The Position of Women in Czech Science

Monitoring report

2021

Centre for Gender & Science

Institute
of Sociology
Czech Academy
of Sciences

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MAIN FINDINGS

Employees in research and development

- The number of research and development employees is increasing overall, including in the individual professions of researchers, technicians and other R&D occupations.
    - In 2021, 121 640 employees (i.e. 84 671 full-time equivalents – FTE) worked in R&D in total, of whom 37 347 were women.
- Men are more numerous in all research and development professions, and their share has a growing tendency.
- Among all R&D employees, the representation of women was 30.7% in 2021 (28.5% in FTEs):
    - Among researchers, the proportion was 27.1% (24.0% in FTEs).
    - Among technicians, the proportion was 29.7% (28.2% in FTEs).
    - Among other professions, women represented 48.2% (50.0% in FTEs).

Researchers

- Researchers represented 57.2% of all R&D employees in 2021. In 2021, the total number of researchers was 69 536 (i.e. 48 080 in FTEs).
- The representation of women among researchers was approximately a quarter in 2021 — 27.1% (i.e. 24.0% in FTEs).
- The representation of women among researchers had a decreasing tendency from 2005–2018 (the minimum was reached in 2018 — 26.6%).

The ideal typical career path in research

- In 2021:
    - 99 490 persons studied at the master's level. Of these, 60 524 (i.e. 60.8%) were women and 38 966 (i.e. 39.2%) were men.
    - 20 826 persons studied at the doctoral level. Of these, 9 278 (i.e. 44.6%) were women and 11 548 (i.e. 55.4%) were men.
- While the representation of women among those studying in master's programmes has long exceeded the representation of men, the representation of women among students of doctoral programs likewise shows an upward trend. Nevertheless, men generally predominate among students and graduates of doctoral programs and, above all, have significantly predominated among researchers over a long period of time.
- Looking at the situation in individual fields, it is evident that:
    - In natural, agricultural, medical and social sciences and the humanities, women unequivocally predominate at the master's level. At the doctoral level, the proportion of women to men is relatively equal (i.e. men slightly predominate in natural and agricultural sciences, while women predominate in medical and social sciences and the humanities). However, in all mentioned fields, the proportion of women among doctoral graduates is significantly higher than among researchers.
    - On the notional path from study to the scientific profession, we can find the greatest loss of female representation in the natural sciences at the transition between graduating from doctoral studies (25 percentage points) and research itself, while in agricultural, medical and social sciences and the humanities, this happens before women enter doctoral studies. The losses in female representation here are between 15–20 percentage points.
    - Technical sciences have the lowest representation of women among all the aforementioned scientific fields, representation which further decreases with every academic degree. Similarly to the natural sciences, the greatest loss in the proportion of women is at the transition between completing a PhD and doing research itself.

Researchers by field

- Traditionally, technical sciences (36.2% of researchers in the Czech Republic) and natural sciences (34.1% of researchers in the Czech Republic) are the most important in terms of the number of researchers.
    - The representation of women in technical sciences was only 14.4% in 2021 (12.4% in FTEs). The minimum during the monitored period 2005–2021 was reached in 2012 — 12.7%.
    - In the natural sciences, the representation of women has been around one quarter for a long time — 24.2% in 2021 (23.7% in FTEs).
- The most equal representation of women has long been in the medical sciences — in 2021, women represented 48.0% of researchers (50.7% in FTEs).
- In the agricultural sciences, women represented 47.6% (49.8% per FTEs) of researchers in 2021, 44.0% (43.1% per FTEs) in the social sciences and 43.0% (40.7% per FTEs) in the humanities.
- In the case of agricultural, medical and, to a lesser extent, social sciences and the humanities, there has been an increase in the proportion of women researchers over the last 15 years.

Researchers by sectors of research work

- The largest employers of researchers in the Czech Republic are the business and higher education sectors. In 2021, they employed more than 80% of all researchers (43.5% in the business sector and 40.1% in the higher education sector). In the higher education sector, women represented 35.6% of researchers and in the business sector only 14.1%.
    - The lowest percentage of women among business sector employers worked in private enterprises under foreign control (only 12.4%).
- In public and state universities, 34.4% of researchers were women.
- Overall, 40.7% of female researchers worked in the government sector, with the Academy of Sciences having the lowest share in terms of employers (36.3%). The representation of female researchers in 2021 was the highest in the non-profit sector (45.9%). However, as an employer it is essentially marginal, employing only 0.4% of researchers in the Czech Republic.

Academic employees

- In 2021, there were 18 724 full-time equivalent (FTEs) academic employees, of which 36.2% were women.
- Women predominate in the lowest academic FTE positions — lecturer (55.4%) and assistant (47.3%).
- However, the proportion of women among academics with the highest qualification levels is low:
    - 15.7% of professors were women;
    - 26.8% of associate professors were women.
- The highest representation of women among academics in 2021 was found in the social sciences (45.4%), medical sciences (44.4%) and humanities (42.5%).
- The lowest representation of women in academic positions in 2021 was in the natural (25.5%) and technical sciences (22.5%).
- The gender pay gap increased between 2011 and 2021 for all qualification levels except assistants. For the most senior academic positions, this was specifically:
    - 3.7 percentage points against women as associate professors and
    - 2.6 percentage points against women as professors.
- According to a forecast based on development occurring between 2010 and 2021, parity for professors will not be reached until 2329.
- In the case of associate professors, parity will be reached in 2170 based on the forecast.

Decision-making positions

- Decision-making in science has long been dominated by men. In 2021, the total representation of women in management positions within research, university and other R&D institutions reached 13.5% (the Academy of Sciences, grant agencies, the Council of Universities, etc.).
- In the decision-making, strategic and control bodies of these institutions, the representation of women was 22.6%. In advisory bodies, their share reached 25.7%.
- Between 2011 and 2021, the representation of women was:
    - In management, around 10–11%.
    - In decision-making, strategic and control bodies we can see a downward trend — a decrease of 3.8 percentage points.
    - In advisory bodies, we can see an upward trend until 2015 (when women represented 30.8%) — then a decline of 7.5 percentage points until 2021.

Specialists in science and technology

- In 2021, 148.3 thousand specialists were employed in science and technology:
    - Men represented 72% of specialists;
    - Women represented 28% of specialists.
- Among specialists, we can observe differences in average gross monthly wages in 2021, both by gender and by age:
    - the largest gender gap was found in the 35–44 age category — 14.1%;
    - the lowest gender gap was in the 30–34 age category — 11.6%.

Patent application

- The share of female patent holders is low in the long term, but it shows a slightly positive trend:
    - In 2005, 5.3% of patents were granted to women;
    - In 2021, 8.7% of patents were granted to women.
- Between 2005 and 2021, women were granted the most patents in 2019 — 11.5%.
- Within the research sector, the following changes in the number of patents granted to women can be observed over the period under review:
    - Public universities:
        - In 2005, 6.9% of patents were granted to women;
        - In 2021, 12.1% of patents were granted to women.
    - Public research institutions:
        - In 2005, women were granted 13.3% of patents;
        - In 2021, women were granted 20.0% of patents.
    - Private sector:
        - In 2005, 4.6% of patents were granted to women;
        - In 2021, women were granted 5.9% of patents.

International comparison

- Representation of female researchers in 2020 among EU Member States:
    - The countries closet to parity are the Baltic Republics — Latvia 50.0%, Lithuania 49.1% and Estonia 42.5%.
    - On the contrary, the largest disproportions in the representation of women and men can be found in countries such as Luxembourg 27.4%, the Czech Republic 27.6% or the Netherlands 27.9%.
- Over the course of 10 years, the situation among individual countries has not changed significantly — the Czech Republic worsened by 0.5 percentage points between 2010 and 2020.

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

The data used in this publication are mainly based on the interim statistical reports of the Ministry of Education, Youth and Sports (in subsequent sections of the paper, it's referred to as MEYS) and data provided by the Czech Statistical Office (hereinafter referred to as the Czech Statistical Office), as well as on the annual reports of public research institutions and universities.

The aim of the present publication is to analyse the state of women's representation in science and research from the perspective of selected available indicators, both in their structural aspect and in terms of long-term temporal development. Due to frequently changing data collection methodologies or irregular collection of some indicators, only those indicators that are either comparable from a developmental perspective or that allow a relevant, albeit time-limited, perspective on the issue are used in the publication. In the second case, we point out such facts in the text of the publication itself.

For the purposes of the analyses published in this report, the key indicators primarily utilise the simple shares of women in the total sum of persons (HC) classified in the relevant group of individuals (or in the total sum of registered full-time equivalents, FTE). We are aware that in the case of such a „rough" indicator, subtle differences in the age structure between the male and female parts of the Czech population may be lost. However, within the economically active population, these differences are relatively small and therefore have only a minor effect on the indicator. For more analytically experienced readers, however, we still refer to selected results presented in the chapter on academics in universities.

In relation to the indicators used in this publication, we would also like to point out the following:

- Due to a change in data collection methodology (CSO), time series are available for developmental comparison of selected indicators primarily from 2005, although the oldest data are available from 2000, and some of the previous monitoring reports worked with them.
- The time series on students published by the Ministry of Education, Youth and Sports in the Statistical Yearbooks of Education are re-generated every year for their entire data series since 2001. Universities have the option of retrospectively adjusting the data on their numbers of students and graduates, which they do. The data generated in this year may therefore differ from data published in previous years and therefore in previous monitoring reports.

For the sake of clarity and to maintain comparability with the source, this publication adopts the terminology used in the field of statistics (data from the Czech Statistical Office and the Ministry of Education, Youth and Sports).

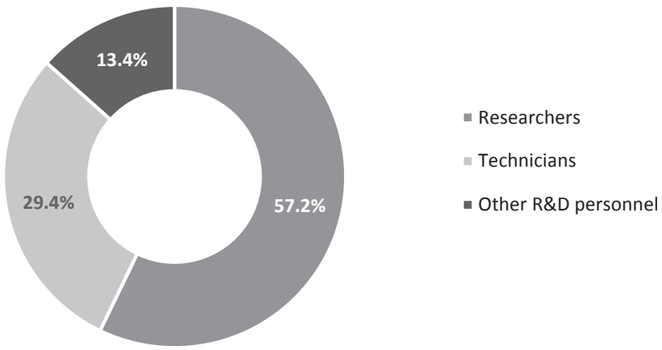
Overview of abbreviations used

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

According to the Czech Statistical Office (CZSO), a total of 121 640 people worked in research and development in 2021. The majority (57.2%) were researchers, a third (29.4%) were technicians and the remaining 13.4% included other workers (see Figure 1).

Figure 1: Proportion (%) of employees in R&D in 2021, by discipline (HC)1



Source: CZSO, Research and Development Indicators 2005–2021.

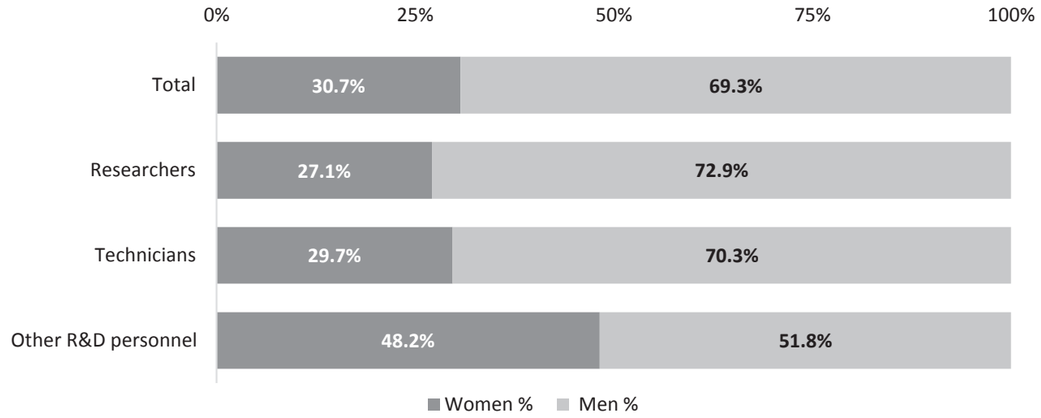
The total number of employees in R&D almost doubled between 2005 and 2021 (there were 65 379 employees in 2005). A similar increase also occurred within the individual employee groups (research, technicians and other), where the number of employees also doubled during the period.

However, the proportion of women has not changed much (only in the order of tenths per year), and they are still under-represented compared to men in all areas (see Figure 2). Between 2005–2021, the representation of women in R&D has gradually decreased. From a baseline of 35.0% in 2005, their representation fell to the mentioned 30.7% in 2021, while men represented 69.3% of employees in 2021.

Relative parity can be observed in the other workers category, where women represented 48.2% of employees in 2021 and men 51.8%. The lowest representation of women (27.1%) was in the category of researchers (this is the largest category with 69 536 employees in 2021). Among technicians, women represented 29.7% of employees in 2021 (see Figure 2).

1 For data see Table 1

Figure 2: Proportion (%) of employees in R&D in 2021, by sex and discipline (HC)2



Source: CZSO, Research and Development Indicators 2005–2021.

2 For data see Table 1

Researchers

The representation of women among researchers ranged from 27–29% between 2005 and 2021 (see Figure 3), and we can see that this was not a linear trend, but rather a kind of oscillation around these values. On the timeline (see Figure 3, black curve), we can see that deviations of a tenth of a percent are common over the years, but nowhere is there a significant and/or sustained improvement.

Since 2005, the total number of people working as researchers has increased by 31 994 to 69 536 (i.e. 48 080 FTE). While the number of women has increased over the same period from 10 827 in 2005 to 18 845 in 2021 (i.e. 11 524 in FTEs), the number of men has increased from 26 716 in 2005 to 50 691 in 2021 (i.e. 36 556 in FTEs)[3] (see Figure 3).

Figure 3: Compound annual growth rate (%) in the number of researchers, by sex, 2005–2021 (HC)[4]

Source: CZSO, Research and Development Indicators.

3 For data see Table 2
4 For data see Table 1

THE IDEAL TYPICAL CAREER PATH IN RESEARCH

University studies

In this chapter, we will focus on gender aspects of master's and doctoral education in the Czech Republic, their current status and their long-term development. The data source is statistics from the Ministry of Education, Youth and Sports (MEYS), which publishes annual statistics on indicators of public and private universities based on the ISCED-F[5] classification of fields of study. For the purpose of the analysis, students and graduates of all nationalities, irrespective of university type (public, private) or type of study (full-time, remote, combined), were considered.

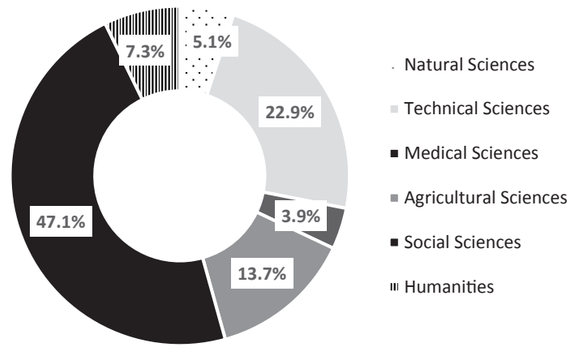
In 2021, there were 99 490 students studying for a master's degree in the Czech Republic, of which 60 524 were female (i.e. 60.8%) and 38 966 were male (i.e. 39.2%). From 2005 to 2010, the number of students slightly increased (with a peak of 124 105 students in 2010). Since 2011, we can observe a decreasing trend in the number of Master's students. The proportion of women among Master's students is around 60% and has long outnumbered men, with no significant long-term change.

There is also a long-term predominance of women among graduates of master's degree studies. Of the 25 387 master's graduates in 2021, 15 229 (i.e. 60.0%) were women and 10 158 (i.e. 40.0%) were men. Since 2005, there has been an increase of 5 percentage points in female graduates (from 55.1% in 2005 to 60.0% in 2021), while there has been a decrease of 5 percentage points in male graduates (from 44.9% in 2005 to 40.0% in 2021).[6]

In 2021, 20 826 persons were enrolled in doctoral studies, of whom 9 278 were women (44.6%) and 11 548 were men (i.e. 55.4%). The number of students in doctoral programmes increased between 2005 and 2011. The higher number of women contributed significantly to this increase. While in 2005 the representation of women was 38.5%, in 2011 their share was already 43.3% (i.e. an increase of 5 percentage points). After 2011, this increase stopped and the proportion of women students stabilised at 44–45%.

As with students, there is a higher proportion of men than women among doctoral graduates. In 2021, 894 women (i.e. 43.8%) and 1 145 men (i.e. 56.2%) received a doctorate. The share of female graduates increased by approximately 9 percentage points between 2005 and 2021 (from 35.0% in 2005 to 43.8% in 2021), while the proportion of men decreased from 65.0% in 2005 to 56.2% in 2021.[7]

Figure 4: Proportion of master's graduates, by field, 2021



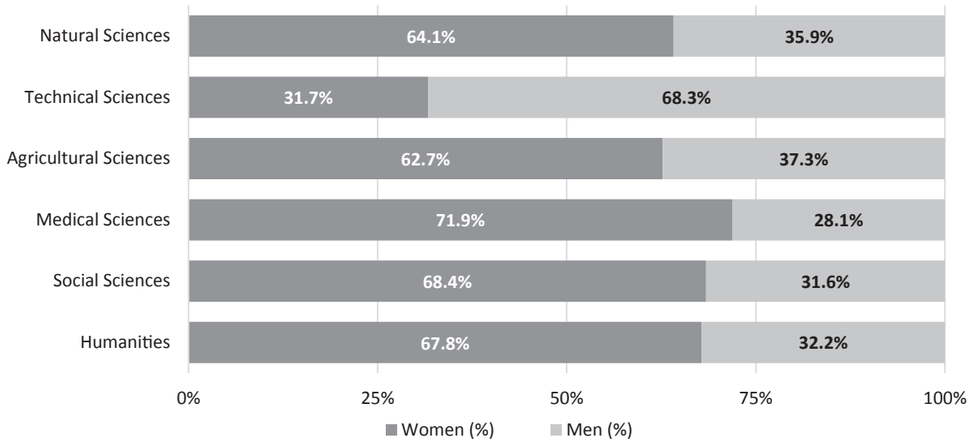
Source: Ministry of Education and Science – Statistics on performance indicators of public and private universities in the Czech Republic.

In terms of fields of study, the highest proportion of graduates of master's programmes is in the social sciences (47.1%[8]). This is followed by technical sciences (22.9%[9]) and medical sciences graduates (13.7%[10]). The agricultural sciences account for the lowest proportion of graduates (3.9%[11]) in 2021 (see Figure 4).

If we look at the relevant indicators within individual groups of study fields, we can find significant differences in terms of the representation of women among graduates of master's studies (see Chart 5). Natural, agriculture, medical and social sciences and the humanities have an above-parity representation of women. In contrast, the representation of women in technical sciences is well below 50% (31.7% in 2021) (see Figure 5).

5 MEYS: Classification of fields of education (CZ-ISCED-F 2013)
6 For data see Table 3
7 For data see Table 3
8 For data see Table 8
9 For data see Table 5
10 For data see Table 7
11 For data see Table 6

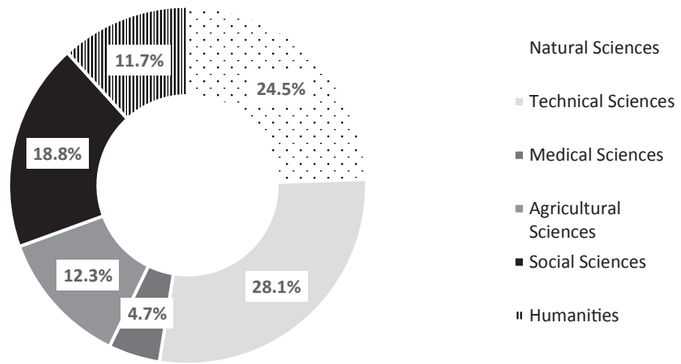
Figure 5: Proportion (%) of master's graduates, by sex and by field, 2021[12]



Source: Ministry of Education and Science — Statistics on performance indicators of public and private universities in the Czech Republic.

In the case of doctoral studies, the highest share of graduates is in the technical (28.1% in 2021) and natural sciences (24.5% in 2021). This is followed by the social sciences (18.8% in 2021) and humanities (11.7% in 2021). The smallest proportion of doctoral graduates was in agricultural sciences (4.7% in 2021) (see Figure 6).

Figure 6: Proportion of doctoral graduates, by field, 2021[13]

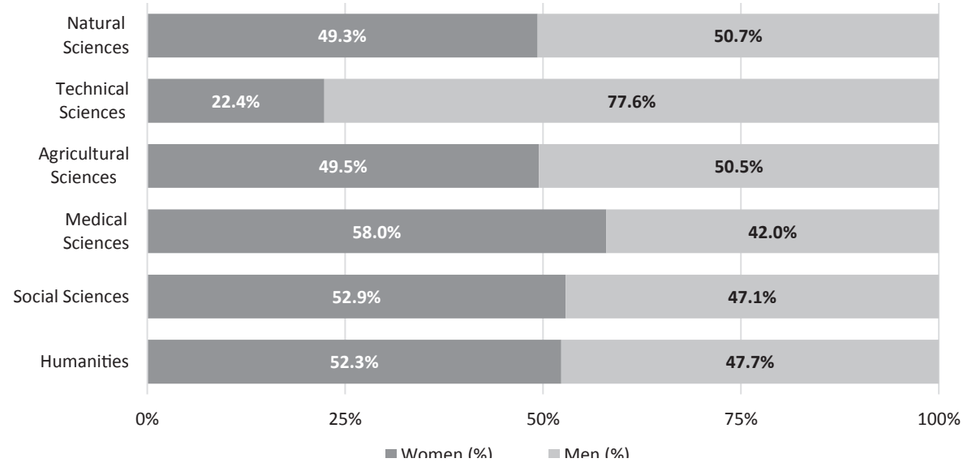


Source: Ministry of Education and Science – Statistics on performance indicators of public and private universities in the Czech Republic.

With the exception of the technical and medical sciences, the representation of doctoral graduates by sex is relatively balanced (see Figure 7). In the case of the technical sciences, the representation of women remains well below 50% (in 2021 they represented 22.4% of graduates). In contrast, in the medical sciences, the representation of female graduates was 58.0% in 2021, while that of male graduates was 42.0%.

12 For data see Tables 4–9
13 For data see Tables 4–9

Figure 7: Proportion of doctoral graduates, by sex and by field, 2021[14]



Source: Ministry of Education and Science – Statistics on performance indicators of public and private universities in the Czech Republic.

From study to research

A typical academic career represents a cross-section of all the stages that an individual passes through on his or her academic journey, from entry to master's degree to the terminal position of researcher. Detailed series of analyses are presented in the sequence of Figures 8–14. In the following text, results are available for academic and career paths for all disciplines and fields of science, both overall and separately, taking into account the time development of the indicators from 2005–2021.

The basic form of a typical trajectory is shown in Figure 8. As we can observe, women predominate among those studying at the bachelor's and master's levels. The situation is similar among bachelor and master graduates. On the other hand, men predominate among doctoral students and graduates and among researchers.

The situation of female doctoral students has slightly improved during the period 2005–2021, but the rate of growth in their representation remains very slow. Between 2005 and 2021, the proportion of women studying doctoral programmes increased by 6.1 percentage points. The representation of female doctoral graduates has changed significantly over the period under review, increasing by 8.8 percentage points. The representation of women is thus coming closer and closer to parity over time, with women accounting for just under 45% in both of the above categories.

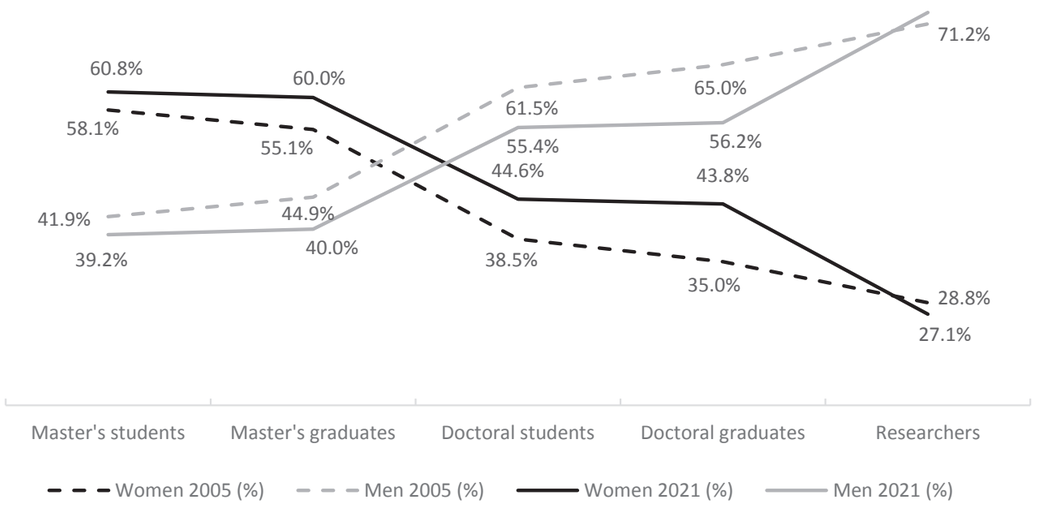
However, the data show that a relatively large proportion of female doctoral graduates are choosing not to pursue a career as a researcher — in 2021 the difference between female doctoral graduates and female researchers was 16.7 percentage points, while in 2005 this difference was 6.2 percentage points (see Figure 8). Thus, the representation of female researchers remains less than a third of the total category (see Figure 8).

Within master's programmes, there was an increase of 2.7 percentage points in the number of female students between 2005 and 2021, and a 4.8 percentage points increase in the number of female graduates. Women are represented by approximately 60% in each of the above two categories (see Figure 8).

Thus, claims referring to ideas of natural development—that over time the representation of women in science will gradually level off relative to men (primarily through their increasing share in higher education) —have not been proven over the long term.

14 For data see Tables 4–9

Figure 8: Proportion (%) of men and women in a typical academic career, students and academic staff, 2005 vs. 2021, irrespective of discipline[15]



Source: Ministry of Education and Science — Statistics on performance indicators of public and private universities in the Czech Republic; CZSO — Research and Development Indicators.

The following graphs (9–14) show this situation in more detail by discipline and scientific field between 2005–2021.

In Figure 9 we can see the educational and career paths of people in the natural sciences. It shows that the gap in representation of women and men from the beginning of the academic career to the end is widening. At the beginning, this gap is to the disadvantage of men, and at the end—for researchers—it is to the disadvantage of women. At the doctoral level, on the other hand, gender representation in this field is currently equal (see Figure 9).

Between the monitored years 2005 and 2021, the highest increase in the natural sciences was among female graduates of master's programmes. There was a 10 percentage points increase in their share between the reference years (from 54.2% in 2005 to 64.1% in 2021). Furthermore, there was another increase among female doctoral graduates — by 8.3 percentage points between the monitored years (from 41.0% in 2005 to 49.3% in 2021) (see Figure 9). The share of those studying in master's programs also increased slightly (by 6.2 percentage points — from 55.0% in 2005 to 61.2% in 2021), as well as those studying in doctoral programs (a 4.7 percentage points increase).

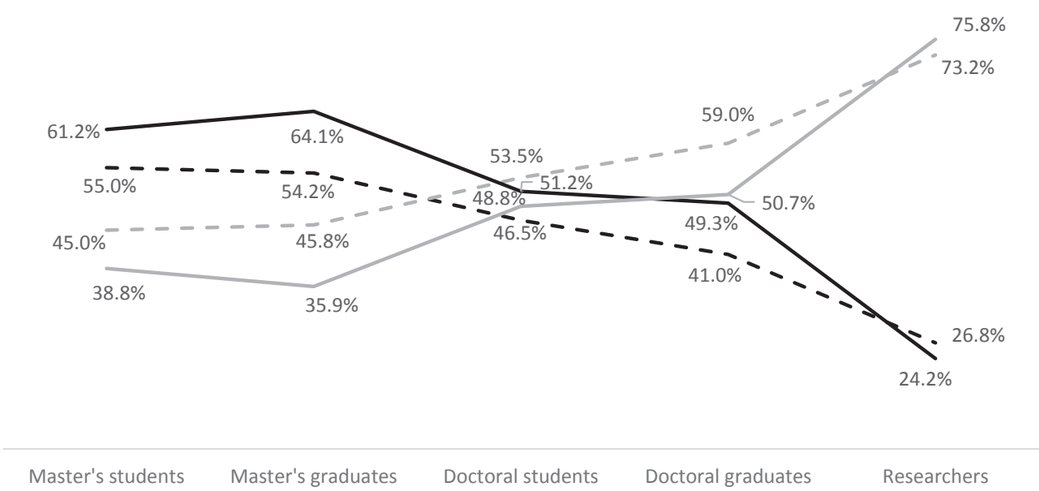
On the contrary, a small decrease of 2.5 percentage points occurred between 2005 and 2021 in the category of female researchers, going from 26.8% in 2005 to 24.2% in 2021.

We can observe a large loss in the representation of women between individual stages of the academic career, a loss which increased between 2005 and 2021 among graduates of master's programs and those studying doctoral programs. While in 2005 the decline in female representation between these two categories was 7.6 percentage points, in 2021 this decline had already reached 12.9 percentage points (see Chart 9).

It is characteristic for the natural sciences that a relatively large proportion of women who successfully complete their PhDs decide not to strengthen older generations of colleagues in research careers — the gap between female PhD graduates and female researchers was 25.1 percentage points in 2021 (up from 14.3 percentage points in 2005). This was the largest loss in women's pathways to research in this field and an indication of the failure to retain qualified women (see Figure 9)

15 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. 2021[16]



Source: Ministry of Education and Science — Statistics on performance indicators of public and private universities in the Czech Republic; CZSO — Research and Development Indicators.

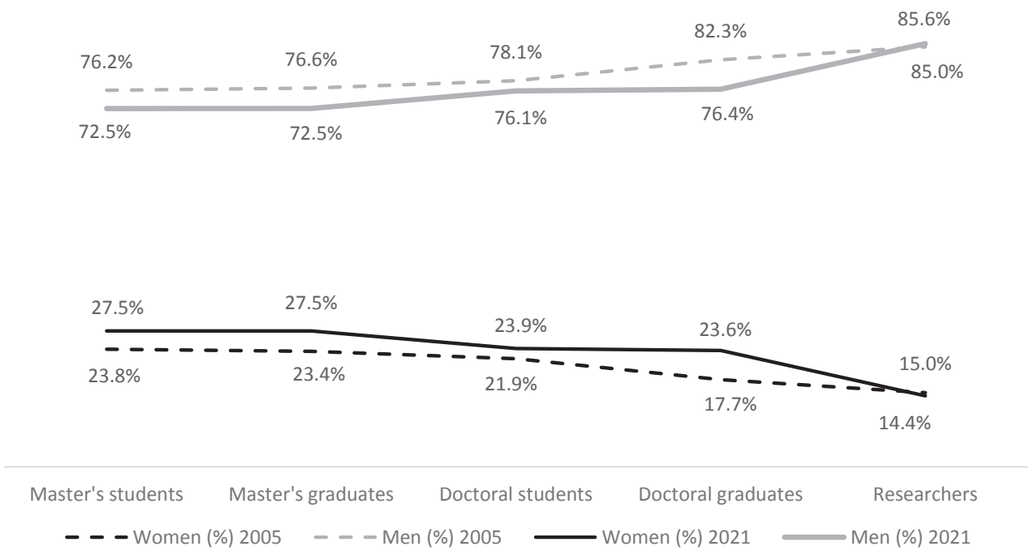
From the earliest stages, the technical sciences are the least well-represented in terms of women's ideal pathway to a scientific career. These fields have long suffered from inequality in the representation of women, whose numbers decline in each subsequent phase from studies to the scientific profession. However, the good news is that in all categories, with the exception of female researchers, there was an increase in female representation between 2005 and 2021. However, within all scientific fields, it is the technical sciences where the growth in the share of women is the slowest.

The highest increase—of 5.9 percentage points—can be observed among female graduates of doctoral programmes (see Chart 10). The representation of female master's degree students increased by 3.7 percentage points between the monitored years, while in the case of doctoral degrees there was an increase of 2.1 percentage points. A 4.1 percentage points increase in the share of women was achieved among graduates of master's degree programmes.

Similarly to the natural sciences, there is also a decline in the number of women pursuing doctoral studies in the technical sciences — women's representation fell by 3.5 percentage points in 2021 (in 2005 the difference was 1.5 percentage points). Losses can also be observed between female doctoral graduates and female researchers; where while in 2005 the decline was 2.6 percentage points, in 2021 it was already almost four times higher — 9.2 percentage points (see Figure 10).

16 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. 2021[17]



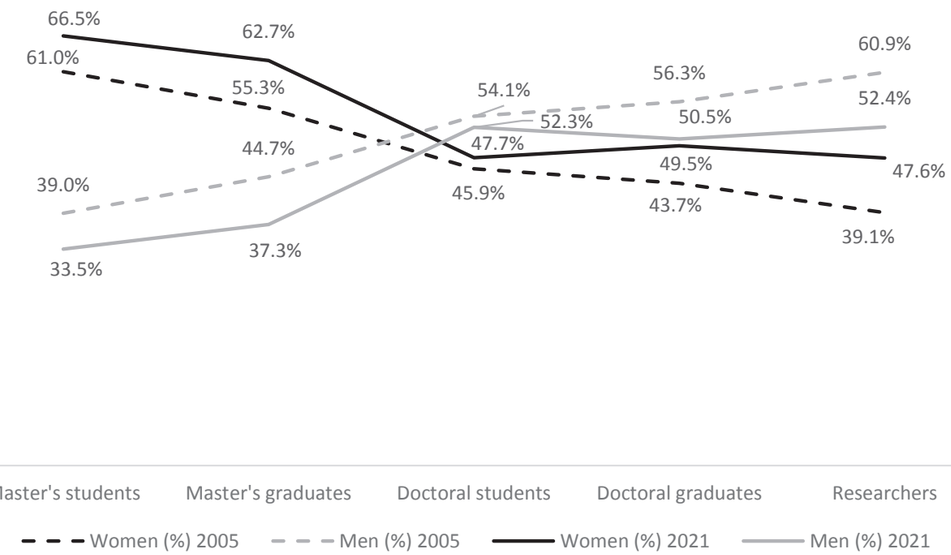
Source: Ministry of Education and Science – Statistics on performance indicators of public and private universities in the Czech Republic; CZSO – Research and Development Indicators.

Within agricultural sciences, there was an 8.5 percentage points increase in female researchers between 2005 and 2021 (from 39.1% women in 2005 to 47.6% in 2021). A non-negligible increase was also recorded among women studying in master's programs (up 5.5 percentage points) and among female graduates of doctoral programs (an increase of 5.8 percentage points) (see Chart 11).

Just as in the case of the natural and technical sciences, there are also losses of female students between individual study levels within the agricultural sciences. The highest loss, of 15 percentage points, was recorded in 2021 among female master's degree graduates and doctoral students (in 2005 the loss was 9.4 percentage points). On the contrary, the situation among female doctoral graduates and researchers improved between the monitored years. While in 2005 the difference here was 4.6 percentage points, in 2021 the difference was 1.9 percentage points (see Figure 11).

17 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. 2021[18]



Source: Ministry of Education and Science – Statistics on performance indicators of public and private universities in the Czech Republic; CZSO – Research and Development Indicators.

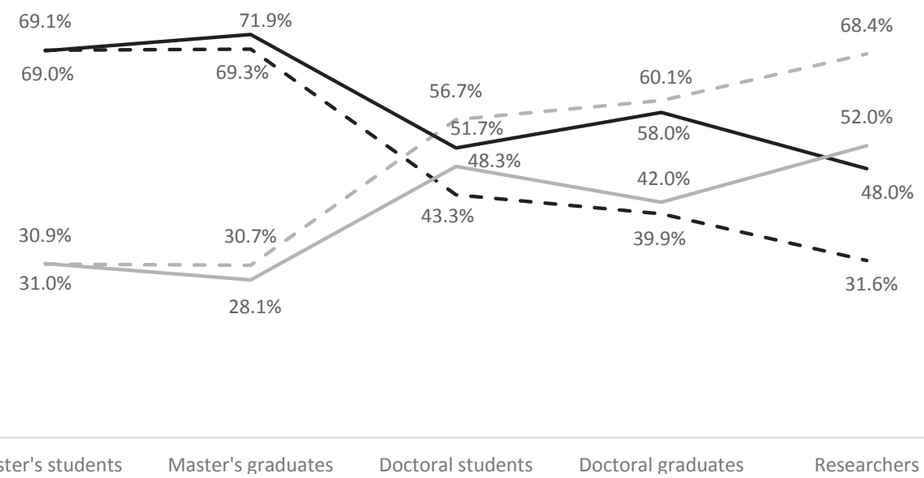
In the category of medical and pharmaceutical sciences, women represented a significant majority in both of the examined master's degree categories — women represented 69.0% of students and accounted for 71.9% of graduates in 2021. Compared to 2005, there was a slight increase of 2.6 percentage points for female graduates (see Figure 12). There was parity between doctoral students (where women accounted for 51.7%) and in the category of researchers (where women accounted for 48.0%). In the category of those studying doctoral programs, women slightly dominated, making up 58.0% of graduates.

The most significant increase in the share of women compared to 2005 was within these last three categories. In the case of those studying doctoral programmes, there was an increase of 8.4 percentage points; for female graduates of doctoral programmes, there was an 18.1 percentage points increase; and in the category of female researchers, there was an increase of 16.4 percentage points (see Figure 12).

However, at the same time, there was a significant outflow of women among female PhD graduates and researchers in these sciences — a decline of 10 percentage points in 2021. But an even greater loss—20.2 percentage points in 2021—was recorded at the transition between a completed master's degree and PhD enrolment (see Figure 12). Compared to 2005, however, we can talk about a certain progress. In that year, there was a significant 26 percentage points outflow of women between graduates of master's programmes and those studying doctoral programmes (within all the examined fields, this is the highest drop among individual degrees of an ideally typical path). Between female graduates of doctoral programs and female researchers, the loss was 8.3 percentage points (see Figure 12).

18 For data see Table 6

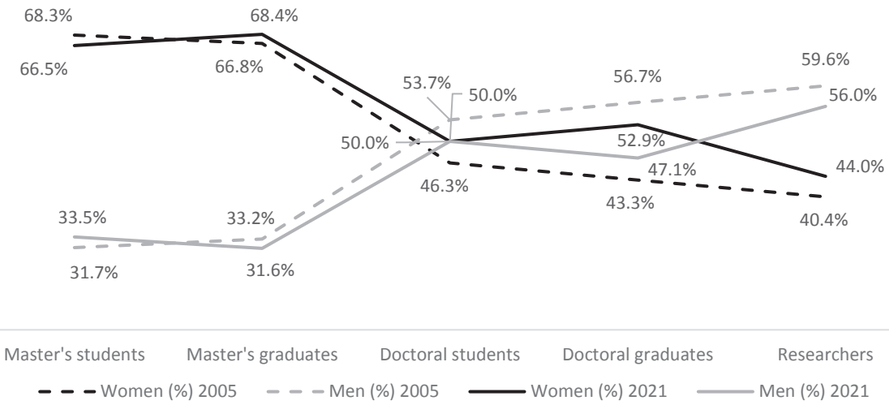
Figure 12: The medical sciences — the proportion (%) of men and women in a typical academic career, students and academic staff, 2005 vs. 2021[19]



Source: Ministry of Education and Science – Statistics on performance indicators of public and private universities in the Czech Republic; CZSO – Research and Development Indicators.

The social sciences also experienced changes between 2005 and 2021. Within the master's degree, the representation of female students slightly decreased, by 1.8 percentage points. Despite this slight decrease, women make up more than three-fifths of the enrolments in these programmes. Parity of representation is found at the doctoral level, with both female students (50.0%) and graduates (52.9%). This is partly because after graduating with a master's degree, a significant number of women decide not to continue with doctoral studies. Here, this drop was 18.4 percentage points in 2021 (compared to 20.5 percentage points in 2005). A significant loss of women can also be found at the transition between doctoral graduates and researchers. In 2021, the difference in the representation of women in these groups reached 8.9 percentage points (compared to 2.9 percentage points in 2005) (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. 2021[20]

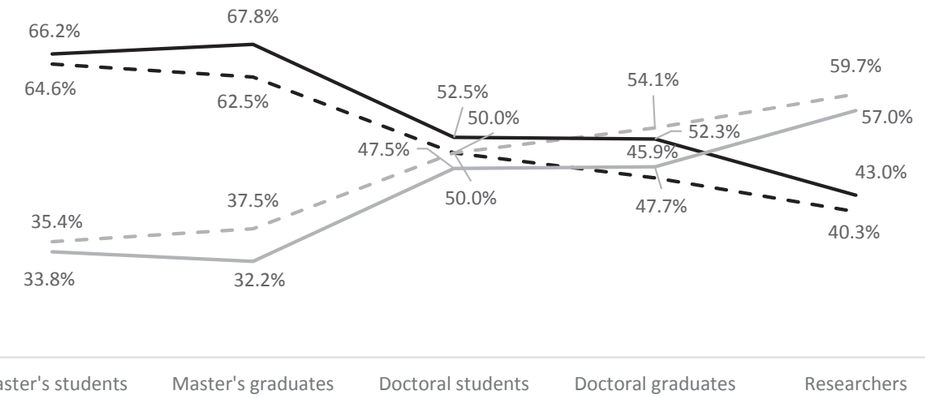


Source: Ministry of Education and Science – Statistics on performance indicators of public and private universities in the Czech Republic; CZSO – Research and Development Indicators.

19 For data see Table 7
20 For data see Table 8

Trends similar to those we have described in the social sciences can also be observed in the humanities. Within these scientific disciplines, women are also represented more than men at the master's degree level — by more than three-fifths (see Figure 14). There is parity representation at the doctoral degree level, both among students (52.5%) and graduates (52.3%). Within the humanities, too, in 2021 the largest outflow of women in the ideal typical pathway was at the stage after the master's degree and before the start of the doctoral degree — a drop of 15.3 percentage points. The good news is the slight increase that was recorded in the category of researchers — the representation of women increased here by 2.7 percentage points between 2005 and 2021. However, there has been a significant loss of women at the transition between the doctoral degree and the research career; in 2021 this loss was 9.3 percentage points, almost twice as much as in 2005, when the loss was 5.5 percentage points. An even higher decrease—15.3 percentage points—was recorded in 2021 among female master's and PhD graduates (in 2005, this loss was 12.5 percentage points) (see Figure 14).

Figure 14: The humanities — the proportion (%) of men and women in a typical academic career, students and academic staff, 2005 vs. 2021[21]



Source: Ministry of Education and Science – Statistics on performance indicators of public and private universities in the Czech Republic; CZSO – Research and Development Indicators.

If we summarise the above findings about individual scientific disciplines, then we can say that women dominate in the master's degree (students and graduates) in all scientific fields, with the exception of the technical sciences. There is also a similar agreement across fields of study for doctoral degrees, both among students and graduates. Here, however, we can no longer talk about the predominance of women, but rather about parity representation. The representation of women in the position of researchers in agriculture, medicine, the social sciences and the humanities is relatively equal. In the natural sciences, women represent 24.2% of researchers, while in the technical sciences they represent only 14.4% of researchers (according to data for 2021). The technical sciences have long faced a very low representation of women at all levels of the scientific career, and the situation in this field is changing very slowly over time.

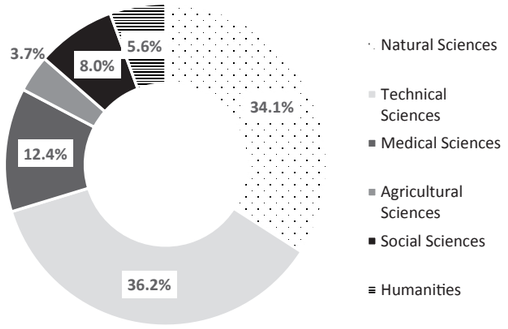
Between the individual stages of the scientific career, a non-negligible decrease of women was also observed. This particularly concerned the transition between master's and doctoral studies. The highest loss here in 2021 was recorded in the medical sciences — 20 percentage points; however, among other sciences the losses reached 12–15 percentage points, and even 18 percentage points in the case of social sciences. A specific feature of medical sciences was the outflow of women at the transition between doctoral studies and research careers — in 2021 there was a loss of 10 percentage points.

However, it is important to mention the fact that horizontal and vertical segregation are intertwined. In the case of sciences where female representation is low (e.g. technical sciences), the decline of women is largely eliminated by their low absolute numbers at the beginning of their academic careers. On the contrary, in the case of sciences in which women dominate from the beginning of their academic careers (e.g. medical sciences), the subsequent losses appear to be high, as the absolute number of women is higher here.

21 For data see Table 9

RESEARCHERS BY DISCIPLINE

Figure 15: Researchers by field, 2021 (HC) (in %)



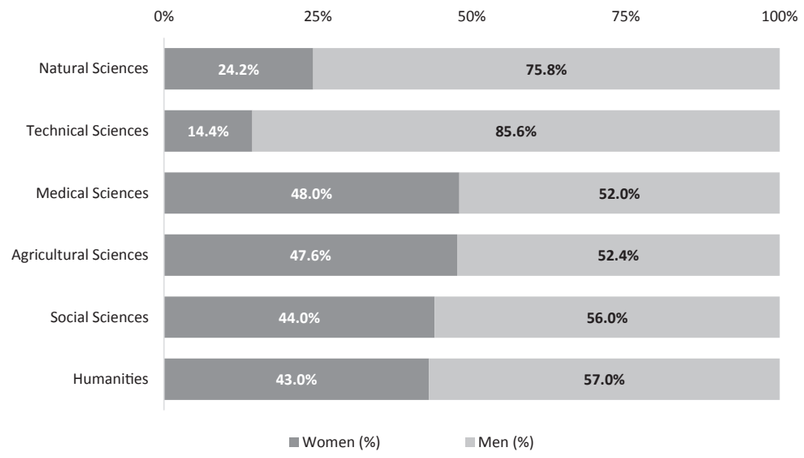
Source: CZSO – Research and Development Indicators.

According to the CZSO data, a total of 69 536 people worked in research and development in 2021, compared to 65 193 in 2020. In terms of the number of researchers, the most important scientific fields are clearly technical sciences (36.2% of researchers) and natural sciences (34.1% of researchers). In 2021, more than two-thirds of Czech researchers worked in these two fields (70%, HC). With a significant difference they were followed by medical sciences (12.4%), social sciences (8.0%), the humanities (5.6%) and agricultural sciences (3.7%), which had the lowest representation (see Figure 15).

In the previous section "From study to research" (Figures 4–14), which described the distribution of women and men from master's and doctoral degrees to research careers, gender representation was set in the context of the ideal path from study to research. The following Figure 16 shows the distribution of researchers by gender and research area.

The lowest representation of women among researchers in 2021 was in the technical sciences, where female researchers held 3 618 positions (i.e. 14.4%), while male researchers held 21 563 (i.e. 85.6%). The second group in which female researchers were least represented was the natural sciences, where there were 5 743 women (i.e. 24.2%). There was relative parity representation in the other disciplines: in the medical sciences, with 48.0% women; agricultural sciences, with 47.6% women; social sciences, with 44.0% women; and the humanities, with 43.0% women (see Figure 16).

Figure 16: Researchers by sex and field, 2021 (HC) (in %)[22]

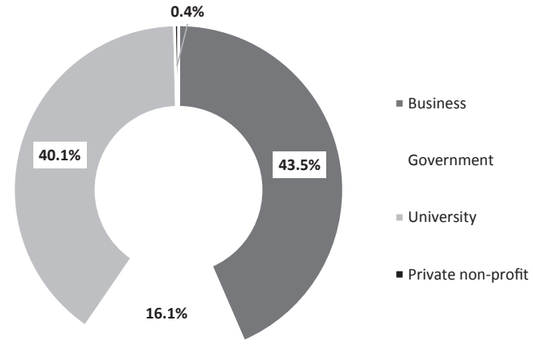


Source: CZSO – Research and Development Indicators.

22 For data see Table 10

RESEARCHERS BY SECTOR

Figure 17: Proportion of researchers in 2021, by sector (HC) (in %)[23]



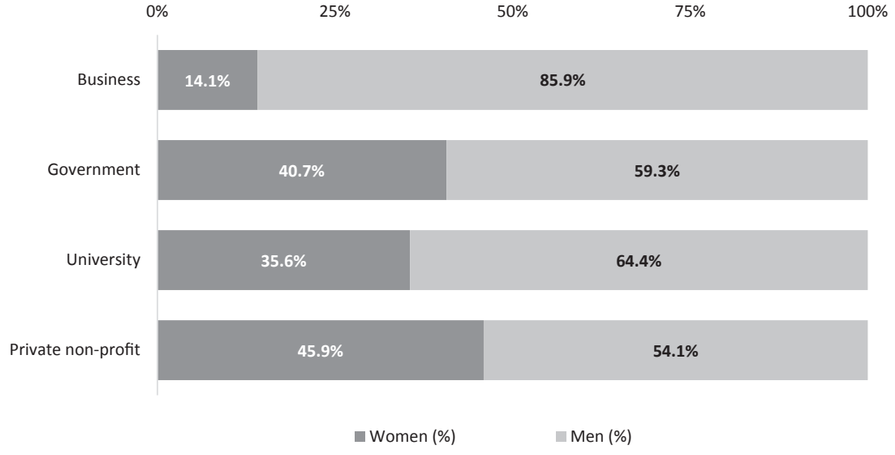
Source: CZSO – Research and Development Indicators.

The largest space for researchers in the Czech Republic is provided by the higher education and business sectors. In 2021, they together accounted for more than 83.6% — 43.5% in the business sector and 40.1% in the higher education sector. The government sector employed 16.1% of researchers and the non-profit sector employed only 0.4% of researchers (see Figure 17).

In terms of the number of researchers, the business sector has clearly grown the most since 2005. In 2021, there were 30 248 researchers employed, compared to 26 522 in 2020, and only 11 069 in 2005. Compared to 2005, the number of researchers working in the business sector has almost tripled (see Figure 18).

The representation of women in the business sector is the lowest of all sectors (see Chart 18). In 2021, only 14.1% of women were working as researchers in business (compared to 14.7% in 2005). In other sectors, the representation of women is significantly higher. In the government sector, women made up 40.7% of employees (38.2% in 2005). In the higher education sector, women represented 35.6% of employees in 2021 (32.9% in 2005). The sector closest to parity was the private non-profit sector, where women made up 45.9% of employees in 2021 (38.3% in 2005) (see Figure 18); however, in terms of the total number of people working here, it is a marginal employer (see Figure 17).

Figure 18: Proportion of researchers in 2021, by sector and field (HC) (in %)[24]



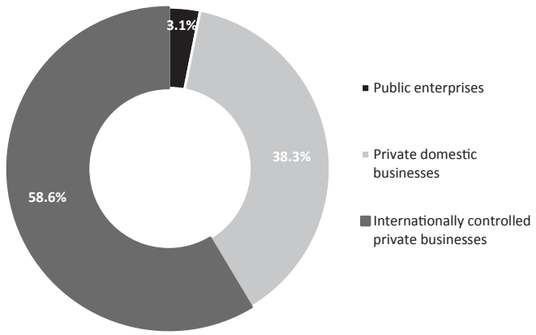
Source: CZSO – Research and Development Indicators.

23 For data see Table 24
24 For data see Table 24

Business sector

Research work in the business sector in 2021 was mainly concentrated in private enterprises, which together employed 96.9% of researchers within the sector. Within these private enterprises, there was a higher representation of researchers in those under foreign control — they employed 58.6% of research workers in 2021, compared to 38.3% in domestic enterprises (see Figure 19). The last group of public enterprises had a share of researchers of only 3.1%.

Figure 19: Proportion of researchers in the business sector in 2021, by type of workplace (HC) (in %)[25]



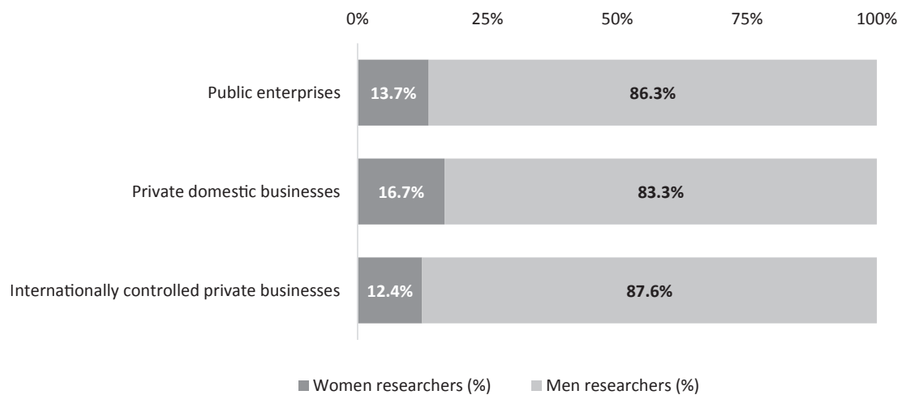
Source: CZSO – Research and Development Indicators.

The representation of women and men researchers in the business sector is very uneven in terms of gender. In all types of enterprises, men significantly dominate; nowhere do women reach even one-fifth of representation. Private enterprises under foreign control comprise the largest employer of researchers in the business sector (see Figure 19). In 2021, they employed the most women compared to other enterprises — 2 204 women (i.e. 12.4%), compared to 15 521 men (i.e. 87.6%) (see Figure 20). Public enterprises, which were the smallest employer of researchers within the business sector in 2021, employed 130 women (i.e. 13.7%) and 818 men (i.e. 86.3%). The second highest share of female researchers in 2021 was in private domestic enterprises, which employed 1 938 women (i.e. 16.7%) and 9 637 men (i.e. 83.3%) (see Figure 20).

If we look at the development of the share of female researchers in the business sector between 2005–2021, we find out that while their share in domestic and foreign-controlled private enterprises did not change significantly between the years under the review, the share of female researchers in public enterprises decreased by 2.7 percentage points between 2005–2021 (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 significant role. At the same time, the question is whether they are taking advantage of the local, less gender-sensitive culture that—oftentimes unlike in their home countries—allows them to disregard gender equality issues.

Figure 20: Proportion of researchers in the business sector in 2021, by sex (HC) (in %)[26]



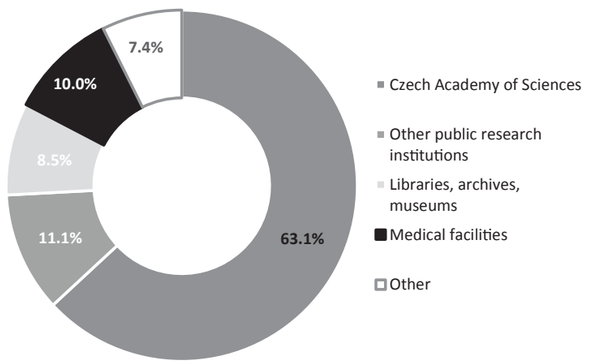
Source: CZSO – Research and Development Indicators.

25 For data see Table 25
26 For data see Table 25

Government sector

Within the government sector, the largest number of researchers in 2021 was employed at the Academy of Sciences of the Czech Republic, with a total of 7 047 (i.e. 63.1%). The next largest group of researchers were employed in other public research institutions, with 1 234 workers (i.e. 11.1%); then in health care facilities; with 1 114 (i.e. 10.0%); then in libraries, archives and museums; with 948 (i.e. 8.5 %) and finally, in the other category, with 824 (i.e. 7.4%) researchers (see Figure 21).

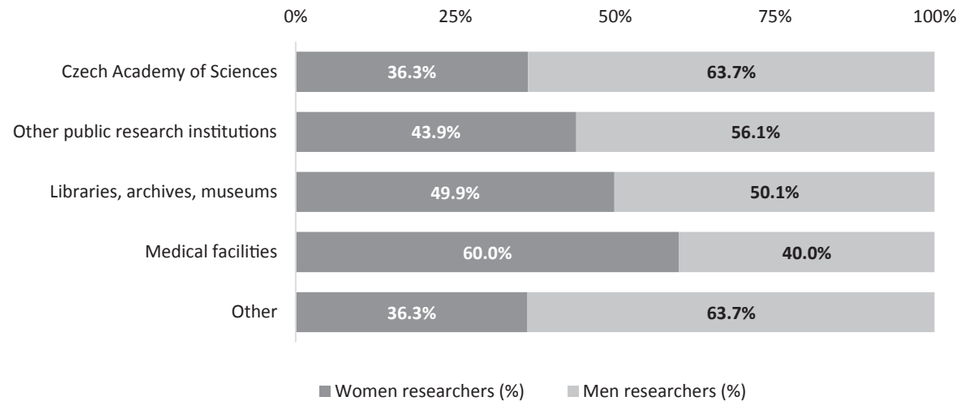
Figure 21: Proportion of researchers in the government sector in 2021, by type of workplace (HC) (in %)[27]



Source: CZSO – Research and Development Indicators.

The predominance of women among medical and pharmacy students and graduates is subsequently reflected in their higher representation within health care institutions. Here, women represented 668 researchers (i.e. 60.0%) compared to 446 men (i.e. 40.0%) in 2021. Parity was achieved in libraries, archives and museums, where 473 employees were women (i.e. 49.9%) and 475 were men (i.e. 50.1%). In other public research institutions 542 women (i.e. 43.9%) and 692 men (i.e. 43.9%) were employed. The Academy of Sciences of the Czech Republic, which employed the most researchers overall (see Figure 21), employed 2 561 women (i.e. 36.3%) and 4 486 men (i.e. 63.7%). In 2021, female researchers could be found in the exact same proportion within the Academy of Sciences of the Czech Republic and in the category of other (see Figure 22).

Figure 22: Proportion of researchers in the government sector in 2021, by sex (HC) (in %)[28]



Source: CZSO – Research and Development Indicators.

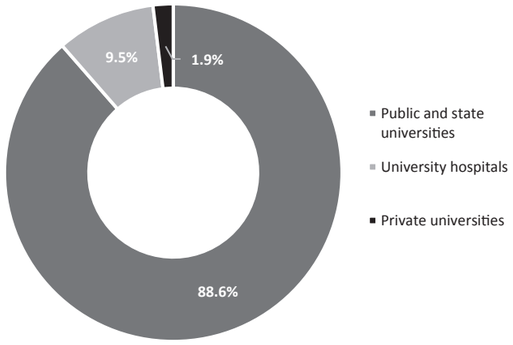
If we look at the development of the share of women researchers in the government sector between 2005–2021, we find that there were slight increases in their share in the cases of the Academy of Sciences of the Czech Republic (3.9 percentage points increase), health care facilities (3.7 percentage points increase) and libraries, archives and museums (2.6 percentage points increase). In the cases of other public research institutions and the category other, there were no significant increases or decreases between the years under the review (see Annex — Table 26).

27 For data see Table 26
28 For data see Table 26

Higher education sector

In the higher education sector, the most researchers were employed in public and state universities. Out of a total of 27 851 employees in the government sector, 24 665 (i.e. 88.6%) were employed in the aforementioned sector in 2021. The second highest number of researchers was in university hospitals — 2 649 (i.e. 9.5%). Private universities employed only 537 (i.e. 1.9%) researchers in 2021 (see Figure 23).

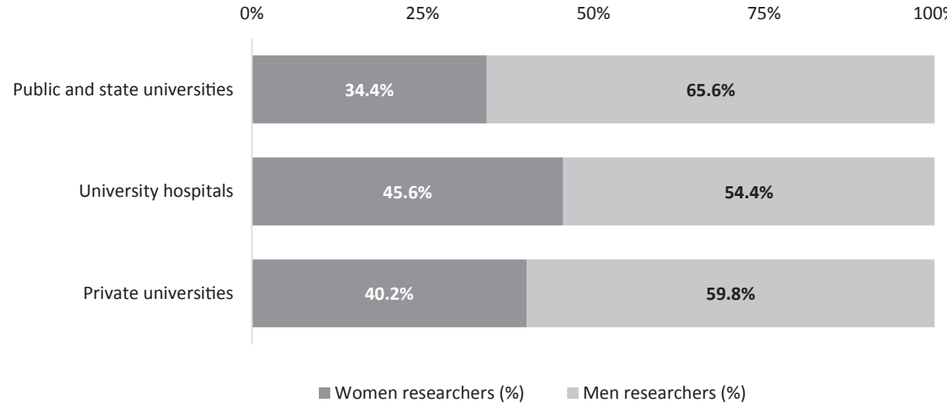
Figure 23: Proportion of researchers in the higher education sector in 2021, by type of workplace (HC) (in %)[29]



Source: CZSO – Research and Development Indicators.

The representation of women and men employed in university hospitals was the closest to gender parity. In 2021, there were 1 207 female researchers (i.e. 45.6%) and 1 442 male researchers (i.e. 54.4%). The long-term predominance of women in healthcare, pharmaceutical and medical fields most likely contributes to this distribution. In private universities, 216 women (i.e. 40.2%) and 321 men (i.e. 59.8%) were engaged in research activities. In 2021, there were 8 483 women (i.e. 34.4%) and 16 182 men (i.e. 65.6%) working in public and state universities (see Figure 24).

Figure 24: Proportion of researchers in the higher education sector in 2021, by sex (HC) (in %)[30]



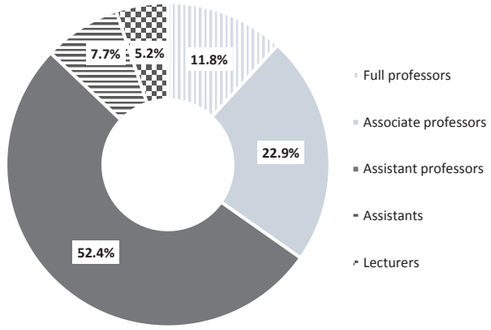
Source: CZSO – Research and Development Indicators.

If we look at the development of the share of women researchers in the higher education sector between 2005–2021, we find that there was a slight increase in the share of women in private universities (up by 3.9 percentage points) and in the category of public and state universities (up by 2.5 percentafe points). The category of university hospitals remained without significant change during the period under the review — there was a 1.1 percentage points increase in the share of women between the years under the review.

29 For data see Table 27
30 For data see Table 27

ACADEMIC STAFF AT UNIVERSITIES

Figure 25: Structure of academic staff (FTE) by academic position, in 2021[31]

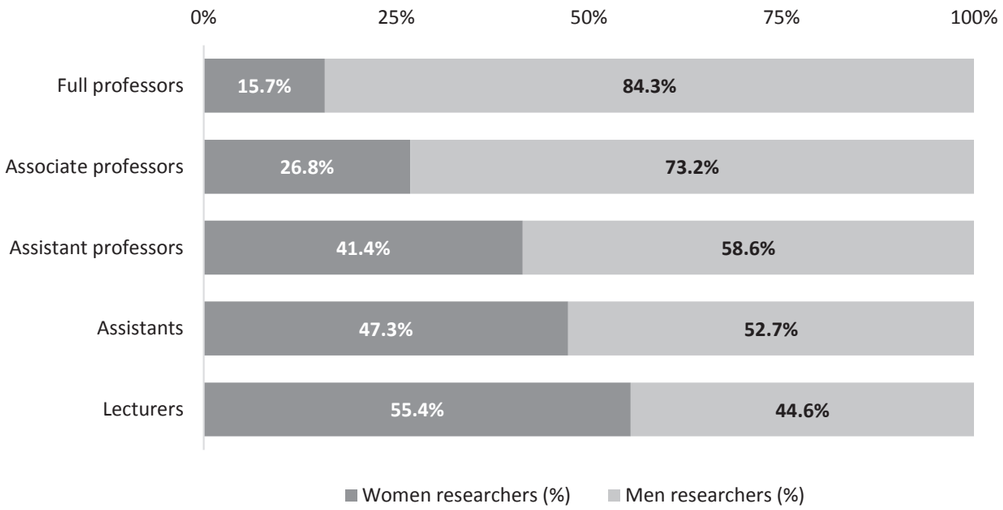


Source: Ministry of Education and Science – Statistical Yearbook (Employees and wage resources).

As part of its statistical survey, the Ministry of Education, Youth and Sports collects and publishes data on academic staff of higher education institutions in the form of full-time equivalents (FTE). In 2021, there were 18 724 FTE academic staff working at universities. Of those, assistant professors had the highest representation with 9 807 (i.e. 52.4%) employees, followed by associate professors with 4 293 (i.e. 22.9%) employees in 2021. Professors represented 2 213 (i.e. 11.8%) of academic FTEs, assistants represented 1 443 (i.e. 7.7%) and 968 (i.e. 5.2%) were lecturers (see Figure 25).

In terms of the ideal typical academic path (from lecturer to professor), the representation of women decreases towards the highest positions, similarly to the situation in research. Among lecturers, women (55.4%) predominated over men (44.6%) in 2021. In the category of assistants, men (52.7%) already prevailed over women (47.3%). For assistant professors, this preponderance was even higher — women made up 41.4% and men 58.6% of the workforce. The greatest inequalities in gender representation in the academic career path are then found at the highest academic levels, among associate professors and full professors. In 2021, only 26.8% of associate professors were women, while men accounted for 73.2% of the workforce. For female professors, the proportion was 11.1 percentage points lower (15.7%) (see Figure 26).

Figure 26: Structure of academic staff (FTE), in 2021, by sex and academic position[32]



Source: Ministry of Education and Science – Statistical Yearbook (Employees and wage resources).

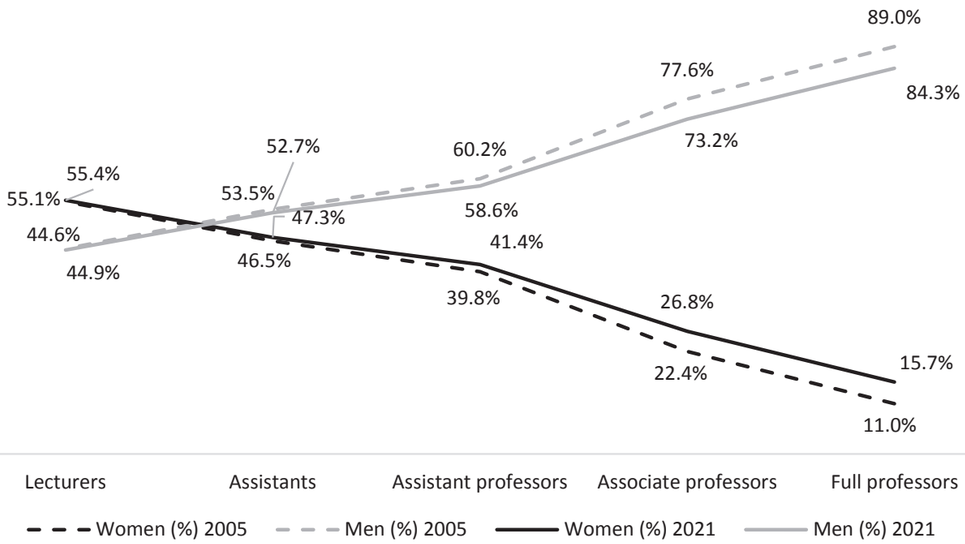
Figure 27 shows the changes over time in gender inequalities in academic FTE between 2005 and 2021. Compared to 2005, the percentage of women has increased: among professors by 4.7 percentage points to reach 15.7% in

31 For data see Table 29
32 For data see Table 29

2021 and among associate professors by 4.4 percentage points to reach 26.8% in 2021 (see Figure 27). For the other academic levels, no significant changes have been observed between the reference years.

If we focus on the development of the representation of women in academic positions by qualification level, then based on the prediction[33], which is predicated on development between 2010–2021, we find that parity among professors will be reached in the year 2 329. In the case of associate professors, exact parity will be reached in the year 2170.

Figure 27: Temporal comparison of the representation of women and men in total academic positions (FTE) between 2005 and 2021, arranged by ideal typical academic career path[34]



Source: Ministry of Education and Science – Statistical Yearbook (Employees and wage resources).

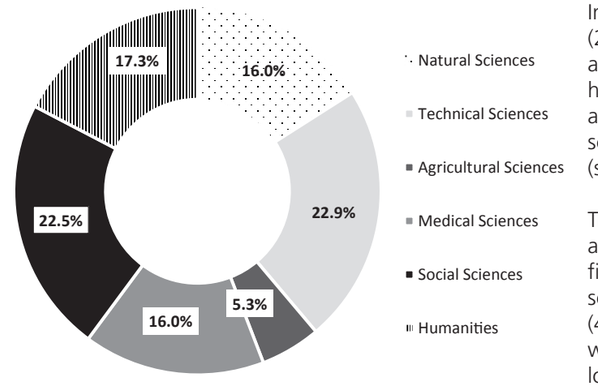
33 A function in Microsoft Excel was used to calculate the prediction. Two related data series were placed in the sheet – a series with data items for the timeline and a series with corresponding values. The prediction predicts future values based on existing time-based data and the AAA version of the Exponential Smoothing (ETS) algoritm (link: https://support.microsoft.com/cs-cz/office/vytvo%C5%99en%C3%AD-progn%C3%B3zy-v-excel-pro-windows-22c500da-6da7-45e5-bfdc-60a7062329fd). In previous monitoring reports, the prediction was calculated on the basis of averages of annual increases, which were then added. For this reason, the predicted values in this monitoring report differ from the values presented in reports from previous years.

34 For data see Table 29

Academic staff by scientific field

The Ministry of Education, Youth and Sports does not collect data on academics by scientific field but distinguishes individual faculties of universities. We therefore manually classified faculties according to the Frascati Manual[35], an internationally accepted method of collecting and using R&D statistics, which provides detailed information on the classification of disciplines into scientific fields. The following text therefore provides a certain, although rather general, overview of the representation of women and men among academics (FTE) by scientific field.

Figure 28: Structure of academic staff (FTE) by discipline in 2021, by field, in %

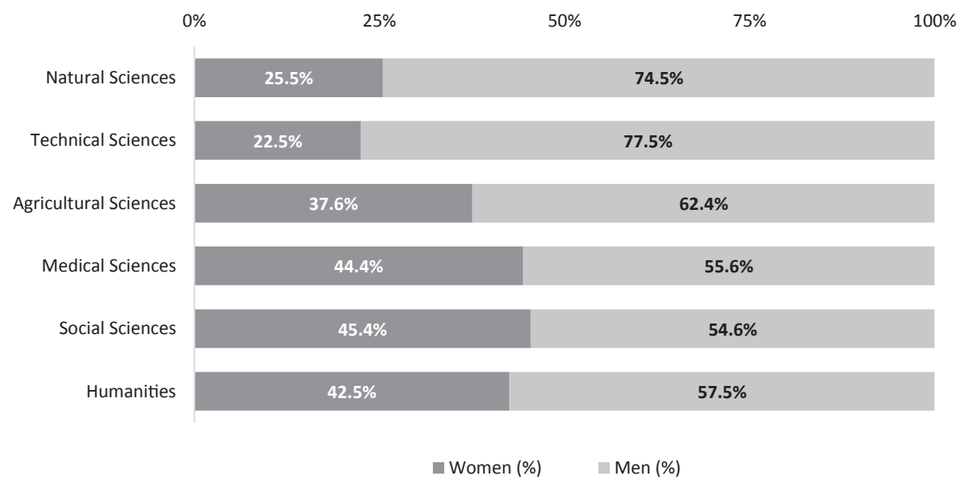


Source: Ministry of Education and Science – Statistical Yearbook (Employees and wage resources).

In 2021, technical (22.9%) and social sciences (22.5%) made up the highest proportion of academic positions. This was followed by humanities (17.3%), natural sciences (16.0%) and medical sciences (16.0%). Agricultural sciences (5.3%) had the lowest representation (see Figure 28).

The representation of women and men in academic positions within the above-mentioned fields of science is presented in Figure 29. The social sciences (45.4% women), medical sciences (44.4% women) and humanities (42.5% women) were closest to parity in 2021. In contrast, the lowest female representation could be found in the natural (25.5%), technical (22.5%) and agricultural sciences (37.6%) (see Figure 29).

Figure 29: Structure of academic staff (FTE) by sex and field in 2021, in %



Source: Ministry of Education and Science – Statistical Yearbook (Employees and wage resources).

35 www.oecd.org/publications/frascati-manual-2015-9789264239012-en.htm

Academic staff by academic ranking

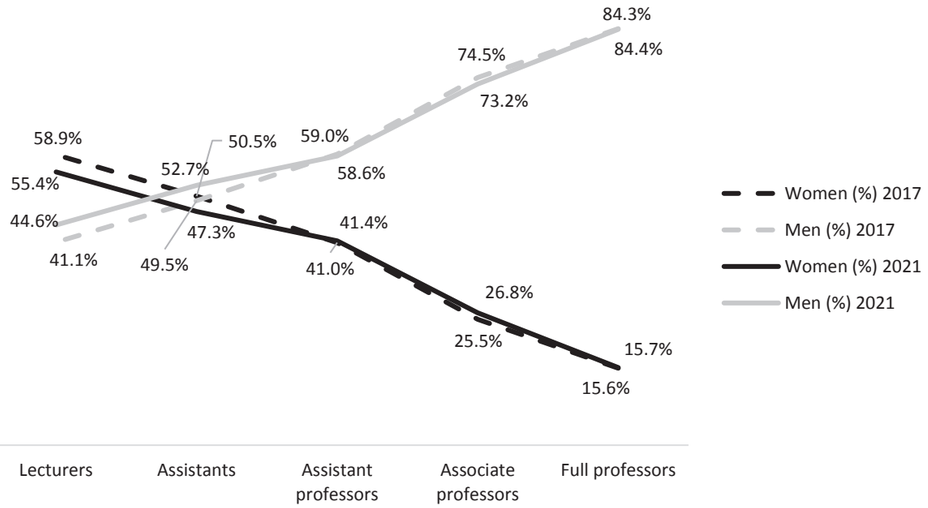
As in the case of academics by fields, for this section we also drew data from the Ministry of Education, Youth and Sports, which has been manually coded according to Frascati's Manual and expressed in the sum of academic full-time equivalents (FTE). Information on the structure of academics according to their position and scientific field has been available from the Ministry of Education, Youth and Sports since 2017. For this reason, the years 2017 and 2021 are used for the time comparison.

In Figure 30, we can observe that as the academic qualification level increases, the proportion of women at each step decreases in the monitored years. Between 2017 and 2021, there were significant changes in the representation of women in the lecturer category — while in 2017 women made up 58.9%, by 2021 there was a decrease of 3.5 percentage points, to reach a value of 55.4%. A similar trend was observed in the category of assistants — here there was a decrease of 3.1 percentage points, to reach a value of 47.3% in 2021 (see Figure 30).

The highest losses of women in terms of transitions between academic degrees can be observed between the categories of assistant professors and associate professors in both compared years. In 2017, the loss in representation of women was 15.5 percentage points, and in 2021 the loss was 14.6 percentage points. Significant losses in the representation of women can also be observed between the associate professor and professor stages — in 2017 this loss was 9.9 percentage points, and in 2021 the loss was 11.1 percentage points (see Figure 30). On the other hand, a more favourable development can be observed at the transition between lecturers and assistants. While in 2017 there was an 8.4 percentage points loss in the representation of women between these degrees, in 2021 the loss reached only 8.0 percentage points. In the case of assistants and assistant professors, the loss in representation of women also decreased between these years by 3.5 percentage points (see Figure 30).

On the lower levels of the academic career ladder, the share of women's employment is decreasing, and the initial disproportion (in favor of women) is moving towards a greater gender balance between women and men. However, on the higher levels of the ladder, the changes are very small, and there is still a strong predominance of male over female academics.

Figure 30: The trend in the proportion of men and women (FTE) by academic position, 2017 and 2021, in %

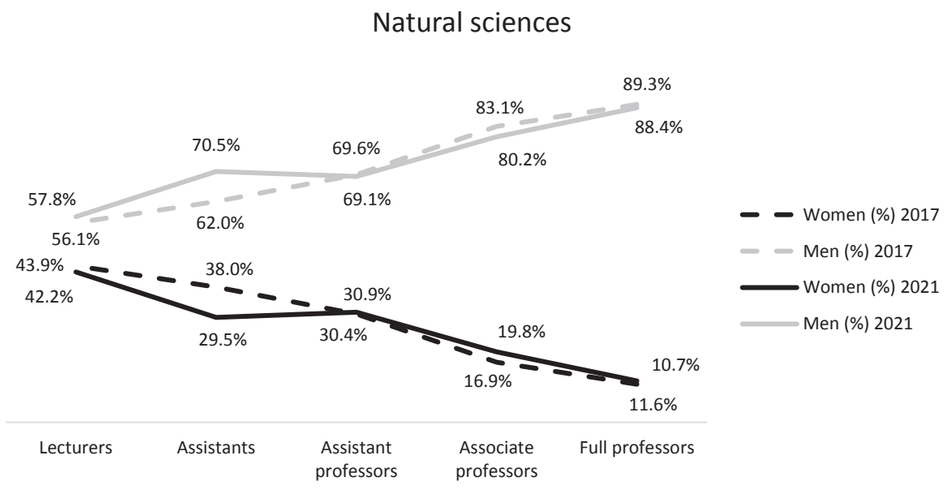


Source: Ministry of Education and Science – Statistical Yearbook (Employees and wage resources).

Despite an increasing trend in the representation of women among academic staff that is occurring in practically all scientific fields, the rate of growth is very slow. Female associate professors and professors are largely underrepresented in all fields. It can be assumed that if efforts will not be made for their more significant representation, parity in at least one of the six monitored scientific fields will not be achieved for associate professors for the next 10 years—associate professors in the social sciences would be the first to achieve parity in 2030—while for female professors it would take 54 years, i. e.until 2074.

As academic positions grow in the natural sciences, the inequality gap is widening, and the number of women is declining. For a long time, the lecture position has had the highest percentage of women of all classifications, 42.2% in 2021. Since 2017, there has been a drop in the representation of women in this position — by 1.7 percentage points (see Figure 31). The decline was even greater for the assistant position, where the decrease between the monitored years was 8.5 percentage points, reaching a value of 29.5% representation in 2021. For assistant professors, the decrease was 0.5 percentage points, reaching 30.9% representation in 2021, and for associate professors, the decrease was 2.9 percentage points.

Figure 31: The trend in the proportion of men and women (FTE) in the natural sciences, 2017 and 2021, by academic position, in %

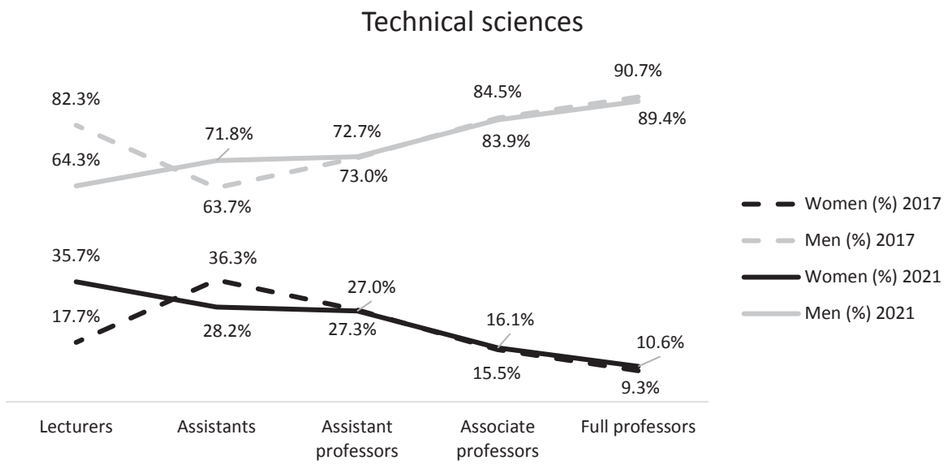


Source: Ministry of Education and Science – Statistics on performance indicators of public and private universities in the Czech Republic; CZSO – Research and Development Indicators.

The technical sciences are characterized by an unequal gender representation at all stages, and as Figure 32 indicates, the situation of academics is unfortunately no exception. However, the good news could be that there has been a 18.1percentage points increase in the proportion of women lecturers since 2017 (see Figure 32). Unfortunately on the other hand, there has also been a significant decline in female assistants between the monitored years — a loss of 8.1 percentage points. There were no significant changes in other academic positions between the monitored years.

The break in the ideal typical path comes at the transition between assistant professors and associate professors — in 2021 the loss reached a value of 11.0 percentage points (compared to a loss of 11.8 percentage points in 2017). The situation is more favorable at the transition between assistants and assistant professors, where the loss in 2021 reached a value of 1.2 percentage points, while in 2017 the loss 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 2021, by academic position, in %



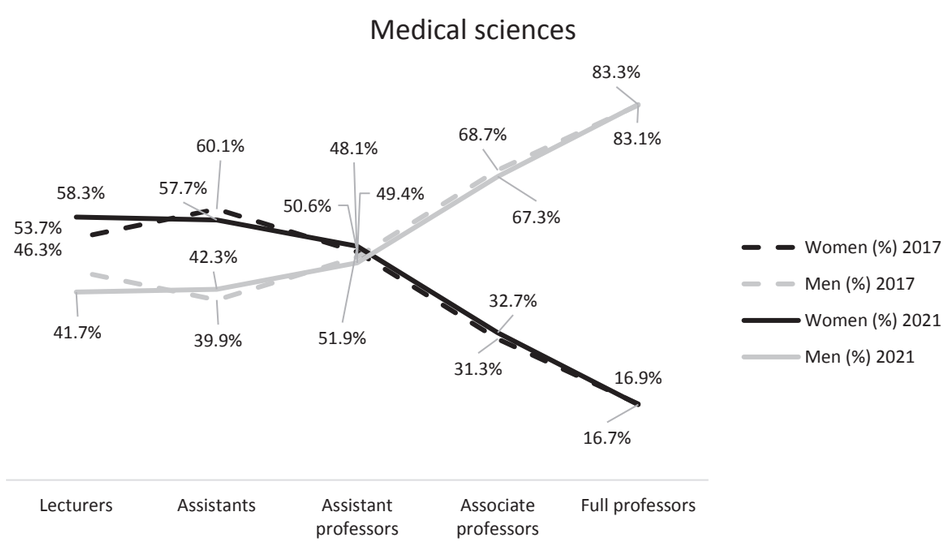
Source: Ministry of Education and Science – Statistics on performance indicators of public and private universities in the Czech Republic; CZSO – Research and Development Indicators.

We can observe a more favourable development within the medical sciences. Women predominated here in three categories: lecturers, assistants and assistant professors. Specifically, a total of 58.3% of lecturers were women in 2021 (an increase of 4.7 percentage points compared to 2017, when 53.7% were women); 57.7% of assistants were women; and 51.9% of assistant professors were female (see Figure 33). In the category of associate professors, women represented 32.7% of employees — an increase of 1.4 percentage points compared to 2017, and in the category of professors, women made up 16.7% of employees.

Although equal representation in these positions within the medical sciences is a good indicator, care must be taken to avoid over-feminization of the field and to maintain a balance of gender representation. It is worth considering whether there is a glass ceiling effect in the positions of associate professor and professor. Despite the over-representation of women among students and graduates of master's and doctoral programmes in medical sciences, and the high proportion of female researchers, there are very few women in the aforementioned two positions, and their representation there does not correspond to their presence in the field.

The break in the ideal typical trajectory comes at the transition between assistant professors and associate professors, where in 2021 the loss of women was 19.2 percentage points (in 2017 the loss was 19.3 percentage points). Another high loss in women's representation was at the transition between associate professors and professors, where a loss of 16.0 percentage points was witnessed in 2021 (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 2021, by academic position, in %

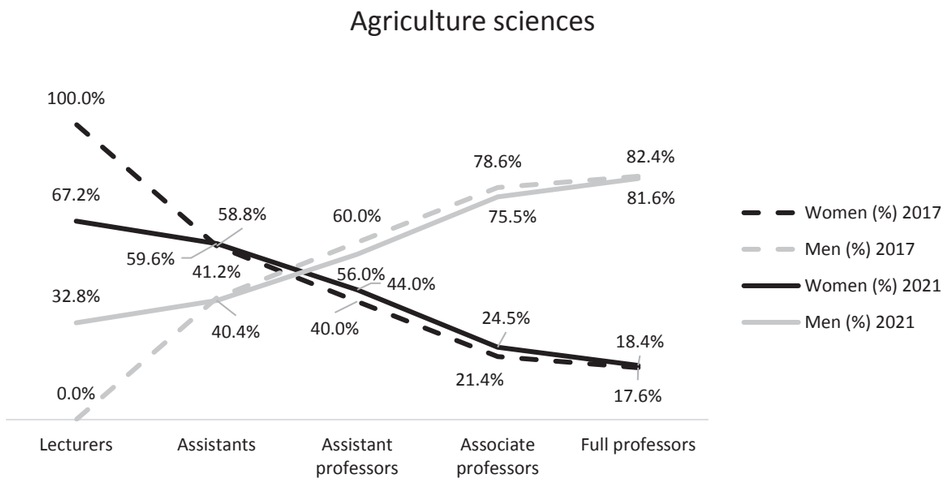


Source: Ministry of Education and Science – Statistics on performance indicators of public and private universities in the Czech Republic; CZSO – Research and Development Indicators.

In Figure 34, which describes agricultural sciences, it is necessary to mention the fact that the extreme value of 100% in the representation of women among lecturers is due to the fact that in 2017 there were 2 women (100%) and no men (0%) working as lecturers in agricultural sciences. For this reason, this value may appear extreme. However, by 2021, the situation had slightly improved – with 5 women (i.e. 67.2%) and 2 men (i.e. 32.8%) working as lecturers. There was a higher representation of women in agriculture sciences in the categories of assistant professors, with an increase of 4.0 percentage points, and associate professors, with an increase of 3.2 percentage points.

Within agricultural sciences, women dominated in the positions of lecturers (67.2%) and assistants (59.6%) in 2021. Associate professors accounted for 24.5% of the workforce and professors for 18.4%. The highest losses between individual academic degrees in 2021 can be observed in the agricultural sciences at the transition between assistants and assistant professors (a 15.7 percentage points decline) and between assistant professors and associate professors (a 19.4 percentage points decline) (see Figure 34).

Figure 34: The trend in the proportion of men and women (FTE) in the agriculture sciences, 2017 and 2021, by academic position, in %

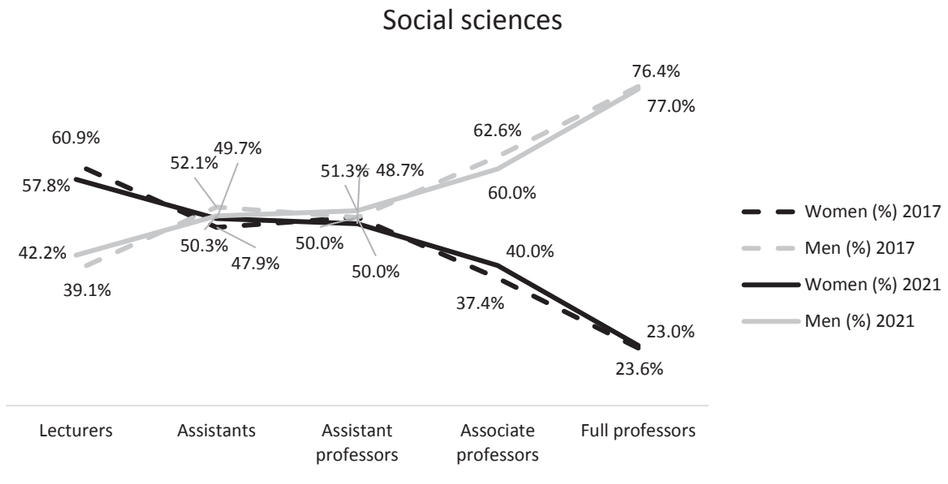


Source: Ministry of Education and Science – Statistics on performance indicators of public and private universities in the Czech Republic; CZSO – Research and Development Indicators.

A good example for other fields of science can be the social sciences, in which the smallest differences in the representation of women and men were registered between the monitored years at all qualification levels. However, in the case of the higher academic grades, there are also significant differences in the social sciences. While parity representation can be found in 2021 in the positions of assistant and assistant professors, only 40.0% of women worked as associate professors and just 23.6% as professors (see Figure 35).

The highest loss in the representation of women between individual academic degrees was recorded in 2021 at the transition between associate professors and professors, witha 16.5 percentage points loss (in 2017 the loss was 14.4 percentage points). The second highest loss can be observed between assistant professors and associate professors; in 2021 it amounted to 8.6 percentage points (in 2017 the loss was 12.6 percentage points) (see Figure 35).

Figure 35: The trend in the proportion of men and women (FTE) in the social sciences, 2017 and 2021, by academic position, in %

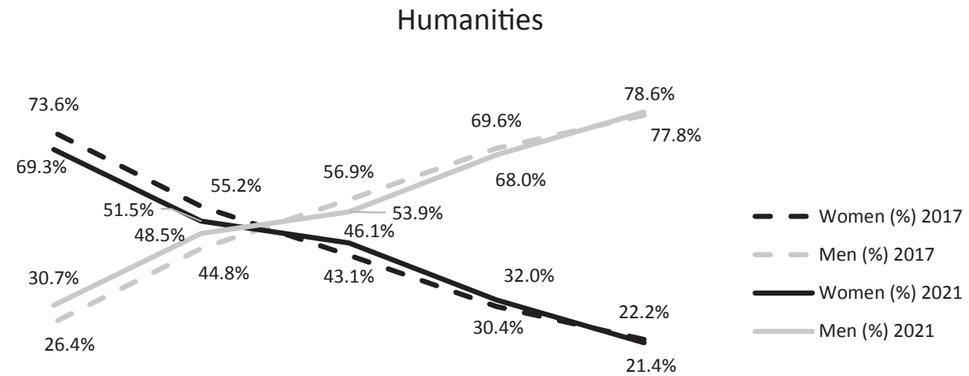


Source: Ministry of Education and Science – Statistics on performance indicators of public and private universities in the Czech Republic; CZSO – Research and Development Indicators.

Similarly to the agricultural sciences, the humanities suffer from a strong vertical segregation, where the number of women in academic roles decreases dramatically with a higher academic position. Between the monitored years, there has also been a decline in the representation of women at each level of the academic career. The most notable decline was in the position of lecturers (a loss of 4.3 percentage points), assistants (a loss of 3.7 percentage points) and associate professors (a loss of 3.0 percentage points) (see Figure 36).

As is the case with other scientific disciplines, the humanities also exhibit a significant loss of women in the transition between individual academic levels. In 2021, the gap between the lowest grade (lecturer) and the highest grade (professor) was 47.9 percentage points. Among the academic career steps, the highest losses in 2021 occurred at the transitions between: the lecturer and assistant positions with a loss of 17.8 percentage points (in 2017 it was 18.4 percentage points); between the positions of assistant professor and associate professor, with a loss of 14.1 percentage points (12.7 percentage points in 2017); and between associate professor and professor, with a loss of 10.6 percentage points (8.2 percentage points in 2017) (see Figure 36).

Figure 36: The trend in the proportion of men and women (FTE) in the humanities, 2017 and 2021, by academic position, in %



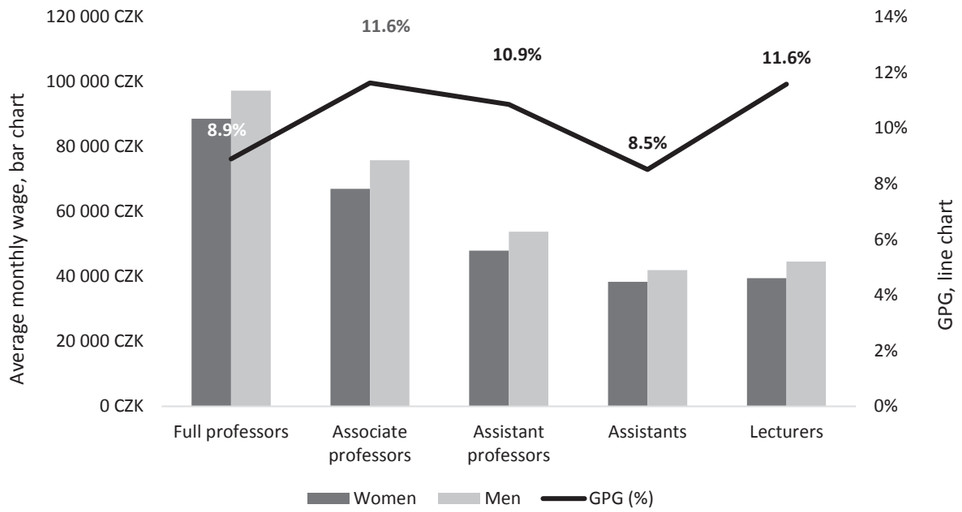
Source: Ministry of Education and Science – Statistics on performance indicators of public and private universities in the Czech Republic; CZSO – Research and Development Indicators.

Wages

The gender pay gap indicates the percentage by which female academics' average salaries are lower than those of their male colleagues. These differences can be found between men and women at all qualification levels. In 2021, these gaps ranged from 8.5% against female assistants to 11.6% against female associate professors and lecturers (see Figure 37). In 2021, when compared to their male colleagues, female professors' average monthly salaries were 8 649 CZK lower, and assistant professors' were 5 845 CZK lower.[36]

Since it was not possible to include data on salary components that included personal evaluations in the analysed data, it can be assumed on the basis of general labour market data published by the CZSO that the actual differences in the wages of academic workers will be even more significant.

Figure 37: The gender pay gap (GPG, in %) in gross average monthly wages for academic staff in 2021, by academic position[37]

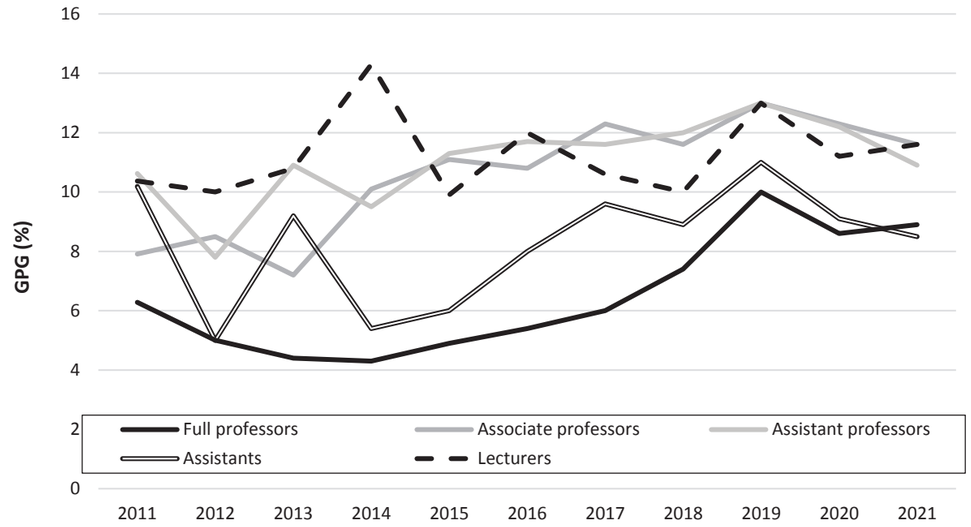


Source: Ministry of Education and Science – Statistical Yearbook (Employees and wage resources).

Figure 38 illustrates the development of the gender pay gap over the period 2011–2021. As we can see, there has been a gradual increase in pay inequality at all qualification levels with the exception of assistants. In the case of assistants, the gap decreased by 1.7 percentage points between 2011 and 2021, but the overall trend is uneven, exhibiting both decreasing and increasing trends. It follows from the above development that instead of reducing the wage differences of academic workers, the exact opposite is happening and these differences are increasing over time.

36 For data see Table 37
37 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 2011-2021, by qualification level



Source: Ministry of Education and Science – Statistical Yearbook (Employees and wage resources).

DECISION-MAKING POSITIONS

The differences in the representation of women and men in decision-making positions in science and research were in favour of men in 2021. In that year, the total share of women at the head of research, higher education and other R&D institutions (Grant Agency, Council of Universities, Research, Development and Innovation Council) was only 13.5%. In the broader management of these institutions, i.e. decision-making, strategic and control bodies, 22.6% of members were women. The representation of women in the advisory and expert bodies of these institutions was slightly higher — 25.7% (see Table A).

It is a positive step that the Grant Agency of the Czech Republic was headed by a woman, as was the Academy of Sciences of the Czech Republic. Unfortunately, the leadership of state and public universities is still overwhelmingly dominated by men (85.7%). The same is true for public research institutions, where the share of women in leadership was only 5.6% (see Table A).

In both the decision-making and advisory bodies of each of the organisations presented, we can also note that women did not achieve parity in representation anywhere. Women fared best in the Council of Universities, where their representation was 34.3% (see Table A).

Table A: Proportion of women and men in management and decision-making bodies at public research institutions, 2021[38]

	Management			Decision-making, strategic and supervisory bodies			Advisory bodies		
	Women	Men	% Women	Women	Men	% Women	Women	Men	% Women
Public and state universities	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 Universities	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.

If we look at the development of the position of women in leadership and decision-making positions in R&D institutions from a longer time perspective, as mapped in our monitoring reports since 2006, we can see that the representation of women held at stable values around 10–11% between the years 2011–2021, with the exception of 2016–2019, when their representation was around 15.0%. For decision-making positions, we can observe a downward trend over the monitored period, when there was a decrease of 3.8 percentage points between 2011 and 2021. The highest representation of women was achieved in 2015, with 23.3%. The representation of women in decision-making positions within advisory bodies had an increasing trend until 2015 — at the same time, in 2015 the highest share of women in the monitored period was recorded, with 30.8%. In the following years, the trend was uneven, but since 2015 there has been a 7.5 percentage points decrease in the share of women.

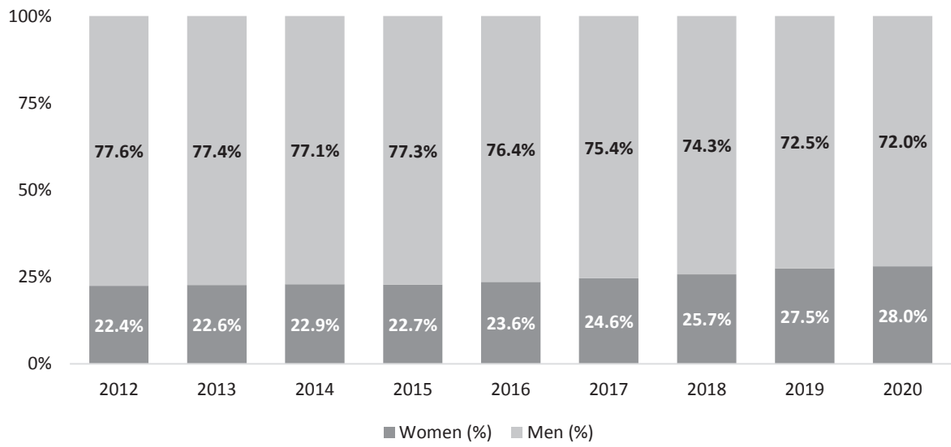
38 For data see Tables 38-44; at the same time, we should point out that there was a change in the methodology, where the Ministry of Education, Youth and Sports began taking into account not only university rectors, but also deans and, for example, heads of departments. For this reason, the reported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

SCIENCE AND ENGINEERING PROFESSIONALS

As part of this report, we have previously pointed out the problem of unequal representation of men and women in the field of natural and technical sciences. That is why we have decided to focus more attention on this area and to examine in more detail the differences between specialists in the field of science and technology[39] between 2012–2020.[40] Using data from the Czech Statistical Office, which is collected as part of the Labour Force Survey (LFS), we will take a closer look at the shares of men and women in science and technology professions, as well as the gender differences in their financial remuneration.

In 2020 (data for 2021 were not available at the time of creation of the 2021 Monitoring Report), 148.3 thousand specialists were employed in the field of science and technology. For S&E specialists, it is not surprising that the proportion of women was around one quarter (41 539 in 2020). While in absolute terms we can observe a slight gradual increase in the number of women in this field over time, in proportion the differences are not fundamental. While in 2012 the representation of women was 22.4%, in 2020 their representation was 28.0% (thus an increase of 5.6 percentage points), which is, however, the highest proportion over the selected period (see Figure 39).

Figure 39: Proportion of men and women (%) among science and engineering professionals, 2012–2020[41]

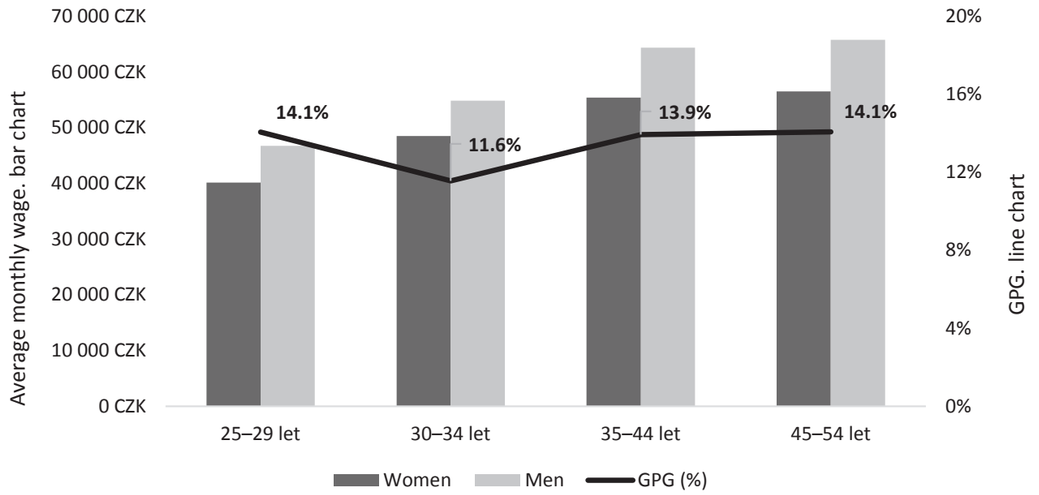


Source: CZSO – Labour Force Survey (LFS).

For science and engineering 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, and in 2021 the largest salary differences were found in the age categories 45–54 (a difference of 9 250 CZK) and 25–29 (difference of 6 568 CZK). For both of these categories, the GPG was 14.1% in favour of men (see Figure 40). In the case of the 35-44 age category, the GPG was 13.9% in favour of men, and for the 30–34 age category, it was 11.6% (see Chart 40).

39 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, electrical engineers or graphic and multimedia artists.
40 Data for 2021 were not available on the website of the Czech Statistical Office at the time of publication of the Monitoring Report for 2021
41 For data see Table 45

Figure 40: Gender pay gap (GPG, %) in gross average monthly wages among science and engineering professionals in 2021, by age groups[42]



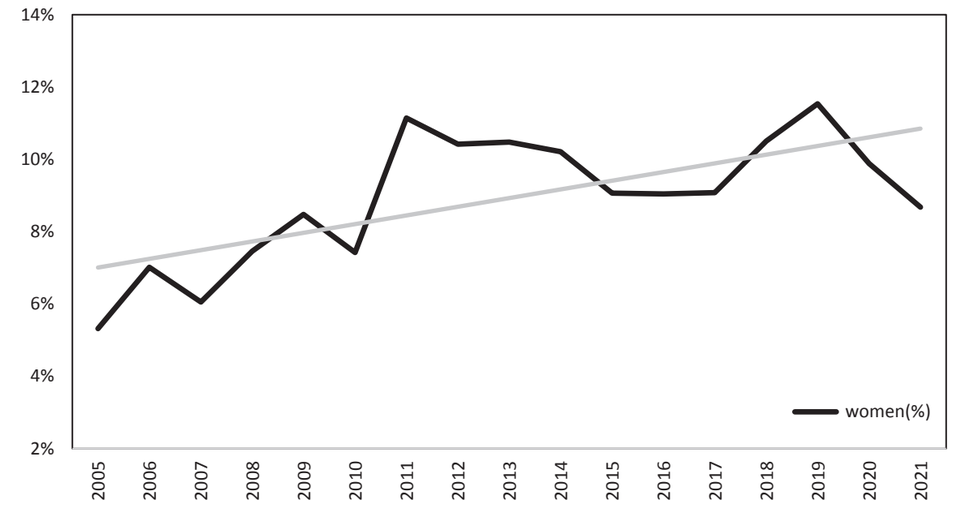
Source: CZSO – Labour Force Survey (LFS).

42 For data see Table 45

THE GENDER GAP IN PATENTS

This year, we also focused on a new aspect, which is influenced by the unequal position of women and men in society and follows from previously mentioned differences, such as the representation of women as researchers and academics — and that is the aspect of patents granted. If we look at the change over time (see Figure 41), we can observe certain improvements in the long-term situation. Whereas in 2005 only 5.3% of all patents were granted to women, in 2021 it was already 8.7%. This is a slight decrease compared to previous years, when the peak of 11.5% was reached in 2019 (see Figure 41).

Figure 41: The trend in the proportion (%) of patents granted to women, 2005–2021[43]



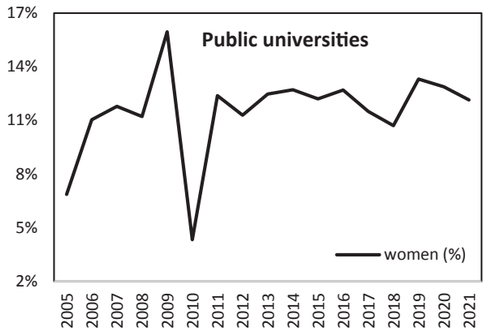
Source: Industrial Property Office and CZSO, 2021.

If we focus on individual fields, the proportion of women who received patents at public universities almost doubled in the monitored period. Whereas in 2005 the share of women was 6.9%, by 2021 their representation was already 12.1% (see Figure 42). The highest share of women in the number of patents granted in this area was 16.0% in 2009. Except for a fluctuation in 2010, when the representation of women was only 4.3% (the lowest value in the monitored 2005–2021 period), their share has remained at stable values (see Figure 42).

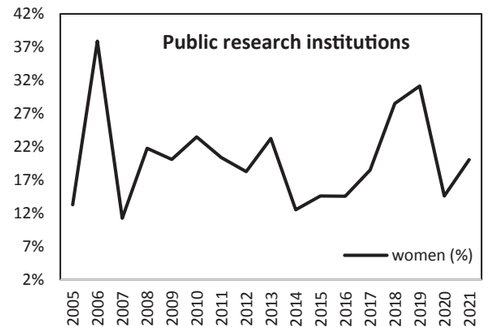
Women working in public research institutions achieve higher representation in patents granted. From 2005 to 2021, the share of patents granted to these women increased by 6.7 percentage points, from 13.3% in 2005 to 20.0% in 2021 (see Figure 43). The highest share was achieved by women in 2006, when they were granted 37.9% of patents in this area.

43 For data see Table 46

Figure 42 and 43: The trend in the proportion (%) of patents granted to women working at public universities and public research institutions, 2005–2021[44]



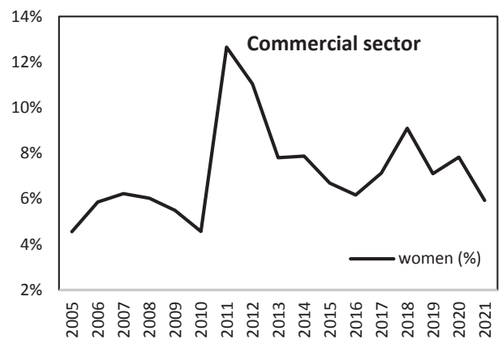
Source: Industrial Property Office and CZSO, 2022.



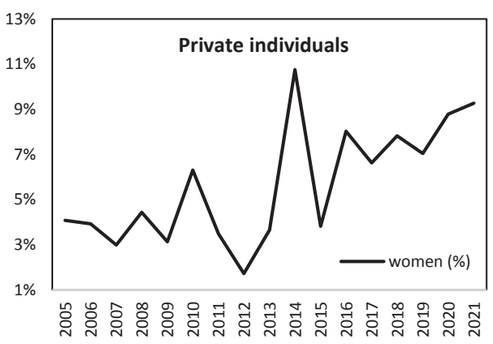
Source: Industrial Property Office and CZSO, 2022.

Compared to the public sector, the situation in the private sector is worse. In businesses, women received only 5.9% of patents in 2021. Since 2005, there has been an increase of only 1.3 percentage points (see Figure 44). At the same time, the ten percent limit was exceeded only twice in the monitored period: in 2011 (12.7% women) and in 2012 (11.0% women). The proportion of women who obtained a patent was also low among individuals. In 2021, this share was 9.3%. Compared to 2005, there was a 5.2 percentage points increase (see Figure 45). The 10% threshold for women as individuals was broken only once in the monitored period: in 2014, when the share of women granted patents was 10.8%.

Figure 44 and 45: The trend in the proportion (%) of patents granted to women working in the commercial sector and to women as private individuals, 2005–2021[45]



Source: Industrial Property Office and CZSO, 2022.



Source: Industrial Property Office and CZSO, 2022.

44 For data see Table 46
45 For data see Table 46

Researchers

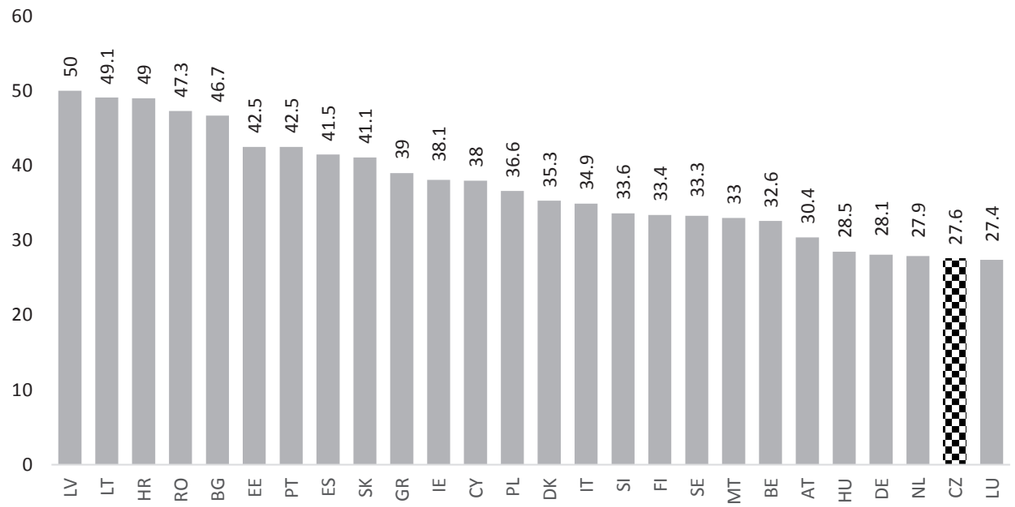
The European Statistical Office (Eurostat) publishes data on a regular basis on the number and structure of R&D personnel in the individual member countries of the European Union and in some other European countries, primarily in the member states of the European Free Trade Area (EFTA). Data are regularly collected from the countries' national statistical offices. However, in the case of some members, data publication is accompanied by a time delay, which is subsequently reflected in the availability and updating of these data.

For the analysis of inequalities in the representation of women among R&D workers in a Europe-wide comparative perspective, we have therefore focused on selected indicators, which, in relation to the Monitoring Report itself, can be considered key, (relatively) methodologically comparable and up to date (data for the time period 2020).

Figure 46 presents the differences in the representation of women researchers in full-time equivalents (FTE) between EU Member States in 2020. The representation of women was highest in the Baltic Republics (Latvia 50.0%, Lithuania 49.1% and Estonia 42.5%) and in some countries in the Balkan Peninsula (Romania 47.3%, Croatia 49.0% and Bulgaria 46.7%). Based on these data, we can declare a relative balance in the share of both sexes in the number of full-time researchers in these countries.

On the contrary, the Czech Republic is among the group of countries that perform relatively worst in this regard. In 2020, the proportion of women in full-time research positions in the Czech Republic was the second lowest among the examined countries (27.6%). The higher representation of women in research, especially in Eastern European countries, is probably related to the fact that the overall expenditure on research is low there, as are wages, and men tend to prefer other jobs.[46] Therefore, a higher representation of women does not necessarily indicate higher gender equality but may instead point to inequalities in terms of finances, stereotypical career paths and a male orientation towards areas with higher wages and prestige. Compared to other countries of the former Eastern Bloc, the Czech Republic has significantly higher research expenditures (see Figure 46).

Figure 46: Proportion (in %) of women among researchers in the European Union, 2020[47]



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

46 EC. 2003. Waste of talents: turning private struggles into a public issue. Women and Science in the Enwise countries. <https://wbc-rti.info/object/document/7658/attach/0308_enwise-report_2.pdf>
47 Due to the unavailability of data for all EU member states for 2020 at the time of writing this Monitoring Report, 2019 data was used for Greece, Ireland, Sweden, Belgium, Austria, Germany, the Netherlands and Luxembourg.

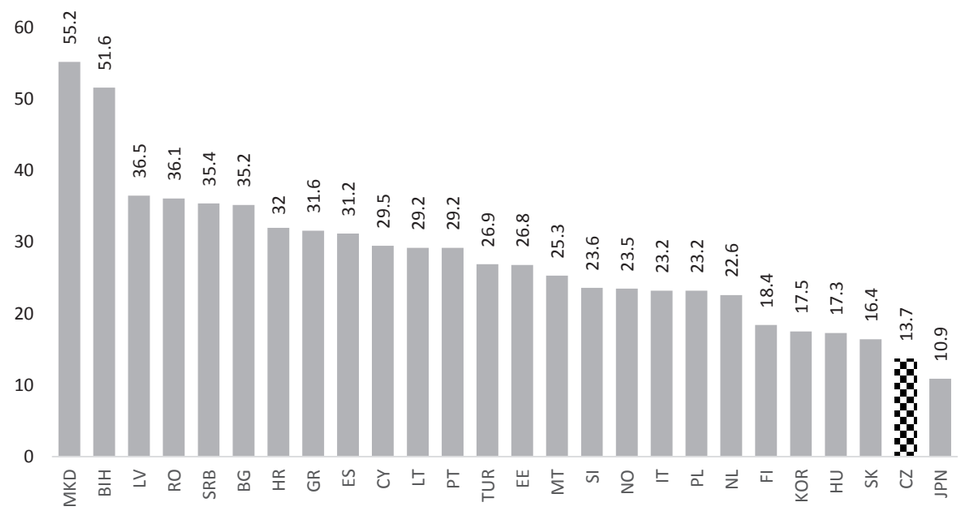
Over the past 10 years, the representation of women within individual countries did not change significantly. Also in 2010, the highest representation of women among researchers was in the Baltic Republics (Lithuania 51.2%, Latvia 50.8%, Estonia 43.4%). The Benelux countries dominated the bottom ranks with the lowest representation of women in 2010 (Luxembourg 21.2%, Netherlands 25%). Compared to 2010, when the representation of women was 28.1%, the Czech Republic has worsened by 0.5 percentage points in 2020.

Researchers by sector

In the next part, we focused on the international analysis of female representation inequalities among researchers separately by the sectors in which the work is carried out (government, business and higher education). Due to the low number of researchers in the private non-profit sector, the analysis in this specific group was abandoned. Data were available for the total number of researchers (HC) in 2020.

Figure 47 shows the differences between EU and EFTA countries in female representation among researchers working in the business sector. The Czech Republic had the second lowest value among these countries (13.7%). Only Japan recorded a lower value (10.9%). In contrast, the highest share of female researchers in the business sector was recorded in countries such as Northern Macedonia (55.2%), Bosnia and Herzegovina (51.6%) and Latvia (36.5%).

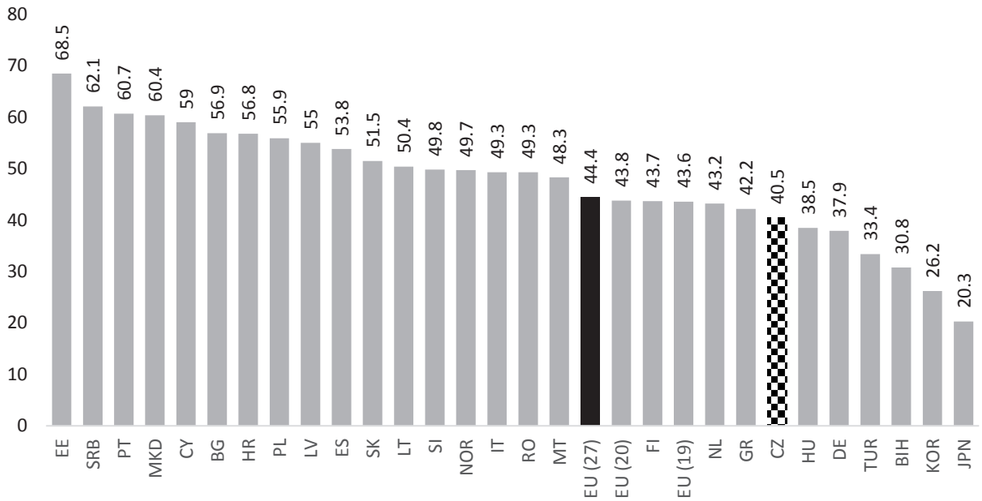
Figure 47: Proportion (%) of women researchers in the business sector, EU countries and EFTA, 2020



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

Within the government sector, the Czech Republic's position is slightly more favourable. In 2020, the average value of the share of women within this sector was 44.4%. The Czech Republic, with a value of 40.5%, is thus far from this average (see Figure 48). Countries such as Estonia (68.5%), Serbia (62.1%) and Portugal (60.7%) have the highest share of women. There is still a huge gap between the Czech Republic and these countries — more than 20 percentage points (see Figure 48).

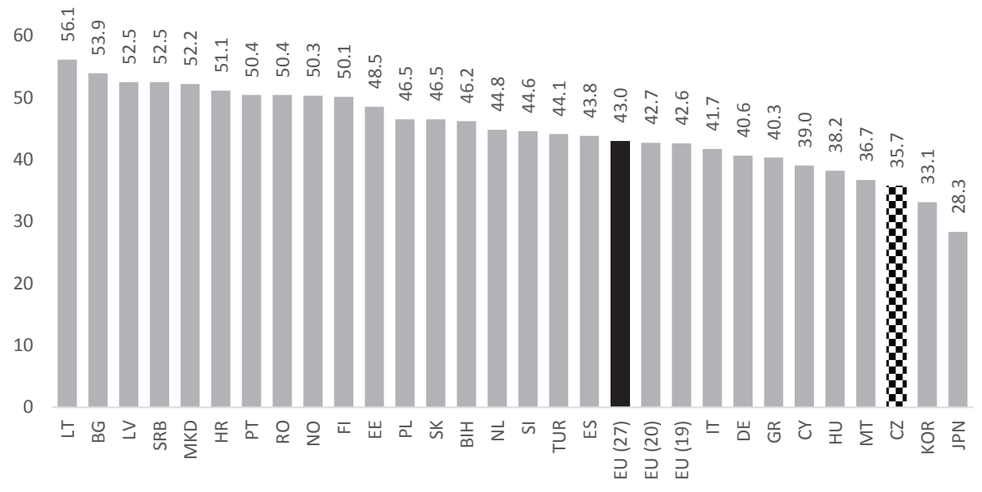
Figure 48: Proportion (%) of women among researchers in the government sector, EU countries and EFTA, 2020



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

The situation of female researchers in the Czech Republic was relatively unfavourable compared to the other analysed countries even in the higher education sector, where their representation was the third lowest (see Figure 49). While the European average was 43.0% in 2020, in the Czech Republic the representation of female researchers was 35.7%. The representation of female researchers in the higher education sector was even lower in Korea (33.1%) and Japan (28.3%). Compared to the European average, the Czech Republic lagged behind by 7.3 percentage points. Women researchers were highly represented in Lithuania (56.1%), Bulgaria (53.9%) and Latvia (52.5%) (see Figure 49).

Figure 49: Proportion (%) of women among researchers in the higher education sector, EU countries and EFTA, 2020

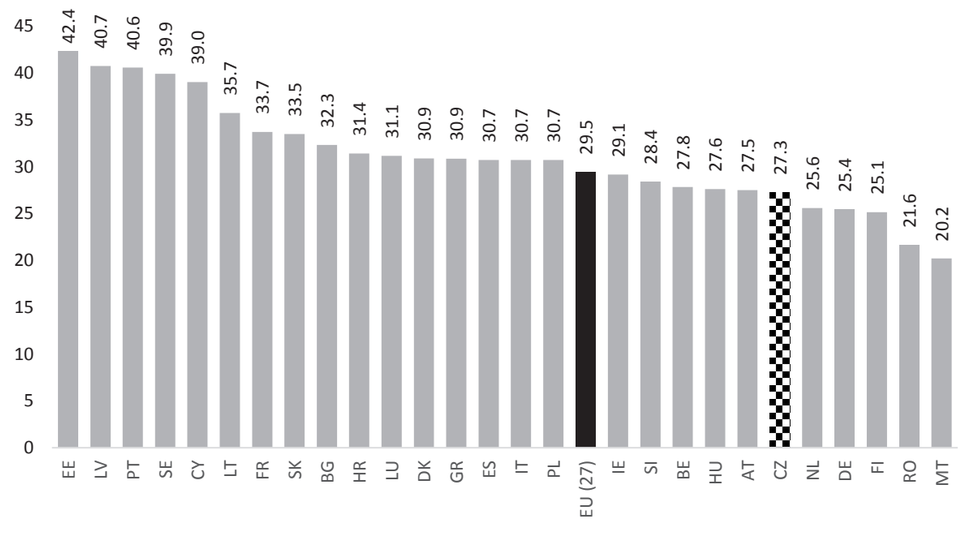


Source: Eurostat – Share of women researchers by sector of performance.

Science and engineering professionals

In European terms, the Czech Republic stands well below average in the representation of women among specialists in the fields of science and technology.[48] In 2021, women in the Czech Republic represented 27.3% of employees in these fields. This is slightly below the European average, which was 29.5% in 2021 (see Figure 50). None of the EU countries has reached parity in this area. The countries closest to parity were Estonia (42.4%), Latvia (40.7%) and Portugal (40.6%). Only Malta (20.2%), Romania (21.6%) and Finland (25.1%) had lower representation of women among specialists in the fields of science and technology than the Czech Republic.

Figure 50: Proportion (%) of women among science and engineering professionals (HC) in the EU member states, 2021



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

48 Specialists in the field of science and technology can be divided into 2 main groups: Specialists in the field of natural sciences, mathematics and statistics and specialists in the field of technical sciences, manufacturing, construction and architecture.

DEFINITIONS OF STAFF CATEGORIES USED IN THE MONITORING REPORT

Employment categories	Category definition	Source
Research and development (R&D) personnel	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, etc.	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 main class 2 (Scientific and professional mental workers) and subgroup 1237 (Heads of research and development departments) of the valid job classification – extended (hereinafter referred to as KZAM-R)	CZSO: Research and Development Indicators (link: https://www.czso.cz/csu/czso/ab00491932)
Technical and professional personnel	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 mainly employees classified in class 31 (Technicians in physical, technical and related fields) and class 32 (Technical workers in the field of biology, health and agriculture workers and workers in related fields) KZAM-R	CZSO: Research and Development Indicators (link: https://www.czso.cz/csu/czso/ab00491932)
Other R&D personnel	They 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, artistic or 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 performance indicators of public and private universities in the Czech Republic
Science and engineering 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 or graphic and multimedia artists. The group is defined by the internationally used ISCO-08 classification, or its national mutation CZ-ISCO.	CZSO – Labour Force Survey (LFS)
Persons in R&D decision-making positions	Persons in the management of institutions (directors, rectors), persons in decision-making, strategic and control bodies and persons in R&D advisory bodies	Data: Annual reports and the 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, chairman, rector or dean.	Data: Annual reports and the websites of relevant institutions
Persons in decision-making, policy-making and control bodies	Persons in decision-making and control 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 CR: presidency, research board, control board • CAS: Academic Assembly, Supervisory Committee, Academic Council, Scientific Council • RVVI: members of RVVI • RVŠ: presidency, assembly • ČKR: presidency, chambers (quite logically, it is copied by the university management), plenum • USČR: presidency, council	Data: Annual reports and the websites of relevant institutions
Persons in advisory and expert bodies	Here they are included by institution: • GA CR: evaluation panels, branch commissions • TA CR: program boards and commissions • CAS: commissions and councils • RVVI: commission • RVŠ: working commissions and working groups • CKR: working groups and commissions	Data: Annual reports and the websites of relevant institutions

Category	Definition	Link
Business sector	It 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	They include all business, 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	They include 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 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)
Enterprises under foreign control	They include all business, financial and quasi-corporations that are controlled by non-resident (foreign) entities (foreign affiliates). Mos 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	It includes bodies of state administration and self-government at all levels, with the exception of higher specialized 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	It includes all public and private universities, colleges and other institutions of post-secondary education, as well as all research institutes, experimental facilities, and clinics operating under the direct control of, or directed by, or affiliated with the organization 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: TIMELINES

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 (%)
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 (%)
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 (%)
2021	60 524	38 966	60.8 %	15 229	10 158	60.0 %	9 278	11 548	44.6 %	894	1 145	43.8 %	18 845	50 691	27.1 %
2020	59 417	38 679	60.6 %	16 320	11 051	59.6 %	9 369	11 679	44.5 %	814	981	45.3 %	17 992	47 201	27.6 %
2019	58 430	38 305	60.4 %	16 825	11 244	59.9 %	9 153	11 211	44.9 %	992	1 261	44.0 %	17 313	46 377	27.2 %
2018	59 748	39 412	60.3 %	18 097	11 855	60.4 %	9 326	11 488	44.8 %	1 027	1 293	44.3 %	16 461	45 505	26.6 %
2017	62 270	40 873	60.4 %	18 611	12 500	59.8 %	9 742	11 853	45.1 %	955	1 384	40.8 %	16 005	43 784	26.8 %
2016	64 365	42 763	60.1 %	19 560	13 070	59.9 %	10 150	12 486	44.8 %	994	1 289	43.5 %	14 971	41 206	26.7 %
2015	65 572	43 981	59.9 %	20 980	13 626	60.6 %	10 274	13 004	44.1 %	1 048	1 313	44.4 %	15 252	41 352	26.9 %
2014	69 199	45 809	60.2 %	22 020	14 094	61.0 %	10 560	13 093	44.6 %	1 028	1 377	42.7 %	14 815	39 679	27.2 %
2013	71 700	46 856	60.5 %	22 669	14 260	61.4 %	10 755	13 375	44.6 %	1 018	1 332	43.3 %	14 537	36 917	28.3 %
2012	73 848	47 581	60.8 %	22 957	14 727	60.9 %	10 710	13 502	44.2 %	1 093	1 507	42.0 %	13 102	34 549	27.5 %
2011	75 076	48 705	60.7 %	22 802	14 813	60.6 %	10 840	14 193	43.3 %	1 032	1 337	43.6 %	12 936	32 966	28.2 %
2010	74 801	49 304	60.3 %	21 473	14 181	60.2 %	10 881	14 398	43.0 %	855	1 301	39.7 %	12 198	31 220	28.1 %
2009	73 820	48 977	60.1 %	19 952	13 277	60.0 %	10 566	14 340	42.4 %	886	1 421	38.4 %	12 437	30 655	28.9 %
2008	71 077	46 458	60.5 %	17 793	13 064	57.7 %	9 921	14 006	41.5 %	876	1 425	38.1 %	12 613	31 627	28.5 %
2007	68 932	45 788	60.1 %	15 903	11 883	57.2 %	9 416	13 978	40.2 %	836	1 390	37.6 %	12 034	30 504	28.3 %
2006	67 707	45 757	59.7 %	14 443	11 349	56.0 %	9 015	13 716	39.7 %	724	1 286	36.0 %	11 295	28 382	28.5 %
2005	66 954	48 294	58.1 %	13 048	10 612	55.1%	8 377	13 378	38.5 %	669	1 240	35.0 %	10 827	26 716	28.8 %

Source: MEYS – Performance indicators of public and private universities 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 (%)
2021	2 941	1 864	61.2 %	837	468	64.1 %	2 393	2 280	51.2 %	246	253	49.3 %	5 743	17 957	24.2 %
2020	2 577	1 601	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 %	2 201	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 %	2 258	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 %	2 277	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 universities 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 (%)
2021	4 235	10 990	27.8 %	1 844	3 977	31.7 %	1 483	4 074	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 %	1 642	4 880	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 %	1 712	5 244	24.6 %	192	528	26.7 %	2 999	19 093	13.6 %
2014	6 049	15 693	27.8 %	2 347	5 850	28.6 %	1 795	5 291	25.3 %	175	548	24.2 %	2 882	17 780	13.9 %
2013	6 213	16 210	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	6 336	16 447	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 universities 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 (%)
2021	2 364	1 191	66.5 %	628	374	62.7 %	406	446	47.7 %	47	48	49.5 %	1 231	1 355	47.6 %
2020	2 511	1 245	66.9 %	737	409	64.3 %	424	438	49.2 %	37	26	58.7 %	1 222	1 447	45.8 %
2019	2 451	1 193	67.3 %	750	427	63.7 %	420	387	52.0 %	55	55	50.0 %	1 135	1 197	48.7 %
2018	2 576	1 253	67.3 %	826	457	64.4 %	402	382	51.3 %	53	52	50.5 %	1 014	1 305	43.7 %
2017	2 706	1 357	66.6 %	763	460	62.4 %	402	359	52.8 %	60	48	55.6 %	1 076	1 529	41.3 %
2016	2 762	1 392	66.5 %	727	470	60.7 %	431	381	53.1 %	56	49	53.3 %	968	1 440	40.2 %
2015	2 663	1 376	65.9 %	785	434	64.4 %	448	387	53.7 %	63	46	57.8 %	907	1 405	39.2 %
2014	2 732	1 354	66.9 %	755	458	62.2 %	464	360	56.3 %	73	69	51.4 %	937	1 431	39.6 %
2013	2 814	1 346	67.6 %	786	476	62.3 %	441	389	53.1 %	69	68	50.4 %	894	1 478	37.7 %
2012	2 834	1 345	67.8 %	765	464	62.2 %	450	409	52.4 %	100	86	53.8 %	783	1 385	36.1 %
2011	2 738	1 349	67.0 %	800	432	64.9 %	543	514	51.4 %	83	76	52.2 %	914	1 352	40.3 %
2010	2 723	1 310	67.5 %	780	453	63.3 %	548	526	51.0 %	63	70	47.4 %	995	1 600	38.4 %
2009	2 777	1 341	67.4 %	738	478	60.7 %	516	533	49.2 %	44	68	39.3 %	1 076	1 651	39.5 %
2008	2 767	1 355	67.1 %	684	452	60.2 %	448	500	47.3 %	67	69	49.3 %	1 160	1 751	39.9 %
2007	2 749	1 475	65.1 %	708	461	60.6 %	419	502	45.5 %	61	101	37.7 %	1 124	1 844	37.9 %
2006	2 785	1 573	63.9 %	609	472	56.3 %	440	499	46.9 %	56	77	42.1 %	1 041	1 631	39.0 %
2005	2 688	1 722	61.0 %	474	383	55.3 %	431	507	45.9 %	59	76	43.7 %	1 061	1 649	39.1 %

Source: MEYS – Performance indicators of public and private universities 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 (%)
2021	14 605	6 564	69.0 %	2 493	975	71.9 %	1 542	1 443	51.7 %	145	105	58.0 %	4 140	4 493	48.0 %
2020	14 091	6 476	68.5 %	2 440	965	71.7 %	1 522	1 429	51.6 %	118	101	53.9 %	3 981	4 281	48.2 %
2019	13 397	6 276	68.1 %	2 313	860	72.9 %	1 492	1 375	52.0 %	124	98	55.9 %	3 721	4 116	47.5 %
2018	12 798	6 134	67.6 %	2 483	859	74.3 %	1 379	1 285	51.8 %	139	86	61.8 %	3 436	3 725	48.0 %
2017	13 116	6 094	68.3 %	2 526	906	73.6 %	1 476	1 291	53.3 %	130	110	54.2 %	3 471	3 736	48.2 %
2016	13 181	6 162	68.1 %	2 402	904	72.7 %	1 519	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 %	1 520	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 %	1 460	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 %	1 465	1 428	50.6 %	97	122	44.3 %	3 201	3 399	48.5 %
2009	11 788	5 424	68.5 %	2 347	718	76.6 %	1 454	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 %	1 243	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 %	1 154	1 455	44.2 %	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 universities 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 (%)
2021	31 943	16 097	66.5 %	8 178	3 772	68.4 %	1 924	1 923	50.0 %	203	181	52.9 %	2 434	3 101	44.0 %
2020	31 031	15 616	66.5 %	8 772	4 021	68.6 %	2 016	1 997	50.2 %	198	180	52.4 %	2 507	3 223	43.8 %
2019	30 346	15 073	66.8 %	9 242	4 153	69.0 %	2 053	1 926	51.6 %	237	225	51.3 %	2 576	3 441	42.8 %
2018	31 378	15 377	67.1 %	9 989	4 393	69.5 %	2 141	2 069	50.9 %	238	239	49.9 %	2 649	3 534	42.8 %
2017	32 893	16 028	67.2 %	10 464	4 641	69.3 %	2 335	2 099	52.7 %	217	249	46.6 %	2 503	3 484	41.8 %
2016	34 368	16 816	67.1 %	11 528	4 961	69.9 %	2 424	2 222	52.2 %	241	216	52.7 %	2 507	3 435	42.2 %
2015	35 730	17 375	67.3 %	12 824	5 392	70.4 %	2 404	2 268	51.5 %	249	240	50.9 %	2 390	3 225	42.6 %
2014	39 308	18 544	67.9 %	13 728	5 677	70.7 %	2 497	2 333	51.7 %	254	240	51.4 %	2 376	3 196	42.6 %
2013	41 227	19 199	68.2 %	14 302	5 671	71.6 %	2 587	2 368	52.2 %	260	270	49.1 %	2 364	3 117	43.1 %
2012	43 418	19 723	68.8 %	14 521	6 134	70.3 %	2 620	2 471	51.5 %	319	282	53.1 %	1 862	2 596	41.8 %
2011	44 680	20 476	68.6 %	14 563	5 955	71.0 %	2 834	2 789	50.4 %	253	250	50.3 %	1 991	2 720	42.3 %
2010	45 174	20 878	68.4 %	13 686	5 731	70.5 %	2 895	2 877	50.2 %	213	226	48.5 %	1 342	1 958	40.7 %
2009	44 675	20 838	68.2 %	12 722	5 349	70.4 %	2 765	2 905	48.8 %	212	276	43.4 %	1 437	2 068	41.0 %
2008	43 309	19 960	68.5 %	11 092	4 754	70.0 %	2 583	2 762	48.3 %	220	246	47.2 %	1 711	2 247	43.2 %
2007	41 907	19 129	68.7 %	9 685	4 210	69.7 %	2 398	2 694	47.1 %	194	249	43.8 %	1 783	2 489	41.7 %
2006	41 046	18 610	68.8 %	8 798	4 052	68.5 %	2 274	2 550	47.1 %	177	212	45.5 %	1 879	2 516	42.8 %
2005	40 343	18 718	68.3 %	7 932	3 934	66.8 %	2 096	2 431	46.3 %	162	212	43.3 %	1 741	2 565	40.4 %

Source: MEYS – Performance indicators of public and private universities 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 (%)
2021	4 436	2 260	66.2 %	1 249	592	67.8 %	1 530	1 382	52.5 %	125	114	52.3 %	1 679	2 222	43.0 %
2020	4 450	2 296	66.0 %	1 365	684	66.6 %	1 553	1 385	52.9 %	114	118	49.1 %	1 675	2 274	42.4 %
2019	4 552	2 347	66.0 %	1 525	682	69.1 %	1 522	1 373	52.6 %	145	146	49.8 %	1 642	2 296	41.7 %
2018	4 867	2 460	66.4 %	1 581	729	68.4 %	1 607	1 456	52.5 %	170	125	57.6 %	1 553	2 179	41.6 %
2017	5 131	2 515	67.1 %	1 671	686	70.9 %	1 721	1 492	53.6 %	139	150	48.1 %	1 461	2 135	40.6 %
2016	5 489	2 536	68.4 %	1 691	777	68.5 %	1 876	1 526	55.1 %	181	170	51.6 %	1 473	2 079	41.5 %
2015	5 662	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 %

Zdroj: MŠMT – Statistika výkonových ukazatelů veřejných a soukromých vysokých škol ČR; ČSÚ – Ukazatele výzkumu a vývoje

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 (%)
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 (%)
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 (%)
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 (%)
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 (%)
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 (%)
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 (%)
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 (%)
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 (%)
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 (%)
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 %

Zdroj dat: ČSÚ, Ukazatele výzkumu a vývoje za Českou republiku v letech 2005-2021

Table 20: Researchers in the social sciences (HC)

	Enterprise sector			Government sector			University sector			Private non-profit sector		
	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)
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 (%)
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 (HC)

	Enterprise sector			Government sector			University sector			Private non-profit sector		
	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)
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 (FTE)

	Enterprise sector			Government sector			University sector			Private non-profit sector		
	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)
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 (%)
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 enterprise sector (HC)

	Enterprise sector			Public enterprises			Private domestic enterprises			Internationally controlled private enterprises		
	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)
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 (%)
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)

	Public and state universities			University hospitals			Private universities		
	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)
2021	8 483	16 182	34.4 %	1 207	1 442	45.6 %	216	321	40.2 %
2020	8 493	16 017	34.7 %	1 047	1 221	46.2 %	219	328	40.0 %
2019	8 269	15 793	34.4 %	948	1 177	44.6 %	221	358	38.2 %
2018	7 717	15 261	33.6 %	961	1 183	44.8 %	232	333	41.1 %
2017	7 424	14 952	33.2 %	958	1 099	46.6 %	236	341	40.9 %
2016	7 071	14 064	33.5 %	783	1 055	42.6 %	210	259	44.8 %
2015	7 151	14 036	33.8 %	1 032	1 181	46.6 %	244	319	43.3 %
2014	6 890	13 777	33.3 %	981	1 014	49.2 %	244	373	39.5 %
2013	6 960	13 217	34.5 %	952	1 123	45.9 %	254	451	36.0 %
2012	6 253	12 661	33.1 %	737	884	45.5 %	236	363	39.4 %
2011	6 102	12 205	33.3 %	892	1 020	46.7 %	190	323	37.0 %
2010	5 825	11 806	33.0 %	847	1 059	44.4 %	176	264	40.0 %
2009	5 721	11 459	33.3 %	1 022	1 178	46.5 %	196	269	42.2 %
2008	5 755	11 697	33.0 %	816	895	47.7 %	140	247	36.2 %
2007	5 513	11 383	32.6 %	892	983	47.6 %	144	244	37.1 %
2006	5 268	10 710	33.0 %	710	826	46.2 %	72	155	31.7 %
2005	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 (%)
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 classification (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 (%)
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	59	1 072	3 056	26	74	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	59	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	59	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	40	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	51	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	89

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

Table 30: Academics by discipline (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 (%)
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 discipline 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 (%)**
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).
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Table 32: Academics by discipline 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 (%)**
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 discipline 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 (%)**
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 discipline 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 (%)**
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 discipline 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 (%)**
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 discipline 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 (%)**
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 (%)**
2021	39 456	44 626	11.60	38 409	41 983	8.50	48 000	53 845	10.90	67 001	75 815	11.60	88 635	97 284	8.90
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	33 265	36 530	8.9	41 586	47 233	12	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
2016	30 128	34 236	12	27 976	30 424	8	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	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	24 642	25 929	5	31 215	34 078	8.4	45 569	49 414	7.8	61 778	65 062	5
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	43 451	46 230	6	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 public research institutions in 2021 (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 management and advisory boards of the Czech Academy of Sciences in 2021 (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 CAS in total	60	252	19.2 %
Other advisory boards (commission. 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 2021 (HC)

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

Source: crc.muni.cz

Table 41: Proportion of women in the Council of Czech Universities in 2021 (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: 2021 annual reports.

Table 42: Proportion of women in Technological Agency of the Czech Republic in 2021 (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 TACR in total	5	24	17.2 %
Programme's council, expert commissions	58	158	26.9 %
Total	68	205	24.9 %

Source: 2021 Technological Agency Annual Report, www.tacr.cz.

Table 43: Proportion of women in the Czech Science Foundation in 2021 (HC)

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

Source: 2021 Czech Science Foundation Annual Report.

Table 44: Proportion of women in the Learned Society of the Czech Republic in 2021 (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 engineering professionals* and their average gross monthly wage (CZK)

	Total			Age: 25–29 let			Age: 30–34 let			Age: 35–44 let			Age: 45–54 let		
	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)
2021				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				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: Obtaining patents from a gender perspective

	Total			Public universities			Public research institutions			Enterprises			Private citizens		
	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)	Women	Men	Women (%)
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).

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2021 Monitoring Report

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