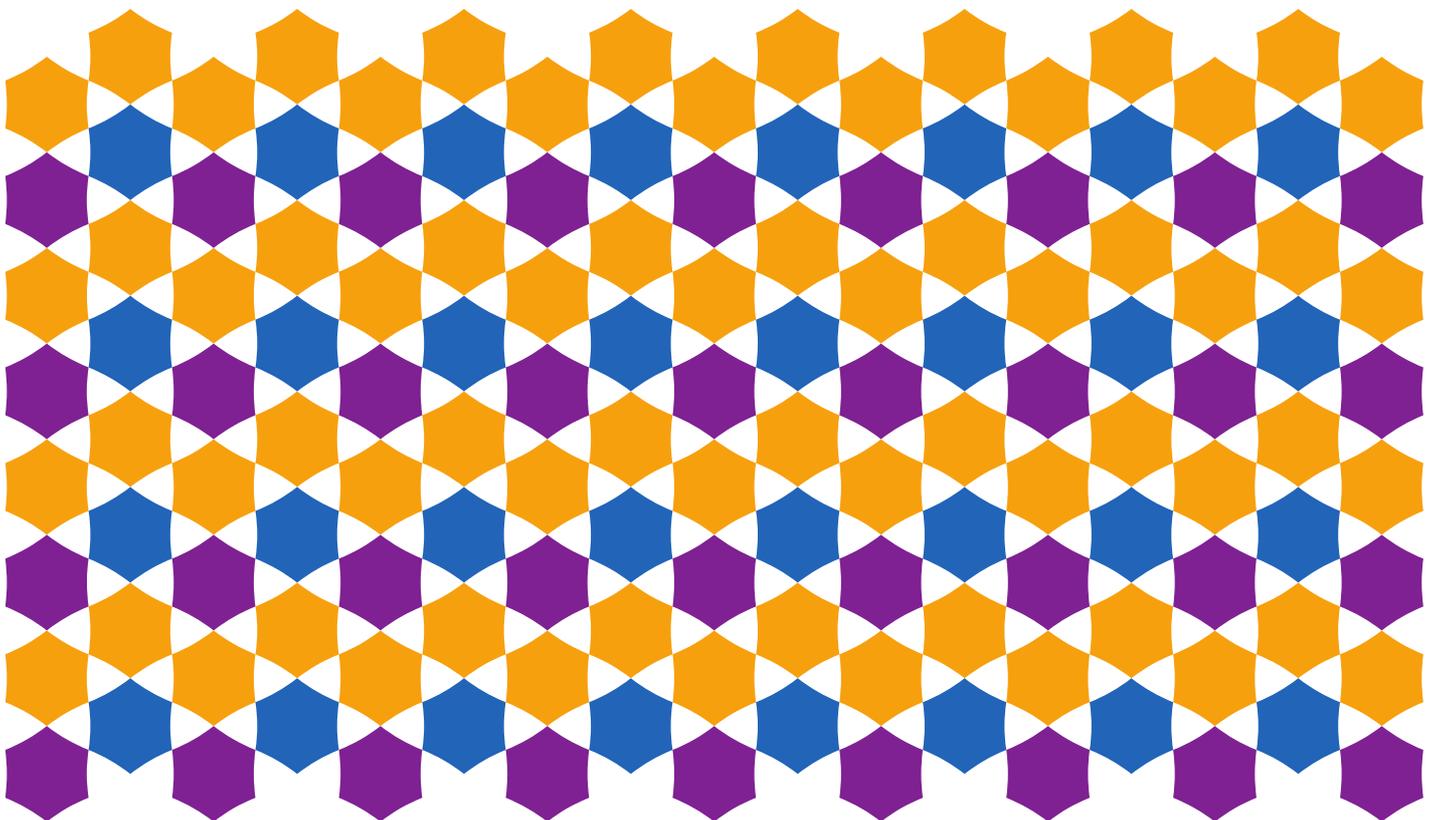


Women and Men in the Higher Education Sector

Summary of a Report



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Women and Men in the Higher Education Sector

It is important that both men and women are represented in higher education – among students and staff – and have the same opportunities to complete their studies, establish themselves on the labour market and pursue careers in research. What, however, is the state of gender equality in higher education and how has it evolved in the last ten years? The Swedish Higher Education Authority (UKÄ) aims to answer these questions in the report *Kvinnor och män i högskolan* (2016:16). This is an English language summary of that report.

The analyses in the report are based on various types of quantitative data. UKÄ is the government agency responsible for the official statistics on the higher education sector, and has, additionally, ordered data about higher education from Statistics Sweden (SCB) specifically for this report. The international statistics have been extracted from two reports from the OECD and the European Commission, respectively.

Introduction

When Uppsala University was founded in 1477 as the first university in Sweden, only men were eligible to attend. It would take until 1871 before a woman would study at a Swedish university.¹ Even though the number of women gradually increased, they continued for many years to comprise a minority of students. For a long time, pursuing an academic career was difficult for women, if not impossible – for example, all the way up to the early 1920s, the Constitution stipulated that women were ineligible to seek higher office within the state.²

Since then, great changes have occurred. A 2008 report from the National Agency for Higher Education on women and men in higher education concludes that there were more female than male undergraduate students.³ In addition, women completed their studies to a higher extent than men in programmes leading to a professional qualification. Gender inequality in higher education had thus become more of a disadvantage for men than for women. However, this is only partly true, because in some other areas, women were still at a disadvantage – for example, women were underrepresented among senior lecturers and professors. Furthermore, the obvious gender differences along a horizontal dimension where women and men largely enrolled in different study programmes, subjects and courses, can probably be considered disadvantageous for both genders.

The questions we ask in this report are the following: what is the state of gender equality in higher education today? What changes have occurred in gender equality over time, primarily in the last ten years, i.e. from the mid-2000s through the mid-2010s? Are the previously recorded gender differences still to be found, and, if so, to

¹ More information can be found on UKÄ's web page: <http://english.uka.se/facts-about-higher-education/the-history-of-swedish-higher-education/women-in-higher-education.html>

² H. Markusson Winkvist, *Som isolerade är: de lagerkransade kvinnorna och akademien under 1900-talets första hälft*, Umeå: Umeå universitet, 2003.

³ *Women and Men in Higher Education* (National Agency for Higher Education, report 2008:48 R). Note: in the previous structure of higher education qualifications, before 2007, there was a basic distinction between undergraduate studies (corresponding to first- and second-cycle education in the new structure), and postgraduate studies (corresponding to third-cycle education).

what extent? In the areas where gender equality was more or less prevalent, is this still the case? To answer these questions, we study four overarching themes – gender distribution based on a *vertical* and a *horizontal* dimension, respectively; *recruitment imbalance*; and *student completion*.

Gender distribution – a vertical dimension

The vertical dimension comprises gender distribution at different levels in higher education, as well as in different employment categories among research and teaching staff.

Broadly speaking, women outnumber men at the lower levels of education and employment positions in higher education, while men outnumber women higher up in the hierarchy. However, some changes towards greater gender equality in higher education have occurred in the last ten years. Above all, there are more women among research and teaching staff, which means that gender distribution is now even among senior lecturers in accordance with the gender equality criterion requiring at least 40 per cent of each gender. The gender distribution among professors has also improved, but is still highly unequal.

If we consider the three cycles of higher education, the number of women decreases at each level: in 2014/15, the gender distribution of women/men among higher education entrants was 61/39 at first-cycle level, 55/45 at second-cycle level, and 47/53 at third-cycle level.⁴ Thus, long study programmes that lead to qualifications at either the second- or third-cycle level have an even gender distribution. Since 2007/08, gender distribution has been even among higher education entrants in longer programmes that lead to second-cycle qualifications, although the share of women has increased somewhat from 53 to 55 per cent. Women's dominance in short- and medium-length first-cycle programmes has not changed in this period. Gender distribution at the third-cycle level has not changed, remaining within the equality range of 40–60 per cent. However, it is noteworthy that almost always, slightly more men enter third-cycle education than women.

In sum, development along the vertical dimension has been positive regarding gender equality, even though men are still underrepresented in higher education programmes that lead to first-cycle qualifications and women are underrepresented among professors.

Gender distribution – a horizontal dimension

To a large extent, women and men study different subjects; that is, gender distribution varies along a horizontal dimension. These gender differences exist at the first-, second- and third-cycle levels and, as a result, women and men also to some extent teach and conduct research in different subjects. Another consequence is that the differences in focus of women's and men's higher education contributes to gender segregation on the labour market overall.

From 2007/08 through 2014/15, the changes have been minimal when it comes to how male and female higher education entrants are distributed among eight different subject areas (a rough division of subjects). Gender distribution has become slightly less even in two subject areas, the humanities and theology and in the “other subjects” area, and has become slightly more even primarily in medicine and dentistry, as well as in programmes in fine, applied and performing arts. If we consider the programmes

⁴ At the third-cycle level, this applies to new entrants to third-cycle education (including international entrants) in 2014. The information on higher education entrants at the first- and second-cycle levels excludes incoming students.

leading to a professional qualification which have a large number of students enrolled, gender distribution has become somewhat more even in the male-dominated programmes for Degrees of Master and Bachelor of Science in Engineering. For example, the percentage of women beginning programmes leading to the degree of Master of Engineering has increased by 8 percentage points in 10 years. However, a levelling-out of this kind has not occurred in the female-dominated teacher, nursing and specialist nursing programmes (comparisons refer to the years 2004/05 and 2014/15 for programmes leading to a professional qualification). Only 8 per cent of students in the pre-school teacher programmes were men in the academic year of 2014/15.

In third-cycle education, gender distribution in the six respective fields of research has not changed much. This means that men still comprise the majority in the two fields of natural sciences and engineering and technology, while there are more women than men in medical and health sciences and in agricultural sciences.

Changes in gender equality have been more positive when it comes to research and teaching staff. In 2005, two out of six research fields had an even gender distribution, whereas in 2015, four out of six research fields had an even gender distribution. This pertains to staff working at higher education institutions (HEIs) in positions that normally require a Doctoral degree (professor, senior lecturer, career development positions, and individuals with Doctoral degrees in the category of other research and teaching staff). However, men still dominate in natural sciences and engineering and technology. Regarding individual employment categories, in one case, gender distribution has gone from even to women comprising a majority: senior lecturers in medical and health sciences.

This uneven gender distribution along a horizontal dimension in higher education also has consequences for the labour market outside of HEIs. Among individuals who had employment in 2012, out of 35 educational and professional groups of higher education graduates, 11 had a gender distribution within the equality range of 40–60 per cent. This gender segregation on the labour market is expected to remain and one forecast shows that gender distribution will probably only be even in 6 of the 35 educational groups in 2035.⁵ According to the forecast, gender differences are expected to increase for many university-educated professional groups through 2035, including legal practitioners, social scientists, dentists, architects and people with a qualification in the agricultural or horticultural sciences.

In sum, gender distribution in various subject areas has improved for research and teaching staff, while a corresponding development is not to be found either among third-cycle students or among people on the labour market with higher education qualifications. Positive change is limited at the first- and second-cycle levels, with the primary exception of a levelling-out in engineering programmes, where the percentage of women has increased.

Recruitment imbalance

We have followed up on the extent to which women and men advance from one level of education to another, gain employment in HEIs, and establish themselves on the labour market. By “recruitment imbalance”, we refer to gender differences in these transitions. The results here are mixed and depend on the transition in consideration.

An initial step is the transition from upper secondary school to higher education. Here, women have an advantage over men. Among individuals who completed upper secondary school in the 2011/12 academic year, 48 per cent of women and 37 per cent of men entered higher education within three years. Gender differences in this

⁵ More information about this prognosis is found in UKÄ report 2015:5.

transition were greater in the vocational programmes than in the higher education preparatory programmes. This general pattern has been prevalent the last ten years, and no improvements in gender equality have thus occurred.

Among the women and men who completed qualifications at the second-cycle level, however, it was more common for men to enter third-cycle studies. No change to this pattern has been registered for the period studied (second-cycle graduates between 2007/08 and 2011/12). This gender difference is also significantly related, however, to women and men completing qualifications in different second-cycle study programmes.

Also when it comes to academic careers, men have a head start relative to women. This is seen most clearly in the transition from Doctoral degree to employment as a professor no more than 12 years later. In all cohorts of third-cycle graduates (1995–2002), a greater percentage of men than women were employed as professors. The latest graduate cohort had the smallest gender difference, but the development will have to be examined for a few more years in order to conclude whether this is a trend toward a reduced gender difference. There are also worrying signs of increasing gender differences, to men's advantage, in the transition from Doctoral degrees to career-development positions (postdoctoral research fellow or associate senior lecturer) in the most recent years (third-cycle graduate cohorts 2007–9).

Among students who have continued to the labour market outside of HEIs, there was a difference between the genders one year after completing higher education of a mere one percentage point in 2013, to men's advantage. A comparison over time from 1996 onwards shows that gender differences in the establishment of male and female higher education graduates on the labour market between 1996 and 2013 have decreased.

In sum, the patterns of transitions have been relatively constant over time. This means that both now and in the past, women go on to higher education to a higher extent than men, while men are a step ahead when it comes to beginning doctoral studies and being employed as professors. However, as described above, the establishment of women and men on the labour market after finishing higher education has become more equal over time.

Student completion

Student completion in higher education refers to students' study performance and the tendency to complete studies. To summarise, student completion among women and men at the third-cycle level is relatively similar, while women have better student completion than men at the first- and second-cycle levels.

Student completion at the first- and second-cycle levels is higher for women than for men both in terms of graduation rates (the percentage that have completed a qualification after a specific period) and performance indicators (study results in the form of higher education credits). One exception from this pattern is that the graduation rate was the same for women and men in two-year masters programmes and slightly better for men than for women in one-year masters programmes. The clear differences that nevertheless exist between women's and men's student completion at the first- and second-cycle levels remain largely unchanged in recent years. However, some degree of levelling-out between the genders has taken place when it comes to performance indicators in the last ten years (between 2004/05 and 2012/13). At the same time, gender differences to women's advantage are greater in terms of performance indicators compared to graduation rates.

The similarities between women's and men's student completion at the third-cycle level apply to both graduation rate and length of studies for those who have

completed a Doctoral degree. This pattern has been largely stable during the period we have studied. The stable pattern of student completion in higher education in recent years means, in short, that gender equality has hardly improved at the first- and second-cycle levels and that the major gender differences, in favour of women, remain. The stability at the third-cycle level means that student completion has continued to be equal between the genders as the differences between women and men are minor.

How does Sweden hold up from an international perspective?

At this point, we can conclude that gender equality in Swedish HEIs has improved in some respects – but at the same time, several problems remain. How gender equal is higher education in Sweden from an international perspective, however?

The answer is that patterns of gender (in)equality in Swedish HEIs have major similarities with those in other countries. In most OECD countries, as in Sweden, it is more common for women to have post-secondary education than men. However, this pattern is even more pronounced in Sweden than in most other OECD countries. Sweden stands out in particular in that women dominate particularly among individuals with an education corresponding approximately to the bachelor level. Among individuals with a third-cycle degree, however, men outnumber women, albeit to a small degree. This holds true to about the same extent in Sweden as in OECD countries on average.

If we consider the percentage of women among post-secondary education graduates in various subject areas, Sweden has a higher percentage of women in almost all areas compared with the OECD average. This means that areas in which women have long outnumbered men, such as teacher education, are even more female-dominated in Sweden than in most other OECD countries, while male-dominated areas in Sweden, such as engineering programmes, have a higher percentage of women than OECD countries on average.

In Sweden, as in most EU countries, it is more common that men successfully pursue an academic career than that women do. Among professors, for example, men constitute a clear majority, and this applies to about the same extent in Sweden as in the EU on average. Over time, however, the percentage of women has increased among professors in both Sweden and most other EU countries.

One might think that the high percentage of women at the first-cycle level in Sweden compared to other countries should also be reflected higher in the academic hierarchy, but that is not entirely true. If we consider professors (where men comprise the majority in all EU member countries), the percentage of women in Sweden is on a par with the average: 24 per cent in 2013.⁶ However, we must be careful in drawing conclusions, because the comparison for first-cycle education is based on the member states of the OECD, while the professor level refers to the member states of the EU.

⁶ However, note that this average includes only 24 of the 28 member states in the EU. The reference year differs from 2013 in some states, but in no case by more than two years.

The Swedish Higher Education Authority (Universitetskanslersämbetet – UKÄ) is to contribute to strengthening Swedish higher education and Sweden as a knowledge society. We review the quality of higher education programmes; we analyse and follow-up trends within higher education and we monitor the rights of students.

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