



The Position of Women in Czech Science

2019 Monitoring Report



**Institute
of Sociology**
Czech Academy
of Sciences

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2019 Monitoring Report

National Contact Centre – Gender and Science

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Students

- In 2019, there were more women at the bachelor's level of study (55%) and the master's level of study (60%) than men, while men made up the majority (55%) of PhD students.
- The number of women students has risen across every level of tertiary education in the last 15 years.
- The proportion of women students has risen by 9% among PhD students and by 12% at the master's level. The proportion of women at the bachelor level has not changed significantly.
- The most women students are found in the medical sciences, where they make up 85% of bachelor's degree students, 68% of master's degree students, and 52% of doctoral degree students.
- The most men are found in the technical sciences, where they make up 75% of students at the bachelor level, 69% at the master's level, and 72% at the doctoral level.

Graduates

- In the year 2019, women made up a larger share of graduates with bachelor's degrees (61%) and master's degrees (59%). At the doctoral level, the majority of graduates were men (56%).
- Since 2001, the number of graduates with a bachelor's degree has grown from 51% to 61%. Similarly, the number of women among PhD graduates has grown from 32% to 44%. The number of women among graduates with a bachelor's degree remained more or less constant.
- Most women graduated in the medical sciences, where they made up 87% of all bachelor level graduates, 73% of master's level graduates, and 56% of PhD graduates.
- Men were most represented in the technical sciences, where they made up 70% of graduates with a bachelor's degree, 68% of graduates with a master's degree, and 74 % of PhD graduates.

Academic staff

- In 2019, women made up 36% of all academic staff, which is almost the same as the 35% figure in 2010.
- Most women were employed as lecturers (58%), with the fewest of them working as professors (16%).
- The gross average monthly salary for academic staff in 2019 was 57,000 CZK. For men, the average was 61,000 CZK, for women it was 49,000 CZK.
- The biggest gender pay gap was among pedagogues (20%), the lowest gap was among professors (10 %). In both cases, men earned more.
- The highest proportion of women among academic staff was in the social sciences (45 %), while the lowest was in the technical sciences (23 %).

Researchers

- In 2019, women made up 24% of all researchers.
- The proportion of men and women among researchers has not changed significantly since 2005 (women compromised 26% of researchers in 2005 and 24% in 2019).
- Most women researchers were found working in the private non-profit sector (49%), which employs around 0.3% of all researchers. The least were found in the business sector (13%), which employs around 56% of all researchers.
- The most women researchers were found in the medical sciences (49%) and the least in the technical sciences (12%).
- The proportion of men and women researchers remains unchanged across all fields of study.
- Women held 21% of all leadership positions (in research?) in 2019
- The highest number of women among researchers sitting on academic boards was in the Higher Education Council, the lowest in the Learned Society of the Czech Republic.

Czechia in international comparison

- In the european context, the Czech republic is one of the countries with the lowest female representation in research (24 % in 2019),
- The Czech republic was among the countries with the lowest number of women in research since 2000.

1 Introduction

1.1 Structure of the report

This report provides information on the representation of men and women in several areas relevant to the R&D sector in the Czech Republic. The report starts with a chapter describing the ‘typical’ academic career. This chapter presents a cross-section of all academically relevant groups [a cross-section/an overview of different academic groups defined by their level on the academic ladder], from master’s level students to researchers producing scientific outputs. Its aim is to introduce female and male readers to the differences in gender representation across different levels of the academic ladder.

The next chapters look in more detail at each of the academic groups that exist along the typical academic career path. The first of these more detailed chapters focuses on current male and female master’s and doctoral students. This is followed by a chapter on graduates from these two stages of education. After the chapter on graduates, we turn our attention to researchers and academics. The last chapter compares the Czech Republic with the rest of Europe. The report is also accompanied by an appendix, describing the methodological aspects of the analysis and the frequency tables for the data used in the previous chapters.

Each chapter is composed of two parts. The first presents the aggregate composition of men and women for all scientific disciplines. The second part offers a classification based on six research areas (humanities, social sciences, natural sciences, engineering, agricultural sciences, and medical sciences). Each subsection contains both a description of the current situation and a comparison over time.

2 Typical academic career

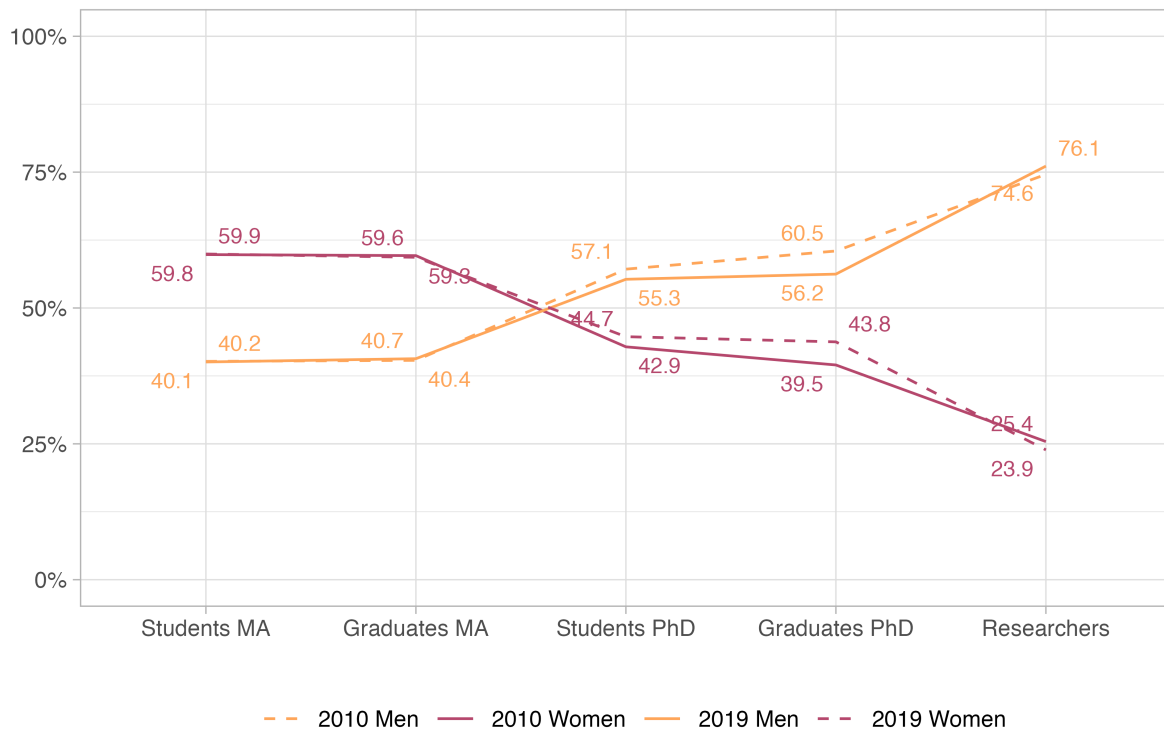
2.1 Typical academic career in aggregate

The typical academic career path is comprised of a cross-section of all the stages that an individual will pass through on his or her academic journey, from the start of a master’s degree through to the position of researcher. The data used to map the typical academic pathway come from two sources: data on the number of students, graduates, and academics come from the Department of Statistics, Analysis and Development of Education of the Ministry of Education, Youth and Sports. The data on research staff come from the Czech Statistical Office and are indicators of research and development, namely the average registered number of FTE employees.¹

Figure 1 shows the basic outline of a typical academic career. As can be seen, women form the majority of students and graduates on master’s level of study. The situation is similar among male and female graduates with bachelor’s and master’s degrees. Conversely, men make up the majority of doctoral graduates and make up an even bigger majority of researchers.

¹The average registered number of FTE employees is the conversion of the average number of employees on the register in natural persons according to the length of their working hours to the (full-time) working hours set by the employer. The average number of employees on the payroll (quarterly) is calculated as the arithmetic average of the (relevant three) monthly average numbers. See more https://www.czso.cz/csu/czso/1-pmz_m.

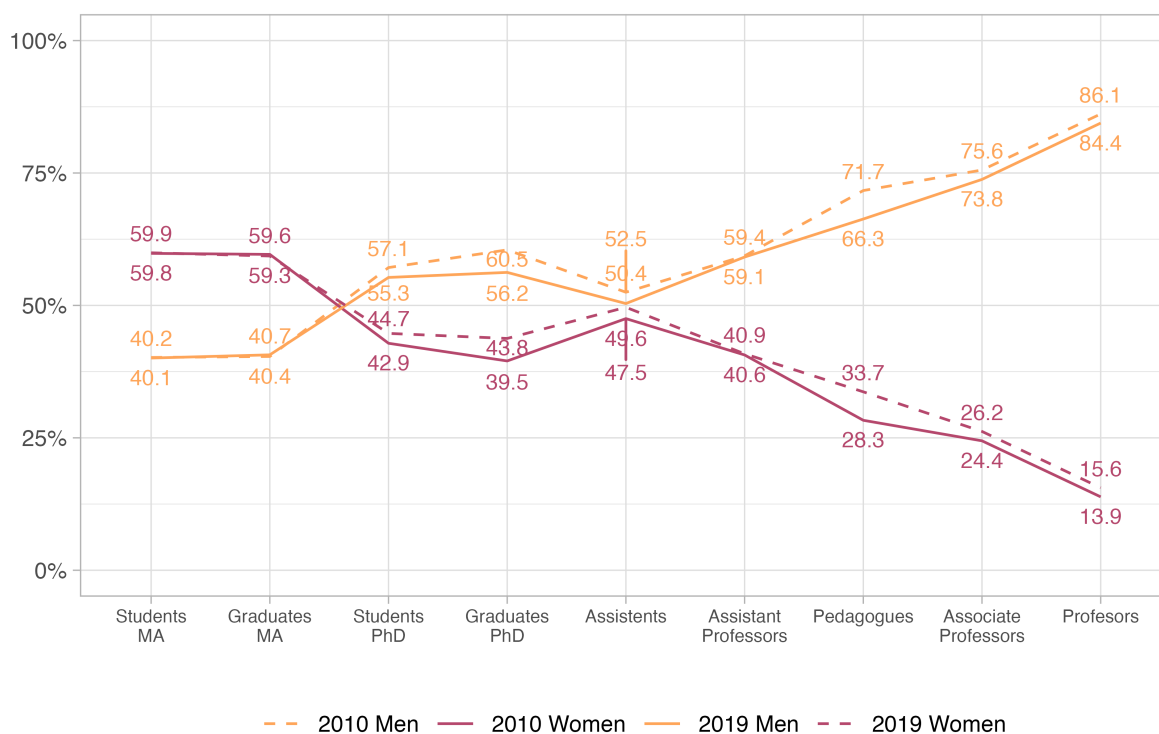
Figure 1: Typical academic path in years 2019 and 2010



Data sources: Stastical yearbook (Czech census office); Department of education
 Data for researchers based on averaged full time equivalent

Figure 2 shows the typical academic career path with a focus on academic positions. The data (source?) for students and graduates are the same as in the previous graph. It is possible to see that out of all academic positions it is only among assistants that there is a balanced/an even proportion of males and females. In all other positions men predominate, and the higher the position in the academic hierarchy the more their predominance grows.

Figure 2: Detailed typical academic path in years 2019 and 2010



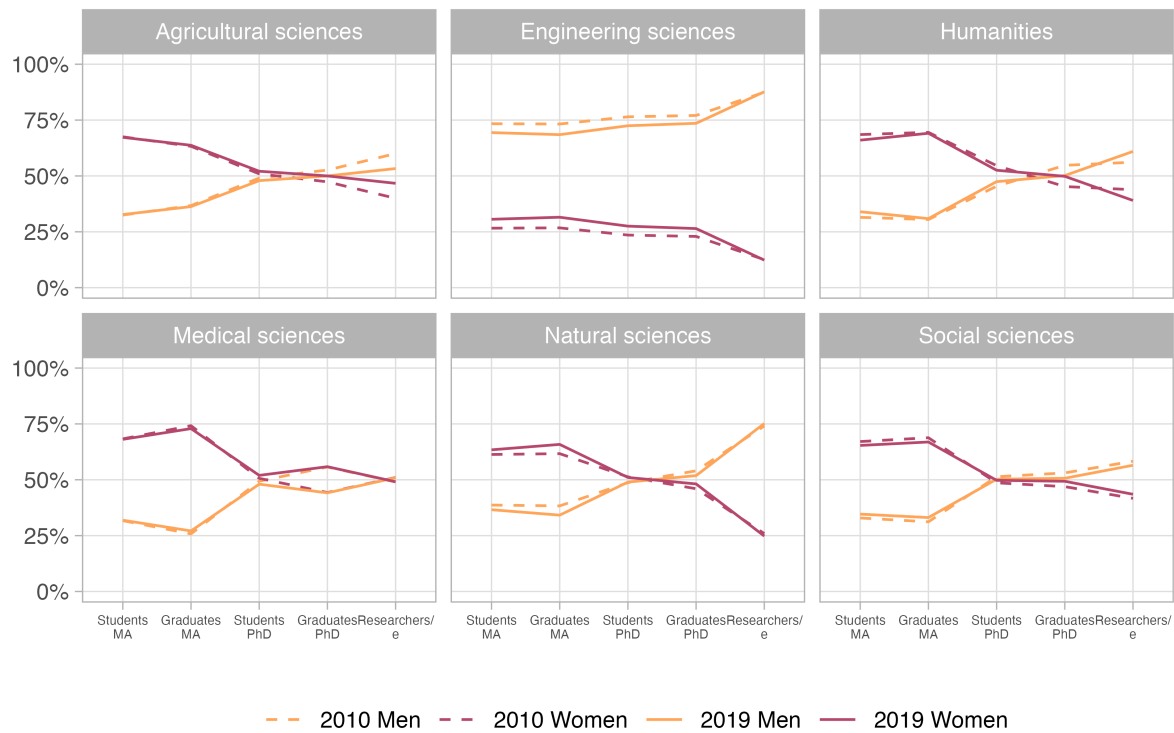
Data sources: Stastical yearbook (Czech census office); Department of education
 Data for researchers based on averaged full time equivalent

2.2 Typical academic career by field of study

The typical academic career path differs significantly by discipline in terms of the share of men and women in each field, as Figure 3 shows.

In general, women predominate among master's level students and graduates., after that point, men start to be more numerous.

Figure 3: Typical academic path by field of study in years 2019 and 2010



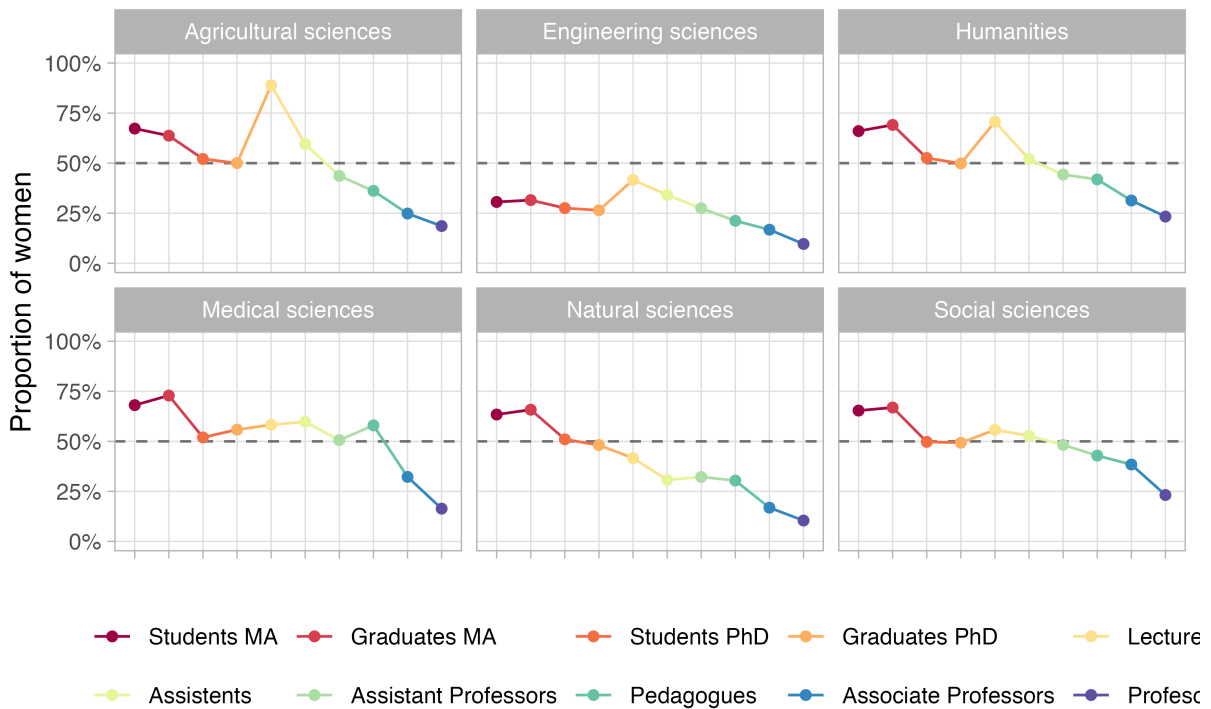
Data sources: Stastical yearbook (Czech census office); Department of education
 Data for researchers based on averaged full time equivalent

In the humanities and social sciences, women predominate among master's and doctoral students and among graduates with a master's degree. Among doctoral graduates and researchers, the situation in these fields is balanced, with a slight predominance of males.

In the natural sciences, women predominate among those studying and those who graduate with a master's degree and among those studying for a doctorate. However, men are much more predominant among doctoral graduates and researchers. In the engineering sciences, there is a very strong predominance of men among across all levels.

The typical academic trajectory can be further broken down by discipline. We can see this in Figure 4. However, the figure shows only data from 2019, as sufficiently detailed data for this chart are only available from 2017 onwards.

Figure 4: Detailed typical academic path by field of study in the year2019



Data sources: Stastical yearbook (Czech census office); Department of education
 Data for researchers based on averaged full time equivalent
 Data on researchers per field of study available from 2017

The medical sciences is the field in which women predominate in the largest number of academic categories. Women predominate from the level of master’s students to teachers, and the only two groups in which men predominate are associate professors and professors.

Another field in which many with a large number of female-dominated categories is the agricultural sciences, where women predominate in every category up to that of assistants. At the same time, women for a very majority in the category of lecturers. The situation is similar in the humanities.

In the social sciences, women predominate among students and graduates with the master’s degree and among doctoral students. On the other hand, men predominate among associate professors and professors and slightly predominate among teachers. In the remaining categories[groups], the proportion of men and women in this field is balanced.

In the natural sciences, men predominate at every level, except among master’s students and graduates with a master’s degree and among doctoral students. Finally, in the technical sciences, men dominate strongly in every group.

3 Students

- In 2019, there were more women at the bachelor's level of study (55%) and the master's level of study (60%) than men, while men made up the majority (55%) of PhD students.
- The number of women students has risen across every level of tertiary education in the last 15 years.
- The proportion of women students has risen by 9% among PhD students and by 12% at the master's level. The proportion of women at the bachelor level has not changed significantly.
- The most women students are found in the medical sciences, where they make up 85% of bachelor's degree students, 68% of master's degree students, and 52% of doctoral degree students.
- The most men are found in the technical sciences, where they make up 75% of students at the bachelor level, 69% at the master's level, and 72% at the doctoral level.

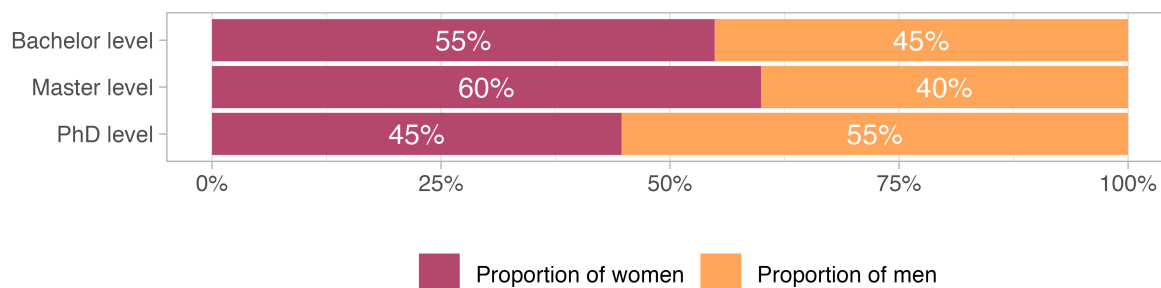
3.1 Students in aggregate

An academic career starts with study at a higher education institution. The data on the composition of students used in this chapter were obtained from the database of the Ministry of Education, specifically the Statistical Output and Analysis Division².

Among the student body in higher education, there is a general balance between the share of men and women; see Figure 5. Female students at present slightly outnumber male students at the bachelor and master's level, while men predominate among PhD students.

In 2019, 70% of the students were bachelor's degree students, 22% were master's degree students, and the remaining 8% were PhD students.

Figure 5: Students' sex by level of education in the year 2019



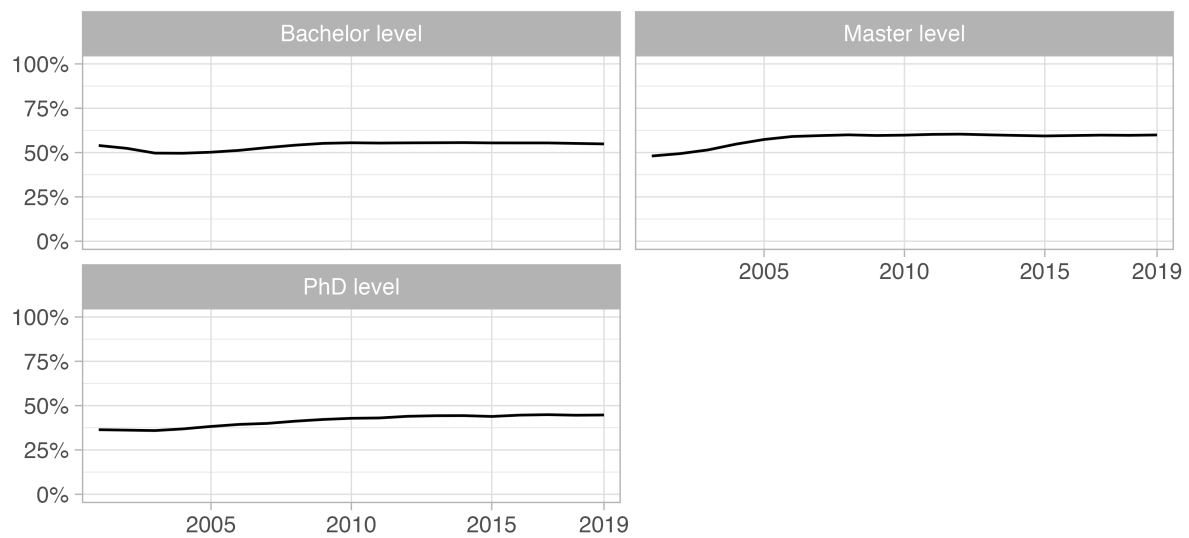
Data source: Department of education (Department of statistical analysis and reporting)

The proportion of female students has risen over time, as Figure 6 shows. Between 2010 and 2019, women accounted for an average of 54% of all bachelor's degree students. The highest proportion of women during the period was 56%, and the lowest was 50%.

At the master's level, women made up an average of 58% of all students. Since 2001, the highest proportion of women among master's students has been 60% and the lowest 48%. Among doctoral students, the average percentage of women was 41% during the period under review, with a minimum of 36% and a maximum of 45%.

²Database of the Department of Statistical Outputs and Analyses of the Ministry of Education: https://dsia.msmt.cz/vystupy/vu_vs.html.

Figure 6: Proportion of women by level of education



Data source: Department of Education (Department of Statistical Analysis and Reporting)

It is worth noting that the proportion of women among university students has been increasingly slowly but steadily over the past two decades, especially at the doctoral and master’s levels. Specifically, while 36% of doctoral students were women in 2001, by 2019 the figure was 45%. At the master’s level women accounted for 48% of students in 2001 and 60% of students by 2019. At the bachelor’s level the changes have been smaller. Among bachelor’s degree students in 2001, 54% were women, while in 2019 the figure was 55%.

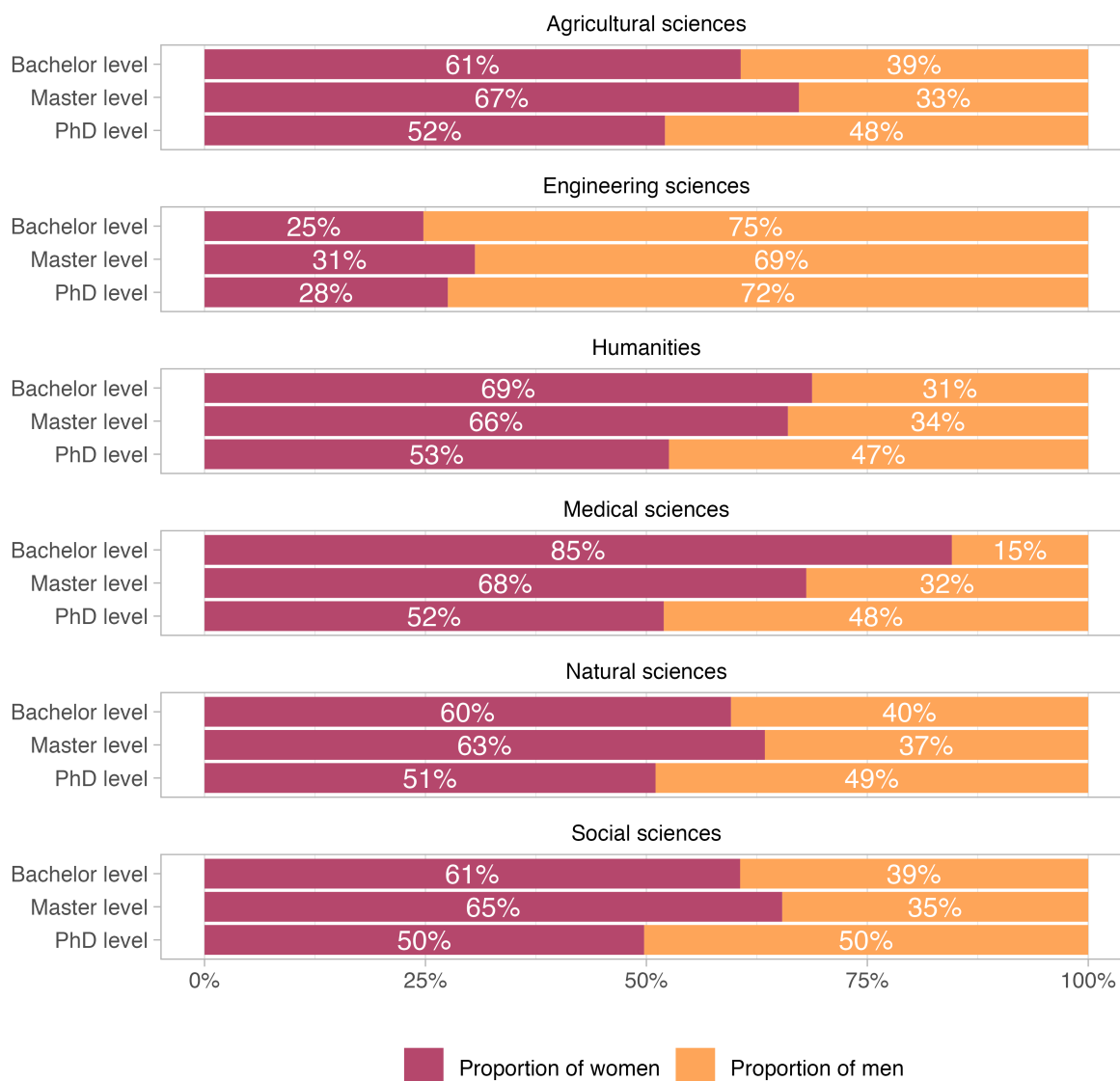
3.2 Students by field of study

There are some differences in the representation of men and women across fields of study. The data in this chapter, as in the previous one, come from the Statistical Output and Analysis Department of the Ministry of Education and Science. However, the original data do not include a breakdown of students by field of study, so the data have been coded based on the ISCED group to which the students belong³. The gender distribution of students by field and level of study can be found in Figure 7.

Similarly, at the aggregate level in all fields, women at present slightly outnumber men among students. It is also generally the case that the prevalence of female students is slightly higher at the doctoral level than at lower levels of study.

³Coding was performed based on the [Frascati manual](#). A detailed description of the methodology can be found in the Appendix.

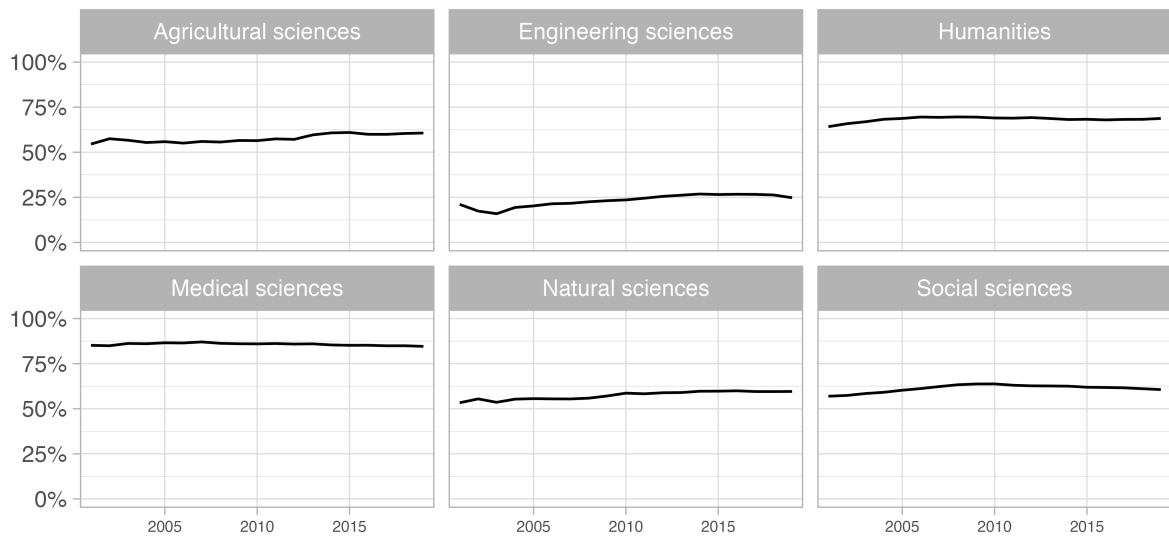
Figure 7: Students's sex by level of education and field of study in the year 2019



Data source: Department of education (Department of statistical analysis and reporting)

Of all the fields, the medical sciences stand out the most in terms of their structure, with an above-average proportion of women studying at the master's level. While women accounted for 68% of master's degree students in the medical sciences in 2019, they accounted for only 58% in the other disciplines. The second atypical discipline is the engineering sciences. Specifically, the proportion of women and men is more or less the same at every degree level. In other fields, women are less prevalent at the doctoral level than at lower levels.

Figure 8: Proportion of women on bachelor level by Year and field of study

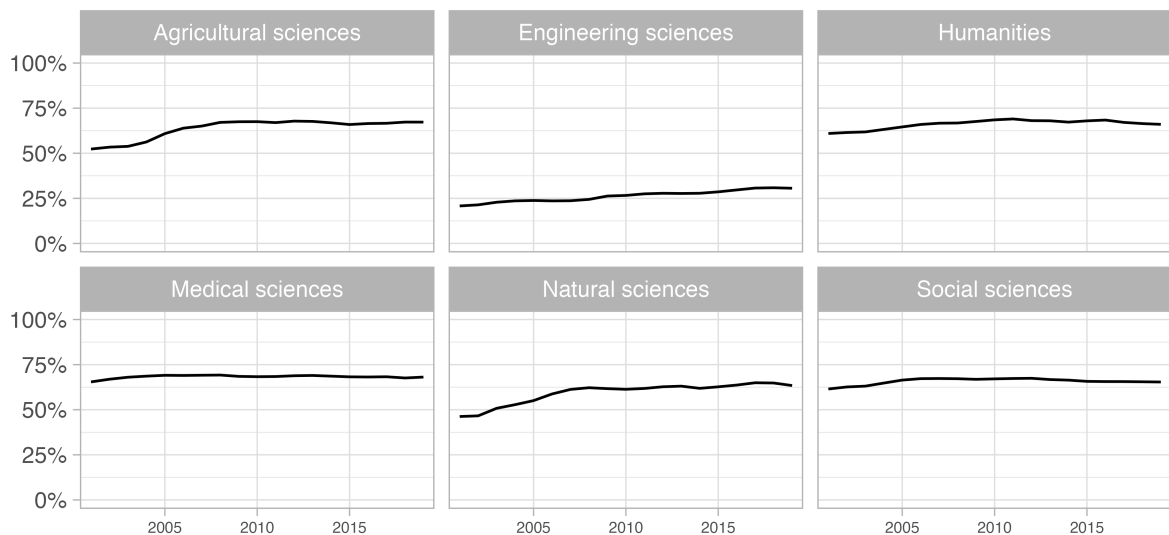


Data source: Department of education (Department of statistical analysis and reporting)

In a comparison over time by discipline, it is clear that the situation at the bachelor level has remained fairly stable since 2000, as Figure 8 shows. As noted above, when we look at aggregated data, we see that there has been a slight increase in the proportion of women (at the bachelor's level) over the last five years, especially in engineering and the natural sciences, but also in all other disciplines.

The situation is similar at the master's level, where the gender distribution has changed in recent years in favour of women, as shown in Figure 9. Specifically, in 2010 the proportion of women among master's students in the medical sciences was 59% and by 2019 it had risen to 62%.

Figure 9: Proportion of women on master level by year and field of study

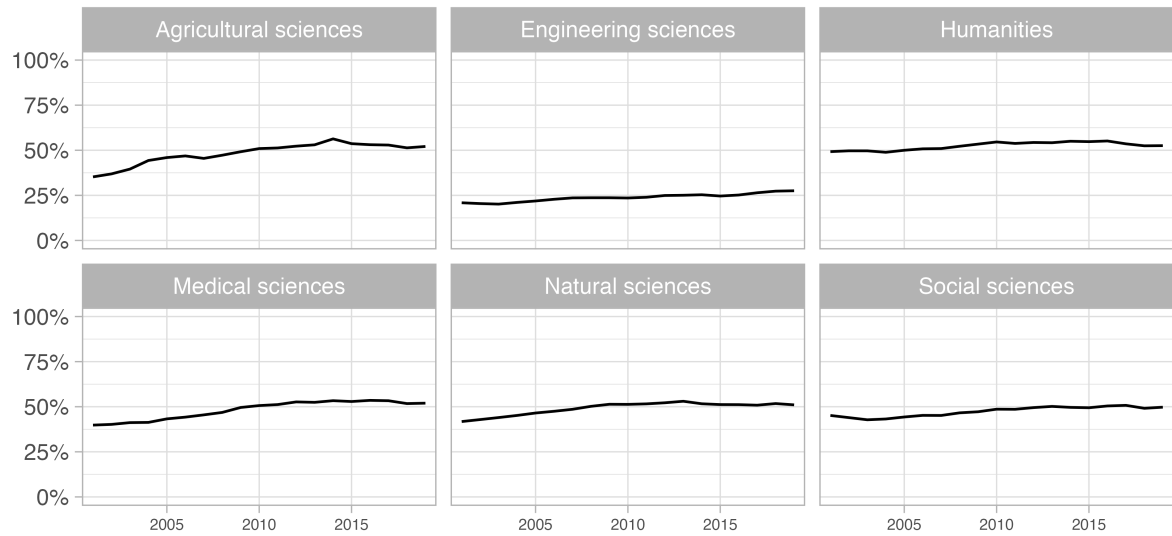


Data source: Department of education (Department of statistical analysis and reporting)

The last level of study is the doctoral level. Figure 10 shows the trend in the share of women studying at this level over time. As in the case of the lower levels of study, it is possible to observe a gradual increase in the proportion of women among students, this time especially in the natural and agricultural sciences. In the natural sciences, women accounted for 51% of students in 2010 and 51% in 2019. In the agricultural sciences, the proportion of women among PhD students increased from 51% in 2010 to 52% in 2019.

Overall, we can conclude that the situation with respect to the representation of women is very similar across every field. There is a balanced proportion of male and female students in every field of study and the proportion of female students has been slowly increasing in recent years. An exception is observed in the medical sciences, which is an atypical field for the high proportion of female students studying at the master's level in this field.

Figure 10: Proportion of women on PhD level by by year and field of study



Data source: Department of education (Department of statistical analysis and reporting)

4 Graduates

- In the year 2019, women made up a larger share of graduates with bachelor's degrees (61%) and master's degrees (59%). At the doctoral level, the majority of graduates were men (56%).
- Since 2001, the number of graduates with a bachelor's degree has grown from 51% to 61%. Similarly, the number of women among PhD graduates has grown from 32% to 44%. The number of women among graduates with a bachelor's degree remained more or less constant.
- Most women graduated in the medical sciences, where they made up 87% of all bachelor level graduates, 73% of master's level graduates, and 56% of PhD graduates.
- Men were most represented in the technical sciences, where they made up 70% of graduates with a bachelor's degree, 68% of graduates with a master's degree, and 74 % of PhD graduates.

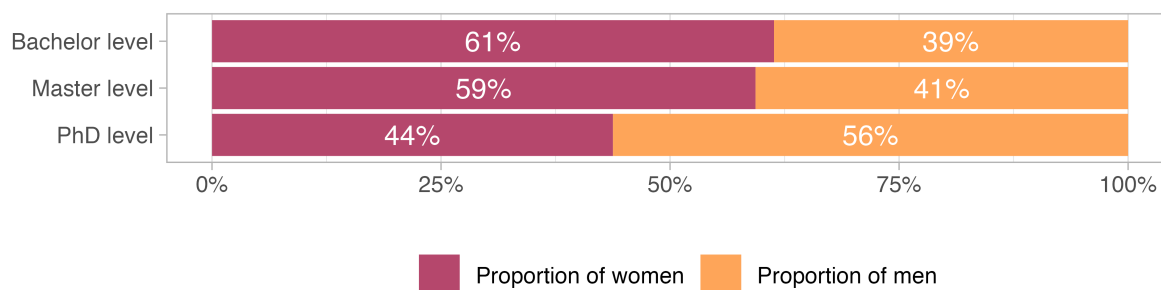
4.1 Graduates in aggregate

After students, people who just completed their studies were the next group studied. The data on the number of graduates, like the figures on students, come from the database of the Ministry of Education and specifically the Statistical Output and Analysis Division⁴.

In 2019, 51% of graduates came had a bachelor's degree, 46% were master's graduates, and 4% were PhD graduates.

While the proportion of males and females among 2019 graduates was relatively balanced, greater differences can already be seen among the graduates. As 11 shows, men were significantly underrepresented among bachelor's and master's graduates, while women made up the minority among doctoral graduates that year.

Figure 11: Absolvent's sex by level of education in the year 2019



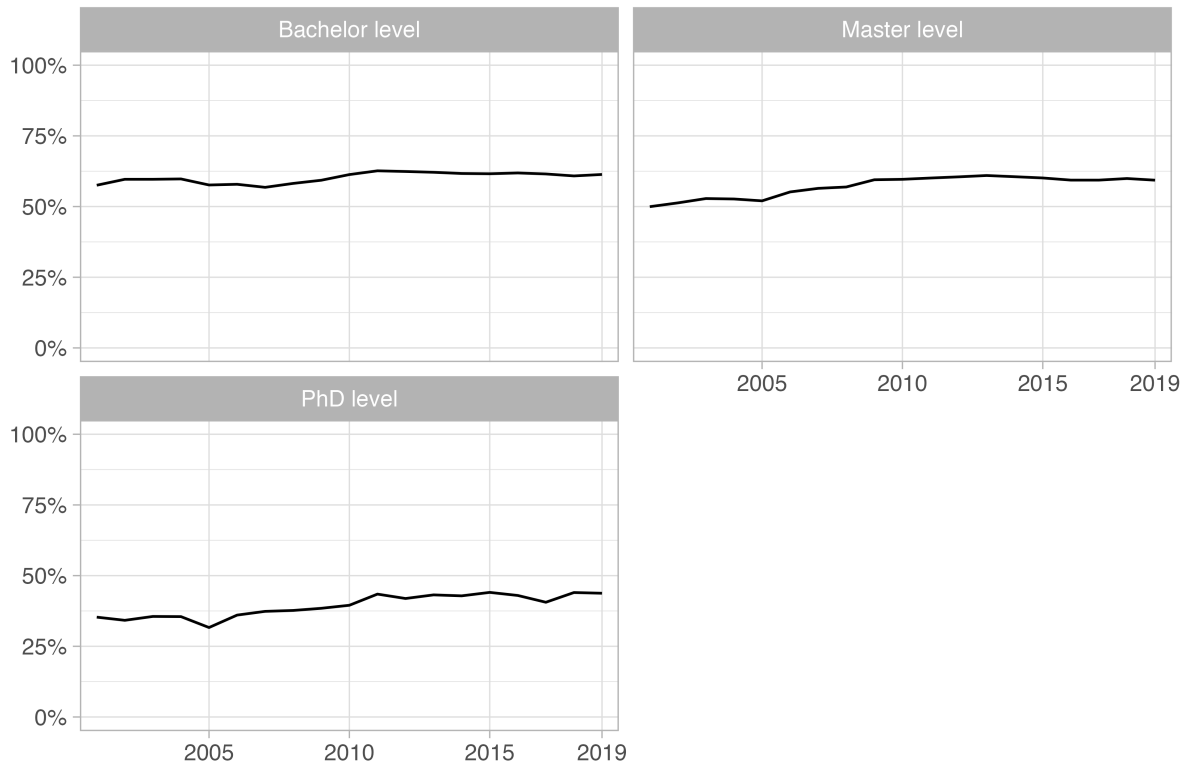
Data source: Department of Education (Department of Statistical Analysis and Reporting)

The proportion of men and women among graduates is less stable over time than among students, but there has been no strong trend in recent years either. The share of women increased until about 2010, since when it has been stable. Figure 12 provides a more detailed view. Between 2001 and 2019, women accounted for an average of 60% of all bachelor's degree graduates. The highest proportion of women in the period under review was 63% and the lowest thereafter was 57%.

At the master's level, women accounted for an average of 57% of graduates. Since 2001, women have made up at least 50% and at most 61% of all master's graduates. Among doctoral graduates, women on average made up 39% of graduates over the period under review, accounting for a minimum of 32% and a maximum of 44% during this period.

⁴Department of Statistical Analysis and Reporting database: https://dsia.msmt.cz/vystupy/vu_vs.html

Figure 12: Proportion of women by level of education



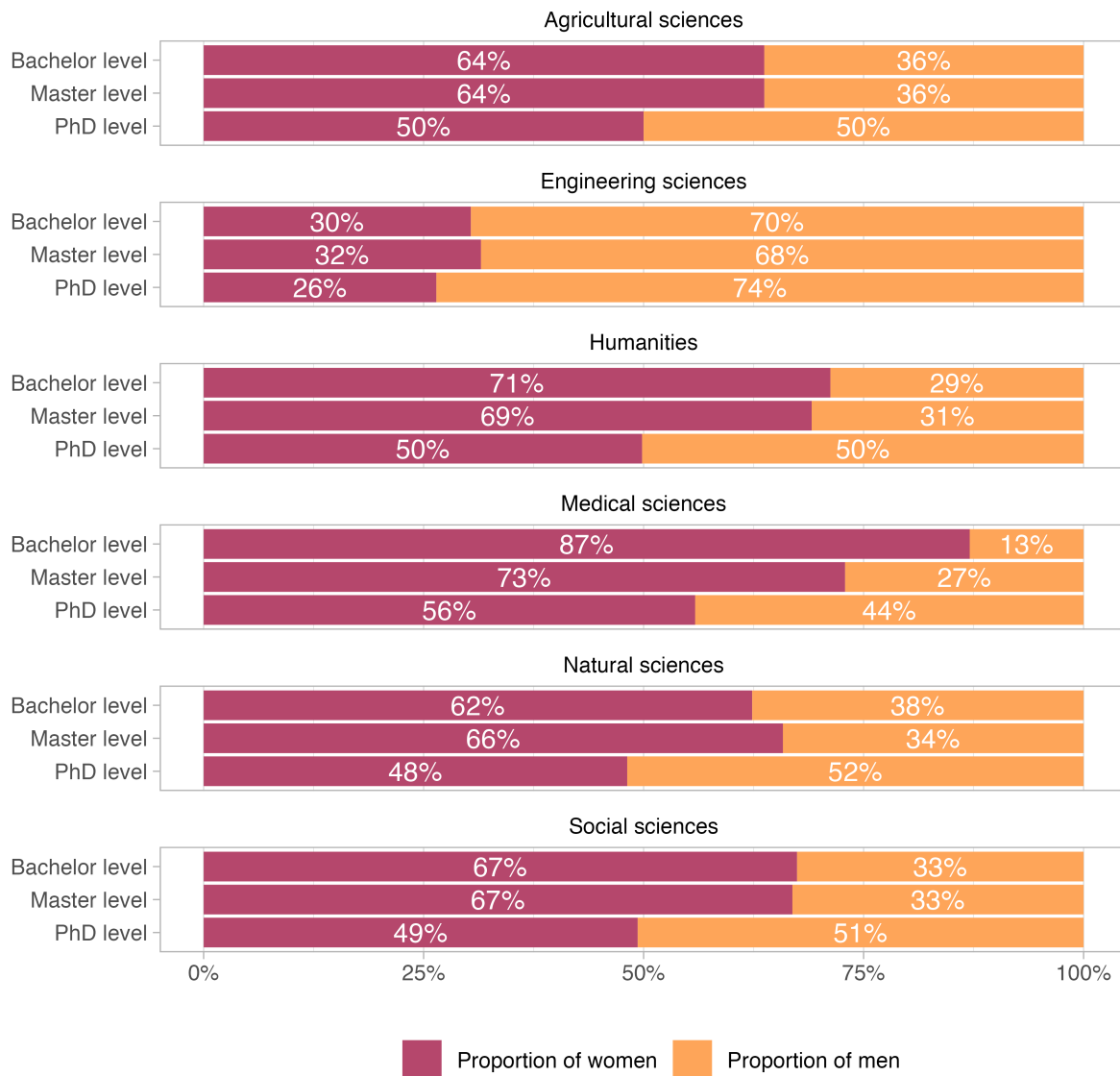
Data source: Department of education (Department of Statistical Analysis and Reporting)

4.2 Graduates by field of study

Next, we look at the composition of graduates by field of study. The gender composition of students by field and level of study can be seen in Figure 13.

Figure 13 shows very marked differences across fields of study. At the aggregate level encompassing all fields of study, the proportion of women is higher at the bachelor's and master's levels than at the doctoral level. However, the specific level of gender representation varies by discipline.

Figure 13: Absolvent's sex by level of education and field of study in the year 2019



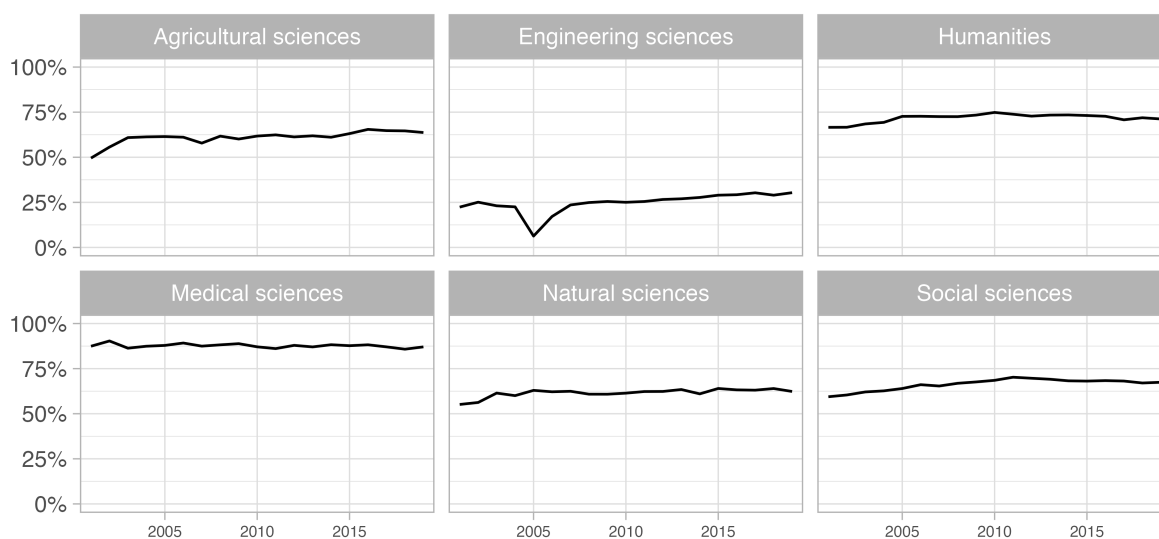
Data source: Department of education (Department of Statistical Analysis and Reporting)

The first group of fields includes the humanities and the medical sciences, where women make up more than three-quarters of bachelor's and master's graduates. At the doctoral level, there is an equal proportion of men and women in these two fields.

In the natural, social, and agricultural sciences, women make up around two-thirds of bachelor's and master's graduates. At the doctoral level, there is an equal proportion of men and women graduates.

The technical sciences represent a specific field in that men strongly predominate at every level of study at a ratio of about two men to one woman.

Figure 14: Proportion of women among bachelor level graduates by year and field of study

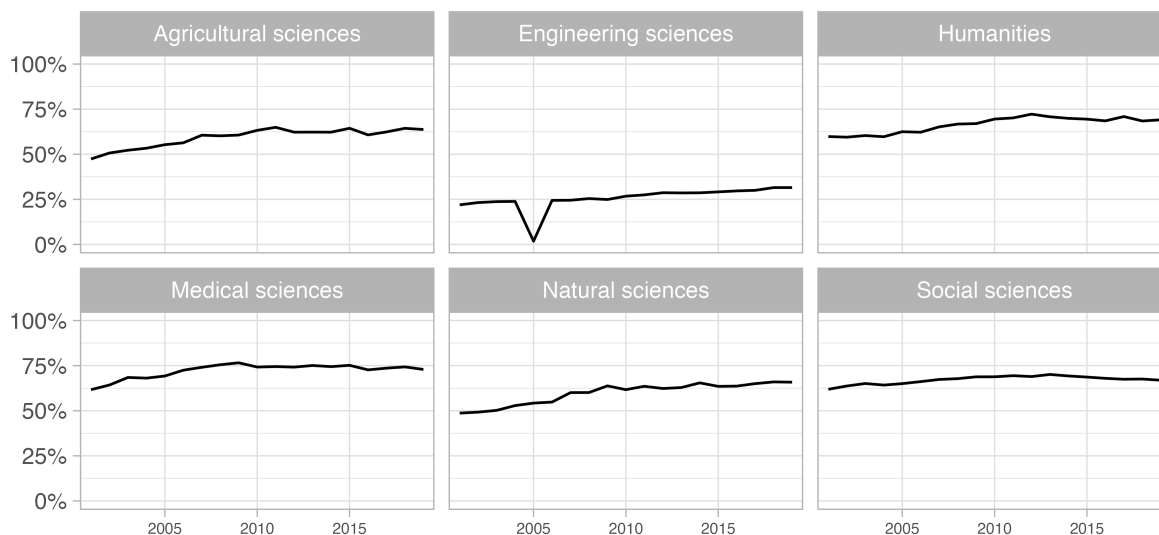


Data source: Department of education (Department of Statistical Analysis and Reporting)

Figure 14 presents the trend in the share of women among bachelor's over the observed period. As can be seen, the social sciences, technical sciences, and humanities have seen a slight increase in the number of women graduates of these fields between 2001 and 2019. The remaining fields do not show any significant trend.

The trend at the master's level over time is shown in Figure 15. As can be seen, the proportion of women has increased noticeably during the period under review.

Figure 15: Proportion of women among master level graduates by year and field of study

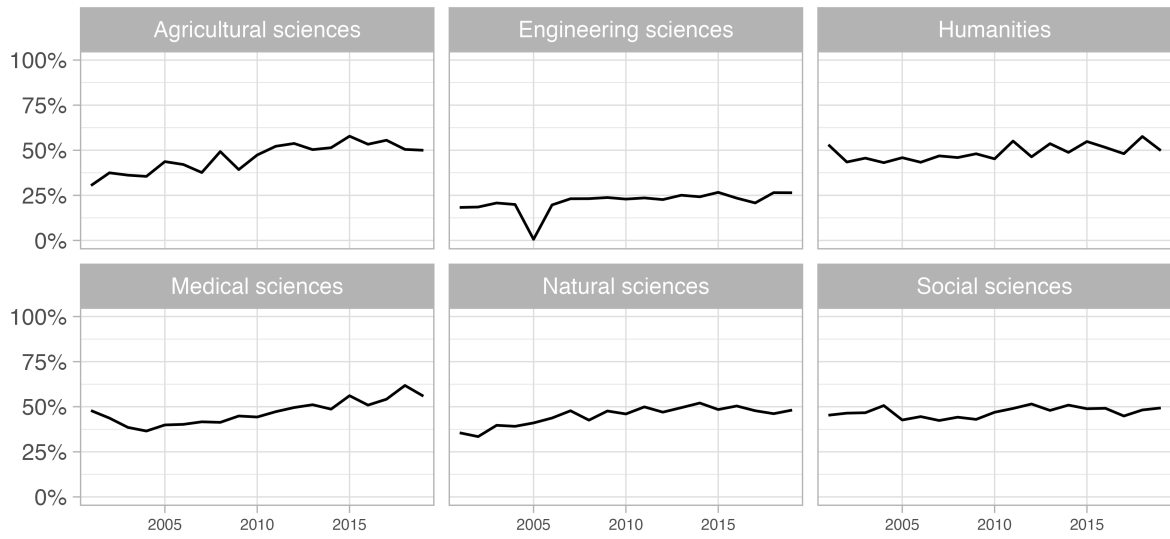


Data source: Department of education (Department of Statistical Analysis and Reporting)

The final stage of study is the doctoral degree. The proportion of women among its graduates is relatively the most stable of all levels of higher education. There has been a significant increase in the number of women in the agricultural sciences and, to a lesser extent, in the natural sciences. In other disciplines, the proportion of women has fluctuated without any clear trend.

The final stage of study is the doctoral degree. On this level, there seems to be more year-to-year variation, most likely due to the relatively small number of persons in this group. Overall, there seems to be an increase in the proportion of women in all fields of study.

Figure 16: Proportion of women among PhD level graduates by year and field of study



Data source: Department of education (Department of statistical analysis and reporting)

5 Academic staff

- In 2019, women made up 36% of all academic staff, which is almost the same as the 35% figure in 2010.
- Most women were employed as lecturers (58%), with the fewest of them working as professors (16%).
- The gross average monthly salary for academic staff in 2019 was 57,000 CZK. For men, the average was 61,000 CZK, for women it was 49,000 CZK.
- The biggest gender pay gap was among pedagogues (20%), the lowest gap was among professors (10%). In both cases, men earned more.
- The highest proportion of women among academic staff was in the social sciences (45%), while the lowest was in the technical sciences (23%).

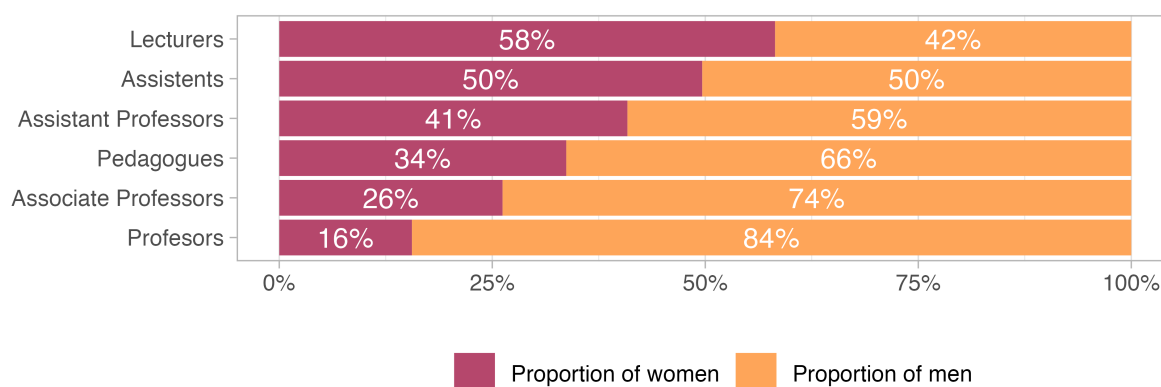
5.1 Academic staff in aggregate

This chapter focuses on academics working in higher education. The source for the information on academic staff in universities used here is the 'Staff and Wages' section of the Education Statistical Yearbook of the Ministry of Education. As with the data on students, the data on academic staff was coded according to the Frascati manual based on the faculty of employment. The data are based on the average number of FTE employees⁵.

In 2019, 7% of academics were working as assistants and 5% at the lecturer as lecturers. Lecturers accounted for 4% of academics and assistant professors for 51%. Associate professors accounted for 22% of all academics and then professors made up the remaining 11% of the total.

In total, 36% of research staff in 2019 were women (compared to 35% in 2010). A more detailed look at the composition of academic staff by gender can be seen in Figure 5.1. It shows that there are more women working at the lower academic ranks [working in lower-ranking/lower-level academic positions]. Women made up 58% of lecturers and 50% of assistants. By contrast, we can find the lowest number of women working at the top level of the academic hierarchy. Women made up 26% of associate professors and only 16% of professors.

Figure 17: Sex by academic position in the year 2019



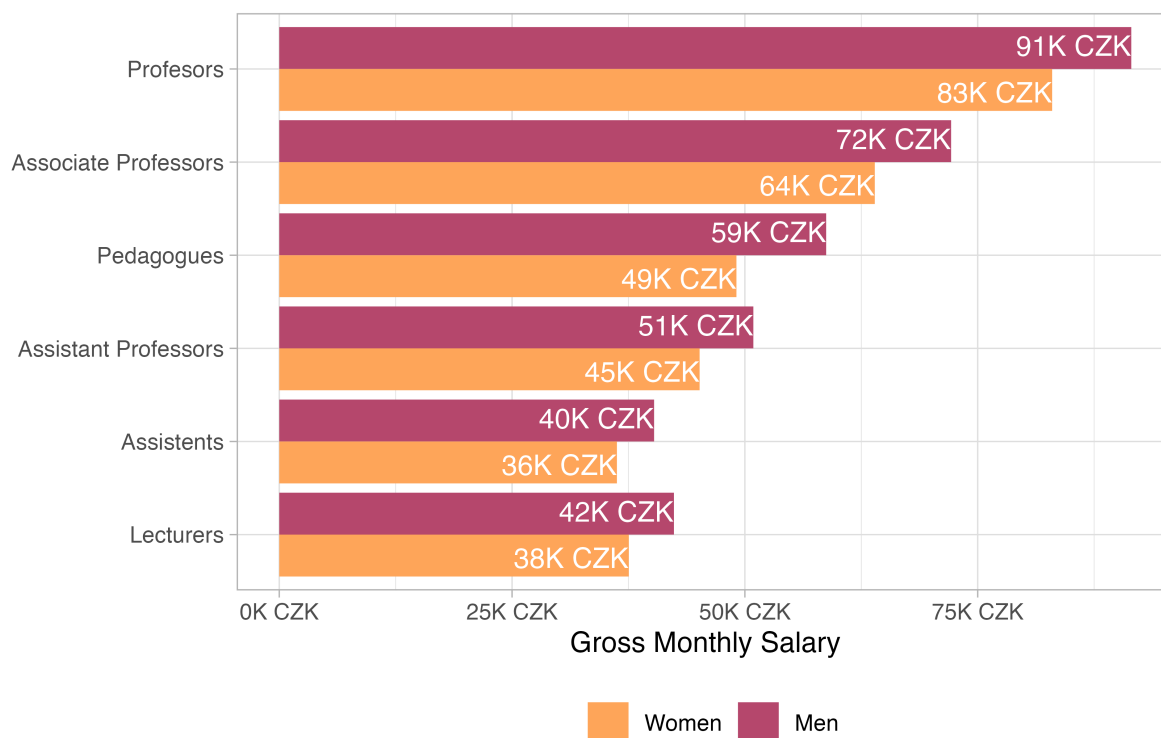
Data source: Statistical yearbook of Ministry of education (Employees and salaries)
Data computed based on averaged full time equivalent

The second part of this sub-section deals with salaries. Figure 18 shows the gross monthly salary of academics employed in universities by academic position. The values are a weighted average across university departments. The average is weighted by the average number of registered employees in each department, to take into account the uneven distribution of men and women across departments and positions. Overall, the average gross

⁵The average registered number of employees (headcount) is calculated quarterly as an arithmetic average of three month average of registered numbers of employees, which are calculated as a sum of daily numbers of employees subdivided by the number of calendar days of the month. The average registered number of FTE employees is determined from the average registered number of employees (headcount) by means of the recalculation of their hours of employment contracts to the full-time employment contract hours as determined by the employer. For more details, see https://www.czso.cz/csu/czso/1-pmz_m.

monthly salary for academic university staff in 2019 was 57,223 CZK, with men earning an average salary wage of 61,907 CZK and women earning an average salary of 48,835 CZK.

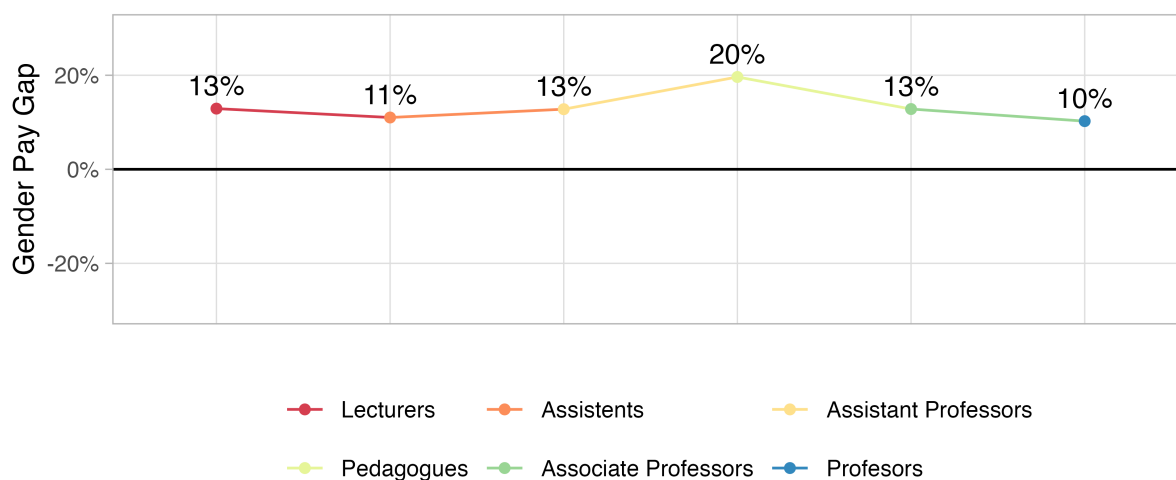
Figure 18: Salaries of men and women by academic position



Data source: Statistical yearbook of Ministry of education (Employees and salaries)
 Data computed based on averaged full time equivalent

AAs expected, the average salary increases with academic position. The highest salaries were earned by male professors (91,494 CZK) and female professors (82,996 CZK). On the other hand, the lowest monthly salaries were for male assistant professors (40,252 CZK) and female assistant professors (36,259 CZK). A standard indicator of the difference in pay between men and women is the gender pay gap. The overall gender pay gap, which is a comparison of [which is determined by comparing] all male academics and all female academics working at public universities and, was 27% in 2019. It is also possible to look at the gender pay gap for individual academic positions. The biggest pay gap in universities is between male and female pedagogues (20%), while the smallest gap is between male and female professors (10%). An overview of the wage gap for each academic position is shown in Figure 19.

Figure 19: Gender pay gap by academic position

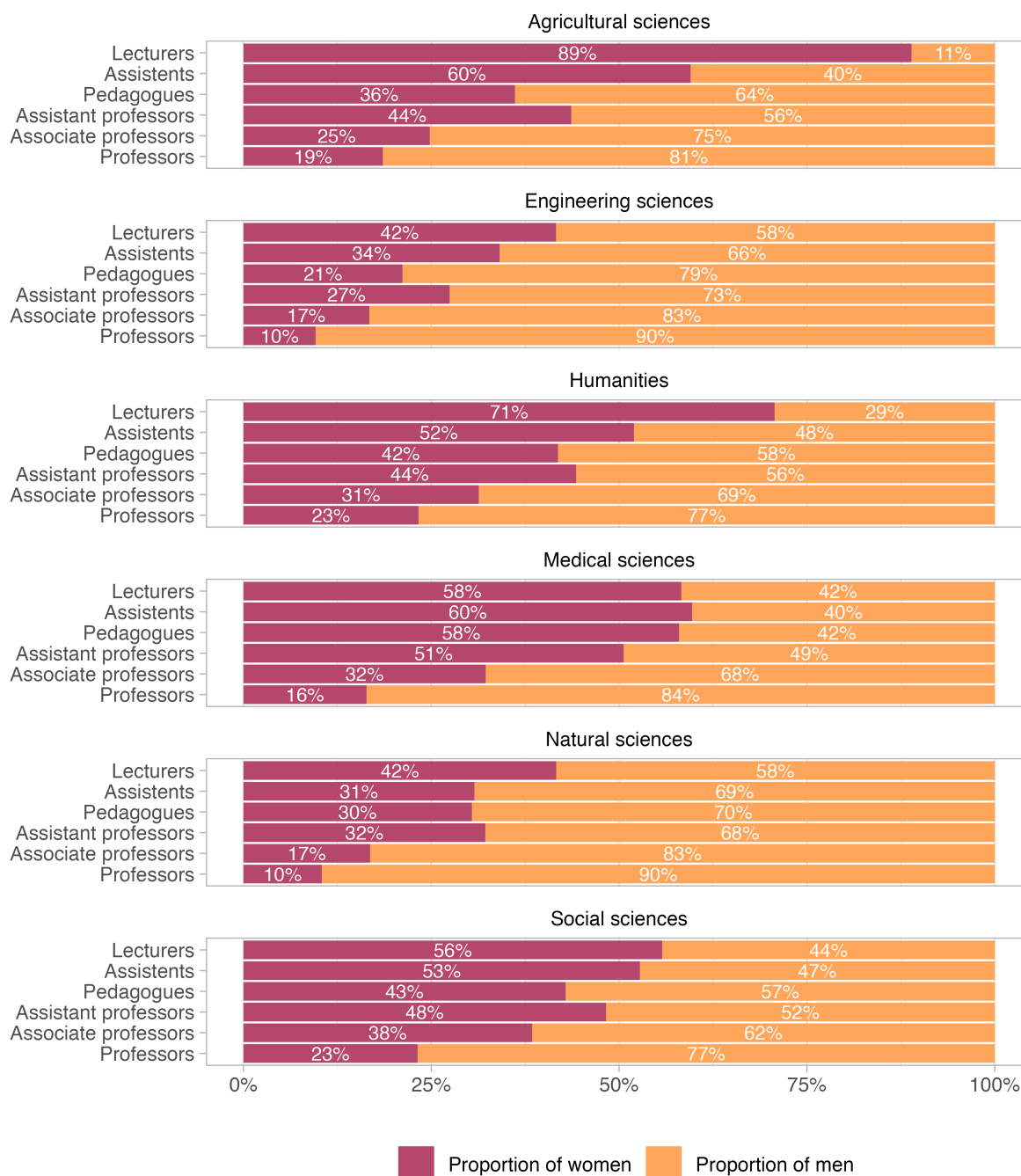


Data source: Statistical yearbook of Ministry of education (Employees and salaries)
 Data computed based on averaged full time equivalent
 Positive values on the vertical axis represent gap in favour of men, negative in favour of women

5.2 Academic staff by field of study

The proportion of women across academic positions depends on the field of study, as Figure 20 shows. Across all fields, the most women are found working at the lower levels of the academic hierarchy. Conversely, the fewest women are among the ranks of associate professors and professors.

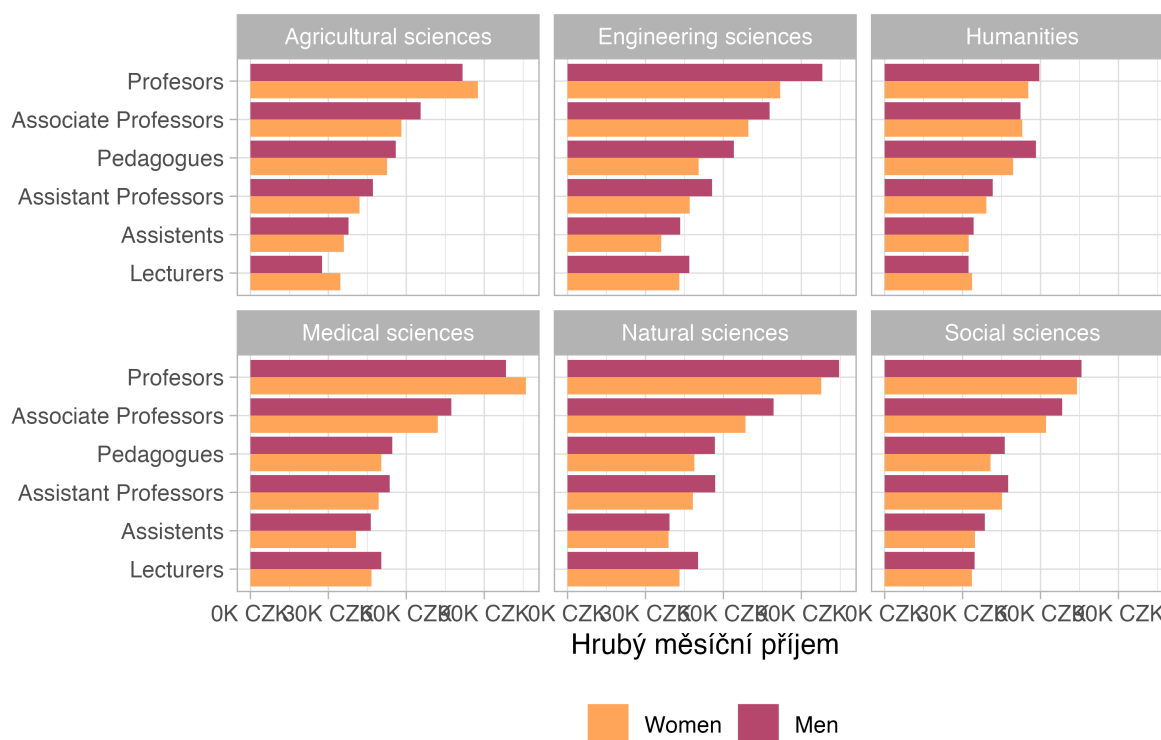
Figure 20: Academics by sex, position and field of study in the year 2019



Data source: Statistical yearbook of Ministry of education (Employees and salaries)
Data computed based on averaged full time equivalent

In the year 2019, the highest salaries were in the field of natural sciences, while the lowest were in the humanities. More specifically, in natural sciences the average salary was 66,602 CZK, in humanities the average salary was 44,065 CZK, in social sciences it was 51,722 CZK, in engineering sciences the average salary was 64,023, in medical sciences it was 51,624 CZK and finally in agricultural sciences the average salary was 53,894 CZK. Detailed distribution of salaries can be found in 21.

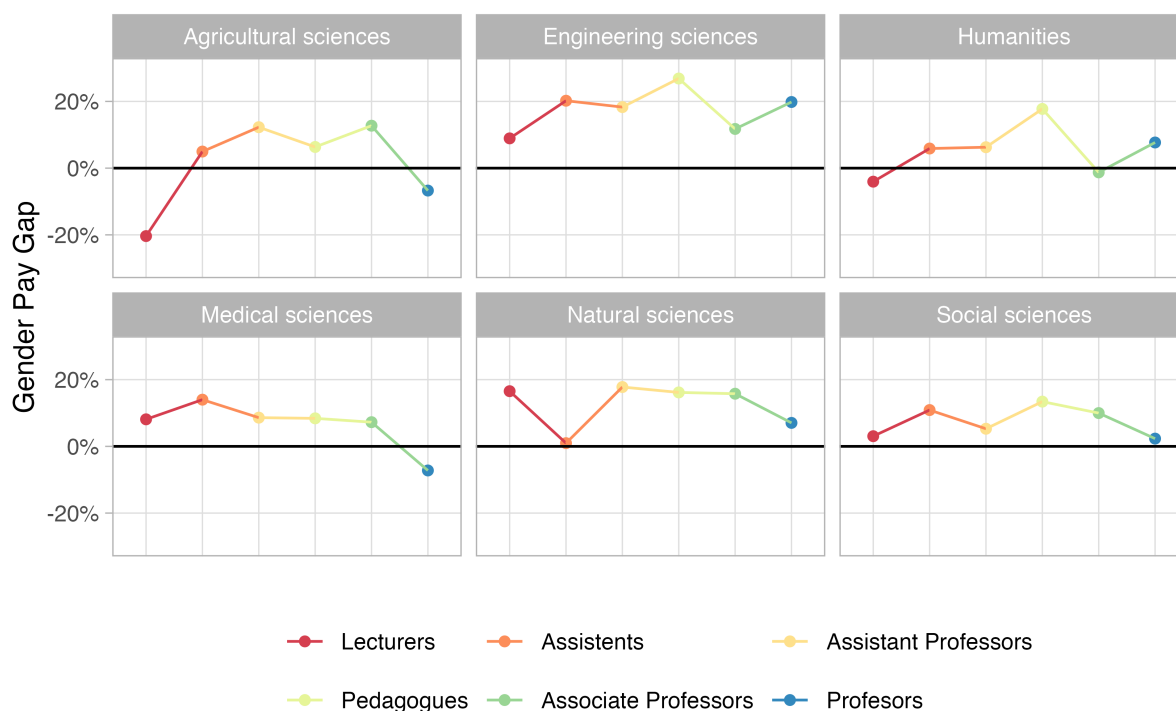
Figure 21: Salaries of men and women by by academic position and field of study



Data source: Statistical yearbook of Ministry of education (Employees and salaries)
 Data computed based on averaged full time equivalent

The biggest gender pay gap in 2019 was observed in the natural sciences and the smallest gap was in the humanities. The gender pay gap in 2019 was 31% in the natural sciences, 12% in the humanities, 14% in the social sciences, 30% in the technical sciences, 25% in the medical sciences, and 22% in the agricultural sciences. A detailed analysis of the income gap not only by both field and position can be seen in Figure 22. It shows that in most positions men have higher incomes than women.

Figure 22: Gender pay academic position and field of study



Data source: Statistical yearbook of Ministry of education (Employees and salaries)

Data computed based on averaged full time equivalent

Positive values on the vertical axis represent gap in favour of men, negative in favour of women.

6 Researchers

- In 2019, women made up 24% of all researchers.
- The proportion of men and women among researchers has not changed significantly since 2005 (women comprised 26% of researchers in 2005 and 24% in 2019).
- Most women researchers were found working in the private non-profit sector (49%), which employs around 0.3% of all researchers. The least were found in the business sector (13%), which employs around 56% of all researchers.
- The most women researchers were found in the medical sciences (49%) and the least in the technical sciences (12%).
- The proportion of men and women researchers remains unchanged across all fields of study.

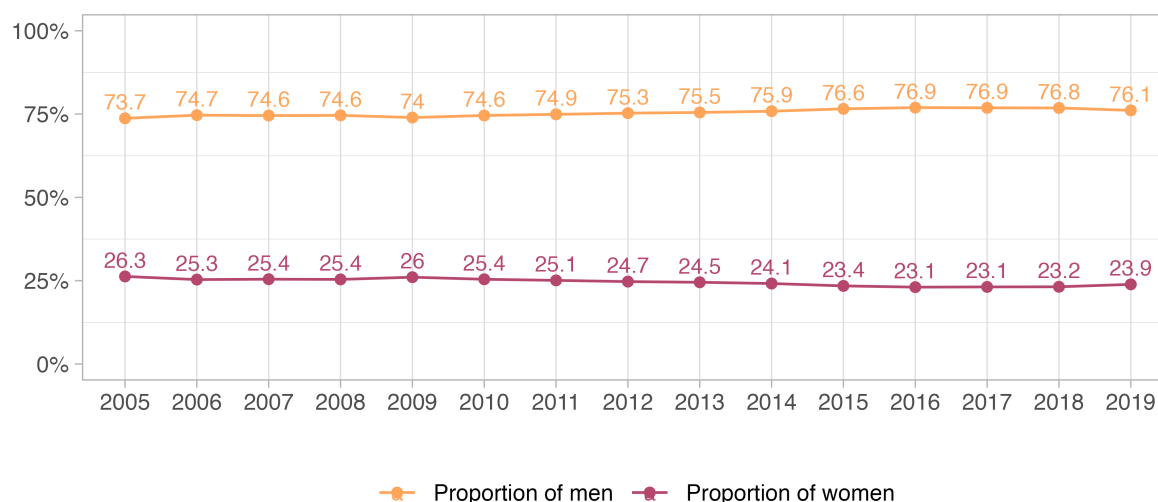
6.1 Researchers in aggregate

This chapter focuses on research staff working in the field of research and development. The data come from the Czech census office and mainly from the Research and Development Indicators section.

In 2019, women made up 24% of all researchers. For comparison, in 2019 the figure was 25%.

Figure 23 presents the proportion of women among researchers from 2005. It shows that the proportion of women and men among researchers is stable in time.

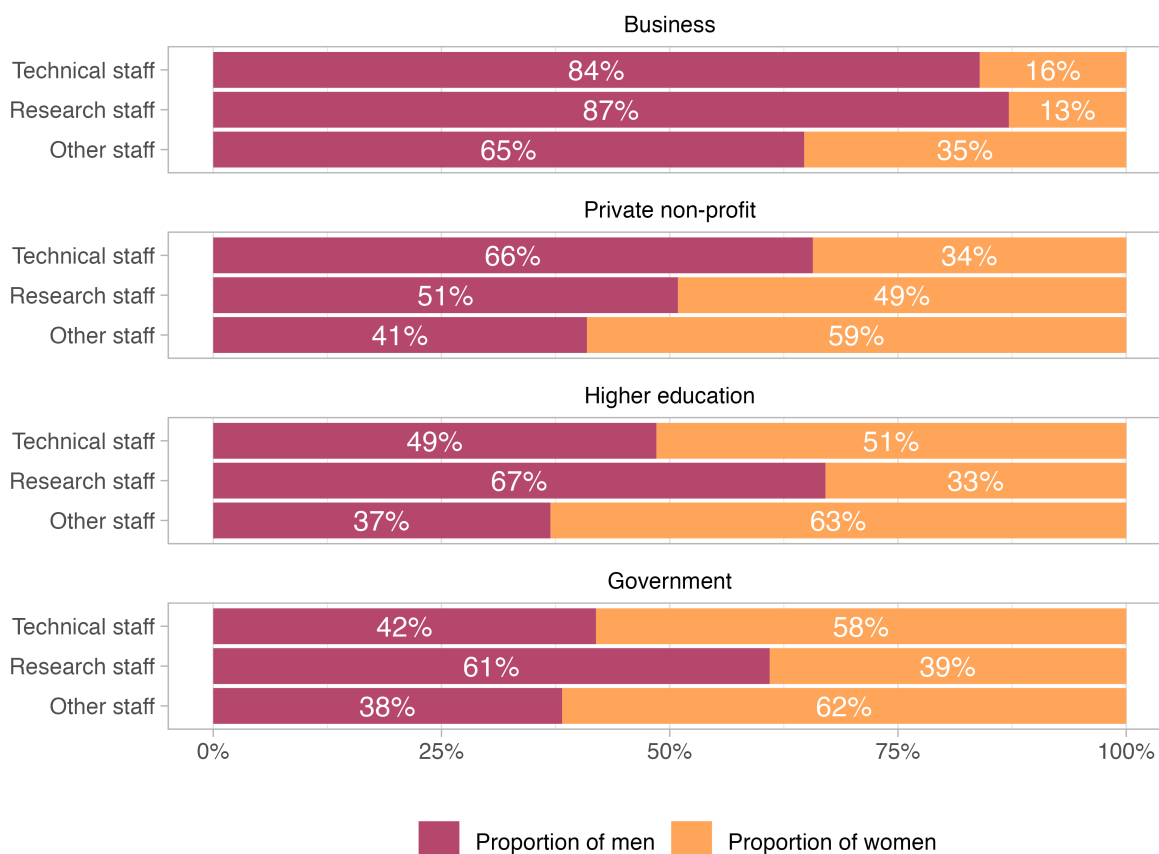
Figure 23: Researchers by sex and year



Data source: Statistical yearbook of Ministry of education (Employees and salaries)
Data computed based on averaged full time equivalent

It is also possible to look at the distribution of male and female researchers in the context of labour market sectors. This information is provided in Figure 24, from which shows that women are most often found among researchers in the private non-profit sector (which employs 0.3% of all researchers) and the government sector (which employs 19% of all researchers). Conversely, the business sector, which employed 56% of researchers in 2019, is heavily dominated by men.

Figure 24: Research staff by sex and industry in the year 2019

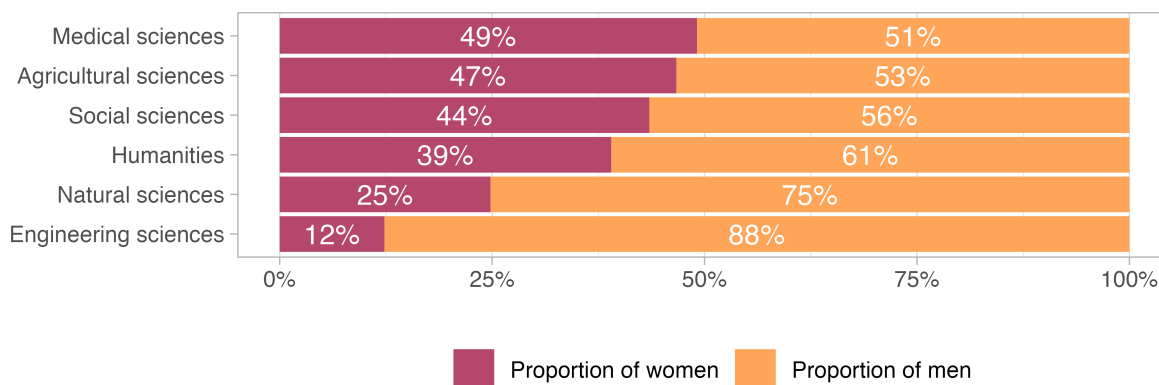


Data source: Statistical yearbook of Ministry of education (Employees and salaries)
Data computed based on averaged full time equivalent

6.2 Researchers by field of study

Figure 25 shows that the proportion of male and female researchers varies by discipline. In the medical and agricultural sciences, the proportion of men and women is largely balanced, with a slight predominance of women. In the social sciences and humanities, the situation is similar, but with a very slight predominance of men. By contrast, research in the natural and technical sciences, which employ two-thirds of all researchers in the country, appears to be largely a male domain.

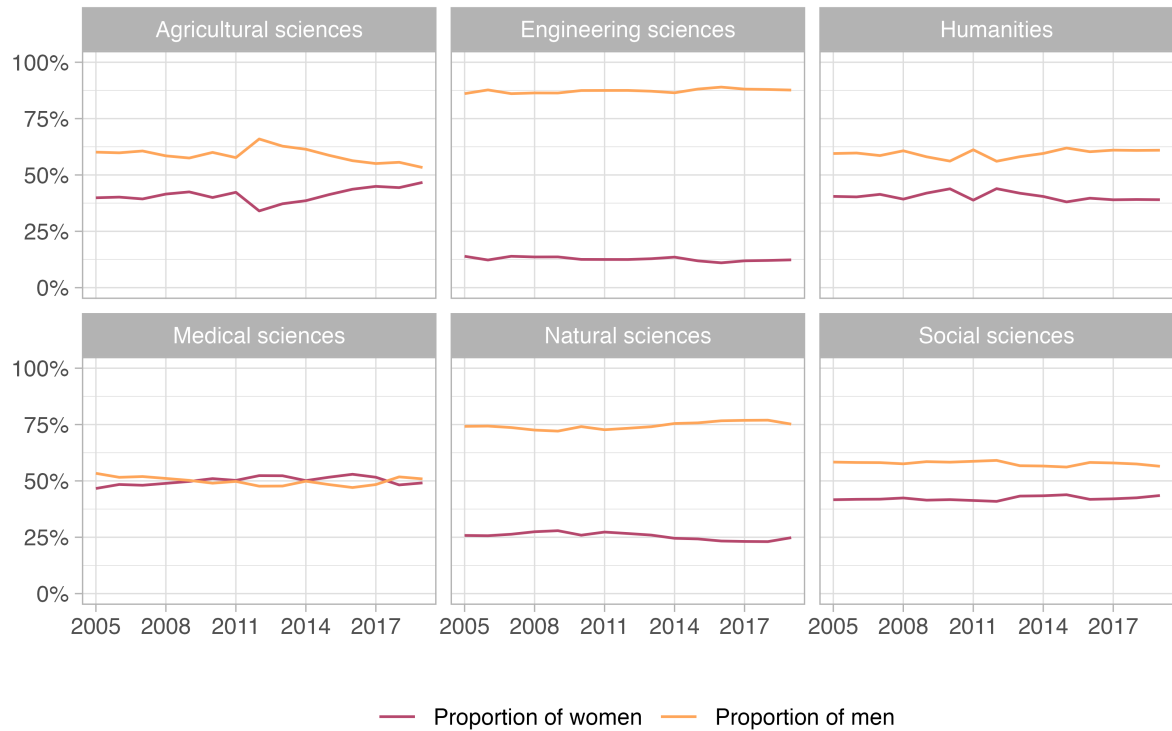
Figure 25: Researchers by sex and field of study in the year 2019



Data source: Statistical yearbook of Ministry of education (Employees and salaries)
Data computed based on averaged full time equivalent

Figure 26 presents the trend of the proportion of male and female researchers between 2001 and 2019. It shows that the composition of the different fields is relatively stable, but there are some changes. In the natural sciences, there has been a slight increase in the proportion of men among researchers. In the humanities and agricultural sciences, the gender composition of researchers is very balanced and there has been no change in which group predominates. The situation in other fields has not changed much in recent years.

Figure 26: Researchers podle sex, field of study and year



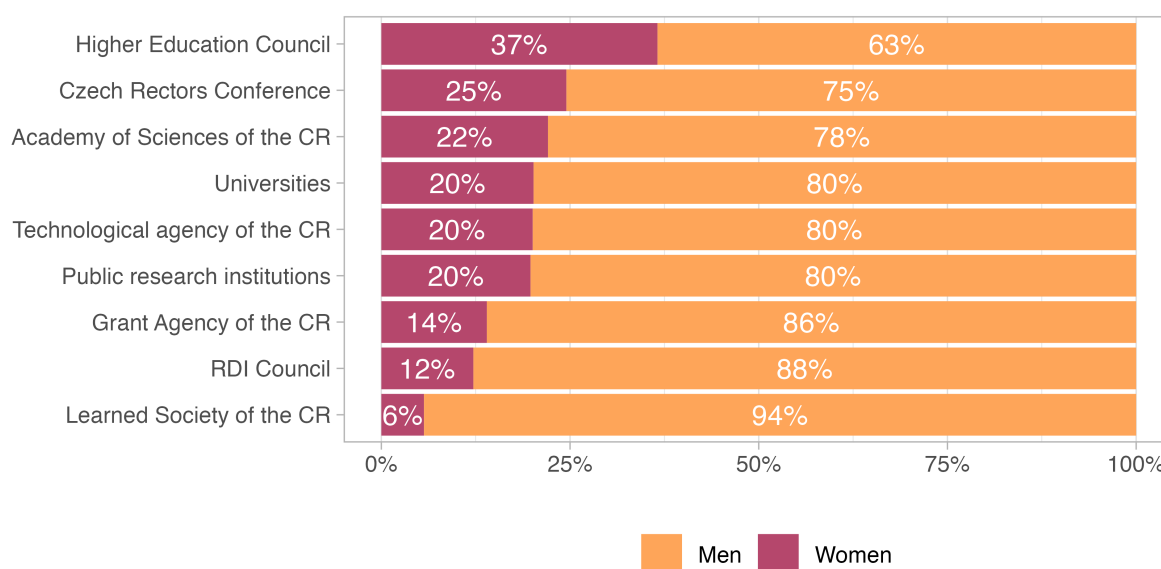
Data source: Statistical yearbook of Ministry of education (Employees and salaries)
Data computed based on averaged full time equivalent

7 Leadership positions

- Women held 21% of all leadership positions (in research?) in 2019
- The highest number of women among researchers sitting on academic boards was in the Higher Education Council, the lowest in the Learned Society of the Czech Republic.

This chapter examines the gender make-up of people in leadership positions at Czech research institutions. The data for this chapter were obtained from the yearly reports of the selected organisations. In total, 9 types of institutions were analysed. There were 6035 persons in leadership positions in 2019. Out of them, 21% were women. The rest of this chapter describes the gender make-up of the selected institutions. Because the number of people per institution is relatively low, total frequencies will be reported together with percentages.

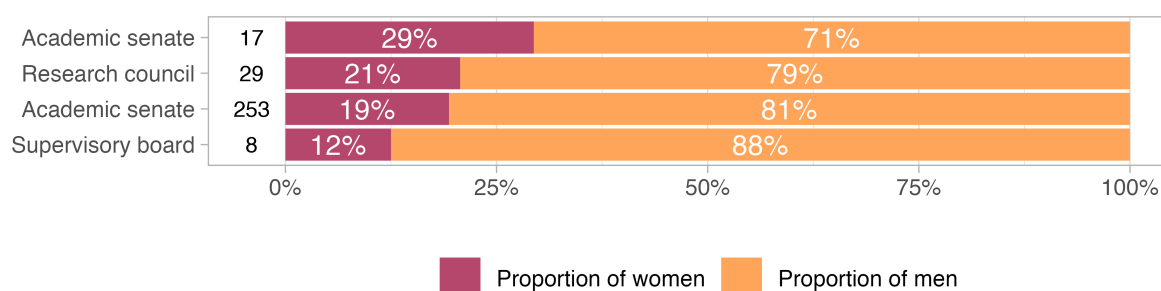
Figure 27: Proportion of men and women in leadership position at the Czech academy of sciences



Academy of sciences of the Czech republic

First will look at the Czech Academy of Sciences (CAS). The number of men and women who work at this institution can be seen in Figure 28. The numbers at the bottom of the column [along the bottom axis of the figure] represent the absolute frequencies. As is apparent, men form the majority of people in leadership positions. In 2019, the chair was a woman.

Figure 28: Proportion of men and women in main bodies at CAS in the year 2019



Number at the foot of column represent absolute counts

Figure 29 shows the number of men and women in leadership positions of individual departments of the Czech Academy of Sciences, specifically among department directors and members of the Supervisory Board.

Figure 29: Proportion of men and women in leading positions at CAS in the year 2019

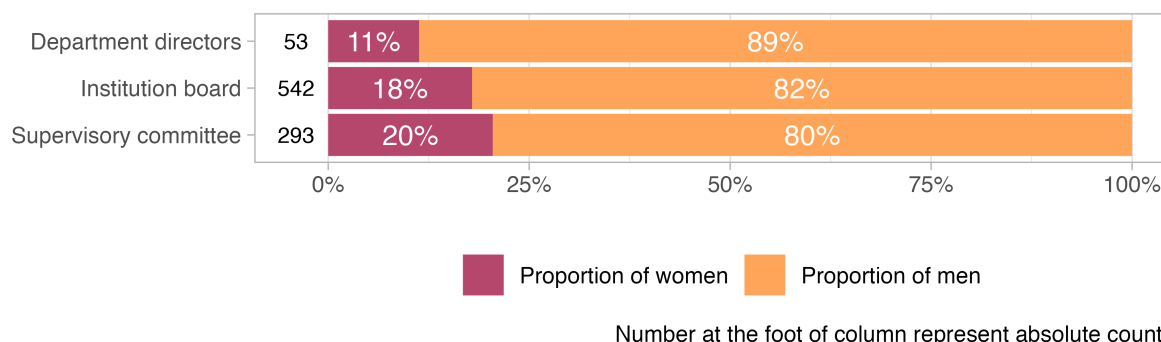
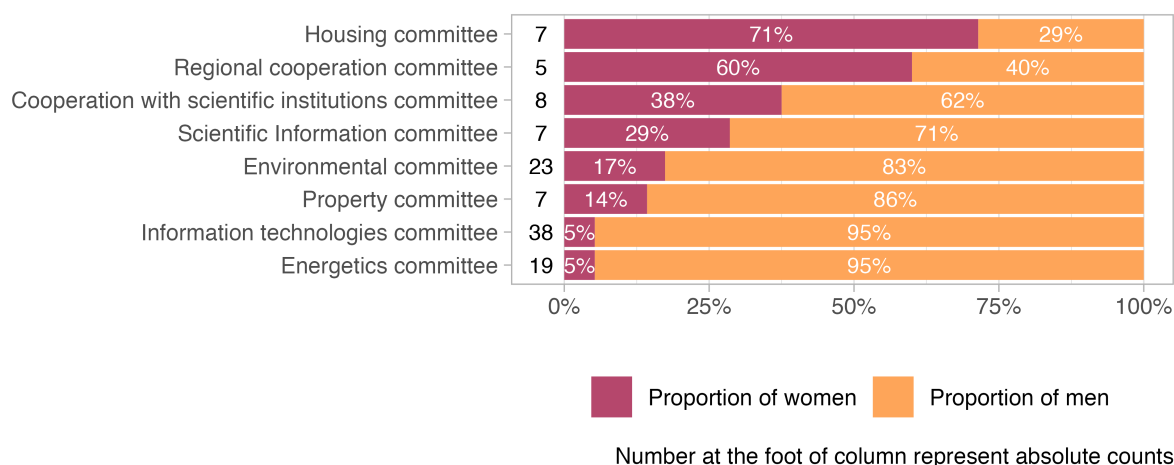


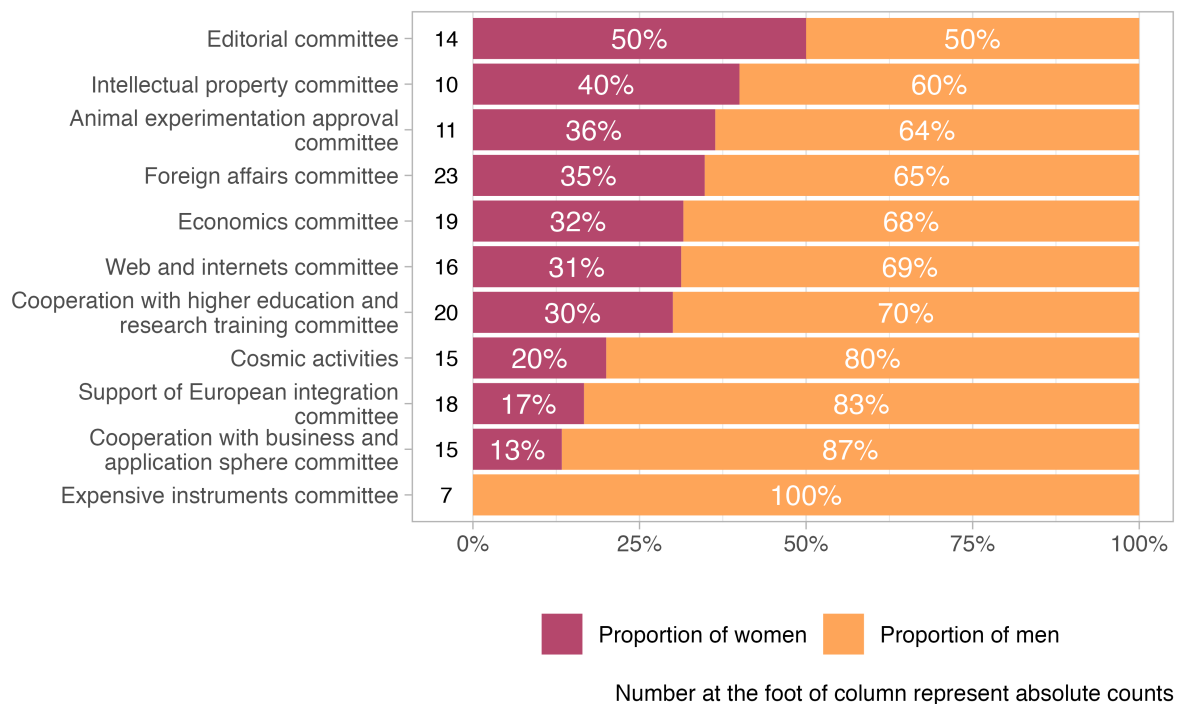
Figure 30 shows the number of men and women that sit in the expert committees of the Czech Academy of Sciences. The number of men is in here is also higher than the number of women.

Figure 30: Proportion of men a women in expert committees at CAS in the year 2019



The last type of academic bodies that are part of the Czech Academy of Sciences organs are the expert councils committees. The number of men and women can be seen in Figure 31.

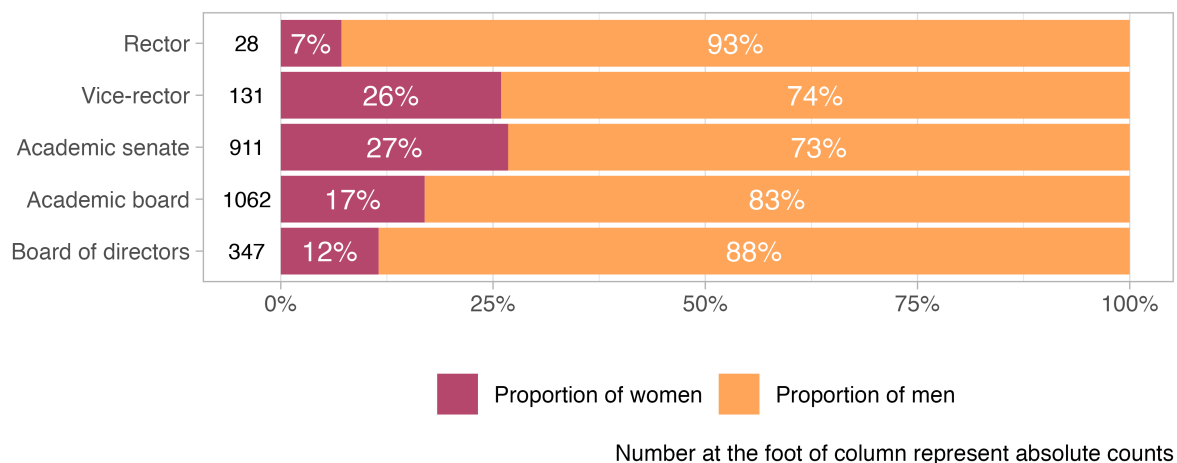
Figure 31: Number of men and women at committees and resorts at CAS in the year 2019



Universities

Figure 32 shows the number of men and women in leadership positions at Czech universities. The majority of people in these positions are men.

Figure 32: Proportion of men and women in higher education leadership in the year 2019

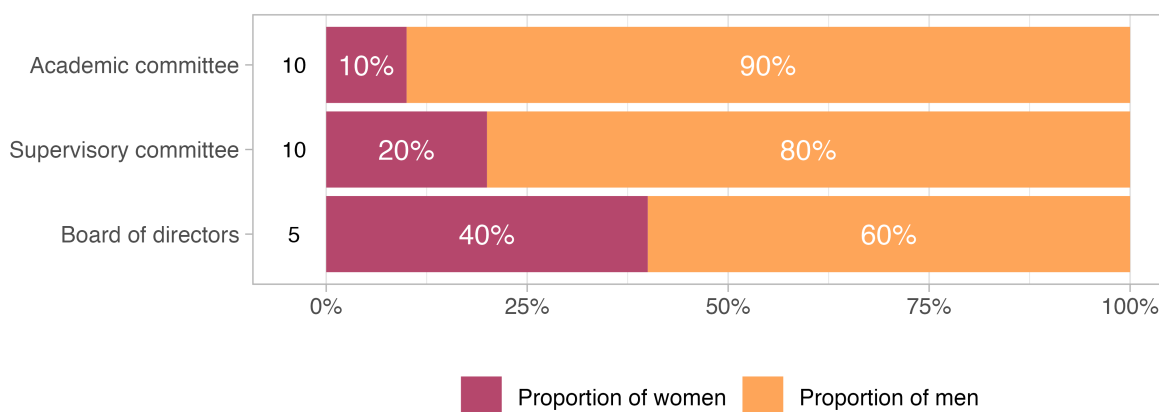


Czech Science Foundation

This chapter looks at the number of men and women employed at the Czech Science Foundation, which is the largest agency of its kind in the Czech Republic.

Figure 33 shows the gender structure of governing bodies at the Czech Science Foundation. Here again men make the majority of all persons in leadership positions. The chair of the Czech Science Foundation in 2019 was a woman.

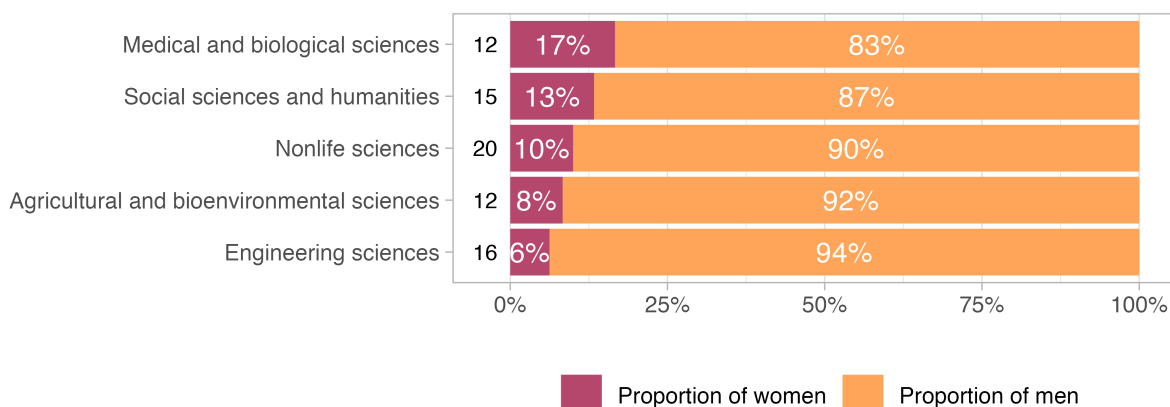
Figure 33: Number of men and women in governing bodies at GACR in the year 2019



Number at the foot of column represent absolute counts (data from 31.12.2017)

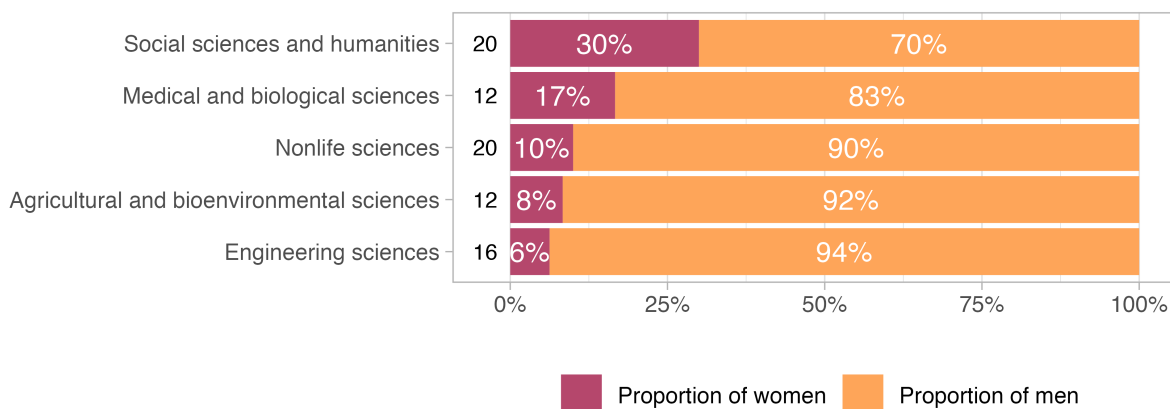
shows the number of men and women who sit on the Czech Science Foundation's evaluation panels, and here again share of men on these committees is much greater than women. Figure 34 Similar picture can be seen in Figure 35 for discipline committees.

Figure 34: Number of men and women in evaluation panels at GACR in the year 2019



Number at the foot of column represent absolute counts (data from 31.12.2017)

Figure 35: Number of men and women in field committees at GACR in the year 2019

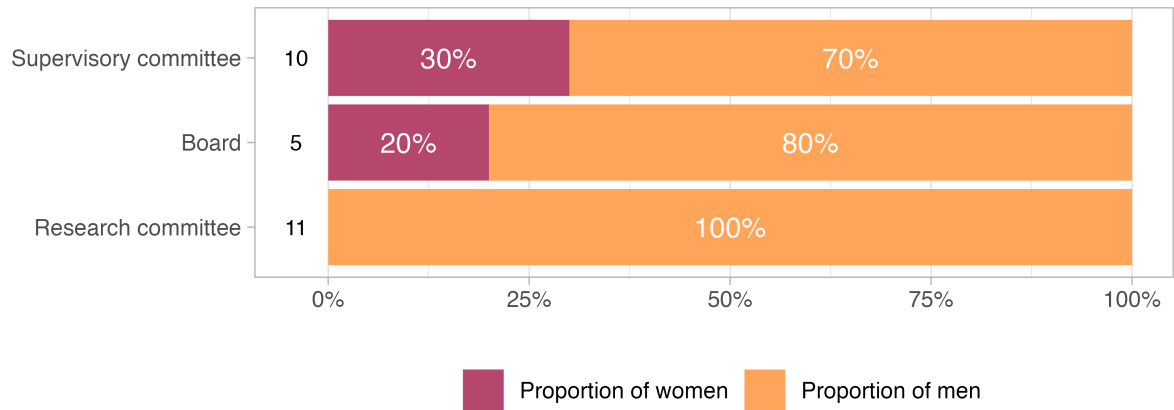


Number at the foot of column represent absolute counts (data from 31.12.2017)

The Technology Agency of the Czech Republic (TACR)

The second-largest grant agency in the Czech Republic is the Technology Agency of the Czech Republic. Figure 36 presents the gender structure of its management bodies. The chair of the agency in the year 2019 was a man. The deputy chair of the agency that year was a man.

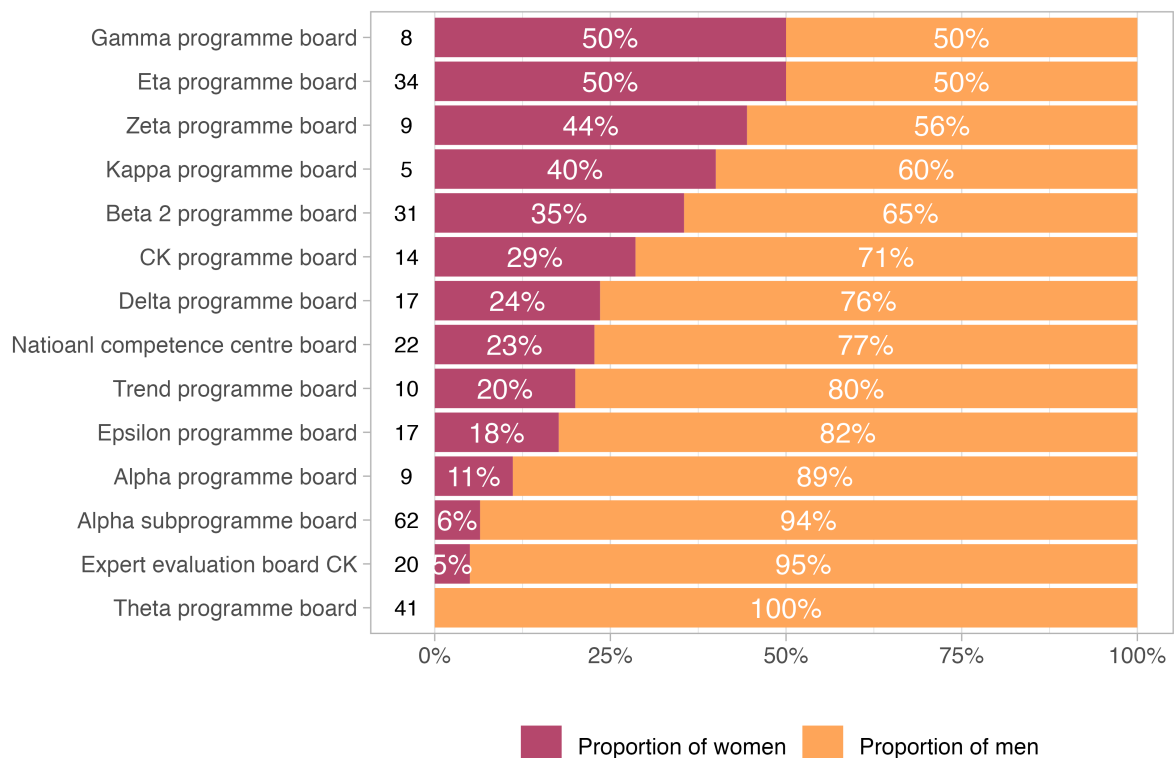
Figure 36: Number of men and women in the governing bodies at TACR in the year 2019



Number at the foot of column represent absolute counts (data from 31.12.2017)

Figure 37 shows the number of men and women in the Technology Agency's individual programme boards.

Figure 37: Number of men and women in programme committees at TACR in the year 2019

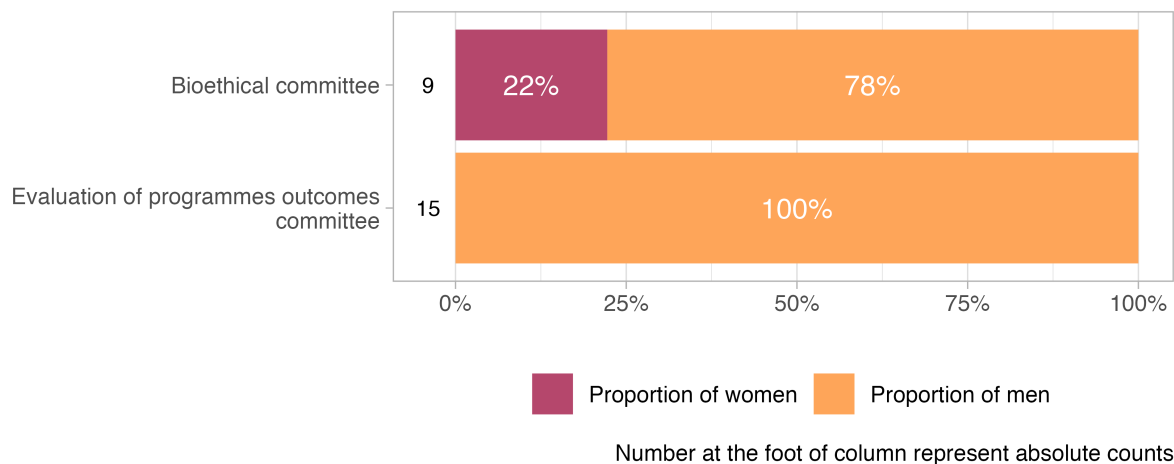


Number at the foot of column represent absolute counts (data from 31.12.2017)

Research, Development and Innovations Council (RDI)

The Research, Development and Innovation Council, a government advisory body, had 14 men and 3 women among its members in 2019. Figure 38 shows the number of men and women for each committee.

Figure 38: Expert committees in RDI Council in the year 2019



Council of higher education

The Council of Higher Education has several governing bodies and working groups. Figure 40 shows the gender composition of the council's governing bodies and Figure 39 shows the gender structure of its working groups. It is evident that the governing bodies are primarily made up of men, while the situation in the working groups is somewhat more balanced. The chair of the Council of Higher Education in 2019 was a man.

Figure 39: Number of men and women in the governing bodies at Higher Education Council in the year 2019

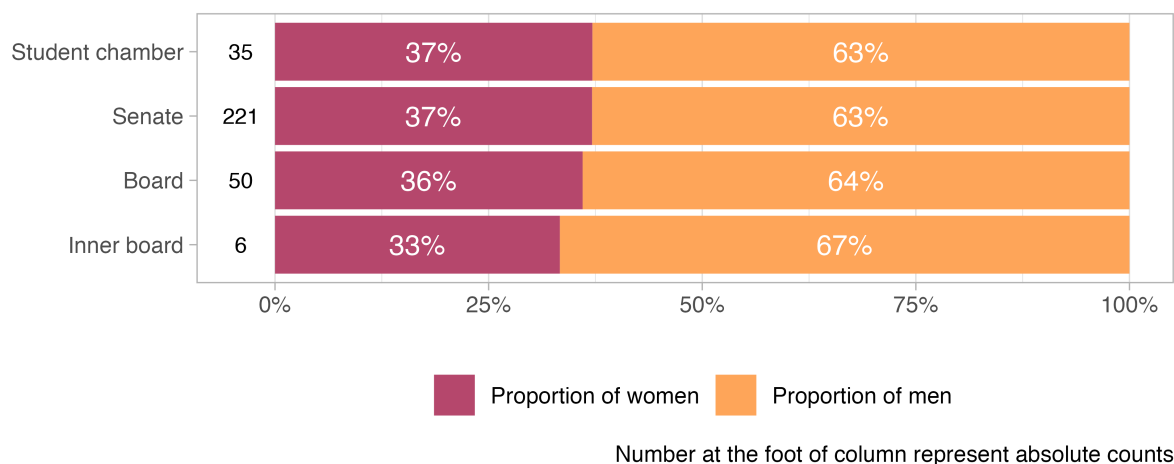
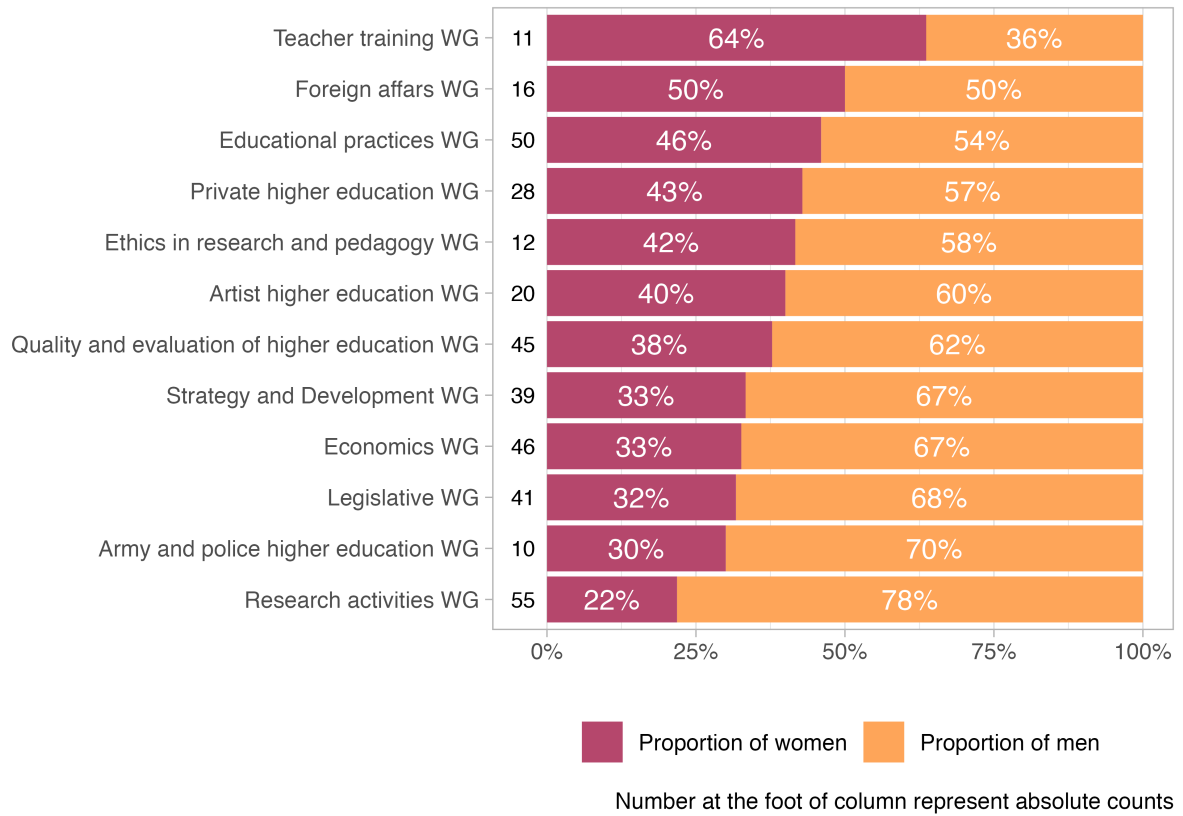


Figure 40: Number of men and women in working groups at Higher Education Council in the year 2019



Czech Rectors Conference

The Czech Rectors Conference (CRC) is headed by a chair and a board. The chair in 2019 was a man. The board was made up of 5 men and 1 woman. Figure 41 shows the proportion of men and women in the CRC's individual committees and Figure 42 shows the gender structure of its working groups.

Figure 41: Proportion of men a women Czech Rector Conference governing bodies in the year 2019

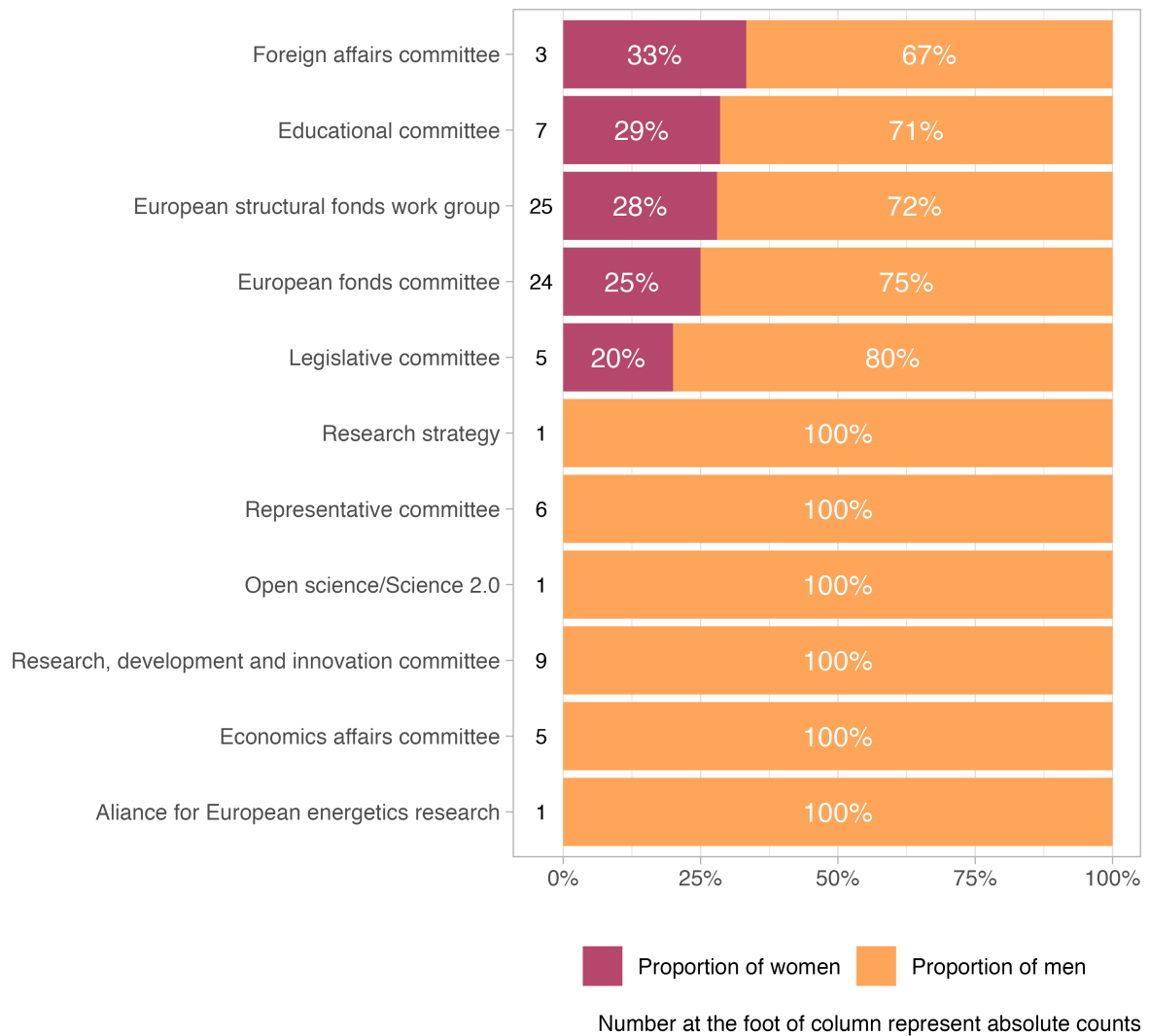
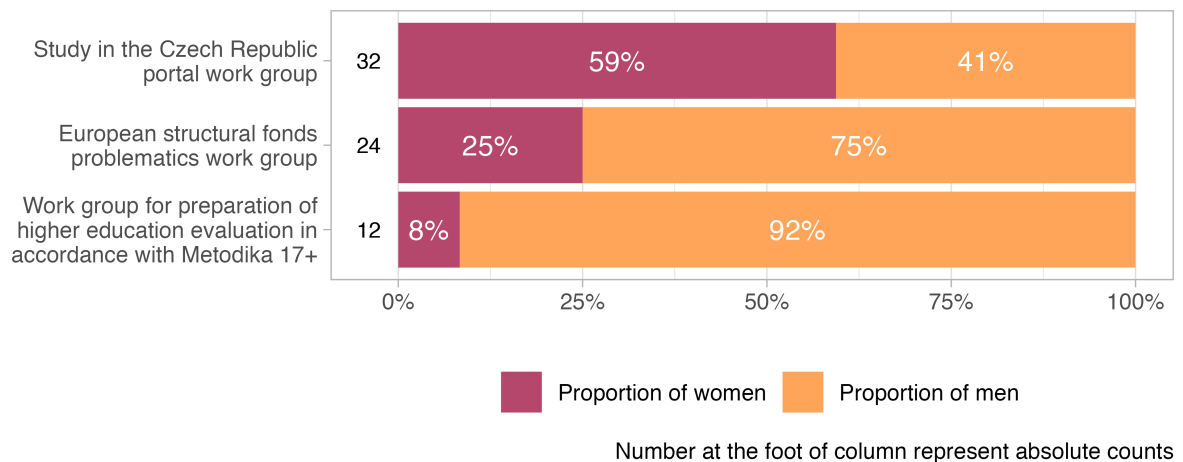


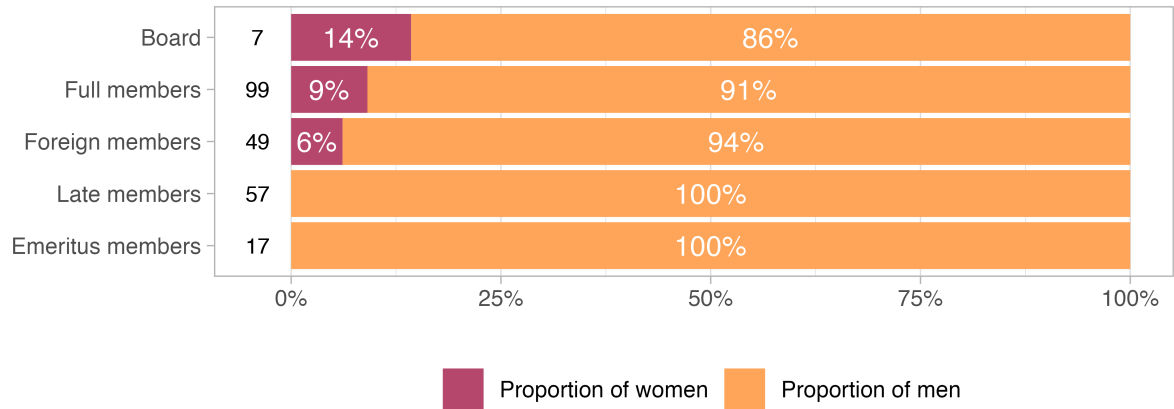
Figure 42: Proportion of men and women Czech Rector Conference work groups in the year 2019



Learned society of the Czech republic

The last institution in this chapter is the Learned Society of the Czech Republic, whose membership in 2019 was predominantly made up of men. The chair in 2019 was a man.

Figure 43: Number of men and women in the Learned Society of the cR in the year 2019



Number at the foot of column represent absolute counts

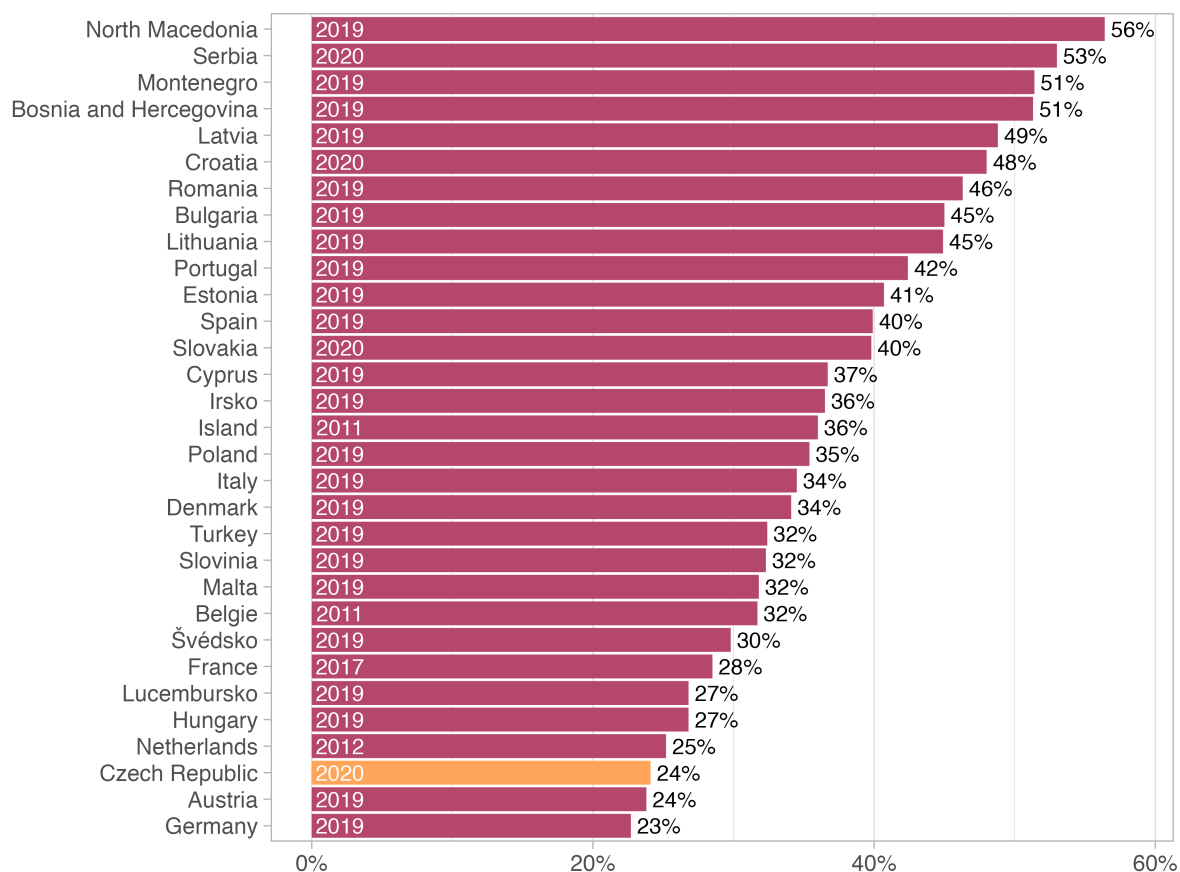
8 Czech republic in international comparison

- In the European context, the Czech republic is one of the countries with the lowest female representation in research (24 % in 2019),
- The Czech republic was among the countries with the lowest number of women in research since 2000.

Finally, let's look at how the Czech Republic compares to other European countries. The data in this chapter are drawn from Eurostat databases. It should be noted that they are not fully up-to-date for every country, which should be taken into account in the interpretation.

Figure 44 presents the share of women in the research sector. It shows that the share of women in science in the Czech Republic is well below the average for European countries.

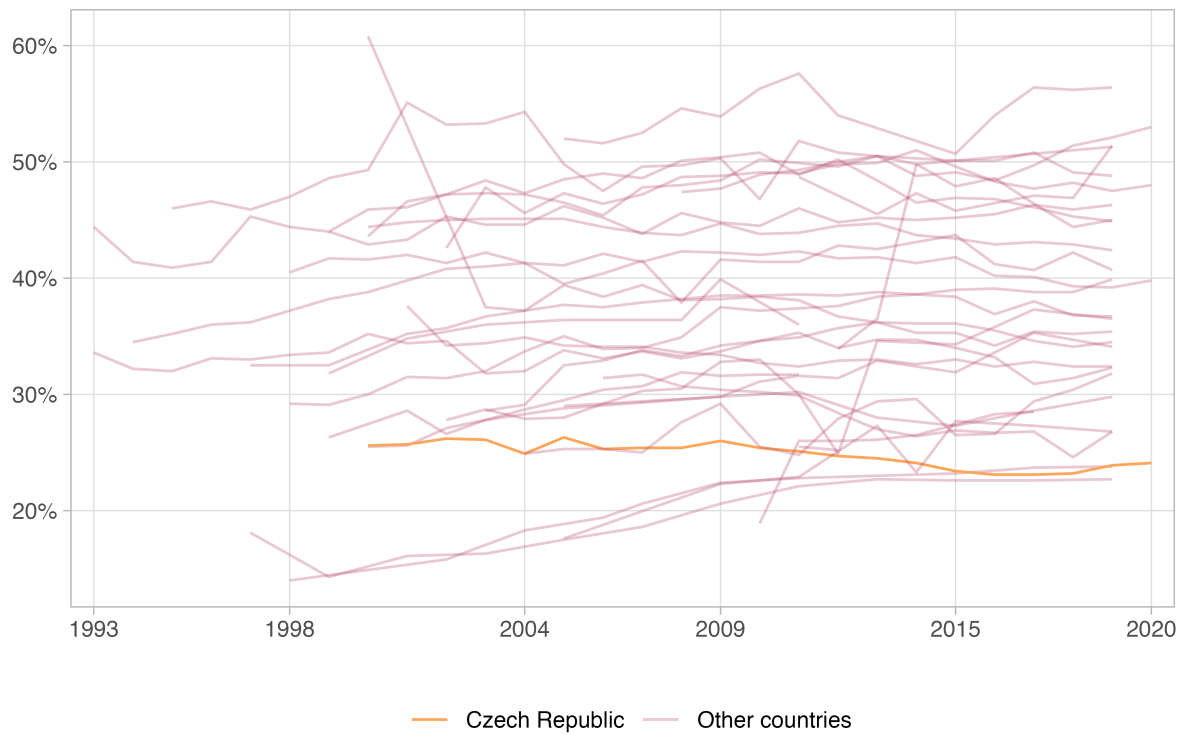
Figure 44: Proportion of women in research by country



Source: Eurostat. Year when the data were gathered varies across countries. The year of data is at bottom of column
 Proportion of women computed from averaged full time equivalent

Figure 45 shows the share of women in the Czech Republic compared to other countries over time. It is clear that the Czech Republic has had below average shares of women in research for a long time.

Figure 45: Proportion of women in research by country and year



Data source: Eurostat.
Proportion of women computed from averaged full time equivalent

9 Annex

This annex provides an overview of the data sources used in this report, definitions of terms and job roles, and tables of relative and absolute numbers of students, graduates, and employees in research, development, and innovation.

9.1 Data sources

Several data sources are used in this report. The first is the University Performance Indicators from the Department of Statistics, Analysis and Development of Education of the Ministry of Education, available at https://dsia.msmt.cz/vystupy/vu_vs.html. This source contains the numbers of students and graduates from universities by gender, year, and institution. It should be noted that the time series on students and graduates published by the MoEYS are re-generated each year. Universities have the possibility to retrospectively change the data on numbers of learners and graduates, which they do. The data generated in this year may therefore be different from data published in previous years (and therefore in previous monitoring reports). At the same time, there has been a change in the methodology, whereby learners are no longer published under individual fields of study and are instead published under the faculties of the universities. For this reason, the affiliation of students and graduates was manually coded using the Frascati Manual <https://www.oecd.org/sti/inno/frascati-manual.htm>.

The information on researchers comes from two sources. The first is the Statistical Yearbook of Education of the Ministry of Education (chapter Staff and salary resources): <https://www.msmt.cz/vzdelavani/skolstvi-v-cr/statistika-skolstvi/statistickeroценky-skolstvi-zamestnanci-a-mzdove-prostredky>), which contains information on the number of men and women by research position, scientific field, and year. The second source is the R&D indicators published by the Czech Statistical Office (https://www.czso.cz/csu/czso/statistika_vyzkumu_a_vyvoje), in which it is possible to find the number of men and women among research and development employees by type of job, field, and sector of work. Employee shares are calculated from the average registered number of FTE employees, and the reason for this is because it is common in research and development for one full-time employee to be working in more than one workplace and using a simple headcount would result in the same researchers being counted repeatedly.

Information on the gender composition of leadership positions comes primarily from the annual reports of the selected organisations. Specifically, these include the annual report of the Council for Science, Research and Innovation (<https://rvvi.msmt.cz/select.php> and www.vyzkum.cz), the annual reports of individual universities (list available at <https://www.msmt.cz/ministerstvo/odkazy/vysoke-skoly>), the website of the Czech Grant Agency (www.gacr.cz), the website of the Czech Technical Agency (www.tacr.cz), the annual report of the Czech Academy of Sciences (www.avcr.cz), the annual report of the Council of Higher Education (<http://www.radavs.cz/>), the annual report of the Czech Rectors' Conference (<https://www.crc.muni.cz/>) and finally the annual report of the Learned Society of the Czech Republic (<https://www.learned.cz/>).

The following table provides official definitions of academic and other positions appearing in this monitoring report.

Table 1: Definition of employment position used in the report

Position	Definition	Data source
Research and development staff	A group consisting of researchers, technical and professional staff, and other research and development employees.	CZSO – Research and Development Indicators

Researchers	Research and development staff who create new or enhance existing knowledge, typically by managing and/or carrying out activities that involve the conception or creation of new knowledge, products, processes, methods, and systems, applying scientific concepts and theories. Their work typically involves conducting research and development activities such as: the management or supervision of such activities (e.g. managing the research of postgraduate students); disseminating and applying scientific knowledge gained from the study of particular disciplines; and collecting, processing, analysing, and interpreting scientific papers and reports	CZSO – Research and Development Indicators
Technical and specialised staff	Research and development staff who perform technical, specialised, practical, and support tasks related to research and development and the application of scientific concepts and operational methods, usually under the supervision of researchers. Technical and specialised staff also includes associate researchers, such as research assistants or laboratory technicians, who, while performing assigned research tasks, do not themselves create or extend existing knowledge. Their usual activities include: installing, monitoring, operating, and servicing special instruments and equipment; carrying out and monitoring tests, experiments, laboratory analyses, and field work; collecting and testing samples; recording, observing, and analysing data without attempting to interpret the findings in a professional manner; drawing up, examining, and interpreting technical drawings and graphs; planning and carrying out mathematical, statistical, and related calculations; storing data in databases and editing computer records; searching and verifying bibliographic data, etc.	CZSO – Research and Development Indicators
Other research and development staff	Research and development staff involved in or integrated into research and development activities (e.g. craftspeople[?maintenance workers?], secretaries, and clerks). Managers and administrative staff whose activities are in direct service of research and development are also included.	CZSO - Research and Development Indicators
Academic staff	Professors, associate professors, honorary professors, assistant professors, research assistants, lecturers, and scientific, research and development workers who are employees of the university. They carry out direct teaching activities, work related to direct teaching activities, scientific, research, development, and innovation, artistic or other creative activities.	MEYS – Statistical Yearbook (Employees and salary funds); MEYS - Annual Reports on the Activities of Public Universities; Mandatory Reports of Public Universities according to Act No. 111/1998 Coll., on Higher Education and on Amendments and Additions to Other Acts, §21, paragraph 1

Specialists in science and technology	People in the highest skill level jobs. These include, for example: astronomers, meteorologists, chemists, geologists, statisticians, biologists, botanists, zoologists, specialists in manufacturing, construction, and related fields, architects, cartographers, surveyors, electrical engineers, or graphic and multimedia artists. The group is defined by the internationally used ISCO-08 classification or its national mutation CZ-ISCO	CZSO - Labour Force Sample Survey (LFS)
R&D decision-makers	Persons in institutional management (directors, rectors), persons in decision-making, strategic, and control[audit] bodies, and persons in R&D advisory bodies.	Annual reports and websites of relevant institutions; authors calculations
Persons in charge of institutions	Persons in institutional management (directors, rectors), persons in decision-making, strategic and control[audit/inspection] bodies, and persons in R&D advisory bodies.	Annual reports and websites of relevant institutions; authors calculations
Persons in strategic and control[audit/inspection] decision-making bodies	Persons in decision-making and control[audit/inspection] bodies are classified according to the individual institutions: institute councils and supervisory boards; higher education institutions: academic senates, vice-deans, scientific/artistic/academic councils, administrative Boards; Czech Science Foundation: Board, Scientific Board, Supervisory Board; TA CR: Board, Research Board, Supervisory Board; CAS CR: Academic Assembly, Supervisory Board, Academic Council, Scientific Council; R&D Council: members/committees of the R&D Council; University Council: Bureau, Assembly; CRC: Bureau, Chambers (quite logically, this pretty much replicates the HE leadership); The Learned Society of the Czech Republic: Bureau, Board	Annual reports and websites of relevant institutions; authors calculations
Persons on advisory bodies	The following institutions are included here: Czech Science Foundation (GA CR): evaluation panels, sectoral commissions; TA CR: programme councils and commissions; CAS CR: commissions and councils; R&D Council: commissions (OK+ others); Council of Higher Education: working committees and working groups; CRC: working groups and committees	Annual reports and websites of relevant institutions; own elaboration

9.2 Frequency tables

Table 2: Proportion of men and women among students by year a level of education

Year	Bachelor level		Master level		PhD level	
	Total number	Proportion of women	Total number	Proportion of women	Total number	Proportion of women
2019	514 670	54.9%	301 593	59.9%	62 823	44.7%
2018	508 231	55.2%	309 798	59.7%	64 234	44.6%
2017	521 739	55.4%	322 886	59.8%	66 614	44.9%
2016	545 475	55.4%	335 361	59.6%	69 789	44.6%
2015	583 751	55.4%	342 703	59.4%	71 866	43.9%
2014	629 120	55.6%	359 411	59.7%	72 853	44.4%
2013	681 729	55.5%	370 264	60.0%	74 423	44.3%
2012	714 590	55.5%	378 635	60.4%	74 717	44.0%
2011	742 434	55.4%	385 857	60.3%	77 265	43.0%
2010	755 356	55.5%	385 492	59.8%	78 015	42.9%
2009	742 058	55.2%	380 502	59.6%	76 813	42.2%
2008	698 507	54.2%	363 106	60.0%	73 843	41.2%
2007	633 165	52.8%	353 805	59.6%	72 220	40.0%
2006	553 212	51.2%	349 949	59.1%	70 220	39.4%
2005	468 278	50.2%	355 726	57.4%	67 186	38.3%
2004	374 459	49.6%	377 350	54.8%	64 495	36.9%
2003	273 616	49.7%	419 288	51.5%	60 332	35.9%
2002	184 009	52.4%	441 614	49.4%	54 433	36.2%
2001	130 033	54.0%	447 394	48.1%	49 673	36.4%

Table 3: Proportion of men and women among students by year a level of education in humanities

Year	Bachelor level		Master level		PhD level	
	Total number	Proportion of women	Total number	Proportion of women	Total number	Proportion of women
2001	5 440	64.2%	10 666	61.0%	2 104	49.2%
2002	7 428	65.8%	10 402	61.5%	2 248	49.7%
2003	9 857	66.9%	9 835	61.8%	2 480	49.7%
2004	12 073	68.3%	9 308	63.2%	2 697	48.9%
2005	14 423	68.7%	8 802	64.6%	2 828	50.0%
2006	16 761	69.5%	8 801	66.0%	3 016	50.8%
2007	19 335	69.4%	8 771	66.7%	3 198	50.9%
2008	21 964	69.6%	8 806	66.8%	3 319	52.2%
2009	23 956	69.5%	9 056	67.6%	3 501	53.4%
2010	24 734	69.0%	9 067	68.5%	3 628	54.6%
2011	24 880	68.9%	9 118	69.0%	3 646	53.8%
2012	24 362	69.2%	8 996	68.1%	3 675	54.3%
2013	23 542	68.7%	8 664	68.0%	3 697	54.2%
2014	22 364	68.1%	8 440	67.3%	3 582	55.0%
2015	21 160	68.3%	8 331	68.0%	3 496	54.8%
2016	19 818	67.9%	8 025	68.4%	3 402	55.1%
2017	19 037	68.2%	7 647	67.1%	3 213	53.6%
2018	18 407	68.2%	7 336	66.5%	3 063	52.5%
2019	18 365	68.8%	6 892	66.0%	2 896	52.6%

Table 4: Proportion of men and women among students by year a level of education in medical sciences

Year	Bachelor level		Master level		PhD level	
	Total number	Proportion of women	Total number	Proportion of women	Total number	Proportion of women
2001	3 905	85.1%	12 472	65.4%	1 394	39.8%
2002	4 667	84.9%	13 331	66.9%	1 567	40.2%
2003	5 645	86.2%	13 938	68.0%	1 918	41.2%
2004	6 843	86.0%	14 819	68.6%	2 164	41.3%
2005	8 260	86.5%	15 338	69.1%	2 385	43.3%
2006	9 997	86.4%	16 182	69.0%	2 609	44.2%
2007	11 366	87.0%	16 538	69.1%	2 733	45.5%
2008	12 678	86.3%	16 966	69.2%	2 880	46.8%
2009	13 790	86.0%	17 213	68.5%	2 932	49.6%
2010	14 758	85.9%	17 648	68.3%	2 893	50.6%
2011	15 120	86.1%	18 340	68.4%	2 852	51.2%
2012	15 134	85.9%	18 458	68.8%	2 886	52.7%
2013	14 907	86.0%	18 950	69.0%	2 828	52.4%
2014	14 159	85.4%	18 896	68.6%	2 808	53.3%
2015	13 857	85.1%	19 095	68.2%	2 870	52.9%
2016	13 579	85.2%	19 343	68.1%	2 838	53.5%
2017	13 554	84.9%	19 208	68.3%	2 766	53.3%
2018	13 232	84.9%	18 933	67.6%	2 663	51.7%
2019	13 293	84.6%	19 671	68.1%	2 867	52.0%

Table 5: Proportion of men and women among students by year a level of education in natural sciences

Year	Bachelor level		Master level		PhD level	
	Total number	Proportion of women	Total number	Proportion of women	Total number	Proportion of women
2001	2 071	53.3%	6 177	46.2%	3 327	41.8%
2002	3 241	55.4%	6 136	46.6%	3 610	42.9%
2003	5 685	53.6%	4 893	50.8%	3 689	44.0%
2004	7 269	55.3%	4 041	52.8%	3 914	45.2%
2005	9 535	55.6%	3 420	55.1%	3 975	46.5%
2006	10 983	55.5%	3 252	58.7%	4 158	47.5%
2007	11 961	55.4%	3 412	61.3%	4 101	48.6%
2008	12 243	55.9%	3 783	62.2%	4 146	50.2%
2009	12 639	57.1%	3 915	61.7%	4 254	51.4%
2010	13 634	58.6%	3 943	61.3%	4 280	51.3%
2011	13 522	58.3%	4 025	61.8%	4 354	51.6%
2012	13 682	58.9%	3 880	62.7%	4 430	52.2%
2013	13 772	59.0%	3 940	63.1%	4 569	53.0%
2014	13 232	59.7%	3 998	61.9%	4 522	51.6%
2015	12 088	59.7%	3 938	62.7%	4 450	51.2%
2016	11 081	59.9%	3 881	63.7%	4 418	51.2%
2017	10 910	59.5%	3 706	64.9%	4 322	50.9%
2018	10 685	59.5%	3 655	64.8%	4 255	51.8%
2019	11 812	59.6%	3 738	63.4%	4 103	51.0%

Table 6: Proportion of men and women among students by year a level of education in social sciences

Year	Bachelor level		Master level		PhD level	
	Total number	Proportion of women	Total number	Proportion of women	Total number	Proportion of women
2001	23 580	56.9%	66 770	61.5%	3 720	45.2%
2002	31 515	57.4%	66 834	62.6%	4 008	44.0%
2003	42 859	58.4%	66 755	63.1%	4 366	42.8%
2004	57 715	59.1%	63 219	64.8%	4 740	43.2%
2005	71 988	60.3%	62 123	66.4%	5 139	44.3%
2006	86 534	61.2%	62 606	67.2%	5 464	45.2%
2007	104 510	62.3%	64 032	67.3%	5 744	45.2%
2008	118 567	63.3%	66 507	67.2%	6 007	46.6%
2009	128 634	63.7%	69 270	66.9%	6 348	47.2%
2010	129 732	63.8%	70 153	67.1%	6 477	48.6%
2011	125 563	63.0%	69 726	67.3%	6 322	48.6%
2012	118 193	62.7%	67 708	67.4%	5 762	49.5%
2013	110 698	62.6%	65 094	66.7%	5 612	50.2%
2014	99 980	62.5%	62 454	66.4%	5 445	49.6%
2015	92 063	61.9%	57 596	65.7%	5 332	49.4%
2016	85 287	61.8%	55 641	65.6%	5 255	50.4%
2017	80 794	61.6%	53 234	65.6%	5 025	50.8%
2018	78 953	61.1%	50 714	65.5%	4 790	49.1%
2019	81 004	60.6%	49 086	65.4%	4 539	49.7%

Table 7: Proportion of men and women among students by year a level of education in technical sciences

Year	Bachelor level		Master level		PhD level	
	Total number	Proportion of women	Total number	Proportion of women	Total number	Proportion of women
2001	7 479	21.1%	46 457	20.8%	5 233	20.9%
2002	12 283	17.4%	44 647	21.4%	5 891	20.4%
2003	23 554	15.9%	38 948	22.9%	6 780	20.1%
2004	36 080	19.4%	29 434	23.6%	7 047	21.1%
2005	45 901	20.3%	24 241	23.8%	7 102	21.9%
2006	53 327	21.4%	21 246	23.6%	7 185	22.8%
2007	56 380	21.7%	20 749	23.7%	7 349	23.6%
2008	58 830	22.5%	20 607	24.4%	7 289	23.7%
2009	59 282	23.2%	22 993	26.3%	7 500	23.7%
2010	59 555	23.6%	23 376	26.6%	7 632	23.5%
2011	59 083	24.5%	23 070	27.5%	7 501	23.9%
2012	57 187	25.5%	22 783	27.8%	7 271	24.9%
2013	55 574	26.2%	22 423	27.7%	7 250	25.1%
2014	51 674	26.8%	21 742	27.8%	7 086	25.3%
2015	47 594	26.6%	21 047	28.6%	6 957	24.6%
2016	44 485	26.7%	20 542	29.7%	6 523	25.2%
2017	42 318	26.6%	19 597	30.7%	6 101	26.4%
2018	41 142	26.3%	18 662	30.9%	5 842	27.3%
2019	40 167	24.8%	17 361	30.6%	5 716	27.5%

Table 8: Proportion of men and women among students by year a level of education in agricultural sciences

Year	Bachelor level		Master level		PhD level	
	Total number	Proportion of women	Total number	Proportion of women	Total number	Proportion of women
2001	805	54.5%	6 291	52.3%	769	35.2%
2002	2 101	57.5%	5 570	53.4%	805	36.9%
2003	3 392	56.7%	5 108	53.8%	857	39.6%
2004	4 567	55.4%	4 707	56.3%	916	44.3%
2005	5 635	55.9%	4 417	60.9%	938	45.9%
2006	6 405	55.1%	4 361	63.9%	939	46.9%
2007	7 000	56.0%	4 226	65.1%	921	45.5%
2008	7 950	55.6%	4 124	67.1%	948	47.3%
2009	8 402	56.5%	4 122	67.5%	1 049	49.2%
2010	8 786	56.4%	4 036	67.5%	1 074	50.9%
2011	8 745	57.4%	4 094	67.0%	1 057	51.3%
2012	9 186	57.1%	4 180	67.8%	859	52.3%
2013	8 303	59.6%	4 162	67.7%	830	53.0%
2014	7 900	60.7%	4 089	66.9%	824	56.3%
2015	7 446	61.0%	4 041	65.9%	835	53.7%
2016	7 268	60.0%	4 156	66.5%	812	53.1%
2017	7 005	59.9%	4 065	66.6%	762	52.9%
2018	6 705	60.4%	3 830	67.3%	785	51.3%
2019	6 654	60.7%	3 645	67.3%	808	52.1%

Table 9: Proportion of men a women among graduates by year and level of education

Year	Bachelor level		Master level		PhD level	
	Total number	Proportion of women	Total number	Proportion of women	Total number	Proportion of women
2019	97 552	61.3%	88 507	59.3%	6 932	43.8%
2018	104 409	60.8%	94 562	59.9%	7 116	44.0%
2017	111 479	61.5%	98 135	59.4%	7 164	40.6%
2016	123 339	61.9%	102 459	59.4%	7 029	43.0%
2015	130 817	61.6%	108 776	60.1%	7 230	44.1%
2014	145 159	61.7%	112 971	60.6%	7 401	42.8%
2013	153 051	62.1%	115 798	61.0%	7 218	43.2%
2012	157 779	62.4%	117 512	60.5%	7 989	41.9%
2011	156 310	62.6%	116 705	60.1%	7 317	43.5%
2010	147 877	61.3%	110 751	59.6%	6 666	39.5%
2009	136 045	59.3%	103 074	59.5%	7 125	38.4%
2008	117 444	58.2%	95 997	56.9%	7 134	37.7%
2007	98 997	56.8%	86 324	56.4%	6 801	37.4%
2006	75 307	57.9%	79 769	55.2%	6 177	36.0%
2005	54 809	57.6%	72 917	52.0%	5 850	31.6%
2004	35 906	59.8%	74 495	52.7%	5 265	35.5%
2003	61 628	59.6%	143 590	52.8%	9 846	35.6%
2002	24 037	59.6%	65 952	51.3%	4 071	34.2%
2001	23 502	57.5%	63 703	50.0%	3 288	35.3%

Table 10: Proportion of men a women among graduates by year and level of education in humanities

Year	Bachelor level		Master level		PhD level	
	Total number	Proportion of women	Total number	Proportion of women	Total number	Proportion of women
2001	814	66.6%	1 391	59.8%	98	53.1%
2002	1 100	66.6%	1 530	59.5%	161	43.5%
2003	2 541	68.5%	3 510	60.4%	309	45.6%
2004	1 425	69.3%	1 780	59.7%	160	43.1%
2005	1 749	72.7%	1 877	62.5%	194	45.9%
2006	2 317	72.7%	1 784	62.2%	203	43.3%
2007	2 775	72.5%	1 919	65.2%	224	46.9%
2008	3 118	72.5%	1 939	66.7%	272	46.0%
2009	3 569	73.4%	2 157	67.0%	256	48.0%
2010	4 023	74.8%	2 424	69.5%	263	45.2%
2011	4 425	73.9%	2 572	70.1%	314	55.1%
2012	4 566	72.8%	2 686	72.2%	343	46.4%
2013	4 441	73.4%	2 727	70.8%	274	53.6%
2014	4 259	73.5%	2 602	69.9%	297	48.8%
2015	4 110	73.1%	2 449	69.5%	341	54.8%
2016	3 853	72.7%	2 468	68.5%	351	51.6%
2017	3 619	70.8%	2 357	70.9%	289	48.1%
2018	3 573	71.9%	2 310	68.4%	295	57.6%
2019	3 232	71.2%	2 207	69.1%	291	49.8%

Table 11: Proportion of men a women among graduates by year and level of education in medical sciences

Year	Bachelor level		Master level		PhD level	
	Total number	Proportion of women	Total number	Proportion of women	Total number	Proportion of women
2001	835	87.4%	1 638	61.7%	94	47.9%
2002	890	90.3%	1 620	64.3%	103	43.7%
2003	2 085	86.3%	3 825	68.4%	314	38.5%
2004	1 113	87.4%	2 020	68.1%	167	36.5%
2005	1 550	87.9%	2 198	69.2%	183	39.9%
2006	1 833	89.2%	2 310	72.5%	179	40.2%
2007	2 124	87.5%	2 391	74.1%	233	41.6%
2008	2 515	88.2%	2 567	75.5%	225	41.3%
2009	3 092	88.8%	3 065	76.6%	243	44.9%
2010	3 243	87.1%	3 063	74.2%	219	44.3%
2011	3 648	86.1%	3 107	74.5%	254	47.2%
2012	3 655	87.9%	3 229	74.2%	226	49.6%
2013	3 704	87.0%	3 097	75.1%	272	51.1%
2014	3 764	88.3%	3 302	74.4%	261	48.7%
2015	3 444	87.7%	3 202	75.2%	221	56.1%
2016	3 428	88.2%	3 306	72.7%	224	50.9%
2017	3 146	87.1%	3 432	73.6%	240	54.2%
2018	3 137	85.8%	3 342	74.3%	225	61.8%
2019	3 130	87.1%	3 173	72.9%	222	55.9%

Table 12: Proportion of men a women among graduates by year and level of education in natural sciences

Year	Bachelor level		Master level		PhD level	
	Total number	Proportion of women	Total number	Proportion of women	Total number	Proportion of women
2001	321	55.1%	752	48.7%	242	35.5%
2002	393	56.2%	896	49.2%	308	33.4%
2003	1 136	61.4%	1 978	50.2%	728	39.7%
2004	708	60.0%	1 037	52.8%	373	39.1%
2005	826	63.0%	1 112	54.2%	451	41.0%
2006	1 620	62.2%	1 168	54.8%	471	43.7%
2007	1 963	62.5%	1 199	60.1%	446	47.8%
2008	2 232	60.8%	1 160	60.1%	477	42.6%
2009	2 231	60.8%	1 358	63.8%	464	47.6%
2010	2 371	61.4%	1 438	61.7%	474	46.0%
2011	2 329	62.3%	1 448	63.5%	511	49.9%
2012	2 364	62.4%	1 489	62.3%	498	47.0%
2013	2 542	63.4%	1 480	62.8%	483	49.5%
2014	2 411	61.0%	1 395	65.4%	488	52.0%
2015	2 197	64.0%	1 425	63.5%	481	48.4%
2016	2 211	63.2%	1 444	63.6%	494	50.4%
2017	1 979	63.1%	1 398	65.0%	563	47.8%
2018	2 059	64.0%	1 440	66.0%	531	46.1%
2019	1 986	62.3%	1 273	65.8%	563	48.1%

Table 13: Proportion of men a women among graduates by year and level of education in social sciences

Year	Bachelor level		Master level		PhD level	
	Total number	Proportion of women	Total number	Proportion of women	Total number	Proportion of women
2001	4 637	59.4%	10 794	61.9%	276	45.3%
2002	4 439	60.4%	11 018	63.7%	295	46.4%
2003	11 215	62.1%	23 842	65.1%	705	46.7%
2004	6 639	62.7%	12 485	64.2%	391	50.6%
2005	10 189	64.0%	12 495	65.0%	415	42.7%
2006	13 144	66.1%	13 636	66.1%	438	44.5%
2007	16 906	65.4%	14 874	67.3%	484	42.4%
2008	20 626	66.9%	16 976	67.8%	543	44.2%
2009	24 588	67.6%	19 187	68.8%	556	43.0%
2010	28 695	68.5%	20 665	68.8%	505	46.9%
2011	30 351	70.2%	21 791	69.4%	573	49.0%
2012	30 220	69.7%	22 131	68.9%	664	51.5%
2013	28 756	69.1%	21 634	70.1%	586	48.0%
2014	26 907	68.2%	20 942	69.3%	556	50.9%
2015	23 267	68.1%	19 861	68.7%	538	48.9%
2016	21 555	68.4%	18 006	68.0%	517	49.1%
2017	19 162	68.1%	16 697	67.5%	515	44.9%
2018	17 377	67.0%	15 943	67.6%	529	48.2%
2019	16 027	67.4%	14 822	66.9%	519	49.3%

Table 14: Proportion of men a women among graduates by year and level of education in technical sciences

Year	Bachelor level		Master level		PhD level	
	Total number	Proportion of women	Total number	Proportion of women	Total number	Proportion of women
2001	1 118	22.4%	5 645	22.0%	317	18.3%
2002	1 056	25.1%	5 978	23.2%	394	18.5%
2003	2 958	23.1%	12 785	23.7%	1 016	20.8%
2004	1 729	22.5%	6 544	23.9%	557	19.9%
2005	2 824	6.3%	4 488	1.8%	474	0.6%
2006	5 160	17.2%	6 599	24.4%	635	19.7%
2007	8 001	23.6%	7 213	24.5%	718	23.1%
2008	9 307	24.9%	8 210	25.4%	725	23.2%
2009	10 359	25.5%	7 363	24.9%	744	23.8%
2010	9 524	25.0%	8 079	26.8%	628	22.9%
2011	9 808	25.5%	8 738	27.5%	628	23.6%
2012	10 000	26.6%	8 396	28.7%	746	22.7%
2013	9 858	27.0%	8 391	28.6%	654	25.1%
2014	9 523	27.7%	8 197	28.6%	723	24.2%
2015	9 079	29.0%	8 096	29.1%	720	26.7%
2016	8 572	29.2%	7 726	29.7%	652	23.5%
2017	7 919	30.3%	7 597	30.0%	673	20.8%
2018	7 430	29.0%	7 195	31.5%	687	26.5%
2019	6 932	30.4%	6 844	31.5%	605	26.4%

Table 15: Proportion of men a women among graduates by year and level of education in agricultural sciences

Year	Bachelor level		Master level		PhD level	
	Total number	Proportion of women	Total number	Proportion of women	Total number	Proportion of women
2001	109	49.5%	1 009	47.4%	69	30.4%
2002	133	55.6%	939	50.7%	96	37.5%
2003	606	60.9%	1 907	52.2%	210	36.2%
2004	354	61.3%	956	53.3%	107	35.5%
2005	711	61.5%	857	55.3%	135	43.7%
2006	1 021	61.1%	1 081	56.3%	133	42.1%
2007	1 224	57.8%	1 169	60.6%	162	37.7%
2008	1 345	61.7%	1 136	60.2%	136	49.3%
2009	1 504	60.1%	1 217	60.6%	112	39.3%
2010	1 425	61.8%	1 233	63.3%	133	47.4%
2011	1 535	62.4%	1 232	64.9%	159	52.2%
2012	1 774	61.3%	1 229	62.2%	186	53.8%
2013	1 703	61.9%	1 262	62.3%	137	50.4%
2014	1 514	61.1%	1 213	62.2%	142	51.4%
2015	1 502	63.1%	1 219	64.4%	109	57.8%
2016	1 485	65.5%	1 197	60.7%	105	53.3%
2017	1 328	64.8%	1 223	62.4%	108	55.6%
2018	1 221	64.6%	1 283	64.4%	105	50.5%
2019	1 207	63.7%	1 177	63.7%	110	50.0%

Table 16: Proportion of women among researchers and academics by Year

Year	Assistents		Pedagogues		Lecturers		Assistant Professors		Associate Professors		Professors		Researchers	
	Total number	Proportion of women	Total number	Proportion of women	Total number	Proportion of women	Total number	Proportion of women	Total number	Proportion of women	Total number	Proportion of women	Total number	Proportion of women
2019	1 267	49.6%	803	33.7%	874	58.2%	9 608	40.9%	4 190	26.2%	2 150	15.6%	42 500	23.9%
2018	1 212	50.4%	744	33.2%	799	58.9%	9 676	41.0%	4 127	26.0%	2 144	15.4%	41 198	23.2%
2017	1 341	50.1%	699	35.1%	816	58.0%	10 027	41.2%	4 373	25.8%	2 230	15.6%	39 181	23.1%

Table 17: Proportion of women among researchers and academics by Year in humanities

Year	Obor	Assistents		Pedagogues		Lecturers		Assistant Professors		Associate Professors		Professors		Researchers	
		Total number	Proportion of women	Total number	Proportion of women	Total number	Proportion of women	Total number	Proportion of women	Total number	Proportion of women	Total number	Proportion of women	Total number	Proportion of women
2019	Agricultural sciences	74	59.5%	83	36.1%	3	88.9%	399	43.6%	185	24.8%	106	18.6%	1 510	46.7%
2018	Agricultural sciences	73	59.6%	61	36.0%	1	100.0%	399	43.1%	178	24.0%	113	19.5%	1 397	44.4%
2017	Agricultural sciences	71	59.1%	38	28.4%	2	100.0%	400	41.7%	183	23.1%	111	19.5%	1 469	44.9%
2019	Engineering sciences	291	34.1%	68	21.2%	80	41.6%	2 578	27.4%	1 204	16.7%	653	9.6%	18 356	12.3%
2018	Engineering sciences	275	35.8%	61	17.9%	51	43.4%	2 658	27.6%	1 197	16.6%	644	9.6%	17 245	12.1%
2017	Engineering sciences	278	36.5%	42	25.5%	42	37.9%	2 605	27.9%	1 176	16.0%	639	9.4%	16 647	11.9%
2019	Humanities	237	52.0%	62	41.9%	222	70.7%	1 483	44.3%	642	31.3%	288	23.3%	2 372	39.0%
2018	Humanities	234	51.6%	69	41.0%	224	71.7%	1 463	43.3%	617	31.3%	297	22.4%	2 259	39.1%
2017	Humanities	234	52.9%	68	42.7%	216	74.2%	1 446	43.1%	612	30.5%	301	22.6%	2 030	39.0%
2019	Medical sciences	279	59.7%	52	58.0%	141	58.3%	1 334	50.6%	468	32.3%	384	16.4%	3 121	49.1%
2018	Medical sciences	251	62.6%	48	57.1%	135	56.3%	1 311	50.4%	464	32.0%	380	16.7%	2 885	48.2%
2017	Medical sciences	237	60.6%	47	54.2%	146	53.7%	1 302	50.7%	468	31.6%	379	16.9%	2 580	51.6%
2019	Natural sciences	47	30.8%	307	30.4%	145	41.6%	741	32.2%	560	16.9%	297	10.4%	14 614	24.8%
2018	Natural sciences	31	39.0%	252	27.2%	140	42.7%	708	31.8%	540	16.6%	292	10.0%	14 580	23.1%
2017	Natural sciences	33	38.1%	230	29.9%	140	42.6%	729	30.9%	532	16.3%	287	10.8%	13 878	23.1%
2019	Social sciences	248	52.8%	107	42.9%	202	55.8%	2 531	48.3%	955	38.4%	341	23.2%	2 527	43.5%
2018	Social sciences	243	49.1%	139	39.0%	184	55.7%	2 596	49.3%	957	38.1%	338	22.7%	2 833	42.5%
2017	Social sciences	279	48.8%	129	39.8%	164	56.2%	2 648	49.3%	988	36.9%	345	22.3%	2 576	42.0%

Table 18: Proportion of men and women in bussiness sector

Year	Research staff		Technical staff		Other staff	
	Total number	Proportion of women	Total number	Proportion of women	Total number	Proportion of women
2005	9 715.912	14.1%	8 551.154	23.9%	2 848.611	37.2%
2006	10 673.079	12.5%	9 479.825	23.1%	2 961.544	36.4%
2007	11 854.405	12.9%	9 604.950	24.4%	3 142.804	38.2%
2008	12 865.707	13.2%	9 440.024	22.2%	3 236.528	37.7%
2009	12 289.079	13.7%	9 745.700	21.2%	3 347.536	36.0%
2010	12 327.482	13.3%	10 213.419	19.5%	3 999.961	34.2%
2011	13 581.729	13.5%	10 938.456	19.0%	4 494.320	34.1%
2012	15 057.461	13.5%	11 600.229	18.2%	5 047.369	34.8%
2013	16 366.962	13.6%	12 170.629	19.0%	4 650.230	36.3%
2014	17 892.098	13.8%	12 877.615	18.3%	4 486.675	36.7%
2015	19 161.112	12.3%	12 501.184	18.3%	4 703.034	36.1%
2016	19 184.558	12.1%	13 154.505	17.8%	4 924.150	34.8%
2017	20 206.140	12.1%	14 436.671	16.9%	5 324.960	35.3%
2018	21 149.611	12.2%	15 677.950	16.5%	5 521.792	35.9%
2019	21 706.602	12.9%	17 181.983	16.1%	5 903.838	35.3%

Table 19: Proportion of men and women in Government sector

Year	Research staff		Technical staff		Other staff	
	Total number	Proportion of women	Total number	Proportion of women	Total number	Proportion of women
2005	6 564.130	36.4%	2 644.676	65.4%	1 845.057	59.1%
2006	6 992.002	37.0%	2 720.561	64.9%	1 760.481	59.6%
2007	7 153.338	38.6%	2 799.550	65.5%	1 809.878	60.7%
2008	7 288.794	38.0%	2 595.624	65.4%	1 815.153	60.1%
2009	6 498.273	38.5%	3 080.572	58.2%	1 939.205	60.1%
2010	6 577.369	36.5%	2 752.245	59.6%	2 054.303	61.0%
2011	6 611.069	37.6%	2 651.799	60.7%	2 364.415	58.8%
2012	6 453.366	36.4%	2 824.816	57.4%	2 585.959	62.6%
2013	6 725.083	38.3%	3 166.088	56.3%	2 383.905	60.1%
2014	6 978.892	37.1%	3 083.669	57.1%	2 317.063	62.2%
2015	7 392.912	38.0%	3 118.190	59.6%	2 442.030	62.6%
2016	7 499.734	38.3%	3 086.130	58.4%	2 513.120	60.2%
2017	7 907.731	38.9%	3 255.302	57.2%	2 526.318	63.4%
2018	7 878.990	38.2%	3 415.218	60.2%	2 868.575	61.4%
2019	7 968.199	39.0%	3 826.709	58.1%	2 735.175	61.8%

Table 20: Proportion of men and women in higher education sector

Year	Research staff		Technical staff		Other staff	
	Total number	Proportion of women	Total number	Proportion of women	Total number	Proportion of women
2005	7 761.976	32.4%	2 485.909	53.4%	723.938	65.7%
2006	8 540.731	31.8%	3 557.477	47.1%	889.038	67.2%
2007	8 800.782	31.6%	2 988.666	48.6%	869.220	66.8%
2008	9 540.930	32.1%	2 998.119	47.3%	821.038	69.2%
2009	9 803.816	33.0%	3 123.149	48.3%	884.573	61.9%
2010	10 114.540	32.7%	2 946.706	50.0%	994.370	72.2%
2011	10 289.400	32.1%	3 427.797	51.3%	1 006.447	63.6%
2012	11 498.434	32.4%	3 926.590	52.8%	1 016.221	66.7%
2013	10 995.058	32.1%	3 549.855	51.0%	1 695.159	61.3%
2014	10 964.940	32.5%	3 849.157	50.2%	1 711.287	60.8%
2015	11 356.912	32.4%	3 695.784	52.6%	1 815.160	62.6%
2016	10 511.349	31.8%	3 146.957	52.7%	1 542.469	63.5%
2017	10 875.065	31.8%	3 094.180	51.6%	1 833.691	60.1%
2018	12 001.199	32.3%	4 200.964	53.7%	2 023.380	59.8%
2019	12 663.116	32.9%	4 667.221	51.5%	2 316.552	63.1%

Table 21: Proportion of men and women in private non-profit sector

Year	Research staff		Technical staff		Other staff	
	Total number	Proportion of women	Total number	Proportion of women	Total number	Proportion of women
2005	127.05093	59.6%	90.92141	54.5%	11.09846	77.5%
2006	61.49340	27.4%	82.33664	49.3%	10.54706	56.0%
2007	69.29929	34.3%	37.29574	37.6%	61.37335	56.3%
2008	89.78619	30.4%	99.21937	50.8%	16.95469	58.6%
2009	168.14179	38.3%	55.39319	40.3%	25.39111	77.1%
2010	208.48806	41.4%	58.28599	53.5%	42.97402	67.2%
2011	199.39033	38.4%	90.57111	42.8%	41.55367	62.4%
2012	207.90687	47.7%	55.85097	48.5%	55.22389	64.6%
2013	184.00111	42.0%	45.91070	24.5%	42.96905	75.2%
2014	203.81062	40.6%	35.33351	48.0%	42.91333	65.5%
2015	170.06374	42.2%	34.97769	39.3%	42.04156	65.0%
2016	142.08357	42.1%	33.71912	36.7%	44.21894	67.2%
2017	191.70748	40.5%	40.28658	37.6%	43.60009	66.5%
2018	168.33295	39.8%	24.73999	44.4%	38.73787	62.8%
2019	162.42265	49.1%	70.40428	34.3%	42.78339	59.1%

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