, regional authority and private universities and university colleges. Analysis in the Annual Report is based on information obtained from a number of sources, including the annual reports published by Swedish universities and university colleges and statistics produced by Statistics Sweden. ■

Higher education in Sweden

Swedish Universities and University colleges run by central government or private interests.

As in other countries, higher education in Sweden has expanded during the second half of the twentieth century. With more and more people having the opportunity to study at colleges and universities, higher education is no longer reserved for the few.

In the mid-1940s, higher education in Sweden was provided at the universities of Uppsala and Lund, at the university colleges of Stockholm and Göteborg and at a number of specialized professional institutions of higher education in the fields of medicine, economics and technology.

As the result of a number of consecutive central government commissions, higher education has then been subsequently expanded. The university colleges of Stockholm and Göteborg became universities in the late 1950s. University branches were established in Karlstad, Linköping, Växjö and Örebro during the second half of the 1960s to absorb some of the powerful growth in the number of students. Universities were established in Umeå in 1965 and in Linköping in 1975. Higher education and research in the field of technology were established in Luleå in the early 1970s.

The reform of 1977 transferred tertiary institutions and programmes in the fields of nursing and education to the higher education sector. At the same time a number of university colleges were established in various parts of the country.

More and more students in higher education

The number of students has increased from 16,000 in 1950 to over 330,000 in 2001. The growth in the number of students has varied greatly throughout the period.

In the early 1950s the number of new students enrolling annually was 4,000 and the number of degrees taken was 3,000 per year.

In the 1950s the number of students in higher education doubled. The greatest expansion occurred in the 1960s. At the end of the 1960s there were over three times as many students in higher education as at the start of the decade. The number of degrees taken also increased.

The reform of higher education in 1977 extended the definition of higher education and the number of students increased still further. During the closing years of the 1970s and most of the 1980s, the number of students in higher education remained constant, on the whole. At the end of the 1980s a new period of expansion commenced which has continued throughout the 1990s. Between 1990 and 2001, the number of students in undergraduate education increased by over 60 per cent.

In the academic year 2000/2001 there were 330,200 students in undergraduate education. 72,100 of these were new students. First degrees were awarded to 31,800 candidates. There were 18,100 active postgraduate students. 3,200 of these were new to postgraduate studies, and the number of doctoral degrees awarded were almost 2,400.

The reforms of 1977 and 1993

The higher education system in Sweden has been reshaped by two comprehensive reforms in 1977 and 1993. In conjunction with the reform of 1977 practically all post upper-secondary education was brought together under the overall concept of higher education. The volumes and location of higher education and the organizational structure of the institutions was regulated in a rather detailed way by central government from 1977 to 1993. For instance, Parliament decided the number of student places to be allocated to every general study programme and higher education institution.

In the early 1990s yet another reform of higher education was initiated. A new Higher Education Act and a new Higher Education Ordinance came into force on 1 July 1993. This reduced the detailed influence of central government and a decentralization of decision-making was implemented. The reform meant that central government — once it has laid down

certain goals and guidelines that are mainly financial in nature — transfers decisions about the orientation of the programmes of education in undergraduate education to the institutions of higher education themselves in the form of three-year education assignments. Every higher education institution functions as an admissions agency and takes decisions on the admission of students on the basis of certain general guidelines. An important objective of the 1993 reform of higher education was to give students a greater opportunity of choosing courses for themselves and combining them into a degree. A degree ordinance stipulates the degrees that may be taken.

A new system of allocating resources to undergraduate education was introduced as of the academic year 1993/94. Institutions of higher education are now allocated resources based on the number of students registered and their academic performance rather than on the basis of the planned volume of education as was previously the case.

Also the organizational structure of national agencies in the higher education sector has been modified in the 1990s. In 1995, the National Agency for Higher Education was established as the national agency for matters relating to institutions of higher education. Its tasks include quality assessments, supervision, reviews, development of higher education, research and analysis, evaluations of foreign education and provision of study information. The National Admissions Office to Higher Education is another central agency which coordinates the admission of students and is primarily funded by the institutions of higher education themselves. The National Board of Student Aid administers various forms of study support for students in higher education.

The higher education sector today

In the fiscal year 2002 there are some fifty institutions of higher education in Sweden run by either central government or private interests.

The state-run part of the higher education sector comprises 11 universities plus the Karolinska Institute and the Royal In-

stitute of Technology, seven independent colleges of art and 16 university colleges including the Stockholm Institute of Education and the Stockholm University College of Physical Education and Sports. In all there are 36 state-run institutions of higher education.

Chalmers University of Technology, the Stockholm School of Economics and the University College of Jönköping are run by private sector governing bodies. There are also nine smaller private institutions of higher education with the right to award certain degrees of undergraduate education.

Rules relating to undergraduate education

To be admitted to undergraduate education the applicant must satisfy the general eligibility requirements, which are the same for all courses and programmes of education. General eligibility is attained by completing an upper secondary school programme and obtaining a pass grade or better in courses comprising at least 90 per cent of the upper secondary credits required in the programme, or by providing proof of an equivalent level of knowledge. People who are at least 25 years old, who have been employed for four years and who have a command of English and Swedish corresponding to that obtained by completing a national upper secondary programme are also considered to have general eligibility.

Most courses and programmes of education also have course eligibility requirements that vary depending on the subject area and the type of course. Course eligibility requirements in courses open to new students are set out in the form of standard eligibility requirements. The National Agency for Higher Education determines these for programmes leading to a professional degree in accordance with the Degree Ordinance. Standard course requirements are set locally by the higher education institution in question.

Numerus clausus is used for all study programmes and courses. If the number of qualified applicants for a course or a programme exceeds the number of places allotted for new students, a selection process is necessary. At least a third of the

places must be allocated on the basis of upper secondary grades, and at least a third on the basis of the national scholastic aptitude test. The national scholastic aptitude test measures knowledge and skills of importance for successful studies in higher education. In addition to grades and the national scholastic aptitude test, selection from qualified applicants can also be made on the basis of previous training, work experience or special tests, such as interviews or tests of skill.

Degrees

In the Degree Ordinance, the government has laid down which degrees may be awarded and the objectives for these degrees. Every course and programme of education has a plan decided by the higher education institution in question. Students themselves are also able to combine different courses into a degree.

Sweden has a system of credit points, one week of successful full-time study is equivalent to 1 credit point. One academic year usually yields 40 credit points.

Degrees in undergraduate education are divided into general degrees and professional degrees.

General degrees. A Master's degree ("magisterexamen med ämnesdjup") is obtained after studies totalling at least 160 credit points (the equivalent of four years' full-time study), of which 80 credit points must be in the major subject. The major subject must also include one thesis comprising at least 20 credit points or two projects of 10 credit points each.

A Master's degree ("magisterexamen med ämnesbredd") is also obtained after studies totalling at least 40 credit points. A prerequisite in this case is a general or professionel degree of at least 120 credit points or a comparable foreign degree.

A Bachelor's degree ("kandidatexamen") is obtained after studies totalling at least 120 credit points (the equivalent of three years' full-time study), of which 60 credit points must be in the major subject. The major subject must also include one thesis comprising at least 10 credit points.

A University Diploma is obtained after studies totalling at least 80 credit points ("högskoleexamen").

Professional degrees. In addition to the general degrees there are some sixty professional degrees for which specific objectives are stated in the Degree Ordinance. Medical qualifications, engineering degrees, and agronomics degrees are examples of such professional degrees. Programmes leading to professional degrees vary in length depending on their character.

Study funding

It is possible for students to obtain state support to finance their studies in higher education. This support consists of study grants and study loans in combination. To obtain financial support for studies certain requirements must be met. If students have an income, the amount of support may be reduced. To receive study support over a period of years, students must pursue their studies with a certain rate of success.

On 1 July 2001 a comprehensive new study assistance system was introduced. The level of independent income allowed was raised and the grant component will count as income in future state pensions entitlements. The grant portion of study support for an academic year nine months amounts to 22,300 kronor (SEK) and the loan ceiling to 42,400 kronor. The maximum total available government-sponsored study funding for an individual student pursuing full-time studies thus amounts to 64,700 kronor.

Rules relating to postgraduate training

Postgraduate training is based on undergraduate education of at least 120 credit points. Furthermore, the faculty board in question may stipulate additional requirements for admission. An assessment is also made of an applicant's capacity for completing postgraduate studies.

Postgraduate training nominally comprises 160 credit points (four years) and lead to a PhD. A PhD student must complete a number of taught courses and write a doctoral dissertation.

Each student has the right to personal supervision. The dissertation, which constitutes the most important part of postgraduate studies must be defended at a public oral examination. A licentiate degree can be obtained after a minimum of two years and comprises at least 80 credit points.

Institutions with the right to award postgraduate degrees are the universities plus the Karolinska Institute, the Royal Institute of Technology, Chalmers University of Technology, the Swedish University of Agricultural Sciences, the Stockholm School of Economics and the University College of Jönköping. Many of the other institutions of higher education in Sweden collaborate with these institutions in the organization of research training.

New regulations have been introduced to enable other institutions of higher education to obtain the right to give postgraduate training and award postgraduate degrees. This will occur by way of the government granting an higher education institution university status after assessment and approval. Institutions of higher education will also have the possibility of establishing one or more so-called areas of research after assessment and approval.

The University College of Kalmar has been granted the area of research of Natural Science, the Blekinge Institution of Technology the area of research of Technology and the University College of Malmö the area of research of Medicin. As of 2001 the University College of Mälardalen has been granted the area of research of Technology and the Mid-Sweden University College the area of research of Natural Science. Within these designated areas of research, the university colleges in question have the right to carry out postgraduate training and award postgraduate degrees.

Study funding in postgraduate training

Postgraduate training is financed out of the state funding allocated to each faculty. There is also funding from external sources such as research councils. The faculty boards decide whether the earmarked state resources should be used for postgraduate posts

or for study grants. Both posts and grants run for four years. A grant may also be shared between two postgraduate students. Postgraduate students holding postgraduate posts are obliged to concentrate on their studies, but are allowed to combine them with teaching or other work to a limited extent. A relatively common way of financing postgraduate studies is to combine them with work on a research project which may be externally funded by a research council or a sectoral agency.

In 1998, the rules for funding postgraduate studies were modified. Among other things it is stipulated that only applicants that can be employed in a postgraduate post or awarded a study grant may be admitted to postgraduate training. In other cases the applicant must have guaranteed study funding for the whole period of study. There are certain transitional rules.

Research within higher education

Sweden allocates a relatively high proportion of its resources to research and development (R&D). The proportion of GNP going to R&D is some 3.9 per cent. The higher education sector is responsible for just over a fifth of the resources spent on R&D in Sweden. Most R&D is conducted within private sector companies.

By far the greatest part of publicly funded research takes place at institutions of higher education. Thus, institutions of higher education have a central role in the Swedish research system, not merely because they constitute the traditional base for research and postgraduate training, but also because they conduct research on behalf of sectoral public agencies and the private sector. Research activities have also great significance for undergraduate education.

For the most part, research and postgraduate training take place at universities and specialized professional institutions of higher education. But the university colleges are gradually expanding in research and postgraduate training.

Funding higher education and research

Subject area	Payment per full-time equivalent student (SEK)	Payment for annual performance equivalent (SEK)
Humanities, Theology		
Law, Social sciences	14,704	15,394
Science, Technology		
Pharmacy/pharmacology	38,408	35,122
Odontology	34,877	43,614
Medicine	46,922	61,540
Nursing	37,286	34,096
Education	27,478	34,807
Other	32,266	27,783
Design	114,419	73,530
Art	163,163	73,552
Music	98,526	65,828
Opera	235,214	148,413
Theatre	227,958	119,494
Media	230,561	196,132
Dance	159,885	93,227
Physical education and sports	83,734	40,691

Compensation amounts for undergraduate education fiscal year 2002.

Institutions of higher education receive an educational assignment for each new three-year period. The allocation of resources depends on results measured in terms of students (calculated in terms of full time equivalent, FTE, students) and study achievements (calculated in terms of annual performance equivalents) at the institutions of higher education.

In the education assignments for the period 2000–2002 minimum numbers of certain degrees taken at the institutions of higher education in question are stipulated. The education assignment may also stipulate that the number of FTE students must increase or diminish in certain subject areas compared with the preceding three-year period. There is a ceiling sum (maximum funding) which constitutes the highest aggregate compensation for FTE students and annual performance equivalents permitted for the fiscal year.

The amounts of compensation for FTE students and annual performance equivalents are determined annually by the national government and set out in its annual budget. The amounts are not the same for different subject areas. At the institutions of higher education all courses are classified by subject area. This classification determines the compensation that will be obtained.

Research and postgraduate training is funded by way of special grants from the national budget to the institutions of higher education in question. Resources for research and postgraduate training from central government is distributed to four areas of research — humanities/social science, medicine, natural science and technology. There is also a special item to cover compensation for such costs as rent of premises. Certain conditions are attached to the grants. For instance, not less than a certain proportion of the grant must be used to fund postgraduate training. A special grant for artistic development work is distributed to the university colleges of art.

The grants from the national budget for undergraduate education and research/postgraduate training, which are allocated directly to the institutions of higher education, make up about

60 per cent of the resources of these institutions. The remaining portion comprises external resources for research and contract work mostly provided by research councils and sectoral agencies, together with local authorities, county councils and private sector companies.

Organizational structure and teaching posts

Today the internal organization of institutions of higher education is decided by the institutions themselves. Certain guidelines are laid down in the Higher Education Act and the Higher Education Ordinance.

As previously, each higher education institution is run by a governing board. The government appoints the Chair of the board. It is stipulated that the government should appoint a Chair who is not employed at the higher education institution in question. The governing board is composed of the Chair, the Vice-Chancellor and not more than thirteen other members. The government appoints the majority of the members of the governing board. The representatives of the teaching staff are chosen by election within the higher education institution. The students have the right to be represented by three members. Employee representatives have the right to attend and to speak at board meetings.

The Vice-Chancellor is nominated by the board and employed by government decision for not more than six years. Other board members are appointed for a period of not more than three years. A Pro-Vice-Chancellor is the Vice-Chancellor's deputy. More than one Pro-Vice-Chancellor may be appointed. An higher education institution may also appoint Pro-Vice-Chancellors with responsibility for parts of its operations.

It is stipulated that all institutions of higher education granted an area of research shall have at least one faculty board. If an higher education institution decides not to create specific decision-making bodies for undergraduate education, the faculty boards are also responsible for the undergraduate education car-

ried out in their area of study. The Dean of Faculty is the chair of the faculty board. In the decision-making bodies created for matters of research and undergraduate education, the teaching staff is always to have the majority. The students have the right to be represented by at least two members on the faculty board and on other bodies dealing with educational matters.

With the exception of the above-mentioned rules concerning governing bodies, faculty boards and other bodies, Swedish institutions of higher education may themselves determine their internal organizational structure and the decision-making bodies and boards required for their purposes.

The Higher Education Ordinance contains regulations with respect to the employment of teaching staff at institutions of higher education. The categories concerned are: professors (including visiting professors), senior lecturers (including visiting senior lecturers), junior lecturers (including visiting junior lecturers), postdoctoral fellows, part-time teachers (paid on an hourly basis) and guest teachers.

As of 1999, new rules for the employment, recruitment and promotion of teaching staff have been introduced. The rules mean, for instance, that a senior lecturer who satisfies the employment requirements of a professor shall be employed as a professor. Educational skills should be given greater weight in this promotion than before. In addition, recruitment objectives are specified with a view to increasing the number of women among newly-appointed professors. ■

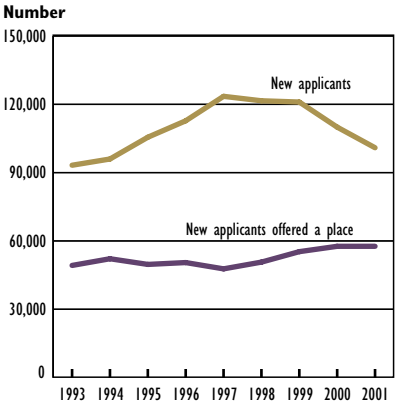
Trends and developments

Undergraduate programmes

The number of students in undergraduate programmes in higher education continues to rise, even though age cohorts are becoming smaller. In 2001 the student volume rose by just over four per cent compared with the previous year. However, the number of degrees awarded remained basically the same.

Applicants to undergraduate programmes

Overall the number of applicants to the undergraduate courses offered by higher education institutions exceeds the number of beginner places available, but the difference between supply and demand is declining and the major expansion – together with some decline in the numbers of applicants – is beginning to result in spare capacity in a few areas. This applies in particular to engineering and the natural sciences, where expansion has been particularly intense.



New applicants, not previously participating in higher education, and number of new applicants offered a place autumn semesters 1993–2001. Just over a half of those applying for the autum term of 2001 were offered a place.

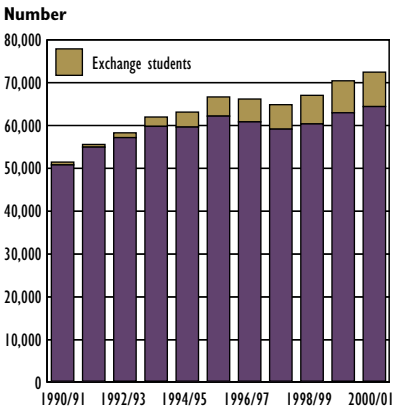
The number of applicants reached a peak in 1997 and has since declined. This development can be explained by the reduction in the size of the cohorts leaving upper-secondary education, improvements in the labour market situation and, perhaps most importantly, the impact of increased capacity in the system on the length of queues for places on programmes. The situation varies, however, depending on which programmes are concerned and where they are offered. Some have ten first-choice applicants for every place on offer, or more. Others admit all those who apply but still cannot fill all their places.

One result of the decline in the number of applicants and the increase in places on offer is that the proportion accepted for higher education is rising. Generally speaking, therefore, the balance between demand and supply in higher education is improving. In 2002 the declining trend in the number of applicants evened out and the number of applicants for programmes that will start in the autumn of 2002 has in fact increased to some extent.

Over 70,000 new students

The number of students beginning higher education rose to 72,100 for the academic year 2000/01, which is the highest number of beginners yet recorded. This is just under three per cent more than during the preceding year. In recent years the major rise in enrolment has been among students in somewhat higher age groups.

The total number of beginner students also includes visiting students from other countries. Here numbers have been rising recently. This group consists of students from universities abroad who study for one or more semesters in Sweden within the framework of exchange agreements between Swedish higher education institutions and their counterparts abroad. It also includes "free movers", students who have come to Sweden on their own initiative to take courses for a number of semesters. A rough indication of the size of this group can be found in the number of beginners without Swedish social security numbers, who are therefore not registered in Sweden. During 2000/01 this amounted to just over 8,000, or about eleven per cent of all beginners.

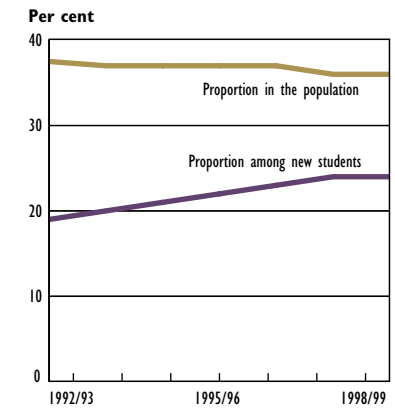


New students in undergraduate education academic years 1990/91–2000/01. The number of new students in 2000/01 were 72,100. Of those were 11 per cent exchange students.

The social and ethnic backgrounds of beginner students

During the entire period since the end of the 80s when the numbers of students going on from upper-secondary to higher education increased, the proportion coming from working-class homes has risen as well, even though the size of this group has been declining in the population as a whole. Among those beginning programmes in higher education during the academic year 2000/01, 26 per cent came from working class homes. Ten years earlier the proportion of beginners coming from working class homes was just under 20 per cent. Here it is worth pointing out that much of the social restratification that can be seen in higher education has already taken place earlier in the educational system and society as a whole.

There are consistent differences in recruitment between the smaller and newer higher education institutions and the well-established universities and specialist institutions. The social



The proportion with working-class background among new students and in the whole population 1992/93–1998/99. Students from working-class homes are still underrepresented in higher education, but a certain levelling has taken place during the 1990s.

composition of the first group is considerably more even than at the universities and specialist institutions. These variations depend to a large extent on the differences in the programmes offered. A number of high-status programmes, which generally recruit upper-class students, such as programmes in medicine, law and graduate engineering programmes, are either non-existent or poorly represented at the smaller and newer institutions of higher education.

The relationship between ethnic background and enrolment to higher education is more complex than the relationship to social background, one reason being the different attitudes to higher education found among different groups of immigrants.

In general, young people with immigrant backgrounds are only slightly underrepresented in higher education in Sweden. If immigrant background is defined as having both parents born outside Sweden, the proportion of beginner students in higher education with immigrant backgrounds is 13 per cent, excluding visiting students. This can be compared to the proportion of 14 per cent in the population as a whole. In other words, students with immigrant background are represented in higher education almost to the same extent as in the population in general.

There are, however, major variations within the group, which are the result of both cultural and social differences. Iranians are, for example, relatively well represented and this also applies to young people from the Scandinavian and Western European countries, whereas many immigrant groups from the African countries are markedly underrepresented.

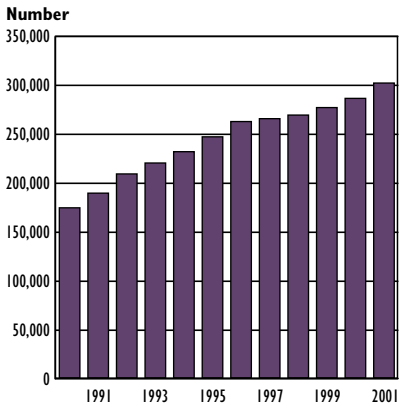
300,000 students

During the autumn semester of 2001 there were 300,000 students in higher education in Sweden. This is just over 15,000 or five per cent more than during the preceding autumn. The increase is greater than in previous years. The rate of growth has not been as high since the first half of the 1990s.

Compared to previous years the greatest relative increase has been among older students. In the youngest cohorts (aged

19–20) the number of students is more or less the same as in previous years. They constitute about 15 per cent of the total age group. This can be contrasted with the figures for higher age groups. The percentage of the population aged 21–24 studying in higher education has risen from 20 per cent in 1995 to 26 per cent in 2001, and for the 30–39 age group it has increased from 3.1 to 4.4 per cent during the same period.

Three out of every five students are women. Women form the largest majority among the older age groups. Two out of every three students between 30–39 are women, and three out of every four between 40–49. Students form a heterogeneous group, not least because of the wide range of ages.



Students in undergraduate education autumn semsters 1990–2001, head counts. The rate of growth between 2000 and 2001 has not been as high since the first half of the 1990s.

Life-long education

Many of those studying at higher education institutions already have a degree and are either adding to their qualifications or taking an entirely new subject. Many students take a break for some time between ending their upper secondary programmes and beginning higher education. Others return to their studies after an interlude lasting for a number of years.

This all forms part of the process that is increasingly referred to as life-long learning, or in other words studies that comprise more than a basic degree programme begun more or less directly after leaving upper-secondary school. One way of quantifying this life-long learning is to differentiate between traditional and non-traditional students.

A traditional student can be defined in more precise terms as:

- having begun studies in higher education before the age of 25,
- not studying part-time,
- not having interrupted studies in higher education for more than three complete terms.

Non-traditional students fulfil at least one of the following three criteria:

- they have interrupted their studies for at least one period of considerable duration,

- they began studies in higher education at the age of 25 or later,
- they study part-time.

Measurements have been made of the proportions of traditional and non-traditional students on three occasions (1995, 1998 and 2001). During the autumn semester of 1995, 49.4 of women students were non-traditional. Three years later this proportion had risen to 51.6 per cent. Yet another three years later (autumn semester 2001) the proportion of non-traditional students had risen to 54.1 per cent among the women.

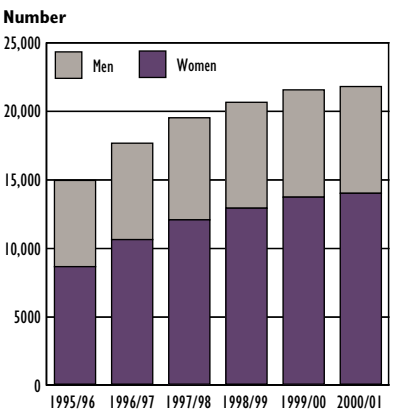
The proportion of non-traditional male students has remained more or less unchanged when each measurement was made (42.9 per cent in the autumn of 1995, 43 per cent in the autumn of 1998 and 43.3 per cent during the autumn of 2001).

International student exchange

Since 1989 – when it became possible to receive financial assistance for studies abroad – to 2000/01 the number of those studying abroad has risen markedly. Just over 21,000 young Swedes applied on their own initiative to higher education institutions abroad – "free movers". In addition almost another 6,000 are involved in exchange programmes, which means that 27,000 Swedish students are taking advantage of undergraduate programmes offered in other countries.

The vast majority of the free movers study in Europe, mainly in the United Kingdom, Spain and France. The USA is the country that receives most free movers, a total of almost 4,800 students. The USA and the UK each take a good 20 per cent of Swedish free movers. Spain, France and Australia together receive an additional 30 per cent. Five countries therefore receive about three-quarters of these students.

In addition to the students who travel on their own initiative, approximately 6,000 students participate in some form of exchange programme organised as part of a programme offered by a Swedish higher education institution. The largest of these



Number of Swedish persons studying at foreign institutions of higher education on their own initiative—"free movers"—1995/96–2000/01. During the period the number of women has increased by 62 per cent while the number of men has increased by 24 per cent.

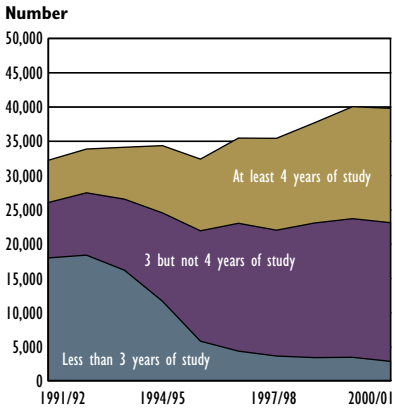
is the European Erasmus programme, which accounts for about half of the total exchanges within programmes. If full use is made of this scheme, Sweden will receive as many students as it sends to other countries. From its inception in 1992/93 up until 1997/98 approximately 400 more students went to other countries every year than those that came to Sweden. Since 1998/99 the situation has changed and now a greater number of students come to Sweden than those that travel abroad. The number of students coming to Sweden in connection with the Erasmus programme is about 4,500. All in all, the number of incoming students on exchange programmes totalled 8,500 in 2001, or in other words a total of almost 2,500 more than who left to study elsewhere.

40,000 degrees

Half of those who begin to study in higher education take some form of degree. If this is augmented by the group of students who take at least 120 credit points, i.e. complete at least three years of study, without taking a degree, the proportion is two-thirds of all beginners. If the statistics are restricted to beginners who are 24 or younger, excluding older beginners who often intend to take only one or two specific courses, the proportion completing at least three years of study and/or obtaining degrees rises to three-quarters.

The total number of degrees awarded during the academic year 2000/01 amounted to 40,000. This reversed the rising trend in the number of degrees awarded during the two previous years. However, many students take more than one university degree, for instance a University Diploma in Engineering followed by a Bachelor's degree, or a Bachelor's degree and subsequently a Master's degree. The number of individuals awarded a first degree during the academic year 2000/01 totalled 31,800, considerably fewer in other words than the total number of degrees awarded.

During the academic year 2001/01 the number of degrees and university diplomas awarded in engineering rose by three per cent to just over 6,200. The number of university diplomas awarded for the shorter courses rose by 17 per cent to just over



Number of degrees in undergraduate education academic years 1991/92–2000/01. Programmes that require less than three years of study have decreased while the number of longer programmes has increased.

2,600, while the number of degrees awarded for the longer programmes in engineering declined by five per cent to 3,600. Overall this means that of all the degrees awarded during the academic year 2000/01, 20 per cent, or one in five, were for engineering.

The number of degrees awarded for several other groups in great demand on the labour market declined. This applies for instance to doctors and nurses, where the number of degrees awarded declined by eight in the first case and five per cent in the second. There was also a reduction in the award of a number of teaching degrees. This amounted to 18 per cent for pre-school and leisure centre education, and about 10 per cent for primary school teachers and for upper-secondary school teachers. There has been an increase in the number of places offered in programmes for all these categories during the last year, which is likely to result in the award of more degrees in a few years time.

Sixty per cent of all degrees are awarded to women, which more or less corresponds to the proportion of women students. Several programmes have an uneven or very uneven gender balance and the tendencies towards a reduction of this imbalance are small. On the whole women predominate or form a substantial majority. Among the major programmes that lead to vocational qualifications, the two engineering programmes are the only ones in which a clear majority of degrees are awarded to men. But the proportion of women taking these programmes is increasing.

Postgraduate programmes

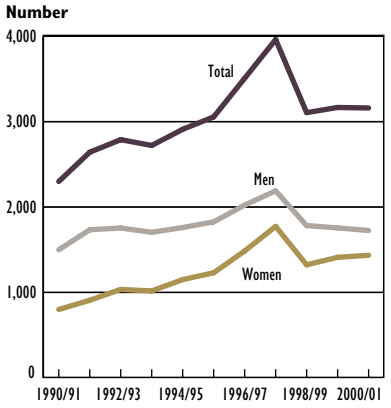
Just under 3,200 students began postgraduate programmes during the academic year 2000/01. This is approximately the same number as during the two previous years, despite the inception of the new research schools. The number of enrolments is therefore still lower than is was before the reform of postgraduate funding in 1998. On the other hand the number of degrees awarded continues to rise and in 2001 almost 2,400 doctorates were awarded and just over 1,000 licentiate degrees.

Major increase of women among newly enrolled postgraduate students

The highest number of enrolments in postgraduate programmes hitherto registered for any one academic year, for both men and women, dates back to 1997/98 when almost 4,000 students began postgraduate studies. In the following year this number was considerably lower and in the academic year 2000/01 just under 3,200 students were enrolled on postgraduate programmes. The peak in 1997/98 and the relatively severe decline that followed was linked to the stringent funding requirements that came into effect in April 1998. They required students enrolled in postgraduate programmes to have guaranteed funding for their entire period of study.

Despite the decline after the funding reform in 1998 there has, nevertheless, been a considerable increase in the numbers of students enrolled over a ten-year perspective. In 2001/01 this number was 37 per cent higher than in 1990/91.

The increase has been considerably greater for women than for men. While the number of women has risen by 79 per cent, for men the figure is only 15 per cent. Still, however, more men are beginning postgraduate programmes than women. In 2000/01 55 per cent of the students enrolled were men.



New postgraduate students 1990/91–2000/01. During the 1990s the number of women beginning postgraduate programmes has increased by 79 per cent and the number of men by 15 per cent. The decline in the number of first-time postgraduate students after 1997/98 is linked to to the 1998 reform with its more stringent funding requirements.

Few enrolments in the humanities

The changes in enrolment figures during the 90s vary from discipline to discipline. In the humanities there are fewer new postgraduate students today than there were ten years ago. During the academic year 2000/01 the humanities accounted for only six per cent of all new enrolments, compared to the figure of 12 per cent for the academic year 1990/91. During the same decade the major increase has taken place in the engineering sciences and medicine. More than half of the new enrolments are in these disciplines.

The balance of women and men varies in the different disciplines, but nearly every subject area is in balance if the criterion applied is that there should be no less than a 40 per cent representation of either gender. The exception is the engineering sciences, where men form a clear majority. During

the academic year 2001/01 they constituted 74 per cent of new enrolments. The largest proportion of women can be found in medicine (58 per cent).

Inception of the research schools

In 2001 the government established 16 research schools to start and funds have been allocated for the enrolment of their first postgraduate students. During the first year, however, only eight schools have enrolled students. The aim is that each research school should have awarded at least 25 doctorates by the end of 2007. In six years time, therefore, something like 400 PhD's will have been awarded by these research schools.

The main responsibility for each research school devolves on its "host institution" and there are a number of "partnership institutions". The research schools are intended to promote cooperation between various higher education institutions and research environments. Up until now, 54 per cent of the postgraduate students admitted to these research schools have been enrolled at partnership institutions and 46 per cent at the host institutions.

Many active postgraduate students still lack funding

In the spring semester of 2001, there were approximately 8,000 women and 10,000 men who were active postgraduate students, or in other words who devoted at least 10 per cent of their time to postgraduate studies. This is an increase of about 5,000 postgraduate students since the beginning of the 90s. This increase has abated in recent years and has remained more or less constant since 1998 – the year in which guaranteed funding for the entire period of study was required before enrolment on a postgraduate programme.

There are different ways of funding postgraduate studies in the higher education system, either through appointment to a postgraduate studentship or some other post in higher education or in the form of a grant. However, many postgraduate students in the system still lack funding. How funding is provided has, of course, a major impact on a student's circumstances and the different forms of funding are not equivalent from the point of

view of social benefits, salaries and the time available for study. Appointment to a postgraduate studentship (a post for doctoral students) offers the most advantageous terms in this respect.

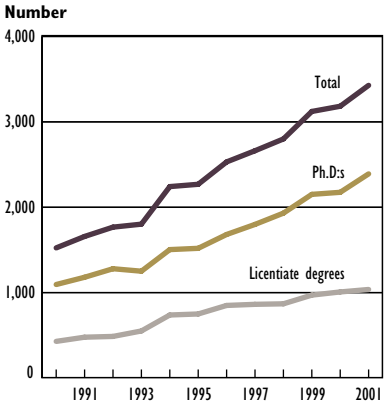
In the spring semester of 2001 the most common form of funding was through postgraduate studentships, and just over 8,300 students were funded in this way.

The number of postgraduate degrees continues to rise

During the last decade the number of postgraduate degrees awarded has more than doubled. There has been a rise of 114 per cent in the number of doctorates between 1991 and 2001. During the same period the number of licentiate degrees awarded has increased by 117 per cent. This rise follows the increase in the number of enrolments fairly closely with a delay of a few years and the rise is therefore approximately as large in all disciplines. In 2001 almost 2,400 PhD's were awarded and 1,040 licentiate degrees.

Of the total of 2,391 doctorates awarded, 31 per cent were in the medical sciences, 27 per cent in the humanities or social sciences, 21 per cent in engineering and 16 per cent in the natural sciences. In addition, 5 per cent of these degrees were awarded by the Swedish University of Agricultural Sciences.

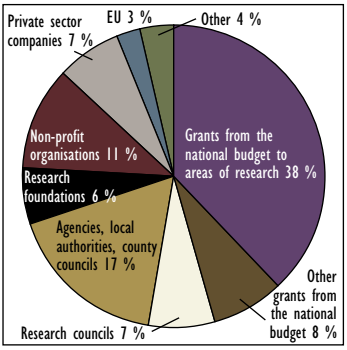
The median age of those awarded PhD's during the last two decades has been between 35 and 36. Theology and dentistry have the highest median age for the award of doctorates during the academic year 2000/01 at around 45. The lowest median age, approximately 32, can be found among those awarded PhD's in engineering and the natural sciences.



Postgraduate degrees 1990–2001. The number of Ph.D:s has more than doubled during the period.

Research

In 2001 the funding for research and postgraduate programmes at higher education institutions amounted to just over 20 billion SEK. There has been a relatively modest increase in funding for these areas during recent years. Compared to 1997 this rise totals approximately 2.2 billion SEK in fixed terms, i.e. just over ten per cent.



Resources for R&D at institutions of higher education 2001. The proportion of grants from the national budget is falling while external funding is increasing.

This development varies greatly between different subject areas. Research in bio-technology has seen a major upsurge in funding. Other areas have been faced with cutbacks.

From a long-term perspective, major changes have taken place in the funding of research in higher education in Sweden. At the beginning of the 80s two-thirds of the funding for research and postgraduate programmes came from earmarked appropriations and other funds allocated directly by the state to the higher education institutions. In 2001, this proportion had declined to 46 per cent and external funding accounted therefore for 54 per cent of the research revenues of the institutions. In recent years, however, the proportion of external funding has remained more or less constant. External funding comes, for instance, from the research councils, research foundations, government agencies and Swedish and foreign companies.

A mixed picture of the changes in funding for different subjects

Medicine is the subject area that accounts for 25 per cent of the research and development revenues of higher education institutions and in 1999 almost 3.9 billion SEK was invested in this field. Overall this subject area has seen an increase of three per cent between 1995/96 and 1999, which is relatively modest compared with a number of other fields. In the field of medicine there have been major rises in microbiology, physiology/pharmacology and surgery. On the other hand there have been reductions mainly in the general medical area and also in morphology and to some extent social and preventive medicine.

Research and development revenues in the engineering sciences amounted to 3.3 billion SEK in 1999. In all there has been an increase of 10 per cent in the field of engineering since 1995/96. Here too developments have varied widely in the different constituent areas. Biotechnology and electronics have seen a rise, while resources available for other subjects have declined. Major investments have been made in biotechnology where resources have more than doubled. On the other hand chemical engineering and engineering mechanics have

experienced major reductions. In the natural sciences as well, where research revenues in 1999 amounted to 2.9 billion SEK, the increase was 10 per cent. A slight drop can be seen for the earth sciences while there was an increase for physics, chemistry and biology.

There was a relatively hefty increase in the resources for research in both the humanities and the social sciences, 17 per cent and 26 per cent respectively. The rise in the humanities was greatest for the historical and philosophical subjects and for languages. On the other hand resources declined for comparative religion. All of the subject areas in the social sciences received greater resources, the largest in relative terms went to statistics, computer science and applied systems science.

New R&D indicators in the EU

For many years Sweden has been found at the top of the OECD statistics on R&D resources in relation to the GDP. The figure for Sweden was 3.85 per cent and referred to the total resources available for R&D in 1999. At that time these resources amounted to 75.8 billion SEK. The commercial sector accounted for 75 per cent, the higher education institutions for 22 per cent and the remainder could be ascribed to government agencies and the private, non-commercial sector. There has been a major increase in the total resources available for R&D during the 90s.

Statistics on R&D in the EU have been developed during recent years. At the Lisbon summit in March 2000 a strategic objective was adopted for the Union for the coming ten-year period: "to become the most competitive and dynamic knowledge-based economy in the world." A "European Research Area" was to be established. In order to implement the Lisbon strategy in the area of R&D, a number of indicators were to be developed for "benchmarking". This would enable analysis and comparison of the research policies of the member states. Reports with comparative indicators for the latter half of the 90s have been published, for instance, by the Directorates General responsible for Research and for Trade and Industry.

They can be briefly summarised as saying that Sweden and Finland come top in several of these indicators. This applies for example to the percentage of the population with higher education, the proportion of researchers in the workforce expressed in FTE's, the number of PhD's, R&D expenditure as a proportion of the GDP, the availability of venture capital, numbers of patents, etc. One indicator is negative for Sweden. This shows developments in state funding for R&D and it points to an annual five per cent reduction in Sweden between 1995 and 2000. However, this negative outcome can be seen to be a result of a reduction in defence spending during the period in question. Generally speaking, it can be said that international comparisons are complex and the use of different methodologies and calculations based on different premises can lead to totally different findings.

Finance

In 2001 the expenditure of the higher education institutions amounted to 38.2 billion SEK. This is an increase of almost five per cent at current prices, which means an expansion of about two per cent in operational volume. The increase has been greatest in undergraduate programmes.

About 60 per cent of the activities of the higher education institutions are financed directly by state funding for undergraduate programmes together with postgraduate programmes and research. Most of the remaining funding also comes from the public sector through the state, county councils and local authorities. If funding allocated by the research foundations created to administer the holdings of the general retirement funds is also considered to be public, the public sector accounted for about 87 per cent of the funding for higher education institutions in 2001.

Staffing costs account for almost 60 per cent of the total expenditure. In 2001, 14.1 per cent of expenditure was for premises.

The ten largest institutions are responsible for about three-quarters of the expenditure of higher education institutions in

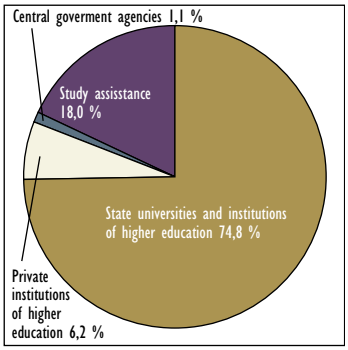
Sweden, which totalled 38.2 billion in all. Just under forty other organisations account for the remainder.

Just over two per cent of the GDP for higher education and research

Expenditure on the operations of higher education institutions constituted just under 1.8 per cent of Sweden's GDP in 2001. The total costs of the higher education sector are somewhat higher. If the costs of financial assistance to students and the central agencies involved are added, expenditure totals approximately 47.2 billions SEK. This is 2.2 per cent of Sweden's GDP for 2001.

The expenditure of the central agencies in the sector amounts to around 500 million SEK and financial assistance to students totals 8.5 billion SEK. This financial assistance represents almost 40 per cent of the state's costs for undergraduate programmes.

The international comparisons that are made regularly indicate that a high proportion of Sweden's GDP is allocated to higher education and research. According to the OECD report *Education at a Glance*, published in June 2001, Sweden is placed fifth among the 25 or so OECD countries. In this comparison, which concerns 1998 and does not include financial assistance to students, the share of the GDP allocated in Sweden was 1.7 per cent.



Allocation of total expenditure in the higher education sector fiscal year 2001. The total expenditure was 47.2 billion SEK.

Proportion of state financing rising again

The increase in state funding to higher education and research in 2001 has had an impact on the revenues of the higher education institutions so that the proportion funded by the state has risen somewhat. In 2001 state funding accounted for just over 61.5 per cent of the institutions' revenues. In 2000 the corresponding proportion was 60.4 per cent.

Developments during 2001 have reversed the trend in which the state's share of revenues over a decade has declined by ten percentage points. In current prices, revenues from funding for undergraduate programmes has risen by seven per cent and

from funding for postgraduate programmes and research by 5.5 per cent during 2001.

In addition to state funding that goes directly to the individual higher education institutions, some funding goes via the research councils, government agencies or through local authorities and county councils.

The mix of revenues can of course vary from institution to institution and there are changes from year to year. The proportion of undergraduate programmes compared to postgraduate programmes and research also plays an important role as undergraduate programmes are financed almost entirely by direct funding.

Staff

The number of teachers and researchers at higher education institutions continues to rise as do their qualifications. During 2001, however, the rise in the number of teachers and researchers was considerably smaller than the rise in student numbers, so that the ratio of students to teachers has continued to increase.

In all, the staff of higher education institutions totalled 49,320 FTE's in 2001. Teaching and research staff accounted for 22,680 FTE's. Administrative and technical staff amounted to 16,900 FTE's and library staff 1,500. Postgraduate students appointed to studentships accounted for 8,240 FTE's. This means that teachers and researchers (not including postgraduate studentships) constituted 55 per cent of the total number of FTE's.

Almost a quarter of the teachers/researchers are active in the social sciences or law. Engineering accounts for just over 18 per cent of the teaching and research staff. The humanities, natural sciences and medicine each have about 13 per cent of the teachers and researchers.

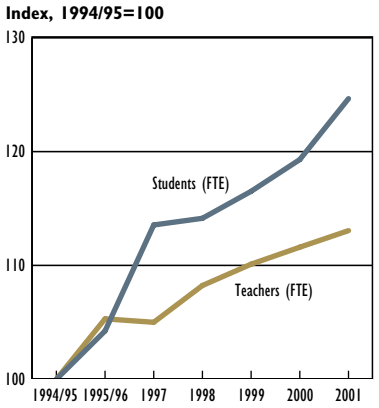
The proportion of teachers with PhD's is rising, although the pace has declined in the last year. In 2001 the 93 per cent of professor's FTE's consisted of holders of PhD's. The corresponding figure for senior lecturers was 85 per cent. In 2001 there

were no differences between men and women when it came to doctoral degrees, which means that there has been a significant rise in the proportion of women professors and senior lecturers with PhD's since the mid-90s.

More and more students per teacher

During the first half of the 90s the number of students per teacher (FTE's) rose by 27 per cent. Developments since then have involved a further increase of 10 per cent. During the last year the rise in the number of students has been considerably larger than in the number of teachers. During 2001 the number of student FTE's has risen by 4.5 per cent whereas the number of teachers by only 1.8 per cent.

As the allocation of resources is still linked to the number of student FTE's and annual performance equivalents and there has been no change in the degree of performance (annual performance equivalents/ student FTE's), the number of student and teacher FTE's should, all other things being equal, have evolved in the same way. One explanation for the last year's developments is that the promotion reform has led to wage rises for the teachers promoted which have reduced the possibility of taking on new staff.

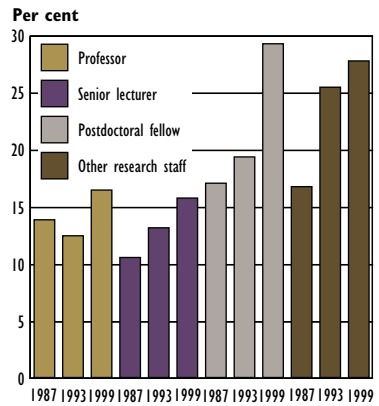


The development of the number of students and teachers (full time equivalents, FTE) 1994/95–2001. During the period the number of students has increased by 25 per cent while the number of teachers has increased by 13 per cent.

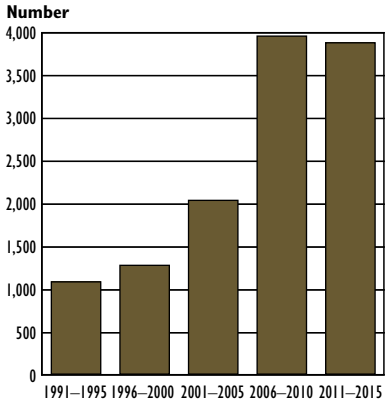
An increasing number of teachers born abroad

Analysis of the register of individuals with appointments at higher education institutions in Sweden also provides information about the numbers of staff born abroad. In 1999, 16 per cent of professors and senior lecturers were born abroad. The figure for professors has risen by a few percentage points since 1987 and for senior lecturers by five percentage points.

The number of postdoctoral fellows born abroad was just over 29 per cent and for those appointed to special research posts the figure was 28 per cent in 1999. There has been a marked rise in the proportion born abroad in both groups, and it is high when compared with the figures for the population as a whole, in which the corresponding figure is about 11 per cent.



Teachers and researchers born abroad. The proportion among teachers and researchers born abroad increases. The share is much higher than among other occupational groups in the Swedish society.

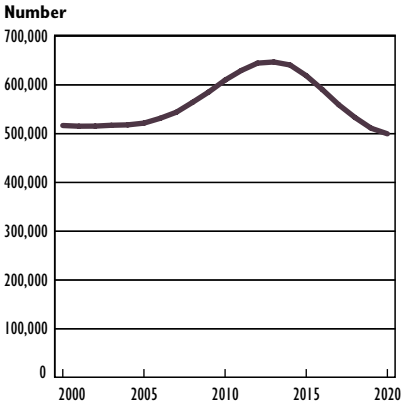


Teachers and researchers who reach retirement age. The number of retirements will increase especially during the period 2006–2015.

Significant increase in the number of retirements

The proportion of teachers and researchers who will reach retirement age at 65 during the coming years is increasing rapidly. During the period 2001–2005, already twice as many teachers and researchers will reach retirement age as a decade ago. During the following five-year period 2006–2010, the number of retirements will double again. Between 2011 and 2015 the level will remain basically the same.

The largest increase in the number of retirements among teachers and researchers will coincide with a major increase in the number of young people ready for higher education. The size of the 20–24 age group will remain constant until 2004, when it will increase during the following decade by 25 per cent. After 2015 there will be a rapid reduction in the size of age cohorts to approximately the same level as today.



Number of persons 20–24 years old during the period 2000–2020. A sharp increase in the 20–24 age group will occur 2005–2015. At the same time many teachers at institutions of higher education will reach retirement age.

The need for teachers and researchers will increase

One important question is whether there will be enough people with doctorates to meet the future needs of higher education institutions and the community at large. The gaps that will be left by retirement at the higher education institutions provide part of the answer. But an increase in the number of retirements of people with postgraduate qualifications can also be predicted in the rest of the community.

The need for individuals with postgraduate qualifications is the outcome of many factors and taking over from those who retire is only one of them. Developments in higher education will depend on political priorities about the resources to be made available for teaching and research, which in their turn are dependent on general economic developments. The government and the Parliament have emphasised the importance of continued investment in higher education and research. The proposal to broaden recruitment and the goal that 50 per cent of age cohorts will have begun higher education by the age of 25 suggests continued expansion of higher education.

The measures to be adopted in the next few years concerning research and postgraduate programmes also involve expansion. In addition, the National Agency's evaluations of subjects and programmes indicate that the number of teaching hours in certain subjects is meagre and that teaching has to be offered to large groups of students. An increase in the number of teachers is the express desire of many higher education institutions. Overall, more teachers and researchers are likely to be needed.

The need to recruit more teachers and researchers increases the demand for individuals with doctorates. To this should be added the desire that the proportion of teachers with doctoral degrees should be raised. In the community at large there will also be an increased need for people with postgraduate qualifications.

During the latter half of the 90s, however, there has been a stagnation in the number of applications for postgraduate programmes. The numbers enrolled in the humanities declined dramatically for the academic year 1998/99, almost certainly because of the more stringent requirements concerning funding for the entire period of study. In the social sciences there was also a drastic decline in the numbers newly enrolled in 1998/99. Although there has been some degree of recovery, the number of newly enrolled postgraduate students in the humanities is considerably lower than it was in the years before the reform and enrolment to the social sciences has stagnated. These developments may result in a levelling out or even a decline in the number of doctoral degrees awarded, which could lead to difficulties in recruiting teachers to posts which require a doctorate. This applies generally and to the humanities and social sciences in particular.

Equal opportunities

There are still major differences in the programmes chosen by men and women. However, during the last decade women have begun to make certain inroads in technological programmes. In addition, there has been a rise in the proportion of women in longer undergraduate programmes and postgraduate programmes.

Of all the students who began courses at higher education institutions in the academic year 2000/01 59 per cent were women and 41 men. This is largely due to the fact that training for many of the occupations traditionally dominated by men is offered at upper-secondary level. Training for the occupations in which women predominate is more often provided in higher education. And the proportion of women is highest in the shortest programmes that have the most restricted occupational focus.

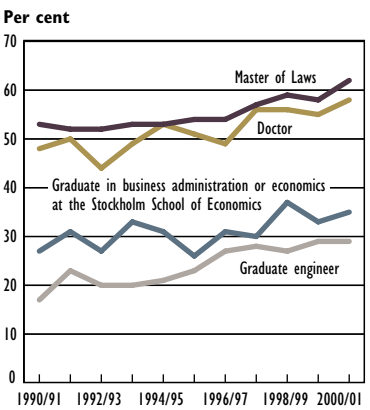
There are major differences in gender balance between programmes that vary in length, content or attractiveness on the labour market. On the longest programmes, i.e. those that comprise at least 160 credit points or four years of full-time study, the gender balance is more or less even, which is a clear change compared to ten years ago. During the academic year 1990/91, only 39 of the degrees awarded on these programmes went to women.

Among the shorter "non-traditional" programmes in higher education the gender balance remains more or less the same as it was ten years ago in those where women predominate, for example programmes in nursing or for pre-school teachers. However, the balance has evened out to some extent in the traditionally male programmes in the field of engineering.

More women on high-status programmes

What is the gender balance on the programmes to which high status is often ascribed? These programmes are characterised by their length and the potential they provide for appointment to prestigious and high-income positions on completion. A selection of four programmes of this kind, in law, in medicine, in engineering and the programmes in business administration or economics at the Stockholm School of Economics can exemplify developments.

During the academic year 2000/01 57 per cent of those awarded the degree of Master of Laws were women, 43 per cent men. For medicine the figures were 54 per cent women and 46 per cent men whereas in engineering 26 per cent of degrees



The proportion of women among beginner students at some high-status programmes.

went to women and 74 per cent to men. Women gained 30 per cent of the degrees awarded by the Stockholm School of Economics in economics, the remaining 70 per cent going to men. Therefore the balance is even (at least 40 per cent of either gender) in the programmes in medicine and in law while men still predominate in engineering and in the degrees awarded by the Stockholm School of Economics.

Viewed over a longer perspective, major changes have taken place in the gender balance on high-status programmes. During the academic year 1969/70 for instance only a few per cent of those awarded degrees in engineering were women. The percentage of women receiving degrees in law and medicine was higher, but men still dominated to a very great extent (79 per cent in both programmes).

Few men study nursing

These high-status programmes can be contrasted most clearly with programmes that have traditionally been shorter – even though they have been prolonged during the 90s – and offered more restricted labour market prospects in terms of salaries and choice of career. Examples are the programmes for pre-school teachers, nurses and the shorter engineering programmes.

During the academic year 2000/01, 90 per cent of those who enrolled on programmes for pre-school teachers or in leisure centre education were women, and the corresponding figure for programmes for primary school teachers and for nurses was 86 per cent. There has been little change during the 90s.

The shorter engineering programmes have undergone a different development. In 1990/91 only 16 per cent of the students enrolled were women, and this had risen to 26 per cent by 2000/01. The rectification of the gender balance seems, however, to have come to a stop during the most recent years.

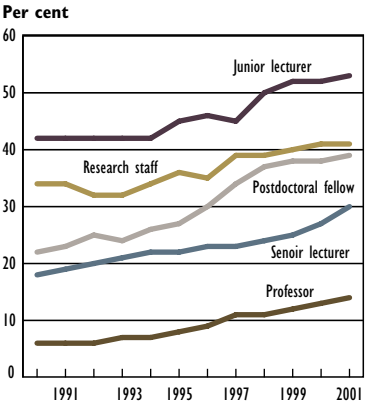
More even gender balance in postgraduate programmes

During 2000/01 men obtained the majority of the 2,400 PhD's awarded: 59 per cent went to men. Among those newly enrolled

on postgraduate programmes the proportion of men is lower, 55 per cent, which indicates continued evening out of the balance between men and women among those receiving PhD's.

This development towards a more even gender balance both among new enrolments and those obtaining degrees has been taking place during the entire 90s while at the same time postgraduate programmes have expanded vigorously. The proportion of women in postgraduate programmes has increased by approximately ten percentage points during the decade. This applies both to enrolment figures and the number of degrees awarded.

The proportion of women among teachers and researchers is increasing



The proportion of women among teachers and researchers 1990–2001. The proportion of women is increasing but only 14 per cent of the professors are women.

The proportion of women among all teaching and research staff at higher education institutions (not including postgraduate studentships) has increased during the 90s. The balance between men and women varies a great deal, however, depending on category. Women are most underrepresented among professors. In 2001 only 14 per cent were women. There has, however, been an increase during the 90s, albeit from the very low figure of six per cent in 1990. But it takes a long time to "train" a professor and it is more than likely that the figures for senior lecturers, specific research posts and postdoctoral fellowships indicate the developments of gender equality that can be expected among professors. For each of these three categories the proportion of women has risen during the 90s, which justifies the belief that there will be an improved gender balance among professors in the future.

Evaluation results

The National Agency for Higher Education has for several years had the task of undertaking various forms of quality audits. On 1 January 2001 this was extended to include evaluation of programmes and subjects. Within a six-year period all undergraduate and postgraduate programmes are to be evaluated.

The main findings of the first year's endeavours are that in most cases quality is high and that the differences between the various institutions are relatively small. The problems that came to light were far from unknown. They relate for instance to the problems of low-volume programmes and the scarcity of resources in many subjects.

The expectations about what higher education can achieve are great and costs are rising, which has given rise to increasing focus on the question of the quality of programmes. Some proof of quality is desired by the politicians responsible for education, by students and by the taxpayers who foot the bill.

In addition to these evaluations of subjects and programmes, the National Agency also conducts audits of the quality assurance procedures of the higher education institutions and appraisals of the applications for the right to issue degrees or offer postgraduate programmes in specific disciplines.

The reform of higher education in 1993 contained an explicit requirement that each higher education institution should initiate quality assurance procedures intended to lead to operational developments. The National Agency is charged with the task of auditing and evaluating how systematic these procedures are. Half of the institutions audited are in the initial phase of introducing quality assurance procedures. This means that they are beginning to discover viable forms and support for the strategies adopted and that more and more levels in the institution are beginning to participate in its quality assurance process. Many institutions have not yet developed systems to gauge and report the results of improvement measures.

The National Agency also conducts appraisals of the right to confer degrees after an institution has applied for the right to award a specific degree. In these cases, appraisal is made of whether the institution has the capacity to award the degree concerned. In 2001 these appraisals have mainly concerned vocational qualifications in the field of nursing and master's degrees in various subjects.

Evaluation of subjects and programmes

Evaluations of subjects and programmes have three main aims: to contribute to the development of quality, assess whether a programme corresponds to the objectives and provisions of the Higher Education Act and the Higher Education Ordinance and also to provide information for students, for instance, when they choose a programme.

Generally speaking, these evaluations conclude with a number of proposed improvements and a general impression that things work well. Only a few of the approximately 200 programmes evaluated have had such shortcomings that the right to award degrees has been called into question. In several cases departments have not had the wherewithal to create an environment that was critical or creative enough. In a few cases it has been considered that the academic level was too low. In these cases the higher education institutions have been given a certain amount of time to rectify these shortcoming before a second evaluation is conducted. Not until then can withdrawal of the right to award degrees be considered.

All in all, a hundred assessors, Swedish and international, mainly from the Scandinavian countries, have formed the evaluation groups. In addition to subject experts, they have also included representatives of undergraduate and postgraduate students and, for programmes that lead to a vocational qualification, a representative from the labour market.

Small subjects – major problems

The Classical languages – Latin, Classical Greek and Modern Greek – are small subjects with few teachers, few students and limited research commitments. These are vulnerable environments that can stand or fall by one single teacher. This is not new, but has been common knowledge for some time.

Despite their size, there is still an ambition to provide all-round undergraduate and postgraduate programmes in the entire discipline, and in practice this is difficult to accomplish. There are, however, good examples of cooperation and the

adoption of profiles. What is more striking is, nevertheless, the paucity of cooperation in several isolated settings. The critical and creative environment needed to ensure academic standards cannot, in many cases, be provided without a greater degree of cooperation.

Few teaching hours

One recurrent observation in the evaluations is that the number of hours of classroom instruction is low in many of the humanities and social sciences – in some cases so low that it could be considered to jeopardise quality. In some cases teaching in the form of large-scale lectures with no accompanying series of parallel seminars gravely hampers the possibility of developing the critical capacities of students. What underlies this problem is of course the question of whether the resources available for these areas have become too scant.

Funding issues recur where postgraduate programmes are concerned. There is concern in the departments about the complete funding required before accepting postgraduate students. The result is that many departments have not been able to enrol qualified postgraduate students, and this conflicts with statements about the community's need of people with doctorates.

Student influence and gender equality

Formal channels of student influence work well in most cases. Course evaluations are conducted with more or less intensity in all programmes at undergraduate level. On the other hand the situation is not as positive when it come to providing students with feedback about the results or initiating improvements that are needed.

Lack of gender equality is still evident, mainly in the subjects in which men traditionally predominate such as theology and economics. The opposite situation prevails in Swedish and Scandinavian languages, where women predominate in both undergraduate and postgraduate programmes and to some extent among teachers as well. ■

Facts about the higher education sector

Students	**Academic year 2000/01**	**Proportion of women**
New higher education students	72,100	59 %
Registered undergraduates (autumn term 2001)	300,800	60 %
Undergraduate degrees	39,700	61 %
	Fiscal year 2001	
New postgraduate students	3,200	44 %
Active postgraduate students	18,100	44 %
Doctoral degrees	2,400	41 %
"Licentiate" degrees	1,040	37 %
Staff		
Staff (FTE) at state, regional authority and private universities and university colleges	49,300	49 %
of which teaching personnel	22,700	37 %
Proportion of professors, senior lecturers, junior lecturers and postdoctoral fellows with doctoral degree	55 %	25 %

Costs (M SEK, current prices)	**Fiscal year 2001**
Total higher education cost	47,200
of which	
State universities and other institutions of higher education	35,300
Private universities and university colleges	2,900
Student financial support	8,500
Central government agencies	500

Universities and University colleges in Sweden

Universities and institutions of higher education with the right to award postgraduate degrees

State

Uppsala University
Lund University
Göteborg University
Stockholm University
Umeå University
Linköping University
Karolinska Institute
Royal Institute of Technology
Luleå University of Technology
The Swedish University of Agricultural Sciences
Karlstad University
Växjö University
Örebro University
Blekinge Institute of Technology
Kalmar University College
Malmö University College
Mid-Sweden University College
Mälardalen University College

Private sector

Chalmers University of Technology
Stockholm School of Economics
Jönköping University College

University colleges

State

Borås University College
Dalarna University College

Gotland University College
Gävle University College
Halmstad University College
Kristianstad University College
Skövde University College
Stockholm University College of Physical Education and Sports
Stockholm Institute of Education
Södertörn University College
Trollhättan/Uddevalla University College

Private sector

Erica Foundation
Ersta Sköndal University College
Gammelkroppa School of Forestry
Johannelund Theological Institute
Stockholm School of Theology
The Swedish Red Cross University College of Nursing and Health
Sophiahemmet College of Health Sciences
Örebro Theological Seminary
A number of institutions with psychotherapy programmes

University Colleges of Arts

State

University College of Dance
University College of Film, Radio, Television and Theatre
University College of Arts, Craft and Design
Royal University College of Fine Arts
Royal University College of Music in Stockholm
Stockholm University College of Opera
National Academy of Mime and Acting

Private sector

University College of Music Education in Stockholm