The Position of Women in Czech Science

Monitoring Report

2022

Centre for Gender & Science

Institute
of Sociology
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INTRODUCTION

The 2022 Monitoring Report on the position of women in Czech science provides an overview of current statistical indicators between 2005 and 2022. The publication aims to review the representation of women and men across scientific fields, academic sectors, and sectors of the economy, including the position of the Czech Republic in an international comparison. A basic overview of the current position of women in Czech science can be obtained from the Main Findings section. The second part of the publication presents selected data in text form. The third part presents the values of selected statistical indicators and time series created based on data from the Czech Statistics Office (CSO), the Ministry of Education and Culture (MEYS), and data that were collected from the websites of individual institutions or by contacting the institutions directly.

The publication underscores one of the many features of the gender culture of Czech research, development, and innovation. Although the statistical data used narrow down the issue of gender equality to just the measured (available) and measurable (nominal) shares of the categories of women and men, the figures reveal significant imbalances that have long persisted in Czech research and innovation. They highlight the fact that the situation is not encouraging, a fact corroborated by international comparisons. In the long term, Czech research is unable to offer adequate opportunities to qualified, highly educated women, and it is thus losing potential that could contribute to further advancing Czech society.

MAIN FINDINGS

Employees in research and development

The number of people employed in research and development has a growing tendency over time and doubled between 2005 and 2022. In 2022, a total of 86,125 people were employed in research and development. In all research and development professions, men predominated over women, and the share of men has an increasing tendency over time. Women represented 28.7% of all persons employed in R&D professions. The share of women among employees in researcher positions was 24.2%, among those in technician positions the share was 28.5%, and among those in other professions it was 50.4% (all values are in FTE).

Researchers

In 2022, researchers accounted for a total of 57.4% of all persons employed in research and development and a total of 49,402 employees. The representation of women among researchers was 24.2%. The proportion of women among researchers had a decreasing tendency between 2005 and 2018, reaching a low of 23.1% in 2016 and 2017. A very small and gradual increase in the percentage of women can be observed from 2018.

The ideal-typical career path in research

In 2022, 97,954 people were studying at the master's level, of whom 58,984 (60.2%) were women and 38,970 (39.8%) were men. There were 19,856 persons enrolled at the doctoral level, of whom 8,929 (45.0%) were women and 10,927 (55.0%) were men. In all scientific disciplines, with the exception of the technical sciences, women outnumbered men at the master's level. In the case of doctoral programmes, the proportion of women and men was approximately equal, again with the exception of the technical sciences. In the category of researcher, the situation was more varied. In the agricultural, medical, and social sciences and humanities, the proportion of women was at least 40%. In the natural sciences, the proportion of women was 25% and in the technical sciences it was only around 13%.

On the ideal-typical career path from study to research, there are significant losses of women, particularly in the transition from the master's to the doctoral levels and in the transition from doctoral studies to a research position. In the natural sciences, the loss is largest in the transition from the doctoral to research levels (30.7 percentage points). The same is true for the technical sciences (12.2 pp) and the medical sciences (26.0 pp). Large losses of women were recorded in the transition from the master's to doctoral levels in the agricultural (a loss of 16.4 pp), medical (a loss of 20.8 pp) and social (a loss of 17.3 pp) sciences, and the humanities (a loss of 15.5 pp).

Researchers by field of research

In 2022, 49,402 people were working as researchers, most of them in the technical (41.4%) and natural (38.1%) sciences. Overall, they accounted for almost 80% of all researchers in the Czech Republic in 2022. The representation of women was close to parity in the medical and agricultural sciences. In contrast, the lowest share of women was in technical sciences, with 13.4%, and in the natural sciences, with 24.5%.

Researchers by sector of research

The business and higher education sectors are the largest employers of researchers in the Czech Republic. Together they employed almost 82.8% of researchers in 2022, with 53.6% employed in the business enterprise sector and 29.2% in the higher education sector. In the business enterprise sector, the number of researchers doubled between the reference years 2005 and 2022. Researchers made up 16.7% of employees in the government sector and 0.5% in the private non-profit sector. The representation of women was highest in the government sector, at 39.9%. This was followed by the private non-profit sector at 39.9%, the higher education sector with 33.3% and business enterprise sector with 14.2%. In the business enterprise sector, the proportion of women in private domestic enterprises was 16.4%, while they accounted for 17.1% of researchers in public enterprises and 12.9% in foreign-controlled private enterprises.

In the government sector, the proportion of women was close to parity: they made up 63.5% of researchers in healthcare institutions, 47.2% in libraries, archives, and museums, 43.9% in other public research institutions, but only 36.7% at the Czech Academy of Sciences, despite the fact that it is the largest employer of researchers in the country. In the category Other, women accounted for 37.7% of researchers.

In the higher education sector, the proportion of women was the highest in medical hospitals at 43.2%, followed by private higher education institutions at 37.4% and public and state higher education institutions at 32.8%.

Academic staff

In 2022, there were 18,961 academic staff in public and private higher education institutions, 6,950 of whom were women (36.7%). Assistant professors (51.2%) and associate professors (23.0%) accounted for the majority

of academic staff. Professors made up 11.8% of academic staff, assistant professors 8.6%, and lecturers made up the lowest proportion at 5.4%.

The proportion of women in academic positions decreases as qualifications increase. While women made up 54.7% of lecturers, they accounted for only 15.7% of professors. Across disciplines, the highest proportion of women in academic positions in 2022 was in the social sciences (45.5%), the medical sciences (44.9%), and the humanities (42.6%). The lowest proportions of women were in engineering (22.9%), the natural sciences (26.2%), and the agricultural sciences (37.8%).

Decision-making positions

Decision-making positions in research and innovation have long been dominated by men. In 2022, the total proportion of women in the position of a head of research or higher education institution was 13.5%. The share of women in the decision-making, strategic, and supervisory bodies of these institutions was 22.6%. In advisory bodies, they made up 25.7%.

Specialists in the fields of science and technology

In 2021, 158,400 people were employed as science and technology specialists in the Czech Republic. Of these, 27.4% were women. Significant differences in the gross monthly wages of those working in this position can be observed by gender (to the detriment of women) and also by age. The largest salary differences were in the age category 25–29 years, at 14.8%, and 45–54 years, at 13.9% (all values are in HC).

Patent applications

The share of women patent holders has been low for a long time but increased between 2005 and 2022. While in 2005, 5.3% of patents were granted to women, in 2022 the figure was 8.4%. The highest share of patents granted to women was recorded in 2019, when 11.5% of patents were granted to women. Since then, the proportion of women among patent holders has had a downward tendency. In terms of individual applicants, the highest share of women granted patents is found in public research institutions (in 2022, 28.2% of researchers in public research institutions who were granted patents were women). In public higher education institutions women accounted for 12.1% of patent holders, while the lowest share of women granted patents was in the private sector.

International comparison

In a European comparison, the Czech Republic has the lowest proportion of women among researchers, including in individual sectors of research work. Only in the government sector is the proportion of women close to the European average. Latvia (49.8%), Croatia (48.8%), and Lithuania (48.5%) were closest to parity in terms of the proportion of women researchers in 2021. In contrast, the Czech Republic (27.1%), Hungary (29.3%), and Germany (29.4%) recorded the lowest proportions.

At 25.9%, the Czech Republic also had the third lowest proportion of women among science and technology specialists in 2022 in the EU. Romania (22.9%) and Malta (19.1%) had even lower proportions of women. The highest proportions of women in this position were recorded in Denmark (41.2%), Estonia (41.2%), and Cyprus (39.7%) (all values are in HC).

NOTE ON DATA SELECTION, DATA AVAILABILITY, AND ACCESS TO DATA PROCESSING

The data used in this publication are primarily based on the ongoing statistical reports of the Ministry of Education, Youth and Sports (the MEYS) and data published by the Czech Statistical Office (the CSO). They are also based on the annual reports of public research institutions and higher education institutions.

The aim of the present publication is to analyse gender statistics in research from the perspective of selected available indicators. Due to the frequently changing methodologies of data collection and the irregular collection of some indicators, the publication uses only those indicators that are either comparable from a developmental perspective or that provide a relevant, albeit time-limited perspective on the issue. In the latter case, we draw attention to such facts in the text.

For the purposes of the analyses published in this report, unless otherwise stated, full-time equivalent (FTE) is used as a key indicator, which, when compared to the headcount (HC), allows us to work with the fact that people work different hours.

In relation to the indicators used in this publication, we also highlight the following:

- Due to a change in the CSO's data collection methodology, the time series available for the development comparison of selected indicators are primarily from 2005, although the oldest data are available from 2000 and some previous monitoring reports have worked with this information.
- The time series on learners published by the MEYS in the Statistical Yearbooks of Education are re-generated each year and entire series are available dating back to 2001. Higher education institutions have the option of retrospectively adjusting the data on numbers of learners and graduates, which they do. Therefore, the data generated in this year may differ from data published in previous years and therefore in previous monitoring reports.

In order to improve clarity and maintain comparability with the source, this publication adopts the terminology used in the field of statistics (CSO and MEYS data) (see the Annex – Glossary of terms).

Overview of abbreviations used

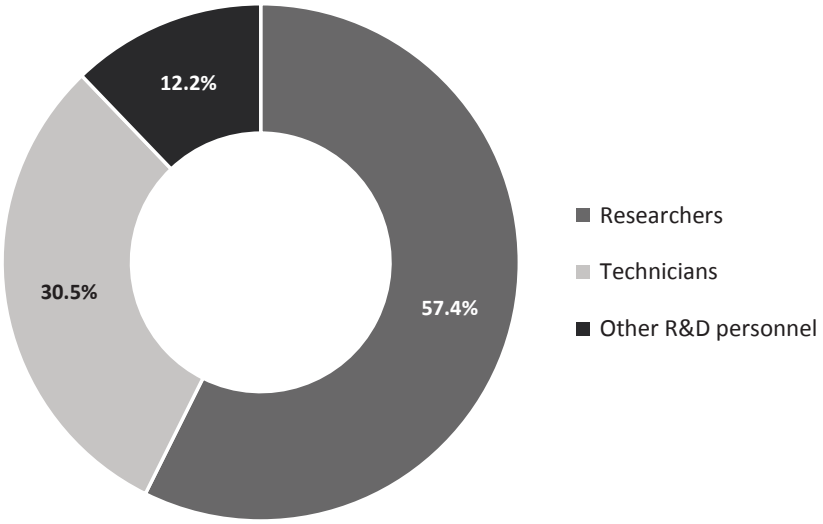
Acronym	Definition	Source
HC	Head count. Physical counts: The head count as of 31 December of a given year indicates the number of persons involved in research and development (R&D), irrespective of the time spent on these activities.	CZSO: Methodological explanations, p. 10 (link: https://www.czso.cz/documents/10180/20557417/10101113_metodika_cela_+czpraha.pdf/ba12faa1-551d-4e3d-884c-e790e117390b?version=1.0)
FTE	Full-Time Equivalent: A unit to measure employed persons in a way that makes them comparable even if they work or study a different number of hours per week. The unit is obtained by comparing an employee's average number of hours worked to the average number of hours of a full-time worker. A full-time person is therefore counted as one FTE, while a part-time worker gets a score in proportion to the hours he or she works or studies.	CZSO: Methodological explanations, p. 10 (link: https://www.czso.cz/documents/10180/20557417/10101113_metodika_cela_+czpraha.pdf/ba12faa1-551d-4e3d-884c-e790e117390b?version=1.0)
GPG	Gender Pay Gap: The difference in average gross hourly earnings between women and men. It is based on salaries paid directly to employees before income tax and social security contributions are deducted.	Rovnaodmena.cz (link: https://rovnaodmena.cz/rovne-odmenovani/gender-pay-gap/)

EMPLOYEES IN RESEARCH AND DEVELOPMENT

The total number of people working in research and development had an upward tendency in the period between 2005 and 2022 and doubled between these years. Researchers remain the most important employee category in terms of the number of persons employed. However, this category also has the lowest proportion of women, with a slightly decreasing trend between the reported years. On the other hand, the fewest persons are employed in the position of Other workers, where the percentage of women and men is at parity. The proportion of women among persons employed as technicians is approximately one-third.

Data from the Czech Statistical Office (CSO) show that 86,125 people worked in various research and development professions in 2022. The most important category among R&D personnel in 2022 was that of researcher, which accounted for 57.4% of all employees. The second most important group was technicians, accounting for 30.5%. The least represented category was Other workers, at 12.2% (see Figure 1).

Figure 1: Proportion (%) of employees in R&D in 2022, by discipline (FTE)[1]



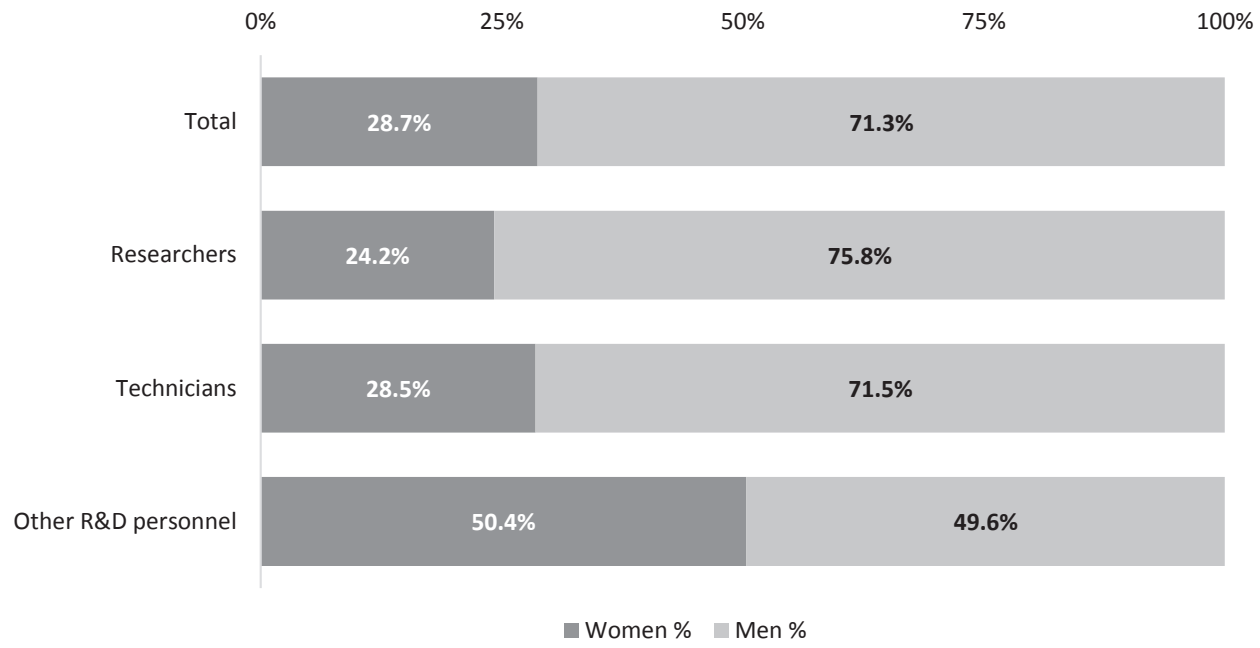
Source: CZSO, Research and Development Indicators 2005–2022.

The total number of people employed in research and development almost doubled between 2005 and 2022 (43,370 in 2005).
Between 2005 and 2022, the overall share of women in R&D decreased slightly. Whereas in 2005 women represented 32.6% of those employed in R&D, in 2022 they accounted for 28.7% (a decrease of 3.9 percentage points), while men represented 71.3% of those employed in R&D in 2022. However, the relative representation of women in each category of R&D workers did not change significantly over the period under review (or only in the order of tenths of a percentage point per year) (see Figure 2).

Near parity was achieved in 2022 among those employed in R&D in the Other workers category, where women represented 50.4% and men 49.6%. This category employed the smallest number of R&D workers (10,479 in 2022). The highest number of employees (49,402 in 2022) was in the researcher category, which, however, had the lowest proportion of women at 24.2%. In the category of technical workers, women accounted for 28.5% of employed persons in 2022 (see Figure 2).

1 For data see Table 1

Figure 2: Proportion (%) of employees in R&D in 2022, by sex and discipline (FTE)[2]



Source: CZSO, Research and Development Indicators 2005–2022.

The total number of people working in research and development had an increasing trend over the period under review and doubled between 2005 and 2022. There was an increase in the number of women (14,135 in 2005 compared to 24,731 in 2022) and an even bigger increase in the number of men (29,235 in 2005 compared to 61,394 in 2022). In terms of percentages, there was an overall decrease of 3.9 percentage points in the proportion of women between the years under review. The biggest decreases in the proportion of women were recorded in the technicians category (down by 8.9 percentage points) and the researchers category (down by 2.0 percentage points). Parity remained only in the Other workers category throughout the period considered. The proportion of women among researchers remained at one-quarter over the period; among technicians, the proportion of women stabilised at around 30% over the period under review.

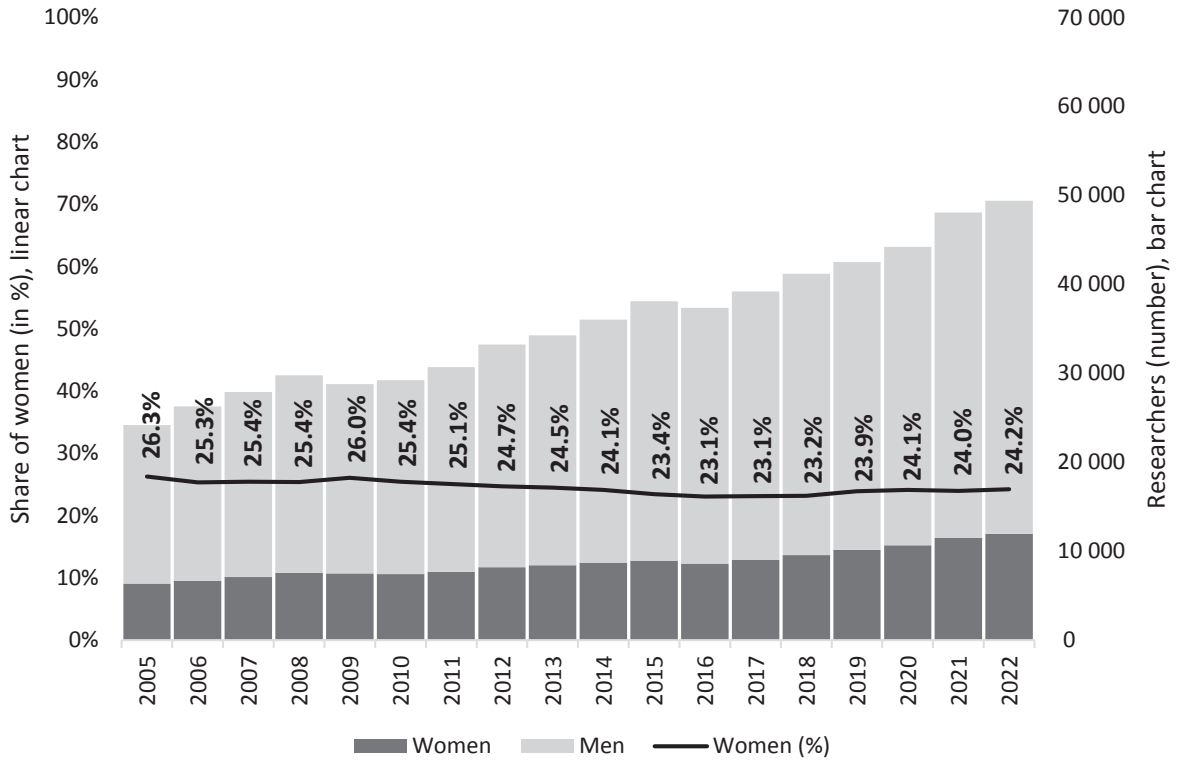
2 For data see Table 1.

Researchers

The proportion of women among researchers fluctuated between 24% and 27% between 2005 and 2022, with no significant changes (see Figure 3). On the timeline (see Figure 3, the black curve), we see that deviations of tenths of a percent are common over the years, with no significant or sustained improvement or deterioration.

Compared to 2005, the total number of persons working as researchers increased by 25,233 to reach 49,402 (in 2005, 24,169 persons were working as researchers). The absolute number of women and men working in this position doubled between the years under review. While in 2005 there were 6,349 women and 17,820 men working as researchers, in 2022 the figures were 11,969 women and 37,433 men (see Figure 3).

Figure 3: Compound annual growth rate (%) in the number of researchers, by sex, 2005–2022 (FTE)[3]



Source: CZSO, Research and Development Indicators.

The data presented above show that the percentage of women in the position of researcher does not show an increasing tendency in the long term but rather stagnation at the level of around 25%.

3 For data see Table 1.

THE IDEAL-TYPICAL CAREER PATH IN RESEARCH

In this chapter, the focus is on the gender aspects of higher education and the pathway from study to research. Among students in master's programmes, with the exception of engineering, we can observe a long-term trend of women outnumbering men, despite the fact that the absolute number of master's students has been decreasing since 2011. In the case of PhD students, the gender representation is close to parity across all fields of study, again with the exception of engineering. On an ideal-typical path from study to research, the largest outflow of women in all fields occurs in the transition between master's and doctoral degrees and between doctoral degrees and research positions. These losses are particularly high in the natural and medical sciences.

Higher education

This subchapter focuses on the gender aspects of master's and doctoral education in the Czech Republic. The source of the data is the statistics of the Ministry of Education, Youth and Sports (MEYS), which publishes annual statistics on the performance indicators of public and private higher education institutions based on the ISCED-F classification of fields of study.

In 2022, there were 97,954 persons studying at the master's level in the Czech Republic, of whom 58,984 were women (60.2%) and 38,970 were men (39.8%). The number of students increased slightly from 2005 to 2010 (peaking in 2010 at 121,931). A gradually decreasing trend in the number of master's students can be observed since 2011. Women have long outnumbered men among master's students, and this representation has not changed significantly over time, standing at 60%.

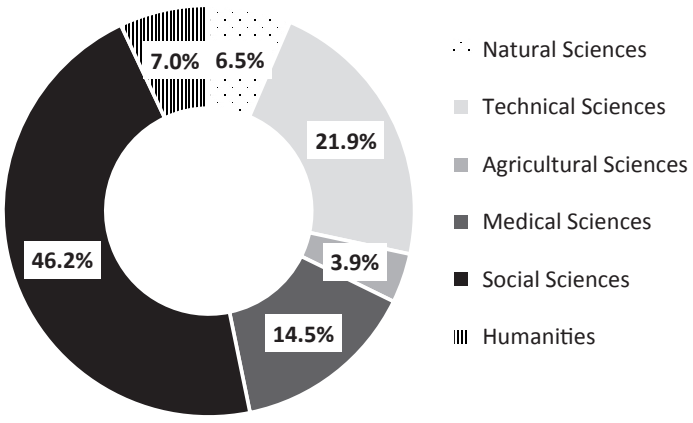
There is also a long-term dominance of women among graduates at the master's level. Of the 23,936 master's graduates in 2022, 14,377 (60.1%) were women and 9,559 (39.9%) were men. Since 2005, there has been an increase of 5.1 percentage points in the proportion of women graduates (from 55.0% in 2005 to 60.1% in 2022).

The total number of students studying doctoral programmes in 2022 was 19,856. Of these, 8,929 were women (45.0%) and 10,927 were men (55.0%). The number of students in doctoral programmes increased between 2005 and 2010. This increase was significantly driven by the higher enrolment of women. While in 2005 women represented 38.4% of all doctoral students, by 2010 they accounted for 43.0% of doctoral students, an increase of 4.5 percentage points. After 2011 this increase stopped and the proportion of women stabilised at 44–45%.

As in the case of doctoral students, there are also more men than women among doctoral graduates. In 2022, 899 women (45.1%) and 1,096 men (54.9%) obtained a doctoral degree. The proportion of women graduates increased by 10 percentage points between 2005 and 2022 (from 35.0% in 2005 to 45.1% in 2022), while the proportion of men decreased from 65.0% in 2005 to 54.9% in 2022.

In terms of disciplines, social science graduates made up the majority of graduates from master's programmes in 2022 at 46.2%. This was followed by the technical sciences with 21.9% and the medical sciences with 14.5%. The agricultural sciences, with 3.9%, had the lowest number of graduates from master's programmes in 2022 (see Figure 4).

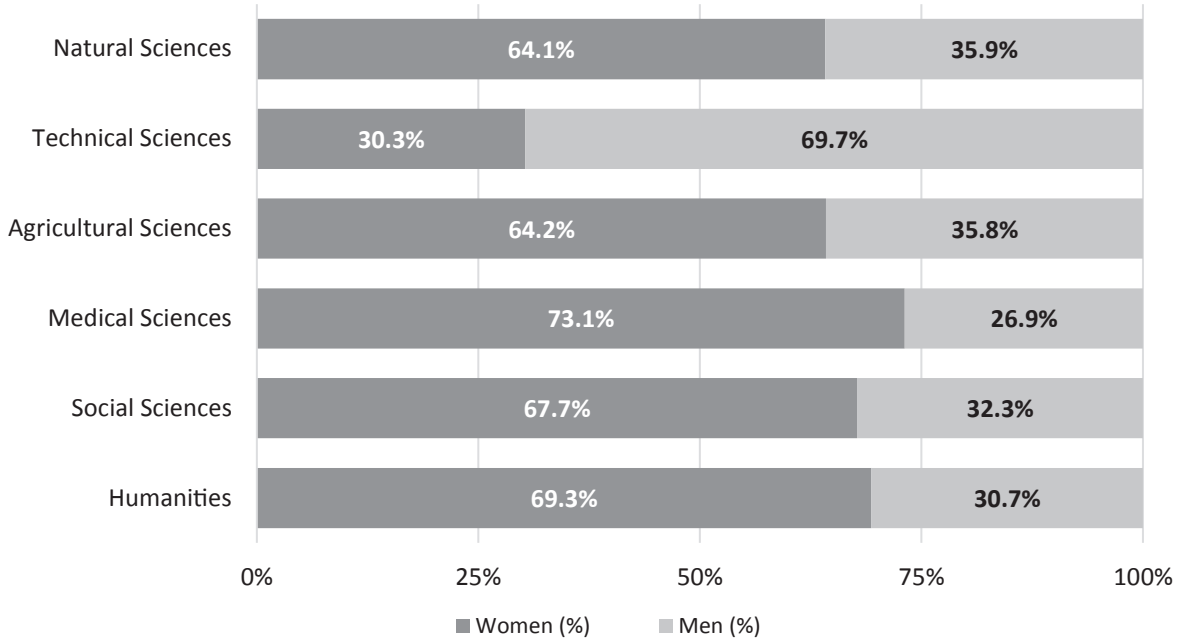
Figure 4: Proportion of master's graduates, by field, 2022



The representation of women among graduates of master's programmes in 2022 can be considered very favourable. Women predominated among graduates in the natural, agricultural, medical, and social sciences and humanities (see Figure 5). Only in the technical sciences did their representation reach one-third, at 30.3%, in 2022.

Source: Ministry of Education, Youth and Sports – Statistics on the performance indicators of public and private HEIs in the Czech Republic.

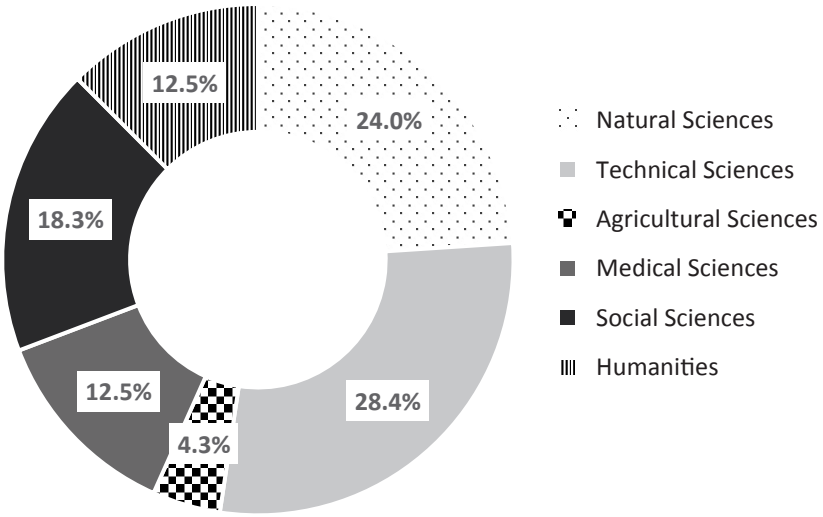
Figure 5: Proportion (%) of master's graduates, by sex and by field, 2022[4]



Source: Ministry of Education, Youth and Sports — Statistics on the performance indicators of public and private HEIs in the Czech Republic.

In doctoral studies in 2022, the largest numbers of graduates were in the technical sciences (28.4%) and the natural sciences (24.0%), followed by the social sciences (18.3%) and humanities (12.5%). The agricultural sciences recorded the lowest number of graduates (4.3%) (see Figure 6).

Figure 6: Proportion of doctoral graduates, by field, 2022[5]

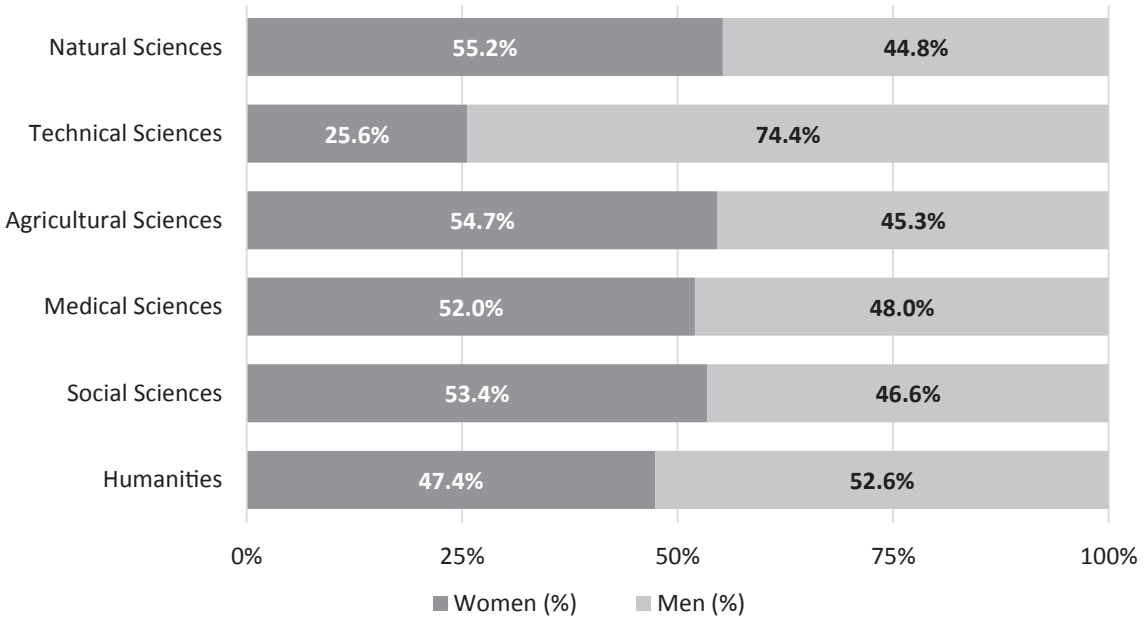


Source: Ministry of Education, Youth and Sports – Statistics on the performance indicators of public and private HEIs in the Czech Republic.

As in the case of graduates at the master's level, we can observe parity between women and men among graduates of doctoral programmes, with the exception of the technical sciences. Among graduates in 2022, women slightly outnumber men in the natural sciences, the agricultural sciences, the medical sciences, and the social sciences. Traditionally, women were underrepresented in the technical sciences, where their representation in 2022 stood at 25.6% (see Figure 7).

4 For data see Tables 4–9.
5 For data see Tables 4–9

Figure 7: Proportion of doctoral graduates, by sex and by field, 2022[6]



Source: Ministry of Education, Youth and Sports – Statistics on the performance indicators of public and private HEIs in the Czech Republic.

From the development outlined above, we can observe a decreasing trend in the number of students enrolled in master's programmes over the last ten years. However, with the exception of the technical sciences, women outnumber men. It is therefore not surprising that women also outnumber men among graduates of doctoral programmes, also with the exception of technical sciences. Among doctoral students, the proportion of women has been stable over the long term, ranging from 40% to 45%. Among graduates of doctoral programmes, the gender gap is significantly smaller than among graduates of master's programmes. However, even in this case, with the exception of the technical sciences and humanities, women make up a slight majority of graduates.

From study to research

In the following subsection, we focus on analysing the inequalities between men and women in terms of an ideal-typical individual trajectory from study to a research position. Detailed analyses are presented in Figures 8 to 14. In the following text, the results for the study of the pathways from study programmes are available for all fields overall and separately covering the period 2005 to 2022.

The basic shape of a typical pathway is shown in Figure 8. As we can observe, women dominated among those studying and graduating at a master's level in 2022 (they represented 60% at both levels). On the other hand, men predominated among those studying and graduating at a doctoral level and among those in a researcher position in 2022.

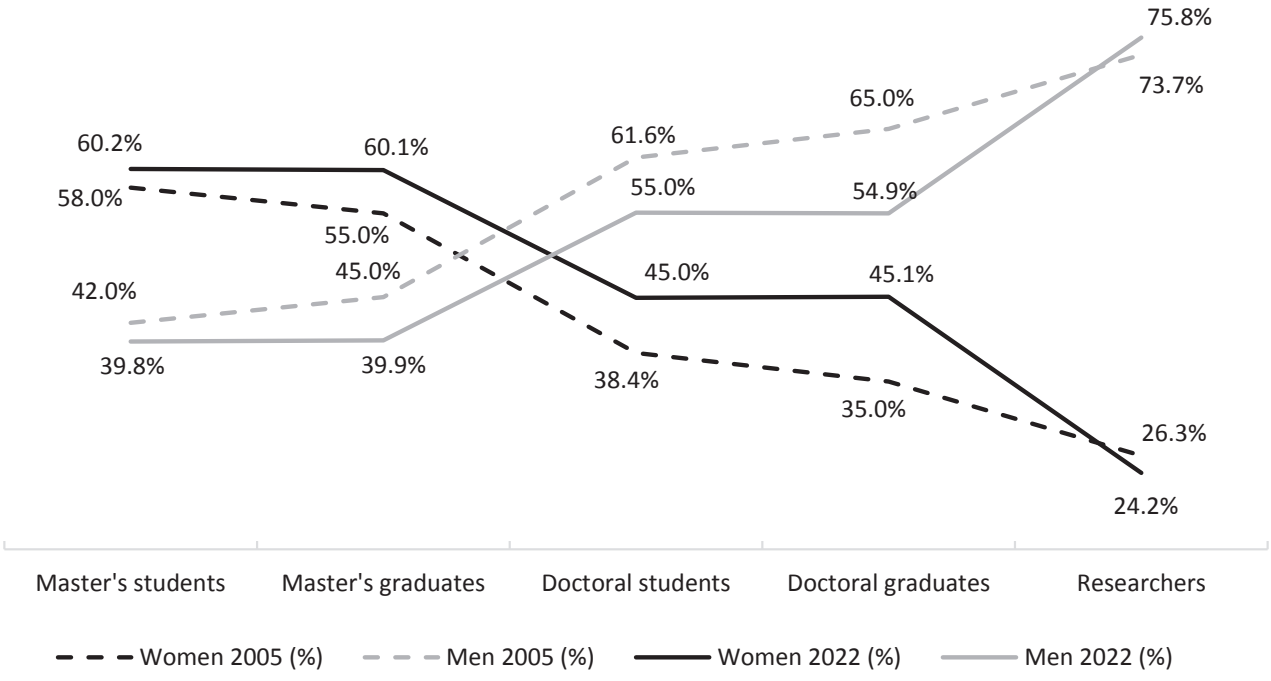
Significant changes in the proportion of women can be observed between 2005 and 2022 in the categories of graduates of master's programmes, with an increase of 5.1 percentage points, those studying doctoral programmes, with an increase of 6.5 percentage points, and graduates of doctoral programmes, with an increase of 10 percentage points (see Figure 8). Thus, the proportion of women among both students and graduates at the doctoral level has been drawing more even with men over the years and in 2022 the proportion of women in both categories was 45%.

However, despite this favourable development at the doctoral level, a significant proportion of women graduates of master's programmes continue to not to pursue doctoral studies. In 2022, the loss of women in the transition from master's to doctoral studies was 15.1 percentage points (16.5 percentage points in 2005). However, the loss is even higher in the transition from doctoral studies to a research position, where the loss equalled 20.8 percentage points in 2022 compared to 8.8 percentage points in 2005 (see Figure 8).

Thus, the argument about a natural progression to parity, which assumes that over time the proportion of women in research relative to men will gradually grow even as the share of women in higher education increases, has proven to be false in the long run. The increase in the proportion of women among master's and doctoral graduates in all disciplines has not translated into a greater share of women among researchers.

6 For data see Tables 4–9

Figure 8: Proportion (%) of men and women in a typical academic career, students and academic staff, 2005 vs 2022, all disciplines[7]



Source: Ministry of Education, Youth and Sports — Statistics on the performance indicators of public and private HEIs in the Czech Republic; CZSO — Research and Development Indicators.

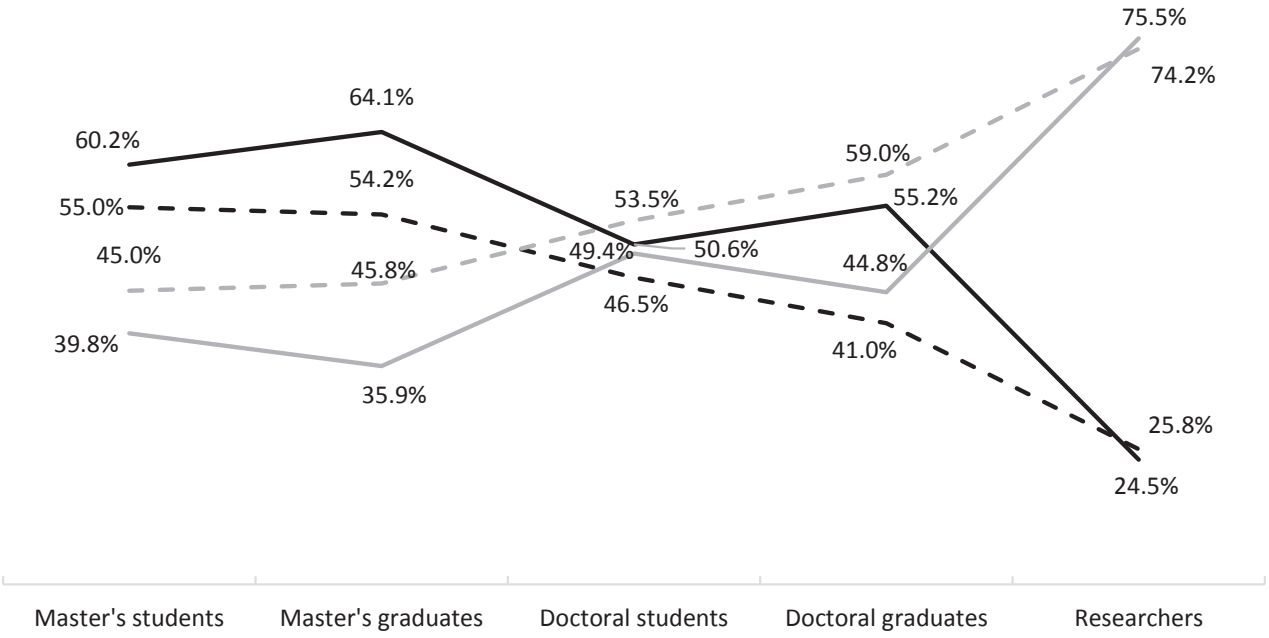
Figures 9–14 look at the above issue in more detail, differentiated by field of research between 2005 and 2022.

Figure 9 shows study and career paths in the natural sciences. We can see how the gap between the proportion of women and men among researchers widens at the beginning and the end of an academic career – to the detriment of men at the beginning and to the detriment of women at the end. At the master's level, women predominate among both students and graduates: in 2022, women accounted for 60.2% of those studying the natural sciences and 64.1% of graduates. At the doctoral level we observe gender parity among both students and graduates in this field. The good news here is that there has been a 14.2 percentage point increase in the share of women graduates compared with 2005, rising to 55.2% compared with 41.0% in 2005 (see Figure 9). The share of women among researchers in the natural sciences is very low, with women accounting for only a quarter in 2022.

In the natural sciences, the biggest losses of women occur in the transition from a master's to a doctoral degree and in the transition from completing a doctoral degree to becoming a researcher. The loss of women between master's graduates and doctoral students equalled 13.6 percentage points in 2022 compared to 7.6 percentage points in 2005. The transition from doctoral studies to research positions in the natural sciences saw the biggest loss of women across all research fields in 2022, at 30.7 percentage points, which is twice as much as the loss of 15.2 percentage points observed in 2005 (see Figure 9).

7 For data see Table 3.

Figure 9: The natural sciences — the proportion (%) of men and women in a typical academic career, students and academic staff, 2005 vs 2022[8]



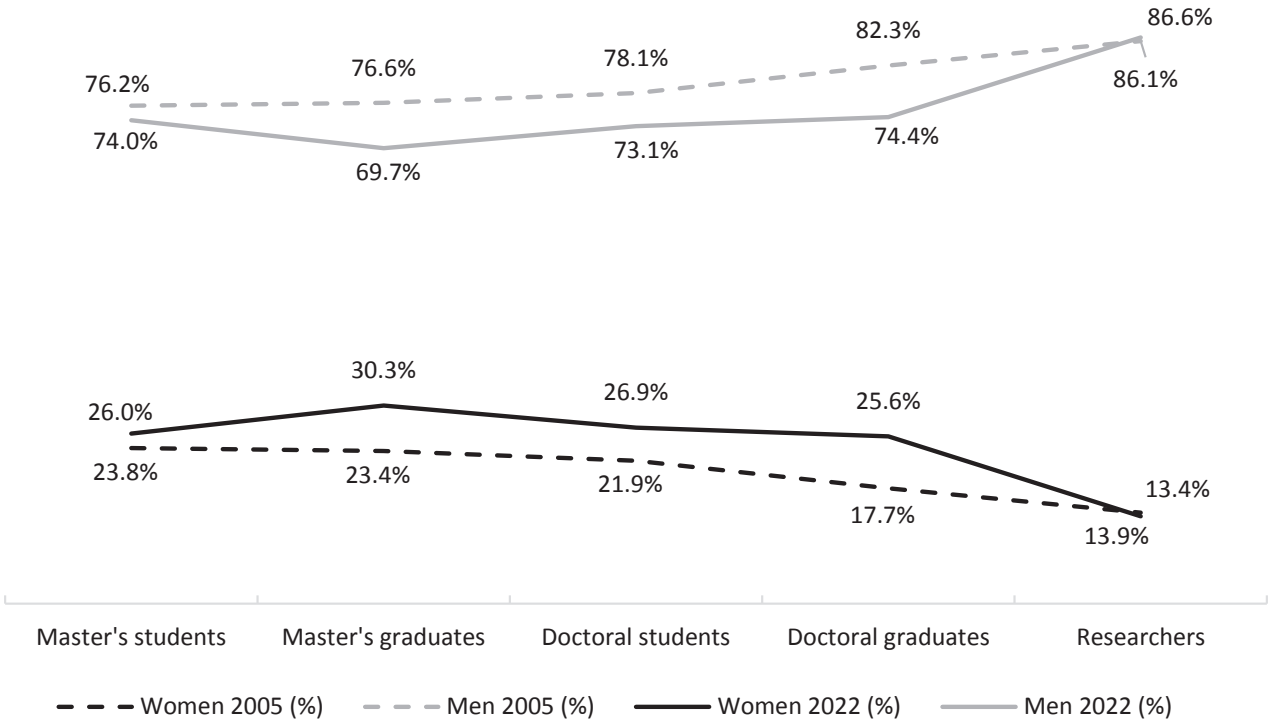
Source: Ministry of Education, Youth and Sports — Statistics on the performance indicators of public and private HEIs in the Czech Republic; CZSO — Research and Development Indicators.

The technical sciences are the worst performers in terms of women's representation from the early stages as a student through to a research career. The technical sciences have long suffered from inequalities in female representation, and the number of women decline at each successive stage proceeding from study through to a research position. Between 2005 and 2022, there was an increase in the proportion of women at all stages of the ideal typical pathway, but it was an increase of only a few percentage points. Among all fields of research, the increase in the proportion of women at each step of the ideal pathway is slowest in the technical sciences.

The technical sciences did not come close to parity of representation in any category along the typical academic pathway. Across all categories, female representation ranged between 25% and 30%, and only 13.4% of researchers in this field were women in 2022 (see Figure 10). As in the case of the natural sciences, the number of women who pursued doctoral studies after completing a master's degree also dropped, with a difference of 3.4 percentage points in 2022 (the difference was 3.5 percentage points in 2005). There was a large loss of women in the transition from a PhD to a research position in 2022, with a drop of 12.2 percentage points, which is almost three times the loss of 3.7 percentage points in 2005 (see Figure 10).

8 For data see Table 4

Figure 10: The technical sciences — the proportion (%) of men and women in a typical academic career, students and academic staff, 2005 vs 2022[9]



Source: Ministry of Education, Youth and Sports – Statistics on the performance indicators of public and private HEIs in the Czech Republic; CZSO – Research and Development Indicators.

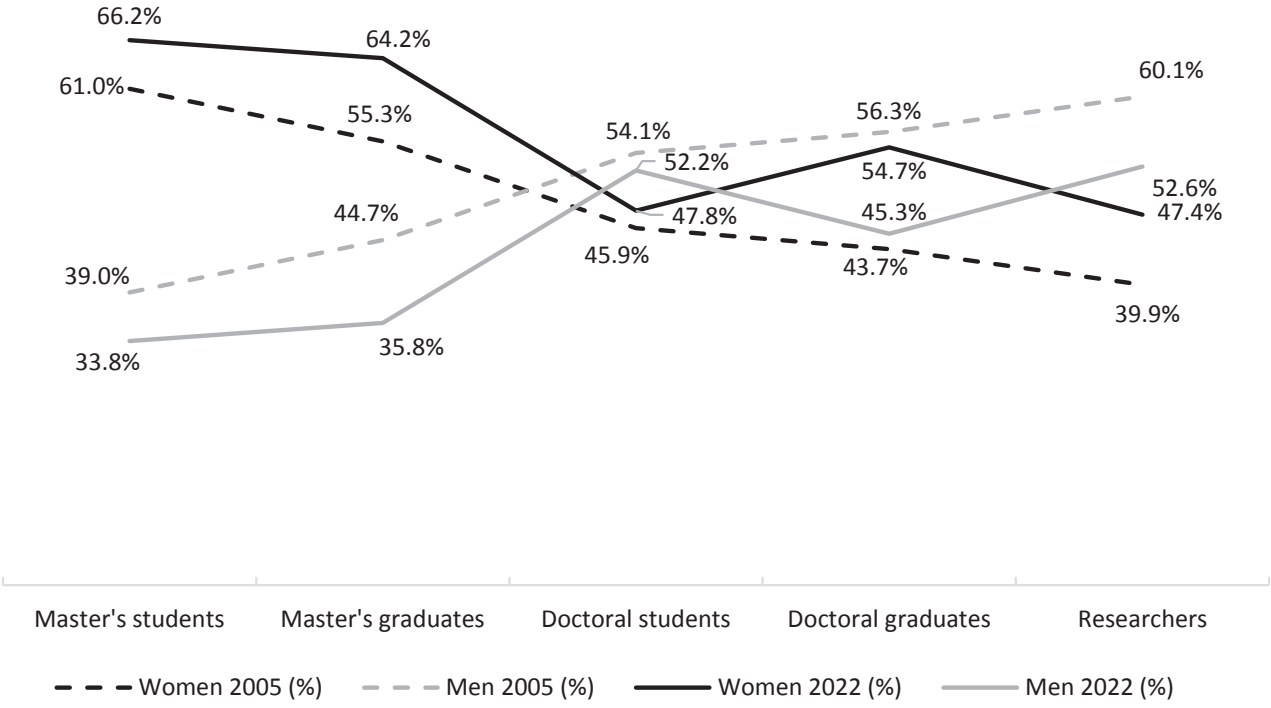
In the agricultural sciences, there was a 7.5 percentage point increase in the representation of women researchers between 2005 and 2022, going up from 39.9% in 2005 to 47.4% in 2022. There has also been a significant increase in the number of women master's students (up by 5.2 percentage points) and women master's graduates (up by 8.9 percentage points) and PhD programmes (up by 10.9 percentage points) (see Figure 11).

The proportion of women in the agricultural sciences reached approximately 65% among students and graduates of master's programmes in 2022. In the case of doctoral studies, gender representation was close to parity, and the proportion of women among researchers was also high, at 43.9% in 2022 (see Figure 11).

As in the case of the natural and technical sciences, the agricultural sciences also saw a loss of women students in transition from the master's to the doctoral level. The largest loss, 16.4 percentage points, was recorded in 2022 among women in the transition from the master's to the doctoral level (in 2005 the loss was 9.4 percentage points). In the transition from the doctoral level to a research position in this field, a significant loss of women was recorded in 2022, with a drop of 7.2 percentage points, which is almost twice as much as the loss of 3.8 percentage points in 2005 (see Figure 11).

9 For data see Table 5

Figure 11: The agricultural sciences — the proportion (%) of men and women in a typical academic career, students and academic staff, 2005 vs 2022[10]



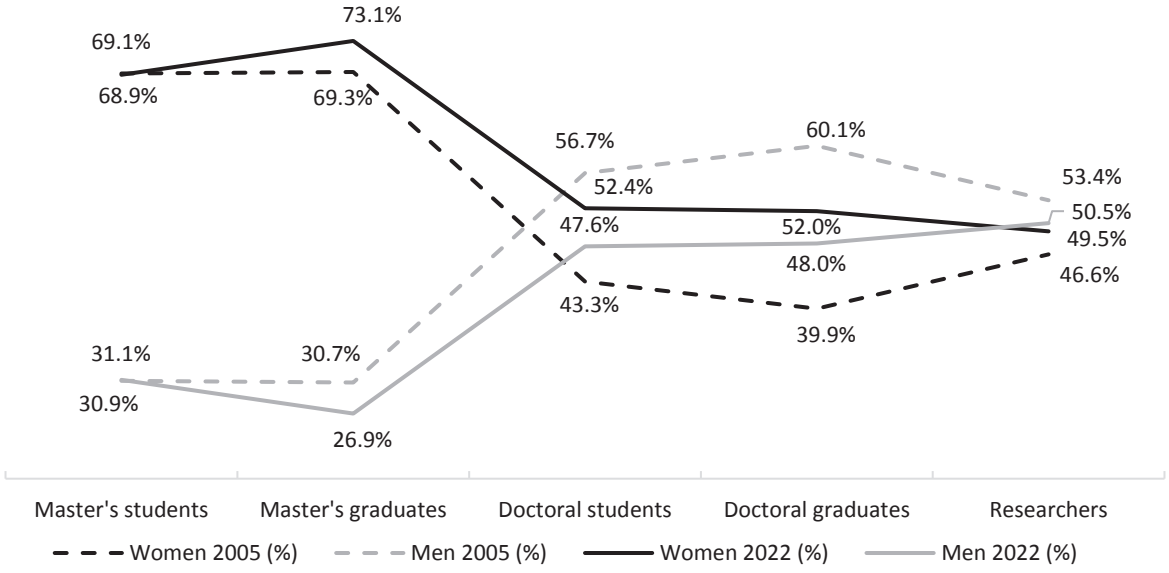
Source: Ministry of Education, Youth and Sports – Statistics on the performance indicators of public and private HEIs in the Czech Republic; CZSO – Research and Development Indicators.

In the medical sciences, women accounted for an overwhelming majority in both master's degree categories examined, accounting for 68.9% of students and 73.1% of graduates in 2022. There was a slight increase of 3.9 percentage points in the proportion of women among graduates compared to 2005 (see Figure 12). There was also parity in representation among undergraduates (women represented 52.4%) and doctoral graduates (women represented 52.0%). The increase was 9.1 percentage points for women students, and the increase was even higher for graduates at 12.1 percentage points (see Figure 12). There was also a smaller increase among graduates of master's programmes (an increase of 3.9 percentage points) and in the category of researchers (an increase of 2.8 percentage points).

However, there was a corresponding outflow of women in the medical sciences in the transition from PhD graduates to researchers in 2022, with a decrease of 2.5 percentage points. An even higher loss equalling 20.8 percentage points in 2022 was recorded in the transition from completing a master's degree to enrolment in a PhD programme (see Figure 12). However, we can see some progress compared to 2005. In that year, there was a 26.0 percentage point outflow of women in the transition from completing a master's programme to enrolling in a doctoral programme, which was one of the largest drops between stages on the ideal-typical pathway out of all the sciences examined, and there was a 6.3 percentage point loss of women in the transition from completing a doctoral programme to becoming a researcher (see Figure 12).

10 For data see Table 6

Figure 12: The medical sciences — the proportion (%) of men and women in a typical academic career, students and academic staff, 2005 vs 2022[11]

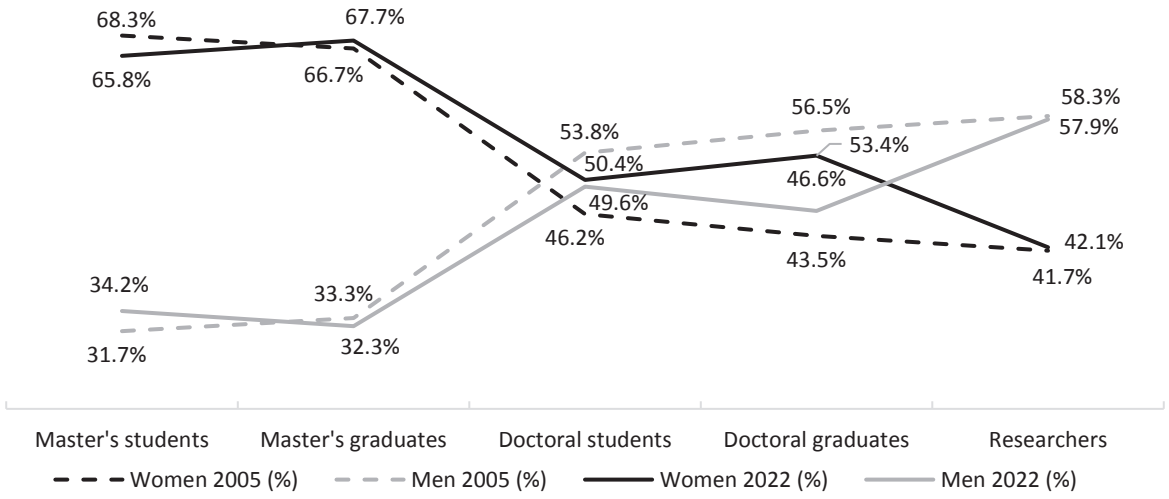


Source: Ministry of Education, Youth and Sports – Statistics on the performance indicators of public and private HEIs in the Czech Republic; CZSO – Research and Development Indicators.

In the social sciences, there were also some changes in the proportion of women at each step towards an academic career between 2005 and 2022. There was a 2.5 percentage point decline in the proportion of women among those studying a master's programme. Despite this decline, women continued to represent more than three-fifths of students (68.5% in 2022). A similar share of women were recorded among graduates at 67.7% in 2022 (see Figure 13). Relative parity can be observed at the doctoral level, both among students (50.4% women in 2022) and graduates (53.4% women in 2022).

After completing a master's degree, a significant number of women decided not to pursue a doctoral degree. In 2022, the loss of women between these two degrees equalled a difference of 17.3 percentage points (in 2005, the loss was 20.5 percentage points). In the transition from doctoral studies to a research position, the loss of women in 2022 was 11.4 percentage points, six times greater than in 2005, when the loss was 1.8 percentage points (see Figure 13).

Figure 13: The social sciences — the proportion (%) of men and women in a typical academic career, students and academic staff, 2005 vs 2022[12]

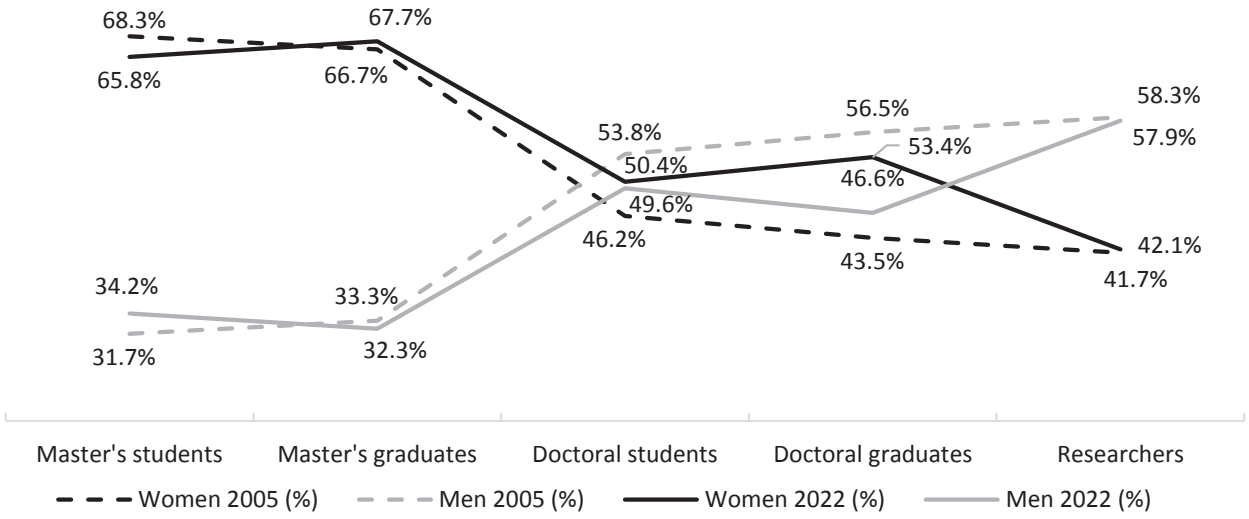


Source: Ministry of Education, Youth and Sports – Statistics on the performance indicators of public and private HEIs in the Czech Republic; CZSO – Research and Development Indicators.

11 For data see Table 7.
12 For data see Table 8.

Similar trends as in the social sciences can be observed in the humanities. Here, too, women are more represented than men at the master's level where more than three-fifths are women (see Figure 14). There is almost parity in representation at the doctoral level (53.8% women in 2022) and at the graduate level (47.4% women in 2022). Also, in 2022 the largest outflow of women on the ideal-typical pathway occurred between master's and doctoral degrees, where there was a drop equalling 15.5 percentage points. The good news is that there was a slight increase in the researcher category, where the proportion of women increased by 1.1 percentage points between 2005 and 2022. There was also an increase in the proportion of women among master's students between 2005 and 2022 equalling 6.8 percentage points. However, there was a slight loss of women in the transition between a doctoral degree and a research career: in 2022 this loss equalled 5.8 percentage points, compared with 5.4 percentage points in 2005 (see Figure 14).

Figure 14: The humanities — the proportion (%) of men and women in a typical academic career, students and academic staff, 2005 vs 202213



Source: Ministry of Education, Youth and Sports – Statistics on the performance indicators of public and private HEIs in the Czech Republic; CZSO – Research and Development Indicators.

If we were to summarise the above findings across disciplines, we can say that at the master's level, among both students and graduates, women predominate in all disciplines except the technical sciences . There is a similar consistency across disciplines at the doctoral level, among both students and graduates. Here, however, we can no longer speak of a predominance of women, but rather of parity. Further, there is relative parity of women and men among researchers in the agricultural, medical, and social sciences and humanities. In the natural sciences, the proportion of women among researchers is 24.5%. This low representation is due to the fact that a significant number of women decide not to pursue an academic career after completing their doctoral studies, with a loss of 30 percentage points observed in this transition in 2022. In the technical sciences, the proportion of women among researchers is at a long-term low, with no improvement over time. In 2022, women accounted for 13.4% researchers.

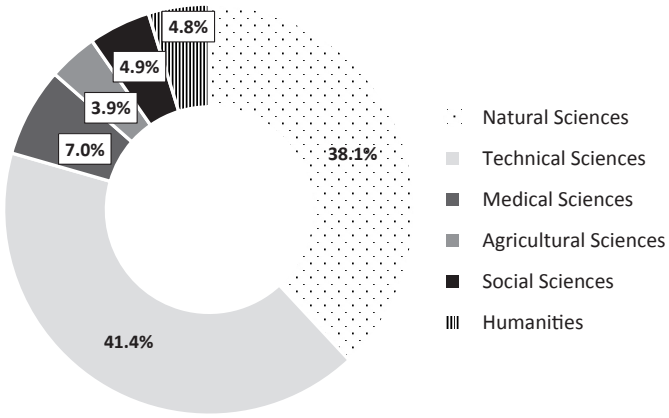
However, it is important to mention that horizontal and vertical segregation are intertwined. In the case of the sciences in which women are under-represented (the technical sciences), their low absolute representation at the beginning of their academic careers has a significant impact on their gradual decline, which reduces their potential losses. Conversely, in the case of the sciences in which women dominate from the beginning of their academic careers (typically, for example, the natural and medical sciences), the subsequent losses are high, as the absolute number of women is higher. Thus, the fact that Czech research and innovation are unable to absorb the growing research capacity generated by the increasing proportion of women in all degrees and fields of study is confirmed in the long term.

13 For data see Table 9.

RESEARCHERS BY DISCIPLINE

According to the CSO, a total of 49,402 people were working in research and development as researchers in 2022, compared to 48,080 in 2021. In terms of the number of researchers, the most important scientific fields were the technical (41.4%) and natural sciences (38.1%), which together accounted for almost 80% of all researchers in the Czech Republic in 2022. The medical (7.0%) and social sciences (4.9%), the humanities (4.8%), and the agricultural sciences (3.9%) followed at a considerable distance (see Figure 15).

Figure 15: Researchers by field, 2022 (FTE) (in %)

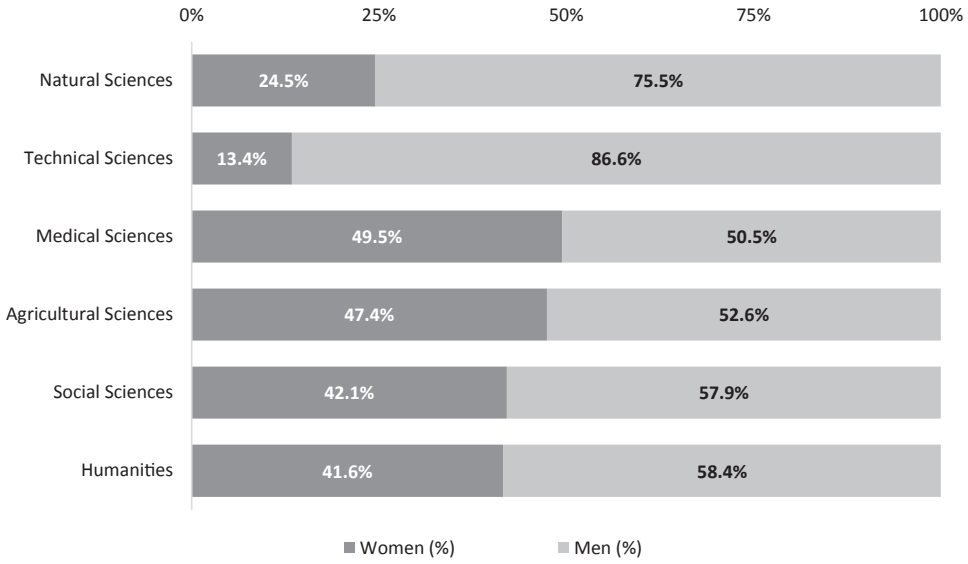


Source: CZSO – Research and Development Indicators.

In the previous section (Figures 4–14), gender representation was examined in the context of the ideal-typical career path from study to research. Figure 16 below shows the distribution of people in the researcher position by gender and research area.

In 2022, the lowest relative proportion of women among those in researcher positions was in the technical sciences, where women accounted for 13.4% of people in this position compared to 86.6% of men. The second group in which women were the least represented was the natural sciences, where women accounted for 24.5%. There was relative parity between men and women in the other disciplines: the medical sciences at 49.5% women, the agricultural sciences at 47.4% women, the social sciences at 42.1% women, and the humanities at 41.6% women (see Figure 16).

Figure 16: Researchers by sex and field, 2022 (FTE) (in %)[14]



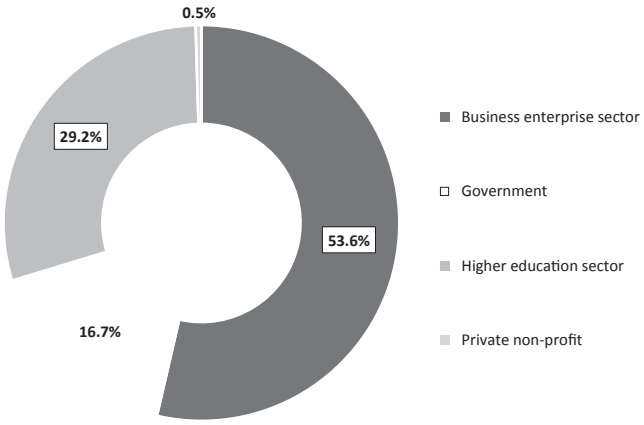
Source: CZSO – Research and Development Indicators.

14 For data see Table 10

RESEARCHERS BY SECTOR

Most researchers in the Czech Republic are employed in the business enterprise sector and, by a large margin, in the higher education sector. Together, they accounted for 82.8% of researchers in 2022, with 53.6% in the business enterprise sector and 29.2% in the higher education sector. The government sector employed 16.7% of researchers and the not-for-profit sector only 0.5% (see Figure 17).

Figure 17: Proportion of researchers in 2022, by sector (FTE) (in %)[15]

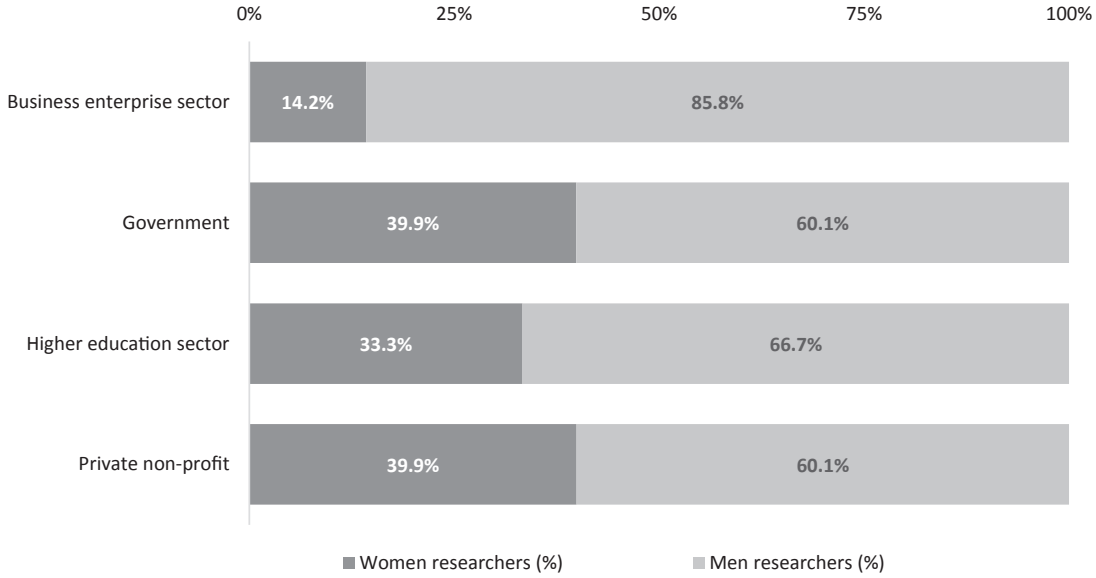


Source: CZSO – Research and Development Indicators.

The business enterprise sector has clearly grown the most since 2005. In 2022, there were 26,486 people working as researchers in this sector compared to 25,611 the year before and only 9,716 in 2005.

The proportion of women among researchers in the business enterprise sector is the lowest of all sectors (see Figure 18). The representation of women among researchers in 2022 in this sector was only 14.2% (compared to 14.1% in 2005). In the other sectors, the proportion of women among researchers is significantly higher. In the government sector, women represented 39.9% in 2022 (36.4% in 2005). In the higher education sector, women represented 33.3% in 2022 (32.4% in 2005). In the private non-profit sector, women represented 39.9% in 2022 (59.6% in 2005) (see Figure 17).

Figure 18: Proportion of researchers in 2022, by sex and sector (FTE) (in %)[16]



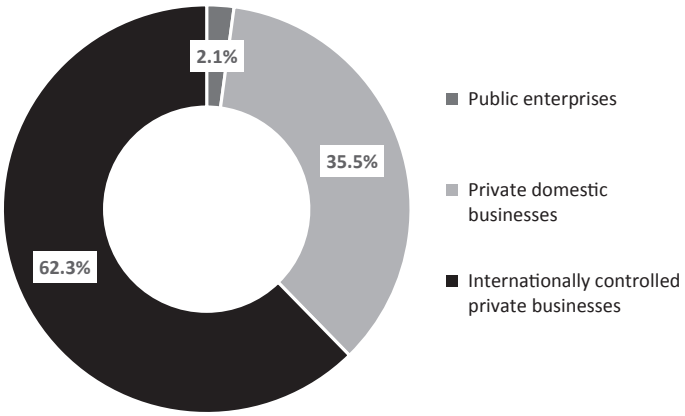
Source: CZSO – Research and Development Indicators.

15 For data see Table 24.
16 For data see Table 24.

Business enterprise sector

Researchers working in the business enterprise sector in 2022 were mainly concentrated in private enterprises, which together employed 97.9% of those working as researchers. Within these private enterprises, there was a higher proportion in foreign-owned enterprises, which employed 62.3% of researchers in 2022, while domestic enterprises employed 35.5% (see Figure 19) and public enterprises employed 2.1% of researchers.

Figure 19: Proportion of researchers in the business enterprise sector in 2022, by type of workplace (FTE) (in %)[17]



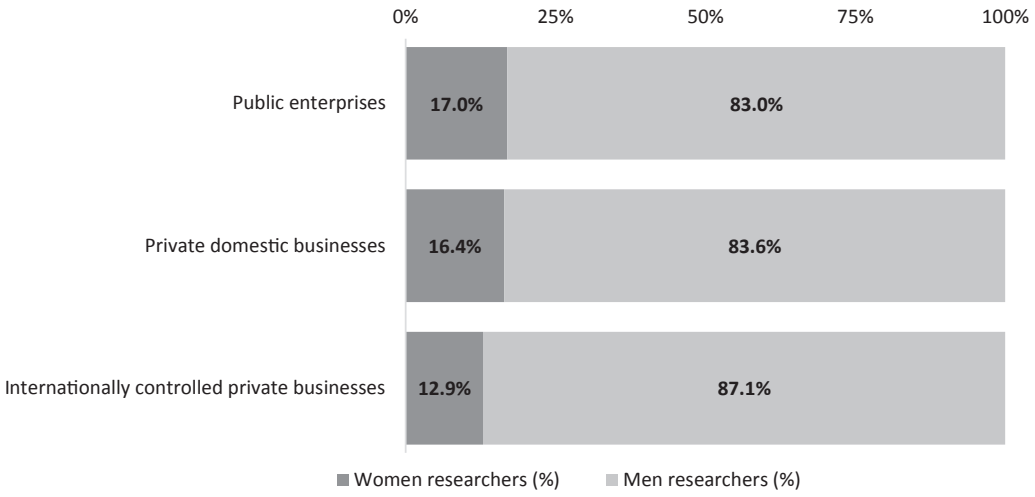
Source: CZSO – Research and Development Indicators.

The proportion of women and men researchers in the business enterprise sector is very uneven. In all types of enterprises, men significantly dominate, and nowhere do women reach even one-fifth of all researchers. Foreign-owned private businesses are the largest employers of researchers in the business enterprise sector (see Figure 19). In 2022, they employed the largest number of women, more than other enterprises, with 2,131 (12.9%), while they employed 14,373 (87.1%) men (see Figure 20). Public enterprises, which employed the fewest researchers in the business enterprise sector in 2022, employed 97 women (17.0%) and 472 men (83.0%). The second highest proportion was in private domestic enterprises, which employed 1,544 women (16.4%) and 7,869 men (83.6%) in 2022 (see Figure 20).

If we look at the evolution of the representation of women as researchers in the business enterprise sector between 2005 and 2022, we see that while their representation in domestic and foreign-owned private enterprises did not change significantly between these years, there was a 0.8 percentage point increase in the proportion of women in public enterprises between 2005 and 2022 (see Annex – Table 25).

The fact that foreign companies often offer higher salaries than domestic companies in order to attract the best possible candidates may play a role in the majority of foreign-owned private companies. At the same time, the question is whether they are taking advantage of the less gender-sensitive local culture, which, unlike in their home countries, often allows them to ignore gender equality issues.

Figure 20: Proportion of researchers in the business enterprise sector in 2022, by sex (FTE) (in %)[18]



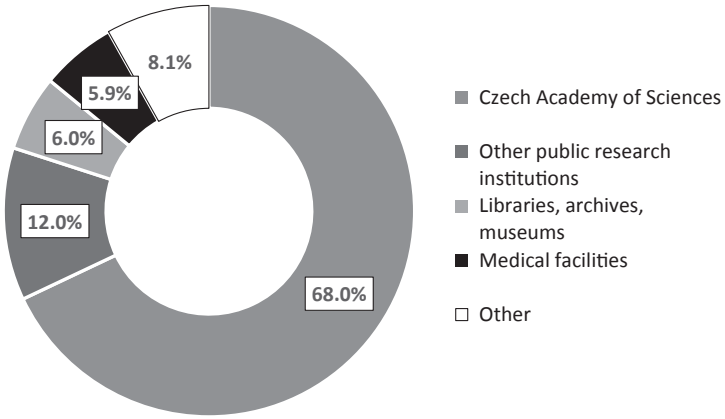
Source: CZSO – Research and Development Indicators.

17 For data see Table 25.
18 For data see Table 25.

Government sector

In the government sector, in 2022 the Czech Academy of Sciences was the largest employer of researchers, with a total of 5,604 (68.0%). The next largest number of researchers were employed at other public research institutions with a total of 991 (12.0%), followed by medical facilities with 490 (5.9%) libraries, archives, and museums with 491 (6.0%), and other with 669 (8.1%) (see Figure 21).

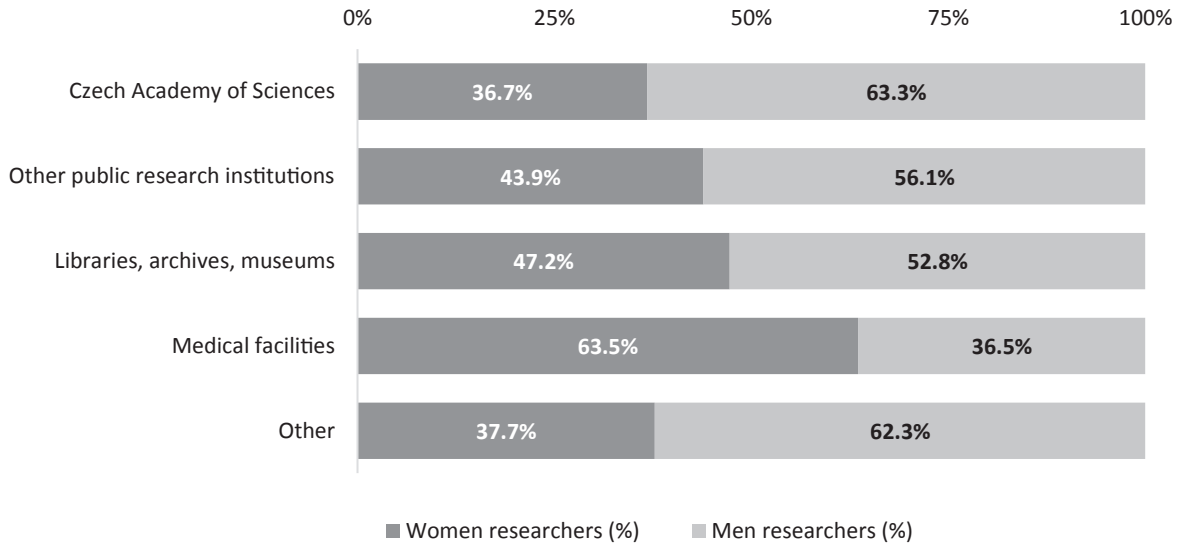
Figure 21: Proportion of researchers in the government sector in 2022, by type of workplace (FTE) (in %)[19]



Source: CZSO – Research and Development Indicators.

The predominance of women among medical students and graduates is subsequently reflected in the larger share of women employed in medical facilities. In 2022, women accounted for 311 persons in the position of researcher (63.5%) in a medical facility compared to 178 men (36.5%). Parity was found in libraries, archives, and museums, which employed 232 women (47.2%) and 259 men (52.8%) as researchers. Other public research institutions employed 435 women (43.9%) and 556 men (56.1%) in the position of researcher. Departments of the Czech Academy of Sciences, which employed the highest number of researchers (see Figure 21), employed 2,059 women (36.7%) and 3,545 men (63.3%). In the government sector the smallest number of women employed as researchers were in the Other category, where there were 253 women (37.7%) and 417 men (62.3%) (see Figure 22).

Figure 22: Proportion of researchers in the government sector in 2022, by sex (FTE) (in %)[20]



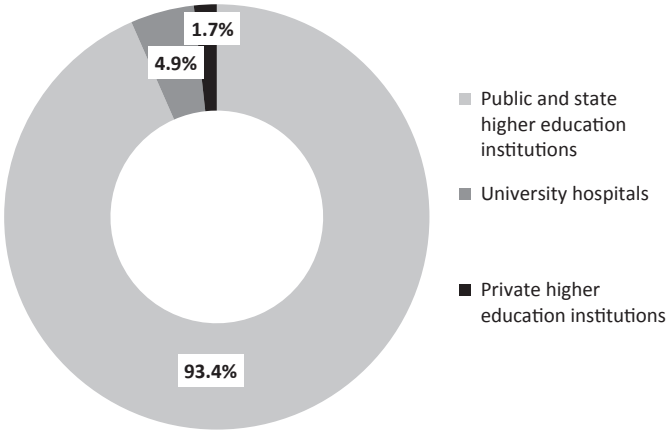
Source: CZSO – Research and Development Indicators.

19 For data see Table 26
20 For data see Table 26

Higher education sector

In the higher education sector, public and state higher education institutions had the largest number of persons employed as researchers. Of the 14,442 researchers in this sector in 2022, public and state higher education institutions employed 13,492 (93.4%). The second highest number of researchers in this sector were employed by university hospitals, with 700 researchers (4.9%). Private higher education institutions employed only 249 researchers (1.7%) (see Figure 23).

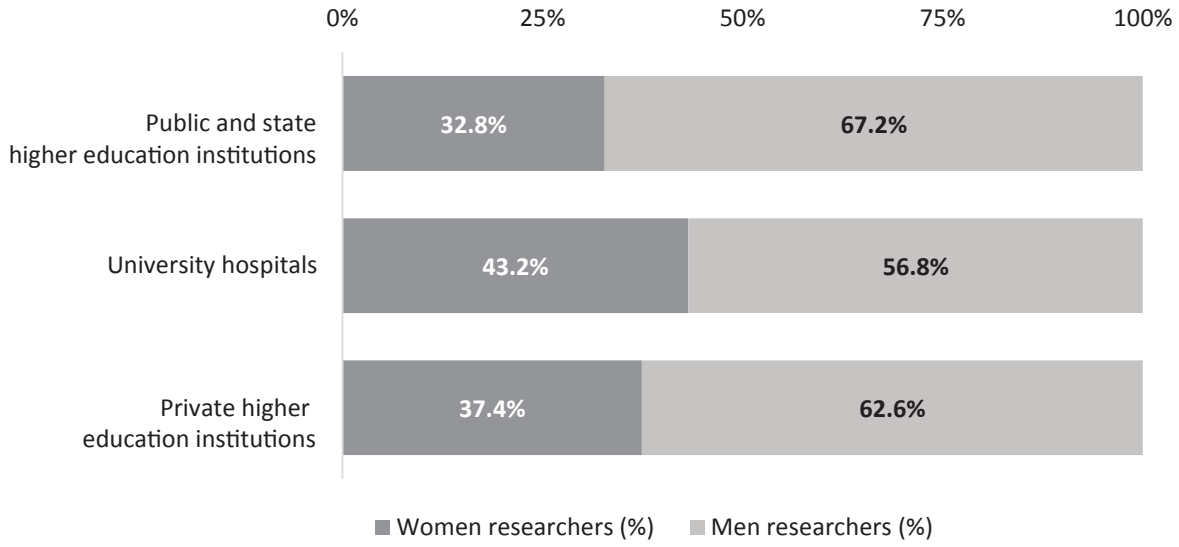
Figure 23: Proportion of researchers in the higher education sector in 2022, by type of workplace (FTE) (in %)[21]



Source: CZSO – Research and Development Indicators.

The proportion of women and men employed as researchers in university hospitals was closest to gender parity. There were 303 women researchers (43.2%) and 398 male researchers (56.8%) in 2022. The long-standing predominance of women in medical studies most likely contributed to this distribution. In private higher education institutions 93 women (37.4%) and 156 men (62.6%) were engaged in research activities in 2022. In public and state higher education institutions 4,420 women (32.8%) and 9,072 men (67.2%) were engaged in research in 2022 (see Figure 24).

Figure 24: Proportion of researchers in the higher education sector in 2022, by sex (FTE) (in %)[22]



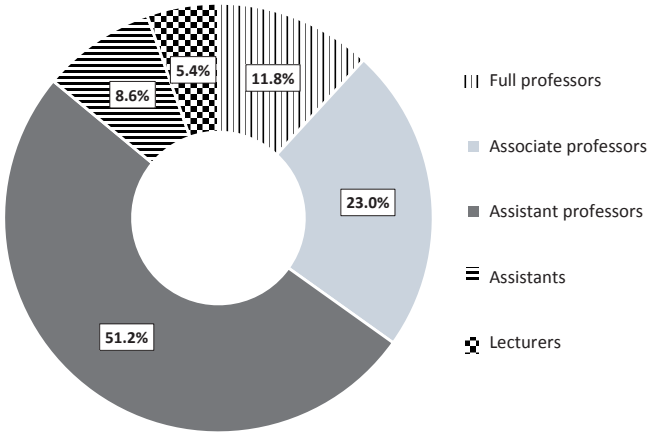
Source: CZSO – Research and Development Indicators.

21 For data see Table 27.
22 For data see Table 27.

ACADEMIC STAFF AT HIGHER EDUCATION INSTITUTIONS

Data on persons employed as academic staff at higher education institutions are collected and published by the Ministry of Education, Youth and Sports as full-time equivalents (FTE) in its statistical surveys. In 2022, 18,961 persons were employed as academic staff in FTE form. Assistant professors made up the majority of staff at 9,699 (51.2% of academic staff), followed by associate professors at 4,369 (23.0%), full professors at 2,242 (11.8%), assistants at 1,631 (8.6%), and lecturers at 1,020 (5.4%) (see Figure 25).

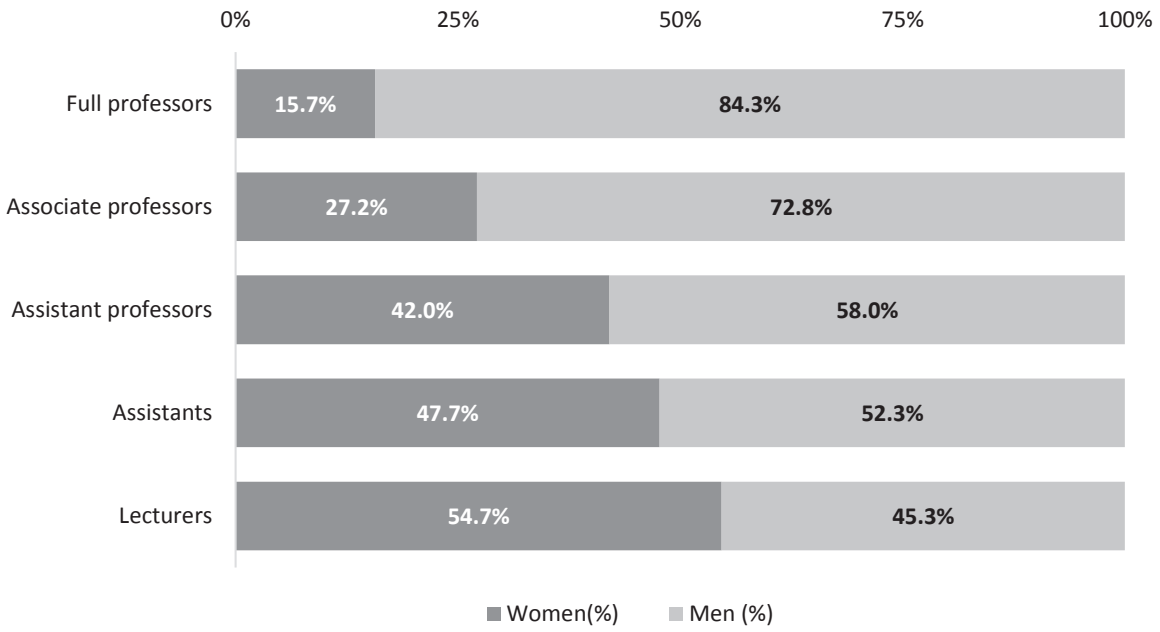
Figure 25: Structure of academic staff (FTE) by academic position, in 2022[23]



Source: Ministry of Education, Youth and Sports – Statistical Yearbook (Employees and wage resources).

In terms of the ideal-typical academic career (from lecturer to professor), the representation of women decreases towards the top positions, similar to the way it does in research. Among lecturers, women (54.7%) outnumbered men (45.3%) in 2022. In the category of assistants, men (52.3%) outnumbered women (47.7%). Among assistant professors, this predominance was even greater, with women accounting for 42.0% and men for 58.0% of the workforce. The greatest inequalities in the academic path are then found at the highest academic levels of associate professors and full professors. In 2022, only 27.2% of associate professors were women, while men accounted for 72.8%. Among full professors, the proportion of women was 11.5 percentage points lower and stood at 15.7% (see Figure 26).

Figure 26: Structure of academic staff (FTE), in 2022, by sex and academic position[24]



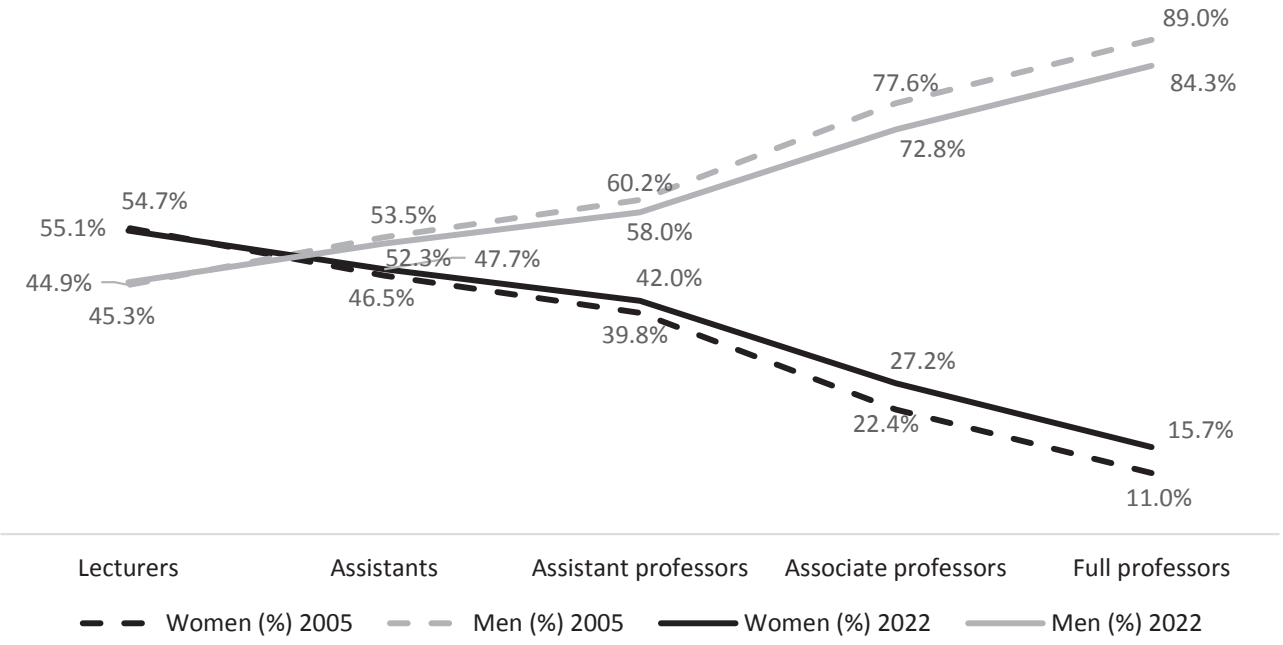
Source: Ministry of Education, Youth and Sport – Statistical Yearbook (Employees and wage resources).

Figure 27 presents changes over time in gender inequalities in academic full-time equivalent (FTE) positions between 2005 and 2022. Compared to the reference year of 2005, there is an increase in the percentage of women among professors by 4.7 percentage points to 15.7% in 2022 and among associate professors by 4.8 percentage points

23 For data see Table 29.
24 For data see Table 29.

to 27.2% in 2022 (see Figure 27). For the other academic positions, no significant change is observed between the reference years.

Figure 27: A temporal comparison of the representation of women and men in academic positions (FTE) between 2005 and 2022, based on the ideal-typical academic career path[25]



Source: Ministry of Education, Youth and Sports – Statistical Yearbook (Employees and wage resources).

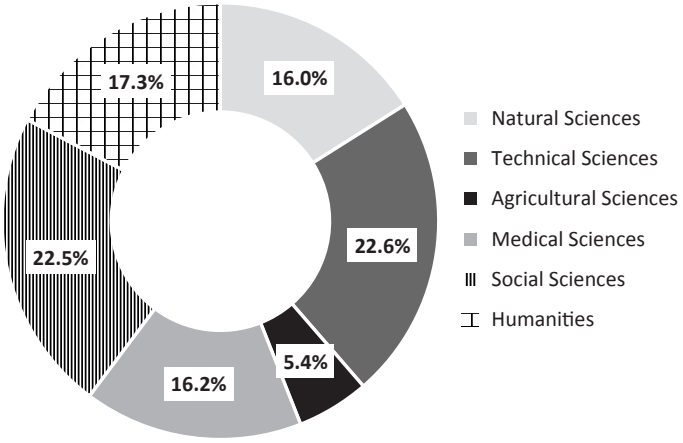
In terms of the ideal-typical trajectory, the proportion of women decreases with increasing academic position. Thus, the highest proportion of women is found in the position of lecturer and the lowest in the position of professor. The positive news is that there is a slightly increasing trend in the representation of women between the years 2005 and 2022 in the positions of full professor and associate professor. A forecast based on the developmental trend over the last 10 years indicates that it will take until 2114 at the earliest before at least one-quarter of professor positions will be held by women and it will be 2362 before parity will be achieved. For associate professors, parity between men and women could be reached by 2200.

25 For data see Table 29.

Academic staff by scientific field

The Ministry of Education, Youth and Sports does not collect data on academic staff by discipline, but provides a classification by faculties. We therefore manually classified faculties according to the Frascati Manual, an internationally accepted method for collecting and using R&D statistics that provides detailed information on the classification of disciplines into scientific areas. Thus, the following text provides an overview of the gender representation of persons in academic positions (FTE) by discipline.

Figure 28: Structure of academic staff (FTE) in 2022, by field, in %

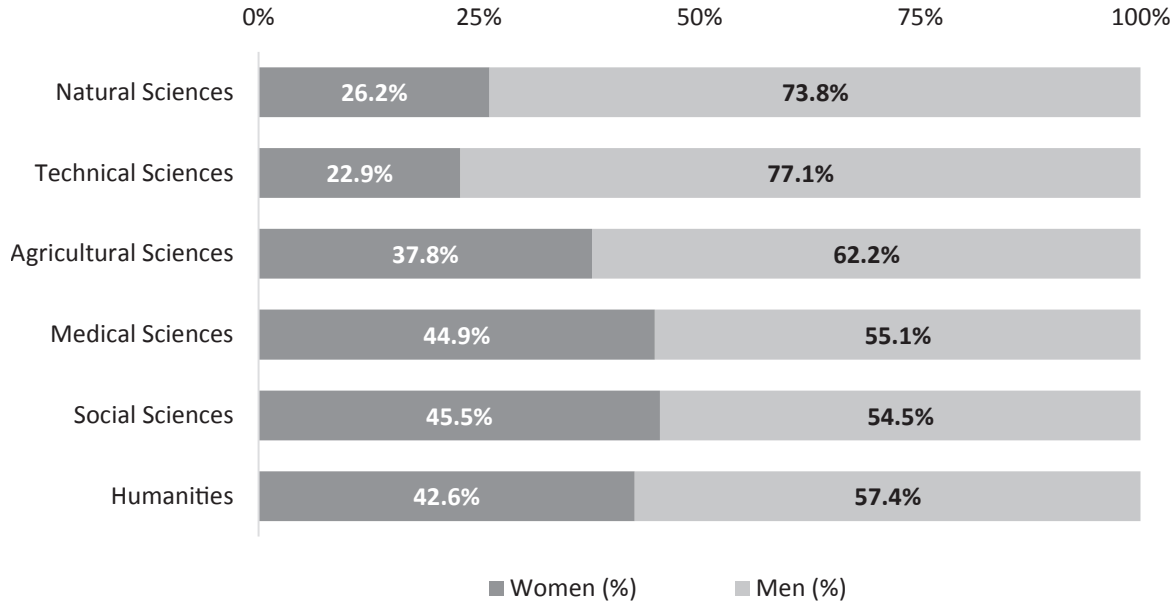


Source: Ministry of Education, Youth and Sports – Statistical Yearbook (Employees and wage resources).

The technical sciences (22.6%) and social sciences (22.5%) accounted for the highest share of academic FTE staff in 2022, followed by the humanities (17.3%), the natural sciences (16.0%), and the medical sciences (16.2%). The agricultural sciences (5.4%) had relatively the lowest share (see Figure 28).

The representation of women and men in academic positions by research field is presented in Figure 29. The social sciences (45.5% women), medical sciences (44.9% women), and humanities (42.6% women) were closest to parity in 2022. In contrast, the lowest proportion of women was in the natural (26.2%), technical (22.9%), and agricultural sciences (37.8%) (see Figure 29).

Figure 29: Structure of academic staff (FTE) by sex and field in 2022, in %



Source: Ministry of Education, Youth and Sports – Statistical Yearbook (Employees and wage resources).

The results show that in 2022, the highest share of academic full-time jobs was in the technical sciences and the lowest in the agricultural sciences. The proportion of women in some academic positions did not reach parity in any of the sciences in 2022. The social and medical sciences were closest to parity, while the technical and natural sciences had the lowest proportion of women.

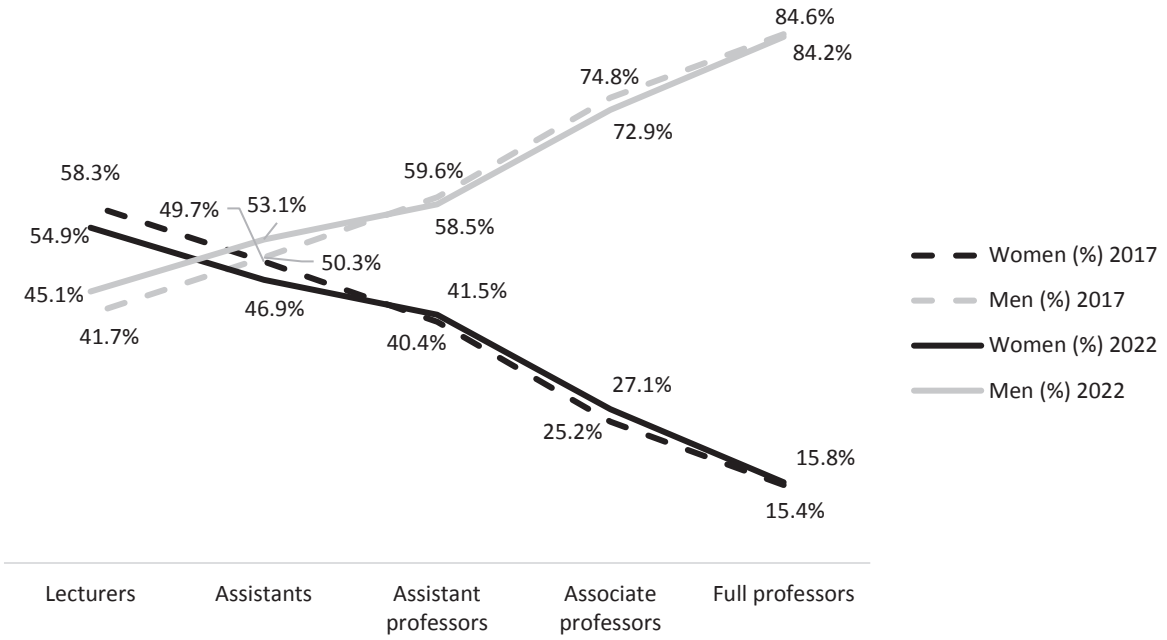
Academic staff by academic ranking

As in the case of academic staff by discipline, in this section, too, we draw on data provided by the MEYS, which are manually coded according to the Frascati Manual and expressed as sums of academic full-time equivalents (FTE). Information on the structure of academic staff by job title and discipline is available from the MEYS dating back to 2017. For this reason, the years 2017 and 2022 are used for comparison.

In Figure 30 we can observe that with increasing academic rank, there is a decrease in the proportion of women at each level of an academic career in the years studied. Between 2017 and 2022, the changes in the proportion of women were more significant in the lecturer category. While in 2017 women accounted for 58.3%, by 2022 there had been a decrease of 3.4 percentage points and the figure was 54.9%. A similar trend was also observed for assistants, with a decrease of 2.8 percentage points to 46.9% in 2022 (see Figure 30).

The largest losses of women in the transitions between academic levels can be observed between the categories of assistant professor and associate professor in both years compared. In 2017, the loss of women in this transition equalled a drop of 15.3 percentage points and in 2022 it equalled a drop of 14.5 percentage points. Significant losses in the proportion of women can also be observed in the transition from associate professor to full professor, with a drop of 9.7 percentage points in 2017 and a drop of 11.2 percentage points in 2022 (see Figure 30). A more favourable trend, on the other hand, can be observed in the transition between lecturer and assistant. While the loss of women between these levels amounted to a drop of 8.7 percentage points in 2017, in 2022 it was 8.0 percentage points. The loss of women in the transition from assistant to assistant professor also decreased, by 3.9 percentage points, between these years (see Figure 30).

Figure 30: The trend in the proportion of men and women (FTE) by academic position, 2017 and 2022, in %

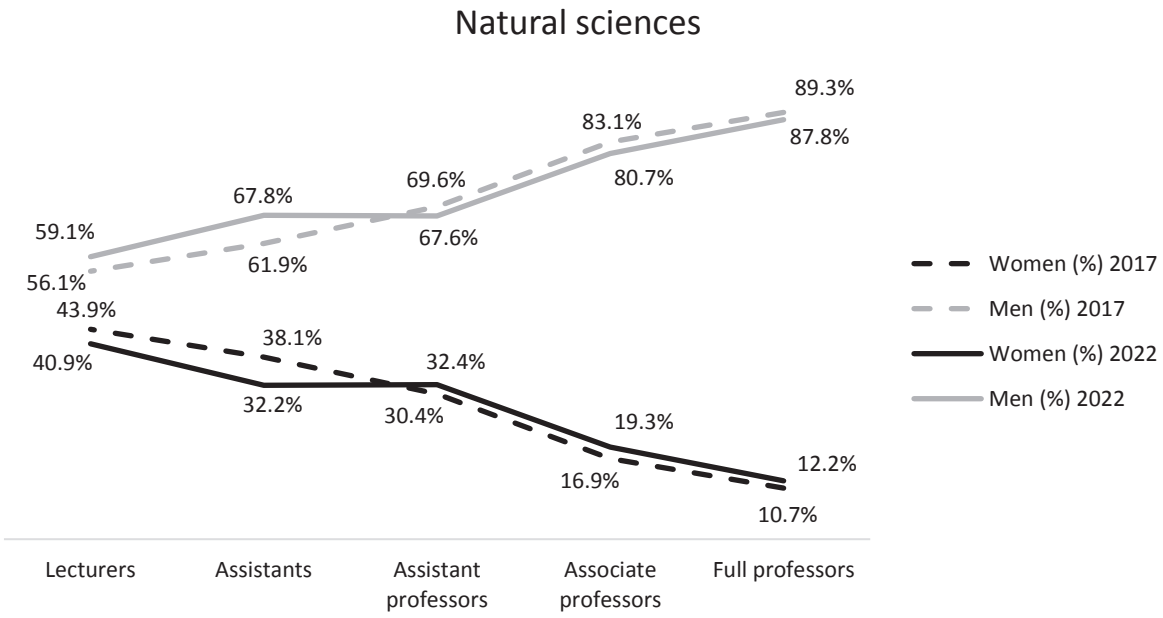


Source: Ministry of Education, Youth and Sports – Statistical Yearbook (Employees and wage resources).

Despite the growing trend in the proportion of women among academics, which is occurring in almost every discipline, the rate of growth is very slow. It is mainly women associate professors and full professors who are underrepresented in all fields.

In the natural sciences, with an increasing academic rank, the gap between men and women widens and there is a decline in share of women. The highest proportion of women has long been in the lecturer position – in 2022 40.9% of lecturers were women. Since 2017, there has been a decline in the proportion of women in this position by 3.0 percentage points (see Figure 31). An even larger decline occurred in the position of assistant, by 5.9 percentage points to 32.2% in 2022. In the other categories, there was a slight increase in the proportion of women between the reference years 2017 and 2022. There was an increase of 1.9 percentage points among assistant professors to 32.4%, 2.4 percentage points among associate professors to 19.3%, and 1.5 percentage points among professors to 12.2% (see Figure 31).

Figure 31: The trend in the proportion of men and women (FTE) in the natural sciences, 2017 and 2022, by academic position, in %

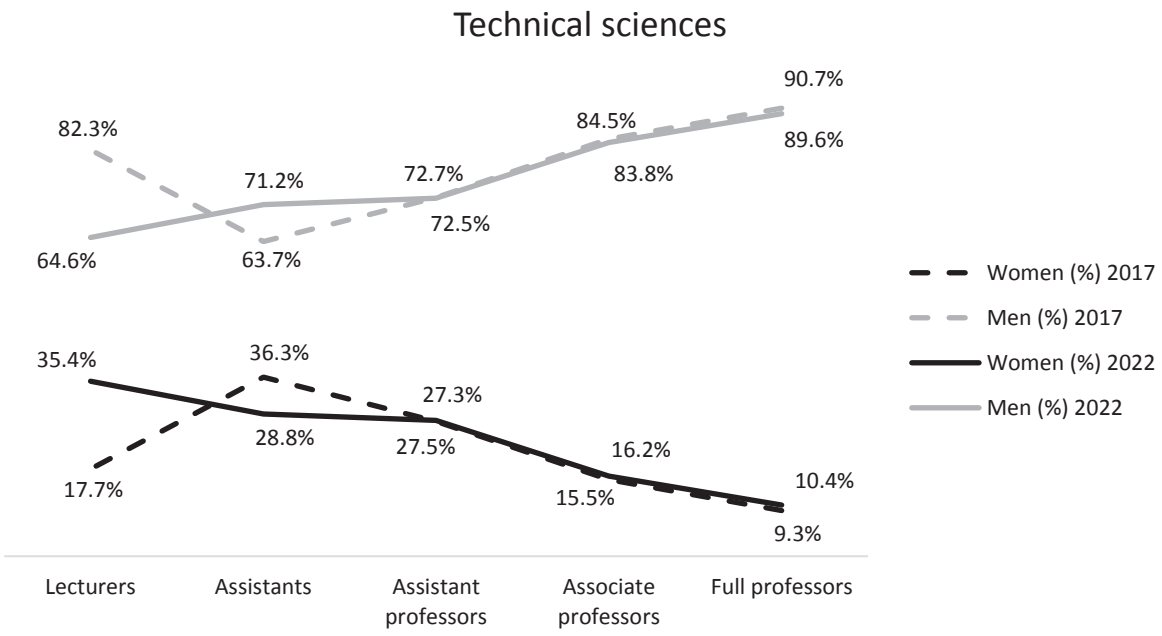


Source: Ministry of Education, Youth and Sports – Statistics on the performance indicators of public and private higher education institutions in the Czech Republic; CZSO – Research and Development Indicators.

The technical sciences are characterised by unequal gender representation at all academic levels, and, as Figure 32 indicates, the situation among academic staff is no exception. The good news, however, may be that since 2017 there has been an increase in the percentage of women in the position of lecturer by 17.8 percentage points, reaching 35.4% in 2022 (see Figure 32). On the other hand, unfortunately, there has also been a significant decrease in the number of women at the assistant level between the years under review, with a loss of 7.5 percentage points to a value of 28.8% in 2022. There have been no significant changes in the other academic stages between the years under review (see Figure 32).

The turning point in the ideal-typical trajectory comes at the transition between assistant professor and associate professor, where the loss of women was 11.3 percentage points in 2022 (compared to 11.8 percentage points in 2017). Among associate professors and professors, the loss in 2022 was 5.9 percentage points (in 2017 the loss was 6.3 percentage points). The situation is more favourable at the transition between assistant professor and associate professor, where the loss in 2022 was 1.3 percentage points, while in 2017 it was 8.9 percentage points (see Figure 32).

Figure 32: The trend in the proportion of men and women (FTE)
in the technical sciences, 2017 and 2022, by academic position, in %



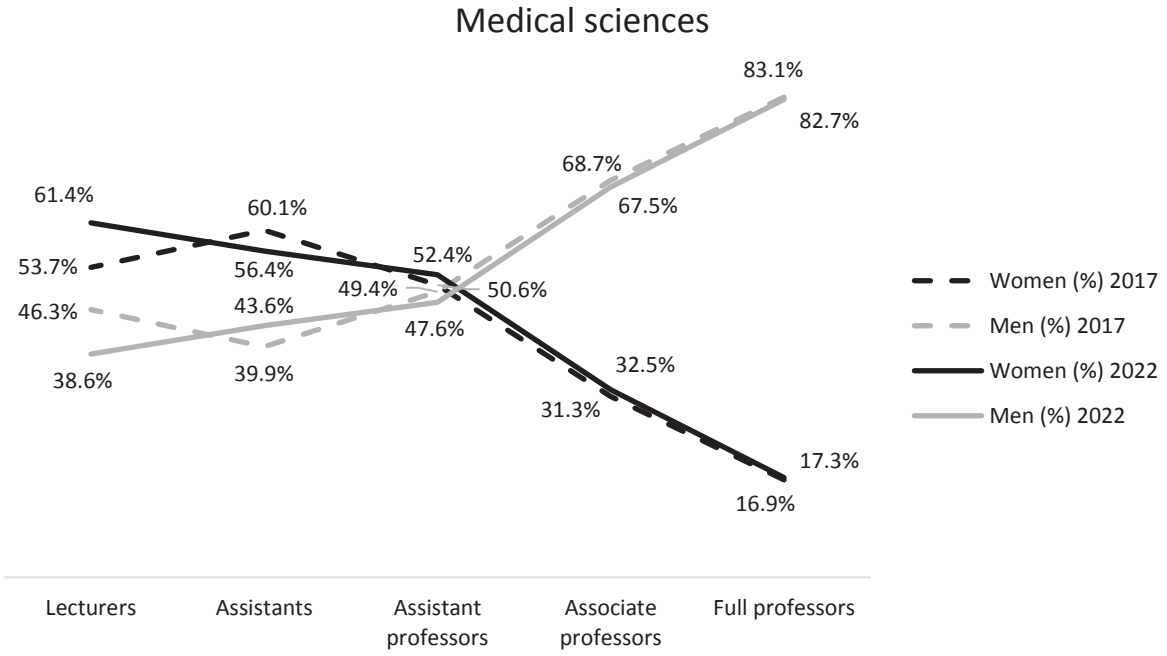
Source: Ministry of Education, Youth and Sports – Statistics on the performance indicators of public and private higher education institutions in the Czech Republic; CZSO – Research and Development Indicators.

The situation is more favourable in the medical sciences, where in 2022 women predominated in three academic stages: lecturers, assistants, and assistant professors. Specifically, women made up 61.4% of lecturers (an increase of 7.7 percentage points from 2017, when the proportion of women stood at 53.7%), 56.4% of assistants, and 52.4% of assistant professors (see Figure 33). Among associate professors, women accounted for 32.5% in 2022, an increase of 1.2 percentage points from 2017, and 17.3% among professors (see Figure 33).

While equal representation in these positions in the medical sciences is a good indicator, attention should also be paid to the working conditions that prevail in the field. Also worth considering is the glass ceiling effect at the levels of associate professor and full professor. Even though the number of women studying in or graduating from master's and PhD medical science programmes or working in research positions is above 50%, their representation as associate professors and professors does not correspond to their presence in the field.

The break in the ideal-typical trajectory comes at the transition between assistant professor and associate professor, where the loss of women was 19.9 percentage points in 2022 (in 2017, the loss was 19.3 percentage points). Another large loss in the proportion of women comes at the transition between associate professor and professor, where the loss was 15.2 percentage points in 2022 (in 2017, the loss was 14.4 percentage points).

Figure 33: The trend in the proportion of men and women (FTE)
in the medical sciences, 2017 and 2022, by academic position, in %

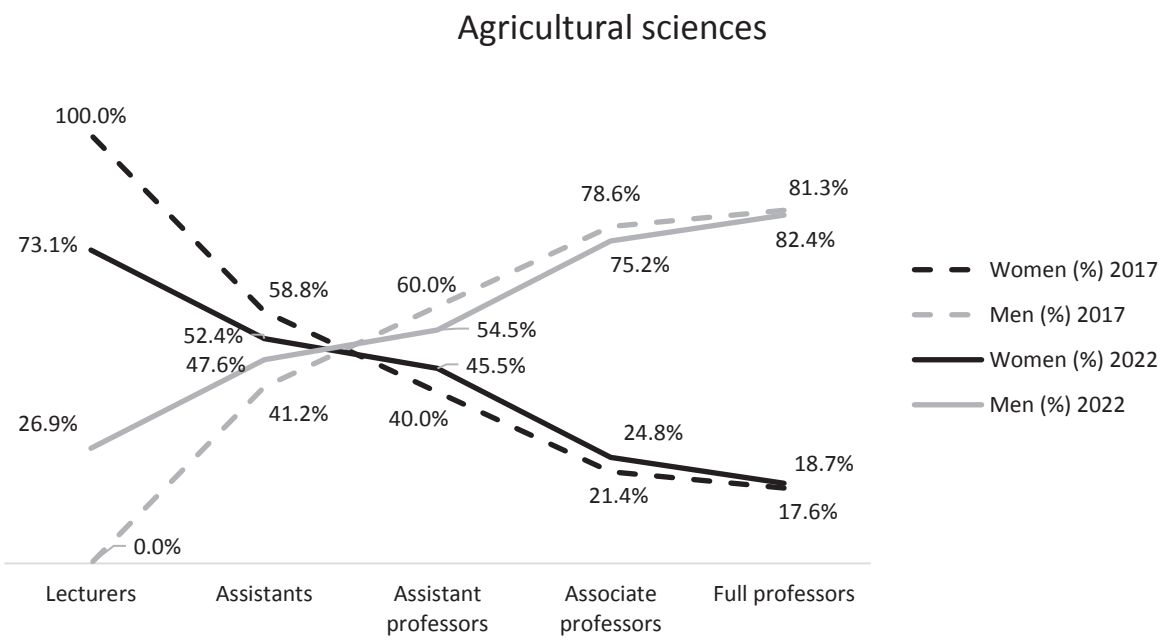


Source: Ministry of Education, Youth and Sports – Statistics on the performance indicators of public and private higher education institutions in the Czech Republic; CZSO – Research and Development Indicators.

In Figure 34, which describes the agricultural sciences, it should be noted that the outlier of 100% female representation among lecturers is due to the fact that in 2017 there were 2 women (100%) and no men (0%) working as lecturers. However, by 2022, the situation had improved slightly, and there were 6 women (73.1%) and 2 men (26.9%) working as lecturers. There was a higher representation of women in the agricultural sciences among assistant professors, with an increase of 5.5 percentage points, and among associate professors, with an increase of 3.4 percentage points. Between the 2017 and 2022 there was a decrease in the proportion of women among assistant professors, with a decrease of 6.4 percentage points (see Figure 34).

In the agricultural sciences, women dominated among lecturers (73.1%) and assistants (52.4%) in 2022. They represented 24.8% of associate professors and 18.7% of professors. The biggest losses between academic levels in 2022 can be observed in the transition from lecturer and assistant, with a loss of 20.7 percentage points, and from assistant professor to associate professor, also with a loss of 20.7 percentage points (see Figure 34).

Figure 34: The trend in the proportion of men and women (FTE) in the agricultural sciences, 2017 and 2022, by academic position, in %

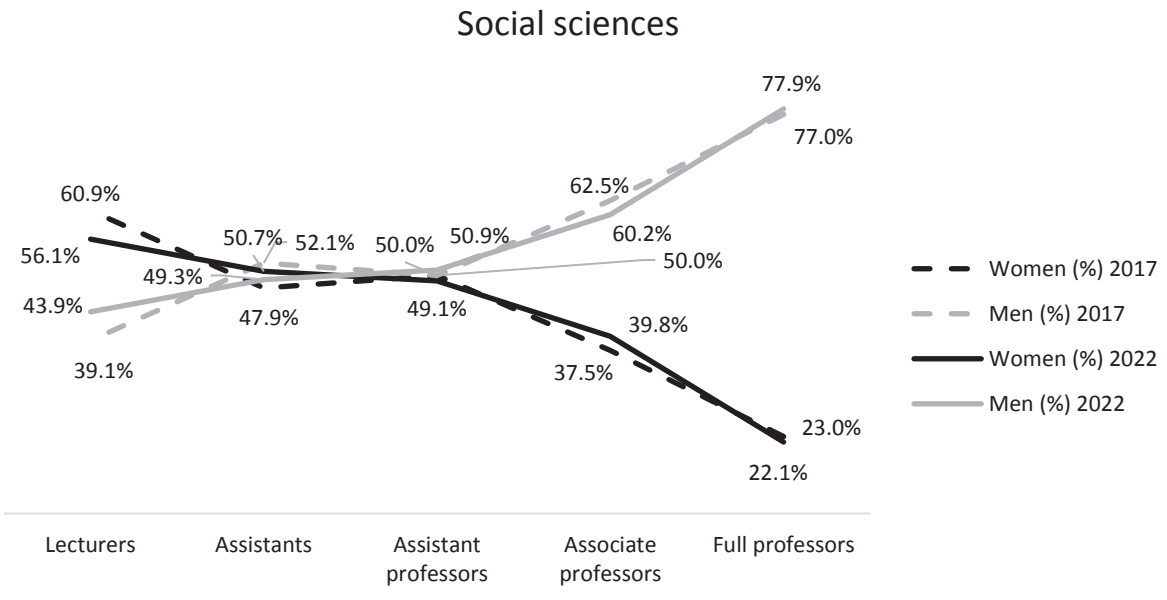


Source: Ministry of Education, Youth and Sports – Statistics on the performance indicators of public and private higher education institutions in the Czech Republic; CZSO – Research and Development Indicators.

In the social sciences, the differences in gender representation were smallest between the surveyed years. At the higher academic levels, however, there are also significant differences. While parity in representation can be found at the levels of lecturer, assistant, and assistant professor, women made up 39.8% of associate professors and only 22.1% of professors (see Figure 35).

The largest loss of women in 2022 was seen in the transition from associate professor to full professor, at 17.7 percentage points (compared to a loss of 14.4 percentage points in 2017). The second largest loss was observed in the transition from assistant professor to associate professor, with a loss of 9.3 percentage points in 2022 (compared to a loss of 12.6 percentage points in 2017) (see Figure 35).

Figure 35: The trend in the proportion of men and women (FTE) in the social sciences, 2017 and 2022, by academic position, in %

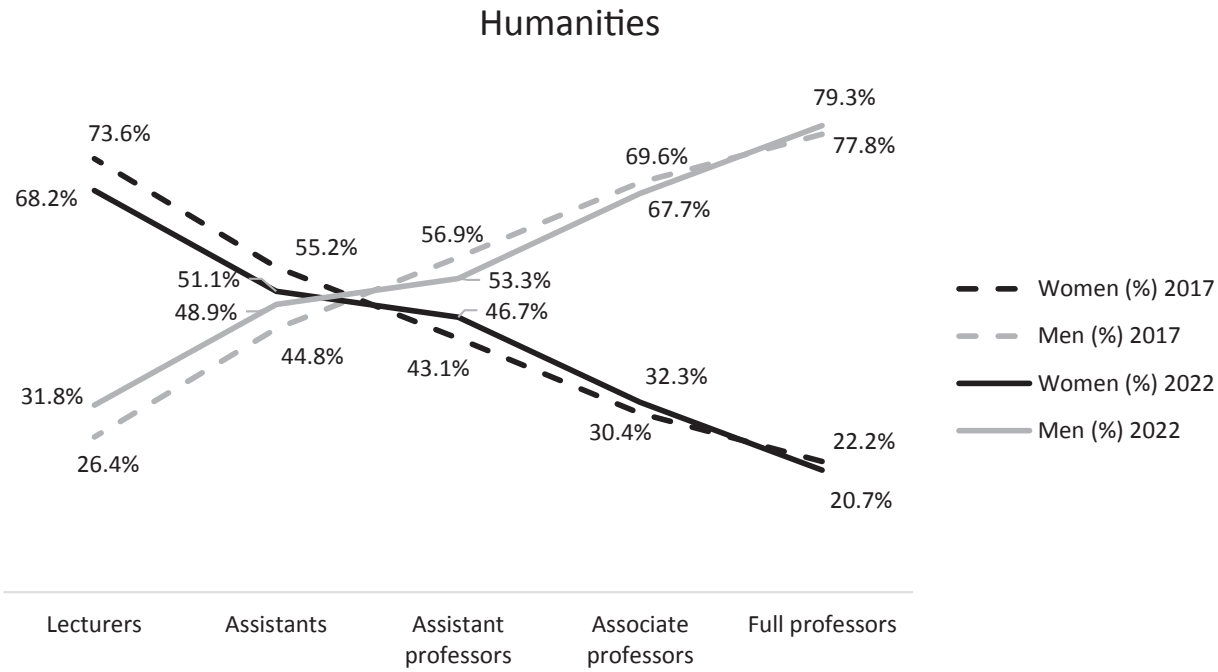


Source: Ministry of Education, Youth and Sports – Statistics on the performance indicators of public and private higher education institutions in the Czech Republic; CZSO – Research and Development Indicators.

The humanities, like the agricultural sciences, suffer from strong vertical segregation, with the number of women decreasing dramatically in higher academic ranks. There was also a decline in the proportion of women at each level of an academic career between 2017 and 2022. The most significant declines were recorded among lecturers, with a loss of 5.4 percentage points, and assistants, with a loss of 4.1 percentage points. In the case of assistant professors, on the other hand, there was a slight increase in the proportion of women between 2017 and 2022 equalling 3.6 percentage points (see Figure 36).

Like the other disciplines, the humanities also experience significant losses of women in the transitions between academic levels. In 2022, the loss between the lowest level (lecturer) and the highest level (professor) equalled 47.5 percentage points. The largest losses between academic levels were in the transition from lecturer to assistant at 17.1 percentage points (in 2017, the loss was 18.4 percentage points), from assistant professor to associate professor with a loss of 14.4 percentage points (in 2017 the loss was 12.7 percentage points), and from associate professor to professor at 11.5 percentage points (in 2017 the loss was 8.2 percentage points) (see Figure 36).

Figure 36: The trend in the proportion of men and women (FTE) in the humanities, 2017 and 2022, by academic position, in %



Source: Ministry of Education, Youth and Sports – Statistics on the performance indicators of public and private higher education institutions in the Czech Republic; CZSO – Research and Development Indicators.

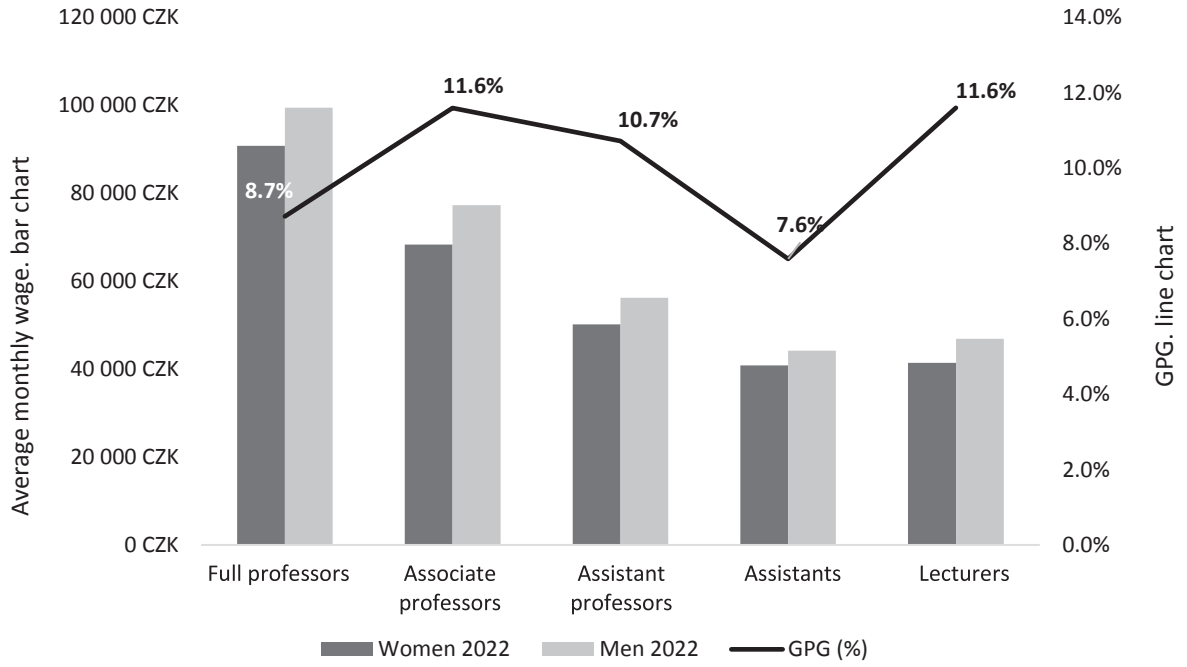
As noted above, the proportion of women decreases as academic rank increases. The largest losses were recorded in the transition from assistant professor to associate professor and from associate professor to full professor. It is in the natural sciences that we can observe the largest loss of women and the greatest gap in the representation of women and men in the academic positions. The technical sciences are generally characterised by unequal gender representation at all academic levels, with only the levels of lecturer and assistant professor showing significant changes between 2017 and 2022. The situation is more favourable in the medical sciences, where a higher proportion of women than men are found in the first three academic levels and there is a slightly growing tendency in the proportion of women among associate professors and professors. In the agricultural sciences, women predominate at the levels of lecturer and assistant professor, but their proportion is very low among associate professors and professors, one-quarter and one-fifth of whom, respectively, are women. In the social sciences and humanities, there is a predominance of women at the levels of lecturer and assistant professor. In the level of assistant professor the representation of women and men is almost at parity, while at the level of professor their representation is only one-fifth.

Wages

The gender pay gap indicates the percentage by which women academics have a lower average salary than their male colleagues. These differences can be found at all qualification levels. In 2022, they ranged from a 7.6% gap against women assistants to an 11.6% gap against women associate professors and lecturers (see Figure 37). Women professors had on average 8.7% lower monthly salaries and women assistant professors had 10.7% lower salaries in 2022 compared to their male colleagues.

Given the fact that it was not possible to include data on the salary supplements and bonuses in the analysed data, it can be assumed, based on general labour market data published by the CSO, that the actual differences in the salaries of academic staff will be even higher.

Figure 37: The gender pay gap (GPG, in %) in gross average monthly wages for academic staff in 2022, by academic position[26]



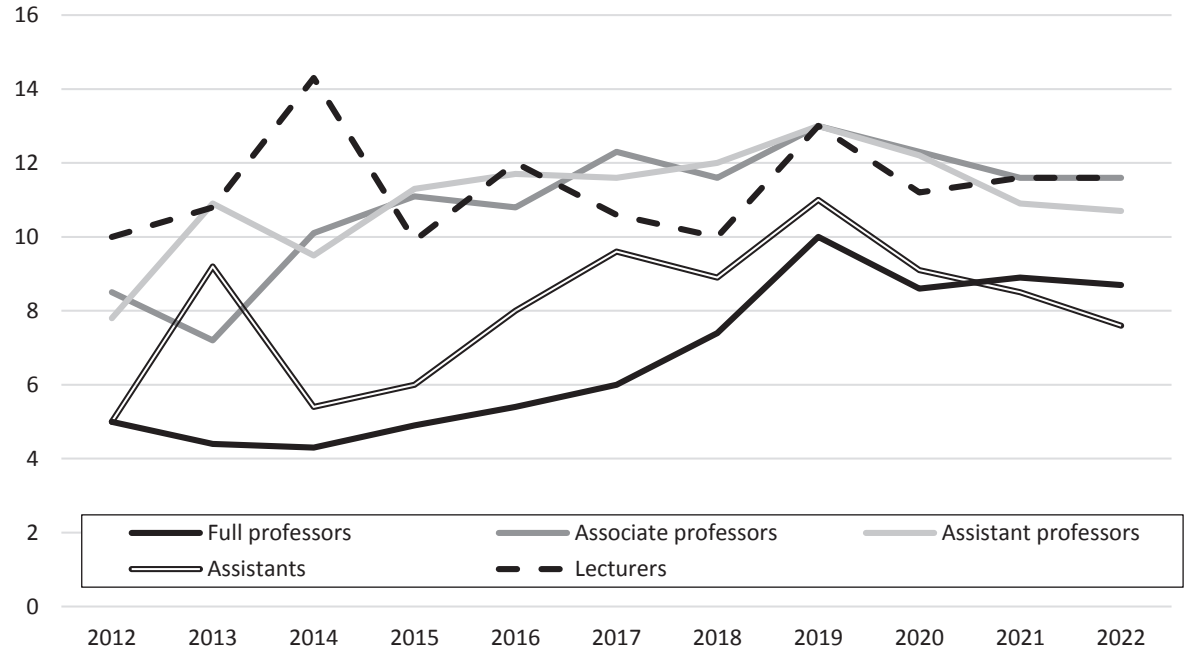
Source: Ministry of Education, Youth and Sports – Statistical Yearbook (Employees and wage resources).

The evolution of the gender pay gap over the period between 2012 and 2022 is shown in Figure 38. As can be seen, the trend is uneven across all qualification levels over the period under review. With the exception of the lecturer category, the largest gender gap in average gross monthly wages was in 2019, but even for lecturers the gender gap in 2019 was the second highest in the period under review. Since 2019, a trend of a gradual decrease in the wage gap can be observed in all categories (see Figure 38).

However, over a longer period, there is no reduction in the gender pay gap among academics, quite the opposite. Between 2012 and 2022, the gross monthly wage gap for professors increased by 3.7 percentage points, for associate professors by 3.1 percentage points, for assistant professors by 2.9 percentage points, and for assistant professors by 2.6 percentage points (see Figure 38). The above trend therefore shows that instead of the pay gap decreasing, the opposite is happening and the gap has been increasing over time (see Figure 38).

26 For data see Table 37.

Figure 38: Evolution of the gender pay gap (GPG, in %) in average gross monthly salaries of academic staff over the period 2012–2022, by qualification level



Source: Ministry of Education, Youth and Sports – Statistical Yearbook (Employees and wage resources).

These results demonstrate the existence of salary differences between men and women at individual levels of an academic career. While these differences have decreased over the years, the gap continues to range between 7.6% and 11.6% to the disadvantage of women.

DECISION-MAKING POSITIONS

Differences in the proportion of women and men in decision-making positions in the R&D system favoured men in 2022. In 2022, the total share of women in the position of head of research or head of a higher education institution reached only 13.5%, while women made up 22.6% of those working in the broader management of these institutions or in decision-making, strategic, and supervisory bodies. The proportion of women in the advisory and expert bodies of these institutions was slightly higher at 25.7% (see Table A).

A positive thing is that there was a woman in charge of the Czech Science Foundation and a woman at the head of the Czech Academy of Sciences. With 85.7%, men continue to dominate the management of state and public higher education institutions. The same is true of public research institutions, where the proportion of women in management was only 5.6% (see Table A). From 1 February 2022, for the first time in its entire history, Charles University had the first woman rector, Professor Milena Králíčková.

The proportion of women in decision-making and advisory bodies is low and does not reach parity at any of the monitored institutions. The highest proportion of women is found in the Council of Higher Education Institutions in both its decision-making and advisory bodies, where women make up 35% of the members of these bodies (see Table A).

Table A: Proportion of women and men in management and decision-making bodies at public research institutions, 2022[27]

	Management			**Decision-making, strategic, and supervisory bodies**			**Advisory bodies**		
	Women	Men	% Women	Women	Men	% Women	Women	Men	% Women
Public and state higher education institutions	4	24	14.3	526	1784	22.8	-	-	-
Public research institutions	1	17	5.6	70	218	24.3	-	-	-
Czech Academy of Sciences	1	0	100.0	59	252	19.0	84	294	22.2
Czech Rectors' Conference	0	1	0.0	21	79	21.0	36	95	27.5
Council of Czech Higher Education Institutions	0	1	0.0	94	180	34.3	137	254	35.0
Technology Agency of the Czech Republic	0	1	0.0	5	23	17.9	58	158	26.9
Czech Science Foundation	1	0	100.0	4	22	15.4	97	391	19.9
Learned Society of the Czech Republic	0	1	0.0	15	154	8.9	-	-	-
Total	**7**	**45**	**13.5**	**794**	**2712**	**22.6**	**412**	**1192**	**25.7**

Source: Annual reports and websites of the given institutions.

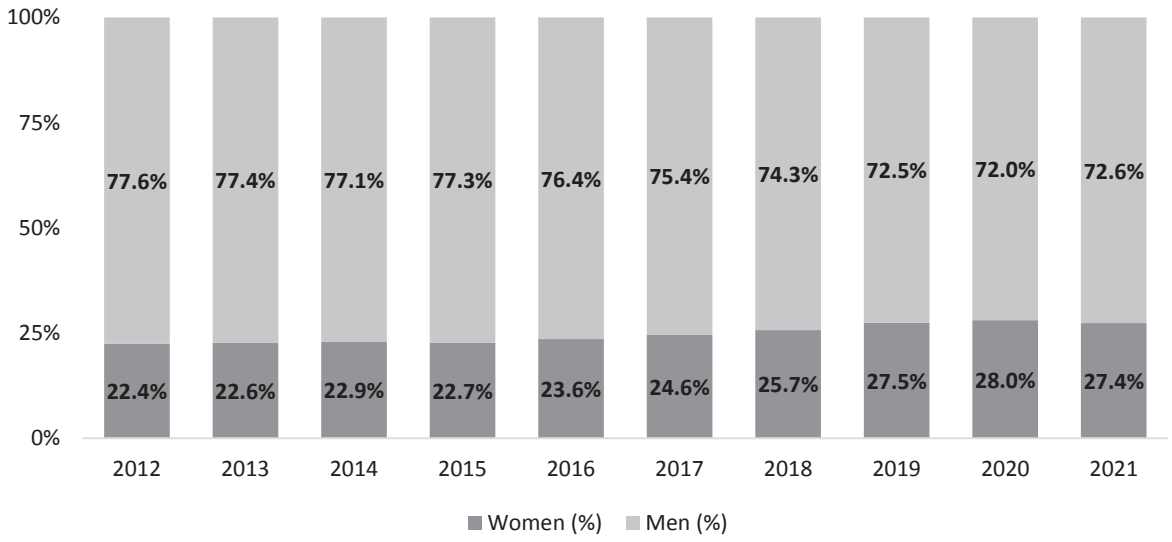
27 For data see Tables 38-44; at the same time, we should point out that there was a change in the methodology, where the Ministry of Education, Youth and Sports began taking into account not only university rectors, but also deans and, for example, heads of departments. For this reason, the reported values are not fully comparable with the values before 2018.

SCIENCE AND TECHNOLOGY PROFESSIONALS

Earlier in this report, we highlighted the problem of gender inequality in the natural and technical sciences. That is why we focus on this area in more detail here, and examine the differences between those in the positions of science and technology specialists between 2012 and 2021. Using data collected by the CSO as part of the Labour Force Survey (LFS), we will take a closer look at the proportion of men and women in science and technology occupations, as well as the gender differences in their financial remuneration.

In 2021 (data for 2022 were not available at the time of the 2022 Monitoring Report), there were approximately 158,000 people employed as specialists in science and technology. The proportion of women in these occupations is relatively low at around one-quarter (43,347 in 2021). While in absolute terms we can observe a slight gradual increase in the number of women in this field over time, there is no significant increase in proportional representation. Whereas in 2012 women accounted for 22.4% of people in the position of a specialist, in 2021 the proportion was 27.4% (there was therefore an increase of 4.9 percentage points) (see Figure 39) (all values are in HC).

Figure 39: Proportion of men and women (%) among science and technology professionals, 2012–2021[28](HC)



Source: CZSO – Labour Force Survey (LFS).

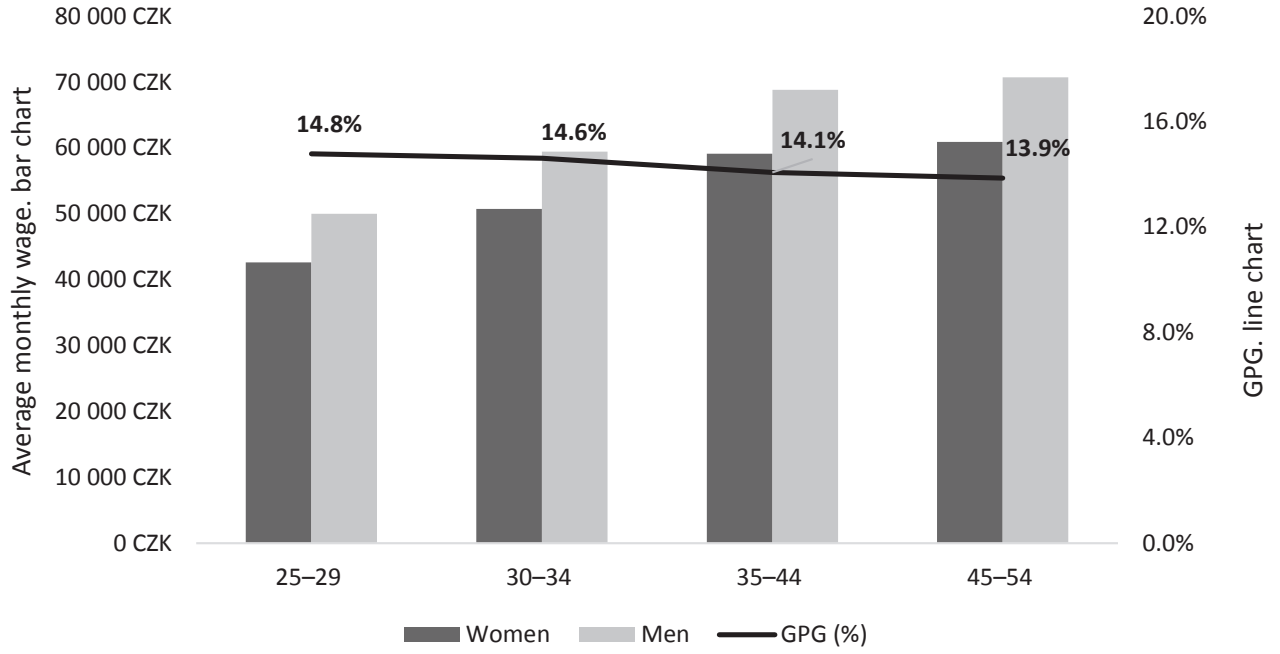
For those employed as science and technology specialists, we can also observe differences in average gross monthly wages, not only by gender but also by age. Women are generally at a disadvantage compared to men in all age groups. In 2022, the largest wage gap was observed in the 25–29 age group (a difference of 14.8% and CZK 7,388, respectively). Consequently, with increasing age the GPG[29] in 2022 decreased in favour of men. The GPG reached 14.6% in the 30–34 age group, 14.1% in the 35-44 age group, and 13.9% in the last 45-54 age group (see Figure 40).

Compared to 2021, the most significant change was in the 30–34 age group, which saw a 3.1 percentage point increase in GPG in favour of men. There was also a slight increase (0.7 percentage points) in the 25–29 age group. The 35–44 age category remained almost unchanged and the GPG decreased slightly (by 0.2 percentage points) in the 45–54 age group.

28 For data see Table 45.

29 The GPG (gender pay gap) refers to the relative difference between the average gross wages of men and women (relative to men's gross wages).

Figure 40: Gender pay gap (GPG, %) in gross average monthly wages among science and technology professionals in 2022, by age group[30]



Source: CZSO – Labour Force Survey (LFS).

In an earlier part of the report (see the section 'Researchers by discipline'), the issue of the unequal representation of women in the natural and technical sciences was highlighted. The proportion of women in the positions of science and technology specialists is around one-quarter of the workforce, but there is a slightly positive upward trend over time. In this category of staff there is also a difference in average monthly wages, by both gender and age. Women are at a pay disadvantage compared to men in all age categories, but this disadvantage decreases with increasing age.

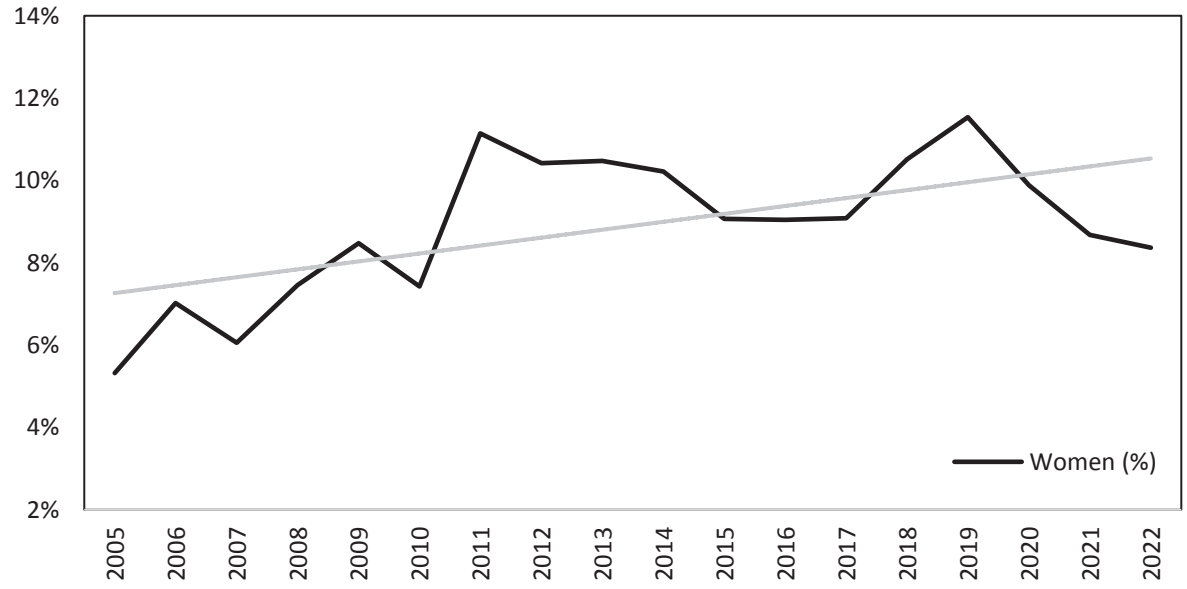
30 For data see Table 45.

THE GENDER GAP AMONG PATENT HOLDERS

Another aspect that describes the unequal position of women and men in society and builds on differences already noted above are the gender differences in patents awarded. There was an increase in the proportion of women granted patents between the reference years 2005 and 2022. However, the upward trend stopped in 2019 and women's representation has decreased slightly each year since. In terms of individual patent applicants examined, the most favourable situation in terms of female representation is in public research institutions and public higher education institutions, which have seen a doubling of the proportion of patents granted to women over the period under review. On the other hand, in the commercial sector, the proportion of women granted patents is very low and the situation is even worse for women as individuals. In 2022, the situation was extreme, with only one woman being granted a patent as an individual.

If we look at the time series (see Figure 41), we can observe some improvement in the long term. Whereas in 2005 only 5.3% of patents were granted to women, in 2022 the figure was 8.4%. This was a slight decrease from previous years, with a peak in 2019 at 11.5%. This downward then trend continued, with a decrease of 0.3 percentage points in 2022 compared to 2021 (see Figure 41).

Figure 41: The trend in the proportion (%) of patents granted to women, 2005–2022[31]

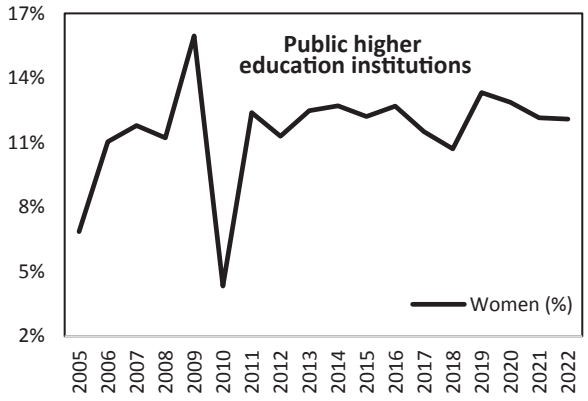


Source: Industrial Property Office and CZSO, 2023.

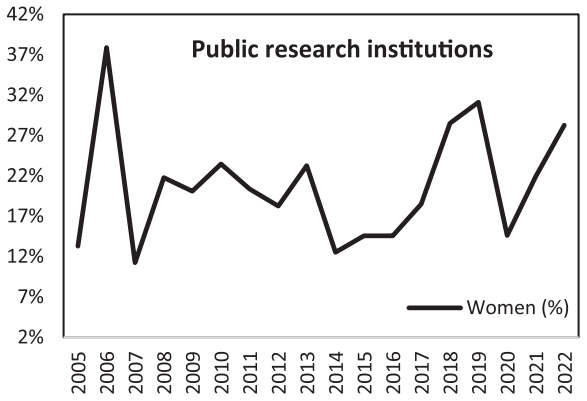
If we focus on the different types of patent applicants, the proportion of women who received patents almost doubled in public higher education institutions during the period under review. Whereas in 2005 women accounted for 6.9% of patents granted to public higher education institutions, by 2022 it was 12.1% (see Figure 42). The highest proportion of women among persons granted patents in public higher education institutions was in 2009, when they accounted for 16.0%. Apart from a drop in 2010, when women were granted only 4.3% of patents (the lowest in the 2005–2022 period), their representation has remained stable (see Figure 42).
In public research institutions, women have the highest representation in terms of patents granted in the areas surveyed. From 2005 to 2022, the share of patents granted to women in public research institutions increased by 15 percentage points, from 13.3% in 2005 to 28.2% in 2022 (see Figure 43). Compared to 2021, there was an increase in 2022 of 6.3 percentage points. The highest share was in 2006, when 37.9% of patents were granted to women.

31 For data see Table 46.

Figures 42 and 43: The trend in the proportion (%) of patents granted to women working at public higher education institutions and public research institutions, 2005–2022[32]



Source: Industrial Property Office and CZSO, 2023.

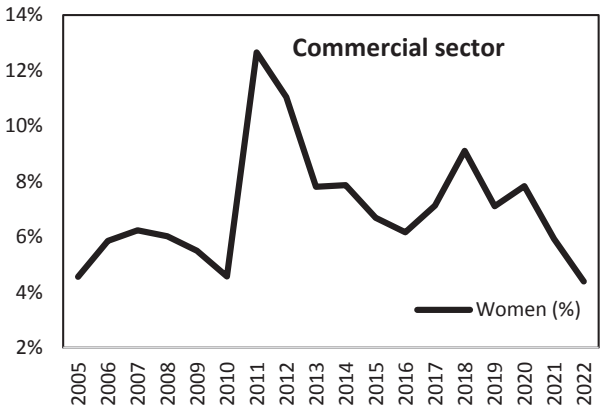


Source: Industrial Property Office and CZSO, 2023.

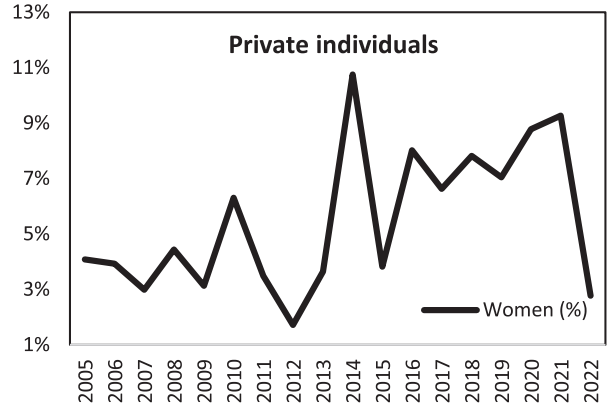
In the commercial sector, the situation is less favourable than in the public sector. Women were granted only 4.4% of the patents granted to companies in 2022. Since 2005, the situation has developed very unevenly, with both decreasing and increasing trends. The 10% threshold was crossed only twice in the period under review – in 2011 (12.7% women) and in 2012 (11.0% women). Since 2012, there has been a downward trend with more significant fluctuation in 2018, when 9.1% of patents were granted to women. Between 2021 and 2022, there was a 1.5 percentage point decrease in the proportion of women granted patents, from 5.9% in 2021 to 4.4% in 2022.

Among individuals granted a patent, the proportion of women has been very low in the long term. In 2022, the proportion of women was only 2.8%. However, it should be noted that in 2022 only one woman was granted a patent in this sector, compared to 47 men. For this reason, too, the comparison with the previous year, 2021, when 9.3% of patents were granted to women, is extremely unfavourable (a drop of 6.5 percentage points). The comparison with 2005 is also extremely unfavourable in this respect. In 2005, the proportion of women granted patents in this sector was 4.1% and by 2022 had fallen by 1.3 percentage points (see Figure 45). The 10% threshold for women as individual patent holders was broken only once, in 2014, when the proportion of women was 10.8%.

Figures 44 and 45: The trend in the proportion (%) of patents granted to women working in the commercial sector and to women as private individuals, 2005–2022[33]



Source: Industrial Property Office and CZSO, 2023.



Source: Industrial Property Office and CZSO, 2023.

Source: Industrial Property Office and CZSO, 2023.

32 For data see Table 46.
33 For data see Table 46.

THE CZECH REPUBLIC IN A EUROPEAN COMPARISON

This chapter focuses on the position of the Czech Republic in terms of the representation of women among R&D workers in a European comparison. The Czech Republic had the lowest proportion of women researchers of any EU country in 2021 and this has not changed significantly over the last ten years. Within different sectors of research (business enterprise, government, higher education, and private non-profit), the Czech Republic ranks worst among EU countries, with the exception of the government sector. In the case of the government sector, the situation is more favourable and the proportion of women researchers in this sector is close to the European average. The Czech Republic had the third lowest proportion of women among those working as specialists in science and technology in 2022.

The values in this in the section below represent the registered number of employees in natural persons (HC).

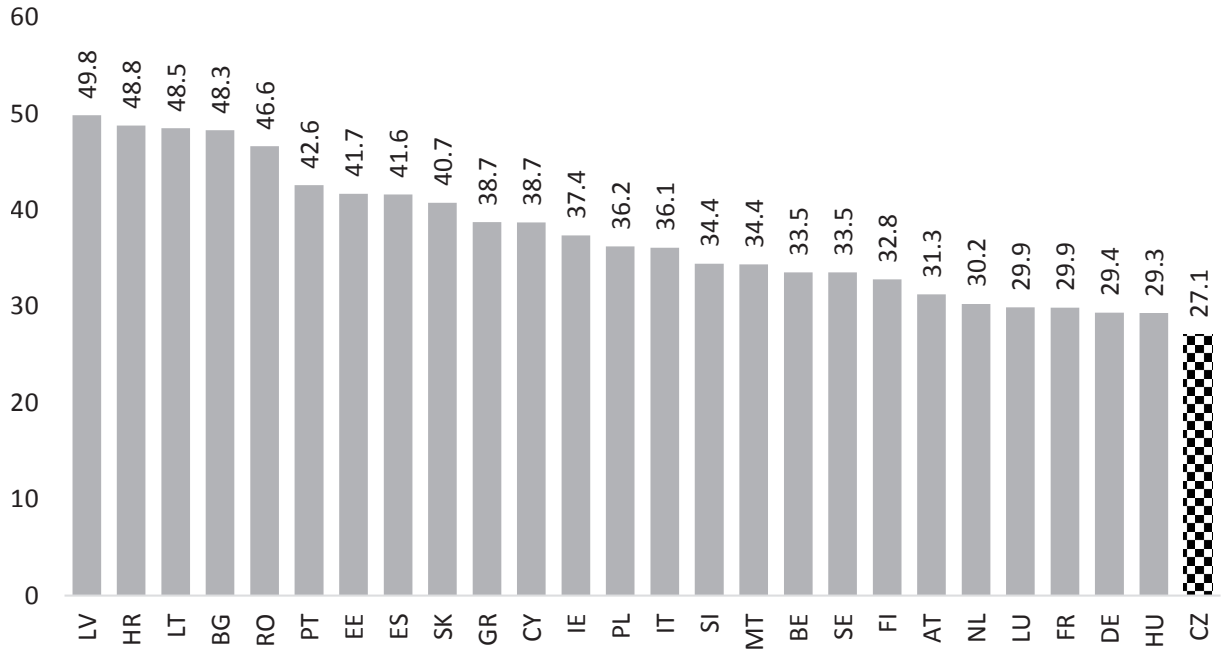
Researchers

The European Statistical Office (Eurostat) regularly publishes data on the number and structure of people working in research and development in the individual member states of the European Union and in some other European countries, in particular the European Free Trade Area (EFTA) member states. The data come from the national statistical offices of each country. However, there is a delay in the publication of data on some countries, which consequently affects the availability of data.

To analyse inequalities in the proportion of women among R&D workers in a Europe-wide comparative perspective, we therefore focused on selected indicators that can be considered key, methodologically (relatively) comparable, and timely in relation to the Monitoring Report itself (data for the year 2021).

Figure 46 shows the differences in the proportion of women among researchers across EU member states in 2021. The representation of women was highest in Latvia (49.8%), Croatia (48.8%), and Lithuania (48.5%). The Czech Republic, on the other hand, is among the EU member states with the lowest proportion of women among researchers. In 2021, the proportion of women researchers in the Czech Republic was the lowest of all the EU countries at 27.1%. The proportion of women among researchers was also very low in Hungary (29.3%) and Germany (29.4%).

Figure 46: Proportion (HC) (in %) of women among researchers in the European Union, 2021[34]



Source: Eurostat – Share of women researchers by sector of performance.

34 Due to the unavailability of data for all EU member states for 2020 at the time of writing this Monitoring Report, 2019 data were used for Greece, Ireland, Sweden, Belgium, Austria, Germany, the Netherlands, and Luxembourg.

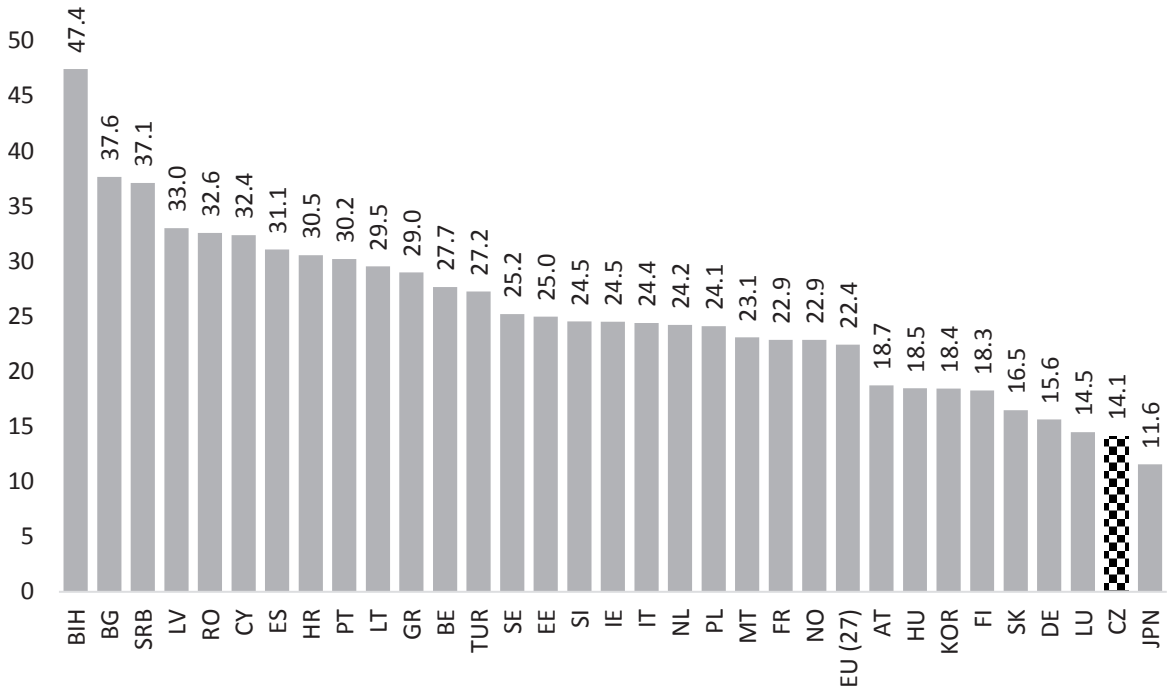
Over the last 10 years, the proportion of women has not varied significantly across countries. The Baltic Republics and Eastern European countries have the highest proportion of women researchers. The Czech Republic declined slightly by 1.1 percentage points between 2011 and 2021 (28.2% of women researchers in 2011) and with the lowest representation of women researchers in 2021 ranked last among EU countries. In the long term, the Czech Republic has had the lowest representation of women as researchers compared to other EU countries, and there are no signs of this situation changing.

Researchers by sector

In this section, we focus on an international analysis of inequalities in the representation of women researchers by individual research sector (government, business, higher education, and private non-profit). Data on the total number of researchers (HC) are available as of 2021.

Figure 47 shows the differences in the proportion of women researchers working in the business enterprise sector. The Czech Republic recorded the second lowest value in 2021 (14.1%) and had the lowest proportion of women researchers in the business enterprise sector. Only Japan among the countries listed had a lower figure (11.6%). In contrast, the highest shares of women researchers in the business enterprise sector in 2021 were recorded in Bosnia and Herzegovina (47.4%), Bulgaria (37.6%), and Serbia (37.1%).

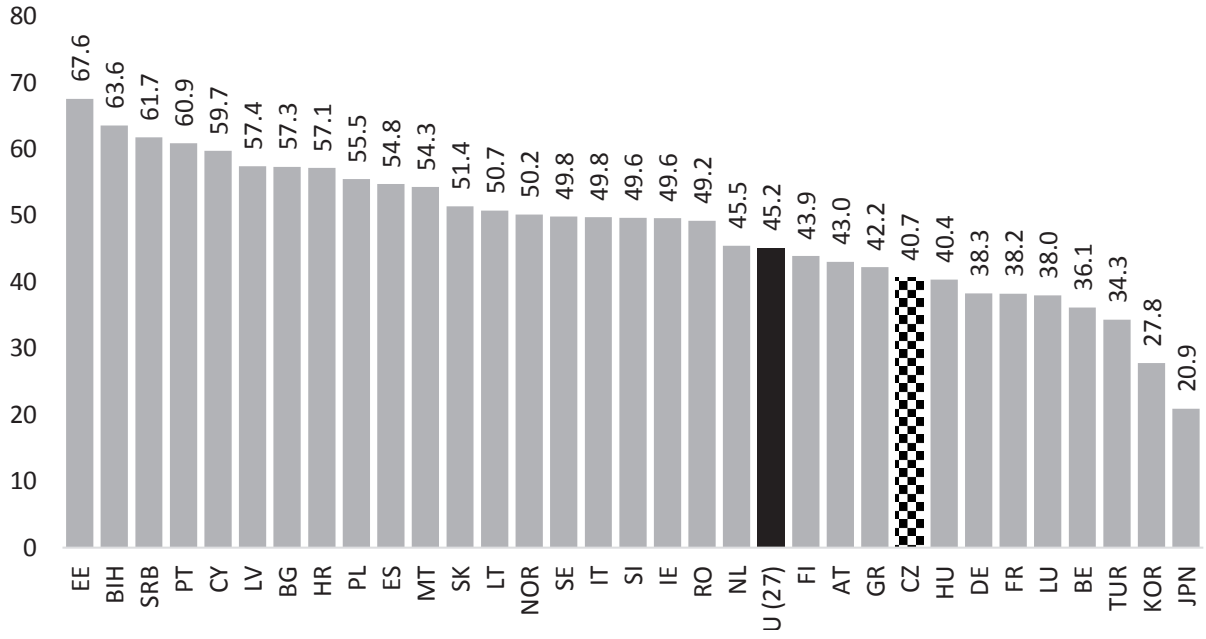
Figure 47: Proportion (HC) (in %) of women researchers in the business enterprise sector, 2021



Source: Eurostat – Share of women researchers by sector of performance.

In the government sector, the position of the Czech Republic in 2021 was more favourable than in the business enterprise sector. In the EU27, the share of women researchers was 45.2%, while in the Czech Republic it was 40.7% (see Figure 48). In 2021, Estonia (67.6%), Bosnia and Herzegovina (63.6%), and Serbia (61.7%) had the highest proportions of women in this sector. A significant gap in the representation of women persists between these countries and the Czech Republic, with a 26.9 percentage point difference between the Czech Republic and Estonia in 2021 (see Figure 48).

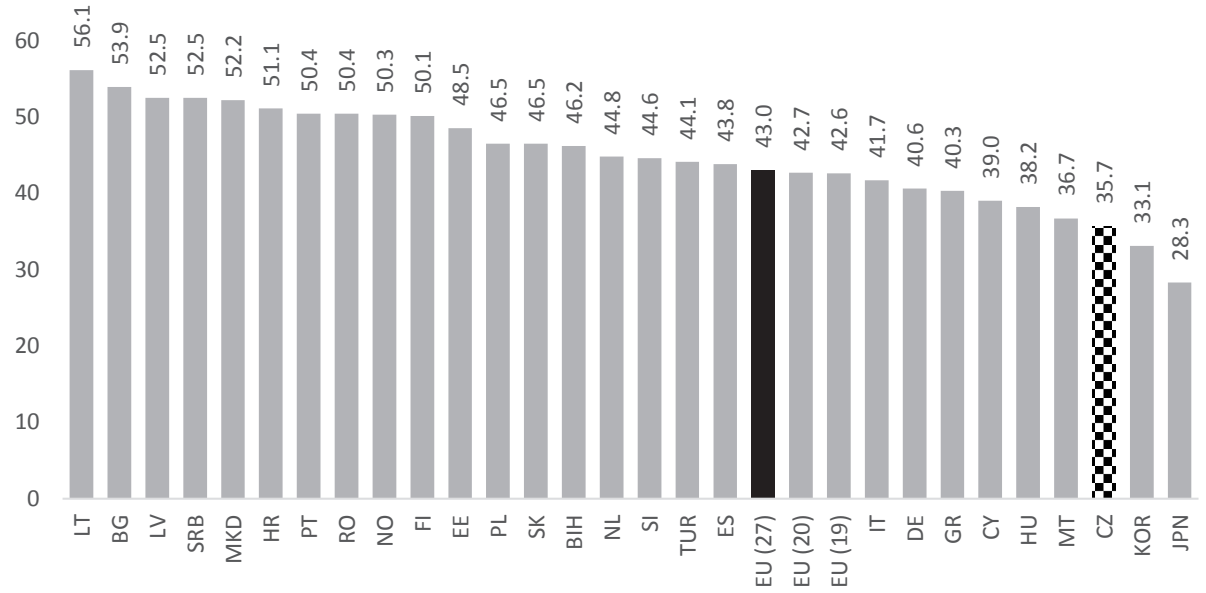
Figure 48: Proportion (HC) (in %) of women among researchers in the government sector, 2021



Source: Eurostat – Share of women researchers by sector of performance.

The situation of women researchers in the Czech Republic in 2021 was also unfavourable compared to the other countries analysed in the higher education sector, where the Czech Republic's percentage was the third lowest (see Figure 49). The average for the EU27 was 43.9% in 2021. In the Czech Republic, the proportion of women in this sector was 35.6%. South Korea (33.8%) and Japan (28.6%) were the only countries with lower proportions than the Czech Republic in 2021, so the Czech Republic had the lowest representation of women among researchers in the higher education sector among EU Member States (see Figure 49).

Figure 49: Proportion (HC) (in %) of women among researchers in the higher education sector, 2021

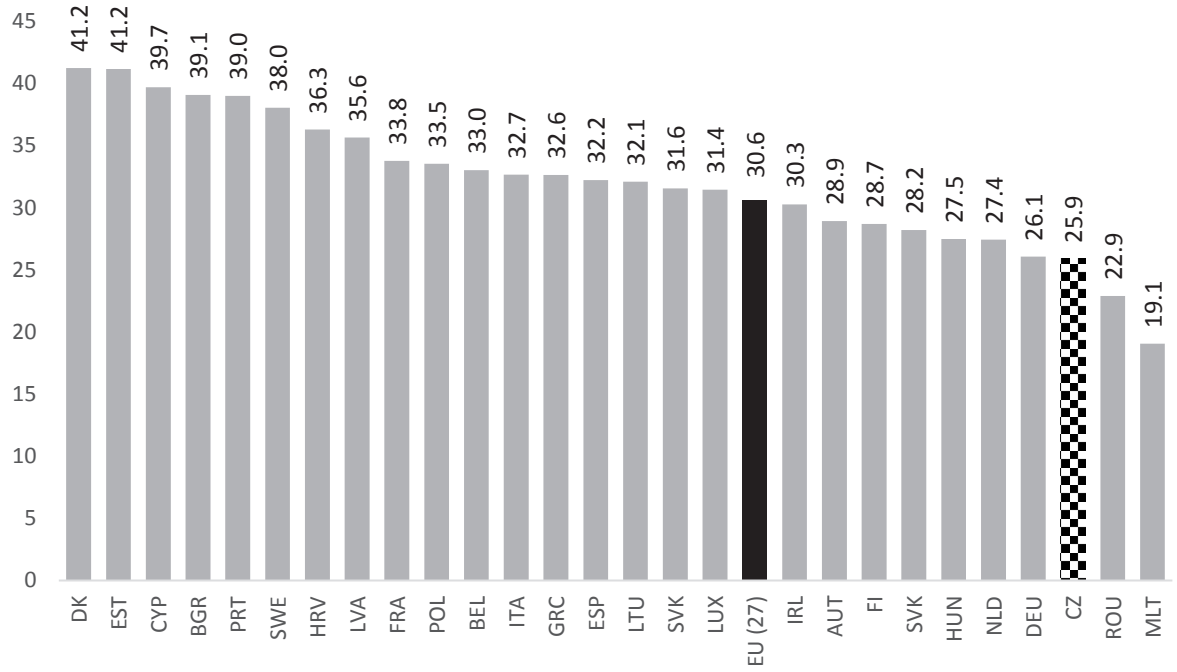


Source: Eurostat – Share of women researchers by sector of performance.

Science and technology professionals

In a European comparison, the Czech Republic is well below average in terms of the representation of women among science and technology specialists. In 2022, women accounted for 25.9% of people employed in this field in the Czech Republic. Compared to 2021, the Czech Republic has fallen by 1.4 percentage points. This proportion is below the European average of 30.6% in 2022 (see Figure 50). No EU country has reached parity, with Denmark (41.2%), Estonia (41.2), and Cyprus (39.7%) coming the closest. Romania (22.9%) and Malta (19.1%) had an even lower share of women among science and technology professionals than the Czech Republic in 2022.

Figure 50: Proportion (HC) (in %) of women among science and technology professionals (HC) in EU member states, 2022



Source: Eurostat – Share of women researchers by sector of performance.

The above results show that the lowest representation of women in the position of researcher in the EU is in the Czech Republic. This fact has remained unchanged in the long term. In the EU, the Czech Republic has the lowest proportion of women among researchers in individual sectors of research. The situation is more favourable in the government sector, but even here the proportion of women in the Czech Republic is below the European average. While the Czech Republic does not perform well in this area, the situation is the opposite in the Baltic States and Eastern European countries, where the proportion of women researchers, even in individual sectors, is well above the European average.

DEFINITIONS OF THE STAFF CATEGORIES USED IN THE MONITORING REPORT

Employment categories	Category definition	Source
Research and development (R&D) staff	According to the OECD definition given in the Frascati Manual, R&D employees are researchers who directly carry out research and development, as well as auxiliary, technical, administrative, and other workers at research and development workplaces in individual intelligence units. R&D employees also include those employees who procure direct services for research and development activities, such as R&D managers, administrative officers, secretaries.	CZSO: Research and Development Indicators (link: https://www.czso.cz/csu/czso/ab00491932)
Researchers	They deal with the conception or creation of new knowledge, products, processes, methods, and systems, or manage such projects. Researchers make up the most important group of R&D employees — they form the pillar of scientific research activities. These are primarily employees classified in as Class 2 (Professionals) and subgroup 1237 (Research and development department managers) of the International Standard Classification of Occupations (hereinafter referred to as CZ-ISCO)	CZSO: Research and Development Indicators (link: https://www.czso.cz/csu/czso/ab00491932)
Technical and associate professionals	Participates in research and development by carrying out scientific and technical tasks and applying concepts and operational methods, usually under the supervision of researchers. These are employees classified in CZ-ISCO Class 31 (Science and engineering associate professionals) and Class 32 (Technicians in the field of biology, health and agricultural professionals and professionals in related fields)	CZSO: Research and Development Indicators (link: https://www.czso.cz/csu/czso/ab00491932)
Other R&D personnel	These are craftsmen, secretaries, and clerks who participate in research and development activities or are included in such work; managers and administrative workers whose activities are directly in the service of research and development are also included.	CZSO: Research and Development Indicators (link: https://www.czso.cz/csu/czso/ab00491932)
Academic staff	Professors, associate professors, assistant professors, 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, and development and innovation, and artistic and other creative activities.	Ministry of Education, Youth and Sports – Statistical Yearbook – Employees and wage resources(link: https://genderaveda.cz/wp-content/uploads/2023/01/Monitorovaci-zprava-o-postaveni-zen-ve-vede-za-rok-2020_CZ_web.pdf); Ministry of Education, Youth and Sports: Statistics of the performance indicators of public and private higher education institutions in the Czech Republic
Science and technology professionals	Persons in occupations with the highest skill level. These include, for example: astronomers, meteorologists, chemists, geologists, statisticians, biologists, botanists, zoologists, specialists in manufacturing, construction, and related fields, architects, cartographers, surveyors, engineers, electrical technicians, and graphic and multimedia artists. The group is defined by the internationally used ISCO-08 classification, or its Czech national mutation CZ-ISCO.	CZSO – Labour Force Survey (LFS)
Persons in R&D decision-making positions	Persons in the management of institutions (directors, rectors), persons in decision-making, strategic, and supervisory bodies, and persons in R&D advisory bodies	Data: Annual reports and websites of relevant institutions
Persons in charge of institutions	The person in charge is the person who represents the given institution. In selected institutions, this is the director, chair, rector, or dean.	Data: Annual reports and websites of the relevant institutions
Persons in decision-making, policy-making, and supervisory bodies	Persons in decision-making and supervisory bodies are classified according to individual institutions: • v. v. i.: institute board and supervisory board • University: academic senate, vice dean, scientific/artistic/academic council, board of directors • GA CZ: presidency, scientific council, supervisory board • TA ČR: the Board, the Research Board, the Supervisory Board • CAS: Academic Assembly, Supervisory Committee, Academic Council, Scientific Council • RVVI: members of RVVI • RVŠ: presidency, assembly • ČKR: presidency, chambers, plenum • USČR: presidency, council	Data: Annual reports and websites of the relevant institutions
Persons in advisory and expert bodies	Here they are included by institution: • Czech Science Foundation: evaluation panels, branch commissions • TA ČR: programme boards and commissions • CAS: commissions and councils • RVVI: commission • RVŠ: working commissions and working groups • CKR: working groups and commissions	Data: Annual reports and websites of the relevant institutions

Category	Definition	Link
Business enterprise sector	This category includes all economic entities whose main activity is the market production of goods or services for sale to the general public at an economically significant price.	CZSO: Research and Development Indicators; p. 17 (link: https://www.czso.cz/documents/10180/34193315/21100216.pdf/61cb264a-a498-4f91-9be4-a4df6aadf3e1?version=1.1)
Public enterprises	This category includes all business and financial institutions, quasi-corporations, and non-profit institutions recognized as independent legal entities that are market producers or service providers under the control of units of government.	CZSO: Research and Development Indicators; p. 17 (link: https://www.czso.cz/documents/10180/34193315/21100216.pdf/61cb264a-a498-4f91-9be4-a4df6aadf3e1?version=1.1)
National private enterprises	This category includes all non-financial enterprises, self-employed persons, financial institutions, quasi-corporations, and non-profit institutions that are recognized as independent legal or natural persons and are market producers rather than service providers and are not under the control of government or non-resident institutional units.	CZSO: Research and Development Indicators; p. 17 (link: https://www.czso.cz/documents/10180/34193315/21100216.pdf/61cb264a-a498-4f91-9be4-a4df6aadf3e1?version=1.1)
Foreign-owned enterprises	This category includes all business, financial, and quasi-corporations that are controlled by non-resident (foreign) entities (foreign affiliates). Most often, these are subsidiaries of non-resident (foreign) parent corporations.	CZSO: Research and Development Indicators; p. 17 (link: https://www.czso.cz/documents/10180/34193315/21100216.pdf/61cb264a-a498-4f91-9be4-a4df6aadf3e1?version=1.1)
Government sector	This category includes bodies of state administration and self-government at all levels, with the exception of specialised higher education.	CZSO: Research and Development Indicators; p. 18 (link: https://www.czso.cz/documents/10180/34193315/21100216.pdf/61cb264a-a498-4f91-9be4-a4df6aadf3e1?version=1.1)
Higher education sector	This category includes all public and private higher education institutions colleges, and other institutions of post-secondary education, as well as all research institutes, experimental facilities, and clinics operating under the direct control of, directed by, or affiliated with the organisation of higher education.	CZSO: Research and Development Indicators; p. 19 (link: https://www.czso.cz/documents/10180/34193315/21100216.pdf/61cb264a-a498-4f91-9be4-a4df6aadf3e1?version=1.1)

APPENDIX: TIME SERIES

EMPLOYEES IN RESEARCH AND DEVELOPMENT

Table 1: Employees in research and development (HC)

	Research employees				Technical employees				Other employees				Total			
	Women	Men	Women (%)	Men (%)	Women	Men	Women (%)	Men (%)	Women	Men	Women (%)	Men (%)	Women	Men	Women (%)	Men (%)
2022	19 708	51 474	27.7%	72.3%	10 781	25 027	30.1%	69.9%	7 716	8 248	48.3%	51.7%	38 205	84 749	31.1%	68.9%
2021	18 845	50 691	27.1%	72.9%	10 626	25 143	29.7%	70.3%	7 876	8 459	48.2%	51.8%	37 347	84 293	30.7%	69.3%
2020	17 992	47 201	27.6%	72.4%	10 548	25 603	29.2%	70.8%	7 651	9 049	45.8%	54.2%	36 191	81 854	30.7%	69.3%
2019	17 313	46 377	27.2%	72.8%	10 533	26 275	28.6%	71.4%	7 536	9 041	45.5%	54.5%	35 382	81 693	30.2%	69.8%
2018	16 461	45 505	26.6%	73.4%	10 524	24 093	30.4%	69.6%	7 457	9 406	44.2%	55.8%	34 442	79 004	30.4%	69.6%
2017	16 005	43 784	26.8%	73.2%	9 543	22 649	29.6%	70.4%	7 027	8 724	44.6%	55.4%	32 576	75 158	30.2%	69.8%
2016	14 971	41 206	26.7%	73.3%	9 225	20 690	30.8%	69.2%	6 072	7 710	44.1%	55.9%	30 269	69 606	30.3%	69.7%
2015	15 252	41 352	26.9%	73.1%	9 538	20 053	32.2%	67.8%	6 332	7 601	45.4%	54.6%	31 122	69 006	31.1%	68.9%
2014	14 815	39 679	27.2%	72.8%	9 146	20 330	31.0%	69.0%	6 159	7 225	46.0%	54.0%	30 120	67 233	30.9%	69.1%
2013	14 537	36 917	28.3%	71.7%	8 906	18 710	32.2%	67.8%	6 454	7 189	47.3%	52.7%	29 897	62 817	32.2%	67.8%
2012	13 102	34 549	27.5%	72.5%	8 700	18 176	32.4%	67.6%	5 944	7 058	45.7%	54.3%	27 746	59 783	31.7%	68.3%
2011	12 936	32 966	28.2%	71.8%	8 604	16 423	34.4%	65.6%	5 192	6 161	45.7%	54.3%	26 732	55 550	32.5%	67.5%
2010	12 198	31 220	28.1%	71.9%	8 194	15 473	34.6%	65.4%	5 030	5 789	46.5%	53.5%	25 421	52 482	32.6%	67.4%
2009	12 437	30 655	28.9%	71.1%	8 503	14 781	36.5%	63.5%	4 333	5 078	46.0%	54.0%	25 273	50 515	33.3%	66.7%
2008	12 613	31 627	28.5%	71.5%	7 865	13 652	36.6%	63.4%	4 243	4 508	48.5%	51.5%	24 721	49 787	33.2%	66.8%
2007	12 034	30 504	28.3%	71.7%	8 413	13 231	38.9%	61.1%	4 395	4 503	32.8%	50.6%	24 843	48 238	34.0%	66.0%
2006	11 295	28 382	28.5%	71.5%	8 099	13 239	38.0%	62.0%	4 000	4 147	49.1%	50.9%	23 394	45 768	33.8%	66.2%
2005	10 827	26 716	28.8%	71.2%	7 817	11 834	39.8%	60.2%	4 220	3 964	51.6%	48.4%	22 865	42 514	35.0%	65.0%

Source: CZSO – Research and Development Indicators.

Table 2: Employees in research and development (FTE)

	Research employees				Technical employees				Other employees				Total			
	Women	Men	Women (%)	Men (%)	Women	Men	Women (%)	Men (%)	Women	Men	Women (%)	Men (%)	Women	Men	Women (%)	Men (%)
2022	11 969	37 433	24.2%	75.8%	7 485	18 759	28.5%	71.5%	5 277	5 202	50.4%	49.6%	24 731	61 394	28.7%	71.3%
2021	11 524	36 556	24.0%	76.0%	7 330	18 622	28.2%	71.8%	5 318	5 322	50.0%	50.0%	24 171	60 500	28.5%	71.5%
2020	10 665	33 541	24.1%	75.9%	7 255	18 691	28.0%	72.0%	5 240	5 566	48.5%	51.5%	23 160	57 799	28.6%	71.4%
2019	10 154	32 347	23.9%	76.1%	7 406	18 340	28.8%	71.2%	5 259	5 740	47.8%	52.2%	22 819	56 426	28.8%	71.2%
2018	9 543	31 655	23.2%	76.8%	6 911	16 408	29.6%	70.4%	4 978	5 474	47.6%	52.4%	21 432	53 538	28.6%	71.4%
2017	9 060	30 121	23.1%	76.9%	5 918	14 909	28.4%	71.6%	4 612	5 116	47.4%	52.6%	19 590	50 146	28.1%	71.9%
2016	8 610	28 728	23.1%	76.9%	5 813	13 609	29.9%	70.1%	4 237	4 786	47.0%	53.0%	18 660	47 123	28.4%	71.6%
2015	8 923	29 158	23.4%	76.6%	6 102	13 248	31.5%	68.5%	4 391	4 611	48.8%	51.2%	19 416	47 017	29.2%	70.8%
2014	8 701	27 338	24.1%	75.9%	6 065	13 781	30.6%	69.4%	4 154	4 404	48.5%	51.5%	18 921	45 523	29.4%	70.6%
2013	8 401	25 870	24.5%	75.5%	5 921	13 012	31.3%	68.7%	4 191	4 581	47.8%	52.2%	18 513	43 463	29.9%	70.1%
2012	8 212	25 006	24.7%	75.3%	5 832	12 576	31.7%	68.3%	4 090	4 615	47.0%	53.0%	18 133	42 196	30.1%	69.9%
2011	7 696	22 985	25.1%	74.9%	5 485	11 624	32.1%	67.9%	3 591	4 315	45.4%	54.6%	16 772	38 925	30.1%	69.9%
2010	7 429	21 799	25.4%	74.6%	5 141	10 830	32.2%	67.8%	3 369	3 723	47.5%	52.5%	15 939	36 352	30.5%	69.5%
2009	7 490	21 269	26.0%	74.0%	5 395	10 610	33.7%	66.3%	2 938	3 259	47.4%	52.6%	15 822	35 138	31.0%	69.0%
2008	7 559	22 226	25.4%	74.6%	5 259	9 874	34.8%	65.2%	2 888	3 002	49.0%	51.0%	15 707	35 101	30.9%	69.1%
2007	7 093	20 785	25.4%	74.6%	5 641	9 789	36.6%	63.4%	2 916	2 967	49.6%	50.4%	15 650	33 542	31.8%	68.2%
2006	6 652	19 615	25.3%	74.7%	5 672	10 168	35.8%	64.2%	2 731	2 890	48.6%	51.4%	15 056	32 673	31.5%	68.5%
2005	6 349	17 820	26.3%	73.7%	5 153	8 620	37.4%	62.6%	2 633	2 795	48.5%	51.5%	14 135	29 235	32.6%	67.4%

Source: CZSO – Research and Development Indicators.

IDEAL-TYPICAL CAREER PATH IN RESEARCH

Table 3: Students and graduates of master's and doctoral programmes and researchers (HC)

	Master's students			Master's graduates			Doctoral students			Doctoral graduates			Researchers		
	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)
2022	58 984	38 970	60.2%	14 377	9 559	60.1%	8 929	10 927	45.0%	899	1 096	45.1%	19 708	51 474	27.7%
2021	59 407	38 398	60.7%	14 843	9 969	59.8%	9 176	11 451	44.5%	888	1 146	43.7%	18 845	50 691	27.1%
2020	58 218	38 091	60.4%	15 928	10 848	59.5%	9 285	11 595	44.5%	811	980	45.3%	17 992	47 201	27.6%
2019	57 135	37 635	60.3%	16 415	11 085	59.7%	9 084	11 140	44.9%	988	1 257	44.0%	17 313	46 377	27.2%
2018	58 475	38 786	60.1%	17 638	11 644	60.2%	9 263	11 434	44.8%	1 022	1 288	44.2%	16 461	45 505	26.6%
2017	60 893	40 228	60.2%	18 193	12 366	59.5%	9 672	11 798	45.0%	950	1 381	40.8%	16 005	43 784	26.8%
2016	62 992	42 138	59.9%	19 035	12 896	59.6%	10 086	12 439	44.8%	989	1 289	43.4%	14 971	41 206	26.7%
2015	64 114	43 426	59.6%	20 491	13 466	60.3%	10 215	12 964	44.1%	1 040	1 310	44.3%	15 252	41 352	26.9%
2014	67 678	45 212	60.0%	21 479	13 930	60.7%	10 496	13 058	44.6%	1 023	1 377	42.6%	14 815	39 679	27.2%
2013	70 103	46 273	60.2%	22 077	14 092	61.0%	10 695	13 338	44.5%	1 014	1 325	43.4%	14 537	36 917	28.3%
2012	72 160	46 997	60.6%	22 442	14 558	60.7%	10 648	13 455	44.2%	1 087	1 499	42.0%	13 102	34 549	27.5%
2011	73 472	48 133	60.4%	22 224	14 639	60.3%	10 769	14 139	43.2%	1 028	1 332	43.6%	12 936	32 966	28.2%
2010	73 200	48 731	60.0%	20 998	14 020	60.0%	10 805	14 346	43.0%	850	1 297	39.6%	12 198	31 220	28.1%
2009	72 320	48 395	59.9%	19 637	13 150	59.9%	10 499	14 282	42.4%	880	1 420	38.3%	12 437	30 655	28.9%
2008	69 855	45 921	60.3%	17 540	12 967	57.5%	9 857	13 953	41.4%	871	1 423	38.0%	12 613	31 627	28.5%
2007	67 998	45 356	60.0%	15 637	11 784	57.0%	9 349	13 924	40.2%	833	1 386	37.5%	12 034	30 504	28.3%
2006	66 902	45 391	59.6%	14 219	11 266	55.8%	8 960	13 668	39.6%	722	1 282	36.0%	11 295	28 382	28.5%
2005	66 146	47 895	58.0%	12 854	10 537	55.0%	8 324	13 327	38.4%	667	1 236	35.0%	10 827	26 716	28.8%

Source: MEYS – Performance indicators of public and private HEIs in the Czech Republic; CZSO – Research and Development Indicators.

Table 4: Students and graduates of master's and doctoral programmes and researchers (HC) in the natural sciences

	Master's students			Master's graduates			Doctoral students			Doctoral graduates			Researchers		
	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)
2022	2 988	1 976	60.2%	993	555	64.1%	2 388	2 336	50.6%	264	214	55.2%	6 278	18 207	25.6%
2021	2 942	1 863	61.2%	837	468	64.1%	2 394	2 278	51.2%	246	253	49.3%	5 743	17 957	24.2%
2020	2 577	1 602	61.7%	863	465	65.0%	2 313	2 190	51.4%	220	234	48.5%	5 020	15 195	24.8%
2019	2 370	1 368	63.4%	838	435	65.8%	2 092	2 010	51.0%	271	292	48.1%	4 950	14 432	25.5%
2018	2 369	1 286	64.8%	950	490	66.0%	2 200	2 053	51.7%	245	286	46.1%	4 665	14 572	24.2%
2017	2 407	1 299	64.9%	908	489	65.0%	2 196	2 124	50.8%	269	294	47.8%	4 564	13 647	25.1%
2016	2 470	1 410	63.7%	919	525	63.6%	2 257	2 158	51.1%	249	245	50.4%	4 213	12 433	25.3%
2015	2 468	1 469	62.7%	905	520	63.5%	2 276	2 172	51.2%	233	248	48.4%	4 222	12 154	25.8%
2014	2 473	1 525	61.9%	913	482	65.4%	2 335	2 187	51.6%	254	234	52.0%	4 143	11 971	25.7%
2013	2 485	1 455	63.1%	930	550	62.8%	2 423	2 146	53.0%	239	244	49.5%	3 943	10 628	27.1%
2012	2 434	1 446	62.7%	928	561	62.3%	2 312	2 118	52.2%	234	264	47.0%	3 694	9 582	27.8%
2011	2 487	1 537	61.8%	920	528	63.5%	2 246	2 108	51.6%	255	256	49.9%	3 432	8 956	27.7%
2010	2 418	1 523	61.4%	887	551	61.7%	2 196	2 084	51.3%	219	255	46.2%	2 731	7 524	26.6%
2009	2 415	1 499	61.7%	866	492	63.8%	2 186	2 068	51.4%	221	243	47.6%	2 623	6 837	27.7%
2008	2 352	1 429	62.2%	697	463	60.1%	2 083	2 063	50.2%	203	274	42.6%	2 835	7 406	27.7%
2007	2 090	1 322	61.3%	720	479	60.1%	1 993	2 108	48.6%	213	233	47.8%	2 523	7 069	26.3%
2006	1 910	1 341	58.8%	640	528	54.8%	1 975	2 183	47.5%	206	265	43.7%	2 519	7 216	25.9%
2005	1 882	1 537	55.0%	602	509	54.2%	1 850	2 125	46.5%	185	266	41.0%	2 432	6 656	26.8%

Source: MEYS – Performance indicators of public and private HEIs in the Czech Republic; CZSO – Research and Development Indicators.

Table 5: Students and graduates of master's and doctoral programmes and researchers (HC) in the technical sciences

	Master's students			Master's graduates			Doctoral students			Doctoral graduates			Researchers		
	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)
2022	3 849	10 940	26.0%	1 588	3 651	30.3%	1 395	3 788	26.9%	145	422	25.6%	3 829	21 854	14.9%
2021	4 235	10 992	27.8%	1 846	3 979	31.7%	1 482	4 071	26.7%	128	444	22.4%	3 618	21 563	14.4%
2020	4 757	11 445	29.4%	2 143	4 507	32.2%	1 541	4 240	26.7%	127	322	28.3%	3 587	20 781	14.7%
2019	5 314	12 048	30.6%	2 157	4 687	31.5%	1 574	4 140	27.5%	160	445	26.4%	3 288	20 895	13.6%
2018	5 760	12 902	30.9%	2 268	4 927	31.5%	1 596	4 243	27.3%	182	505	26.5%	3 144	20 191	13.5%
2017	6 017	13 580	30.7%	2 279	5 318	30.0%	1 612	4 488	26.4%	140	533	20.8%	2 931	19 252	13.2%
2016	6 095	14 447	29.7%	2 293	5 433	29.7%	1 643	4 879	25.2%	153	499	23.5%	2 695	18 410	12.8%
2015	6 021	15 026	28.6%	2 359	5 737	29.1%	1 713	5 243	24.6%	192	528	26.7%	2 999	19 093	13.6%
2014	6 049	15 693	27.8%	2 348	5 849	28.6%	1 796	5 290	25.3%	175	548	24.2%	2 882	17 780	13.9%
2013	6 214	16 209	27.7%	2 397	5 994	28.6%	1 817	5 433	25.1%	164	490	25.1%	2 779	16 475	14.4%
2012	6 337	16 446	27.8%	2 408	5 988	28.7%	1 812	5 459	24.9%	169	577	22.7%	2 349	16 114	12.7%
2011	6 345	16 725	27.5%	2 401	6 337	27.5%	1 796	5 705	23.9%	148	480	23.6%	2 178	14 746	12.9%
2010	6 223	17 153	26.6%	2 162	5 917	26.8%	1 796	5 836	23.5%	144	484	22.9%	2 258	14 487	13.5%
2009	6 044	16 949	26.3%	1 834	5 528	24.9%	1 775	5 725	23.7%	177	567	23.8%	2 499	14 425	14.8%
2008	5 032	15 572	24.4%	2 088	6 122	25.4%	1 725	5 564	23.7%	168	557	23.2%	2 629	15 124	14.8%
2007	4 912	15 836	23.7%	1 768	5 445	24.5%	1 734	5 615	23.6%	166	552	23.1%	2 530	14 121	15.2%
2006	5 006	16 226	23.6%	1 612	4 987	24.4%	1 640	5 545	22.8%	125	510	19.7%	1 953	12 316	13.7%
2005	5 769	18 464	23.8%	1 345	4 407	23.4%	1 554	5 548	21.9%	101	471	17.7%	1 998	11 315	15.0%

Source: MEYS – Performance indicators of public and private HEIs in the Czech Republic; CZSO – Research and Development Indicators.

Table 6: Students and graduates of master's and doctoral programmes and researchers (HC) in the agricultural sciences

	Master's students			Master's graduates			Doctoral students			Doctoral graduates			Researchers		
	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)
2022	2 415	1 234	66.2%	598	333	64.2%	396	432	47.8%	47	39	54.7%	1 176	1505	43.9%
2021	2 363	1 189	66.5%	628	374	62.7%	405	446	47.6%	47	48	49.5%	1 231	1355	47.6%
2020	2 510	1 245	66.8%	737	409	64.3%	424	438	49.2%	37	26	58.7%	1 222	1447	45.8%
2019	2 450	1 193	67.3%	750	427	63.7%	420	387	52.0%	55	55	50.0%	1 135	1197	48.7%
2018	2 575	1 253	67.3%	826	457	64.4%	402	382	51.3%	53	52	50.5%	1 014	1305	43.7%
2017	2 705	1 357	66.6%	763	460	62.4%	402	359	52.8%	60	48	55.6%	1 076	1529	41.3%
2016	2 761	1 392	66.5%	727	470	60.7%	431	381	53.1%	56	49	53.3%	968	1440	40.2%
2015	2 663	1 376	65.9%	785	434	64.4%	448	387	53.7%	63	46	57.8%	907	1405	39.2%
2014	2 732	1 354	66.9%	755	458	62.2%	464	360	56.3%	73	69	51.4%	937	1431	39.6%
2013	2 814	1 346	67.6%	786	476	62.3%	441	389	53.1%	69	68	50.4%	894	1478	37.7%
2012	2 834	1 345	67.8%	765	464	62.2%	450	409	52.4%	100	86	53.8%	783	1385	36.1%
2011	2 738	1 349	67.0%	800	432	64.9%	543	514	51.4%	83	76	52.2%	914	1352	40.3%
2010	2 723	1 310	67.5%	780	453	63.3%	548	526	51.0%	63	70	47.4%	995	1600	38.4%
2009	2 777	1 341	67.4%	738	478	60.7%	516	533	49.2%	44	68	39.3%	1 076	1651	39.5%
2008	2 767	1 355	67.1%	684	452	60.2%	448	500	47.3%	67	69	49.3%	1 160	1751	39.9%
2007	2 749	1 475	65.1%	708	461	60.6%	419	502	45.5%	61	101	37.7%	1 124	1844	37.9%
2006	2 785	1 573	63.9%	609	472	56.3%	440	499	46.9%	56	77	42.1%	1 041	1631	39.0%
2005	2 688	1 722	61.0%	474	383	55.3%	431	507	45.9%	59	76	43.7%	1 061	1649	39.1%

Source: MEYS – Performance indicators of public and private HEIs in the Czech Republic; CZSO – Research and Development Indicators.

Table 7: Students and graduates of master's and doctoral programmes and researchers (HC) in the medical sciences

	Master's students			Master's graduates			Doctoral students			Doctoral graduates			Researchers		
	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)
2022	14 833	6 686	68.9%	2 545	935	73.1%	1 510	1 374	52.4%	130	120	52.0%	4 245	4 571	48.2%
2021	14 600	6 554	69.0%	2 493	976	71.9%	1 540	1 442	51.6%	145	105	58.0%	4 140	4 493	48.0%
2020	14 092	6 475	68.5%	2 440	965	71.7%	1 522	1 429	51.6%	118	101	53.9%	3 981	4 281	48.2%
2019	13 398	6 275	68.1%	2 313	860	72.9%	1 492	1 375	52.0%	124	98	55.9%	3 721	4 116	47.5%
2018	12 799	6 133	67.6%	2 483	859	74.3%	1 379	1 286	51.7%	140	86	61.9%	3 436	3 725	48.0%
2017	13 117	6 093	68.3%	2 526	906	73.6%	1 477	1 291	53.4%	130	110	54.2%	3 471	3 736	48.2%
2016	13 181	6 162	68.1%	2 402	904	72.7%	1 520	1 319	53.5%	114	110	50.9%	3 116	3 410	47.7%
2015	13 028	6 067	68.2%	2 407	795	75.2%	1 518	1 352	52.9%	124	97	56.1%	3 265	3 340	49.4%
2014	12 963	5 931	68.6%	2 458	844	74.4%	1 499	1 310	53.4%	127	134	48.7%	3 179	3 358	48.6%
2013	13 072	5 875	69.0%	2 325	772	75.1%	1 484	1 345	52.5%	139	133	51.1%	3 250	3 335	49.4%
2012	12 707	5 751	68.8%	2 395	834	74.2%	1 521	1 366	52.7%	112	114	49.6%	2 866	2 794	50.6%
2011	12 542	5 794	68.4%	2 314	793	74.5%	1 461	1 392	51.2%	120	134	47.2%	3 179	3 356	48.6%
2010	12 054	5 590	68.3%	2 273	790	74.2%	1 466	1 428	50.7%	97	122	44.3%	3 201	3 399	48.5%
2009	11 788	5 424	68.5%	2 347	718	76.6%	1 455	1 478	49.6%	109	134	44.9%	3 352	3 646	47.9%
2008	11 742	5 222	69.2%	1 938	629	75.5%	1 349	1 531	46.8%	93	132	41.3%	3 058	3 289	48.2%
2007	11 432	5 106	69.1%	1 771	620	74.1%	1 244	1 490	45.5%	97	136	41.6%	2 868	3 263	46.8%
2006	11 164	5 016	69.0%	1 674	636	72.5%	1 155	1 455	44.3%	72	107	40.2%	2 752	3 030	47.6%
2005	10 594	4 742	69.1%	1 522	675	69.3%	1 032	1 353	43.3%	73	110	39.9%	2 521	2 942	46.1%

Source: MEYS – Performance indicators of public and private HEIs in the Czech Republic; CZSO – Research and Development Indicators.

Table 8: Students and graduates of master's and doctoral programmes and researchers (HC) in the social sciences

	Master's students			Master's graduates			Doctoral students			Doctoral graduates			Researchers		
	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)
2022	30 512	15 847	65.8%	7 487	3 569	73.1%	1 739	1 710	50.4%	195	170	53.4%	2 544	3 177	44.5%
2021	30 837	15 532	66.5%	7 788	3 579	71.9%	1 832	1 836	49.9%	195	180	52.0%	2 434	3 101	44.0%
2020	29 826	15 016	66.5%	8 380	3 818	71.7%	1 932	1 916	50.2%	195	179	52.1%	2 507	3 223	43.8%
2019	29 052	14 407	66.8%	8 832	3 994	72.9%	1 984	1 858	51.6%	233	221	51.3%	2 576	3 441	42.8%
2018	30 107	14 753	67.1%	9 531	4 182	74.3%	2 079	2 015	50.8%	232	234	49.8%	2 649	3 534	42.8%
2017	31 517	15 384	67.2%	10 046	4 507	73.6%	2 264	2 045	52.5%	212	246	46.3%	2 503	3 484	41.8%
2016	32 997	16 191	67.1%	11 003	4 787	72.7%	2 359	2 177	52.0%	236	216	52.2%	2 507	3 435	42.2%
2015	34 273	16 820	67.1%	12 335	5 232	75.2%	2 345	2 229	51.3%	241	237	50.4%	2 390	3 225	42.6%
2014	37 787	17 947	67.8%	13 186	5 514	74.4%	2 432	2 299	51.4%	249	240	50.9%	2 376	3 196	42.6%
2013	39 629	18 617	68.0%	13 710	5 503	75.1%	2 527	2 331	52.0%	256	263	49.3%	2 364	3 117	43.1%
2012	41 729	19 140	68.6%	14 006	5 965	74.2%	2 557	2 424	51.3%	313	274	53.3%	1 862	2 596	41.8%
2011	43 076	19 904	68.4%	13 985	5 781	74.5%	2 762	2 735	50.2%	249	245	50.4%	1 991	2 720	42.3%
2010	43 573	20 305	68.2%	13 211	5 570	74.2%	2 818	2 825	49.9%	208	222	48.4%	1 342	1 958	40.7%
2009	43 175	20 256	68.1%	12 407	5 222	76.6%	2 697	2 847	48.6%	206	275	42.8%	1 437	2 068	41.0%
2008	42 087	19 423	68.4%	10 839	4 657	75.5%	2 519	2 709	48.2%	215	244	46.8%	1 711	2 247	43.2%
2007	40 973	18 697	68.7%	9 419	4 111	74.1%	2 330	2 640	46.9%	191	245	43.8%	1 783	2 489	41.7%
2006	40 241	18 244	68.8%	8 574	3 969	72.5%	2 218	2 502	47.0%	175	208	45.7%	1 879	2 516	42.8%
2005	39 535	18 319	68.3%	7 738	3 859	69.3%	2 043	2 380	46.2%	160	208	43.5%	1 741	2 565	40.4%

Source: MEYS – Performance indicators of public and private HEIs in the Czech Republic; CZSO – Research and Development Indicators.

Table 9: Students and graduates of master's and doctoral programmes and researchers (HC) in the humanities

	Master's students			Master's graduates			Doctoral students			Doctoral graduates			Researchers		
	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)
2022	4 387	2 287	65.7%	1 166	516	69.3%	1 501	1 287	53.8%	118	131	47.4%	1 636	2 160	43.1%
2021	4 430	2 268	66.1%	1 251	593	67.8%	1 523	1 378	52.5%	127	116	52.3%	1 679	2 222	43.0%
2020	4 456	2 308	65.9%	1 365	684	66.6%	1 553	1 382	52.9%	114	118	49.1%	1 675	2 274	42.4%
2019	4 551	2 344	66.0%	1 525	682	69.1%	1 522	1 370	52.6%	145	146	49.8%	1 642	2 296	41.7%
2018	4 865	2 459	66.4%	1 580	729	68.4%	1 607	1 455	52.5%	170	125	57.6%	1 553	2 179	41.6%
2017	5 130	2 515	67.1%	1 671	686	70.9%	1 721	1 491	53.6%	139	150	48.1%	1 461	2 135	40.6%
2016	5 488	2 536	68.4%	1 691	777	68.5%	1 876	1 525	55.2%	181	170	51.6%	1 473	2 079	41.5%
2015	5 661	2 668	68.0%	1 700	748	69.4%	1 915	1 581	54.8%	187	154	54.8%	1 469	2 135	40.8%
2014	5 674	2 762	67.3%	1 819	783	69.9%	1 970	1 612	55.0%	145	152	48.8%	1 299	1 941	40.1%
2013	5 889	2 771	68.0%	1 929	797	70.8%	2 003	1 694	54.2%	147	127	53.6%	1 307	1 885	41.0%
2012	6 119	2 869	68.1%	1 940	746	72.2%	1 996	1 679	54.3%	159	184	46.4%	1 548	2 078	42.7%
2011	6 284	2 824	69.0%	1 804	768	70.1%	1 961	1 685	53.8%	173	141	55.1%	1 243	1 835	40.4%
2010	6 209	2 850	68.5%	1 685	739	69.5%	1 981	1 647	54.6%	119	144	45.2%	1 671	2 253	42.6%
2009	6 121	2 926	67.7%	1 445	712	67.0%	1 870	1 631	53.4%	123	133	48.0%	1 450	2 028	41.7%
2008	5 875	2 920	66.8%	1 294	644	66.8%	1 733	1 586	52.2%	125	147	46.0%	1 220	1 810	40.3%
2007	5 842	2 920	66.7%	1 251	668	65.2%	1 629	1 569	50.9%	105	119	46.9%	1 206	1 718	41.2%
2006	5 796	2 991	66.0%	1 110	674	62.2%	1 532	1 484	50.8%	88	115	43.3%	1 150	1 672	40.8%
2005	5 678	3 111	64.6%	1 173	704	62.5%	1 414	1 414	50.0%	89	105	45.9%	1 074	1 589	40.3%

Source: MEYS – Performance indicators of public and private HEIs in the Czech Republic; CZSO – Research and Development Indicators.

RESEARCHERS BY SECTOR

Table 10: Researchers by sector (HC)

	Natural Sciences			Technical Sciences			Agricultural Sciences			Medical Sciences			Social Sciences			Humanities		
	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)
2022	6 278	18 207	25.6%	3 829	21 854	14.9%	1 176	1 505	43.9%	4 245	4 571	48.2%	2 544	3 177	44.5%	1 636	2 160	43.1%
2021	5 743	17 957	24.2%	3 618	21 563	14.4%	1 231	1 355	47.6%	4 140	4 493	48.0%	2 434	3 101	44.0%	1 679	2 222	43.0%
2020	5 020	15 195	24.8%	3 587	20 781	14.7%	1 222	1 447	45.8%	3 981	4 281	48.2%	2 507	3 223	43.8%	1 675	2 274	42.4%
2019	4 950	14 432	25.5%	3 288	20 895	13.6%	1 135	1 197	48.7%	3 721	4 116	47.5%	2 576	3 441	42.8%	1 642	2 296	41.7%
2018	4 665	14 572	24.2%	3 144	20 191	13.5%	1 014	1 305	43.7%	3 436	3 725	48.0%	2 649	3 534	42.8%	1 553	2 179	41.6%
2017	4 564	13 647	25.1%	2 931	19 252	13.2%	1 076	1 529	41.3%	3 471	3 736	48.2%	2 503	3 484	41.8%	1 461	2 135	40.6%
2016	4 213	12 433	25.3%	2 695	18 410	12.8%	968	1 440	40.2%	3 116	3 410	47.7%	2 507	3 435	42.2%	1 473	2 079	41.5%
2015	4 222	12 154	25.8%	2 999	19 093	13.6%	907	1 405	39.2%	3 265	3 340	49.4%	2 390	3 225	42.6%	1 469	2 135	40.8%
2014	4 143	11 971	25.7%	2 882	17 780	13.9%	937	1 431	39.6%	3 179	3 358	48.6%	2 376	3 196	42.6%	1 299	1 941	40.1%
2013	3 943	10 628	27.1%	2 779	16 475	14.4%	894	1 478	37.7%	3 250	3 335	49.4%	2 364	3 117	43.1%	1 307	1 885	41.0%
2012	3 694	9 582	27.8%	2 349	16 114	12.7%	783	1 385	36.1%	2 866	2 794	50.6%	1 862	2 596	41.8%	1 548	2 078	42.7%
2011	3 432	8 956	27.7%	2 178	14 746	12.9%	914	1 352	40.3%	3 179	3 356	48.6%	1 991	2 720	42.3%	1 243	1 835	40.4%
2010	2 731	7 524	26.6%	2 258	14 487	13.5%	995	1 600	38.4%	3 201	3 399	48.5%	1 342	1 958	40.7%	1 671	2 253	42.6%
2009	2 623	6 837	27.7%	2 499	14 425	14.8%	1 076	1 651	39.5%	3 352	3 646	47.9%	1 437	2 068	41.0%	1 450	2 028	41.7%
2008	2 835	7 406	27.7%	2 629	15 124	14.8%	1 160	1 751	39.9%	3 058	3 289	48.2%	1 711	2 247	43.2%	1 220	1 810	40.3%
2007	2 523	7 069	26.3%	2 530	14 121	15.2%	1 124	1 844	37.9%	2 868	3 263	46.8%	1 783	2 489	41.7%	1 206	1 718	41.2%
2006	2 519	7 216	25.9%	1 953	12 316	13.7%	1 041	1 631	39.0%	2 752	3 030	47.6%	1 879	2 516	42.8%	1 150	1 672	40.8%
2005	2 432	6 656	26.8%	1 998	11 315	15.0%	1 061	1 649	39.1%	2 521	2 942	46.1%	1 741	2 565	40.4%	1 074	1 589	40.3%

Source: CZSO – Research and Development Indicators.

Table 11: Researchers by sector (FTE)

	Natural Sciences			Technical Sciences			Agricultural Sciences			Medical Sciences			Social Sciences			Humanities		
	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)
2022	4 616	14 196	24.5%	2 732	17 702	13.4%	910	1 009	47.4%	1 716	1 751	49.5%	1 014	1 396	42.1%	982	1 380	41.6%
2021	4 302	13 872	23.7%	2 427	17 132	12.4%	977	983	49.8%	1 737	1 686	50.7%	1 073	1 417	43.1%	1 009	1 467	40.7%
2020	3 792	11 741	24.4%	2 437	16 336	13.0%	801	1003	44.4%	1 630	1 608	50.3%	1 017	1 393	42.2%	989	1 461	40.4%
2019	3 626	10 988	24.8%	2 264	16 092	12.3%	705	805	46.7%	1 533	1 588	49.1%	1 100	1 428	43.5%	926	1 447	39.0%
2018	3 362	11 218	23.1%	2 082	15 162	12.1%	620	777	44.4%	1 391	1 494	48.2%	1 204	1 629	42.5%	884	1 375	39.1%
2017	3 210	10 668	23.1%	1 983	14 665	11.9%	660	809	44.9%	1 332	1 248	51.6%	1 083	1 493	42.0%	792	1 239	39.0%
2016	3 009	9 887	23.3%	1 747	14 105	11.0%	625	806	43.7%	1 320	1 174	52.9%	1 128	1 570	41.8%	780	1 186	39.7%
2015	3 075	9 605	24.3%	1 985	14 708	11.9%	578	821	41.3%	1 352	1 265	51.6%	1 117	1 430	43.9%	816	1 328	38.0%
2014	2 998	9 220	24.5%	2 122	13 544	13.5%	492	782	38.6%	1 190	1 183	50.1%	1 124	1 465	43.4%	777	1 143	40.5%
2013	2 837	8 090	26.0%	1 967	13 349	12.8%	471	794	37.2%	1 303	1 189	52.3%	1 060	1 390	43.3%	763	1 059	41.9%
2012	2 689	7 400	26.7%	1 850	12 958	12.5%	407	789	34.0%	1 292	1 177	52.3%	980	1 415	40.9%	992	1 267	43.9%
2011	2 425	6 458	27.3%	1 713	11 982	12.5%	553	754	42.3%	1 358	1 345	50.2%	971	1 379	41.3%	678	1 068	38.8%
2010	1 966	5 618	25.9%	1 656	11 553	12.5%	590	884	40.0%	1 446	1 388	51.0%	737	1 031	41.7%	1034	1 325	43.9%
2009	2 006	5 182	27.9%	1 821	11 528	13.6%	615	833	42.5%	1 370	1 383	49.8%	807	1 140	41.5%	870	1 204	41.9%
2008	2 162	5 716	27.4%	1 888	11 982	13.6%	636	895	41.5%	1 291	1 349	48.9%	855	1 160	42.4%	727	1 124	39.3%
2007	1 952	5 460	26.3%	1 767	10 918	13.9%	624	961	39.4%	1 263	1 365	48.1%	796	1 104	41.9%	691	978	41.4%
2006	1 960	5 671	25.7%	1 336	9 547	12.3%	592	882	40.2%	1 210	1 289	48.4%	862	1 199	41.8%	693	1 027	40.3%
2005	1 785	5 132	25.8%	1 356	8 384	13.9%	583	879	39.9%	1 160	1 327	46.6%	803	1 125	41.7%	662	972	40.5%

Source: CZSO – Research and Development Indicators.

RESEARCHERS BY SCIENTIFIC DISCIPLINE AND SECTOR

Table 12: Researchers in the natural sciences by sector (HC)

	Enterprise sector			Government sector			University sector			Private non-profit sector		
	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)
2022	2 016	9 371	17.7%	2 422	4 244	36.3%	1 817	4 549	28.5%	23	43	34.8%
2021	1 706	8 883	16.1%	2 300	4 325	34.7%	1 712	4 716	26.6%	25	33	43.1%
2020	1 163	6 537	15.1%	2 263	4 222	34.9%	1 576	4 397	26.4%	18	39	31.4%
2019	1 143	6 379	15.2%	2 113	4 017	34.5%	1 676	4 012	29.5%	18	24	43.6%
2018	1 034	6 647	13.5%	2 053	4 081	33.5%	1 563	3 819	29.0%	15	25	37.5%
2017	984	6 238	13.6%	2 173	3 899	35.8%	1 385	3 477	28.5%	22	34	39.0%
2016	978	5 670	14.7%	1 927	3 705	34.2%	1 297	3 028	30.0%	11	30	26.5%
2015	934	5 253	15.1%	1 830	3 727	32.9%	1 433	3 139	31.3%	25	35	41.7%
2014	922	4 950	15.7%	1 823	3 656	33.3%	1 373	3 332	29.2%	25	33	42.8%
2013	862	3 833	18.4%	1 717	3 517	32.8%	1 352	3 249	29.4%	12	29	29.4%
2012	879	3 133	21.9%	1 571	3 323	32.1%	1 232	3 087	28.5%	12	39	24.1%
2011	616	2 576	19.3%	1 503	3 321	31.2%	1 301	3 006	30.2%	12	52	18.8%
2010	525	2 202	19.3%	1 409	3 350	29.6%	781	1 923	28.9%	15	48	23.8%
2009	536	1 955	21.5%	1 480	3 143	32.0%	592	1 702	25.8%	15	38	28.4%
2008	461	1 916	19.4%	1 804	3 687	32.9%	563	1 789	23.9%	7	14	33.3%
2007	356	2 022	15.0%	1 678	3 585	31.9%	484	1 449	25.0%	5	13	27.8%
2006	324	1 933	14.3%	1 526	3 477	30.5%	664	1 793	27.0%	5	13	26.7%
2005	359	1 981	15.4%	1 440	3 320	30.3%	625	1 341	31.8%	8	14	36.4%

Source: CZSO – Research and Development Indicators.

Table 13: Researchers in the natural sciences by sector (FTE)

	Enterprise sector			Government sector			University sector			Private non-profit sector		
	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)
2022	1 566	7 748	16.8%	1 876	3 398	35.6%	1 161	3 025	27.7%	14	24	36.0%
2021	1 385	7 356	15.8%	1 808	3 433	34.5%	1 095	3 066	26.3%	13	18	43.3%
2020	989	5 522	15.2%	1 766	3 312	34.8%	1 020	2 889	26.1%	17	18	49.0%
2019	978	5 390	15.4%	1 600	3 145	33.7%	1 031	2 439	29.7%	17	14	56.3%
2018	879	5 696	13.4%	1 548	3 166	32.8%	923	2 339	28.3%	12	16	42.2%
2017	817	5 373	13.2%	1 631	3 187	33.8%	743	2 082	26.3%	19	26	42.7%
2016	806	4 836	14.3%	1 454	2 954	33.0%	739	2 073	26.3%	9	24	27.2%
2015	736	4 515	14.0%	1 406	2 914	32.6%	913	2 142	29.9%	20	34	36.8%
2014	747	4 204	15.1%	1 405	2 868	32.9%	829	2 121	28.1%	17	27	38.1%
2013	686	3 184	17.7%	1 282	2 704	32.2%	860	2 174	28.4%	9	28	24.9%
2012	715	2 563	21.8%	1 154	2 674	30.2%	806	2 131	27.4%	14	32	31.0%
2011	492	1 997	19.8%	1 140	2 547	30.9%	787	1 883	29.5%	7	31	18.0%
2010	419	1 694	19.8%	1 079	2 651	28.9%	458	1 238	27.0%	10	35	22.1%
2009	445	1 520	22.6%	1 178	2 542	31.7%	373	1 096	25.4%	11	24	30.8%
2008	383	1 597	19.4%	1 386	2 918	32.2%	389	1 191	24.6%	4	10	26.1%
2007	318	1 786	15.1%	1 331	2 799	32.2%	301	869	25.7%	3	6	29.6%
2006	295	1 734	14.5%	1 159	2 705	30.0%	503	1 223	29.1%	4	8	29.8%
2005	326	1 797	15.3%	1 093	2 572	29.8%	360	748	32.5%	6	15	29.8%

Source: CZSO – Research and Development Indicators.

Table 14: Researchers in the technical sciences by sector (HC)

	Enterprise sector			Government sector			University sector			Private non-profit sector		
	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)
2022	2 018	16 432	10.9%	106	258	29.1%	1 680	5 109	24.7%	25	55	31.3%
2021	1 792	16 177	10.0%	108	264	29.0%	1 693	5 093	24.9%	25	29	46.3%
2020	1 759	15 464	10.2%	108	270	28.6%	1 696	5 014	25.3%	24	33	42.2%
2019	1 623	15 271	9.6%	106	272	28.0%	1 547	5 334	22.5%	13	18	41.7%
2018	1 496	14 555	9.3%	116	265	30.4%	1 529	5 357	22.2%	3	14	17.6%
2017	1 382	13 852	9.1%	128	309	29.3%	1 410	5 060	21.8%	11	31	26.2%
2016	1 177	13 014	8.3%	123	278	30.7%	1 384	5 098	21.4%	11	20	35.5%
2015	1 413	13 670	9.4%	118	328	26.5%	1 459	5 084	22.3%	9	11	45.0%
2014	1 539	12 732	10.8%	90	256	26.0%	1 237	4 766	20.6%	15	26	36.9%
2013	1 402	11 996	10.5%	101	247	29.0%	1 271	4 202	23.2%	5	31	13.6%
2012	1 057	11 299	8.6%	90	247	26.7%	1 199	4 538	20.9%	3	30	9.1%
2011	1 065	10 585	9.1%	98	225	30.3%	1 011	3 907	20.6%	4	29	12.3%
2010	880	9 747	8.3%	80	211	27.5%	1 296	4 507	22.3%	1	22	6.3%
2009	984	9 678	9.2%	77	252	23.4%	1 435	4 488	24.2%	3	7	27.5%
2008	1 086	10 195	9.6%	102	283	26.5%	1 435	4 591	23.8%	6	55	10.1%
2007	999	9 319	9.7%	83	233	26.3%	1 444	4 534	24.2%	4	36	10.9%
2006	824	8 207	9.1%	95	241	28.3%	1 031	3 853	21.1%	3	15	16.7%
2005	819	6 834	10.7%	96	239	28.7%	1 080	4 224	20.4%	3	18	13.1%

Source: CZSO – Research and Development Indicators.

Table 15: Researchers in the technical sciences by sector (FTE)

	Enterprise sector			Government sector			University sector			Private non-profit sector		
	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)
2022	1 701	14 318	10.6%	86	219	28.2%	930	3 132	22.9%	14	34	29.9%
2021	1 479	14 092	9.5%	83	222	27.1%	857	2 800	23.4%	9	19	32.0%
2020	1 474	13 329	10.0%	88	227	27.9%	865	2 764	23.8%	10	15	39.1%
2019	1 317	12 917	9.3%	96	228	29.7%	844	2 936	22.3%	7	11	37.9%
2018	1 242	12 188	9.3%	87	225	27.8%	751	2 733	21.5%	3	15	14.5%
2017	1 154	11 740	9.0%	77	238	24.5%	745	2 664	21.9%	6	23	22.0%
2016	984	11 176	8.1%	94	266	26.0%	666	2 655	20.0%	3	7	31.5%
2015	1 212	11 774	9.3%	87	260	25.1%	683	2 662	20.4%	4	12	24.0%
2014	1 335	10 610	11.2%	82	210	28.0%	696	2 697	20.5%	9	27	24.0%
2013	1 228	10 513	10.5%	75	217	25.6%	661	2 596	20.3%	3	22	11.6%
2012	945	9 890	8.7%	53	240	18.2%	848	2 804	23.2%	4	24	15.7%
2011	951	9 290	9.3%	66	199	24.8%	693	2 475	21.9%	3	17	14.5%
2010	793	8 553	8.5%	52	212	19.6%	810	2 769	22.6%	2	19	9.6%
2009	899	8 587	9.5%	55	234	19.0%	865	2 697	24.3%	2	11	18.6%
2008	955	9 096	9.5%	91	243	27.2%	840	2 623	24.2%	3	20	11.2%
2007	888	8 096	9.9%	72	200	26.4%	805	2 613	23.6%	1	9	14.4%
2006	705	7 127	9.0%	78	207	27.3%	552	2 209	20.0%	1	5	13.6%
2005	727	6 086	10.7%	70	185	27.3%	559	2 104	21.0%	1	8	12.2%

Source: CZSO – Research and Development Indicators.

Table 16: Researchers in the agricultural sciences by sector (HC)

	Enterprise sector			Government sector			University sector			Private non-profit sector		
	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)
2022	198	260	43.2%	351	313	52.9%	625	928	40.2%	2	4	33.3%
2021	201	233	46.3%	388	354	52.3%	640	762	45.6%	2	6	25.0%
2020	198	221	47.2%	366	356	50.7%	656	865	43.1%	2	5	28.6%
2019	187	213	46.9%	363	353	50.7%	583	629	48.1%	2	2	50.0%
2018	160	221	42.0%	320	344	48.2%	532	738	41.9%	2	2	50.0%
2017	134	210	38.9%	356	356	50.0%	584	962	37.8%	2	1	66.7%
2016	127	223	36.3%	332	347	48.9%	507	869	36.8%	2	1	66.7%
2015	132	219	37.5%	332	363	47.8%	441	822	34.9%	2	1	66.7%
2014	128	198	39.2%	224	281	44.4%	583	946	38.1%	2	6	25.0%
2013	101	175	36.7%	189	249	43.2%	604	1 050	36.5%	-	-	-
2012	170	303	35.9%	142	232	38.0%	470	846	35.7%	1	4	20.0%
2011	204	251	44.9%	308	330	48.3%	400	766	34.3%	1	5	17.2%
2010	190	270	41.4%	289	310	48.2%	515	1 015	33.7%	1	5	16.7%
2009	224	285	44.0%	266	266	50.0%	586	1 091	34.9%	-	-	-
2008	226	294	43.5%	292	299	49.4%	638	1 145	35.8%	4	13	23.5%
2007	201	297	40.4%	304	347	46.7%	615	1 192	34.0%	4	8	33.3%
2006	239	300	44.4%	301	334	47.4%	499	984	33.6%	2	13	13.3%
2005	228	315	42.0%	280	348	44.6%	553	987	35.9%	-	-	-

Source: CZSO – Research and Development Indicators.

Table 17: Researchers in the agricultural sciences by sector (FTE)

	Enterprise sector			Government sector			University sector			Private non-profit sector		
	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)
2022	129	163	44.3%	289	274	51.4%	490	571	46.2%	2	1	52.7%
2021	141	155	47.6%	301	299	50.2%	532	523	50.4%	2	5	27.9%
2020	140	143	49.4%	261	338	43.5%	399	516	43.6%	1	5	21.4%
2019	123	141	46.5%	284	301	48.5%	299	360	45.3%	1	3	16.0%
2018	109	141	43.7%	262	292	47.3%	248	342	42.1%	0	2	15.7%
2017	101	124	44.8%	299	304	49.6%	259	379	40.6%	1	1	31.2%
2016	92	134	40.8%	283	321	46.8%	250	349	41.7%	1	2	21.1%
2015	91	132	41.0%	284	335	45.8%	202	353	36.4%	1	2	29.2%
2014	95	132	41.8%	160	239	40.1%	235	405	36.7%	2	6	20.7%
2013	69	111	38.4%	162	228	41.5%	240	451	34.7%	0	4	1.4%
2012	127	212	37.4%	127	207	38.0%	152	367	29.3%	1	4	28.1%
2011	134	176	43.2%	276	285	49.2%	141	289	32.9%	2	4	25.8%
2010	133	193	40.8%	265	276	49.0%	190	411	31.6%	1	4	21.2%
2009	167	222	42.9%	257	198	56.5%	191	405	32.1%	0	7	1.7%
2008	179	224	44.5%	226	240	48.6%	229	425	34.9%	1	6	19.3%
2007	145	223	39.4%	239	277	46.2%	239	454	34.5%	1	7	16.2%
2006	177	218	44.7%	231	278	45.4%	185	377	32.8%	0	8	1.2%
2005	153	220	41.0%	218	290	43.0%	211	367	36.5%	0	2	11.4%

Source: CZSO – Research and Development Indicators.

Table 18: Researchers in the medical sciences by sector (HC)

	Enterprise sector			Government sector			University sector			Private non-profit sector		
	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)
2022	422	361	53.9%	813	498	62.0%	3 000	3 703	44.8%	10	9	52.6%
2021	420	330	56.0%	760	502	60.2%	2 952	3 654	44.7%	8	7	53.3%
2020	370	319	53.7%	745	505	59.6%	2 858	3 450	45.3%	8	7	53.3%
2019	316	270	53.9%	782	582	57.3%	2 617	3 258	44.5%	6	6	50.0%
2018	315	306	50.7%	775	543	58.8%	2 344	2 874	44.9%	2	2	50.0%
2017	340	281	54.8%	715	534	57.2%	2 413	2 919	45.3%	3	2	60.0%
2016	316	275	53.5%	697	464	60.0%	2 103	2 671	44.1%	-	-	-
2015	313	242	56.4%	769	594	56.4%	2 183	2 504	46.6%	-	-	-
2014	249	237	51.2%	674	634	51.5%	2 256	2 487	47.6%	0	1	38.3%
2013	246	240	50.7%	802	554	59.1%	2 200	2 541	46.4%	1	0	100.0%
2012	235	272	46.3%	768	518	59.7%	1 861	2 001	48.2%	2	3	40.0%
2011	272	234	53.8%	740	605	55.0%	2 152	2 514	46.1%	15	3	83.3%
2010	330	239	58.0%	729	596	55.0%	2 141	2 561	45.5%	1	3	25.0%
2009	141	198	41.5%	819	671	55.0%	2 392	2 772	46.3%	-	-	-
2008	157	197	44.3%	783	633	55.3%	2 118	2 458	46.3%	-	-	-
2007	155	187	45.3%	709	673	51.3%	2 003	2 401	45.5%	1	1	42.7%
2006	150	238	38.7%	729	652	52.8%	1 871	2 139	46.7%	2	2	50.0%
2005	144	180	44.4%	709	601	54.1%	1 666	2 160	43.5%	2	0	100.0%

Source: CZSO – Research and Development Indicators.

Table 19: Researchers in the medical sciences by sector (FTE)

	Enterprise sector			Government sector			University sector			Private non-profit sector		
	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)
2022	306	270	53.1%	378	212	64.1%	1026	1266	44.8%	5	3	63.9%
2021	359	280	56.1%	362	210	63.2%	1 012	1 193	45.9%	4	2	67.9%
2020	310	262	54.2%	355	211	62.7%	961	1 133	45.9%	4	2	66.8%
2019	272	243	52.8%	407	281	59.1%	851	1 062	44.5%	3	2	57.5%
2018	243	276	46.9%	400	261	60.6%	745	956	43.8%	2	2	58.1%
2017	272	246	52.5%	379	233	62.0%	677	767	46.9%	3	2	66.5%
2016	255	230	52.6%	411	249	62.3%	654	695	48.5%	-	-	-
2015	254	204	55.4%	439	271	61.8%	659	790	45.5%	-	-	-
2014	186	213	46.6%	340	247	57.8%	658	723	47.7%	6	0	98.1%
2013	203	199	50.4%	463	276	62.7%	622	714	46.6%	15	0	99.1%
2012	215	245	46.7%	449	266	62.8%	601	665	47.4%	28	1	97.6%
2011	228	201	53.1%	430	311	58.1%	672	832	44.7%	27	2	94.7%
2010	256	201	56.1%	397	297	57.2%	768	888	46.4%	23	2	93.0%
2009	125	172	42.1%	434	309	58.4%	810	901	47.4%	1	1	37.9%
2008	142	181	44.0%	420	328	56.1%	728	839	46.4%	2	1	55.3%
2007	136	159	46.1%	392	327	54.5%	733	877	45.5%	2	2	49.1%
2006	136	190	41.8%	382	362	51.4%	690	736	48.4%	1	1	46.8%
2005	132	144	47.9%	351	335	51.2%	676	849	44.3%	1	0	92.7%

Source: CZSO – Research and Development Indicators.

Table 20: Researchers in the social sciences by sector (HC)

	Enterprise sector			Government sector			University sector			Private non-profit sector		
	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)
2022	113	313	26.5%	197	235	45.6%	2164	2542	46.0%	70	87	44.6%
2021	150	351	29.9%	207	240	46.3%	2 015	2 444	45.2%	62	66	48.4%
2020	147	338	30.4%	211	257	45.1%	2 094	2 560	45.0%	55	69	44.5%
2019	138	324	29.9%	328	309	51.5%	2 039	2 738	42.7%	70	70	50.1%
2018	147	390	27.3%	421	363	53.7%	2 030	2 710	42.8%	51	71	41.9%
2017	147	406	26.5%	366	338	52.0%	1 940	2 669	42.1%	50	71	41.3%
2016	260	636	29.0%	307	280	52.3%	1 887	2 462	43.4%	53	57	48.3%
2015	95	266	26.3%	253	287	46.9%	1 988	2 612	43.2%	55	60	47.6%
2014	138	379	26.6%	268	270	49.8%	1 914	2 481	43.5%	56	66	45.9%
2013	51	219	18.7%	256	240	51.6%	2 002	2 596	43.5%	55	62	47.2%
2012	65	197	24.9%	257	275	48.3%	1 492	2 075	41.8%	48	49	49.3%
2011	39	134	22.4%	256	252	50.4%	1 656	2 270	42.2%	40	64	38.4%
2010	39	70	35.9%	218	241	47.5%	1 038	1 592	39.5%	47	55	46.1%
2009	87	159	35.4%	216	253	46.1%	1 083	1 589	40.5%	51	67	43.0%
2008	74	102	42.2%	257	276	48.2%	1 366	1 855	42.4%	14	14	50.0%
2007	66	110	37.4%	298	312	48.9%	1 405	2 043	40.7%	14	24	36.6%
2006	54	83	39.4%	377	375	50.1%	1 431	2 021	41.5%	17	37	31.5%
2005	54	113	32.5%	337	311	52.0%	1 330	2 121	38.5%	20	20	50.0%

Source: CZSO – Research and Development Indicators.

Table 21: Researchers in the social sciences by sector (FTE)

	Enterprise sector			Government sector			University sector			Private non-profit sector		
	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)
2022	68	215	24.1%	163	189	46.3%	728	920	44.2%	55	72	43.2%
2021	109	254	30.0%	168	201	45.5%	751	903	45.4%	44	59	43.1%
2020	107	247	30.2%	172	195	47.0%	692	894	43.6%	45	57	44.2%
2019	101	225	30.9%	263	229	53.5%	687	926	42.6%	49	48	50.6%
2018	107	264	28.9%	274	256	51.8%	776	1 050	42.5%	46	59	43.8%
2017	100	277	26.5%	249	229	52.0%	688	927	42.6%	47	60	44.1%
2016	188	479	28.2%	213	200	51.7%	682	844	44.7%	45	48	48.4%
2015	69	173	28.5%	229	214	51.7%	772	992	43.8%	47	51	48.1%
2014	104	265	28.2%	213	219	49.3%	757	921	45.1%	50	60	45.1%
2013	32	141	18.3%	205	205	50.0%	775	992	43.8%	49	51	48.8%
2012	38	108	26.2%	215	225	48.9%	680	1 037	39.6%	46	45	50.6%
2011	25	81	23.6%	231	283	45.0%	682	961	41.5%	32	54	37.3%
2010	29	45	39.0%	249	267	48.3%	415	668	38.3%	44	50	46.6%
2009	49	91	35.1%	208	221	48.5%	504	774	39.4%	46	54	45.9%
2008	41	51	44.5%	257	241	51.5%	543	855	38.8%	14	12	54.5%
2007	37	58	39.0%	295	267	52.6%	447	759	37.1%	17	20	44.9%
2006	24	55	30.2%	311	325	48.9%	516	798	39.3%	11	21	34.9%
2005	25	82	23.5%	271	250	51.9%	495	779	38.8%	13	14	48.9%

Source: CZSO – Research and Development Indicators.

Table 22: Researchers in the humanities by sector (HC)

	Enterprise sector			Government sector			University sector			Private non-profit sector		
	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)
2022	3	2	60.0%	750	938	44.4%	881	1 216	42.0%	2	4	33.3%
2021	3	2	60.0%	780	939	45.4%	894	1 276	41.2%	2	5	28.6%
2020	2	3	40.0%	791	986	44.5%	879	1 280	40.7%	3	5	35.0%
2019	-	-	-	662	932	41.5%	976	1 357	41.8%	4	7	36.4%
2018	3	2	60.0%	635	891	41.6%	912	1 279	41.6%	3	7	30.0%
2017	3	1	75.0%	570	825	40.9%	886	1 305	40.4%	2	4	27.6%
2016	3	2	60.0%	580	825	41.3%	886	1 250	41.5%	4	2	66.7%
2015	-	-	-	545	759	41.8%	923	1 375	40.2%	1	0	100.0%
2014	-	-	-	546	788	40.9%	752	1 152	39.5%	1	0	100.0%
2013	-	-	-	568	730	43.8%	737	1 153	39.0%	2	2	57.0%
2012	-	-	-	565	713	44.2%	972	1 361	41.7%	11	4	73.3%
2011	3	6	31.1%	570	726	44.0%	664	1 085	38.0%	7	18	27.6%
2010	2	9	18.2%	576	688	45.6%	1 077	1 531	41.3%	16	25	39.2%
2009	1	10	9.1%	593	742	44.4%	851	1 264	40.2%	5	12	29.4%
2008	1	17	5.6%	624	776	44.6%	591	1 001	37.1%	4	16	20.0%
2007	1	11	8.3%	607	712	46.0%	598	991	37.6%	0	4	2.4%
2006	2	19	10.4%	593	749	44.2%	554	901	38.1%	1	3	22.9%
2005	18	24	42.7%	591	758	43.8%	459	797	36.5%	6	10	35.8%

Source: CZSO – Research and Development Indicators.

Table 23: Researchers in the humanities by sector (FTE)

	Enterprise sector			Government sector			University sector			Private non-profit sector		
	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)
2022	2	1	64.9%	498	664	42.8%	481	712	40.4%	1	3	32.9%
2021	2	1	71.3%	553	685	44.7%	452	779	36.7%	1	3	32.5%
2020	1	1	48.7%	520	724	41.8%	466	732	38.9%	1	4	27.6%
2019	-	-	-	462	673	40.7%	461	768	37.5%	3	5	37.0%
2018	2	1	57.1%	439	669	39.6%	439	698	38.6%	4	7	35.7%
2017	2	1	73.9%	440	642	40.7%	349	594	37.0%	1	2	30.9%
2016	2	2	49.2%	420	634	39.8%	357	549	39.4%	2	1	66.7%
2015	-	-	-	368	586	38.6%	447	742	37.6%	1	0	94.6%
2014	1	1	60.5%	389	606	39.1%	387	536	41.9%	1	0	93.0%
2013	1	0	76.4%	386	523	42.5%	375	534	41.3%	1	2	45.5%
2012	-	-	-	352	492	41.7%	636	772	45.2%	4	3	58.2%
2011	2	4	30.1%	342	502	40.5%	328	547	37.5%	6	15	29.2%
2010	2	7	22.2%	361	470	43.4%	665	834	44.4%	6	13	32.2%
2009	1	10	9.5%	373	490	43.3%	491	697	41.3%	5	7	40.5%
2008	1	15	6.8%	391	547	41.7%	331	549	37.6%	4	13	22.4%
2007	0	8	1.8%	433	524	45.3%	258	444	36.7%	0	2	2.5%
2006	1	11	7.4%	424	531	44.4%	267	484	35.5%	0	1	29.7%
2005	7	16	32.5%	387	544	41.5%	214	400	34.8%	54	13	81.1%

Source: CZSO – Research and Development Indicators.

RESEARCHERS BY SECTOR

Table 24: Researchers by sector (HC)

	Enterprise sector			Government sector			University sector			Private non-profit sector		
	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)
2022	4 770	26 739	15.1%	4 639	6 486	41.7%	10 167	18 047	36.0%	132	202	39.5%
2021	4 272	25 976	14.1%	4 543	6 624	40.7%	9 906	17 945	35.6%	124	146	45.9%
2020	3 639	22 882	13.7%	4 484	6 596	40.5%	9 759	17 566	35.7%	109	157	41.0%
2019	3 407	22 457	13.2%	4 354	6 465	40.2%	9 438	17 328	35.3%	114	127	47.2%
2018	3 155	22 120	12.5%	4 320	6 487	40.0%	8 910	16 777	34.7%	76	121	38.7%
2017	2 990	20 988	12.5%	4 308	6 261	40.8%	8 618	16 392	34.5%	89	143	38.4%
2016	2 861	19 820	12.6%	3 966	5 899	40.2%	8 064	15 378	34.4%	81	110	42.4%
2015	2 887	19 651	12.8%	3 847	6 058	38.8%	8 427	15 536	35.2%	92	107	46.1%
2014	2 975	18 497	13.9%	3 625	5 885	38.1%	8 115	15 164	34.9%	100	132	43.0%
2013	2 662	16 462	13.9%	3 633	5 537	39.6%	8 166	14 791	35.6%	75	127	37.2%
2012	2 405	15 204	13.7%	3 393	5 308	39.0%	7 226	13 908	34.2%	77	129	37.4%
2011	2 198	13 786	13.8%	3 475	5 459	38.9%	7 184	13 548	34.7%	79	172	31.5%
2010	1 967	12 536	13.6%	3 301	5 396	38.0%	6 848	13 129	34.3%	82	159	34.0%
2009	1 973	12 285	13.8%	3 451	5 326	39.3%	6 939	12 906	35.0%	73	138	34.7%
2008	2 005	12 721	13.6%	3 862	5 954	39.3%	6 711	12 839	34.3%	35	113	23.7%
2007	1 777	11 945	13.0%	3 679	5 862	38.6%	6 549	12 610	34.2%	29	87	24.8%
2006	1 594	10 781	12.9%	3 621	5 828	38.3%	6 050	11 691	34.1%	29	82	26.3%
2005	1 622	9 447	14.7%	3 454	5 576	38.2%	5 713	11 630	32.9%	38	62	38.3%

Source: CZSO – Research and Development Indicators.

Table 25: Researchers in the enterprise sector (HC)

	Enterprise sector			Public enterprises			Private domestic enterprises			Foreign-owned private enterprises		
	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)
2022	4 770	26 739	15.1%	136	765	15.1%	2 117	10 253	17.1%	2 517	15 721	13.8%
2021	4 272	25 976	14.1%	130	818	13.7%	1 938	9 637	16.7%	2 204	15 521	12.4%
2020	3 639	22 882	13.7%	128	834	13.3%	1 869	9 407	16.6%	1 642	12 641	11.5%
2019	3 407	22 457	13.2%	134	859	13.5%	1 726	9 299	15.7%	1 548	12 299	11.2%
2018	3 155	22 120	12.5%	133	760	14.9%	1 578	8 859	15.1%	1 444	12 501	10.4%
2017	2 990	20 988	12.5%	133	775	14.6%	1 447	8 266	14.9%	1 410	11 947	10.6%
2016	2 861	19 820	12.6%	110	694	13.7%	1 338	7 766	14.7%	1 413	11 360	11.1%
2015	2 887	19 651	12.8%	120	782	13.4%	1 365	7 869	14.8%	1 401	11 000	11.3%
2014	2 975	18 497	13.9%	107	808	11.7%	1 416	8 305	14.6%	1 452	9 385	13.4%
2013	2 662	16 462	13.9%	92	756	10.9%	1 359	7 707	15.0%	1 212	7 998	13.2%
2012	2 405	15 204	13.7%	129	761	14.5%	1 215	7 100	14.6%	1 061	7 343	12.6%
2011	2 198	13 786	13.8%	127	819	13.4%	1 170	6 479	15.3%	902	6 488	12.2%
2010	1 967	12 536	13.6%	132	869	13.2%	1 097	6 055	15.3%	738	5 613	11.6%
2009	1 973	12 285	13.8%	134	898	13.0%	1 005	5 464	15.5%	835	5 923	12.3%
2008	2 005	12 721	13.6%	158	942	14.4%	945	5 325	15.1%	902	6 454	12.3%
2007	1 777	11 945	13.0%	131	1065	10.9%	963	5 684	14.5%	684	5 196	11.6%
2006	1 594	10 781	12.9%	159	1180	11.9%	920	5 404	14.6%	515	4 196	10.9%
2005	1 622	9 447	14.7%	232	1181	16.4%	868	4 874	15.1%	522	3 392	13.3%

Source: CZSO – Research and Development Indicators.

Table 26: Researchers in the government sector (HC)

	Government sector			Czech Academy of Sciences			Other public research institutions			Libraries, archives, and museums			Medical facilities			Other		
	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)
2022	4 639	6 486	41.7%	2 672	4 397	37.8%	502	626	44.5%	442	469	48.5%	712	446	61.5%	311	548	36.2%
2021	4 543	6 624	40.7%	2 561	4 486	36.3%	542	692	43.9%	473	475	49.9%	668	446	60.0%	297	1 079	38.0%
2020	4 484	6 596	40.5%	2 521	4 410	36.4%	537	697	43.5%	487	511	48.8%	656	450	59.3%	329	1 226	36.7%
2019	4 354	6 465	40.2%	2 342	4 261	35.5%	539	683	44.1%	442	483	47.8%	653	484	57.4%	298	1 116	36.4%
2018	4 320	6 487	40.0%	2 263	4 319	34.4%	530	673	44.1%	424	463	47.8%	654	458	58.8%	284	1 094	35.1%
2017	4 308	6 261	40.8%	2 487	4 255	36.9%	510	633	44.6%	359	396	47.5%	579	440	56.8%	346	1 245	38.5%
2016	3 966	5 899	40.2%	2 216	4 024	35.5%	494	614	44.6%	378	381	49.8%	547	374	59.4%	344	1 217	39.4%
2015	3 847	6 058	38.8%	2 092	4 070	34.0%	470	630	42.7%	351	383	47.8%	637	496	56.2%	357	1 186	43.1%
2014	3 625	5 885	38.1%	2 054	3 875	34.6%	376	585	39.1%	315	355	47.0%	530	527	50.1%	340	1 149	42.0%
2013	3 633	5 537	39.6%	1 913	3 691	34.1%	470	639	42.4%	343	350	49.5%	591	377	61.0%	316	1 112	39.7%
2012	3 393	5 308	39.0%	1 744	3 501	33.3%	431	600	41.8%	314	380	45.2%	564	358	61.2%	350	1 243	39.2%
2011	3 475	5 459	38.9%	1 692	3 559	32.2%	529	656	44.6%	360	397	47.5%	537	375	58.9%	297	1 073	38.3%
2010	3 301	5 396	38.0%	1 557	3 461	31.0%	486	621	43.9%	386	400	49.1%	528	385	57.8%	331	1 168	39.5%
2009	3 451	5 326	39.3%	1 601	3 269	32.9%	522	630	45.3%	374	425	46.8%	608	449	57.5%	373	1 283	41.0%
2008	3 862	5 954	39.3%	2 043	3 910	34.3%	529	658	44.6%	404	444	47.6%	602	416	59.1%	449	1 472	43.9%
2007	3 679	5 862	38.6%	1 931	3 815	33.6%	509	652	43.8%	407	408	49.9%	534	467	53.3%	378	1 310	40.6%
2006	3 621	5 828	38.3%	1 828	3 776	32.6%	510	646	44.1%	396	402	49.6%	558	436	56.2%	283	1 094	34.9%
2005	3 454	5 576	38.2%	1 733	3 602	32.5%	493	645	43.3%	359	399	47.3%	572	445	56.2%	299	1 123	36.3%

Source: CZSO – Research and Development Indicators.

Table 27: Researchers in the university sector (HC)

	University sector			Public and state HEIs			University hospitals			Private HEIs		
	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)
2022	10 167	18 047	36.0%	8 819	16 301	35.1%	1 153	1 457	44.2%	195	289	40.3%
2021	9 906	17 945	35.6%	8 483	16 182	34.4%	1 207	1 442	45.6%	216	321	40.2%
2020	9 759	17 566	35.7%	8 493	16 017	34.7%	1 047	1 221	46.2%	219	328	40.0%
2019	9 438	17 328	35.3%	8 269	15 793	34.4%	948	1 177	44.6%	221	358	38.2%
2018	8 910	16 777	34.7%	7 717	15 261	33.6%	961	1 183	44.8%	232	333	41.1%
2017	8 618	16 392	34.5%	7 424	14 952	33.2%	958	1 099	46.6%	236	341	40.9%
2016	8 064	15 378	34.4%	7 071	14 064	33.5%	783	1 055	42.6%	210	259	44.8%
2015	8 427	15 536	35.2%	7 151	14 036	33.8%	1 032	1 181	46.6%	244	319	43.3%
2014	8 115	15 164	34.9%	6 890	13 777	33.3%	981	1 014	49.2%	244	373	39.5%
2013	8 166	14 791	35.6%	6 960	13 217	34.5%	952	1 123	45.9%	254	451	36.0%
2012	7 226	13 908	34.2%	6 253	12 661	33.1%	737	884	45.5%	236	363	39.4%
2011	7 184	13 548	34.7%	6 102	12 205	33.3%	892	1 020	46.7%	190	323	37.0%
2010	6 848	13 129	34.3%	5 825	11 806	33.0%	847	1 059	44.4%	176	264	40.0%
2009	6 939	12 906	35.0%	5 721	11 459	33.3%	1 022	1 178	46.5%	196	269	42.2%
2008	6 711	12 839	34.3%	5 755	11 697	33.0%	816	895	47.7%	140	247	36.2%
2007	6 549	12 610	34.2%	5 513	11 383	32.6%	892	983	47.6%	144	244	37.1%
2006	6 050	11 691	34.1%	5 268	10 710	33.0%	710	826	46.2%	72	155	31.7%
2005	5 713	11 630	32.9%	5 008	10 713	31.9%	633	791	44.4%	72	126	36.4%

Source: CZSO – Research and Development Indicators.

Table 28: Researchers by sector (FTE)

	Enterprise sector			Government sector			University sector			Private non-profit sector		
	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)
2022	3 772	22 714	14.2%	3 290	4 955	39.9%	4 816	9 626	33.3%	91	138	39.9%
2021	3 474	22 137	13.6%	3 276	5 050	39.3%	4 700	9 264	33.7%	74	105	41.4%
2020	3 020	19 506	13.4%	3 162	5 007	38.7%	4 404	8 928	33.0%	78	101	43.7%
2019	2 790	18 916	12.9%	3 111	4 857	39.0%	4 172	8 491	32.9%	80	83	49.1%
2018	2 583	18 566	12.2%	3 010	4 869	38.2%	3 882	8 119	32.3%	67	101	39.8%
2017	2 445	17 761	12.1%	3 075	4 833	38.9%	3 462	7 413	31.8%	78	114	40.5%
2016	2 328	16 857	12.1%	2 876	4 624	38.3%	3 347	7 165	31.8%	60	82	42.1%
2015	2 362	16 799	12.3%	2 813	4 580	38.0%	3 676	7 681	32.4%	72	98	42.2%
2014	2 468	15 424	13.8%	2 588	4 391	37.1%	3 562	7 403	32.5%	83	121	40.6%
2013	2 218	14 149	13.6%	2 572	4 153	38.3%	3 534	7 462	32.1%	77	107	42.0%
2012	2 040	13 018	13.5%	2 351	4 103	36.4%	3 722	7 776	32.4%	99	109	47.7%
2011	1 832	11 750	13.5%	2 485	4 126	37.6%	3 303	6 986	32.1%	77	123	38.4%
2010	1 633	10 694	13.3%	2 403	4 174	36.5%	3 306	6 809	32.7%	86	122	41.4%
2009	1 686	10 603	13.7%	2 505	3 993	38.5%	3 235	6 569	33.0%	64	104	38.3%
2008	1 702	11 164	13.2%	2 771	4 517	38.0%	3 059	6 482	32.1%	27	62	30.4%
2007	1 525	10 330	12.9%	2 761	4 393	38.6%	2 783	6 017	31.6%	24	46	34.3%
2006	1 338	9 335	12.5%	2 585	4 407	37.0%	2 713	5 828	31.8%	17	45	27.4%
2005	1 370	8 346	14.1%	2 388	4 176	36.4%	2 514	5 248	32.4%	76	51	59.6%

Source: CZSO – Research and Development Indicators.

ACADEMICS

Table 29: Academics by academic rank (FTE)

	Lecturers				Assistants				Assistant professors				Associate professors				Full professors			
	Women	Men	Women (%)	Men (%)	Women	Men	Women (%)	Men (%)	Women	Men	Women (%)	Men (%)	Women	Men	Women (%)	Men (%)	Women	Men	Women (%)	Men (%)
2022	558	463	54.7	45.3	778	853	47.7	52.3	4 078	5 622	42.0	58.0	1 186	3 182	27.2	72.8	351	1 891	15.7	84.3
2021	536	431	55.4	44.6	683	761	47.3	52.7	4 060	5 747	41.4	58.6	1 151	3 142	26.8	73.2	348	1 865	15.7	84.3
2020	515	398	56.4	43.6	664	695	48.9	51.1	4 007	5 782	40.9	59.1	1 143	3 125	26.8	73.2	334	1 844	15.3	84.7
2019	508	365	58.2	41.8	629	638	49.7	50.3	3 940	5 685	40.9	59.1	1 103	3 096	26.2	73.8	335	1 815	15.6	84.4
2018	471	329	58.9	41.1	611	601	50.4	49.5	3 963	5 713	41.0	59.0	1 072	3 056	26.0	74.0	330	1 814	15.4	84.6
2017	455	318	58.9	41.1	632	621	50.5	49.5	3 943	5 663	41.0	59.0	1 049	3 066	25.5	74.5	333	1 802	15.6	84.4
2016	450	321	58.3	41.7	655	686	48.8	51.2	3 943	5 667	41.0	59.0	1 036	3 054	25.3	74.7	332	1 825	15.4	84.6
2015	457	299	60.4	39.6	634	685	48.1	51.9	3 759	5 470	40.7	59.3	954	2 828	25.2	74.8	313	1 739	15.3	84.7
2014	367	251	59.4	40.6	576	619	48.2	51.8	3 396	4 577	42.6	57.4	849	2 376	26.3	73.7	274	1 501	15.4	84.6
2013	319	218	59.4	40.6	598	627	48.8	51.2	3 399	4 653	42.2	57.8	822	2 332	26.1	73.9	273	1 503	15.4	84.6
2012	329	219	60.0	40.00	633	670	48.6	51.4	3 443	4 837	41.6	58.4	824	2 386	25.7	74.3	268	1 528	14.9	85.1
2011	431	292	59.6	40.4	989	1 029	49.0	51.0	4 667	6 980	40.1	59.9	1 040	3 265	24.2	75.8	352	2 135	14.2	85.8
2010	499	326	60.5	39.5	1 101	1 098	50.1	49.9	4 669	7 048	39.8	60.2	1 034	3 289	23.9	76.1	342	2 184	13.5	86.5
2009	463	310	59.9	40.1	1 158	1 237	48.4	51.6	4 652	7 150	39.4	60.6	959	3 191	23.1	76.9	298	2 126	12.3	87.7
2008	463	310	59.9	40.1	1 158	1 237	48.4	51.6	4 652	7 150	39.4	60.6	959	3 191	23.1	76.9	298	2 126	12.3	87.7
2007	459	298	60.6	39.4	1 059	1 170	47.5	52.5	4 495	6 897	39.5	60.5	940	3 100	23.3	76.7	263	2 070	11.3	88.7
2006	352	295	54.4	45.6	968	1 112	46.5	53.5	4 270	6 551	39.5	60.5	917	3 083	22.9	77.1	258	1 980	11.5	88.5
2005	274	223	55.1	44.9	851	978	46.5	53.5	4 249	6 416	39.8	60.2	881	3 052	22.4	77.6	240	1 944	11.0	89.0

Source: Ministry of Education, Youth and Sports – Statistical Yearbook (Employees and wage resources).

Table 30: Academics by discipline (FTE)

	Natural Sciences			Technical Sciences			Agriculture Sciences			Medical Sciences			Social Sciences			Humanities		
	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)
2022	726	2 047	26.2	894	3 011	22.9	351	578	37.8	1 261	1 545	44.9	1 768	2 117	45.5	1 275	1 715	42.6
2021	695	2 031	25.5	878	3 021	22.5	341	566	37.6	1 211	1 517	44.4	1 744	2 095	45.4	1 259	1 700	42.5
2020	762	2 173	26.0	865	3 000	22.4	373	639	36.8	1 188	1 509	44.0	1 751	2 097	45.5	1 158	1 604	41.9
2019	701	2 094	25.1	848	2 870	22.5	332	616	35.0	1 155	1 605	41.9	1 670	1 993	45.6	1 158	1 605	41.9
2018	445	1 415	23.9	1 059	2 815	27.3	205	624	39.6	1 123	1 569	41.7	1 746	2 555	40.6	1 198	1 715	41.1
2017	484	1 466	24.8	1 102	3 679	23.1	286	520	35.5	1 120	1 459	43.4	1 060	2 598	44.2	1 191	1 687	41.6
2016	414	1 326	23.8	1 096	3 694	22.9	276	506	35.3	1 088	1 424	43.3	2 046	2 579	44.2	1 144	1 647	41.0
2015	565	1 775	24.1	1 254	4 491	21.8	315	531	37.2	2 265	3 178	41.6	2 030	2 482	45.00	1 339	2 011	40.0

Source: Ministry of Education, Youth and Sports – Statistical Yearbook (Employees and wage resources).

Table 31: Academics by academic rank in the natural sciences (FTE)

	Lecturers			Assistants			Assistant professors			Associate professors			Full professors		
	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)
2022	75	109	40.9%	37	79	32.2%	413	862	32.4%	149	622	19.3%	52	376	12.2%
2021	70	95	42.2%	29	69	29.5%	397	886	30.9%	150	611	19.8%	49	371	11.6%
2020	69	87	44.3%	27	54	33.8%	386	870	30.8%	144	601	19.4%	45	366	11.0%
2019	70	93	43.1%	23	41	35.7%	386	863	30.9%	138	646	17.7%	45	396	10.2%
2018	70	90	43.8%	19	28	41.1%	364	828	30.6%	134	629	17.5%	44	395	10.0%
2017	69	88	43.9%	18	30	38.0%	365	835	30.4%	125	616	16.9%	46	383	10.7%

Source: Ministry of Education, Youth and Sports – Statistical Yearbook (Employees and wage resources).

Table 32: Academics by academic rank in the technical sciences (FTE)

	Lecturers			Assistants			Assistant professors			Associate professors			Full professors		
	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)
2022	31	57	35.4%	85	210	28.8%	571	1 506	27.5%	155	801	16.2%	51	438	10.4%
2021	29	53	35.7%	81	208	28.2%	561	1 516	27.0%	154	805	16.1%	52	439	10.6%
2020	22	40	34.9%	90	187	32.4%	544	1 505	26.6%	153	789	16.2%	49	441	10.0%
2019	19	39	32.7%	88	173	33.8%	543	1 464	27.1%	152	788	16.2%	47	436	9.7%
2018	6	19	25.2%	89	160	35.7%	577	1 533	27.4%	148	784	15.9%	46	430	9.6%
2017	4	18	17.7%	92	161	36.3%	567	1 507	27.3%	143	781	15.5%	44	430	9.3%

Source: Ministry of Education, Youth and Sports – Statistical Yearbook (Employees and wage resources).

Table 33: Academics by academic rank in the medical sciences (FTE)

	Lecturers			Assistants			Assistant professors			Associate professors			Full professors		
	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)
2022	110	69	61.4%	268	207	56.4%	653	594	52.4%	157	326	32.5%	73	350	17.3%
2021	101	72	58.3%	190	140	57.7%	698	648	51.9%	152	313	32.7%	69	344	16.7%
2020	88	63	58.1%	166	133	55.5%	693	656	51.4%	151	315	32.4%	62	323	16.2%
2019	82	59	58.3%	161	111	59.2%	670	658	50.5%	149	316	32.0%	62	320	16.3%
2018	76	59	56.3%	152	92	62.3%	655	649	50.2%	146	314	31.7%	63	315	16.7%
2017	78	68	53.6%	138	92	60.1%	655	640	50.6%	145	319	31.3%	64	313	16.9%

Source: Ministry of Education, Youth and Sports – Statistical Yearbook (Employees and wage resources).

Table 34: Academics by academic rank in the agricultural sciences (FTE)

	Lecturers			Assistants			Assistant professors			Associate professors			Full professors		
	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)
2022	6	2	73.1%	52	47	52.4%	214	256	45.5%	57	174	24.8%	23	100	18.7%
2021	5	2	67.2%	54	36	59.6%	206	262	44.0%	54	167	24.5%	22	99	18.4%
2020	4	2	69.1%	58	38	60.2%	193	260	42.6%	51	158	24.3%	22	96	18.3%
2019	3	0	90.8%	44	32	57.8%	178	247	41.9%	47	156	23.0%	20	97	16.8%
2018	2	0	100.0%	43	30	59.1%	177	249	41.5%	43	152	22.1%	22	101	17.8%
2017	2	0	100.0%	42	30	58.8%	172	258	40.0%	43	159	21.4%	22	102	17.6%

Source: Ministry of Education, Youth and Sports – Statistical Yearbook (Employees and wage resources).

Table 35: Academics by academic rank in the social sciences (FTE)

	Lecturers			Assistants			Assistant professors			Associate professors			Full professors		
	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)
2022	119	93	56.1%	125	121	50.7%	1 127	1 169	49.1%	332	502	39.8%	66	231	22.1%
2021	108	79	57.8%	119	120	49.7%	1 120	1 182	48.7%	329	492	40.0%	68	222	23.6%
2020	101	76	57.0%	120	111	52.1%	1 107	1 174	48.5%	332	488	40.5%	67	218	23.5%
2019	101	68	59.7%	114	103	52.5%	1 102	1 149	48.9%	322	486	39.8%	69	224	23.4%
2018	90	58	61.0%	96	102	48.5%	1 126	1 147	49.5%	308	485	38.8%	65	218	23.0%
2017	77	50	60.9%	110	119	47.9%	1 171	1 171	50.0%	296	494	37.4%	65	219	23.0%

Source: Ministry of Education, Youth and Sports – Statistical Yearbook (Employees and wage resources).

Table 36: Academics by academic rank in the humanities (FTE)

	Lecturers			Assistants			Assistant professors			Associate professors			Full professors		
	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)
2022	140	65	68.2%	127	122	51.1%	722	824	46.7%	225	472	32.3%	61	232	20.7%
2021	146	64	69.3%	124	117	51.5%	709	828	46.1%	218	462	32.0%	62	228	21.4%
2020	158	71	69.1%	128	105	54.8%	663	828	44.5%	214	453	32.1%	62	223	21.9%
2019	162	68	70.5%	123	106	53.6%	657	830	44.2%	202	444	31.3%	64	219	22.6%
2018	163	65	71.6%	124	108	53.4%	630	834	43.0%	195	429	31.2%	64	227	21.8%
2017	165	59	73.6%	129	105	55.2%	622	821	43.1%	188	432	30.4%	65	229	22.2%

Source: Ministry of Education, Youth and Sports – Statistical Yearbook (Employees and wage resources).

Table 37: Average gross monthly wage (CZK)* of academics

	Lecturers			Assistants			Assistant professors			Associate professors			Full professors		
	Women	**Men**	**GPG (%)**	**Women**	**Men**	**GPG (%)**	**Women**	**Men**	**GPG (%)**	**Women**	**Men**	**GPG (%)**	**Women**	**Men**	**GPG (%)**
2022	41428	46864	11.6	40846	44201	7.6	50173	56195	10.7	68316	77279	11.6	90805	99483	8.7
2021	39 456	44 626	11.6	38 409	41 983	8.5	48 000	53 845	10.9	67 001	75 815	11.6	88 635	97 284	8.9
2020	37 695	42 443	11.2	36 932	40 611	9.1	45 892	52 163	12.2	64 484	73 508	12.8	84 815	92 824	8.6
2019	37 553	43 417	11.5	36 287	40 270	9.9	45 155	50 876	11.2	63 991	72 218	11.4	83 540	91 486	8.7
2018	34 783	38 640	10.0	33 265	36 530	8.9	41 586	47 233	12.0	59 694	67 541	11.6	78 091	84 350	7.4
2017	31 643	35 405	10.6	29 446	32 588	9.6	37 552	42 482	11.6	53 300	60 746	12.3	72 983	77 629	6.0
2016	30 128	34 236	12.0	27 976	30 424	8.0	35 212	39 858	11.7	50 794	56 966	10.8	68 791	72 750	5.4
2015	30 575	33 919	9.9	27 877	29 662	6.0	34 876	39 310	11.3	50 648	56 942	11.1	69 435	73 049	4.9
2014	28 354	33 068	14.3	26 198	27 688	5.4	32 959	36 403	9.5	48 674	54 146	10.1	66 978	70 016	4.3
2013	27 487	30 814	10.8	25 361	27 336	7.2	31 603	35 468	10.9	47 279	52 071	9.2	64 414	67 344	4.4
2012	26 139	29 033	10.0	24 642	25 929	5.0	31 215	34 078	8.4	45 569	49 414	7.8	61 778	65 062	5.0
2011	24 684	27 540	10.4	23 232	25 867	10.2	29 464	32 967	10.6	43 677	47 427	7.9	58 156	62 057	6.3
2010	24 319	27 409	11.3	23 415	24 603	4.8	29 877	31 793	6.0	43 451	46 230	6.0	58 661	60 329	2.8

Source: Ministry of Education, Youth and Sports – Statistical Yearbook (Employees and wage resources).

DECISION-MAKING POSITIONS

Table 38: Proportion of women in (decision-making positions in public research institutions in 2022 (HC)

	Women	Men	Women (%)
Director	1	17	6.8
Deputy director			
Council	151	628	19.4
Supervisory board	90	322	21.8
Total	242	967	20.0

Source: www.radavs.cz

Table 39: Proportion of women in the management and advisory boards of the Czech Academy of Sciences (CAS) in 2022 (HC)

	Women	Men	Women (%)
Chair	1	0	100%
Academic Council	4	13	23.5%
Academic Assembly	50	207	19.5%
Supervisory Board	1	7	12.5%
Research Board	4	25	13.8%
Management of the CAS in total	60	252	19.2%
Other advisory boards (commissions, councils)	84	294	22.2%
Total CAS	144	546	20.9%

Source: www.avcr.cz.

Table 40: Proportion of women in the Czech Rectors' Conference in 2022 (HC)

	Women	Men	Women (%)
Chair	0	1	0.0%
Board	1	5	16.7%
Rectors' Conference of public and state HEIs	4	24	14.3%
Rectors' Conference of private HEIs	6	13	31.6%
Total	11	43	20.4%

Source: crc.muni.cz.

Table 41: Proportion of women in the Council of Czech HEIs in 2022 (HC)

	Women	Men	Women (%)
Chair	0	1	0.0%
Board	15	34	30.6%
Student chamber	10	22	31.3%
Assembly	104	203	33.9%
Total	129	260	33.2%

Source: 2022 annual reports.

Table 42: Proportion of women in the Technological Agency of the Czech Republic in 2022 (HC)

	Women	Men	Women (%)
Chair	0	1	0.0%
Board	1	4	20.0%
Research Board	1	11	8.3%
Controlling Body	3	7	30.0%
Management of TA CR in total	5	24	17.2%
Programme's council, expert commissions	58	158	26.9%
Total	68	205	24.9%

Source: 2022 Technological Agency Annual Report, www.tacr.cz.

Table 43: Proportion of women in the Czech Science Foundation (CSF) in 2022 (HC)

	Women	Men	Women (%)
Chair	1	0	100.0%
Board	2	3	40.0%
Research Board	1	11	8.3%
Supervisory Body	1	8	11.1%
Management of the CSF in total	5	22	18.5%
Evaluation panels	82	328	20.0%
Commission	0	5	0.0%
Total	91	377	19.4%

Source: 2022 Czech Science Foundation Annual Report.

Table 44: Proportion of women in the Learned Society of the Czech Republic in 2022 (HC)

	Women	Men	Women (%)
Chair	0	1	0.0%
Council	2	5	28.6%
Regular members	9	86	9.5%
Foreign members	3	46	6.1%
Emeritus members	1	17	5.6%
Total	15	155	8.8%

Source: www.learned.cz/cz/

Table 45: Science and technology professionals* and their average gross monthly wage (CZK)

	Total			Age: 25–29			Age: 30–34			Age: 35–44			Age: 45–54		
	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)
2022															
2021	43 300	115 100	27.4	40 157	46 724	14.1	48 504	54 841	11.6	55 399	64 367	13.9	56 494	65 744	14.1
2020	41 500	106 700	28.0	37 145	44 162	15.9	46 589	52 834	11.8	52 854	62 926	16.0	53 196	61 346	13.3
2019	39 500	104 200	27.5	35 749	42 912	16.7	44 883	51 828	13.4	49 933	60 483	17.4	49 276	60 238	18.2
2018	36 800	106 300	25.6	43 272	38 945	12.0	41 510	47 956	13.4	45 656	54 842	16.7	45 489	55 019	17.3
2017	34 400	105 300	24.4	31 693	36 432	13.0	38 432	45 207	15.00	42 613	52 566	18.9	42 209	51 134	17.5
2016	30 900	100 000	23.8												
2015	26 900	91 600	22.4	29 768	32 290	7.8	36 885	41 764	11.7	38 453	47 618	19.2	36 689	46 113	20.4
2014	25 400	85 500	21.8												
2013	23 300	79 700	24.5												
2012	21 600	74 700	21.4												

Source: CZSO – Labour Force Survey (LFS).

Table 46: Patents granted – by gender and institution

	Total			Public HEIs			Public research institutions			Enterprises			Natural persons		
	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)
2022	32	348	8.4%	11	77	12.5%	9	22	29.0%	7	144	4.6%	1	47	2.1%
2021	39	409	8.7%	15	112	12.1%	5	19	20.0%	13	200	5.9%	5	49	9.3%
2020	53	486	9.9%	19	130	12.9%	7	40	14.6%	20	234	7.8%	5	47	8.8%
2019	60	459	11.5%	17	114	13.3%	20	43	31.1%	17	216	7.1%	4	56	7.0%
2018	55	463	10.5%	15	123	10.7%	11	29	28.5%	22	217	9.1%	5	60	7.8%
2017	55	549	9.1%	20	150	11.5%	10	42	18.5%	19	254	7.1%	5	71	6.6%
2016	60	606	9.0%	27	187	12.7%	8	48	14.5%	18	277	6.2%	6	67	8.0%
2015	54	546	9.1%	25	179	12.2%	10	59	14.6%	16	228	6.7%	2	61	3.8%
2014	50	436	10.2%	20	140	12.7%	7	48	12.5%	16	185	7.9%	6	50	10.8%
2013	44	377	10.5%	20	138	12.5%	10	31	23.2%	12	144	7.8%	2	57	3.6%
2012	44	378	10.4%	16	123	11.3%	8	38	18.2%	18	147	11.0%	1	57	1.7%
2011	38	306	11.1%	13	90	12.4%	7	28	20.4%	15	104	12.7%	2	63	3.5%
2010	22	278	7.4%	3	62	4.3%	9	29	23.5%	5	112	4.6%	4	53	6.3%
2009	32	348	8.5%	9	48	16.0%	8	33	20.1%	11	190	5.5%	2	66	3.1%
2008	19	232	7.5%	2	17	11.2%	6	20	21.8%	9	139	6.0%	2	43	4.4%
2007	15	226	6.1%	3	20	11.8%	1	10	11.2%	8	120	6.2%	2	65	3.0%
2006	19	247	7.0%	2	14	11.0%	5	8	37.9%	9	141	5.9%	3	78	3.9%
2005	18	327	5.3%	1	17	6.9%	2	15	13.3%	9	180	4.6%	4	104	4.1%

Source: CZSO – Labour Force Survey (LFS).

The Position of Women in Czech Science
2022 Monitoring Report

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