

AN OVERVIEW OF SWEDISH HIGHER EDUCATION AND RESEARCH 2021

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Published by Swedish Higher Education Authority 2021
Report 2021:22

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FOREWORD

The higher education sector touches the lives of many people. It is the largest state activity in terms of number of employees, and just over 400,000 students attend some form of higher education annually.

Swedish higher education institutions are primarily publicly financed. A total of SEK 78 billion (about EUR 8 billion) was spent in 2020, which is equal to 1.57 per cent of Sweden's GDP. In total, about 80 per cent of activities were financed by public funding.

The past year was unusual in many respects, even for the higher education sector. The coronavirus pandemic presented significant challenges for students, teachers, researchers and other staff at higher education institutions when teaching shifted to remote and distance learning and research could not be conducted as planned. Staff also had to work from home as much as possible. International travel was completely shut down. The Swedish Higher Education Authority (UKÄ) is following developments as part of a government assignment that runs through December 2022. This report includes information about the impact of the pandemic's first year on higher education and research. UKÄ is also continuing its work with quality assurance. The Authority is responsible for the national system for quality assurance of the education provided by higher education institutions. From 2020, this mission was expanded to include quality assurance of research.

With *An Overview of Swedish Higher Education and Research 2021*, UKÄ wants to provide a summary reference work for anyone looking for facts in English about Swedish higher education. The report is

based on data reported by higher education institutions to Statistics Sweden and to UKÄ. Additional data from other sources has also been included. The focus is on the past year, but developments are often described from a longer perspective.

The report begins with a short introduction to the Swedish system for higher education to provide an understand of the information presented in the following chapters. Since 2020 was an unusual year, we have dedicated a separate chapter to how the coronavirus pandemic has impacted higher education institutions. This is followed by descriptions of how different aspects of higher education institutions have developed: education at different levels, international student mobility, the connection with education and the labour market, teaching and researching staff, staff with duties other than teaching and researching, financial aspects and research at higher education institutions. The report concludes with several tables with data per higher education institution on students, academic degrees, teachers, researchers and finances. Additional data is available on our website, www.uka.se, for those interested in learning more.

We hope you find this report useful reading.



Anders Söderholm
Director General

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EFFECTS OF THE CORONAVIRUS PANDEMIC ON HIGHER EDUCATION IN 2020

2020 was an unusual year for society at large and Swedish higher education in particular. The coronavirus pandemic has presented extreme challenges for every aspect of higher education and will continue to do so for the foreseeable future. But in a time of uncertainty and change, the higher education sector has demonstrated its flexibility and adaptability. The quick transition to digital teaching was followed by greater interest in attending higher education, a growing number of accepted students and extensive expansion of higher education, which has placed a great amount of pressure on every aspect of higher education.

Higher education has been expanded

In times of financial uncertainty and increased unemployment, higher education has historically served as a cushion. This is also the case now. A permanent expansion of higher education began already in the spring 2020, together with the injection of temporary financial resources for summer courses and for qualifying courses to allow admission to more advanced programmes and courses. This was intended to allow higher education institutions (HEIs) to enrol young people who risked unemployment and to allow those furloughed from jobs the opportunity to further their education while on furlough.

Life-long learning also came to the fore during the pandemic. Providing good opportunities for retraining is important for both individuals and society. HEIs play a central role in this effort. They address both the labour market's need for a qualified workforce within different sectors and the individual's desire for knowledge, education and development. In some sectors, there is a shortage of university-trained workers, and it is a challenge for HEIs to successfully recruit students to programmes that supply these sectors with labour.

Fewer international students

Internationalisation is an integral part of much of higher education. Incoming students and foreign doctoral students are an ever increasing percentage of new entrants in first-, second- and third-cycle education. In the 2020 autumn semester, however, significantly fewer incoming students at the first- and second-cycle levels came to Sweden. A similar effect has not been seen so far at the third-cycle level.

Even with the pandemic, the trend of increased revenues from paying students continues, if examining all of 2020, but the rate of increase was lower than previous years.

Record interest in higher education

The pandemic has resulted in major economic consequences, and the part of the labour market where young people often work has been particularly effected. Just as with previous recessions, this has led to an increase in applicants to higher education. To meet the expected demand, the Government has invested heavily both in permanent and temporary expansion of higher education. In the 2020 autumn semester, there were significantly more applicants

without previous higher education, particularly among younger applicants. Among 19-year-olds, the number of applicants increased by 30 per cent compared with the previous year. The current situation in society has also led to a significant increase in applicants to health and medical care fields.

This increased interest in higher education is seen in the total number of students. There were 384,500 registered students in Swedish higher education in the 2020 autumn semester. This was 19,600 more than at the previous noted high in autumn semester 2010.

For many academic years, distance education has become increasingly popular. It is still to be determined whether the forced transition to distance education in connection with the pandemic will further accelerate this trend.

Finding work for first- and second-cycle graduates has been easy

In the 2019/20 academic year, the number of graduates increased from several programmes supplying fields experiencing shortages of trained staff. This included nursing graduates, pre-school education graduates and primary education graduates.

Most graduates from higher education can easily find work. The pandemic does not seem to have impacted this potential. More than 75 per cent of spring 2020 graduates had good potential for earning a living six months after graduating. There was a small decrease compared with graduates from the previous year, but the programme from which the student graduated also played a big role.

Gender equality may be impacted

Early in the pandemic, recent male graduates as a group had a more difficult time than recent female graduates on the labour market. One reason was that the private

sector labour market has been harder hit than the public sector, and men work to a greater degree than women in the private sector. The labour market is divided by gender because women and men largely choose different educational paths in higher education.

At the same time, the gap between highly educated women and men is increasing every year. Of today's 40-year-olds, 41 per cent of women and 23 per cent of men are highly educated, while 14 per cent of both women and men were highly educated in the 1950s. This development is not unique to Sweden and is reflected in most OECD countries. With more highly educated women than highly educated men, these women may be better equipped to face the challenges of the future labour market.

Forecasts show that future needs for labour with higher education is significant in women-dominated fields currently facing shortages. If this leads to more men than previously entering these professions, this can have positive effects on gender equality of the labour market. So far, however, applicants still apply for programmes according to traditional gender patterns.

Positive financial results in 2020

In 2020, first- and second-cycle programmes accepted more students while HEIs used less research funding. This is also reflected in HEIs' financial results.

In 2020, total accumulated revenues for HEIs reached SEK 78.5 billion, which was an increase of SEK 1.2 billion compared with 2019. Because of the pandemic and previously approved initiatives, the State has increased funding to allow HEIs to admit more students. In 2020, funding for research and third-cycle education was also increased in accordance with the proposal in the previous research policy bill. The entire increase in revenues was largely the result of this additional state funding.

One concern, that research funding for HEIs from Swedish foundations and non-profit organisations would decrease, did not occur. The pandemic has not impacted the foundations' ability to fund new projects, for the most part. No research has been forced to be cancelled because of retracted funding.

HEI use of research funding decreased


While first- and second-cycle programmes increased in volume, the HEIs decreased their use of research funding. This decrease is the result of research funding being used at a slower rate during the year. This is likely primarily the result of the pandemic.

Another area where we think we see an effect of the pandemic on higher education is in the number of conference publications. Preliminary numbers show a significant decrease compared with the previous year, but because of delays in reporting publications, it is too early to say with certainty if this is the case. On the other hand, we cannot see a clear negative effect of the

pandemic on the total number of scholarly publications at HEIs.

UKÄ continues following the consequences of the pandemic

The coronavirus pandemic has had an impact on HEI activities and operations over the past year, but it is still too early to draw any conclusions on long-term consequences. At the time of this writing in May 2021, the pandemic was still ongoing. This annual report provides some answers to what consequences the pandemic has had on HEIs to this point, but it will be an important part of UKÄ's work in the coming period to continue to follow developments. This will be done both within the framework of our regular follow-up and within the special government assignment on following up the consequences to higher education of decisions and initiatives taken because of the pandemic. The results of this work will be published regularly on our website under the heading *Coronaviruset och högskolan* (in Swedish).



FACTS ABOUT HIGHER EDUCATION AND RESEARCH IN SWEDEN

THE SWEDISH SYSTEM FOR HIGHER EDUCATION AND RESEARCH

Compared to the higher education systems of many other countries, the Swedish higher education system is relatively flexible. Educational offerings are largely course-based and most higher education institutions (HEIs) offer freestanding courses and programmes as distance courses, some of which can be completely online. This offers excellent opportunities for lifelong learning. Traditionally, Swedish higher education does not just involve educating youth after completing secondary education. It also includes continuing development for professionals, and it is common to return to higher education after previous studies.

HEIs also provide third-cycle education and conduct most of the publicly funded research in Sweden. This means that Swedish higher education is relatively heavily focused on research. Measured in terms of monetary value, more than half of the activities at HEIs consists of research and third-cycle education.

Universities, university colleges and other education providers

Both university colleges and universities conduct research and provide higher education at various levels, but they vary in how much focus is given to research. The older universities have more extensive research than university colleges and the newer universities.

Sweden has a uniform system for higher education with the same legislation, by and large regardless of provider. HEIs primarily differ in that universities have been granted general degree-awarding powers at the second- and third-cycle levels, while university colleges must apply for entitlement to award degrees at the second- and third-cycle levels in specific areas. A list of Sweden's 49 HEIs is found at the end of this chapter.

The size of the HEIs also varies greatly. Measured in number of enrolled students, the largest university had more than 50,000 students for the academic year 2019/20,

while the smallest HEIs had less than 50 registered students.

Education within the framework of higher vocational education providers

Higher education is not the only form of tertiary education in Sweden. There is also higher vocational education within the framework of vocational education and some interpreter programmes. Higher vocational education is to meet the needs of the labour market, and theoretical studies are combined with courses given at workplaces. The length of higher vocational programmes varies between one and three years, and in total they equal just under 14 per cent of post-secondary education. As such, the vast majority of Sweden's post-secondary education consists of higher education.

Higher vocational education and higher education are separate systems, and there is no progression between the systems. This report focuses on higher education institutions.

Governance of higher education

The mission of the HEIs is to provide education based on scholarly or artistic practice and on proven experience. HEIs are also to carry out scholarly and artistic research, and development work. They are also to collaborate with the surrounding society, inform about their activities and ensure that benefit is derived from their research results.

In Sweden, public-sector HEIs have considerable autonomy within a system of management by objectives. Overall responsibility for higher education and research rests with the Swedish Parliament (Riksdag) and the Government. These decide on the regulations that apply to the higher education sector, primarily the Higher Education Act and the Higher Education Ordinance (see fact box). They also allocate resources to the HEIs.

Within the framework of this legislation, HEIs take most decisions themselves. These

decisions cover such areas as organisation; internal allocation of resources; educational offerings; educational content and design; how many students are admitted and what research they conduct.

HEIs have significant freedom in determining their staffing. There are, however, three forms of employment regulated through legislation and regulations: professors, senior lecturers and assistant professors. Beyond these, there are many other forms of employment for researching and teaching staff. Doctoral students are generally employed and contribute both research and teaching to the HEIs.

The operations of independent education providers are regulated through a specific law and in some cases through contracts with the Government. For education, however, the same rules primarily apply as for public-sector HEIs.

REGULATION OF THE HIGHER EDUCATION SECTOR

Higher education in Sweden is governed by the Higher Education Act (SFS 1992:1434) and the Higher Education Ordinance (SFS 1993:100).

The Higher Education Act is enacted by the Riksdag and regulates the HEIs' operations. The Act contains basic regulations about education offered by HEIs. For instance, it sets out what should characterise courses and programmes at different levels and stipulates freedom of research. It provides a framework for the organisation and governance of the HEIs, and states that every HEI must have a board of governors and a vice-chancellor. It also contains regulations about the duties of teachers as well as provisions about student influence. In addition, HEIs must foster equality of opportunity and broaden recruitment.

Further provisions are specified in the Higher Education Ordinance, issued by the Government. For instance, the Ordinance states that students

must be given the opportunity to influence their studies. The Ordinance contains regulations on entrance qualifications and selection for courses and programmes, as well as the appointment of teachers and doctoral students. It also includes regulations on course and programme syllabuses, grades and qualifications. Annex 2 of the Ordinance contains a System of Qualifications, which includes descriptions of and goals for all degrees.

HEIs also are governed by the Government's annual public service agreements with each HEI. The public service agreement specifies that educational offerings are to correspond to demand from students and the needs of the labour market, the size of the state funding for first- and second-cycle education and for research and third-cycle education, and for specific assignments given to HEIs.

Allocation of resources to HEIs

The State has a significant commitment for financing HEIs. Higher education is for the most part free-of-charge and the State allocates significant resources for research conducted by the HEIs.

The Riksdag determines the allocation of resources for education and research for each HEI, which receives separate allocations for education and for research. Funding for first- and second-cycle education is based in part on the number of enrolled students (converted to full-time equivalents (FTE)) within the different disciplinary domains and, in part, on credits earned by students (converted to annual performance equivalents (APE)). The allocation of resources is thus primarily based on performance (the number of enrolled students and the credits they earn). The funding per FTE and APE varies for different disciplinary domains. Technology and engineering, for example, receive more than social science. Every year the Government caps the funding of courses and programmes of each HEI by setting a maximum amount, called the funding cap.

The funding for research and third-cycle education that HEIs receive directly from the Government is in the form of a base grant that may be used freely within different fields of research. Only a small part of the funding is performance based. This part is based on scholarly production, external funding and collaboration with the surrounding society. The HEIs are also guaranteed a minimum level of research funding based on the number of students registered in first- and second-cycle education. Beyond the direct government funding, significant state funds are allocated through research funding agencies and applied for in competition. Research and third-cycle education are also funded to a considerable extent by other research funding bodies, such as private foundations or the EU.

Higher education

Higher education is defined by, among other things, its placement in the education system (post-secondary) and by the requirement that the education be based on scholarly or artistic practice.

All courses, programmes and qualifications are placed in one of three cycles: first, second or third. There is progression, that is to say, each cycle is based on the one before. The formal requirements that distinguish these cycles are specified in the Higher Education Act. Swedish higher education's division into cycles is part of the adaption to the Bologna Process, which aims to make higher education more comparable to those countries participating in the process.

All first- and second-cycle education consist of courses that may be combined to form programmes. In addition to programmes that lead to the award of qualifications, higher education in Sweden offers a wide range of freestanding courses, many of them offered through distance learning. Students may select their own combination of these courses and many students take courses without the intention to earn credits.

The scope of a programme is expressed as higher education credits. One academic year is typically two semesters and normally 40 weeks, which corresponds with 60 higher education credits with full-time study. Higher education credits in the Swedish educational system can be compared to the European Credit Transfer and Accumulation System Credits (ECTS credits), in which 60 credits is the equivalent of one year of full-time study.

Qualifications

There are three categories of qualifications which all have the same academic status:

1. general qualifications
2. qualifications in the fine, applied and performing arts
3. professional qualifications.

Both general qualifications and qualifications in the fine, applied and performing arts are awarded within the first, second or third cycles. Professional qualifications are awarded within the first and second cycles and mainly in the regulated professions. There are about 50 different programmes leading to a professional qualification, of which two-thirds lead to a qualification at the master's level or second cycle. Most professional qualifications awarded in the second cycle do not require a previous first-cycle qualification and the programmes leading to their award cover both cycles. Swedish higher education differs from higher education in many other countries in this respect.

Research at HEIs

Research is much less regulated than higher education. In 2021, academic freedom was incorporated into the Higher Education Act. The Swedish Higher Education Act now specifies that the general principle for higher education is to promote and protect academic freedom. For research, the general principle is that research problems may be freely chosen, research methods may be freely developed and research results may be freely published. Additionally, academic credibility and good research practice are to be promoted in research.

Degree structure and quality assurance

Higher education is offered by public-sector HEIs and (to a much smaller extent) by independent education providers. There are 31 public-sector HEIs and they account for approximately 90 per cent of the total number of students (FTEs). The Riksdag decides on the establishment of public-sector HEIs while the Government decides whether an HEI has full university status.

Table 1. Structure of Swedish higher education qualifications.

First-cycle qualifications
General qualifications
Higher Education Diploma (120 HE credits)
Degree of Bachelor (180 HE credits)
Qualifications in the fine, applied and performing arts
Higher Education Diploma (120 HE credits)
Degree of Bachelor in Fine Arts (180 HE credits)
Professional qualifications (120–195 HE credits)
Second-cycle qualifications
General qualifications
Degree of Master (60 HE credits)
Degree of Master (120 HE credits)
Qualifications in the fine, applied and performing arts
Degree of Master in Fine Arts (60 HE credits)
Degree of Master in Fine Arts (120 HE credits)
Professional qualifications (240–360 HE credits)
Third-cycle qualifications
General qualifications
Degree of Licentiate (120 HE credits)
Degree of Doctor (240 HE credits)
Qualifications in the fine, applied and performing arts
Degree of Licentiate in Fine Arts (120 HE credits)
Degree of Doctor in Fine Arts (240 HE credits)

Those that do not have full university status have only limited powers to award third-cycle qualifications and somewhat limited powers to award second-cycle qualifications. There is no difference, however, in the status of the qualifications awarded.

Independent education providers are entitled to offer higher education courses and programmes if they are granted degree-awarding powers. In Sweden there are six independent HEIs entitled to award either all or some third-cycle qualifications. There are also several independent education providers with limited entitlement to award first-cycle, and in some cases second-cycle, qualifications.

Degree-awarding powers

In Sweden, accreditation of higher education takes the form of granting degree-awarding powers. The regulations that apply vary depending on what types of HEI and qualifications they refer to: public-sector HEIs that do not have full university status have less extensive powers but are not as restricted as the independent higher education providers, which have to apply separately for each qualification they wish to award. However, all HEIs and independent higher education providers have to apply for entitlement to award professional qualifications and qualifications in the fine, applied and performing arts.

Independent education providers apply to the Government for degree-awarding powers. The Government usually sends the application to UKÄ for assessment. Public-sector universities and university colleges apply to UKÄ for degree-awarding powers. UKÄ assesses these applications and decides on whether to approve them. Degree-awarding powers are granted indefinitely, unless there are grounds for revoking them. One such ground is failure to meet quality standards.

Quality assurance

The Higher Education Act specifies that HEIs are to design their education and research to ensure high quality. The HEIs are responsible for the quality of their education and their quality assurance procedures are the shared concern of the HEI's staff and students.

UKÄ is responsible for quality assurance of HEIs, both education and research. The assessments are conducted according to a system for quality assurance that has been developed in dialogue with the HEIs and others. The objectives of UKÄ's reviews are partly to assess the performance of the academic programmes and partly to contribute to the HEIs' work with quality improvements in higher education and research.

The national system for quality assurance of higher education and research consists of four components: appraisal of degree awarding powers, assessments of HEIs' quality assurance processes, programme evaluations and thematic evaluations.

Both public-sector HEIs and independent education providers are required to participate in the national evaluations. Failure to meet quality standards may result in the revoking of degree-awarding powers.

Admission to higher education

Sweden has a more uniform system of admission to higher education than many other countries. National admission regulations are defined in the Higher Education Act and the Higher Education Ordinance and in regulations issued by the Swedish Council for Higher Education. The vast majority of admissions are pooled. The Swedish Council for Higher Education is responsible for pooled admissions on behalf of the HEIs, but the individual HEIs make the official decision to admit students. There is a single joint official website for applications to higher education institutions in Sweden, www.universityadmissions.se.

Many roads into higher education

Detailed national regulations apply mainly to the admission of higher education entrants to first-cycle education. There are also regulations on admission to second- and third-cycle education, but these are less comprehensive. General entry requirements for first- and second-cycle studies normally include a degree from a university preparatory upper-secondary programme. But there are several other roads into higher education in Sweden. Upper-secondary vocational degrees can also provide qualification in some circumstances, and there are good

options for meeting entry requirements through studies in municipal adult education for upper-secondary qualifications. Prior learning can also meet basic entry requirements if the person is judged to be able to benefit from the education.

Selection rules and procedures

Fulfilment of the entry requirements does not guarantee admission. Government funding sets a limit to how many students can be accepted at an HEI, and selection criteria are used if there are more applicants than can be admitted. All first-cycle courses and programmes, apart from those that lead to the award of qualifications in the fine, applied and performing arts, use more or less the same criteria. These are based mainly on final school grades or results from the Swedish Scholastic Aptitude Test (högskoleprovet). The Higher Education Ordinance lists what selection criteria may be invoked. It also contains regulations on the evaluation of final school grades.

Admission to third-cycle education

Applying for third-cycle education leading to the award of a licentiate degree or doctoral degree is more similar to applying for a job. Admission is only possible if the student has been appointed to a doctoral studentship or other form of employment, unless the student has some other form of guaranteed funding for the entire period of study. Normally, funding can only be provided for the official period of study. This means that doctoral programmes have to be completed in four full years, licentiate programmes in two. A doctoral student, however, may work with teaching first- and second-cycle students, research and administration up to 20 per cent of their studies. Doctoral studies are then extended an equivalent period.

Cost of studying

Tuition fees

For a long time, Sweden was one of the few countries in Europe in which higher education was completely free of charge. In 2011, the Higher Education Act was changed to the effect that while higher education is free for Swedish citizens and for citizens of the EU/EEA countries and Switzerland, incoming students from other countries have to pay an application fee and tuition fees for first- and second-cycle studies, unless they are taking part in an exchange programme. In calculating tuition fees, the HEIs must ensure that they cover the full cost of the instruction provided as well as counselling, health services and other types of student service.

Financial support

The majority of students in Sweden finance their studies with the help of financial support from the State to cover their living expenses. All domestic students are entitled to financial support, but there are minimum performance requirements in terms of the number of credits achieved for continued financial support. It is also possible to qualify for financial support for studies abroad.

Student finance consists of a combination of study grants and study loans at low interest rates. In 2020, the grant portion of student finance for an academic year of 40 weeks amounted to SEK 32,920 and the loan ceiling to SEK 75,680. The maximum total available Government-sponsored student finance for an individual student pursuing full-time studies thus amounted to SEK 108,600 in 2020. Students may receive this financial support for a maximum of twelve semesters or six academic years. The upper age limit for receiving student financing is 56. It is relatively common for students to work during their studies. An income over the earned income allowance leads to a reduction in student financing.

Repayment of the loan element is based on an annuity system and in normal cases the total debt should be repaid in 25 years or less, or before the borrower reaches the age of 60.

Incoming students have to finance their studies themselves. Students required to pay

tuition, however, may apply for scholarships for full or partial financing of their tuition fees. In some cases, they can even apply for grants to cover cost of living.

GOVERNMENT AGENCIES IN THE HIGHER EDUCATION SECTOR

Read more about higher education and research in Sweden at www.sweden.se. The Eurydice webpage (an EU initiative to explain European education systems) has information and studies that compare the Swedish education system with other European education systems.

Many government agencies under the Ministry of Education and Research work within higher education and research, such as with follow-ups and evaluations, analysis and statistics:

Universitetskanslersämbetet (the Swedish Higher Education Authority (UKÄ), www.uka.se) evaluates the quality of higher education and research, analyses its development, is responsible for official statistics about higher education and monitors compliance with laws and regulations among universities and university colleges.

Universitets- och högskolerådet (the Swedish Council for Higher Education (UHR), www.uhr.se) manages the Swedish Scholastic Aptitude Test and is responsible for pooled admissions on behalf of the HEIs. UHR also facilitates international student exchange, recognises foreign quali-

fications and promotes equal rights and opportunities in higher education. UHR is the national office for the Eurydice network in Sweden.

Centrala studiestödsnämnden (the National Board of Student Aid (CSN), www.csn.se) approves and distributes state financial support for students, including both grants and loans.

Svenska institutet (the Swedish Institute (SI), www.si.se) is tasked with disseminating knowledge about Sweden abroad and manages exchanges with other countries within culture, education, research and society at large.

Vetenskapsrådet (the Swedish Research Council, www.vr.se) is the largest governmental funding body, in addition to serving as an advisor to the Government on research policy.

Överklagandenämnden för högskolan (the Higher Education Appeals Board, www.onh.se) reviews decisions on admission to higher education.

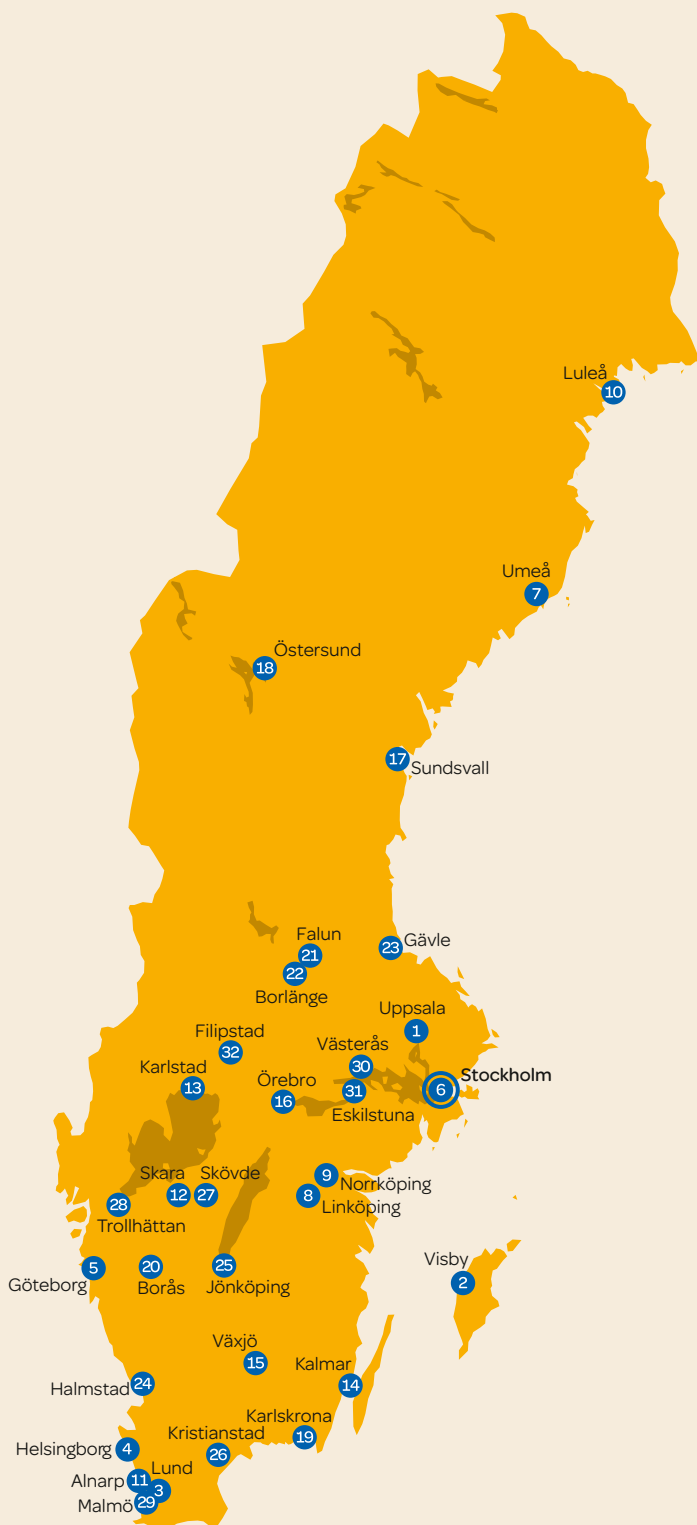
THE THREE LARGEST GOVERNMENT RESEARCH FUNDING ORGANISATIONS

Swedish Research Council (VR) is Sweden's largest state research funding body and funds research in all disciplinary domains, www.vr.se. VR supports research at HEIs with around SEK 5 billion annually. VR's publication The Swedish Research Barometer provides an overall description of the state of Swedish R&D in international comparison.

Formas is a government research funding body for sustainable development, www.formas.se,

and supports research on the environment, land-based industries and community development. Formas funds research at HEIs for just over SEK 1 billion annually.

Vinnova is a public authority tasked with strengthening innovation in Sweden and contributing to sustainable growth, www.vinnova.se. Vinnova funds research and innovation projects at HEIs for just over SEK 1 billion annually.



HIGHER EDUCATION INSTITUTIONS

Universities

Uppsala University 1, 2
Lund University 3, 4
University of Gothenburg 5
Stockholm University 6
Umeå University 7
Linköping University 8, 9
Karolinska Institutet 6
KTH Royal Institute of Technology 6
Chalmers University of Technology (independent) 5
Luleå University of Technology 10
Stockholm School of Economics (independent) 6
Swedish University of Agricultural Sciences 1, 7, 11, 12
Karlstad University 13
Linnaeus University 14, 15
Örebro University 16
Mid Sweden University 17, 18
Malmö University 29

University colleges

Blekinge Institute of Technology 19
Dalarna University 21, 22
Halmstad University 24
Kristianstad University 26
Mälardalen University 30, 31
Swedish Defence University 6
Jönköping University (independent) 25
Södertörns högskola 6
University College of Physical Education and Sports 6
University of Borås 20
University of Gävle 23
University of Skövde 27
University West 28

Art, Design and Music Academies

Beckmans College of Design (independent) 6
Konstfack, University College of Art, Craft and Design 6
Royal College of Music in Stockholm 6
Royal Institute of Art 6
Stockholm University of the Arts 6

Other independent education providers

Brunnsvik Folk High School* 22
Erica Foundation 6
Ersta Sköndal Bräcke University College 5, 6
Evidens AB 5
Gammelkroppa School of Forestry 32
Johannelund School of Theology 1
Newman Institute 1
Scandinavia's Academy for Psychotherapy Development 6
Sophiahemmet University College 6
Stockholm University College of Music Education 6
Swedish Institute for CBT & Schema Therapy 6
Swedish Red Cross University College 6
University College Stockholm 6
Örebro School of Theology 16

The numbers refer to those places on the map where each HEI is located. Some HEIs also have smaller campuses not indicated on the map.

* Since March 2020, Brunnsvik Folk High School is authorised to issue Higher Education Diplomas in Music, but the institution is not included in this annual report since it has not yet accepted students to the programme.

TRENDS AND DEVELOPMENTS

FIRST- AND SECOND-CYCLE EDUCATION

The level of education among the Swedish population continues to increase. The percentage of women with higher education has long been higher than that for men, and the difference between the two groups increases every year. Social imbalances in recruiting persist.

In 2020, the Government earmarked extra funding for higher education institutions (HEIs) to increase the number of students that can be admitted. Interest for higher education was also at a record level as a result of the coronavirus pandemic. There were nearly 460,000 applicants to programmes and courses at HEIs in the autumn 2020. Of these, 270,000 were admitted. A record number of students (nearly 400,000) were enrolled in first- and second-cycle programmes and courses in the 2020 autumn semester.

Applicants and admitted students

The vast majority of applications for first- and second-cycle education at Swedish HEIs are submitted through a central admission system. It is possible to apply for programmes and courses both in autumn and spring semesters. Significantly more apply to and are admitted to the autumn semester than the spring semester. Direct government funding for HEIs sets the framework for how many applicants can be admitted.

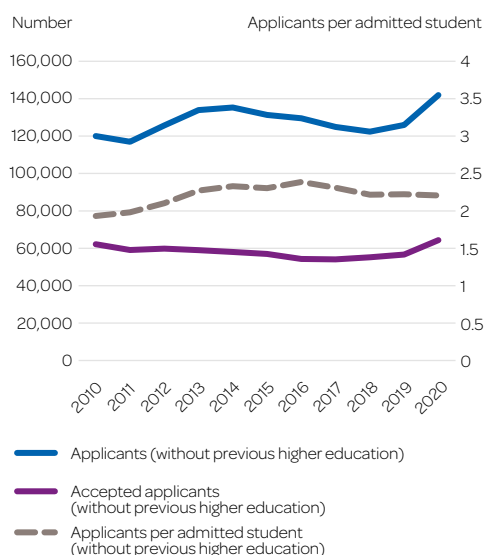
Interest in beginning higher education was at a record level for the 2020 autumn semester. There were nearly 460,000 applicants to programmes and courses at HEIs, which was an increase of 7 per cent compared with the 2019 autumn semester.

Of these, 142,000 had previously not attended higher education, which was the highest level of the 21st century (Figure 1). Women were a majority of applicants among those without previous higher education, 60 per cent compared with 40 per cent of men. This gender difference has been fairly stable for the last 10 years.

Many more young people applied to higher education

There was a particularly large increase in applicants among younger people in the 2020 autumn semester, likely an effect of the growing unemployment among this group resulting from the pandemic.

Figure 1. Number of applicants who have not previously attended higher education, autumn semesters 2010–2020. The acceptance ratio is found in the scale to the right.



The single largest age group was 19-year-olds, which made up 24 per cent of applicants without previous higher education in the 2020 autumn semester. The 20–24 age group accounted for 45 per cent, while the 25 and older group totalled 31 per cent.

Ten years ago, applicants were generally younger, and 19-year-olds made up 30 per cent of applicants without previous higher education. This was followed for many years by a decrease in the percentage of applicants from the youngest age groups. This trend only changed now in the 2020 autumn semester.

More young people expected to apply to higher education in the coming years

Changes in the population's age distribution also influences the number of applicants to higher education. If the age groups that apply to higher education in larger numbers shrink as a percentage of the population, the number of applicants to higher education also declines.

According to population forecasts from Statistics Sweden, the number of 19-year-olds is expected to increase from about 115,000 to 136,000 during the period 2021–2029, after which it is expected to decrease to about 130,000 by 2041. Since 19-year-olds are the largest age group that applies to higher education, the number of applicants is expected to increase in the coming years (assuming that interest in higher education remains constant).

Continued increase in applicants without previous higher education

Of the 460,000 applicants, 270,000 were admitted to programmes and courses for autumn 2020. This was an increase of 3 per cent compared with the previous autumn.

For the 2020 autumn semester, 64,000 applicants with no previous higher education were admitted (Figure 1). This was nearly 8,000 more compared with the 2019

autumn semester and the third year in a row with an increase. The number of admitted applicants has only been at this level once in the last 20 years (2009). At that time, Sweden was experiencing the full impact of the global financial crisis.

In autumn 2020, men were 48 per cent and women were 44 per cent of admitted applicants without previous higher education. Since 2001, the percentage of admitted applicants has been higher for men than women. One reason for this is that women apply more often to programmes within health care, medical care and social care, which have a high number of applicants per admitted student, while men more commonly apply to programmes within engineering and manufacturing, where there are fewer applicants per admitted student.

Of all admitted applicants in the 2020 autumn semester, 57 per cent were women and 43 per cent were men, which is the same as the last 10 years.

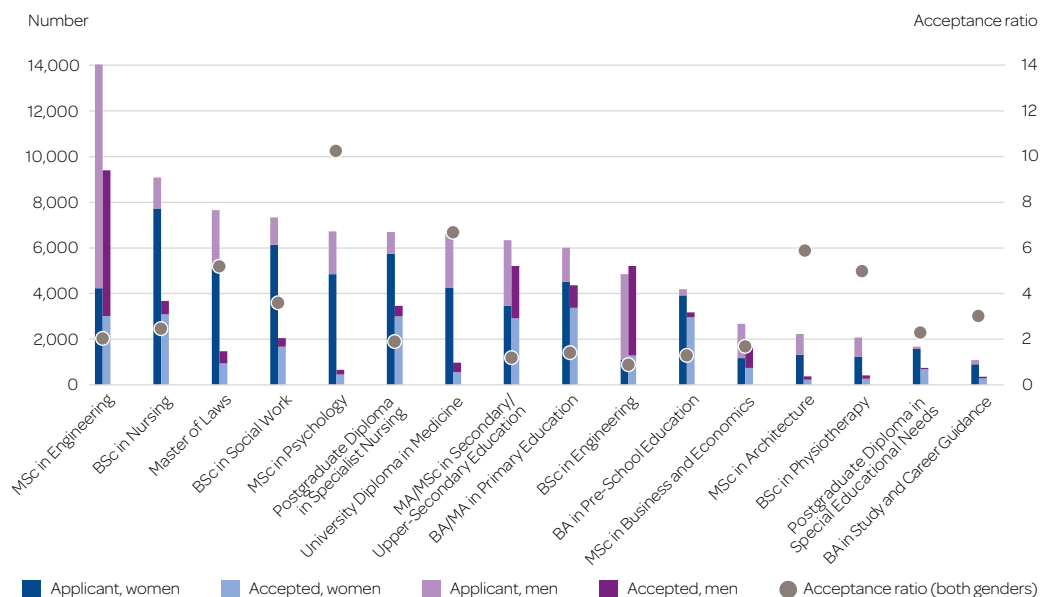
If we look at both groups of applicants and admitted applicants in relation to each other, there were 2.2 applicants per admitted applicant (acceptance ratio) in the 2020 autumn semester (Figure 2).

Significant increase in applicants to programmes

Applicants can apply to freestanding courses; general programmes; fine, applied and performing arts programmes; or professional degree programmes.

For the 2020 autumn semester, there were just under 185,000 qualified first-choice applicants to programmes, which was 20,000 more than the 2019 autumn semester. Of the qualified first-choice applicants, 53 per cent applied to professional degree programmes, 41 per cent to general programmes and 2 per cent to fine, applied and performing arts programmes. The number of applicants to all programme categories increased compared with the previous autumn semester.

Figure 2. Number of eligible first-choice applicants and accepted applicants and the acceptance ratio on professional degree programmes with more than 1,000 qualified first-choice applicants, in the 2020 autumn semester, divided by gender.



Just over 99,000 qualified first-choice applicants applied to professional degree programmes for the 2020 autumn semester. Of these, the Master's in engineering programme had the most applicants with 14,000 (Figure 2). This was followed by the nursing programme with 9,000 applicants, followed by the law programme.

The four different teacher programmes (pre-school education programme, primary education programme, vocational teacher programme and the secondary/upper-secondary education programme) had just over 17,000 applicants. This was equivalent to nearly 20 per cent of qualified first-choice applicants to professional degree programmes for the 2020 autumn semester. For all teacher training except for the pre-school education programme, the number of applicants increased compared with the 2019 autumn semester.

Several professional degree programmes within health, nursing and social care

had a significant increase in applicants for the 2020 autumn semester. For example, the number of applicants to programmes leading to a Bachelor of Science in Nursing and a Postgraduate Diploma in Specialist Nursing increased by 26 per cent and 16 per cent, respectively. This trend continued into the 2021 spring semester.

Men and women have varying interest in different professional degree programmes. Women dominate among applicants to many health, nursing and social care programmes while men dominate among applicants to engineering programmes. Of the larger professional degree programmes, only the secondary/upper-secondary education programme, the business and economics programme, the architecture programme and the physiotherapy programme had a relatively even gender distribution.

New entrants to first- and second-cycle education

The 2019/20 academic year had 92,000 new entrants to first- and second-cycle education (Figure 3). This was the fourth academic year in a row that the number increased. The highest number of new entrants occurred in the 2009/10 academic year, with 107,000.

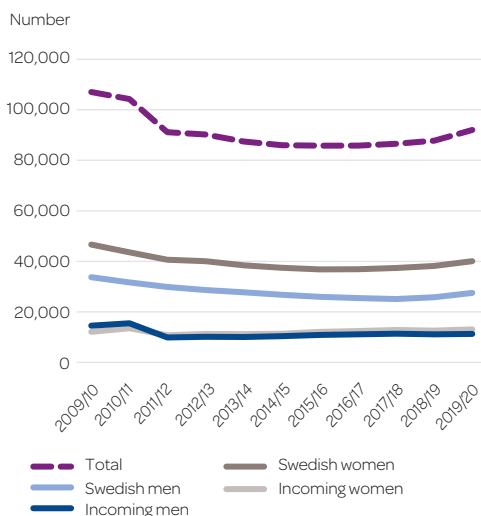
The increase was primarily among Swedish new entrants. The pandemic is probably the primary explanation for this large increase in Swedish new entrants.

Number of new entrants continues to increase

Women continue to be the clear majority among new entrants to higher education. There were around 53,000 women and around 38,000 men entering in 2019/20. Women made up 58 per cent of new HE entrants and men 42 per cent.

In the 2019/20 academic year, incoming students made up just under 27 per cent of new entrants. This was a somewhat lower percentage than the previous academic year.

Figure 3. Number of higher education new entrants during the period 2009/10–2019/20, total and divided by Swedish and incoming new HE entrants, and by gender.



The number of new entrants has increased in the most recent academic years, but it still has a way to go before it reaches the high from 2009/10 of 107,000. For details on new entrants per HEI, see uka.se/arsrapport (in Swedish).

More women than men continue on to higher education after upper-secondary school

Forty-six per cent of the 74,000 students receiving an upper-secondary qualification in the 2016/17 academic year had begun higher education within three years, i.e., no later than the 2019/20 academic year. A student with a degree from a preparatory programme for higher education automatically meets the general entry requirements. A student that attends a vocational programme can meet the general entry requirements through additional studies. Sixty-four per cent of all students who received an upper-secondary qualification from a preparatory programme in the 2016/17 academic year had entered higher education within three years. Only 10 per cent from vocational programmes had done so.

Women transitioned to higher education more frequently than men from almost all upper-secondary programmes.

The gender difference in transition to higher education increases with age

Thirteen per cent of 19-year-olds born in 2000 had begun higher education by 2019. If the follow-up time is increased to five years, to the age of 24, the percentage entering higher education increased to 43 per cent among those born in 1995. This percentage has varied between 43 and 45 per cent for those born in the 1980s and 1990s.

There are major differences between men and women in terms of the percentage that begin higher education: The greater in age, the larger the gender differences. Among those born in 2000, just under 15 per cent of

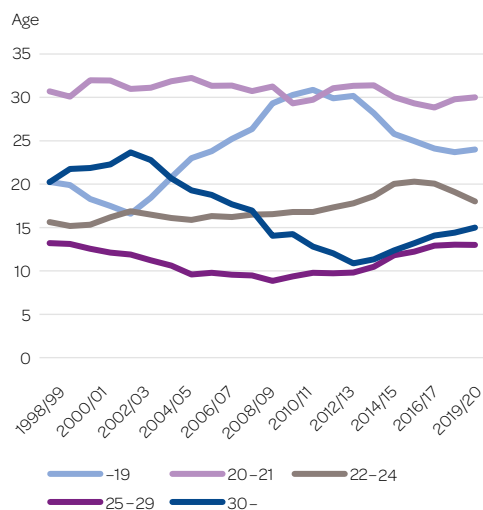
women had begun higher education by age 19 compared with only 11 per cent of men. Of those born in 1995, the differences were larger – 51 per cent of women had begun higher education by age 24, compared with 35 per cent of men.

There were also large differences in the transition to higher education between Sweden's counties and municipalities. Individuals registered in Stockholm and Uppsala counties were more likely to begin higher education than individuals from other parts of the country. In 2019, 50 per cent and 47 per cent, respectively, had begun by the age of 24.

The number of younger new entrants is increasing again

In the 2019/20 academic year, the median age for Swedish new HE entrants was 21.6. The number of Swedish new entrants age 21 or younger increased to almost 37,000. A total of 54 per cent of new entrants were 21 years old or younger. Figure 4 shows that the number of new HE entrants in this age group has increased in the last two academic years by 14 per cent, after a significant decrease for many academic years. The increase in

Figure 4. Proportions of Swedish new HE entrants at different ages for academic years 1999/00–2019/20.



unemployment in the spring among young people, caused by the pandemic, is a likely explanation to the increase in younger new entrants compared with the previous academic year.

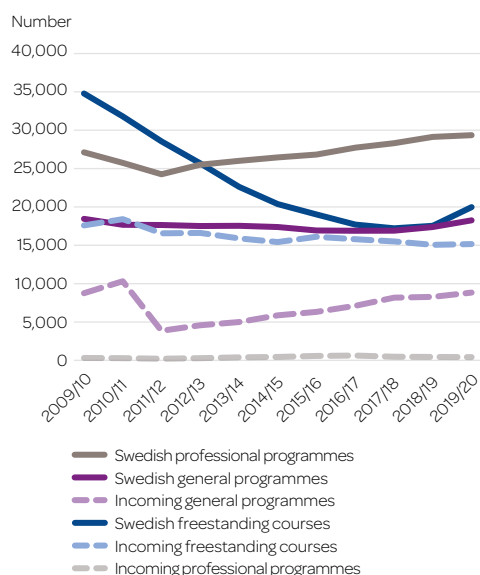
Even the number of new entrants 25 years or older increased, to just under 19,000.

Large increase in Swedish new entrants in freestanding courses

The number of Swedish new entrants in freestanding courses increased significantly in the 2019/20 academic year. Of the total 67,600 Swedish new HE entrants, 20,000 (30 per cent) attended freestanding courses, an increase of 2,500 students compared with the previous academic year (Figure 5). The increase can largely be explained by the large increase in the number of students attending summer courses.

It is still most common for Swedish new entrants to begin their studies on professional degree programmes. Nearly 30,000 Swedish new entrants attended professional degree programmes in the 2019/20 academic year.

Figure 5. New HE entrants academic years 2009/10–2019/20, divided by form of study, and Swedish and incoming students.



AN INTERNATIONAL PERSPECTIVE: SWEDEN HAS A HIGHER AVERAGE AGE AMONG NEW ENTRANTS

The general pattern in OECD countries is for more women than men to attend tertiary education. In 2018, the average percentage of new entrants in tertiary education was 54 per cent for women and 46 per cent for men (Table 2). Women were the majority among new entrants in almost all OECD countries with available data except Switzerland. Sweden was among the countries with the highest percentage of women among new entrants in tertiary education: 58 per cent.

The average age for new entrants in OECD countries was 22. In Sweden, the average age is much higher at 24.5. The average age of the other Nordic countries is also higher than the OECD average.

The percentage of incoming students among new entrants in tertiary education varies greatly among countries. In 2018, the average for OECD countries was 10 per cent. In Sweden, it was 14 per cent. Note that the international statistics include what are known as freemover students among incoming students, but not exchange students.

Table 2. Distribution by sex, age and percentage of international students among new entrants in tertiary education for selected countries and OECD, 2018. Source: OECD.

	Gender distribution (%)		Average age			Percentage international HE entrants		
	Women	Men	Total	Women	Men	Total	Women	Men
OECD average	54	46	22.0	*	*	10	*	*
Sweden	58	42	24.6	24.9	24.2	14	12	16
Denmark	58	42	24.8	24.9	24.8	8	8	9
Finland	53	47	23.1	23.3	22.9	10	9	11
Norway	54	46	22.1	21.7	22.5	2	2	2
Germany	52	48	21.7	21.6	21.9	13	13	13
United Kingdom	56	44	22.1	22.6	21.5	11	11	12
Netherlands	52	48	19.9	19.9	19.8	15	16	14

Master's degree programmes have seen the largest growth

Programme new entrants are students who enrolled for the first time to a specific professional degree programme or general programme. This includes both new HE entrants and those who have previously studied at a Swedish HEI.









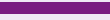

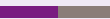





There were somewhat more programme new entrants on general programmes in the 2019/20 academic year than the previous academic year (48,000). Table 3 shows two general programmes that lead to first-cycle qualifications (Higher Education Diploma and Degree of Bachelor) and the two general programmes that lead to second-cycle qualifications (Degree of Master (60 credits) and Degree of Master (120 credits)).

General programmes that lead to a Degree of Bachelor are the most common among new entrants. Programmes that lead to a Degree of Master (120 credits) are the general programmes with the most growth in recent academic years measured in number of new entrants. Of the 16,500 new entrants on 120-credit master's programmes, 44 per cent were incoming international students, and of the 4,000 new entrants on 60-credit master's programmes, 40 per cent were incoming students.

Women the clear majority on professional degree programmes

For the academic year, nearly 50,000 new entrants attended professional degree

Table 3. New entrants on general programmes and the largest professional degree programmes the 2019/20 academic year, change compared with 2018/19, gender distribution and percentage of incoming students.

Programme for	Number of new entrants		Change (%)	Women	Gender distribution (%)		Percentage incoming (%)
	2018/19	2019/20				Men	
Higher Education Diploma	1,580	1,700	8	41		59	1
Degree of Bachelor	24,470	25,590	5	56		44	4
Degree of Master (60 credits)	3,710	4,080	10	60		40	40
Degree of Master (120 credits)	15,470	16,540	7	50		50	44
Professional qualification	49,240	49,720	1	63		37	1
<i>of which</i>							
MSc in Business and Economics	1,470	1,630	11	46		54	1
MSc in Engineering	7,300	7,380	1	31		69	3
BA in Pre-School Education	3,780	3,490	-8	93		7	0
BA/MA in Primary Education	3,940	4,050	3	75		25	1
BSc in Engineering	4,200	3,950	-6	25		75	1
Master of Laws	1,830	1,940	6	63		37	1
MSc in Medicine	1,800	1,800	0	58		42	3
BSc in Nursing	5,850	5,600	-4	85		15	1
BSc in Social Work	3,020	2,920	-3	81		19	1
Postgraduate Diploma in Specialist Nursing	2,190	2,250	3	87		13	1
MA/MSc in Secondary/Upper-Secondary Education	4,420	4,540	3	55		45	2

programmes. Women were the clear majority: 63 per cent of new entrants were women and 37 per cent were men.

Table 3 shows the professional degree programmes with the most new entrants. Together, they made up 80 per cent of new entrants on professional degree programmes. The Master of Science in engineering programme is the single largest programme leading to a professional qualification. If all the various teacher programmes are combined (pre-school, primary school, the previous teacher training programme, vocational teacher training, and the secondary/upper-secondary education), they made up the single largest programme with just over 14,000 new entrants (read more under the Teacher training programmes section).

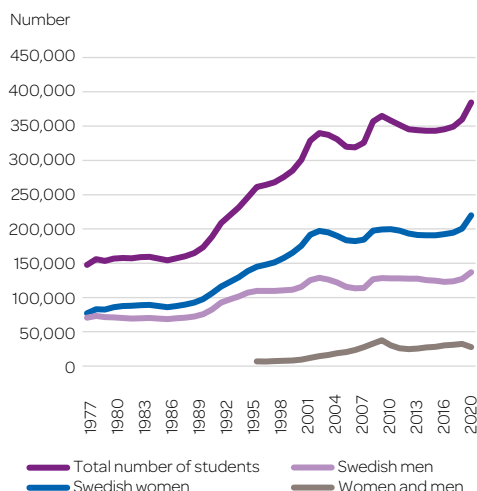
Gender differences are large on many of the professional degree programmes. Only 4 of 50 professional degree programmes had an even gender distribution, i.e., within the interval 40–60 per cent for both men and women.

Total number of enrolled students

In 2020, the Government earmarked extra funding for HEIs to increase the number of students they could admit. This allowed the HEIs to admit a record number of students in the 2020 autumn semester. In total, there were just under 385,000 enrolled students in first- or second-cycle courses and programmes during the 2020 autumn semester (Figure 6). Women made up 61 per cent and men 39 per cent of the enrolled students.

The development differs greatly among Swedish and incoming students. While the number of Swedish students increased significantly, the number of incoming students fell by 4,500, to just under 28,000. Incoming students were 7 per cent of all students. For details on enrolled students per HEI, see www.uka.se/annualstatistics.

Figure 6. Total number of enrolled students in first- and second-cycle education autumn semesters 1977–2020, divided by gender and Swedish and incoming students.



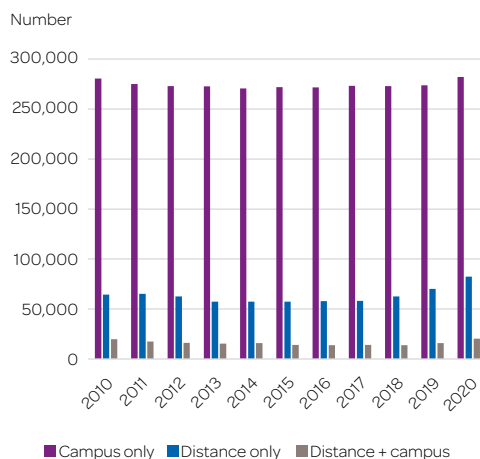
Twenty-one per cent attended only distance education

During autumn semester 2020, the pandemic led to much of higher education shifting to distance teaching. This is not, however, reflected in the statistics. The chart (Figure 7) shows the number of students on campus and on distance courses, respectively, based on how the programme or course was originally expected to be offered.

The most common form of study is on-campus study. In the 2020 autumn semester, 282,000 of 384,500 students attended only on-campus courses and programmes (73 per cent). In recent years, the number of distance students has increased significantly. The trend continued in the 2020 autumn semester, when about 82,000 students attended solely through distance education. This is the equivalent of 21 per cent of all students and was an increase of 12,000 students compared with the previous year. In three years, the number has grown by 24,000. The number of students enrolled for both distance and on-campus courses also grew.

Only 31 per cent of students who attended distance-only courses were men. Among students who only attended distance courses,

Figure 7. Number of students only enrolled for on-campus education, only for distance education, and for both on-campus and distance education, autumn semesters 2010–2020.



the most common subject areas were law and social sciences for both men and women, followed by the humanities and theology. The large majority of students only attending distance courses took freestanding courses.

An increasing percentage continue on to second-cycle studies

The single largest subject area in the 2019/20 academic year, as in previous years, was law and social sciences with 218,000 students. This was a clear increase compared with the previous academic year (Table 4). The fine, applied and performing arts had the fewest students. This division of students among subjects has been similar over recent academic years. Women were the majority in most subjects.

The long-term trend is for an increase in the percentage moving on to second-cycle studies. In the 2019/20 academic year, 27 per cent continued on to second-cycle studies, which was in line with the previous academic year. The largest percentage of students at the second-cycle level was in medicine and odontology, and the lowest percentage was in the humanities and theology.

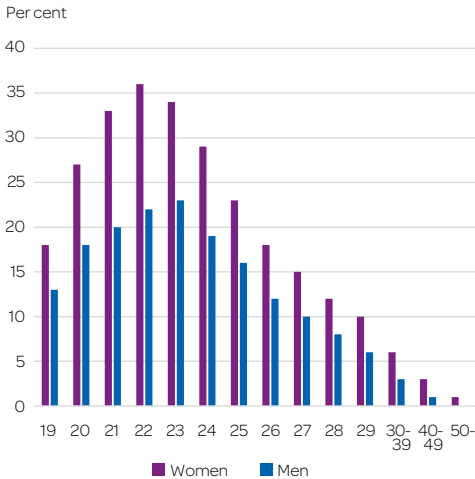
Table 4. Number of enrolled students in the 2019/20 academic year, per subject area, change compared with 2018/19, gender distribution, and the percentage enrolled at second cycle.

	No. of students		Change (%)	Gender distribution (%)		Percentage on second cycle		
	2018/19	2019/20		Women	Men	Total	Women	Men
Total	410,230	428,770	5	61	39	27	26	28
Law and social sciences	210,570	218,530	4	64	36	23	23	22
Humanities and theology	95,700	103,640	8	63	37	10	10	10
Engineering	83,510	90,510	8	37	65	31	28	33
Natural sciences	74,020	82,060	11	46	54	20	21	19
Health care	39,760	40,270	1	84	16	28	29	25
Medicine and odontology	34,850	34,940	0	73	27	33	31	39
Other areas	22,740	24,770	9	60	40	21	21	21
Fine, applied and performing arts	12,440	14,080	13	63	39	16	16	15
Unknown	7,920	7,190	-9	60	41			

Higher participation among women than among men

The proportion of the population in higher education varies for different age groups (Figure 8). As in previous years, participation in higher education was highest among 22-year-olds – 29 per cent attended first- or second-cycle education in the 2020 autumn semester. Compared with the 2019 autumn semester, the percentage increased particu-

Figure 8. Percentage of the population at different ages enrolled in first- or second-cycle courses or programmes, autumn semester 2020.

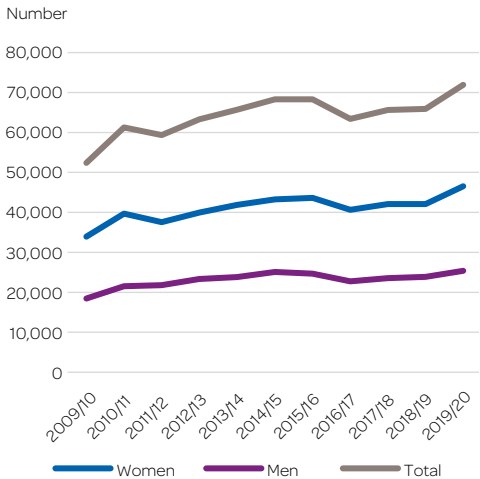


larly among the younger population. In all ages and age groups, participation among women was higher than among men.

Graduates

There were just under 72,000 graduating first- and second-cycle students in the 2019/20 academic year (Figure 9). This was an increase of 9 per cent compared with the

Figure 9. Number of graduates academic years 2009/10–2019/20, divided by gender.



previous academic year. Women were the majority, at 65 per cent, and men were 35 per cent.

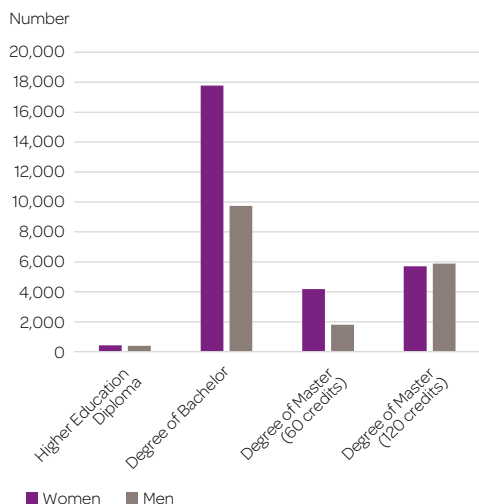
The large increase in the number of graduates seems to have several explanations. The pandemic and changes in the labour market seem to have increased the tendency to request a degree certificate. Multiple HEI representatives also note that a new study documentation system has streamlined processing of degree certificate requests, which could have impacted the statistics.

More received a general qualification

General qualifications are the most common degrees. In the 2019/20 academic year, nearly 44,000 students (62 per cent women and 38 per cent men) received a Higher Education Diploma, a Degree of Bachelor, a Degree of Master 60 credits or a Degree of Master 120 credits. The difference between women and men was larger in the first cycle than in the second cycle (Figure 10).

Compared with 2018/19, the number of graduates with a general qualification increased by 3,500 students in 2019/20. Above

Figure 10. Number of graduates with general qualifications in the 2019/20 academic year, divided by gender.



all, there was an increase in graduates receiving Bachelor's degrees and 60-credit and 120-credit Master's degrees. The number of graduates with Higher Education Diplomas, however, decreased somewhat.

Social sciences, law and business administration was the largest field of specialisation for general qualifications with 17,000 graduates in the 2019/20 academic year (Figure 11). The smallest number of graduates was in agriculture, forestry and veterinary medicine with 300 graduates.

Over the last decade, the number of graduates increased in all fields of specialisation, except specialisation in education science and teacher training. In those cases, the number of graduates fell by 20 per cent compared with academic year 2010/11.

Nursing degree largest among professional qualifications

In the 2019/20 academic year, about 36,000 students received professional qualifications, an increase of 9 per cent from the previous academic year. Among graduates, 69 per cent were women and 31 per cent men. The degrees were awarded within 60 different programmes leading to professional quali-

Figure 11. Number of graduates with a general qualification based on the SUN fields of specialisation, the 2019/20 academic year. SUN stands for Swedish Educational Nomenclature.

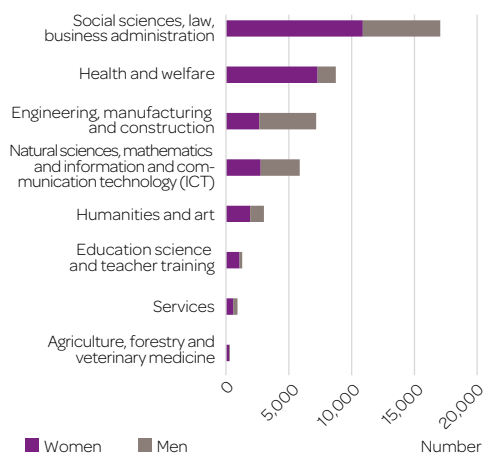


Table 5. The 12 professional qualifications with the most graduates in the 2019/20 academic year, divided by gender and changes compared with 2018/19.

	Number of graduates 2018/19	Number of graduates 2019/20	Change (%)	Gender distribution (%)	
				Women	Men
BSc in Nursing	4,430	4,540	2	87	13
MSc in Engineering	4,480	4,370	-3	35	65
BA in Pre-School Education	2,700	2,990	11	96	4
BA/MA in Primary Education	2,320	2,780	20	80	20
MA/MSc in Secondary/Upper-Secondary Education	2,230	2,670	20	57	43
Postgraduate Diploma in Specialist Nursing	2,250	2,630	17	87	13
BSc in Engineering	2,150	2,460	14	29	71
BSc in Social Work	2,090	2,170	4	83	17
Master of Laws	1,380	1,520	10	61	39
MSc in Medicine	1,340	1,460	9	56	44
MSc in Business and Economics	720	900	24	58	42
Postgraduate Diploma in Special Needs Training	610	870	44	93	7

fications, but 12 programmes accounted for just over 80 per cent of all professional degrees.

The professional qualifications awarded the most were Bachelor of Science in Nursing, followed by Master of Science in Engineering, Bachelor of Arts in Pre-School Education, and Master of Arts/Science in Secondary/Upper-Secondary Education (Table 5). The most common professional qualification among men was Master of Science in Engineering, while for women it was Bachelor of Science in Nursing.

Gender distribution was even (percentage of women and men was in the 40 to 60 per cent interval) among graduates with three of the 12 most common professional qualifications: Master of Arts/Science in Secondary/Upper Secondary Education, Master of Science in Medicine and Master of Science in Business and Economics.

Increase in fine, applied and performing arts degrees

Qualifications in the fine, applied and performing arts were introduced as its own quali-

fication category in 2007. Since then, the number of graduates has increased, to 1,110 in the 2019/20 academic year. This was an increase of 190 graduates compared with the previous academic year. Bachelor's degrees in the fine, applied and performing arts accounted for the majority of this increase. The gender distribution among fine arts graduates was 60 per cent women and 40 per cent men.

Assessment of foreign qualifications

In addition to those who graduate from HEIs in Sweden, graduates who have immigrated to Sweden and/or studied in another country for some reason also enter the Swedish labour market.

A person who has completed an education in another country than Sweden can apply for an assessment of their education. In 2020, the Swedish Council for Higher Education issued nearly 7,000 certificates on what a foreign degree is equivalent to in Sweden. The majority of assessed educations were the equivalent of a Bachelor's degree. Among professional qualifications,

a majority were for Bachelor's degrees and Master's degrees in engineering. Most applications were for degrees from India, Iran, Syria, Turkey and the United Kingdom.

In addition to these certificates, the Swedish National Board of Health and Welfare issued (2019) around 2,200 licenses for individuals with foreign qualifications. Just over 1,100 were medical licenses and 430 were nursing licences.

That same year (2019), the Swedish National Agency for Education issued certifications for teaching for nearly 700 individuals with foreign qualifications in teaching or pre-school education.

Educational attainment of the population

The education level of the Swedish population has steadily increased since the 1950s. More and more people are considered to be highly educated, that is to say, they have at least a three-year degree from higher education. Cohorts born between 1950 and 1995 have been followed up at different ages: 25, 30, 35, 40, and after 40 (Figure 12). The youngest cohort that could be followed up

at the age of 25 was born in 1995. Incoming students are not included in this data.

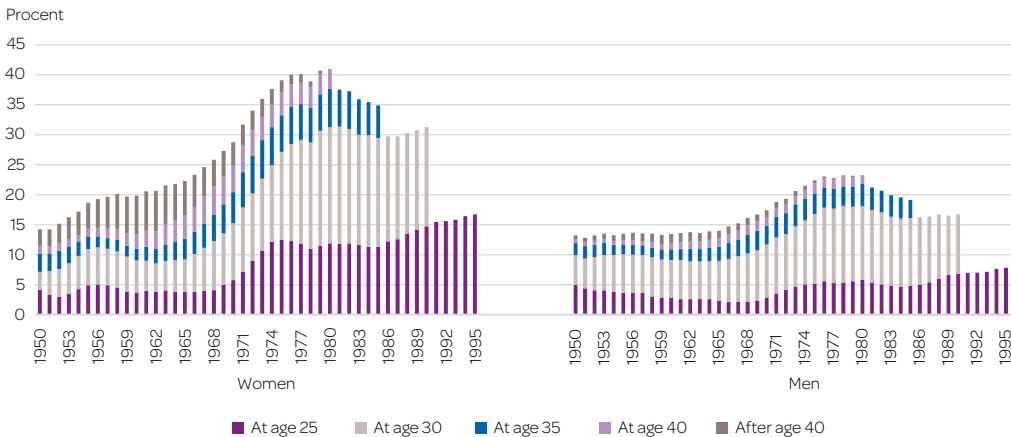
Of the cohorts born in the early 1950s, approximately 14 per cent were highly educated as defined above. From those born in the 1960s, the number of highly educated increased for each cohort. In the latest cohort followed up at age 40 (born 1979), 32 per cent had at least a three-year Higher Education Diploma as of the 2019/20 follow-up.

Women are often more highly educated than men

In the early 1950s, about as many women as men were highly educated, but from that point the percentage of highly educated women increased significantly more than the percentage of highly educated men. For those born in 1960, the difference between women and men was 6 percentage points. For those born in 1970, the difference had increased to 11 percentage points. In the cohort born in 1979, 41 per cent of women were highly educated while only 23 per cent of men were. That is a difference of 18 percentage points.

The increase in gender differences is likely the result, at least in part, of the extension of the time required for some

Figure 12. Percentage of population born 1950–1994 who, at 25, 30, 35 and 40 years of age or later, had obtained a degree after at least three years of higher education at follow-up in 2020, divided by gender.



programmes, which changed from shorter than three years to the equivalent of three years or more. These changes have largely impacted programmes where the percentage of women has often been higher than men, such as the nursing programme.

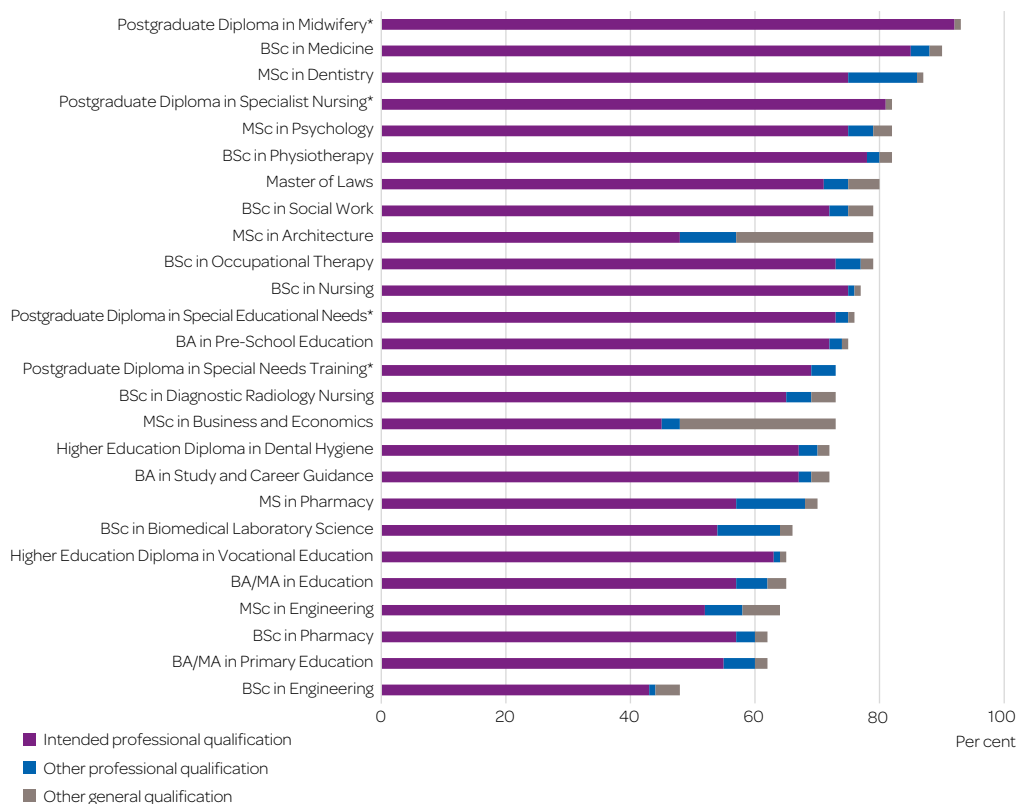
Students on the midwifery programme had the highest graduation rate

Far from all students who begin a degree programme complete the programme and graduate. The graduation rate shows the percentage of new entrants in a certain academic year who receive a degree certificate after the programme's nominal study length plus three years. The graduation rate is often higher for programmes leading to

professional qualifications than for those leading to general qualifications.

When the graduation rate was examined for new entrants on professional degree programmes in the 2011/12–2013/14 academic years, which were followed up through the 2019/20 academic year, students on the midwifery and medicine programmes had the highest graduation rate. A total of 92 per cent and 85 per cent, respectively, of new entrants had received a qualification (Figure 13). The lowest graduation rate was for students on the Bachelor of Science in engineering programme, where 43 per cent of new entrants received a qualification. Similarly, students on the Master of Science in business and economics and architecture programmes had graduation rates of 45 and

Figure 13. Graduation rate (per cent) of nominal programme length plus three years, divided by intended professional qualification, other professional qualification and other general qualification. New entrants on professional degree programmes followed up through the 2018/19 academic year. Only programmes with at least 200 new entrants are included. * indicates continuing professional development programmes.

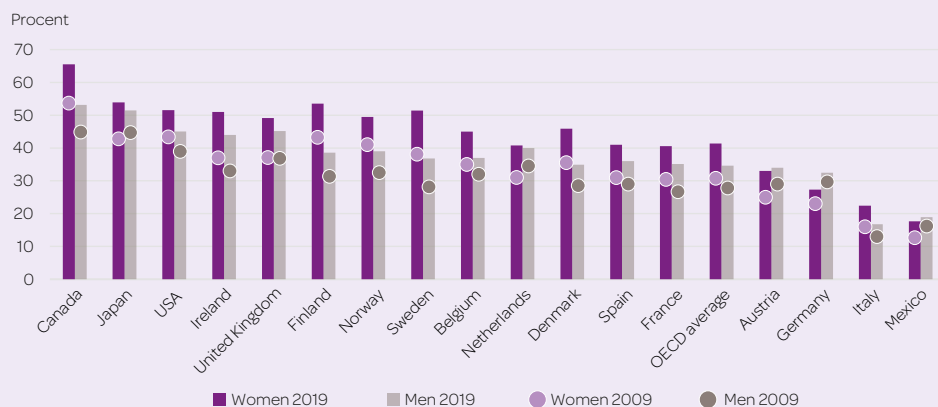


EDUCATIONAL ATTAINMENT WITHIN THE OECD INCREASES

Within the OECD, educational attainment has increased significantly in recent decades. This is the result of many countries, like Sweden, having expanded tertiary education. In 2009, the OECD average was 29 per cent of the adult population (25–64) having at least two years of tertiary education. Ten years later (2019), the percentage had increased 9 percentage points to 38 per cent. In Sweden, like the other Nordic countries, educational attainment is higher than the OECD average. The percentage of the population with tertiary education has increased during the same period from 33 to 44 per cent. This was one of the highest increases among all OECD countries.

In 2019, women were more well educated than men in 30 of 35 countries with data available. Women also raised their level of education faster than men, even in the countries where men have higher levels of education. Between 2009 and 2019, the percentage of tertiary educated women in the adult population in OECD countries increased from 31 to 41 per cent, while the percentage of tertiary educated men increased from 28 to 35 per cent. In Sweden, the increase was 13 percentage points for women and 9 percentage points for men.

Figure 14. Percentage of women and men in the adult population (25–64) with at least two years of tertiary education in 2009 and 2019 in a selection of OECD countries. The countries have been sorted based on the highest educational attainment in total (both women and men) in 2019. Source OECD.



48 per cent, respectively. Many students on these two programmes, however, received a different qualification than the professional qualification that these programmes lead to.

Men had lower graduation rates than women on all professional degree programmes. The largest gender differences were on the special needs teachers programme (32 percentage points) and the diagnostic radiology nursing programme (26 percentage points). The smallest difference was 3 percentage points for the medicine and dentistry programmes.

Teacher training programmes

One challenge facing Sweden is access to skills in several welfare professions, such as teachers. Everything indicates that Sweden is facing a growing teacher shortage in the future. According to the latest forecast, 19,300 new entrants and 12,600 graduated teachers will be needed per academic year in the future to cover the estimated recruitment needs for teachers until 2033. That is much higher than the actual number of new entrants and graduated teachers and points to a decrease in the share of qualified teachers in schools.

More applicants and admitted students in the 2020 autumn semester

In the 2020 autumn semester, the number of eligible first-choice applicants for teacher training programmes totalled 17,350. This is the highest number of applicants since the 2016 autumn semester. Just under 13,300 applicants were admitted to teacher training programmes in the 2020 autumn semester, of which just under 9,600 were women and around 3,700 were men. Both the number of applicants and the number of admitted applicants increased for the 2020 autumn semester. The most applicants and admitted applicants were for the Master of Arts/Science upper-secondary education programme.

Continued large number of new entrants to teacher training programmes

In the 2019/20 academic year, a total of 13,500 students began a programme for some type of teaching qualification. Of these, 71 per cent were women and 29 per cent were men. At the programme level, only the secondary/upper-secondary education programme had an even gender distribution.

The number of new entrants on teacher training programmes has been between 13,000 and 14,000 for the last six academic years. Before this, there were between 10,000 and 12,000 new entrants for several academic years. Since 2015, the Government has provided extra funding to HEIs to expand certain teacher training programmes. Except for the 2015/16 academic year, the number of new entrants has been unchanged or fallen for several of the programmes in recent academic years.

Highest number of graduates since introduction of teaching certification

In the 2019/20 academic year, nearly 10,000 students received some type of teaching qualification (Table 6). This is the highest number of graduates since 2010/11, when the number of graduates was high in connection with the introduction of the certification for teaching. The increase in graduating certified teachers is likely the result of the number of new entrants increasing significantly between 2011/12 and 2015/16.

In the 2019/20 academic year, women made up 77 per cent of graduates and men

Table 6. Number of graduates on teacher training programmes 2015/16 and 2019/20 academic years, total and divided by gender. The data are net totals.

	2015/16			2019/20		
	Total	Women (%)	Men (%)	Total	Women (%)	Men (%)
BA in Pre-School Education		96	4	2,990	96	4
BA/MA in Primary Education		86	14	2,780	80	20
Extended school	360	70	30	690	63	37
Pre-school–Grade 3	660	97	3	1,300	94	6
4–6	370	82	18	790	72	28
BA/MA in Education	2,850	69	31	840	75	25
Higher Education Diploma in Vocational Education		58	42	480	64	36
MA/MSc in Secondary/Upper-Secondary Education	920	59	41	2,670	57	43
Upper-secondary schools	540	56	44	1,810	54	46
7–9	390	64	36	860	64	36
Total	7,980	78	22	9,760	77	23

THE SWEDISH NATIONAL AUDIT OFFICE'S REVIEW OF THE GOVERNMENT'S INITIATIVES IN EDUCATION IN PROFESSIONS WITH LABOUR SHORTAGES

There are significant labour shortages within several essential professional groups. The Government has repeatedly tasked HEIs to expand specific programmes to address these shortages of labour with higher education. This primarily applies to health care programmes, teacher and pre-school programmes, and engineering programmes.

In 2021, the National Audit Office, which is tasked with auditing the whole chain of executive (State) power, published an audit of the Government's initiatives to expand these programmes for professions with labour shortages. The audit shows that the initiatives have not contributed to a significant increase in graduates within these professions, but rather the opposite. According to the National Audit Office, the problem is not the lack of available openings for students. Instead, there are too few applicants, limited access to workplace training (a type of placement) or a lack of teacher trainers who hold a third-cycle degree.

The Audit Office argues that the focus should be on already admitted students completing their educations instead of creating additional openings for students.

23 per cent. It was most common to graduate with a pre-school education degree, followed by a primary education degree.

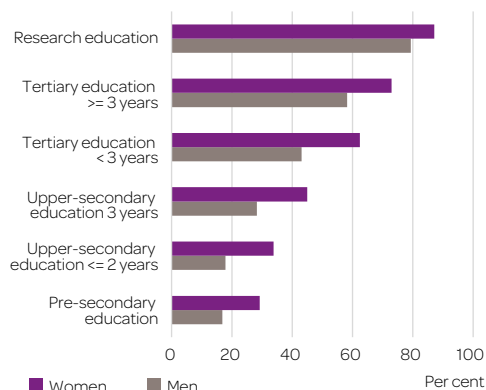
Widening participation

According to the Higher Education Act, the HEIs are to actively promote and widen participation in higher education.

Imbalances in recruitment are measured, in part, by social background in the form of the educational attainment of the highest educated parent and, in part, by national background (Swedish or foreign background).

This year, UKÄ conducted a special follow-up to better understand how social imbalance in recruitment to higher education has developed over time. This follow-up looked at the transition to higher education overall (all higher education programmes) and to long professional degree programmes for individuals born 1960–1993 with different social origins (measured by the educational attainment of the parents). Imbalance in recruitment to the medicine programme (degree) has also been followed up, but in this case for the 1956–1988 cohorts.

Figure 15. Percentage of women and men born in 1995 that have begun Swedish higher education by age, divided by the parents' educational attainment. Includes individuals registered in Sweden at both ages 12 and 25.



Certain decrease in social imbalance in recruitment – but it remains significant

Of all individuals (with data on the educational attainment of the parents) born in 1995, 45 per cent had begun higher education by age 25 (2020). Young people with at least one parent who had completed third-cycle education had the highest transition to higher education (83 per cent). The lowest transition was among young people whose parents had a pre-secondary education (23 per cent).

The social imbalance in recruitment shows the same patterns in all cohorts born 1985–1995: the higher the educational attainment of the parents, the more common it is to attend higher education.

At the same time, it has become more common for young people with parents who only have pre-secondary education to begin higher education.

The transition to higher education was higher for women than for men in all groups (Figure 15).

Only 20 per cent of new entrants had parents with a low educational attainment

The social composition among new entrants depends, in part, on the population's social composition at the same ages as the new entrants and, in part, on the degree by which individuals from different social backgrounds begin higher education. The analyses for the 2019/20 academic year are based on just over 61,000 new HE entrants.

Among these, 42 per cent had parents who had high educational attainment (at least a three-year tertiary education), 37 per cent had parents with a medium educational attainment (three-year upper-secondary education or a post-secondary education less than three years), and 21 per cent had parents with low educational attainment (at most two-year upper-secondary education).

Among the same age group in the population in general, the social composition is different. In 2019, for example, 28 per cent had parents with high educational attainment while 33 per cent had parents with low educational attainment.

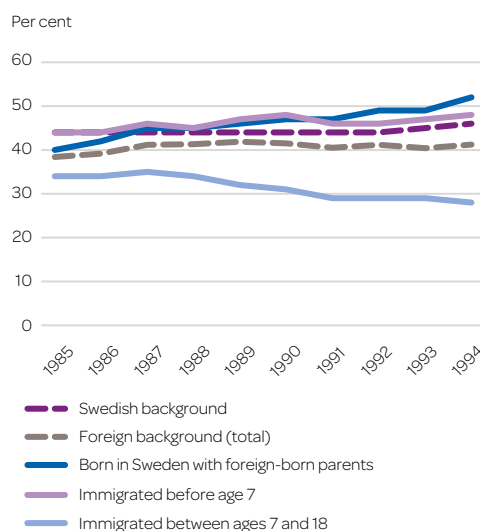
The difference in social background was also larger among men than among women. The difference is partly the result of men and women attending, to some degree, different types of educations. For example, it is more common for men to study for a Master's degree in engineering, where the overrepresentation of students with parents who have

higher educational attainment is greater than in many other programmes.

The medicine and veterinary programmes had the largest percentage of students with parents with high educational attainment among professional degree programmes (with at least 100 new entrants): about 69 per cent for both programmes. The vocational teacher programme (18 per cent) and the pre-school education programme (19 per cent) had the lowest percentages. In these programmes, students with parents with high educational attainment were underrepresented. Among new entrants on general and fine, applied and performing arts programmes, the programmes leading to Master's degrees had the largest percentage of students with highly educated parents: 52 per cent and 62 per cent respectively.

While the social imbalance in recruitment to higher education largely persists, parents have become more highly educated over time. This has resulted in fewer and fewer students having parents with only pre-secondary education.

Figure 16. Percentage of 1985–1994 cohorts that began Swedish higher education by age 25, divided by Swedish and foreign background (with three subgroups). Includes individuals registered in Sweden by age 18.



Foreign-born students who immigrated after school start are falling behind

An imbalance in recruitment to higher education also exists based on national background (Swedish or foreign).

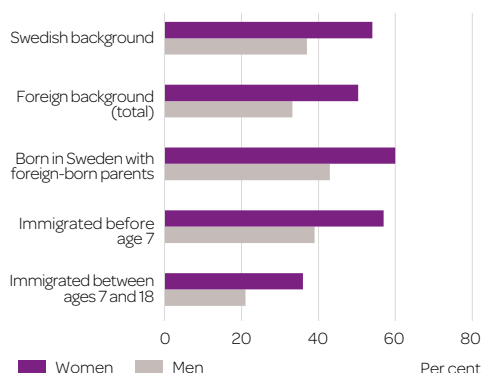
Of all individuals born in 1994 who were registered in Sweden at age 18, 45 per cent had begun higher education by age 25 (Figure 16).

The transition to higher education among individuals with a foreign background was 41 per cent, compared with 46 per cent among those with a Swedish background. The transition rate for individuals born in Sweden with two foreign-born parents was 52 per cent. For foreign-born individuals who immigrated before age 7, it was 48 per cent.

The transition rate for foreign-born individuals who immigrated between the ages of 7 and 18 was much lower: 28 per cent. This is also the lowest transition rate for this group over the last decade.

The transition rate among both women and men was clearly the lowest in the group that immigrated during the school ages of 7–18 (Figure 17).

Figure 17. Percentage of women and men born in 1994 that began Swedish higher education by age 25, divided by Swedish and foreign background (with three subgroups). Includes individuals registered in Sweden by age 18.



Individuals with a foreign background increased both in higher education and in the population

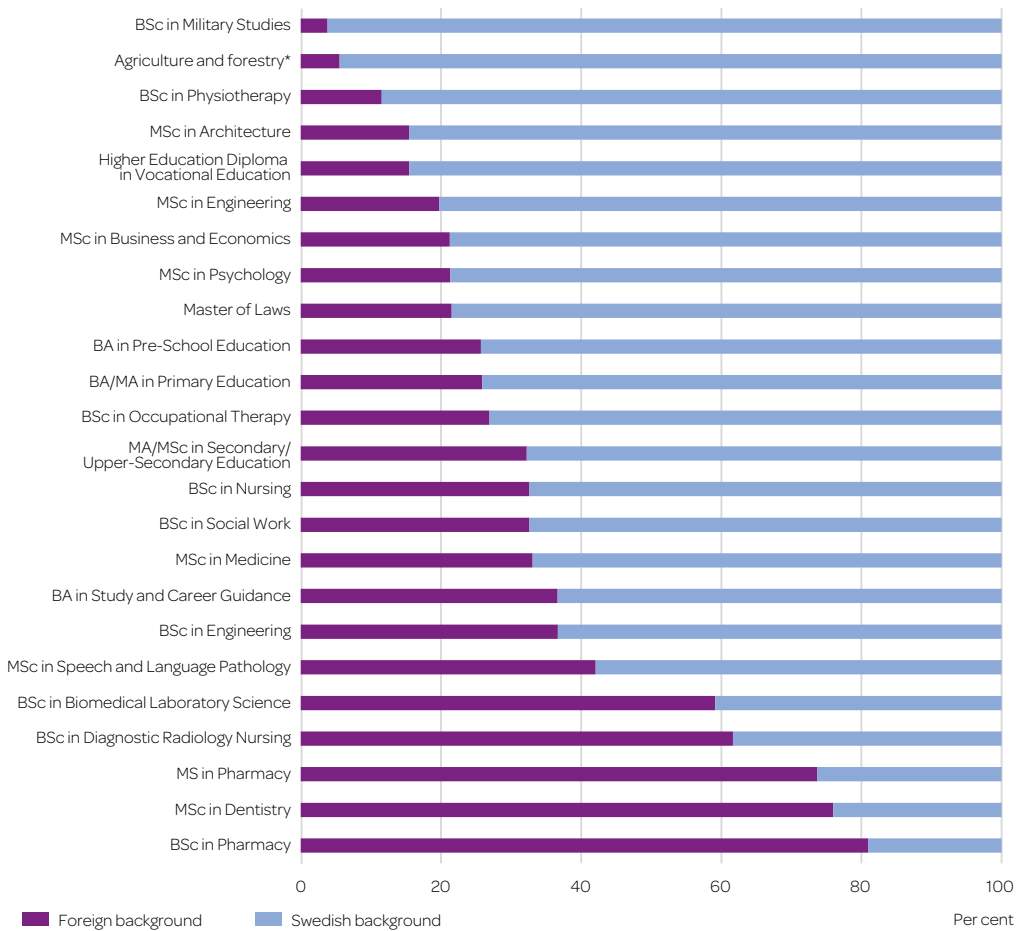
Over time, it has become more common for new entrants to have a foreign background. In the 2019/20 academic year, new entrants with a foreign background made up 28 per cent of the student population. Ten years ago (academic year 2010/11), they made up 18 per cent. The increase is largely the result of a larger percentage of the general population having a foreign background. In 2019 it was 29 per cent. Ten years ago (2010), the percentage with a foreign background (ages 19–64) was 21 per cent.

There are, however, large variations between individual programmes. Among professional degree programmes with at least 100 new entrants in 2019/20, the pharmacy programme had the largest percentage with a foreign background at 81 per cent (Figure 18). The percentage of students with a foreign background was smallest in the officers' programme and the agriculture and forestry programme.

SPECIAL EDUCATIONAL SUPPORT FOR STUDENTS

HEIs can apply for funding for special educational support for students with functional diversities related to their studies. A total of 22,900 students (33 doctoral students) received support in 2020, of which 67 per cent were women and 33 per cent were men. There were eight areas of functional variation, with *dyslexia* and *specific reading and writing difficulties* as the most common. Compared with the year before, the number of students with support increased by nearly 2,800, and compared with 2010, the number has increased by 15,700. The number of students in higher education in general was the same in academic years 2009/10 and 2019/20.

Figure 18. Percentage of new HE entrants (under age 65) with Swedish and foreign background on professional degree programmes with at least 100 new entrants the 2019/20 academic year.



* The category agriculture and forestry includes several programmes since there are less than 100 new entrants on the individual programmes.

INTERNATIONAL STUDENT MOBILITY

About 40,000 students chose to travel to Sweden for studies in the 2019/20 academic year. Of these, a third came as exchange students and two-thirds as so called freemover students. Slightly more women than men chose to study in Sweden.

Most incoming students from countries outside of the EU/EEA and Switzerland pay tuition fees for first- and second-cycle studies. The number of students that pay these fee has gradually increased since tuition fees were introduced in 2011.

In the 2019/20 academic year, there were just over 22,000 Swedish students studying abroad, either as exchange students or as freemover students.

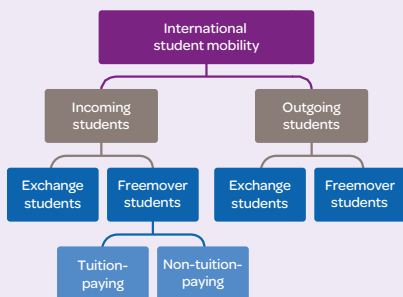
Of the first- and second-cycle graduates in 2019/20, only 14 per cent had spent a study or training period of at least three months abroad during the course of their studies. This is short of the goal of 20 per cent that the EU Council of Ministers decided in 2011. Sweden continues to work towards fulfilling the goal.

INCOMING AND OUTGOING STUDENTS

Exchange students are students participating in exchange programmes between Swedish and foreign higher education institutions.

Freemover students arrange their own studies in Sweden or abroad. Incoming freemover students from countries outside the EU/EEA and Switzerland pay application and tuition fees to study in Sweden. This means that freemover students can be divided into *fee-paying* and *non-fee-paying students*. Outgoing freemover students have student finance from the Swedish National Board of Student Aid (CSN) for studies abroad and have made their own arrangements for their studies.

Figure 19. Different groups of international mobile students from a Swedish perspective



Incoming students

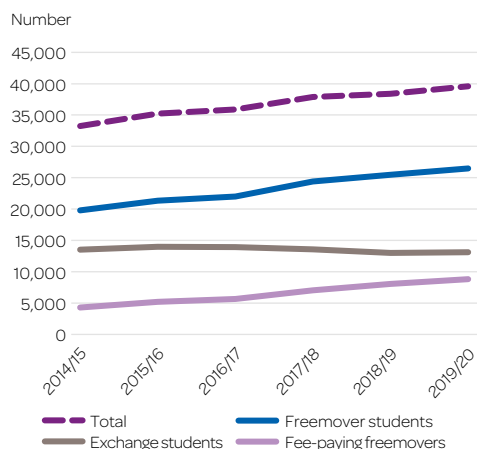
In the 2019/20 academic year, there were nearly 39,600 incoming students to Sweden. This was an increase compared with the previous academic year, in spite of a significant decrease autumn semester 2020 (read more about this under *New incoming students*).

Of incoming students, about 13,000 were exchange student and just over 26,000 were freemover students. The distribution by gender for all incoming students was 53 per cent women and 47 per cent men. This has been the case for the last five academic years.

More freemover students choose to study in Sweden

Both the total number of freemover students and the total number of fee-paying freemover students gradually increased over the last five academic years. During the same period, the number of exchange students decreased until the 2018/19 academic year. In the 2019/20 academic year, the number increased somewhat compared with the previous academic year (Figure 20).

Figure 20. All incoming students academic years 2014/15–2019/20, total and divided by exchange students, freemover students and fee-paying freemover students.



Number of fee-paying students continued to increase

In the 2019/20 academic year, a total of about 8,800 freemover students paid tuition fees. Of these, 41 per cent were women and 59 per cent men. The number of fee-paying students has increased each academic year since tuition fees were introduced for some incoming freemover students in autumn semester 2011.

Fee-paying students can pay for tuition fees with scholarships, either from their home country or from Sweden. In autumn semester 2020, nearly 1,800 paying students had a Swedish scholarship that covered all or parts of their tuition fees, an increase of 220 students from the previous autumn semester.

The students with Swedish scholarships made up 23 per cent of all fee-paying students. We have no data on the number of students who had scholarships from their home countries.

More incoming freemover students graduated

In the 2019/20 academic year, just over 7,400 incoming students graduated with their first qualification in Sweden (81 per cent at

second cycle), which was an increase of 610 compared with the previous academic year. A majority of the graduates, around 7,200, were freemover students. They made up the entire increase in graduates.

Of the incoming students in the 2019/20 academic year, 2,700 came from countries in the EU/EEA and Switzerland and 3,100 came from other countries. Country of origin is unknown for 1,600 graduates. This was the second academic year in a row that more graduates came from countries outside the EU/EEA and Switzerland than from within it. Among individual countries, the most graduates came from China, India, Germany and Finland.

New incoming students

In autumn semester 2020, there were just over 13,000 new incoming students. This was a significant decrease compared with autumn semester 2019 and was most likely an effect of the coronavirus pandemic.

Large decrease in students from countries outside the EU/EEA and Switzerland

New incoming students from countries outside the EU/EEA and Switzerland decreased by 44 per cent compared with autumn semester 2019 – from around 8,000 students to around 4,500 autumn semester 2020 (Table 7). The number of new incoming students from the United Kingdom (UK) fell by more than half. In the 2019/20 academic year, there were 500 new incoming students from the UK (read more about this in the fact box *Student mobility from the UK after Brexit*).

More new incoming students in 2019/20

In spite of the decrease in autumn semester 2020, we see no clear effects of the pandemic in the data on new incoming students for the entire 2019/20 academic year. The number of

Table 7. Number of new incoming students divided by geographic area and student category, autumn semester 2020, and the change in number between autumn semester 2019 and autumn semester 2020.

Area of origin	Student category	Autumn semester 2020 Number	Change in number from autumn semester 2019 to autumn semester 2020
Total	Freemover	9,910	-390
	Exchange	3,220	-5,180
	Total	13,130	-5,570
EU/EEA and Switzerland	Freemover	1,970	-210
	Exchange	2,760	-2,660
	Total	4,730	-2,880
Not EU/EEA and Switzerland	Freemover	4,010	-1,060
	Of which fee-paying	3,450	-870
	Exchange	460	-2,520
	Total	4,460	-3,570
Country unknown*	Freemover	3,930	880
	Of which fee-paying	640	280

* Data about country is missing for some freemover students.

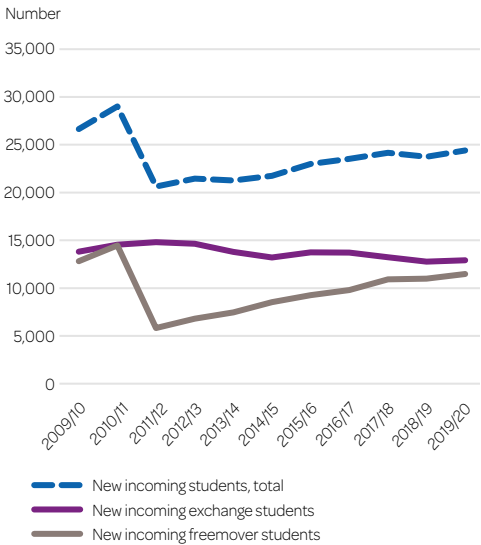
new incoming students was just over 24,000, which was an increase compared with the previous academic year (Figure 21). Of the students, 54 per cent were women and 46 per cent men. Incoming new entrants made up 27 per cent of total new entrants in higher education in the 2019/20 academic year.

Of the new incoming students, around 12,900 were exchange students, which broke a three-year declining trend. There were nearly 11,500 new incoming freemover students, and this category has increased each academic year since 2012/13.

In the 2019/20 academic year, there were around 5,200 new freemover students who paid tuition fees. This was 510 more than the previous academic year.

Since the 2009/10 academic year, the number of new incoming exchange students has always been higher than the number of new freemover students, except for the 2010/11 academic year, when the groups were approximately the same size.

Figure 21. Number of new incoming students academic years 2009/10–2019/20, total and divided by exchange students and freemover students.



Decrease in number of new incoming students from the United States

In the 2019/20 academic year, around 11,000 new incoming students came from countries in the EU/EEA and Switzerland, which was about the same number as the previous academic year. Around 9,600 new incoming students came from countries outside the EU/EEA and Switzerland, which was an increase. In the 2019/20 academic year, there was no data on countries of origin for around 3,800 new incoming freemover students.

The majority of new incoming students have come from Germany, France and China for several years in a row. The United States (US) has long been one of the countries sending the most new incoming students, but this number fell for the second academic year in a row in the 2019/20 academic year.

The number of new incoming students from Pakistan fell significantly in the 2011/12 academic year after tuition fees were introduced. Since then, the number has gradually increased, and Pakistan is once again among the countries that sends the most new incoming students to Sweden (Figure 22).

STUDENT MOBILITY FROM THE UK AFTER BREXIT

The UK (including Northern Ireland) left the EU on 31 January 2020, so during the ongoing 2019/20 academic year. The number of incoming new entrants from there has fallen each academic year since the 2016/17 academic year. In other words, the declining trend has been ongoing since the UK voted to leave the EU, even if there may be other explanations for the decrease.

Freemover students often attend degree programmes

While exchange students almost always take freestanding courses during a relatively short period in Sweden, most freemover students attend degree programmes. For the 2019/20 academic year, just over 9,000 of over 11,000 new incoming freemover students attended a degree programme. Of these, 48 per cent were women and 52 per cent men.

The most common specialisation for new incoming freemover students on degree programmes was social sciences, law, commerce and administration. A significant majority of the new incoming freemover students, just under 8,000, attended second-cycle studies.

Outgoing students

Unlike the situation in many other countries, Swedish students can receive student financing to study abroad. They also have the opportunity to receive a supplementary loan, for example, to pay tuition fees.

Fewer outgoing students

In the 2019/20 academic year, there were nearly 22,500 Swedish students who studied abroad. Of these, just under 15,500 were freemover students and just over 7,000 were exchange students. Among outgoing students, 59 per cent were women and 41 per cent men.

Figure 22. Number of incoming students from the 10 countries sending the most new incoming students in the 2019/20 academic year, total and divided by exchange students, freemover students and gender.

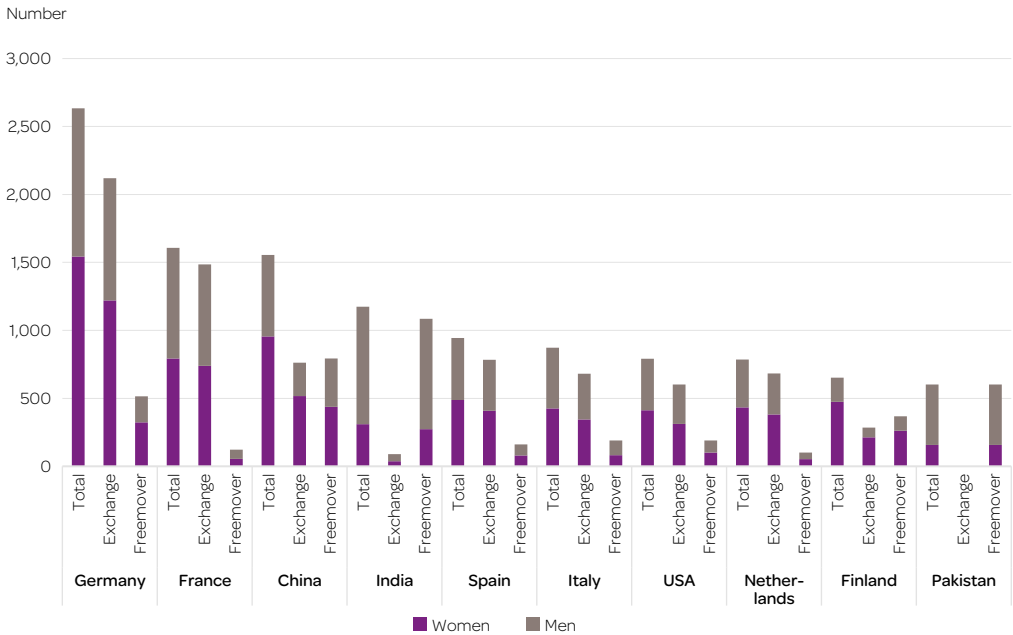
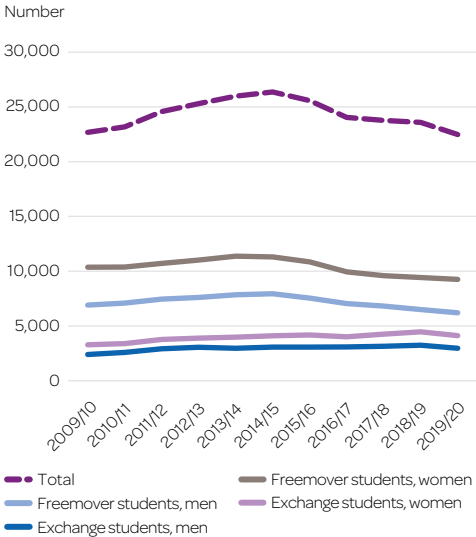


Figure 23. Number of outgoing students in total and divided by student category and gender, academic years 2009/10–2019/20.



Both the number of exchange students and the number of freemover students fell compared with 2018/19: exchange students declined by 650 and freemover students declined by 470.

The number of outgoing freemover students has gradually declined since the

2014/15 academic year (Figure 23). The number of outgoing exchange students, on the other hand, has increased nearly every academic year over the last 10-year period.

The UK largest recipient country

The number of outgoing students to nearly all areas declined in the 2019/20 academic year compared with the previous academic year (Table 8). Most outgoing students studied in Europe. The most common countries for study abroad in Europe were the UK, Poland, Denmark and the Netherlands. The number of students to the UK fell somewhat, but it is still the single largest recipient country. We see no major effect of Brexit in fewer students wanting to travel to the UK.

Outside Europe, the US and Australia are the two largest recipient countries, but the number of outgoing students to these countries has also decreased. In the last 10 academic years, fewer Swedish students have chosen to study in the UK, the US and Denmark. At the same time, the number has increased to countries like the Netherlands and Latvia.

Table 8. Number of outgoing students per geographic area academic year 2019/20, divided by gender, student category and changes compared with the previous academic year. Only recipient countries with more than 400 students are included.

Geographic area/country	All foreign students 2019/20	Share women/men (%)	Change from 2018/19 (number)	Of whom exchange students 2019/20	Change from 2018/19 (number)	Of whom freemover students 2019/20	Change from 2018/19 (number)
All areas	22,480	59/41	-1,100	7,090	-620	15,460	-470
Nordic countries excluding Sweden	1,940	61/39	-150	260	-40	1,690	-120
EU28 excluding the Nordic countries	11,420	61/39	-230	3,050	-220	8,400	0
Europe excluding EU28 and the Nordic countries	660	51/49	40	210	-20	450	60
Africa	230	67/33	-50	120	-40	110	-10
North America	4,420	57/43	-360	1,180	-120	3,260	-230
South America	230	62/38	-50	140	-20	90	-30
Asia	2,210	49/51	-150	1,640	-140	570	-20
Oceania	1,560	70/30	-180	520	-60	1,050	-120

Fewer studied medicine abroad

As in previous academic years, many students in the 2019/20 academic year chose to study a programme abroad that has a relatively large number of applicants in Sweden. For example, around 2,200 individuals with student finance studied medicine outside of Sweden, according to the Swedish National Board of Student Aid (CSN). The number that completed their medical education abroad, however, has declined in the last six academic years. The most popular countries for study abroad in medicine were Poland, Latvia, Romania and Bulgaria.

Differences between programmes in percentage that had studied abroad

In 2011, the EU Council of Ministers decided that by 2020, at least 20 per cent of all graduates in higher education should have spent a study or training period of at least three months abroad. In Sweden, there were nearly 64,100 first- and second-cycle graduates in the 2019/20 academic year. Of these, 14 per cent (excluding incoming students) had studied abroad for part of the last 12

semesters (Table 9). The percentage has been around 14–15 per cent for several academic years. Thirteen per cent of women and 17 per cent of men studied abroad.

There are major differences in the number of students who study abroad depending on the degree the students received.

Table 9. Number of graduates and share (per cent) that studied abroad in a selection of degree programmes academic year 2019/20 and equivalent percentage for those who graduated academic year 2018/19. Sorted by highest percentage that studied abroad.

Qualification	Number of graduates 2019/20		Share that studied abroad 2019/20 (%)		Share that studied abroad 2018/19 (%)	
	Total	Women/ men (%)	Total	Women/ men	Total	Women/ men
Total	64,050	66/37	14	13/17	15	13/17
MSc in Business and Economics	890	58/42	43	45/40	47	47/47
Master's degrees, social sciences, law, trade and administration.	1,940	59/41	40	40/39	41	40/43
MSc in Laws	1,490	61/39	39	42/36	44	44/38
MSc in Engineering	4,220	36/64	35	40/31	34	41/30
BSc in Nursing	4,510	87/13	3	3/3	4	4/4
BA/MA in Primary Education	2,770	82/18	2	2/2	2	3/1
Postgraduate Diploma in Specialist Nursing	2,620	87/13	2	2/1	2	2/2
BSc in Pre-School Education	2,990	96/4	1	1/3	1	1/1

THIRD-CYCLE EDUCATION

In 2020, there were 3,100 doctoral new entrants, which is a small decrease compared with the previous year. The social imbalance in recruitment is less, but still obvious.

There was a large international presence in third-cycle education. Among new doctoral entrants, 40 per cent were foreign, and among all doctoral students 37 per cent were foreign. Neither the number of foreign doctoral new entrants nor the number of foreign doctoral students has decreased so far because of the coronavirus pandemic.

In 2020, the number of doctoral degrees fell for the fourth year in a row.

Transition to third-cycle education

Four per cent of first- and second-cycle graduates between academic years 2011/12 and 2015/16 began a third-cycle education by academic year 2019/20. The highest transition to third-cycle education (11 per cent) was among graduates in the natural sciences, mathematics, and information and communication technology (ICT). The lowest was

among graduates within education science and teacher training (1 per cent).

The large differences in transition between different degree specialisations can likely be explained by some of the programmes preparing students for a career outside of higher education while other programmes have a clear connection to an academic career.

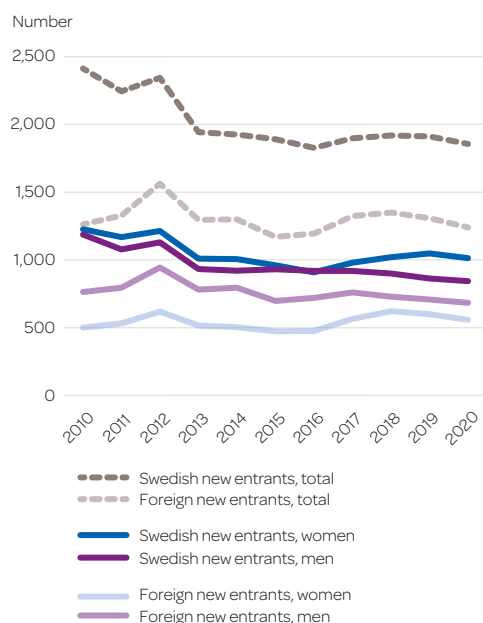
Third-cycle new entrants

In 2020, there were 3,100 third-cycle new entrants, which was 120 fewer than in 2019. The final number will likely be higher, however, since there is some delay in reporting for the statistics. An individual is counted as a third-cycle new entrant in the calendar half year from first being registered with at least 1 per cent activity.

Forty per cent foreign third-cycle new entrants

Among 2020 third-cycle new entrants, just over 1,200 were foreign new entrants (see fact box *Foreign doctoral students*), which is 40 per cent of the total. This was 70 fewer than in 2019 (Figure 24). The number of Swedish new entrants fell by 50, to nearly 1,900. Because of delays in reporting, we will not be able to see with certainty the impact of the coronavirus pandemic on the number of 2020 foreign new entrants until the spring 2022.

Figure 24. Swedish and foreign third-cycle new entrants 2010–2020, total and divided by gender.



Among 2020 foreign new entrants, there were somewhat more men than women (55 per cent men and 45 per cent women). There have been more men among foreign new entrants since collection of this data began in 1997. Among Swedish new entrants in 2020, however, there were more women (55 per cent women and 45 per cent men). This has been the case for the last 10 years except for one year.

Between 2010 and 2012, the number of foreign new entrants rose significantly, from 1,260 to 1,560, an increase among all new entrants from 34 to 40 per cent. Since then, the percentage has remained around 40 per cent.

Between 2012 and 2013, the number of new entrants fell dramatically, both among Swedish and foreign new entrants. One explanation for the decrease is that the HEIs phased out doctoral grants in favour of doctoral studentships. The cost of a doctoral studentship is higher than a doctoral grant, and this may have caused a decrease in financial resources for recruiting doctoral students in some subject areas.

Another explanation was the introduction of tuition fees, which resulted in a decrease in the number of incoming second-cycle students from countries outside of the EU/EEA and Switzerland. Incoming second-cycle students are an important recruitment base for third-cycle education.

FOREIGN DOCTORAL STUDENTS

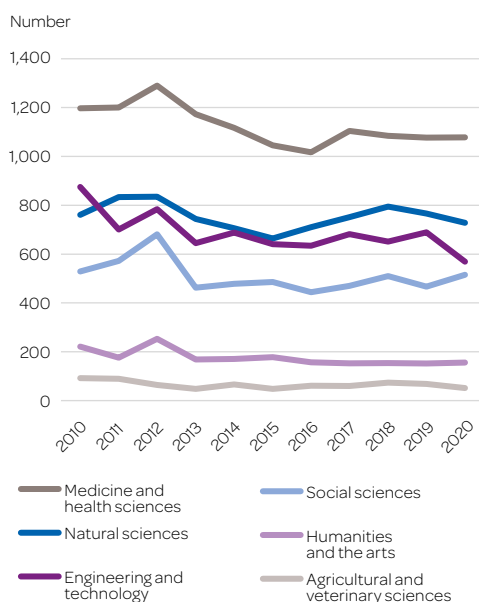
Foreign doctoral students are students who have come to Sweden for third-cycle education. They are seen in the statistics because they have received residence permits for studies and because these permits were granted less than two years before the start of their doctoral studies. Students who arrived in Sweden less than two years before beginning their doctoral studies are also included in this category.

Note that foreign doctoral students are different from doctoral students with foreign background (read more about doctoral students with a foreign background under *Widening participation*).

Medicine and health sciences most common among third-cycle new entrants

The number of third-cycle new entrants varied considerably among the fields of research. As in previous years, medicine and the health sciences had the most new entrants in 2020 (Figure 25). There were just over 1,000, and they made up a third of all new entrants. A quarter of the new entrants were in the natural sciences (730). The humanities and fine arts and agricultural and veterinary sciences had the lowest number with 160 and 50 new entrants, respectively.

Figure 25. Number of third-cycle new entrants 2010–2020, per field of research.



Most foreign new entrants in natural sciences and engineering and technology

Swedish and foreign third-cycle new entrants study in different fields to some extent. Among Swedish new entrants, the most common fields by far were medicine and the health sciences (Table 10). Most foreign doctoral new entrants began in natural sciences and engineering and technology.

Table 10. Number of 2020 foreign and Swedish third-cycle new entrants, total, by field of research and gender distribution (%).

	Number of Swedish new entrants	Gender distribution (%)		Number of foreign new entrants	Gender distribution (%)	
		Women	Men		Women	Men
Total	1,860	55	45	1,240	45	55
Natural sciences	290	33	67	440	41	59
Engineering and technology	240	37	63	330	36	64
Medicine and health sciences	810	62	38	270	56	44
Social sciences	380	66	34	140	50	50
Humanities and the arts	110	53	47	40	67	33
Agricultural and veterinary sciences	30	67	33	20	44	56

HIGH PERCENTAGE OF INTERNATIONAL DOCTORAL NEW ENTRANTS IN SWEDEN

The general pattern in OECD countries is for more men than women to begin third-cycle education. In 2018, men were 52 per cent and women 48 per cent of third-cycle new entrants (Table 11).

The average age among third-cycle new entrants in OECD countries was 31.1, which is somewhat higher than in Sweden (30.8).

The percentage of international third-cycle new entrants varies greatly between countries. In

Sweden, it was 43 per cent. Germany had a relatively low percentage of international third-cycle new entrants compared with other European countries (15 per cent). Note that this includes only new entrants that come from another country to attend an entire third-cycle education (in Sweden these are called foreign doctoral students).

Table 11. Gender distribution (%), age and international doctoral new entrants (%) for selected countries and OECD average 2018. Source: OECD.

	Gender distribution (%)		Total	Average age		Percentage international new entrants (%)		
	Women	Men		Women	Men	Total	Women	Men
OECD average	48	52	31.1	31.2	30.9	29	27	32
Sweden	50	50	30.8	31.6	30.1	43	38	47
Denmark	50	50	29.0	29.6	28.3	40	37	43
Finland	53	47	33.1	34.0	32.1	31	25	37
Norway	53	47	32.6	33.7	31.3	29	23	36
Germany	46	54	29.1	29.2	29.0	15	16	14
United Kingdom	49	51	29.1	29.3	28.8	43	42	44
Netherlands	49	51	27.0	27.0	26.9	51	48	53
Colombia	43	57	37.1	37.2	37.1	5	6	4

Doctoral studentships most common source of funding

In the last decade, funding for third-cycle new entrants has improved. The percentage of new entrants with doctoral studentships has increased from 47 per cent to 76 per cent.

This is now the most common source of funding. Doctoral grants have been phased out. The percentage of new entrants with scholarships fell by half during the same period, from 10 to 5 per cent. A total of 17 per cent of new entrants had some form of

employment outside their HEI: a medical post or as an externally employed doctoral student. This means that, in total, more new entrants than previously had some form of employment in 2020, both in and outside of higher education.

Lower percentage of the population begins third-cycle education

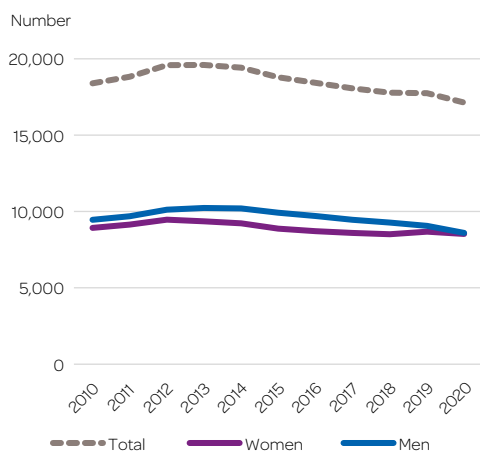
The percentage of the Swedish population that began third-cycle education by age 30 has varied among those born 1956–1990. Of those born in 1956, 0.9 per cent began third-cycle education. From that point, the percentage increased gradually to 1.6 per cent for the 1975–1978 cohorts. It then fell gradually, and only 0.6 per cent of the 1990 cohort had begun third-cycle education by age 30.

Doctoral students

In autumn 2020, there were just over 17,000 doctoral students in higher education, which was a decrease of 600 compared with 2019 (Figure 26).

Foreign doctoral students accounted for 37 per cent of the total in autumn 2020, which can be compared with 36 per cent in autumn 2019. This means that neither the

Figure 26. Number of doctoral students autumn 2010–2020, total and divided by gender.



number of foreign third-cycle new entrants nor the number of foreign doctoral students has decreased so far because of the pandemic.

There were as many women as men among doctoral students in 2020. Gender distribution has been relatively even over the last decades.

In autumn 2020, most doctoral students (one-third) studied in medicine and the health sciences. This was followed by the natural sciences and engineering and technology with 22 per cent and 20 per cent, respectively. Another 17 per cent studied within the social sciences and 6 per cent within the humanities and fine arts. The smallest percentage of doctoral students was found in the agricultural and veterinary sciences with 2 per cent.

Full-time studies most common

The majority of doctoral students (56 per cent) studied full-time in autumn 2020. Full-time here refers to doctoral students whose degree of activity was between 80 and 100 per cent, since doctoral students regularly combine their studies with part-time teaching in first- and second-cycle courses and programmes.

In autumn 2020, more men than women studied full-time (61 per cent and 52 per cent, respectively). A total of 15 per cent of doctoral students had a study rate of 40 per cent for their third-cycle education. One explanation for this is that some doctoral students study part-time while also working, such as medical doctors.

Doctoral studentship most common in all fields of research

Like third-cycle new entrants, the majority of doctoral students (69 per cent) had a doctoral studentship in autumn 2020. Three per cent had other employment within higher education, 6 per cent had scholarships and 5 per cent had other sources of funding.

A total of 17 per cent of doctoral students had employment outside of the HEI that they were attending. This includes medical posts, external employment as doctoral students and other employment outside of the HEI. This is similar to the situation in autumn 2019.

Doctoral studentships were the most common source of funding in all fields of research in autumn 2020, even if the percentage that had a doctoral studentship varied between 48 and 84 per cent depending on the field.

It was more common for women than men to have a doctoral studentship, while more men were externally employed doctoral students.

A high percentage of doctoral graduates have been abroad

The EU goal that at least 20 per cent of all graduates in higher education should have spent a study or training period of at least three months abroad also includes doctoral students.

Of 2,750 doctoral graduates in 2019, 30 per cent had been abroad. This was somewhat more than the previous year when 27 per cent had been abroad. The majority of those who spent time abroad were doctoral students in the natural sciences and engineering and technology. More men than women spent part of their studies abroad. The most common place for a stay was the United States, followed by Great Britain and Germany.

Third-cycle qualifications

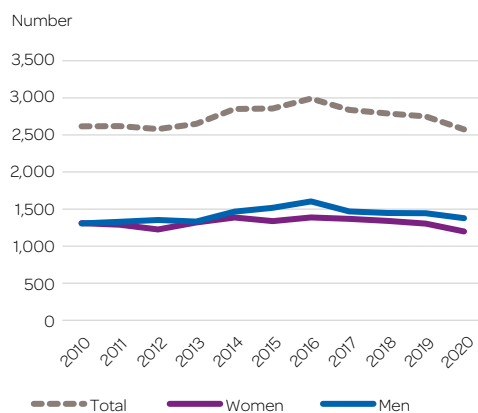
In 2020, just over 3,000 third-cycle qualifications were awarded, of which 2,570 were doctoral degrees and 450 licentiate degrees (two years of full-time third-cycle studies). Compared with 2019, this was a clear decrease: 170 fewer doctoral degrees and 30 fewer licentiate degrees. This means that the

number of third-cycle graduates fell for the fourth year in a row. The main cause of the decrease is that the number of third-cycle new entrants fell between 2012 and 2016.

Since third-cycle doctoral degrees in the fine, applied and performing arts were introduced in 2010, a total of 59 doctoral degrees and 15 licentiate degrees have been awarded.

Somewhat fewer women (47 per cent) than men (53 per cent) completed a doctoral degree in 2020 (Figure 27).

Figure 27. Number of doctoral degrees 2010–2020, total and divided by gender.



The biggest group of doctoral degrees from 2020 were awarded in medicine and the health sciences (just under 900). This is more than one third of all doctoral degrees (Table 12). Compared with 2019, nearly all subject areas awarded fewer degrees, with medicine and the health sciences having the largest decrease. One reason can be that doctoral students have worked more in health and medical care during the coronavirus pandemic and have had less time to complete their doctoral studies.

Student completion rates

The student completion rate is one measure of student completion and indicates what percentage of third-cycle new entrants

Table 12. Number of doctoral degrees in 2020, by research field and gender distribution (%).

	Doctoral degree	Women	Men
Total	2,570	47	53
Natural sciences	610	38	62
Engineering and technology	520	33	68
Medicine and health sciences	890	56	44
Agricultural and veterinary sciences	40	46	54
Social sciences	370	55	45
Humanities and the arts	150	57	43

have completed a doctoral degree after a certain number of years. A doctoral degree is intended to be the equivalent of a nominal programme length of four years at full-time studies. But it is common for doctoral students to have a combination of 80 per cent third-cycle studies and 20 per cent departmental duties, and this results in their studies taking five years.

The most recent cohort that can be studied within five years are students that began their third-cycle education in 2015. Of these, 45 per cent received their doctoral degree by the end of 2020. Over the long term, the completion rate has increased significantly. For the 1990 new entrant cohort, it was only 22 per cent. One reason for this increase is the 1998 third-cycle studies reform, which included requirements for secured funding during studies to increase completion rates.

The completion rate is increasing over time. Of 2012's new entrants, 45 per cent completed their doctoral degree within five years and 73 per cent within eight years. In addition, 7 per cent of new entrants had completed a licentiate degree as their highest degree within eight years. In total, 20 per cent had not completed any degree at the end of 2020.

Gender differences in completion rates decrease over time

Women take longer than men to complete a degree. In recent years, the gender differences in completion rates have decreased

the longer time passes after the new entrant year. Among new entrants in 2012, 39 per cent of women and 49 per cent of men had completed their doctoral degree within five years, a difference of 10 percentage points. After eight years the difference is only 4 percentage points. For the 2010 new entrant cohort, however, there was no difference between women and men after eight years, so the completion rate for women has fallen somewhat between these new entrant cohorts.

The completion rate varied somewhat between fields of research, but in the largest field (medicine and health sciences) women and men had the same completion rate within eight years (78 per cent).

Widening participation

UKÄ has used statistics from Statistics Sweden to examine the social imbalance in recruiting to third-cycle education based on the social and national backgrounds of the doctoral students.

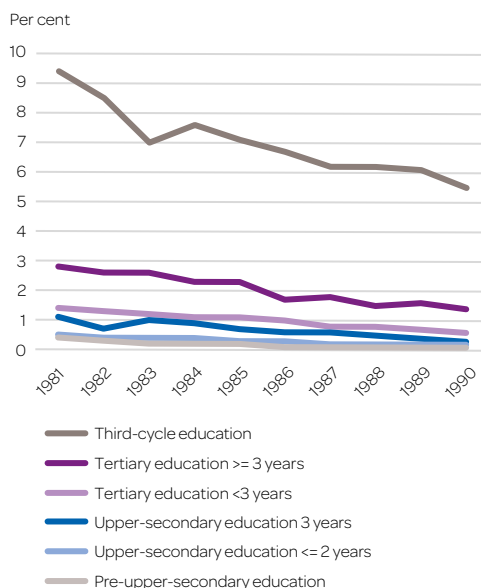
Social background

Social background (here measured as the highest educational attainment of the parents) influences whether a person begins third-cycle studies or not. The higher the educational attainment of the parents, the more likely it is a student begins third-cycle education. This correlation applies to all cohorts 1981–1990.

Of individuals born 1990 (with data on the parents' educational attainment), 0.6 per cent had begun third-cycle education by age 30. If the parents had third-cycle education, 5.5 per cent of the students went on to third-cycle education (Figure 28). The group that began third-cycle education second most often had parents with at least a three-year tertiary education (without third-cycle education) – the transition percentage for this group was 1.4 per cent. If the parents had at most two-year upper-secondary education (e.g., primary school or compulsory school), only 0.1 per cent began third-cycle education.

The social imbalance in recruitment, however, has decreased somewhat from having been largest among those born in the early 1980s. The transition to third-cycle education has decreased in all groups, but most among those with highly educated parents. This holds true even when divided by gender.

Figure 28. Percentage of 1981–1990 cohorts that had begun third-cycle education in Sweden by age 30, divided by parents' educational attainment.



Most have highly educated parents

In academic year 2019/2020, a total of 60 per cent of third-cycle new entrants had highly educated parents (at least three-year tertiary education or third-cycle education). The percentage with parents with medium educational attainment (three-year upper-secondary education or tertiary education less than three years) was 26 per cent, while only 14 per cent had parents with low education attainment (pre-secondary education or at most two-year upper-secondary education). The calculation of social composition is based on 1,450 third-cycle new entrants. Foreign doctoral students and Swedish doctoral students without data on parent education attainment are not included.

If there was no social imbalance in recruitment to third-cycle education, the social composition among new entrants would be more similar to the population in general. In the general population in the 25–29 age group (the most common age category for third-cycle new entrants), 25 per cent had highly educated parents compared with 60 per cent of third-cycle new entrants. This overrepresentation of doctoral students with highly educated parents is only somewhat linked to the imbalance in recruitment that occurs in the *actual transition* between second-cycle and third-cycle education. Instead, the imbalance forms in upper-secondary school and the initial educational levels of higher education.

National background

Among those born in 1989 (and that were part of the Swedish population at age 18), national background plays a minor role in whether a student starts third-cycle education or not. At age 30, a total of 0.7 per cent of individuals with Swedish background and 0.5 per cent of those with a foreign background had begun third-cycle educa-

tion. This can be compared with the 1980 cohort, where the difference between these two groups was larger at 0.5 percentage points.

Individuals are considered to have a Swedish background if they are born in Sweden and have at least one parent who is also born here. This includes individuals born abroad if both parents are Swedish born. The group with foreign backgrounds consists of individuals who are either born in Sweden to two foreign-born parents or born abroad and immigrated by age 18.

National composition of doctoral students similar to the general population

In academic year 2019/20, there were nearly 1,800 new entrants (under age 65 and excluding foreign doctoral students) who began a third-cycle education in Sweden. Of these, 26 per cent had a foreign background. The percentage with a foreign background was fairly similar among women and men: 27 and 25 per cent, respectively. In most subject areas, the percentage of third-cycle new entrants with a foreign background was 25–26 per cent.

This composition of third-cycle new entrants based on national background is largely linked to the composition of the Swedish population. In 2019, among the population ages 25–29, 28 per cent had foreign backgrounds and 72 per cent had Swedish background, i.e., about the same composition as for third-cycle new entrants. So, there is no sign of any explicit imbalance in recruitment to third-cycle education based on national background.

EDUCATION AND THE LABOUR MARKET

Forecasts show that highly educated graduates are in great demand on the labour market. Many areas risk shortages of university-trained graduates by 2035. This is particularly true for programmes in education science and teacher training as well as most programmes specialising in health and welfare.

Graduates are well positioned on the labour market to find work. Most graduates in the 2017/18 academic year were established 1–1.5 years after graduation.

The coronavirus pandemic does not seem to have significantly impacted the labour market for recent graduates.

Shortage, balance or surplus in 2035?

With the assistance of Statistics Sweden, UKÄ has forecast the situation on the labour market through 2035. The results show that there will be labour shortages in many fields.

Figure 29 shows the labour market forecast for 2035 for different degrees. The chart shows the balance between estimated number of graduates and demand for labour (in per cent) for different education groups, if the number of new entrants is unchanged over time. If the bar is close to 100, we estimate that there will be a balance between access to and demand for professionally trained graduates in the group in 2035.

We estimate that the current shortage in teachers will persist or increase through 2035 if the current programme capacities are unchanged. To ensure a balanced labour market in 2035, the number of new entrants on most teacher training programmes must increase by between 20 and 70 per cent each year compared with the number of new entrants in 2019.

We also estimate that the current shortage of labour in health and welfare will persist through 2035 if the current programme capacities are unchanged. The largest shortage is among nurses. This, in turn, is seen as worsening the shortage in specialist nurses and midwives, since they

complete their specialisations only after receiving a nursing degree.

To ensure a balanced labour market in 2035, the number of new entrants on most medicine and health care programmes and programmes specialising in social work and welfare need to increase by between 20 and 80 per cent each year compared with the number of new entrants in 2019.

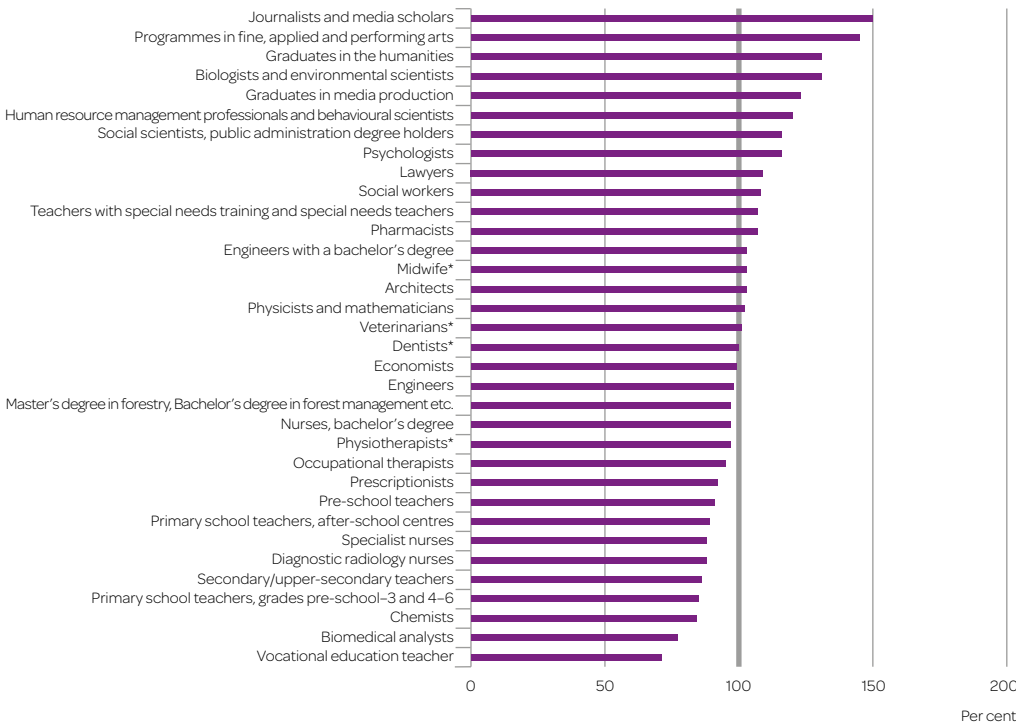
The 2035 forecast for master's degree engineers is a risk of labour shortages in certain specialisations for graduates with engineering master's degrees. Engineering physics, electrical engineering and computer science have the largest necessary increase in annual new entrants (82 per cent) compared with the number of new entrants in 2019.

More information about the supply of and demand for labour in various fields of education through 2035 is available in Statistics Sweden's publication *Trends and Forecasts 2020* (in English, www.scb.se).

Major challenges that the HEIs cannot address alone

To conclude, Sweden is facing major challenges for access to labour. UKÄ believes that the higher education institutions (HEIs) cannot address these future needs for access to skills on their own. For their part, HEIs can work to increase recruitment to programmes that need to expand and take

Figure 29. Estimated number of graduates and forecasted demand for labour (per cent) for different education groups in 2035.



* UKÄ currently sees a labour shortage, and this shortage is expected to persist through 2035. To guarantee a balanced labour market in 2035, more new entrants are needed for these programmes. The forecast model, however, cannot quantify this need.

measures to ensure that a larger proportion of students graduate. But even if the State increases funding, it will be difficult to expand programmes with low acceptance ratios.

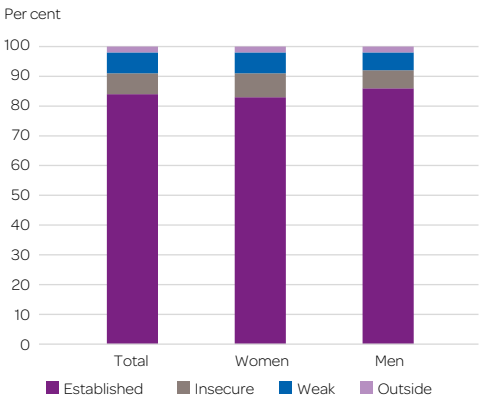
The labour market for graduates

Most graduates in the 2017/18 academic year had a good position on the labour market – 84 per cent were established on the labour market 1–1.5 years after graduation (Figure 30). The establishment rate (i.e., the proportion established after their graduation) was marginally higher for men than for women. The establishment rate fell somewhat compared with the previous academic year.

In the statistics, established is defined as an individual with a good position on the

labour market, which encompasses such aspects as an income from work during the year of at least SEK 247,900 and no

Figure 30. Labour market position (per cent) 1–1.5 years after graduation for individuals completing first- and second-cycle education in the 2017/18 academic year.



unemployment during the year. An insecure position means a relatively low income from work or periods of unemployment, while a weak position means low income or the occurrence of complete unemployment during the year.

Changes in the economy and cost cutting or expansion of the public sector can make establishment easier or harder. Naturally, a shortage of labour with specific competences or degrees also plays a role.

Highest establishment rate for graduates with professional degrees

Individuals who graduated with a professional degree the 2017/18 academic year had an 89 per cent establishment rate 1–1.5 years after graduation, compared with 79 per cent among individuals awarded a general qualification (e.g., a Bachelor's or Master's degree). For individuals with a degree in the fine, applied and performing arts, the establishment rate was considerably lower compared with the two other groups at 41 per cent.

A nursing degree was the most common professional qualification in the 2017/18 academic year, and 91 per cent of these graduates were established 1–1.5 years after graduation. The next most common professional degree was a Master's Degree in Engineering, and these had a 93 per cent establishment rate. The highest establishment rate was for graduates with a Postgraduate Degree in Specialist Nursing or a Bachelor's Degree in Engineering, both at 94 per cent.

Individuals with foreign qualifications

In recent years, the Government increased focus on bridging programmes for individuals with foreign qualifications. The aim is to help individuals with foreign qualifications to find work in their field on the Swedish labour market. So far, bridging programmes to the following five professions have been

offered long enough to allow UKÄ to follow up:

- teachers
- lawyers
- nurses
- doctors
- dentists.

About 1,200 registered students completed a bridging programme in the five professions in academic years 2014/15–2016/17.

Most were established after one year

UKÄ has found that individuals with foreign qualifications who complete bridging programmes also have a good position on the labour market. Three quarters of those who completed a bridging programme academic years 2014/15–2016/17 were established after one year, i.e., they had a good position on the labour market. Just over 10 per cent had an insecure position on the labour market and about the same number had a weak position on the labour market. Nearly the same percentage of women (74 per cent) as men (75 per cent) were established one year after completing the bridging programme.

Graduates of the dentistry bridging programme had the highest establishment rate after one year (83 per cent). Graduates of the nursing programme had almost just as high a rate at 81 per cent. Graduates with medical degrees had a somewhat lower establishment rate at 74 per cent. The clearly largest programme was the teaching programme, and it had an establishment rate of 73 per cent after one year. The law programme was the smallest and had a 65 per cent establishment rate after one year.

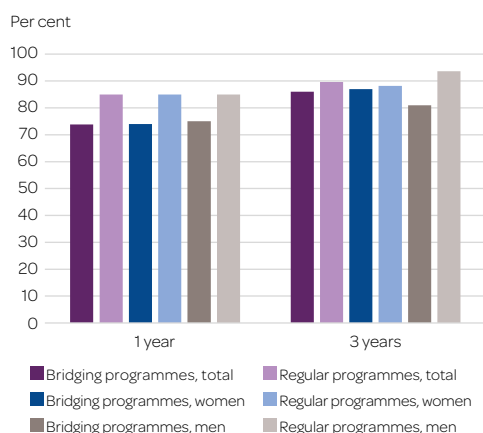
Establishment increases over time

The proportion of established graduates increased from 74 per cent after one year to 86 per cent after three years. The increase was larger for women than for men. Three years

after graduation, 87 per cent of women were established compared with 81 per cent of men.

A comparison of all graduates on equivalent regular higher education programmes showed that those who completed a bridging programme had a lower establishment rate. One year after the programme, the difference was 11 percentage points between the groups (Figure 31). Three years after the programme, the difference had evened out considerably, to 4 percentage points.

Figure 31. Establishment rate one and three years after bridging programmes and equivalent regular programmes, academic years 2014/15–2016/17.



How did recent graduates fare during the pandemic?

Using a new source of statistics from Statistics Sweden that is based on employer reports, we have compared data on income for spring 2020 graduates with graduates from one year previously. The purpose was to study the position of recent graduates on the labour market during the coronavirus pandemic.

Most have good opportunities to make a living

Looking at the entire group of spring 2020 graduates, there has been a small decrease in opportunities for making a good living.

Of this group, 76 per cent had good opportunities for making a living 6 months after graduation, i.e., they had an income equivalent to a monthly salary of at least SEK 20,000. The equivalent proportion for spring 2019 graduates was 78 per cent. The difference was larger for men (4 percentage points) than for women (2 percentage points). One explanation is existing gender divisions both between programmes and on the labour market.

For programmes with the highest number of graduates, the largest decrease was among graduates with Bachelor's Degree and Master's Degree in Engineering. Graduates from medicine and health care programmes, like doctors and nurses, however, saw a slight positive trend. There were no differences from year to year for primary education and pre-school education teacher graduates.

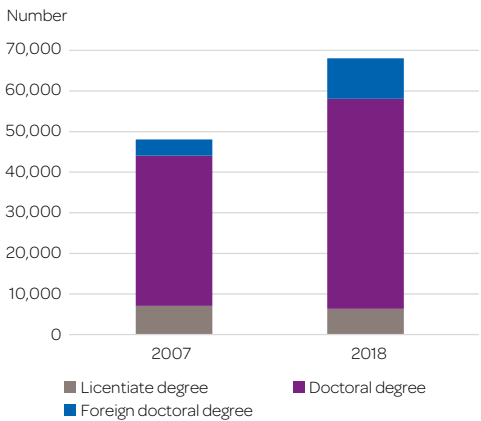
Programmes leading to work in the public sector have not been impacted negatively by the pandemic in the same way as those leading to work in the private sector, at least not initially.

The labour market for third-cycle graduates

Third-cycle programmes have expanded since the 1990s, resulting in more third-cycle graduates on the Swedish labour market over the last decade (Figure 32). There were 68,000 graduates with third-cycle degrees employed in 2018, an increase of 20,000 since 2007. A clear change is that the number of individuals with a foreign third-cycle degree has more than doubled, from 4,000 to nearly 10,000 employed in 2018.

The gender distribution has changed during the period. The proportion of women among Swedish third-cycle graduates has risen from 34 to 43 per cent. The proportion of women among licentiate graduates (two years of full-time third-cycle studies) and with foreign degrees has increased but not to the same extent.

Figure 32. Number of third-cycle graduates employed on the labour market in 2007 and 2018.



HEIs are the largest employers for third-cycle graduates

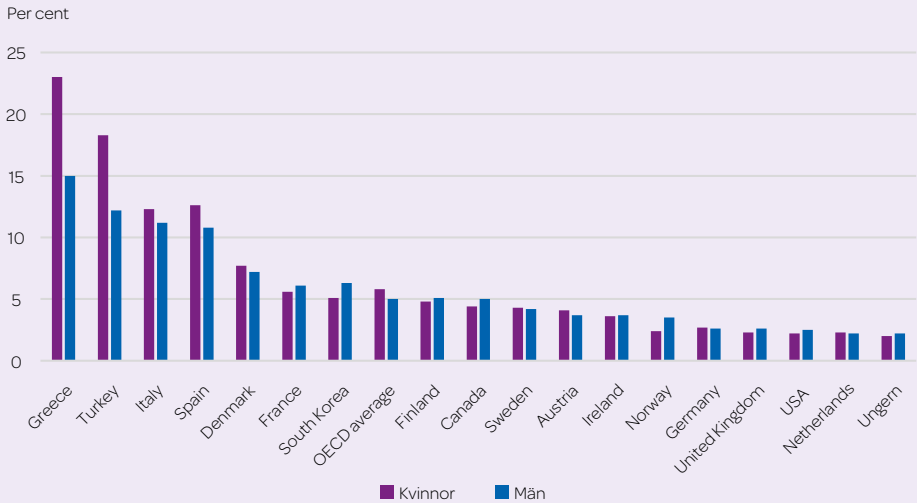
HEIs employed nearly 24,000 third-cycle graduates in 2018, an increase of just over 9,000 since 2007. This means that HEIs are the largest employers of third-cycle graduates during the entire period. Most were hired by in-patient clinics for specialised hospital somatic activities (8,000) and by natural science and technical R&D institutions (4,900).

UNEMPLOYMENT AMONG INDIVIDUALS WITH TERTIARY EDUCATION

Unemployment among individuals with tertiary education varied relatively much among OECD member states in 2019. Figure 33 shows the percentage of unemployed men and women ages 25–34 with tertiary education that were unemployed. Unemployment is defined as the per cent of the population that is able to work in a certain age group that does not work. In Sweden, the total unemployment rate among tertiary educated was 4.3 per cent, which was 1 percentage point lower than the OECD average.

The difference between men and women is relatively small in most OECD countries. In Sweden, unemployment was 4.3 per cent for women and 4.2 per cent for men. On average, men had 0.8 percentage point lower unemployment. In several countries, however, the difference was significantly higher, particularly in countries with high unemployment. In Greece and Turkey, unemployment was higher among women than men, 6 and 8 percentage points respectively.

Figure 33. Unemployment (per cent) for tertiary educated women and men ages 25–34 in a selection of OECD countries, 2019. Sorted by total unemployment. Source: OECD.



STAFF AT HIGHER EDUCATION INSTITUTIONS

The number of higher education institution (HEI) staff continues to increase. Between 2019 and 2020, it grew by just over 2 per cent. Of HEI staff, 60 per cent were research and teaching staff, while 40 per cent belonged to staff with duties other than research and teaching. Research and teaching staff increased more in number and percentage than staff with other duties.

Among research and teaching staff, senior lecturers were the largest employment category, and they also increased the most in number compared with 2019. The majority of research and teaching staff worked in medicine and health sciences, social science and natural sciences.

The percentage of women has increased in recent years in basically all employment categories and fields of research.

The number of HEI staff – totals

In 2020 HEIs had nearly 67,700 employees. That is equivalent to 54,000 full-time equivalents (the number of employees converted to full-time equivalents (FTEs)), an increase of just over 2 per cent compared with 2019.

HEI staff are divided into two categories: research and teaching staff and staff with other duties than research and teaching. The latter includes administrative staff and library staff. Of all employees, 60 per cent were research and teaching staff and 40 per cent were staff with other assignments.

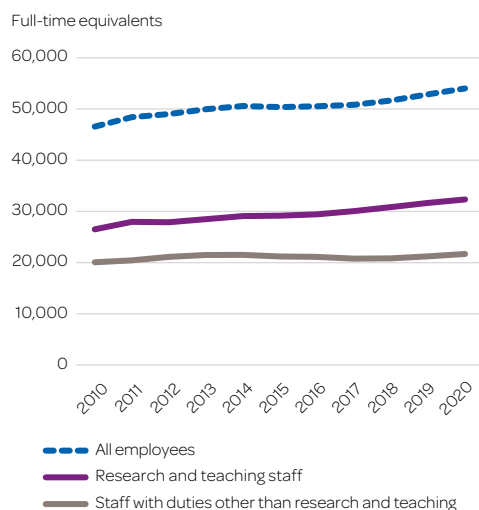
The gender distribution among all staff was even: 54 per cent women and 46 per cent men. Among research and teaching staff, men were in the majority while women were the majority among staff with duties other than research and teaching.

Research and teaching staff increased the most

The number of HEI employees has grown over time. Compared with 2010, it increased by nearly 7,500 FTEs or 16 per cent (Figure 34). Both staff categories have increased, but research and teaching staff increased more than staff with duties other than research

and teaching, both in terms of numbers and percentages.

Figure 34. Number of employees at HEIs 2010–2020, by employment category, FTEs.



Research and teaching staff

The number of research and teaching staff continues to grow. In 2020 it totalled around 32,300 FTEs, which was an increase of just under 700 compared with 2019. The gender

distribution was relatively even: 46 per cent women and 54 per cent men.

Staff that primarily conduct research and teaching in higher education are referred to in statistics as the research and teaching staff. They are divided into six employment categories:

- professors
- senior lecturers
- career-development positions
- lecturers
- other research and teaching staff with doctoral degrees
- other research and teaching staff without doctoral degrees.

Doctoral students conduct a large part of the research and teaching at Swedish HEIs but are not included among HEI staff (read more about doctoral students in the chapter *Third-cycle education*).

Senior lecturers as an employment category had the largest increase in numbers among research and teaching staff compared with 2019, by just under 300 FTEs to around 9,700. Senior lecturers were 30 per cent of research and teaching staff and continue to be the largest employment category.

The second largest increase of employees was within the category other research and teaching staff with doctoral degrees.

Researcher was the most common job title in this category at 65 per cent.

Senior lecturers increased the most in the last decade

Research and teaching staff have increased the most over the last decade, from 26,500 FTEs in 2010 to just over 32,300 FTEs in 2020. This is an increase of 22 per cent.

Career-development positions and senior lecturers have increased the most over the last ten years, 36 and 43 per cent, respectively.















The only employment category to decrease over the last decade is lecturers, which shrank by 13 per cent.

Gender distribution relatively even except among professors

The gender distribution was relatively even within most employment categories (Table 13). Professors is the employment category with the least even gender distribution at 31 per cent women and 69 per cent men.

Over the last decade, the percentage of women increased in almost all employment categories. Between 2010 and 2020, the number of female professors increased by 66 per cent. At the same time, the number of male professors increased by 3 per cent.

Table 13. Number of research and teaching staff at HEIs 2010–2020, gender distribution (%) and changes (%), by employment category, FTEs.

	Number of FTEs 2010	Gender distribution (%)		Number of FTEs 2020	Gender distribution (%)		Change 2010–2020 (%)
		Women	Men		Women	Men	
Total	26,500	43 	57	32,340	46 	54	22
Senior lecturers	7,120	43 	57	9,660	47 	53	36
Professors	4,510	21 	79	5,250	31 	69	16
Lecturers	5,740	55 	45	5,000	60 	40	-13
Other research and teaching staff without doctoral degrees	3,640	46 	54	4,890	49 	51	35
Other research and teaching staff with doctoral degrees	2,870	42 	58	3,780	46 	54	32
Career-development positions	2,620	46 	54	3,750	46 	54	43

TYPES OF EMPLOYMENT REGULATED BY LEGISLATION AND ORDINANCES

The Higher Education Act (1992:1434) regulates employment for professors and senior lecturers, while employment for associate senior lecturers is regulated in the Higher Education Ordinance (1993:100).

In addition to the employment categories listed in the Higher Education Act and the Higher Education Ordinance, the HEIs decide what teacher categories there should be and determine the career structure for teachers and researchers at the HEI.

Recruitment targets for professors not achieved

Since 1997, there have been recruitment targets for the percentage of women among newly recruited professors. The current government wants half of all newly recruited professors to be women by 2030.

In 2020, UKÄ followed up HEI efforts with recruitment targets for 2017–2019. The follow-up shows that recruitment targets have not led to improvements in the percentage of women among recently recruited professors. On the contrary, the percentage had fallen compared to 2017 within all fields of research except for medicine and health sciences.

To encourage a quicker pace in achieving gender equality in higher education, the Government has adopted a new recruitment target for the 2021–2023 period. HEI-specific goals are between 34 and 60 per cent. All HEIs have recruitment targets that are as high or higher than for the 2017–2019 period.

Few are hired as professors within 12 years

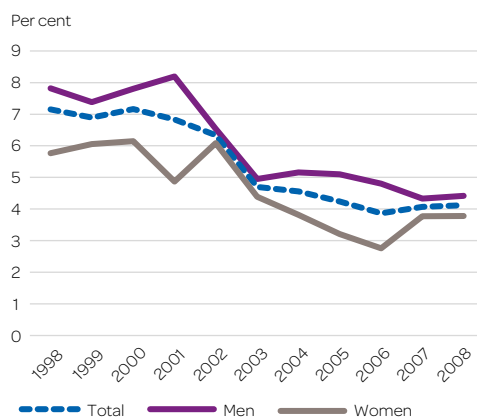
Relatively few are hired as professors within 12 years of completing their doctoral degree, and the percentage has decreased over time. The follow-up period of 12 years has been chosen based on the requirements for

acquisition of qualifications to become a professor.

Of all 2008 doctoral graduates, 4 per cent had been employed as professors within 12 years, which can be compared with 7 per cent of all doctoral graduates from 1998 (Figure 35). The decrease indicates that competition for positions has increased. Of 2008 graduates, 120 individuals were hired as professors through 2020.

Each year over the last decade, a larger percentage of men than women has been hired as professors within 12 years. For 2008 doctoral graduates, as in previous years, the differences were very small.

Figure 35. Percentage of women and men hired as professors within 12 years of completing their doctoral degree. Degree year 1998–2008.



The number of career-development positions has increased significantly

The number of career-development positions fell marginally compared with 2019, and in 2020 totalled 3,750 FTEs. In the statistics, the career-development position category includes the job titles postdoctoral researcher, associate senior lecturer, postdoctoral research fellow and other career-development positions.

Postdoctoral researchers (71 per cent) and associate senior lecturers (22 per cent) were the largest categories among career-development positions. Both of these categories

ries grew somewhat in number compared with 2019.

At the same time, the number of postdoctoral research fellows decreased by 110 FTEs compared with 2019, to 250 FTEs. They made up 7 per cent of all career-development positions.

The gender distribution among employees with career-development positions was relatively even. Men were the majority among postdoctoral researchers and associate senior lecturers, while women were the majority among postdoctoral research fellows.

In the last decade, the number of career-development positions increased significantly (Figure 36). This increase is largely the result of more postdoctoral researchers but also more associate senior lecturers. Compared with 2010, the number of postdoctoral researchers has doubled, with an increase of just over 1,300 FTEs. The percentage of associate senior lecturers has increased even more, by just over 230 per cent or just under 600 FTEs, but from a lower level. The number of postdoctoral research fellows, however, has decreased significantly by just under 800 FTEs.

The proportion of women and men has remained largely the same over the last decade.

Even though the number of career-development positions has increased over time, there is still significant competition for these positions among doctoral graduates who plan to continue their careers within academia. Nearly 3,000 doctoral students graduate each year. Newly employed postdoctoral researchers in 2020 equalled nearly 1,300 FTEs, which is equivalent to just over 40 per cent of a graduating cohort.

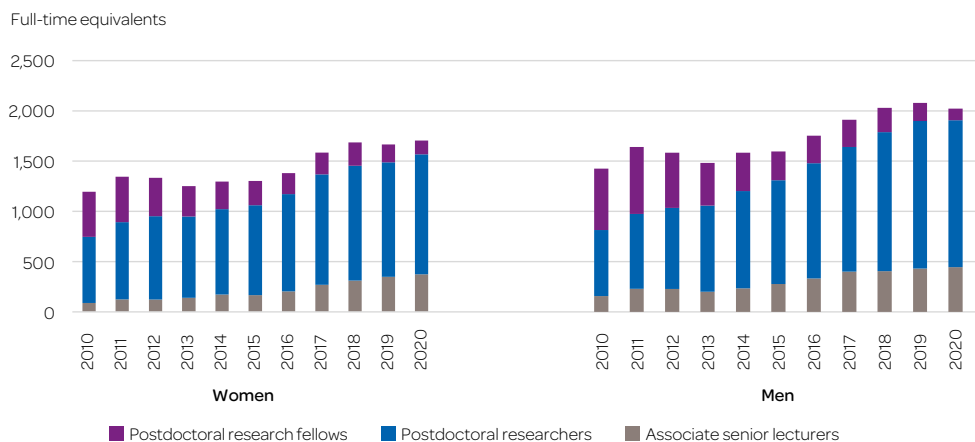
The largest increase in employees was within medicine and health sciences

In terms of number of employees, the largest fields of research in 2020 were medicine and health sciences, social sciences and natural sciences with 7,000–8,000 FTEs each. Just over 70 per cent of research and teaching staff were active in one of these three fields of research.

Above all, the number of employees increased within medicine and health sciences between 2019 and 2020, by just over 300 FTEs. Within social sciences, the number of employees increased by 140 FTEs and within agricultural and veterinary sciences by 100 FTEs.

Since 2010, the number of employees increased within all fields of research. The

Figure 36. Number of women and men with career-development positions 2010–2020, by associate senior lecturers, postdoctoral researchers and postdoctoral research fellows, FTEs.



MOST COMMON FOR PROFESSORS TO WORK ABROAD IN 2019

Every other year, UKÄ examines the degree to which HEI staff worked abroad. In 2019, about one-third of research and teaching staff worked abroad. Just over every fifth staff member (21 per cent) worked abroad for at least one week. A somewhat higher percentage of men than women worked abroad for at least one week, 24 per cent compared with 18 per cent of women.

Among employment categories, it was most common for professors to work abroad for research or teaching. In 2019, close to four in 10 professors worked abroad for at least a week.

Time abroad was most common for employees within the natural sciences, both for women and men. In this field of research, about one-third (33 per cent) worked abroad. In other fields of research, between 18 and 26 per cent of employees worked abroad.

The 2019 results are similar to the 2017 study.

largest increase was within medicine and health sciences, which in ten years has increased by nearly 2,000 FTEs.

The percentage of women has increased in all fields of research compared with 2010. In 2020, the largest percentage of women was within medicine and health sciences – 59 per cent compared with 41 per cent men.

Staff with duties other than research and teaching

In 2020 there were nearly 21,700 FTEs in staff with duties other than research and teaching, which was an increase of 470 compared with 2019. Of this category of employees, 65 per cent were women and 35 per cent men.

In the statistics, staff with duties other than research and teaching are divided into four employment categories:

- administrative staff
- technical staff
- library staff
- staff paid in the form of a fee.

The majority of staff with duties other than research and teaching belonged to the administrative staff category. In 2020, this category had around 13,400 FTEs, which is 62 per cent of staff with duties other than research and teaching. Technical staff totalled 6,550 FTEs or 30 per cent.

There are clear differences in gender distribution between the different employment categories. The largest gender differences were in administrative staff, where women made up 76 per cent and men 24 per cent. Among technical staff, there were more men than women, 57 per cent compared with 43 per cent. Gender distribution was unchanged compared with 2019.

The increase primarily in administrative staff

Over time, the number of FTEs that are staff with duties other than research and teaching has increased, but less than among employees with research and teaching positions. In total, the number of FTEs has increased by just over 1,600 in 10 years, which is equivalent to an 8 per cent increase. This can be compared with 22 per cent for research and teaching staff.

Since 2010, only the number of administrative staff has grown (31 per cent).

The gender distribution within different employment categories has been relatively stable over the 10-year period.

A wide range of professions

In 2021, UKÄ published an analysis focused on the jobs of staff with duties other than research and teaching. This analysis shows that there is a wide range of professions among staff with duties other than research and teaching, with close to 1,300 different

job titles (e.g., project manager, study counsellor, technician and cleaner). The most common job title was administrator, followed by librarian.

The analysis shows that staff with duties other than research and teaching are highly educated on the whole. In 2019, over six of 10 had at least a three-year tertiary education.

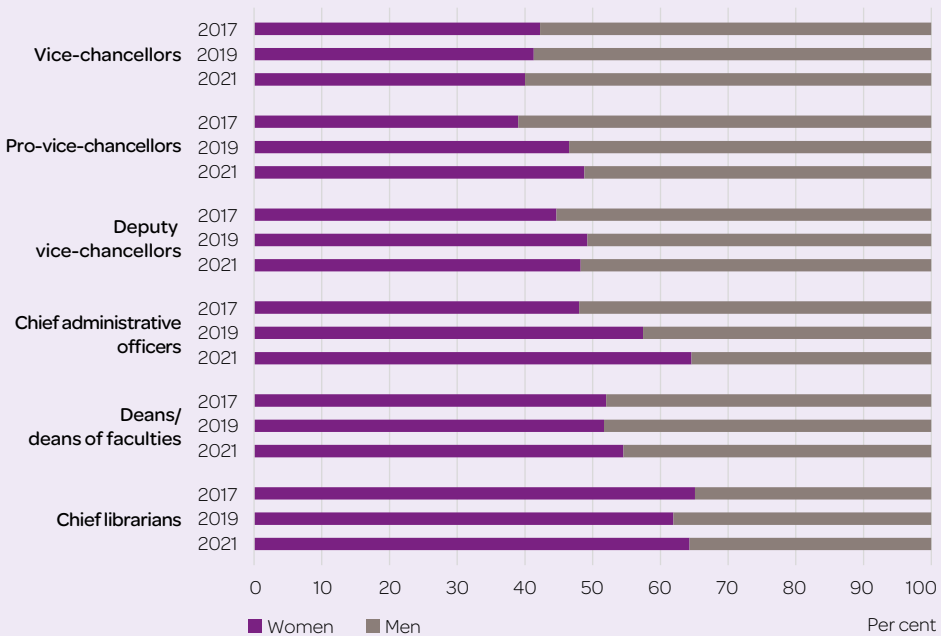
FOUR OUT OF 10 VICE-CHANCELLORS WERE WOMEN IN 2021

Since 2017 and every other year, UKÄ has conducted a study of the gender distribution in HEI management functions. The results of the 2021 questionnaire show that gender distribution continues to be relatively even. Among the management functions included in the questionnaire, the percentage of women varied from 40 to 65 per cent.

In 2021, the percentage of women was lowest among vice-chancellors, where 40 per cent were women and 60 per cent were men. Among pro-vice-chancellors and deputy vice-chancellor, there was an even gender distribution.

The largest difference in gender distribution was among chief administrative officers and chief librarians. Nearly two of three individuals in these positions were women. Among deans, deans of faculties or equivalent, 55 per cent were women. The largest change in gender distribution was among chief administrative officers, where the percentage of women increased from 48 per cent in 2017 to 65 per cent in 2021.

Figure 37. Percentage of women and men in different HEI management functions, 2017, 2019 and 2021.



FINANCE AND RESEARCH FUNDING

Swedish higher education institutions (HEIs) had a financial surplus in 2020. The surplus is primarily the result of increased appropriations and reduced operational expenses – two important effects of the coronavirus pandemic on HEI finances.

Income increased for first- and second-cycle education and for research and third-cycle education. Costs on the other hand did not increase to the same extent, particularly not within research operations.

HEI finances in 2020

In 2020, Swedish HEIs spent SEK 78 billion. This corresponds to 1.57 per cent of Sweden's GDP, which is at the same level as the previous year. Close to 80 per cent of operations were financed by state funding. HEIs also had considerable funding (around 4 per cent) from other public organisations and 12 per cent from private funding organisations in Sweden. This funding was used primarily to cover the cost of research and third-cycle education. The remaining funding comes from sources outside of Sweden.

What were the total expenditures for the higher education sector in 2020?

To estimate the expenditures for the entire HE sector, we need to add the expenditures for student finance and the central public

agencies to the total above. The State's expenditures for student finances were SEK 11.5 billion and the direct allocations to the central public agencies responsible for higher education totalled SEK 1.1 billion. Thus, the total expenditure for the HE sector was SEK 90.6 billion in 2020. These expenditures are specified in more detail in Figure 38.

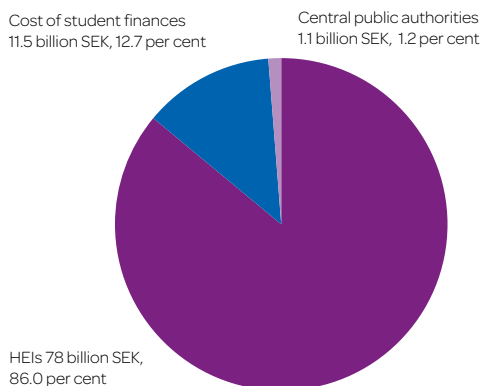
Increased expenditures for first- and second-cycle education

Even if the total expenditures for HEI operations were the same as 2019, these were allocated somewhat differently to the operational areas. Within first- and second-cycle education, HEI costs increased by SEK 500 million compared with the previous year. Within research and third-cycle education, costs decreased by an equivalent amount.

In their annual financial reports, many HEIs describe how expenses for educational operations have increased as the number of students has grown. A contributing cause is that the State has allocated funding for expansion of first- and second-cycle education because of the coronavirus pandemic. HEIs have largely been able to use the new funding in their educational activities, which has led to increases in costs.

Within research and third-cycle education, however, activity has decreased because of the pandemic. Multiple HEIs also note that a larger percentage of staff resources have been assigned to educational operations compared to a normal year.

Figure 38. Expenditures in the higher education sector in 2020, SEK billion and per cent.



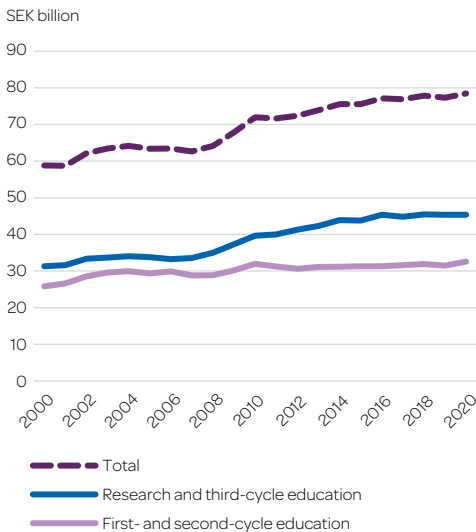
Marginal changes in total revenues

In 2020, total accumulated revenues for HEIs reached SEK 78.5 billion. This represents an increase of SEK 1.2 billion in fixed prices compared with 2019. The increase was largely from higher direct government funding.

Revenue for first- and second-cycle education increased by SEK 1.1 billion to SEK 32.6 billion. At the same time, funding increased marginally for research and third-cycle education. It totalled SEK 45.4 billion (Figure 39). The just over SEK 500 million of remaining revenues were for operations at the Swedish University of Agricultural Sciences.

In the last decade, funding to HEIs for research and third-cycle education has increased significantly, while funding for first- and second-cycle education has remained unchanged in real terms. As a result, higher education has become more research focused. In this respect, developments in 2020 were different from previous years in that the proportion of education revenue increased significantly.

Figure 39. Total HEI revenues for first- and second-cycle education and for research and third-cycle education 2000–2020, SEK billion (2020 prices).



Surplus in both educational and research operations

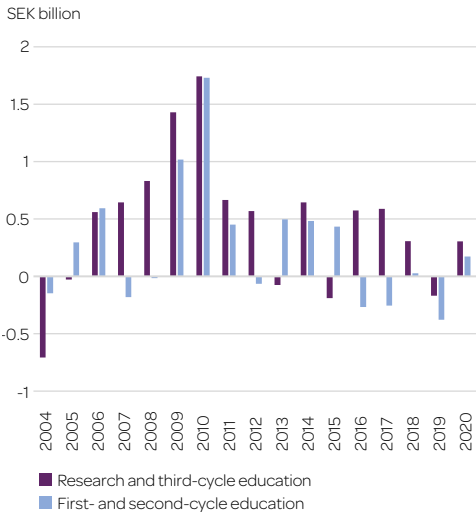
In total, 2020 funding for HEIs exceeded costs. The cumulative financial performance (changes in capital for the year) was thus a surplus of SEK 500 million for 2020, which is 0.6 per cent of HEI turnover (costs for the year). This year's surplus is comparable in size to the deficit the HEIs had in 2019.

In first- and second-cycle education, the surplus was around SEK 170 million. In research and third-cycle education, the surplus was around SEK 300 million (Figure 40).

HEIs increased their authority capital

The last decade's surplus has meant that the HEIs' financial position has improved significantly. At the end of 2020, the capital reserve, also called authority capital, held by HEIs was SEK 13.5 billion. Several HEIs have used parts of their authority capital for initiatives both in education and research.

Figure 40. HEI financial performance (changes in capital for the year) 2004–2020, per area of activity, SEK billion (2020 prices).



Funding for first- and second-cycle education

Most students in first- and second-cycle education pay no fees and their studies are financed by government funding allocated directly to the HEIs by the Swedish Parlia-

ment. In 2020, direct government funding was SEK 28 billion. This is an increase of SEK 1.4 billion in fixed prices compared with 2019.

Most of the direct government funding is in the form of allocations to first- and second-cycle education. These totalled SEK

ALLOCATION OF RESOURCES FOR FIRST- AND SECOND-CYCLE EDUCATION

Government funding for first- and second-cycle education is based on the number of registered students (converted to FTEs) and the HE credits they attain (converted to annual performance equivalents, APEs) in the different disciplinary domains. All HEIs covered by the system receive the same reimbursement, but the amount varies between different disciplinary domains (Table 14). The funding cap defines the maximum total amount each HEI may receive. This cap, together with the way in which the education is divided among the different disciplinary domains, sets the limits for the number of students at each HEI.

The basic unit of instruction in higher education consists of courses, which are classified as belonging to one or several disciplinary domains. The Government determines which disciplinary domains each HEI may include in calculating FTEs and APEs. For education in the fine, applied and performing arts, however, the number of FTEs and APEs that may be counted is limited. In general, it is up to the HEIs to classify which disciplinary domain or domains that courses belong to. The HEIs' allocation of funding is then based on these classifications. The reimbursement amount in Table 14 applies to 2021 for FTEs and annual performance equivalents within the different disciplinary domains. The funding system with funding cap applies to all public-sector HEIs except the Swedish University of Agricultural Sciences and the Swedish Defence University. Chalmers University of Technology and Jönköping University, which are independent, are also covered by the system.

Table 14. Government per capita allocation 2021 (in SEK) per FTE and APE within different disciplinary domains.

Disciplinary domain	Reimbursement per FTE, 2021, SEK	Reimbursement per annual performance equivalent, 2021, SEK
Humanities, theology, law, social sciences	33,458	21,802
Natural sciences, engineering and technology, pharmacology	57,051	48,112
Health care	60,653	52,532
Odontology	50,157	58,427
Medicine	67,777	82,442
Teaching	40,695	42,632
On-site training	57,672	55,954
Other	45,817	37,219
Design	161,667	98,498
Art	229,513	98,534
Music	139,473	88,186
Opera	332,380	198,833
Theatre	321,404	160,088
Media	327,993	262,736
Dance	226,044	124,902
Sports	117,790	54,508

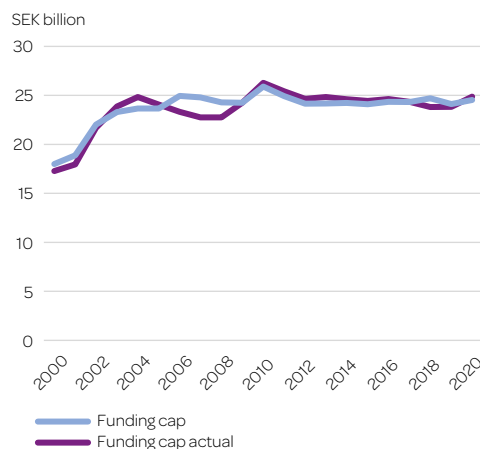
25.8 billion in 2020. For most public HEIs and even for some individual education providers, this funding consists of a funding cap that sets the highest total reimbursement each HEI can receive (read more about the funding system in the fact box). In 2020, the total funding cap was SEK 24.5 billion. Funding to HEIs not included in the funding cap system was just over SEK 1 billion.

Overproduction in educational operations

The financial value of the education volume for the different HEIs, i.e., the allocation that the total FTEs and APEs are equivalent to, is calculated at the end of the year. This amount is deducted from their individual funding caps. Figure 41 shows the change in the HEI funding cap and the financial value of the education volume for the last 20-year period.

The financial value of the education volume in 2020 was just under SEK 24.9 billion, while the total funding cap for the HEIs was SEK 24.5 billion. This means that, in 2020, the HEIs had educated more students than the allocations actually were intended to cover.

Figure 41. Total HEI funding cap and the financial value of the education volume 2000–2020, SEK billion, 2020 prices.



Interest in higher education increased dramatically 2008–2009 in connection with the last financial crisis. This heightened interest continued, and for a long time the financial value of the education volume was over the funding cap. In other words, the HEIs overproduced education.

The additional flow of students resulting from the coronavirus pandemic and the deteriorating labour market has again boosted interest in education significantly. After two years of underproduction, the HEIs once again overproduced in 2020. This occurred even with increased funding for the HEIs to allow them to increase their education volume.

The funding system allows for HEIs to save both unused allocated funds (allocation savings) as a financial value of FTEs and APEs (overproduction) between budget years, up to 10 per cent of the HEI's funding cap. This allows HEIs to balance allocations between budget years and have necessary flexibility to adjust for fluctuations in student demand for education.

The state continues earmarking funds for certain expansion

Within the framework of their individual funding caps and degree-awarding powers, the HEIs can relatively freely decide on the size of different programmes. The State, however, does impact specialisations by adding funding for certain programmes. This has been done for many years, and programmes continue to be expanded using this type of targeted funding. This is often used for programmes in professions experiencing labour shortages.

A large part of the expansion has been for medicine and health care programmes and various teacher training programmes. Between 2018 and 2023, a permanent expansion of programmes is ongoing that the Government has determined are essential for society, particularly various engineering programmes. When the expansion is fully

implemented, it is estimated that it will total SEK 730 million in increased HEI allocations for first- and second-cycle education.

In 2020 and 2021, the pandemic led the Government to propose additional special funding to expand education at HEIs. Most expansions are in the form of temporary funding increases to meet expected demand for higher education, but the Government is also budgeting for permanent expansions. Funding was increased by SEK 1.8 billion in 2021. The largest increases are earmarked for qualifying courses and higher education access programmes, second-cycle programmes and lifelong learning programmes. When the temporary expansion ends, the HEIs' allocations will gradually be reduced from 2022 and over a few years.

Increased revenues from tuition fees in spite of the pandemic

In 2011, incoming students at Swedish HEIs, who come from countries outside of the EU/EEA and Switzerland and don't take part in exchange programmes, became required to pay tuition fees. A continually growing part of HEI revenues for first- and second-cycle education comes from tuition fees from paying incoming students.

In 2020, HEI tuition fees totalled SEK 960 million, which is an increase of SEK 20 million in fixed prices compared with the previous year. Even with the pandemic, the trend of increased revenues from paying students continues, but the rate of increase was lower than previous years.

For more information about tuition fees and paying students, see the chapter on international student mobility.

Reduced revenues from contract education

Alongside their first- and second-cycle education, the HEIs also provide contract education within the public and private sectors. This type of education is paid for

through fees that are to cover the full costs for the HEIs. In 2020, total HEI revenues from contract education were SEK 1.7 billion, which is a decrease by SEK 200 million from the previous year.

The majority of assignments comes from government agencies. Several large programmes – particularly police training and officer training programmes, but also the school leader programme – are organised and funded by the responsible government agency contracting with HEIs. These revenues fell during the year. In particular, revenues to HEIs from the Swedish National Agency for Education were lower than the previous year while revenues from the Swedish Police Service increased because of an expansion of the police training programme.

In the past year, HEI revenues for contract education from companies fell.

Funding for research and third-cycle education

Total HEI funding for research and third-cycle education was SEK 45.4 billion in 2020. Most research funding comes from the State. Direct government funding was SEK 20.3 billion, of which most (SEK 18.2 billion) was part of the HEIs' core funding.

HEIs are mostly free to use this core funding for research and third-cycle education in various subjects. The rest of the direct government funding consists primarily of state reimbursements for clinical research to the seven HEIs providing medical training.

In addition to direct government funding, the State also allocates significant external funding to HEIs (SEK 11.7 billion), which is channelled through government research funding bodies and other government agencies that fund research (Table 15). State research funding totals SEK 32 billion. That is equivalent to 70 per cent of the HEIs' total revenues for research and third-cycle education.

Table 15. HEI revenues for research and third-cycle education, 2019 and 2020, by funding type, SEK million (2020 prices).

	2019	2020	Change
State	31,509	31,951	442
Direct government funding	19,600	20,289	689
External state funding	11,909	11,662	-247
Private in Sweden	6,987	6,986	-2
Non-profit organisations	5,609	5,740	130
Companies	1,378	1,246	-132
EU and other foreign	3,384	3,325	-60
Other public	2,934	2,710	-225
Public research foundations	1,544	1,359	-185
Municipalities and regions	1,390	1,350	-40
Miscellaneous	354	291	-63
Financial revenue	164	127	-37
Total	45,334	45,389	56

HEIs also receive other public funding, such as from municipalities and regions and from public research foundations. This means that 76 per cent of HEI research funding in 2020 came from different national public sources.

Private research funding primarily comes from various foundations and non-profit organisations, while corporate research funding is less extensive. A majority of foreign research funding comes from the EU.

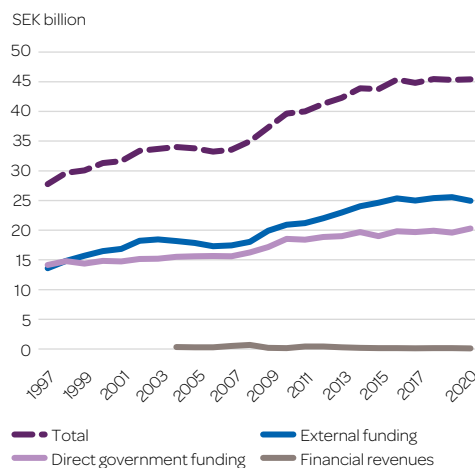
The proportion of direct government funding increased significantly

Of total revenues for research and third-cycle education, SEK 20.3 billion was direct government funding. External funding totalled SEK 25 billion. Financial revenues were SEK 100 million. In total, revenues for HEI research and third-cycle education were marginally higher in 2020 than the previous year.

Direct government funding, though, increased significantly. The increase was the largest since 2016 and resulted in direct government funding exceeding SEK 20 billion for the first time. Because external

funding simultaneously fell during the year, a higher proportion of HEI research was funded through direct government funding compared with previous years (Figure 42). Direct government funding made up 45 per cent of total research funding in 2020 compared with 43 per cent in the previous year.

Figure 42. HEI funding for third-cycle research and education, divided by direct government funding, external funding and financial revenues, 1997–2020, SEK billion in 2020 prices.



The Government continues investing more in research and third-cycle education

Core funding for research and third-cycle education was raised in 2020 by just over SEK 500 million, in accordance with the proposal in the previous research policy bill. The bill included proposals for raising direct government funding for research by SEK 1.3 billion for the 2017–2020 period.

In 2020, the Government presented a new research and innovation bill, which the Riksdag passed. This increased HEI funding for research and third-cycle education by SEK 900 million during the 2021–2024 period, of which SEK 720 million was allocated immediately in 2021. In 2021, HEIs were also allocated a temporary increase of SEK 500 million in direct government funding for research.

Reduced revenues from research grants

Research grants are about 85 per cent of external funding. These grants are normally applied for in competition between researchers and research teams at different HEIs. The funds come from many public and private organisations. HEI revenues from

grants for research and third-cycle education totalled just under SEK 21.3 billion in 2020, which was a decrease of SEK 500 million compared with 2019. The three largest sources of funding were the Swedish Research Council (government research funding body), the Wallenberg Foundations (non-profit foundations) and the EU framework programmes.

Revenues for contract research increased

In addition to research grants, HEIs also have revenues for contract research and other fees. The total revenues in 2020 for contract research were SEK 1.7 billion. This is an increase of SEK 80 million compared with the previous year. In addition to contract research for external stakeholders, this can also include development work and studies. A majority of contract research is done for private companies and government agencies.

THE EFFECTS OF THE PANDEMIC ON PRIVATE RESEARCH FUNDING

From early 2020, the coronavirus pandemic caused the world's stock markets to fall dramatically. Since many foundations that fund research with grants are dependent on returns from investments, there were fears that revenues from these grants would decrease. The Swedish Higher Education Authority (UKÄ) has examined this more closely as part of its follow-up of the pandemic's effects.

The study shows that the pandemic has, for the most part, not impacted the foundations' ability to fund new projects. No research has been forced to be cancelled because of retracted funding. The reductions in share dividends from Swedish

companies in 2020 have not resulted in an equivalent decrease in research funding from foundations.

Two important exceptions were identified in the study. The Wallenberg Foundations and the Kempe Foundations report that they have reduced their funding to new projects by SEK 700 million. This is a significant reduction that reduces funding opportunities for researchers and research groups at the universities that are the primary recipients of these foundations' programmes and grant calls.

UKÄ estimates that the effects of the pandemic to this point will be limited to a temporary reduction in research funding.

RESEARCH AT HIGHER EDUCATION INSTITUTIONS

Sweden is among the leading countries in investing in Research and Development (R&D) as measured as a percentage of GDP. In 2019, Sweden invested 3.4 per cent of GDP on R&D, which was higher than our Nordic neighbours Norway, Finland and Denmark. Sweden is one of the few EU countries that fulfills EU’s goal for investments in R&D.

Research funding

In 2019, higher education institution (HEI) funding for research and third-cycle education totalled SEK 45 billion. Funding varied significantly between fields of research (Table 16). Medicine and the health sciences had the most funding for research and third-cycle education at SEK 14.7 billion.

The percentage of external funding was highest in engineering and technology (63 per cent) and lowest in the humanities and the arts (36 per cent). More information about funding from external sources is available on our website www.uka.se/annualstatistics.

Researcher work time

Researcher work time can be measured in full-time equivalents (FTEs). An FTE is a measure equal to one year of full-time

employment regardless of how many people have contributed.

The amount of work time used by researchers for R&D varies among fields of research and among different HEIs. Specialised universities had the highest percentage of FTEs used for R&D.

Most R&D full-time equivalents in the natural sciences

The natural sciences and medicine and the health sciences had the most R&D FTEs in 2019 (Table 17). The division of FTEs among fields of research does not completely correspond with how funding was distributed. This is because research is more capital and resource intensive in some fields. A significant percentage of R&D FTEs in medicine and the health sciences are also found externally to HEIs, primarily at university hospitals.

Most research funding goes to the broad-based established universities and

Table 16. HEI direct government funding and external funding for research and third-cycle education in 2019, per field of research, SEK billion.

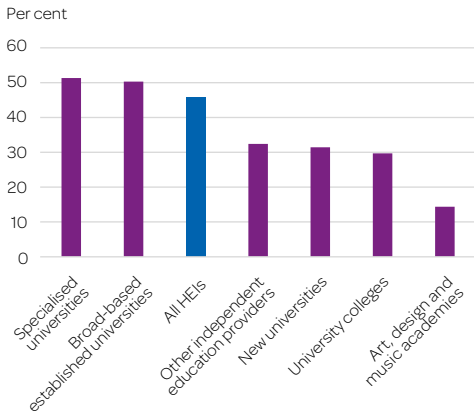
Field of research	Total funding	Direct government funding	External funding	Other external funding (%)
Total	44.82	19.38	25.28	56
Natural sciences	11.13	4.63	6.47	58
Engineering and technology	7.35	2.70	4.63	63
Medicine and health sciences	14.73	5.93	8.71	59
Agricultural and veterinary sciences	2.58	1.15	1.42	55
Social sciences	6.20	3.16	3.02	49
Humanities and the arts	2.84	1.81	1.03	36

Table 17. Number of R&D FTEs, percentage of all R&D FTEs and percentage of total funding for research and third-cycle education, per field of research, in 2019.

	R&D Number	Percentage of total R&D FTEs	Percentage of research funding
All fields of research	21,000	100%	100%
Natural sciences	5,400	26%	25%
Engineering and technology	3,300	16%	16%
Medicine and health sciences	5,200	25%	33%
Agricultural and veterinary sciences	600	3%	6%
Social sciences	3,500	17%	14%
Humanities and the arts	1,400	7%	6%
No field of research	1,600	8%	-

specialised universities. Researchers and teachers at these HEIs also spend the most amount of work time on R&D – about half compared with around 30 per cent at other HEIs. Art academies spend the lowest percentage of work time on R&D (Figure 43).

Figure 43. Percentage of work time spent on R&D 2019, per HEI category.



Research publications

In this section, we use data from the Swepub publication database, which is a national service with information on scholarly production, particularly scientific publications. The information is based on data deliveries from the HEIs, and scholarly

production is classified based on such criteria as publication type, HEI and field of research. Compared with several other publication databases, Swepub has good coverage of all subject areas and includes publications that are not peer-reviewed and doctoral and licentiate theses (www.swepub.kb.se).

Most articles from medicine and the health sciences

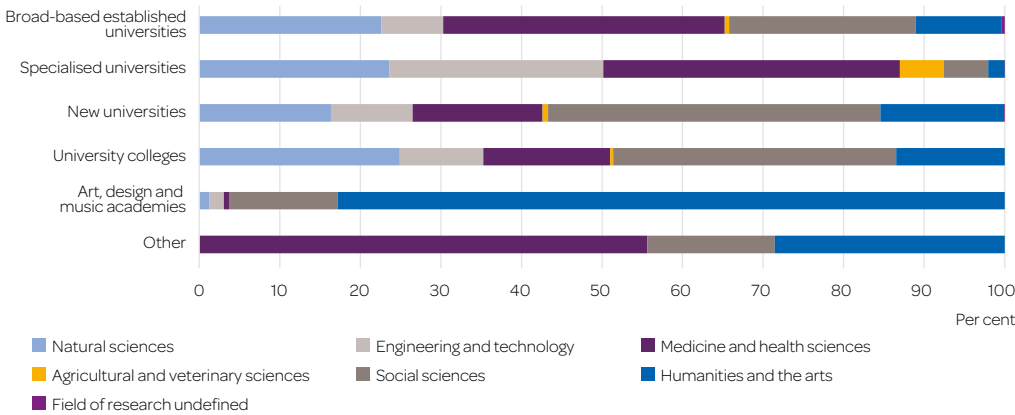
Publication patterns vary among fields of research. Articles in scholarly journals are the most common publication type among researchers at Swedish HEIs. In 2019, the majority of articles were published in medicine and the health sciences (Table 18). Overall, the scholarly production pattern matches funding and FTEs relatively well when comparing different fields of research.

The distribution of research publications per HEI category varies (Figure 44). At new universities and university colleges, publications in the social sciences and the humanities and the arts make up about half of their total. The broad-based established universities and specialised universities have a higher percentage of publications in the natural sciences and medicine and the health sciences. Publications in engineering and technology largely come from the specialised universities.

Table 18. Publications 2019, per publication type and field of research.

Field of research	Academic theses	Articles in scholarly journals	Books in Swedish	Books in other languages	Other publications	Unknown	Total	Percentage of all research publications
All fields of research	3,179	36,740	637	663	24,388	77	65,684	100%
Natural sciences	822	10,407	18	42	3,382	20	1,4691	22%
Engineering and technology	755	4,751	23	35	4,009	9	9,582	15%
Medicine and health sciences	902	14,541	41	19	3,135	6	18,644	28%
Agricultural and veterinary sciences	47	819	4	0	473	0	1,343	2%
Social sciences	496	4,812	333	325	8,682	7	14,655	22%
Humanities and the arts	150	1,371	216	241	4,623	35	6,636	10%
Field of research not available	7	39	2	1	84	0	133	0%

Figure 44. Research publications 2019, percentage per field of research in different HEI categories.



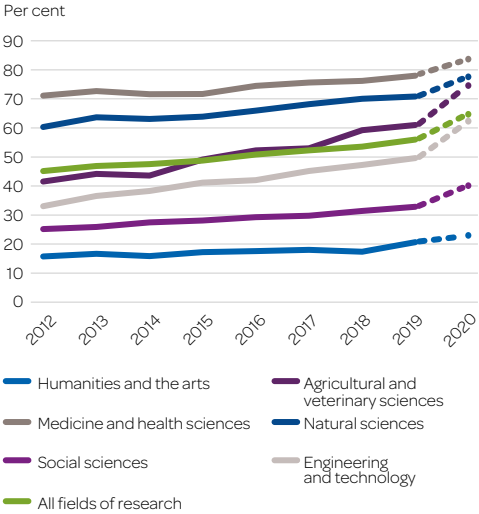
The number of articles in scholarly journals is increasing

A clear trend over the most recent decade is an increasing percentage of research results being communicated through articles in scholarly journals (Figure 45). In 2019, articles in scholarly journals – original articles and research overviews – made up 56 per cent of all research publications listed in Swepub. The percentage was even higher in 2020, but the numbers are incomplete because of delays in reporting.

The number of published books – monographs and edited volumes – has

fallen. Writing books is most common in the humanities and the arts and the social sciences, but the number of published books in these fields has fallen in recent years. The largest decrease was in the number of books written in Swedish.

Figure 45 . Percentage of articles in scholarly journals of all research publications 2012–2020, per field of research.*



* Data for 2020 is preliminary because of delays in reporting of research publications.

THE HIGHER EDUCATION SECTOR CONDUCTS A LARGE PERCENTAGE OF RESEARCH IN SWEDEN

In Sweden, like in most other OECD countries, the private sector conducts most R&D. But the higher education sector in Sweden and the other Nordic countries conducts a significant percentage. In Sweden, the higher education sector accounts for 24 per cent of R&D (Figure 46).

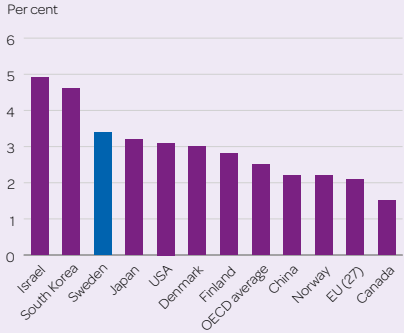
Figure 46. Percentage of R&D conducted by higher education in a selection of countries in 2019, per cent. Source: OECD.



SWEDEN INVESTS SIGNIFICANTLY IN R&D

The EU’s goal is for 3 per cent of member state GDP to be invested in R&D. Sweden is one of the few EU countries that fulfils this goal. In 2019, Sweden spent 3.4 per cent of GDP on R&D, a bit more than in 2018. This makes Sweden one of the leading investors in R&D as measured as a percentage of GDP. Sweden, however, is a bit behind the two countries that, according to the OECD, invest the most: Israel and South Korea. Sweden does, however, invest more in R&D as a percentage of GDP than the OECD average (Figure 47).

Figure 47. R&D expenses as percentage of GDP in a selection of countries in 2019, per cent. Source: OECD.



KEY FIGURES FOR HIGHER EDUCATION AND RESEARCH

**Annual Overview
Online**

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SWEDISH HIGHER EDUCATION

INSTITUTIONS (HEIs) vary in both size and specialisation. The tables on the following page show a selection of quantitative data that describes in various ways the activities of the universities and university colleges. Data from the smallest independent education providers have not been included in the tables in this report but are included in the total amounts and are available in Excel files on the website.

Additional tables, including educational profiles for each HEI, are available on the website.

First- and second-cycle education

Number of new entrants to higher education. The data per HEI indicates the number of individuals who have begun studies at the first- or second-cycle level at the relevant HEI in academic year 2019/20 and who have not previously studied at another Swedish HEI.

Number of enrolled students. The data per HEI indicates the number of individuals who were enrolled for first- or second-cycle studies at the relevant HEI in academic year 2019/20. Students can be enrolled at more than one HEI in the same year. In the total national number is the net number of individuals, i.e. each individual is only counted once.

Number of graduates. Total number of first- or second-cycle graduates in academic year 2019/20, per HEI.

Third-cycle education

Number of new entrants. Number of third-cycle new entrants in 2020, per HEI.

Number of doctoral students. Total number of doctoral students in the 2020 autumn semester, per HEI.

Doctoral degrees. Number of awarded doctoral degrees in 2020, per HEI.

Teaching and research staff

Teaching and research staff. The number of teaching and research staff (in FTEs) 2020, per HEI. The figures include professors, senior lecturers, lecturers, career development positions, and other research and teaching staff.

Number of professors. Number of employed professors (in FTEs) 2020, per HEI.

Funding

Total funding. Total funding (SEK millions) 2020, per HEI.

Proportion of total funding for research and third-cycle education. Proportion of total funding in 2020 for research and third-cycle education, per HEI.

Funding for research and third-cycle education. Total funding for research and third-cycle education (SEK millions) 2020, per HEI.

Proportion direct government funding. Proportion of direct government funding of the HEI's total funding for research and third-cycle education 2020 (excluding financial revenues).

FTEs stands for full-time equivalents.

APE stands for annual performance equivalent.

ECTS stands for European Credit Transfer and Accumulation System.

R&D stands for research and development.

First- and second-cycle education

Table 19. Number of new entrants, enrolled students and graduates, and the proportion of women and men, at first- or second-cycle education, academic year 2019/20, per HEI.

	Number of new entrants	Proportion of women and men (%)	Number of enrolled students	Proportion of women and men (%)	Number of graduates	Proportion of women and men (%)
Universities						
Uppsala University	8,280	60/40	44,742	60/40	5,714	64/36
Lund University	8,358	58/42	37,261	57/43	6,452	59/41
University of Gothenburg	7,678	65/35	44,770	65/35	6,423	70/30
Stockholm University	9,162	63/37	51,148	62/38	6,617	69/31
Umeå University	4,454	60/40	28,627	63/37	3,945	64/36
Linköping University	5,573	54/46	27,582	55/45	4,232	60/40
Karolinska Institutet	1,431	74/26	9,499	75/25	2,274	79/21
KTH Royal Institute of Technology	4,048	33/67	15,753	34/66	3,041	36/64
Chalmers University of Technology (independent)	2,672	31/69	10,892	32/68	2,171	32/68
Luleå University of Technology	2,111	47/53	13,068	52/48	1,863	58/42
Stockholm School of Economics (independent)	668	44/56	1,938	44/56	585	48/52
Swedish University of Agricultural Sciences	1,110	62/38	5,820	68/32	924	71/29
Karlstad University	2,590	60/40	14,926	63/37	1,869	69/31
Linnaeus University	5,675	59/41	35,580	64/36	3,313	68/32
Örebro University	2,668	58/42	13,237	61/39	2,354	66/34
Mid Sweden University	2,279	66/34	17,921	69/31	1,542	70/30
Malmö University	3,502	64/36	18,056	69/31	2,736	72/28
University colleges						
Blekinge Institute of Technology	1,063	35/65	4,766	38/62	612	47/53
Swedish Defence University	206	32/68	933	37/63	182	33/67
Swedish School of Sport and Health Sciences	166	37/63	1,172	43/57	183	51/49
University of Borås	1,951	69/31	12,424	74/26	1,500	77/23
Dalarna University	2,152	56/44	14,092	62/38	1,083	70/30
University of Gävle	1,836	59/41	11,327	65/35	1,484	73/27
Halmstad University	2,308	56/44	10,151	63/37	1,110	61/39
Kristianstad University	1,594	68/32	11,628	71/29	1,495	78/22
University of Skövde	1,493	52/48	8,133	59/41	841	63/37
University West	1,673	59/41	9,942	67/33	1,001	72/28
Mälardalen University	2,433	61/39	15,347	65/35	1,743	75/25
Jönköping University (independent)	2,712	57/43	10,832	64/36	2,160	66/34
Södertörn University	1,985	65/35	10,141	67/33	1,296	74/26
Art, design and music academies						
Beckmans College of Design (independent)	18	56/44	124	69/31	42	60/40
University of Art, Craft and Design	137	75/25	876	76/24	177	79/21
Royal Institute of Art	42	67/33	213	65/35	10	70/30
Royal College of Music in Stockholm	308	49/51	1,032	49/51	187	42/58
Stockholm University of the Arts	194	74/26	866	75/25	115	77/23

First- and second-cycle education

Table 19. Continued.

	Number of new entrants	Proportion of women and men (%)	Number of enrolled students	Proportion of women and men (%)	Number of graduates	Proportion of women and men (%)
Other independent education providers	669		5,256		1,013	
Örebro School of Theology	63	48/52	367	52/48	22	36/64
University College Stockholm (EHS)	79	47/53	671	62/38	39	77/23
Erica Foundation	1	100/0	54	81/19	10	90/10
Ersta Sköndal Bräcke University College	176	86/14	1 363	86/14	341	88/12
Evidens AB			22	77/23		
Gammelkroppa School of Forestry	17	18/82	21	24/76		
Johannelund School of Theology	19	47/53	192	53/47	26	42/58
Newman Institute	16	50/50	214	43/57	5	20/80
Swedish Red Cross University College	127	81/19	818	84/16	251	82/18
Scandinavia's Academy for Psychotherapy Development	2	100/0	41	78/22		
Sophiahemmet University College	158	87/13	1 245	88/12	295	90/10
University College of Music Education in Stockholm			161	70/30	8	38/63
Swedish Institute for CBT & Schema Therapy	11	27/73	87	86/14	16	88/13
Total*	92,015	58/42	428,770	61/39	71,925	65/35

* In the total, a student is only reported once.

Third-cycle education

Table 20. Number of new entrants in third-cycle education 2020, total number of doctoral students, number of doctoral degrees, and the proportion of women and men, autumn 2020, per HEI.

	Number of new entrants	Proportion women/ men (%)	Total number of doctoral students	Proportion women/ men (%)	Number of doctoral degrees	Proportion women/ men (%)
Universities						
Uppsala University	326	49/51	1,971	49/51	295	45/55
Lund University	460	51/49	2,464	50/50	365	47/53
University of Gothenburg	302	61/39	1,473	59/41	253	56/44
Stockholm University	202	50/50	1,245	52/48	220	50/50
Umeå University	180	57/43	796	53/47	118	46/54
Linköping University	178	48/52	1,055	49/51	150	52/48
Karolinska Institutet	360	59/41	2,080	60/40	334	51/49
KTH Royal Institute of Technology	265	31/69	1,624	33/67	230	30/70
Chalmers University of Technology (independent)	202	34/66	1,076	32/68	189	33/67
Luleå University of Technology	87	44/56	500	39/61	67	42/58
Stockholm School of Economics (independent)	22	32/68	135	45/55	15	60/40
Swedish University of Agricultural Sciences	94	55/45	506	58/42	66	44/56
Karlstad University	51	59/41	211	53/47	32	31/69
Linnaeus University	45	64/36	246	62/38	27	56/44
Örebro University	85	58/42	441	57/43	48	58/42
Mid Sweden University	23	57/43	141	52/48	26	50/50
Malmö University	39	54/46	229	60/40	23	48/52
University colleges						
Blekinge Institute of Technology	14	21/79	98	33/67	13	38/62
Swedish Defence University	5	0/100	15	27/73		
Swedish School of Sport and Health Sciences	4	50/50	22	41/59	4	100/0
University of Borås	7	100/0	80	65/35	18	72/28
Dalarna University	8	75/25	53	62/38	3	100/0
University of Gävle	22	50/50	54	48/52	4	25/75
Halmstad University	12	58/42	60	57/43	6	83/17
Kristianstad University	6	100/0	7	100/0		
University of Skövde	7	29/71	41	22/78	5	20/80
University West	20	55/45	63	54/46	6	50/50
Mälardalen University	28	54/46	191	45/55	18	33/67
Jönköping University (independent)	16	75/25	137	63/37	19	53/47
Södertörn University	15	60/40	70	54/46	9	56/44
Art, design and music academies						
Beckmans College of Design (independent)						
University of Art, Craft and Design						
Royal Institute of Art						
Royal College of Music in Stockholm						
Stockholm University of the Arts	1	100/0	20	80/20	3	100/0
Other independent education providers*	11	82/18	54	67/33	8	75/25
Total	3,096	51/49	17,141	50/50	2,574	47/53

*The complete table is available on the website

Research and teaching staff (FTEs)

Table 21. Total number of research and teaching staff (FTEs), number of professors (FTEs), and the proportion of women and men, in 2020, per HEI.

	Number of research and teaching staff		Number of professors	
	FTEs	Proportion women/men (%)	FTEs	Proportion women/men (%)
Universities				
Uppsala University	3,341	45/55	628	32/68
Lund University	3,516	41/59	657	28/72
University of Gothenburg	2,927	52/48	544	36/64
Stockholm University	2,323	47/53	512	33/67
Umeå University	1,902	48/52	305	31/69
Linköping University	1,671	41/59	316	24/76
Karolinska Institutet	2,181	54/46	339	34/66
KTH Royal Institute of Technology	1,722	29/71	329	18/82
Chalmers University of Technology (independent)	1,322	28/72	216	17/83
Luleå University of Technology	604	38/62	143	26/74
Stockholm School of Economics (independent)	113	29/71	33	12/88
Swedish University of Agricultural Sciences	1,809	51/49	195	33/67
Karlstad University	650	49/51	84	34/66
Linnaeus University	999	48/52	132	28/72
Örebro University	700	50/50	104	35/65
Mid Sweden University	532	47/53	71	32/68
Malmö University	973	58/42	89	35/65
University colleges				
Blekinge Institute of Technology	202	36/64	33	18/82
Swedish Defence University	245	27/73	14	21/79
Swedish School of Sport and Health Sciences	79	47/53	7	14/86
University of Borås	372	57/43	29	34/66
Dalarna University	433	60/40	37	41/59
University of Gävle	430	53/47	42	26/74
Halmstad University	288	45/55	33	29/71
Kristianstad University	326	64/36	30	40/60
University of Skövde	289	41/59	29	33/67
University West	342	56/44	39	37/63
Mälardalen University	528	51/49	53	42/58
Jönköping University (independent)	493	54/46	51	39/61
Södertörn University	438	53/47	70	39/61
Art, design and music academies				
Beckmans College of Design (independent)	9	47/53		
University of Art, Craft and Design	81	63/37	14	64/36
Royal Institute of Art	46	54/46	11	54/46
Royal College of Music in Stockholm	81	32/68	19	30/70
Stockholm University of the Arts	95	60/40	18	53/47
Other independent education providers*	274	67/33	25	60/40
Total	32,335	46/54	5,252	31/69

*The complete table is available on the website

Funding

Table 22. Total funding (SEK millions) and the proportion of total funding for research and third-cycle education, in 2020, per HEI. The table also shows the funding for research and third-cycle education (SEK millions) and the proportion of direct government funding for research, in 2020, per HEI.

	Total funding 2020 SEK millions	Proportion of total funding for research and third-cycle education (%)	Funding for research and third-cycle education 2020 SEK millions	Proportion direct government funding for research (%)
Universities				
Uppsala University	7,398	70	5,146	46
Lund University	9,104	70	6,330	42
University of Gothenburg	6,994	60	4,193	50
Stockholm University	5,471	59	3,252	52
Umeå University	4,645	57	2,631	52
Linköping University	4,329	58	2,508	43
Karolinska Institutet	7,322	84	6,123	35
KTH Royal Institute of Technology	5,074	69	3,484	38
Chalmers University of Technology (independent)	3,999	72	2,864	33
Luleå University of Technology	1,846	57	1,044	40
Stockholm School of Economics (independent)	500	38	188	7
Swedish University of Agricultural Sciences	3,786	70	2,658	47
Karlstad University	1,215	34	408	63
Linnaeus University	2,075	27	568	63
Örebro University	1,515	37	565	63
Mid Sweden University	1,069	38	407	64
Malmö University	1,760	24	430	59
University colleges				
Blekinge Institute of Technology	491	34	167	62
Swedish Defence University	587	23	137	54
Swedish School of Sport and Health Sciences	179	33	60	53
University of Borås	834	22	187	47
Dalarna University	702	20	142	62
University of Gävle	738	25	181	61
Halmstad University	642	26	169	47
Kristianstad University	559	16	90	77
University of Skövde	509	27	140	41
University West	640	27	173	46
Mälardalen University	1,108	30	337	39
Jönköping University (independent)	1,082	27	294	46
Södertörn University	934	34	315	29
Art, design and music academies				
Beckmans College of Design (independent)	34			
University of Art, Craft and Design	203	11	22	91
Royal Institute of Art	89	17	16	75
Royal College of Music in Stockholm	202	12	25	82
Stockholm University of the Arts	279	20	55	96
Other independent education providers*	541	68	80	115
Total	78,456	58	45,389	44

*The complete table is available on the website

The Swedish Higher Education Authority (UKÄ) is a government agency that deals with questions concerning higher education. UKÄ is responsible for the official statistics on higher education and also works with the quality assurance of higher education courses and programmes, monitoring and evaluating efficiency, legal supervision and leadership development in higher education.

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