

Gender balance in research – December 2020

Gender balance among researchers in Norwegian academia

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In 2019, almost 37,500 researchers participated in research and development (R&D) in the higher education sector and the institute sector combined. Among these, 49 per cent were women. Compared with the gender distribution in 2009, where women accounted for 43 per cent of researchers, the female proportion has increased by 6 percentage points. In the institute sector, women accounted for 45 per cent of researchers in 2019, while there was gender balance among researchers in the higher education sector. At the health trusts, the proportion of women among the researchers and personnel who participated in R&D was 53 per cent.

The scissors gap less

Figure 1a and 1b show the gender distribution in the higher education sector and the institute sector, including health trusts, at different levels in 2009 and 2019. In the higher education sector, there has been few changes in the proportion of female research fellows (grade D) and postdocs (grade C) during this ten-year period. Women were in the majority among the research fellows, both in 2009 and in 2019, and among

the postdoctoral fellows, the gender distribution has been relatively even in the same period. Furthermore, there are more and more women among the associate professors (grade B) and full professors (grade A). The proportion of female associate professors increased from 37 per cent in 2009 to 49 per cent in 2019, and among professors the proportion of women increased from 20 to 32 per cent in the same period.

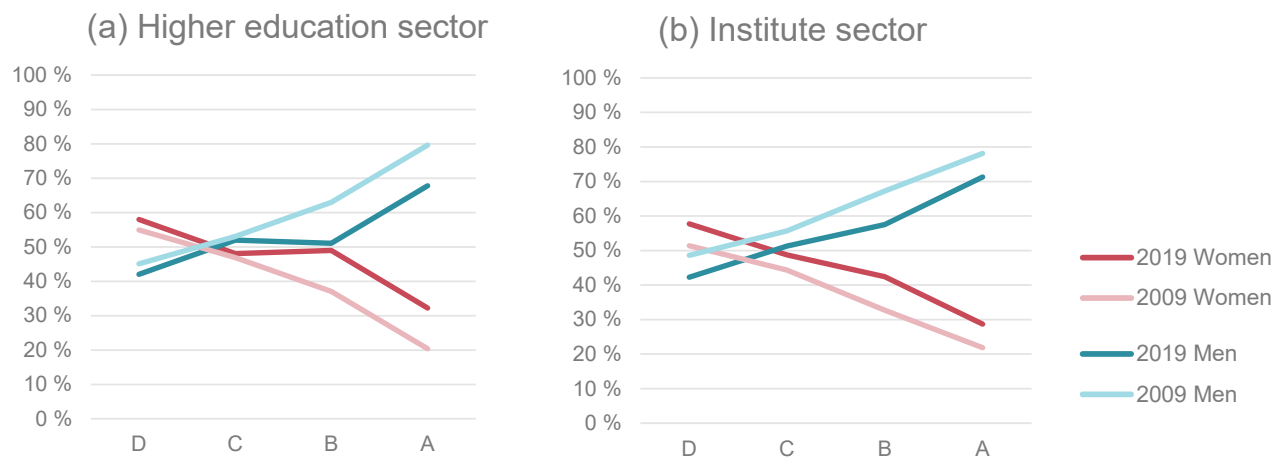


Figure 1 Share of women and men in the higher education sector (a) and the institute sector (b) by grade (grade A, B, C and D)¹. 2009 ad 2019. Health trusts with university hospital function are included in the higher education sector while other health trusts and private, ideal hospitals are included in the institute sector. Grade A, B, C and D is an international classification in four levels of the academic career system. See information box. Source: NIFU, the Register of Research Personnel

In the institute sector, the proportion of female research fellows has increased by 6 percentage points from 2009 to 2019 and is thus at the same level as the higher education sector. Among postdocs, the proportion has also increased and there is now a gender balance at this position level (49 per cent women). The proportion of women has increased most for «grade B», or senior researchers; from 33 per cent to 42 per cent. At the highest academic level in the institute sector, which includes research professors, the proportion of women is now 29 per cent (22 per cent in 2009).

A long way to gender balance in the STEM disciplines

Figures on total gender balance in the higher education sector and the institute sector, respectively, hide the fact that there are still large differences across the fields of R&D. The «scissor figures» below show the

gender balance for the two sectors combined, by field of R&D.

The six scissors show quite different patterns. For the humanities and the arts, women were clearly in the majority at PhD and postdoctoral level (grades D and C) with over 60 per cent women. At associate professor level (grade B), men were barely in the majority, while at professor level (grade A), only 37 per cent were women.

In social sciences, there were also over 60 per cent women at PhD level, while the gender balance was around 50 per cent for both postdoctoral fellows and associate professor level, while only 1/3 of the professors were women.

In natural sciences, men make up the largest proportion at all levels; from 57 per cent at PhD level to 77 per cent of professors.

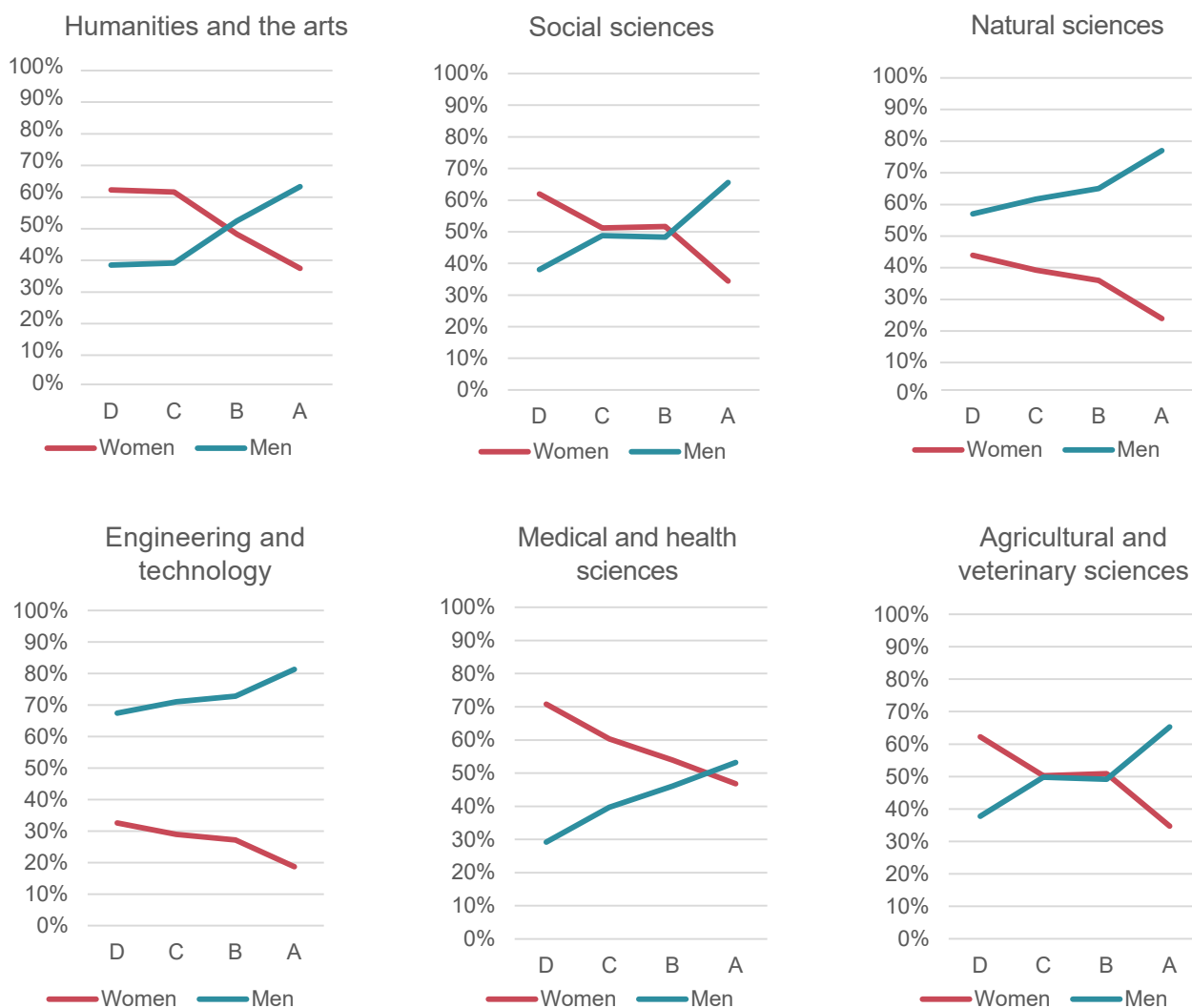


Figure 2 Gender balance in the higher education sector and the institute sector combined, by field of R&D and grades (grade A–D). 2019. Grade A, B, C and D is an international classification in four levels of the academic career system. See information box. Source: NIFU, the Register of Research Personnel

Grade A, B, C and D

Grade A, B, C and D is an international classification in four levels of the academic career system developed by the EU (She Figures) that can be used to compare career levels/ vertical segregation between countries, sectors and disciplines. Grade A corresponds to the highest academic level (professors, chief physician), grade B is the level of experienced researchers (associate professor and equivalent), grade C corresponds to the first position after completing a PhD (postdoctoral fellows, or researchers with less than 5 years of experience), and grade D is the lowest academic level, which does not require a PhD (research fellows, research assistants). The Norwegian institute sector is heterogeneous, as are the position structures at the research institutes. In this analysis, the position structures in the institute sector is customized by NIFU based on the structure at the social science institutes.

	Universities and colleges	Institutes	Health trusts
Grade A	Professor	Researcher level 1/ researcher with professor competence	Chief physician
Grade B	Associate professor, senior researcher	Researcher level 2/ researcher with doctoral degree	Senior consultant, researcher with doctoral degree
Grade C	Postdoctoral fellow, researcher with less than 5 years of experience	Postdoctoral fellow, researcher with less than 5 years of experience	Postdoctoral fellow, researcher with less than 5 years of experience
Grade D	Research fellow, research assistant, lecturer, assistant professor	Researcher level 3/ researcher without doctoral degree, research fellow, research assistant	Physician, researcher without doctoral degree, research fellow

The gender balance is even more skewed within engineering and technology: in this field of R&D, almost 70 per cent of the research fellows and over 80 per cent of the professors were male.

The gender balance in medical and health sciences is quite different; here the women were in the clear majority up to the professor level. Over 70 per cent of the research fellows were women, 60 per cent of the postdoctoral fellows, over 50 per cent of the associate professors, while the proportion of women among professors were 47 per cent.

The scissors for agricultural and veterinary sciences are similar to the pattern for the social sciences; a high proportion of women at the PhD level, gender balance at the postdoctoral and associate professor level and about $\frac{1}{3}$ of the professors were female.

Gender balance for professors by educational institution, institute arena and type of health trust

The figures below show the gender balance at the highest academic level; professor level for the higher education sector; researcher at level 1 for the institute sector and chief physician for the health trusts.

At the higher education institutions, there are large variations in the gender balance at institutional level, much of which is related to the institutions' academic profile, but there is also variation between the universities. At two of the private university colleges; Queen Maud's University College and Lovisenberg Diaconal University College, there are only female professors.

Six educational institutions have a gender balance between 40 and 60 per cent; one university; Oslo Metropolitan University, three specialized university institutions; Oslo National Academy of the Arts, Norwegian Academy of Music and VID Specialized University, as well as two state university colleges; Østfold University College and Western Norway University of Applied Sciences. In the institute sector, only the primary research institutes have a gender balance at researcher level 1.

We find the lowest proportion of women at Kristiania University College, 14 per cent women. Educational institutions with a female share of 25 per cent or lower are Norwegian University of Science and Technology, Molde University College, BI Norwegian Business School, and technical industrial institutes.

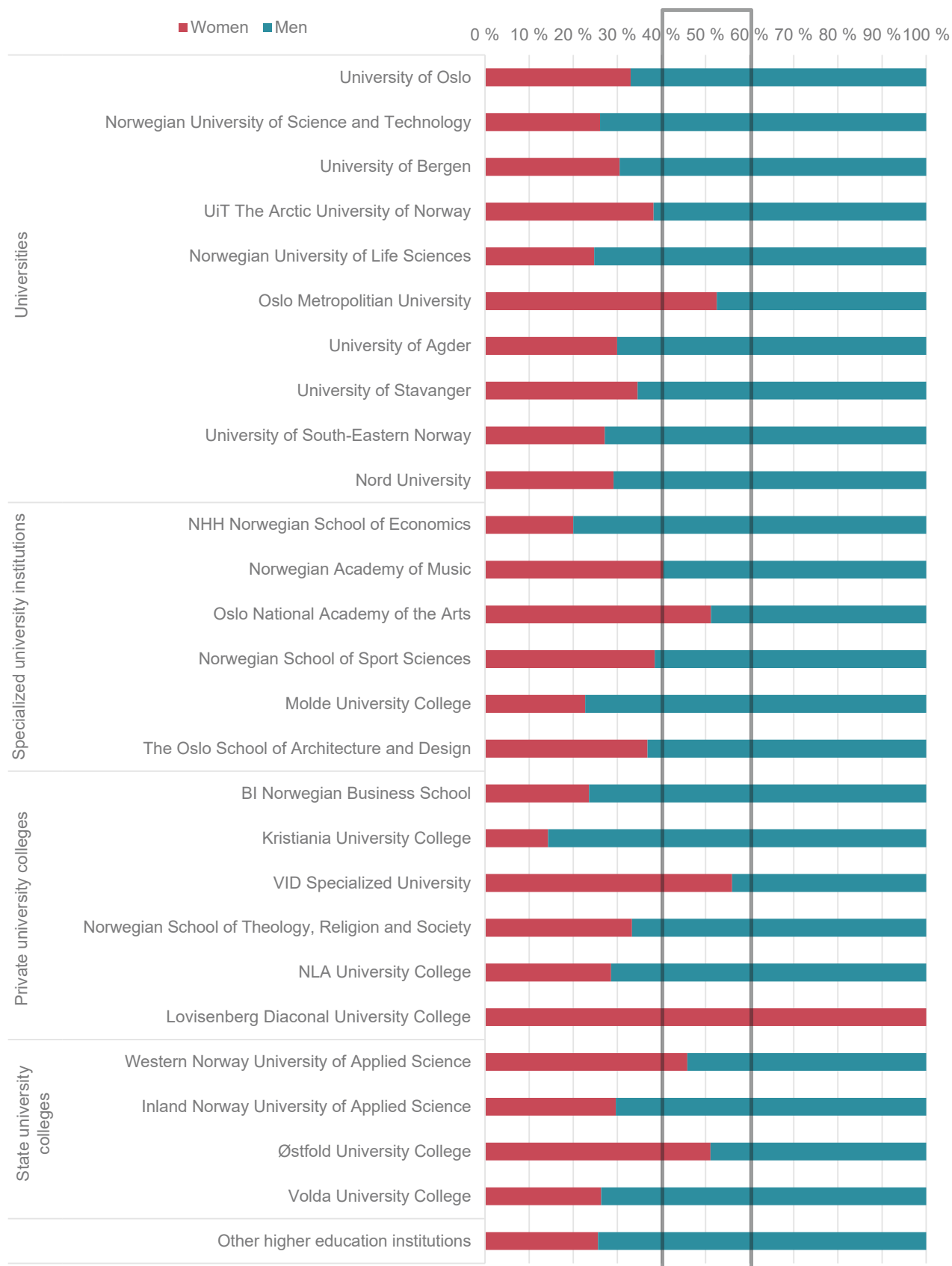


Figure 3a Gender balance, grade A in the higher education institutions*. 2019.

*Other higher education institutions include The University Centre in Svalbard, Norwegian Defence University College, The Norwegian Police University College, Queen Maud's University College, University College of Norwegian Correctional Service (KRUS) and Sami University College.

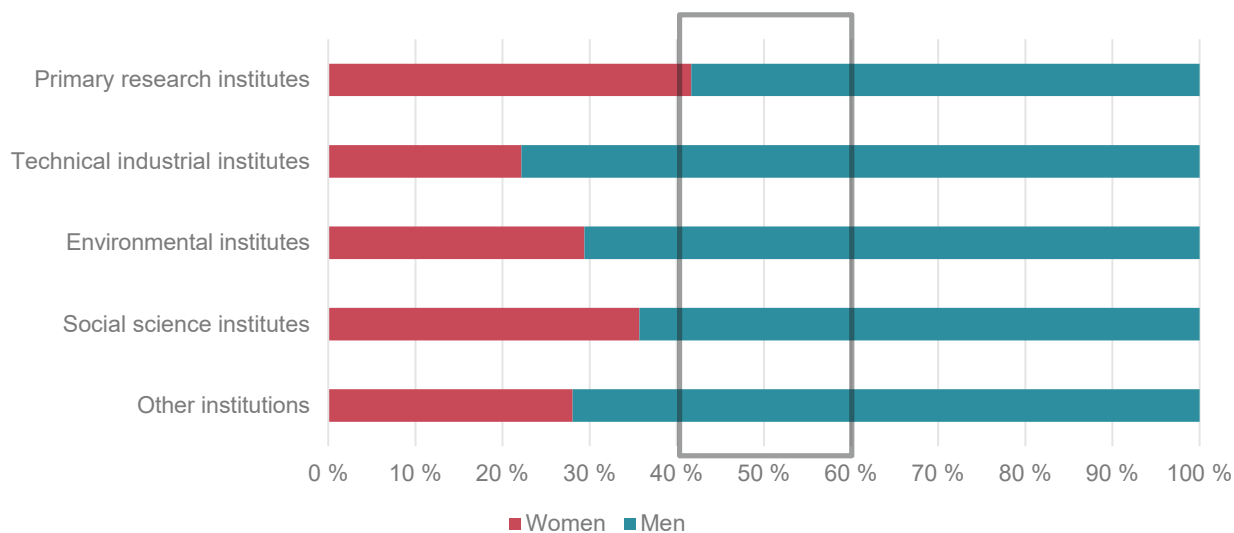


Figure 3b Gender balance, grade A in the institute sector (health trusts excluded). 2019.

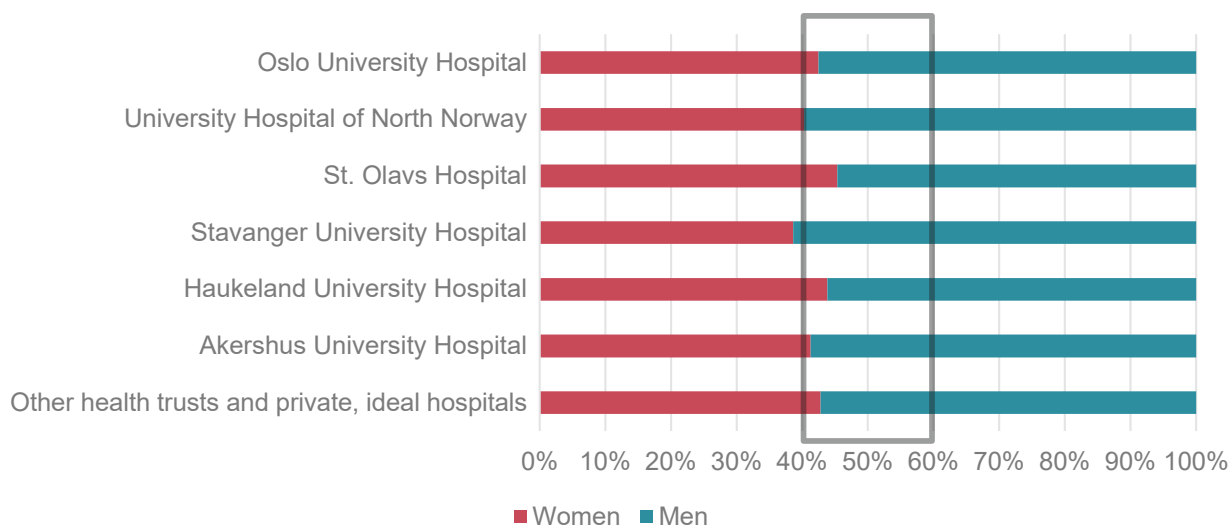


Figure 3c. Gender balance, grade A in health trusts*. 2019.

* In the R&D statistics the health trusts with university hospital function are included in the higher education sector while other health trusts are included in the institute sector.

Source: NIFU, the Register of Research Personnel

Notes

1. The figures in this newsletter are based on data from the Register of Research Personnel (RRP), which is operated by NIFU. The RRP contains individual-level data on researchers/academic staff participating in R&D, as well as senior technical/administrative staff and managers, at universities, colleges, health trusts, research institutes and other institutions with R&D in Norway. The register is part of the national R&D statistics. The RRP was established in 1965 and contains data from 1961 till the present time. The persons included in the register hold a position that normally requires competence at master's level or higher. At the health trusts, only those who participated in R&D in the registration year are included. Only persons with a minimum of 25 per cent position are included in the register, in line with international guidelines for the preparation of R&D statistics.

The statistics on gender balance in Norwegian research are based on data [the Register of Research Personnel](#). This is included in the Norwegian [R&D statistics](#), which are divided into three sectors; the higher education sector, the institute sector and the industrial sector. In agreement with the Research Council of Norway, NIFU has statistical responsibility for the higher education sector and the institute sector, including health trusts. Statistics Norway has the statistical responsibility for the industrial sector.

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