



CHAPTER 3

Third-Cycle Education in Sweden

Third-cycle education represents the most advanced level of higher education in Sweden and plays a key role in developing new knowledge and qualified researchers. This chapter outlines transition from first- and second-cycle education, the composition and funding of third-cycle students, and the large and stable share of international entrants. It also addresses differences in access by background and field of research and development, and presents data on degrees and completion patterns.

Transition to third-cycle education in Sweden

Of those who completed a qualification at first- and second-cycle between the 2015/16 and 2018/19 academic years, a total of 3.2 per cent had begun third-cycle education by the 2023/24 academic year.

A higher share of graduates with general qualifications continue to third-cycle education compared with those with professional qualifications or qualifications in the fine, applied, and performing arts. Differences are also evident between fields of study for graduates with general qualifications, with the highest transition rates in the natural sciences, mathematics, and information and communication technology (ICT). The lowest rates are found in the social sciences, law and business administration. More men than women go on to third-cycle education, partly because men more often study first- and second-cycle programmes that lead to further studies.

Admission to third-cycle education in Sweden

Admission to third-cycle education is regulated by the Higher Education Ordinance (1993:100). To be admitted, applicants must meet both the general entry requirements and any specific entry requirements determined by the higher education institution.

The general entry requirements may be fulfilled in one of the following ways:

- The applicant has been awarded a second-cycle degree
- The applicant has completed course requirements of at least 240 credits, including at least 60 credits from the second cycle
- The applicant has acquired essentially equivalent knowledge in some other way, in Sweden or abroad.

Specific entry requirements may also apply and may relate to knowledge from higher education or equivalent education, relevant professional experience, required language skills, or other conditions necessary for the doctoral programme.

Meeting the entry requirements does not guarantee admission.

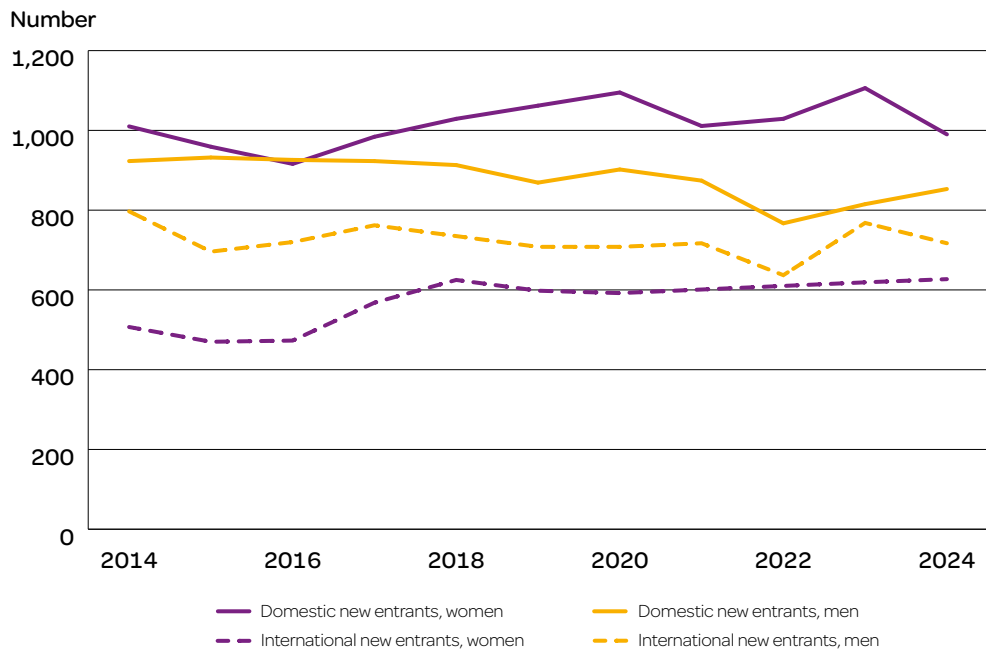
New entrants to third-cycle education in Sweden

In 2024, a total of 3,190 new entrants began third-cycle education. The number of entrants varies considerably between fields of research and development, largely reflecting the scale of research activity in each area. The field accounting for the largest scope of research – defined here by the volume of research funding and publication output – medical and health sciences, also accounted for the largest share of new entrants, with 1,110 individuals, or 35 per cent. By contrast, only 65 individuals, or 2 per cent of all new entrants, enrolled in agricultural sciences and veterinary medicine, making it the smallest field.

Consistently large share of international new entrants

In 2024, 1,340 international third-cycle students began studies in Sweden, accounting for 42 per cent of all new entrants. This share has remained stable at around 40 to 42 per cent over the past decade (figure 3.1). Most came from Asia (41 per cent) and Europe (38 per cent).

Figure 3.1: Number of new entrants to third-cycle education, domestic and international, in total and by women and men, years 2014–2024



Domestic and international new entrants are partly concentrated in different fields of research and development. In 2024, the largest share of international new entrants was in the natural sciences and in engineering and technology, where they made up 61 per cent of new entrants. The lowest was in the medical and health sciences, at 24 per cent.

Varying gender balance within different groups of new entrants

Gender distribution among all new entrants is generally balanced. Exceptions include agricultural sciences and veterinary medicine, where women formed the majority, and engineering and technology, where men predominated.

Among domestic new entrants, women have outnumbered men nearly every year of the past decade; in 2024 the shares were 54 per cent women and 46 per cent men. Among international new entrants, however, men have consistently been in the majority, although the gap has narrowed over time, from 61 per cent men in 2014 to 53 per cent in 2024.

Differences in access to third-cycle education

In the 2023/24 academic year, almost two thirds of domestic new entrants to third-cycle education had parents with a high level of education – that is, at least three years of post-secondary education. A further 28 per cent had parents with a medium level of education – upper-secondary education of three years or post-secondary education of less than three years. The remaining 13 per cent had parents with a low level of education, defined as lower-secondary education or upper-secondary education of up to two years.

A slightly higher proportion of individuals with a Swedish background – that is, individuals born in Sweden to at least one Swedish-born parent – begin third-cycle education compared with those with a foreign background – individuals born abroad or born in Sweden to two foreign-born parents – but the differences are small.

Characteristics of students in Swedish third-cycle education

Third-cycle students in Sweden differ in their study pace, funding, and field of research and development. Their composition also reflects broader patterns in participation across the higher education system.

Women outnumber men in third-cycle education

In the 2024 autumn semester, 17,800 students were enrolled in third-cycle education at Swedish higher education institutions. Because of reporting delays, the actual number is likely to be somewhat higher.

Over the past twenty years, the gender distribution has been relatively balanced, with men and women each representing between 40 and 60 per cent. This marks a significant shift compared with 40 years ago, when women accounted for 29 per cent and men 71 per cent. Since 2021, women have outnumbered men.

The majority of third-cycle students are in full-time studies

In the 2024 autumn semester, 57 per cent of third-cycle students were enrolled in full-time studies. A greater share of men than women studied full-time, 60 per cent compared with 53 per cent. Some students combine their studies with other work – for example, students in medical and health sciences may continue working in their healthcare professions.

Sweden has one of the largest shares of STEM third-cycle students in the OECD

In 2022, STEM (science, technology, engineering, and mathematics) was the most common field of education among third-cycle students in the EU25 and OECD countries (table 3.1). Sweden's share was 41 per cent, mirroring the EU25 and OECD averages.

Sweden, together with Denmark, had comparatively high proportions of third-cycle students in health and welfare, both at 36 per cent. This was by far the largest share among the countries compared, while the averages were 17 per cent in the EU25 and 16 per cent in the OECD.

At the other end of the scale, Sweden had the lowest share of students in the arts and humanities, at 6 per cent, compared with averages of 13 per cent in the EU25 countries and 12 per cent in the OECD.

Table 3.1: Proportion of third-cycle students by field of education (ISCED-F) in a selection of OECD countries, year 2022

Country	STEM	Health and welfare	Arts and humanities	Social sciences, journalism, information, Business, administration and law	Education	Other
Australia	43	20	11	18	5	3
Canada	47	10	10	24	5	4
Denmark	40	36	9	11	0	4
Estonia	48	10	16	15	4	6
Finland	37	18	16	20	6	3
France	49	6	19	23	2	1
Germany	40	26	12	16	2	3
Ireland	43	17	14	19	6	3
Norway	39	29	8	18	5	2
South korea	40	13	15	19	7	7
Spain	34	19	15	22	5	4
Sweden	41	36	6	11	4	2
United Kingdom	42	15	14	22	5	1
EU25 - average	41	17	13	20	4	5
OECD - average	41	16	12	21	6	4

STEM: Science, technology, engineering, and mathematics

Source: OECD

Doctoral studies usually last four years but may be extended

While the Higher Education Ordinance defines the scope of third-cycle studies in terms of full-time equivalents across semesters, it does not set a formal limit on the total calendar time for completion. At public-sector higher education institutions, third-cycle students may normally undertake up to 20 per cent departmental duties (teaching and/or administration), which extends the study period proportionally. Independent higher education providers set their own rules on departmental duties.

In practice, most higher education institutions apply the principle that a doctoral degree corresponds to four years of effective full-time study (240 credits), and a licentiate degree to two years (120 credits). Part-time study is permitted, and the study period is extended proportionally. A student admitted at 50 per cent may therefore take up to eight calendar years to complete the equivalent of four years of full-time study. Additional extensions may be granted for parental leave or illness, but the total duration normally does not exceed about eight years.

Most third-cycle students are financed through doctoral studentships

In the 2024 autumn semester, the majority of third-cycle students were financed through salaried doctoral studentships. In total, 71 per cent of all third-cycle students were financed in this way (table 3.2).

Another 20 per cent combined third-cycle studies with employment outside the higher education sector. This group includes, for example, physicians and other healthcare professionals holding medical posts. In the medical and health sciences, as many as 46 per cent of students were financed through employment outside higher education.

Scholarships accounted for only 3 per cent of total financing, but were more common in the social sciences, where 8 per cent of students received this form of support.

For more details on the financing of third-cycle students, see Chapter 1, The Structure of Higher Education and Research in Sweden.

Table 3.2: Sources of funding for third-cycle students by field of research and development, autumn semester 2024 (per cent, full-time equivalents; – indicates zero)

	Total (%)	Natural sciences (%)	Engineering and technology (%)	Medical and health sciences (%)	Agricultural sciences and veterinary medicine (%)	Social sciences (%)	Arts and humanities (%)
Doctoral studentship	71	88	81	46	83	77	83
Medical post	12	–	–	38	0	0	–
Externally employed doctoral student	5	6	11	2	6	3	1
Other post outside a higher education institution	3	1	2	6	4	4	1
Scholarships	3	1	2	3	0	8	5
Other higher education post	3	3	2	3	5	4	2
Other sources of funding	2	1	2	2	1	3	9
Total	100	100	100	100	100	100	100

Degrees awarded in third-cycle education in Sweden

Sweden offers two types of degrees within third-cycle education, each with a different scope. The Degree of Doctor is the highest academic qualification and requires four years of full-time study. The Degree of Licentiate requires two years of full-time study.

Third-cycle degree-awarding powers vary between higher education institutions

A total of 18 Swedish higher education institutions are authorised to award general licentiate and doctoral degrees across a wide range of fields of research and development. Another 18 institutions have the right to award third-cycle degrees in one or more specific fields. Five institutions are authorised to award licentiate and doctoral degrees in the fine, applied, and performing arts.

For more information on degree-awarding powers, see Chapter 1, The Structure of Higher Education in Sweden.

In 2024, a total of 2,790 doctoral degrees were awarded. The gender distribution was exactly equal, with women and men each accounting for 50 per cent.

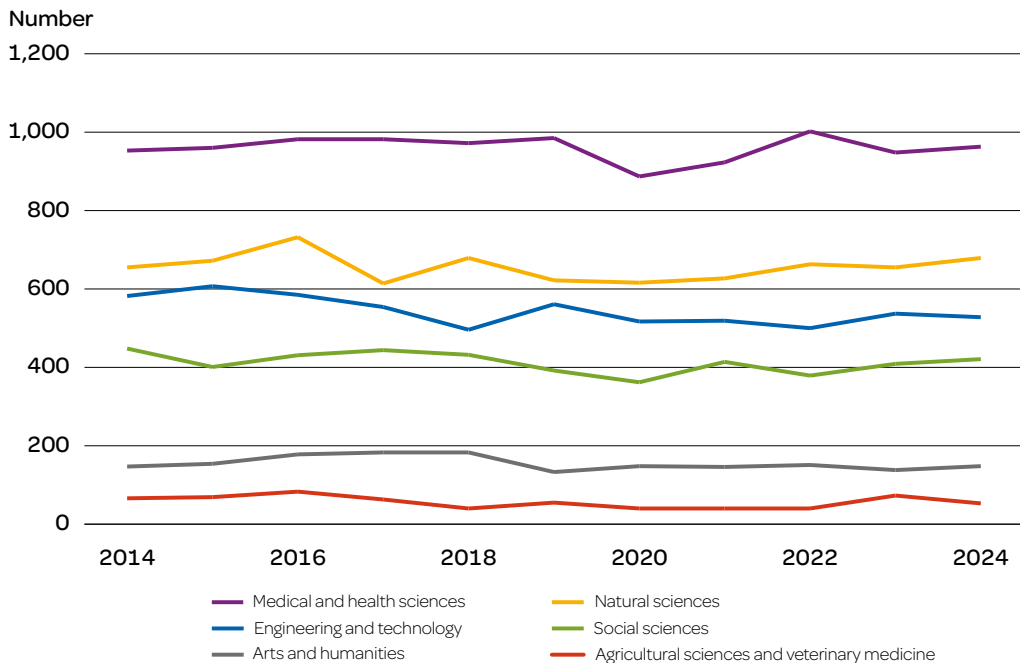
The number of licentiate degrees has declined sharply over the past decade, from 840 in 2014 to 410 in 2024. Men have outnumbered women among licentiate graduates every year, largely because these degrees are concentrated in engineering and technology and in the natural sciences, where men form the majority. In 2024, nearly all licentiate degrees were awarded in these two fields.

In 2024, 61 per cent of doctoral degrees were awarded to domestic students and 39 per cent to international students.

Most doctoral degrees awarded in the medical and health sciences

The largest number of doctoral degrees in 2024 were awarded in the medical and health sciences (figure 3.2). Many were also awarded in the natural sciences as well as in engineering and technology.

Figure 3.2: Number of doctoral degrees awarded by field of research and development, years 2014-2024



Most doctoral students graduate within eight years

While a doctoral degree formally corresponds to four years of full-time study, many students combine their research activity with up to 20 per cent teaching or administrative duties at their departments. This makes five years a more realistic timeframe for graduation. Among those who began third-cycle education in 2016, 47 per cent had completed their degree within five years, 64 per cent within six years, and 79 per cent within eight years (table 3.3).

Graduation rates also differ between fields of research and development. In the natural sciences, 60 per cent of students graduated within five years, while only 33 per cent in the arts and humanities did so.

Table 3.3: Proportion of third-cycle new entrants in year 2016 completing the intended degree within 5, 6 and 8 years, by field of research and development

Field of research	Percentage of graduates (%) within		
	5 years	6 years	8 years
Total	47	64	79
Natural sciences	60	76	85
Engineering and technology	48	67	77
Medical and health sciences	44	62	79
Agricultural sciences and veterinary medicine	54	70	89
Social sciences	34	51	72
Humanities and arts	33	52	72

Graduation rates have increased over time for both women and men. For example, among those who started their third-cycle education in 1990, only 22 per cent had completed a doctoral degree within five years. One contributing factor is the 1998 reform of third-cycle education, which introduced the requirement that students be admitted only if guaranteed full funding for the entire study period.