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SNSF Early Career Researcher Survey

Survey report

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1 Summary

This report presents the results of the SNSF Early Career Researcher Survey. The survey procedure is described in chapter 3. The results have been mainly categorized by the three categories of employees funded under SNSF grants: “doctoral students”, “postdocs” and “further staff”. This categorisation is not based on a question in the survey, but on the employee's status as reported to the SNSF. Further staff for example includes researchers who do not intend to do a doctorate and technicians.

The majority of respondents were Doctoral students and aged mostly between 26 and 35 years old. Across all three position types, most of the respondents were engaged in only one SNSF funded project. Over 95% of the Postdocs and Doctoral students had a fixed term contract. The length of these contracts increases with the age of the researchers. However, around 60% of Postdocs and further staff would prefer to have longer contracts. Contracts are mostly full time (58%) and 75% of researchers indicate being satisfied with their contractual work time. However, 58% work more than their contractual hours and around 30% of participants indicate working more than 48 hours a week. The compensation for working overtime is possible for 48% of participants.

The respondents mainly focus on research in their work time, followed by teaching, which takes an average of about 10% of their time. Around one third of respondents mainly wish to work in a scientific position within academia and about one out of four wishes to have a full-tenured professorship or have a scientific position outside academia respectively. Incidentally, 71% of participants feel they have sufficient time to pursue their career goals. Over 80% feel that the SNSF project they work on is helpful or rather helpful in their career. Finally, the COVID-19 pandemic is considered by 47% of participants to have had a negative or rather negative effect on their career.

Eight percent of respondents report having experienced discrimination or harassment at their current academic job. Gender discrimination is cited most often (42%), followed by racial discrimination or harassment (22%), and age discrimination (17%). Seventeen percent report having observed discrimination or harassment, with the same categories being the most often cited. Additionally, observed discrimination related to parenthood or care duties, sexual harassment and xenophobia are mentioned by more than 15% each. Regarding academic behaviour, 16% have felt pushed towards inappropriate academic behaviour and 26% have observed others being pushed towards such behaviour.

Most respondents are aware of the majority of rights they have as employees in an SNSF project, with the majority of categories being known by at least 70% of respondents. However, gender equality grants (25%) and flexibility grants for looking after children (41%) are known to less than half of the respondents. Finally, 11% of women who knew about the gender equality grant made use of the possibility to obtain it.

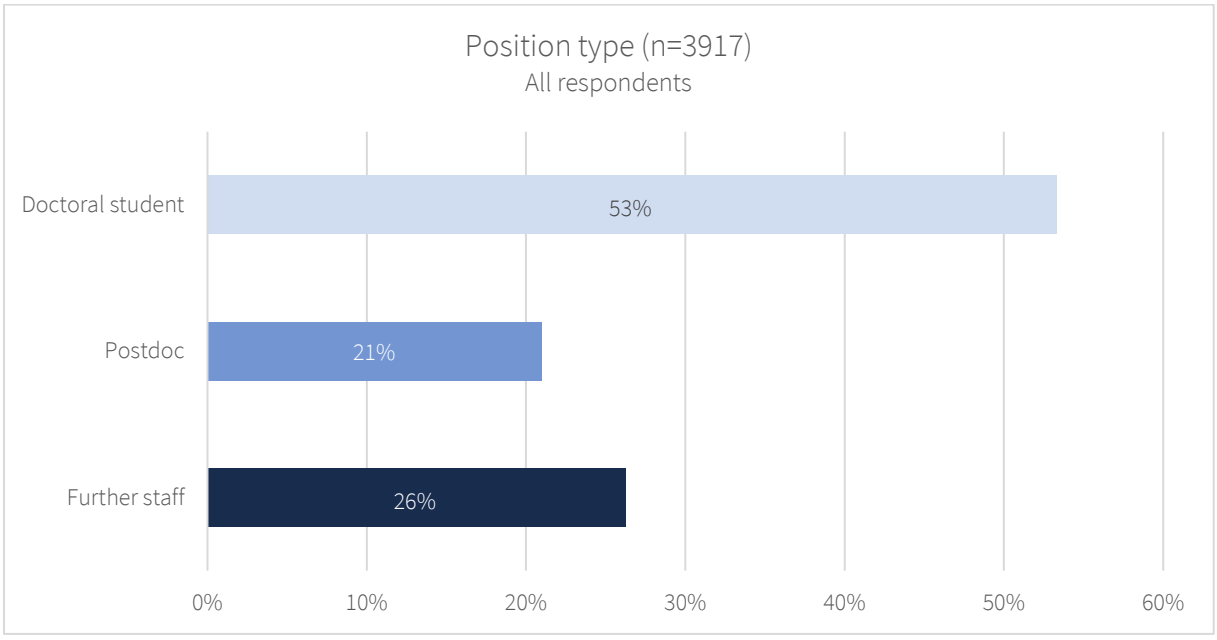
Regarding satisfaction of respondents, the intellectual demands, content of tasks, level of responsibility and freedom, social environment, working conditions, and the fit to professional qualifications are all generally positively perceived, with at least three out of four respondents being somewhat or very satisfied, among which between 45% and 60% very satisfied. Job security clearly appears as the main issue, with 19% reporting being not at all satisfied and 17% somewhat dissatisfied. However, close to half (49%) of respondents remain satisfied with this aspect. Other significant sources of dissatisfaction are income, space left for private life, and workload, with about one out of five to one out of four respondents reporting dissatisfaction.

2 Results

2.1 Demographics

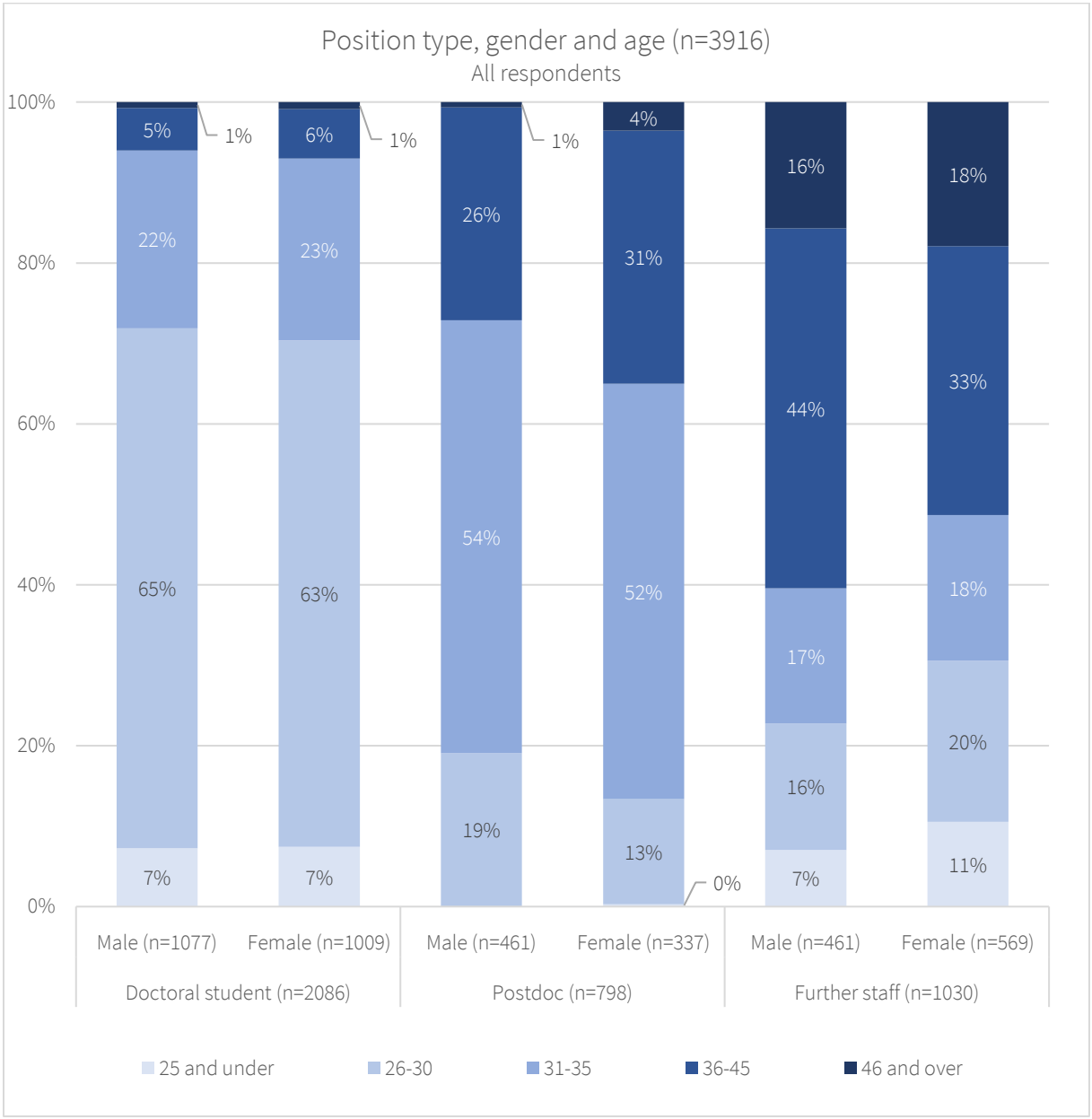
The majority of participants are Doctoral students (53%), followed by further staff and Postdocs at (Figure 1). This categorisation is not based on a question in the survey, but on the employee's status as reported to the SNSF.

Figure 1



Men and women are equally represented among all three position types (Figure 2). Doctoral students tend to be the youngest respondents, with a majority of them being between 26 and 30 years old. Further staff are the oldest of respondents, most of them being 36 years old or older.

Figure 2



When looking at types of institutions across all position types (Figure 3, Figure 4 and Figure 5) we see that the majority of respondents in each group work at a cantonal university. The second most often reported type of institution for Doctoral students and Postdocs is the ETH domain.

For further staff, a higher proportion work at a university of applied sciences (19%) than in the ETH domain (10%).

Figure 3

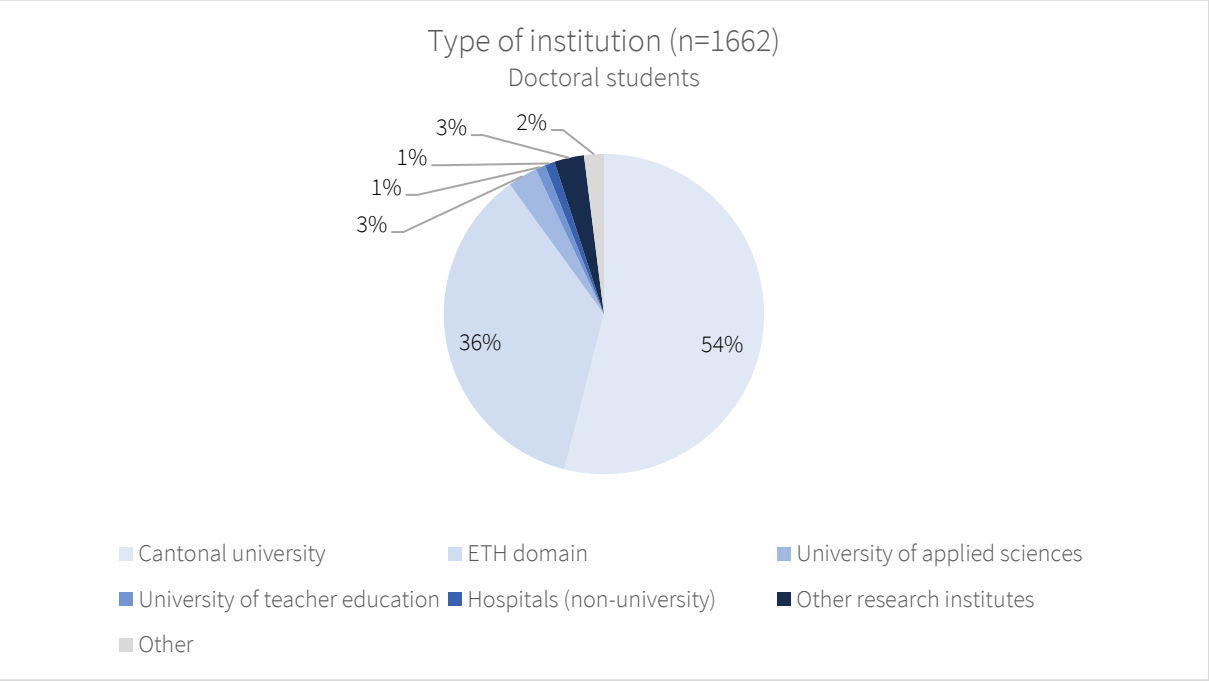


Figure 4

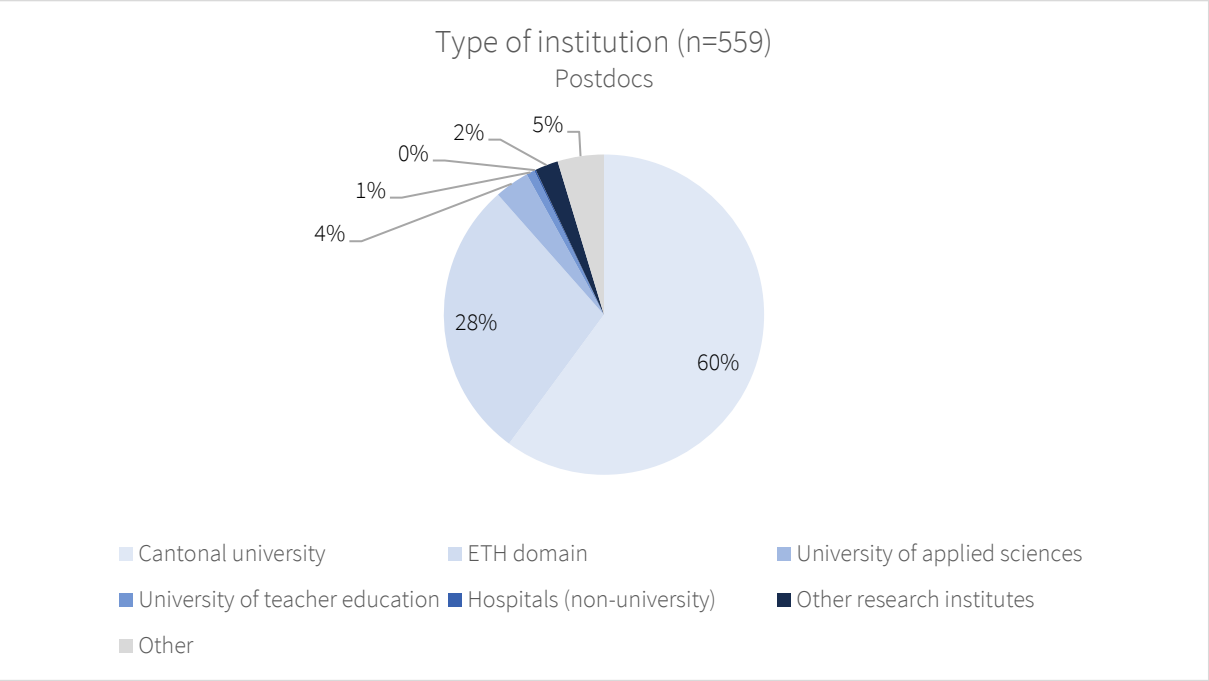
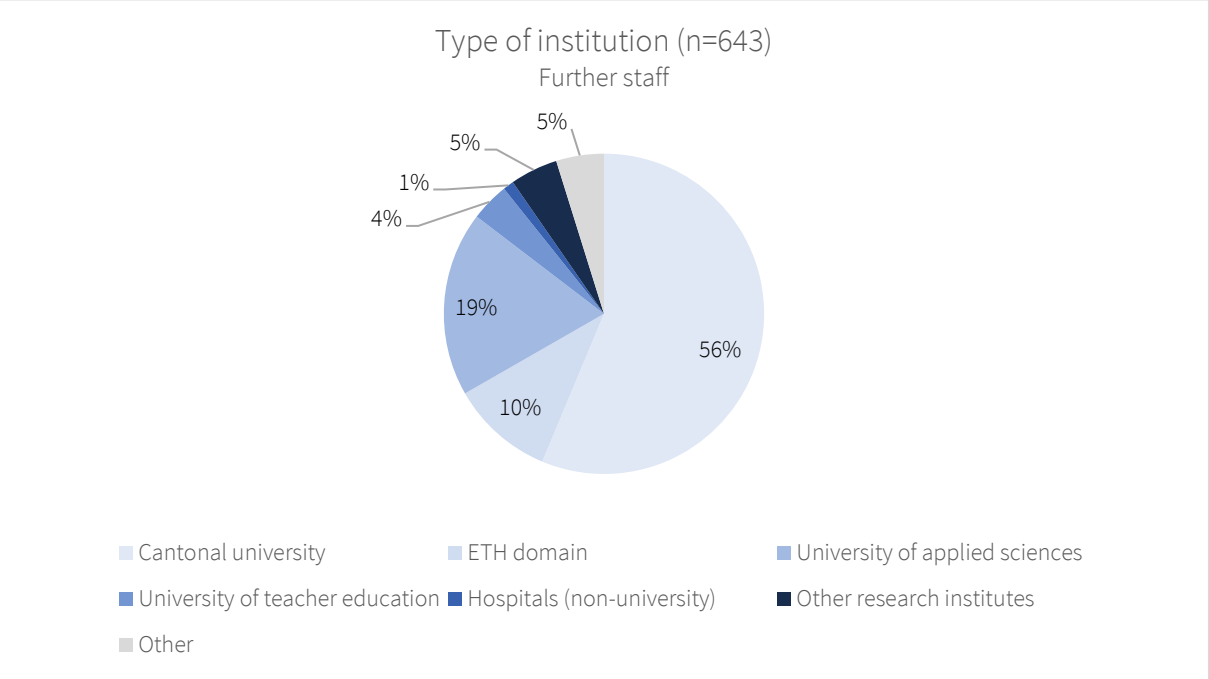
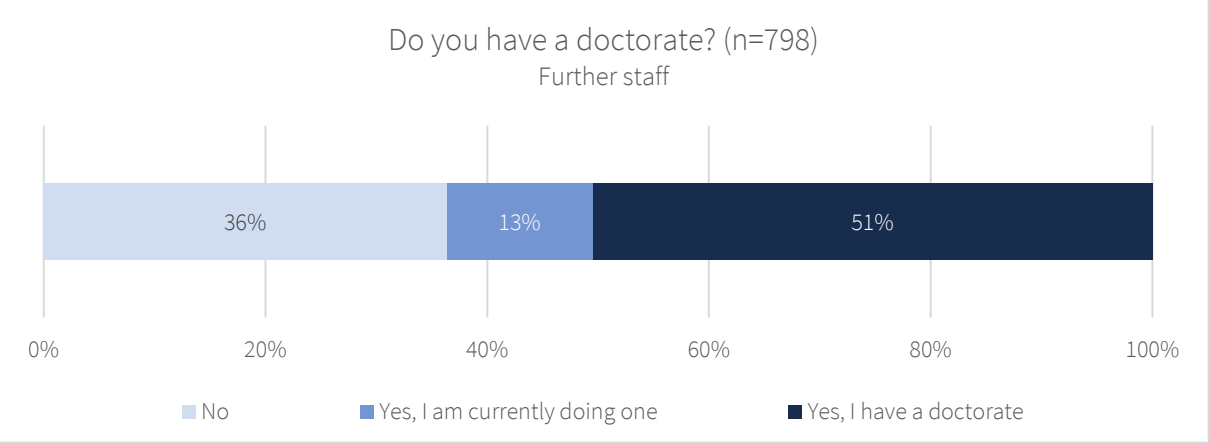


Figure 5



When looking at the proportion of respondents with a doctorate among further staff, we see that 13% are currently doing one and half of further staff already have their doctorate (Figure 6).

Figure 6



Below are presented the proportions of academic discipline among the position types. The main research domain or discipline that Doctoral students (Figure 7) are currently working on is STEM, followed by life sciences and SSH. As for Postdocs (Figure 8) the main research is split relatively equally among the three domains, with Life Sciences and Medicine being the most cited (36%). Finally, the majority of further staff's main research discipline is currently SSH (Figure 9).

Figure 7

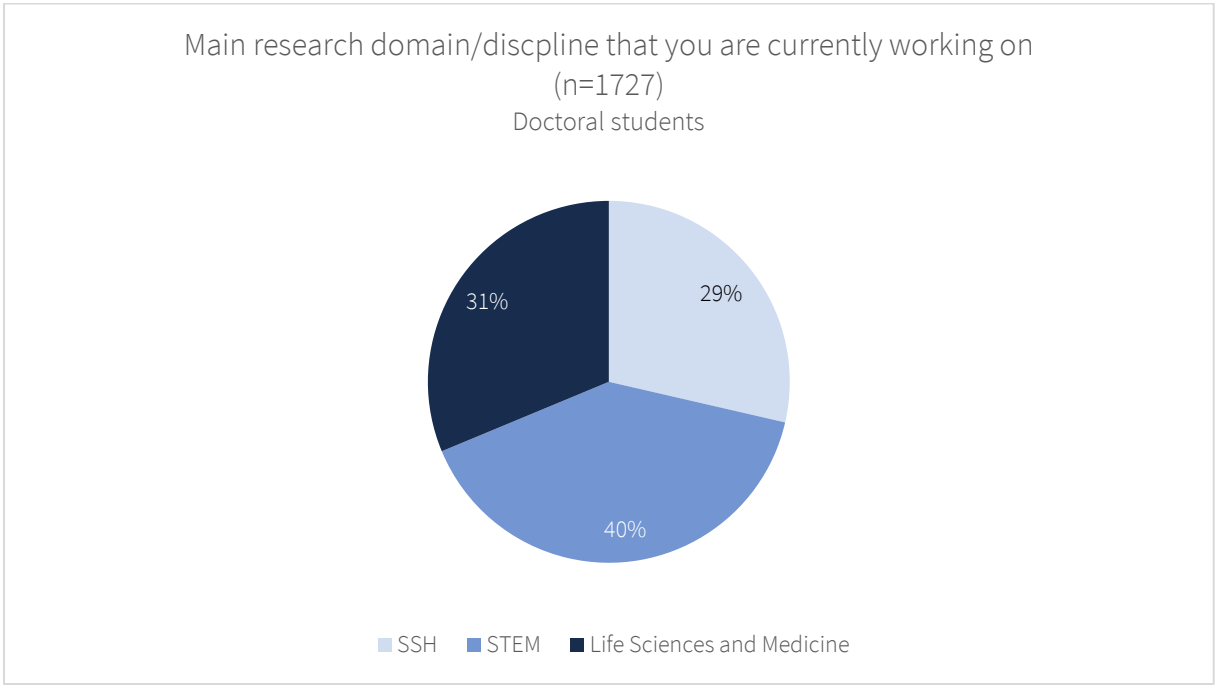


Figure 8

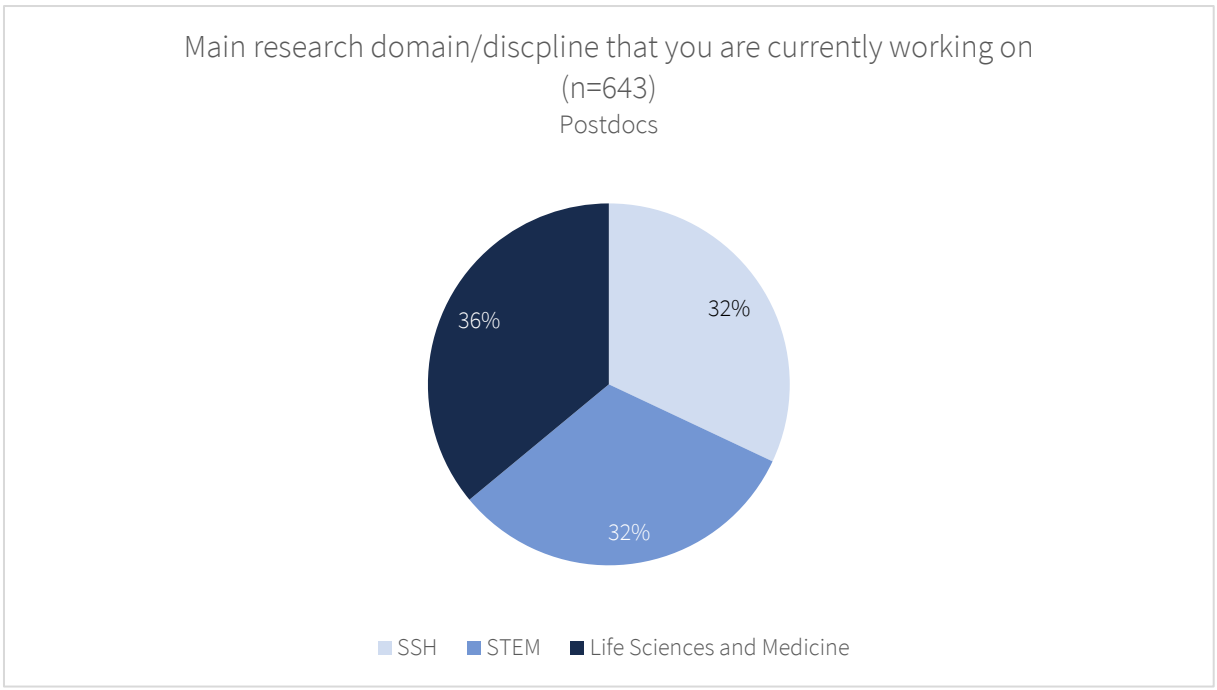
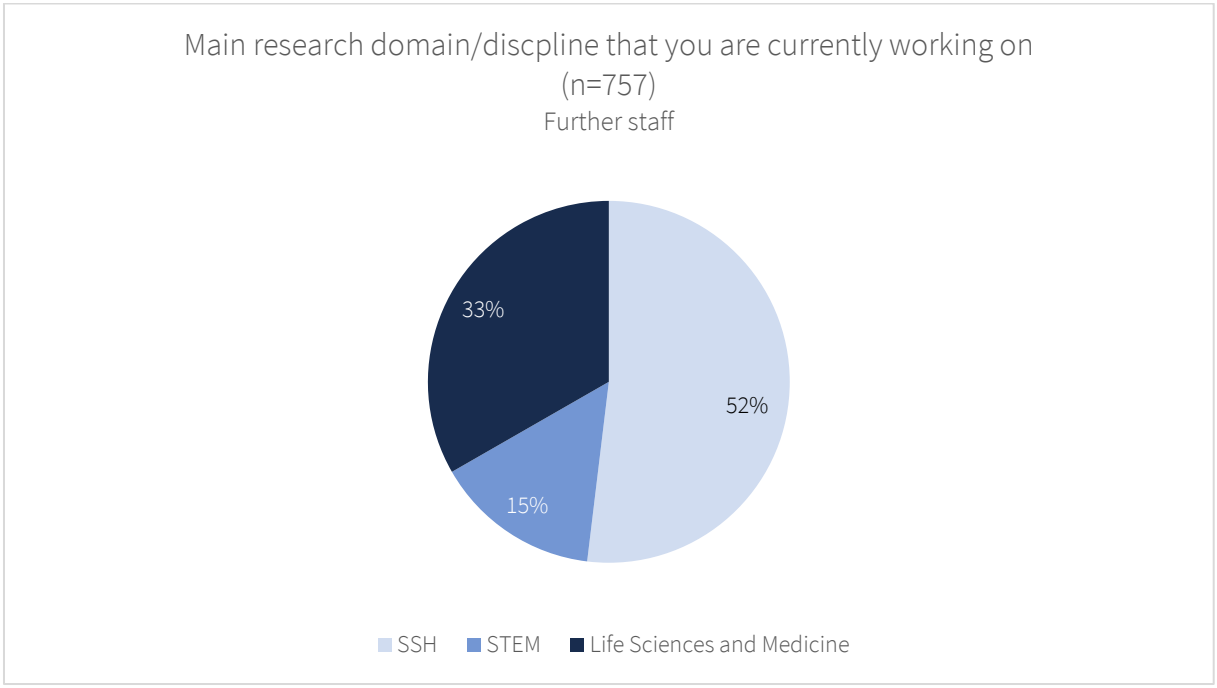
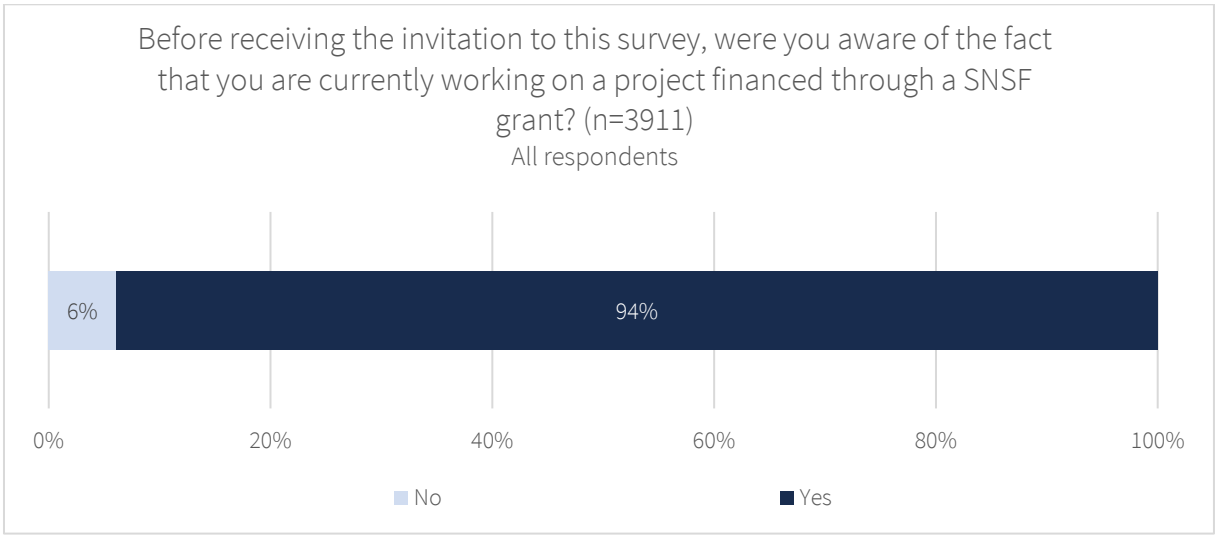


Figure 9



The vast majority of respondents (94%) were aware that their project is currently financed through a SNSF grant (Figure 10).

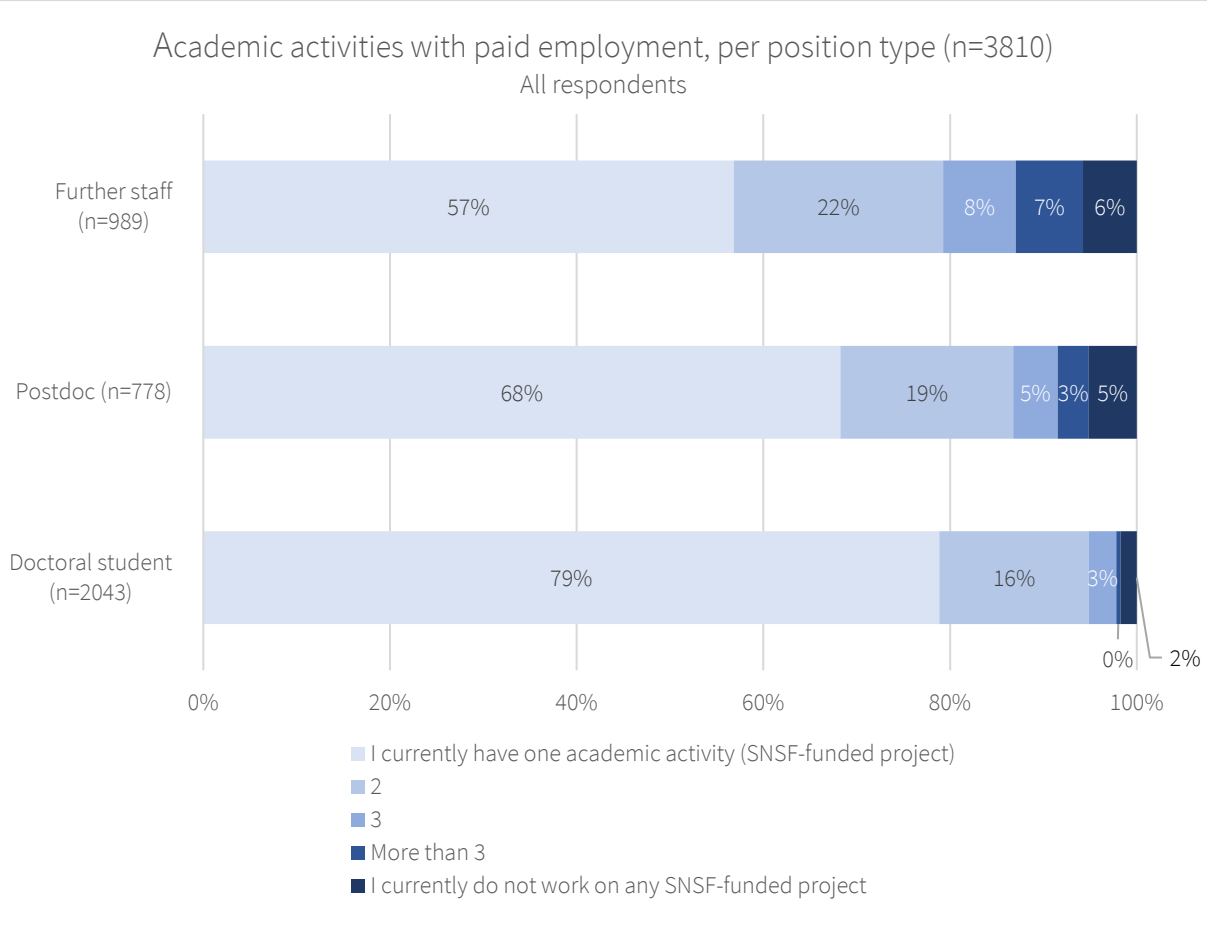
Figure 10



2.2 Contract Type[1]

Across all three position types, most respondents have one academic activity that is a SNSF-funded project (Figure 11). The large majority of Doctoral students (79%) report having only one academic activity. Further staff respondents are more likely to have more than one academic activity, compared to other position types.

Figure 11



[1] In the questionnaire, respondents had the opportunity to answer detailed questions on up to 3 different academic activities (if the person had more than 3, the 3 most important). In the case of more than one activity, the respondents were asked several sets of questions, some of which were repeated, about the respective activities. In each case, they were asked, e.g. whether the academic activities were pursued under the same employment contracts and if they were part of a research project funded by the SNSF. Depending on the situation, the questions referred either to the employment contract (e.g. duration of contract) or to the SNSF-funded research project (e.g. whether there were previous employment contracts within the same project).
In order to achieve an unambiguous and concise presentation of the results, some analyses in the report were limited, depending on the indicator, to persons with a single employment contract or who work in a single SNSF-funded project. Overall, 3137 respondents reported a single employment contract (90% of respondents for whom sufficient data was available for this categorization) and 2704 respondents reported a single academic activity (74% of valid responses).

A fixed-term contract is the main type of contract across all positions (Figure 12). More Further staff have a permanent contract compared to the other position types (18%), as the vast majority of Doctoral students and Postdocs are in a fixed-term contract. There are no significant differences in contract types between male and female respondents. Among further staff, having a PhD does not lead to a significant change with regards to the distribution of contract types. It can finally be noted that age seems to have an impact on the contract type among respondents. Indeed, the results show that older individuals more often have permanent contracts (Figure 13).

Figure 12

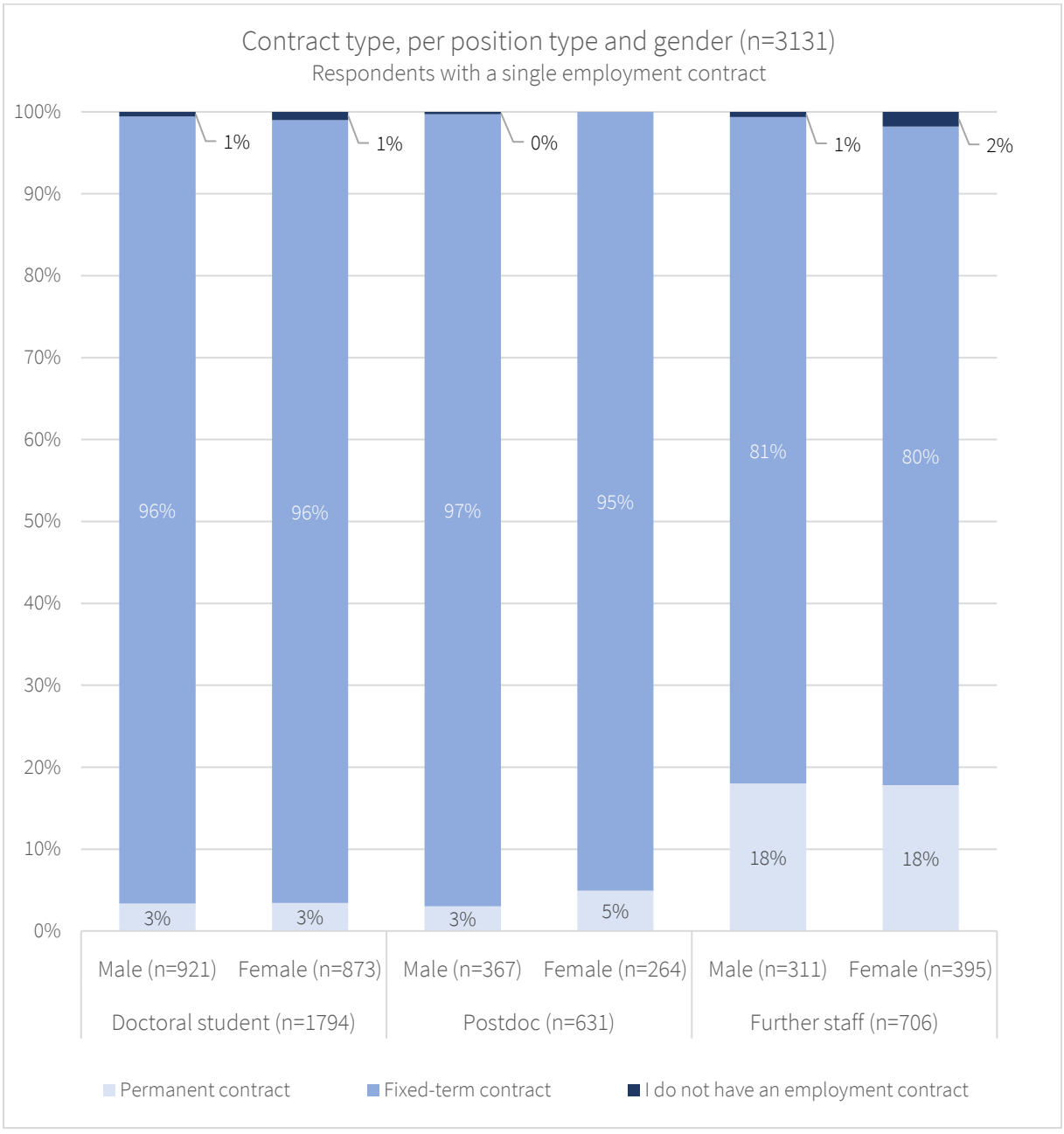
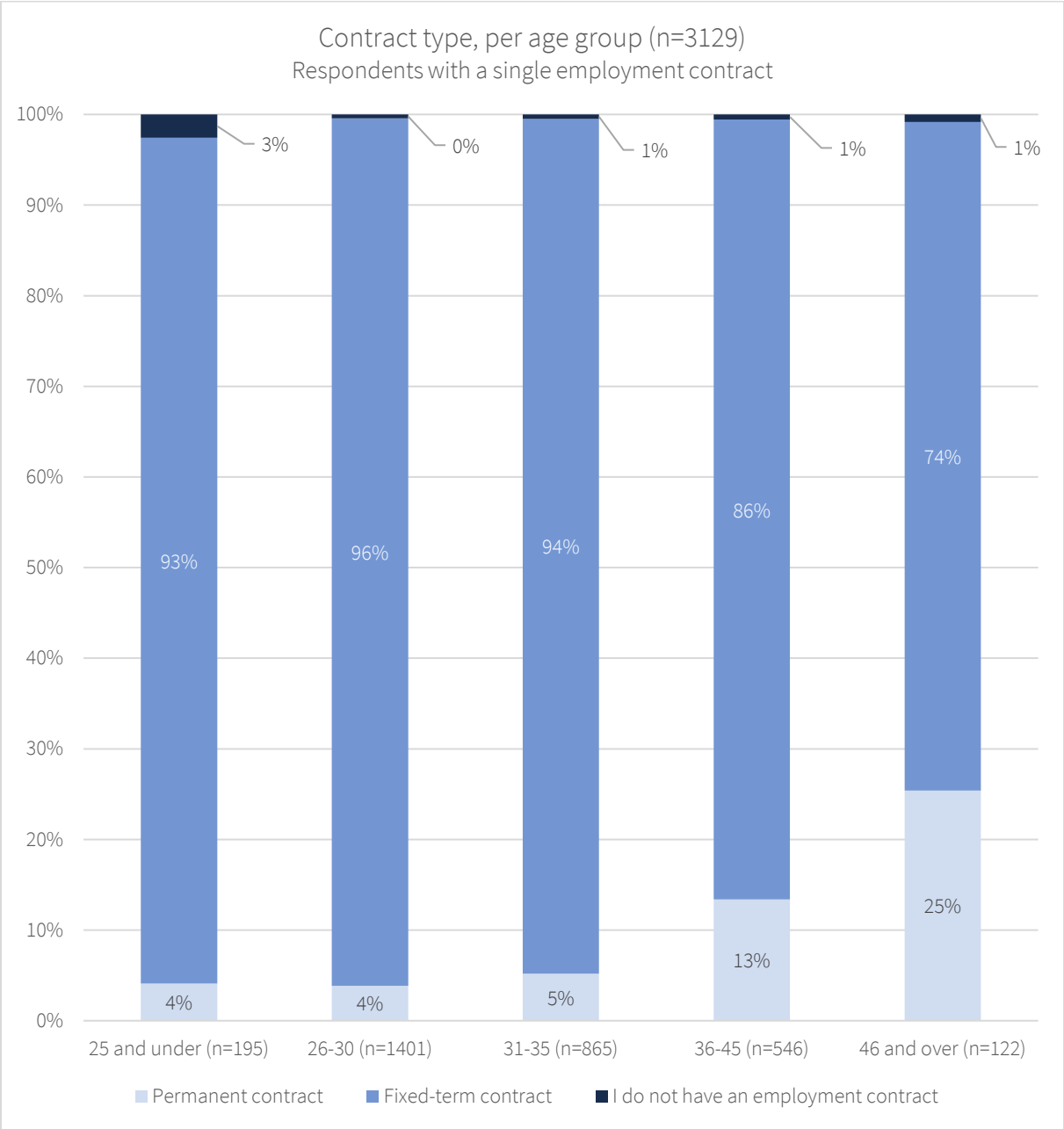


Figure 13



2.3 Contract Duration

The duration of fixed-term contracts varies considerably between position types and age groups (Figure 14). Among Doctoral students, younger respondents tend to have shorter fixed-term contracts, whilst older Doctoral students are more likely to have longer contracts. Sixty-seven percent of 36- to 45-year-old Doctoral students are in fixed-term contracts with a duration of 37 months or more. Contract duration is less contrasted among Postdocs, as all age groups tend to be in contracts lasting less than 24 months. Overall, Doctoral students are more

likely to be in longer fixed-term contracts than any other position type and the majority of respondents aged under 26 across all position types report having fixed-term contracts lasting 12 months or less. Further staff follow again a similar trend to Doctoral students, with younger respondents having shorter fixed-term contracts than older age groups. Most age groups have fixed-term contracts lasting less than 24 months, but the majority of older further staff (46 years and older) have contracts with a duration of more than 25 months. Care has to be taken in analyzing some of the groups, as they become small, especially in this oldest age category.

When considering the average contract duration of all position types and age groups (Figure 15), we see that Doctoral students have an average contract duration that is longer than other position types. Older Doctoral students have the longest fixed-term contracts on average. Figure 7 shows that, on average, the number of months in fixed-term contracts tends to increase with age within all position types. This trend is more pronounced among Doctoral students and further staff than among Postdocs.

When comparing contract duration among research disciplines, we find that the proportion of individuals in SSH and STEM disciplines changes among Doctoral students and Postdocs. The proportions among older Doctoral students and Postdocs are higher in SSH disciplines, while younger Doctoral students and Postdocs are more likely to be involved in STEM activities (the mean age of Doctoral students and Postdocs in SSH activities are respectively 36,6 and 31,7 yeas old, whereas the means are respectively 32,6 and 28,5 for STEM activities).

Figure 14

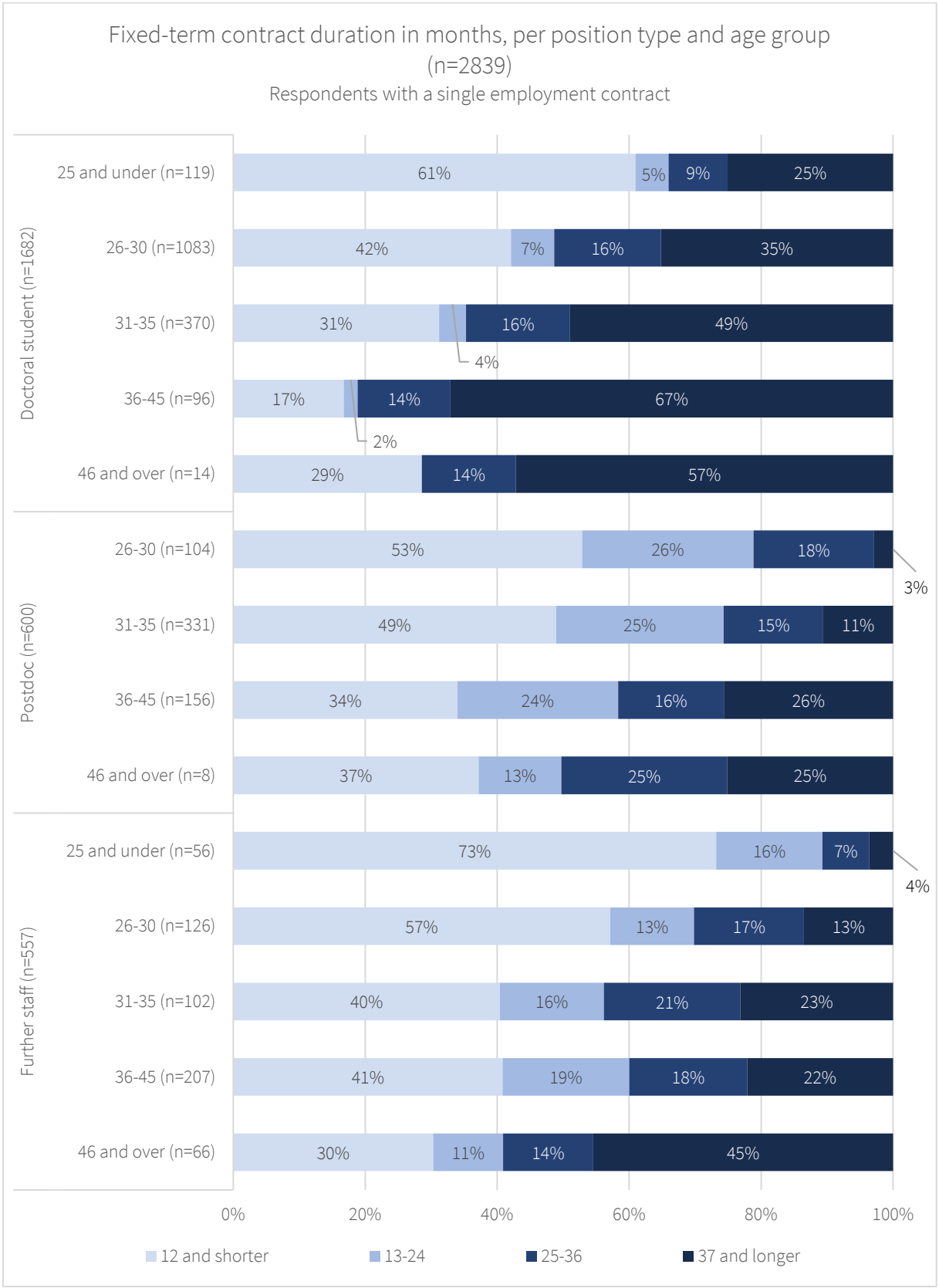

Fixed-term contract duration in months, per position type and age group
(n=2839)
Respondents with a single employment contract
Doctoral student (n=1682)
25 and under (n=119)
61%
5%
9%
25%
26-30 (n=1083)
42%
7%
16%
35%
31-35 (n=370)
31%
16%
49%
4%
36-45 (n=96)
17%
14%
67%
2%
46 and over (n=14)
29%
14%
57%
Postdoc (n=600)
26-30 (n=104)
53%
26%
18%
3%
31-35 (n=331)
49%
25%
15%
11%
36-45 (n=156)
34%
24%
16%
26%
46 and over (n=8)
37%
13%
25%
25%
Further staff (n=557)
25 and under (n=56)
73%
16%
7%
4%
26-30 (n=126)
57%
13%
17%
13%
31-35 (n=102)
40%
16%
21%
23%
36-45 (n=207)
41%
19%
18%
22%
46 and over (n=66)
30%
11%
14%
45%
0%
20%
40%
60%
80%
100%
12 and shorter
13-24
25-36
37 and longer

Figure 15

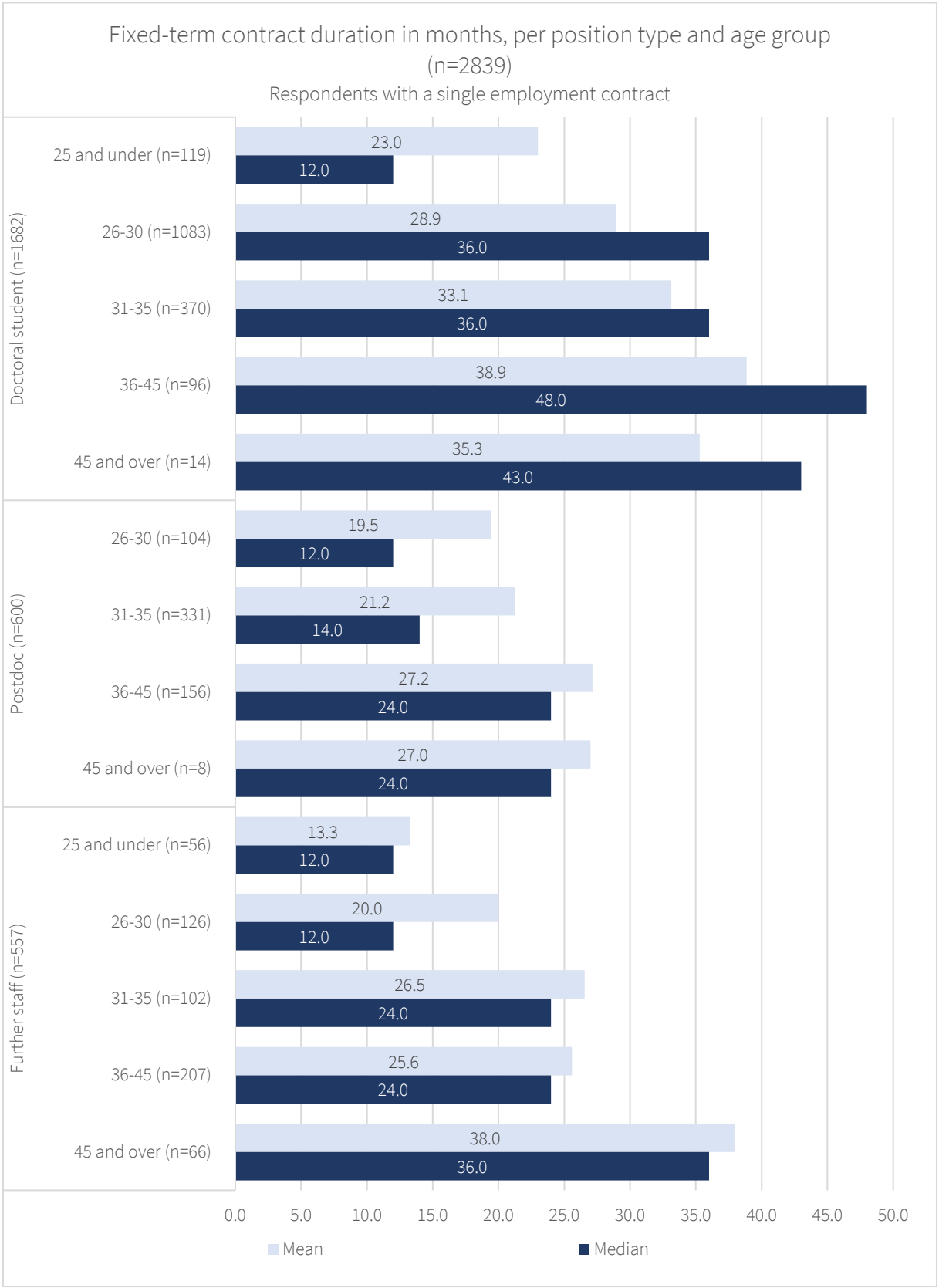

Fixed-term contract duration in months, per position type and age group (n=2839)
Respondents with a single employment contract
Doctoral student (n=1682)
25 and under (n=119)
23.0
12.0
26-30 (n=1083)
28.9
36.0
31-35 (n=370)
33.1
36.0
36-45 (n=96)
38.9
48.0
45 and over (n=14)
35.3
43.0
Postdoc (n=600)
26-30 (n=104)
19.5
12.0
31-35 (n=331)
21.2
14.0
36-45 (n=156)
27.2
24.0
45 and over (n=8)
27.0
24.0
Further staff (n=557)
25 and under (n=56)
13.3
12.0
26-30 (n=126)
20.0
12.0
31-35 (n=102)
26.5
24.0
36-45 (n=207)
25.6
24.0
45 and over (n=66)
38.0
36.0
0.0
5.0
10.0
15.0
20.0
25.0
30.0
35.0
40.0
45.0
50.0
Mean
Median

Figure 16

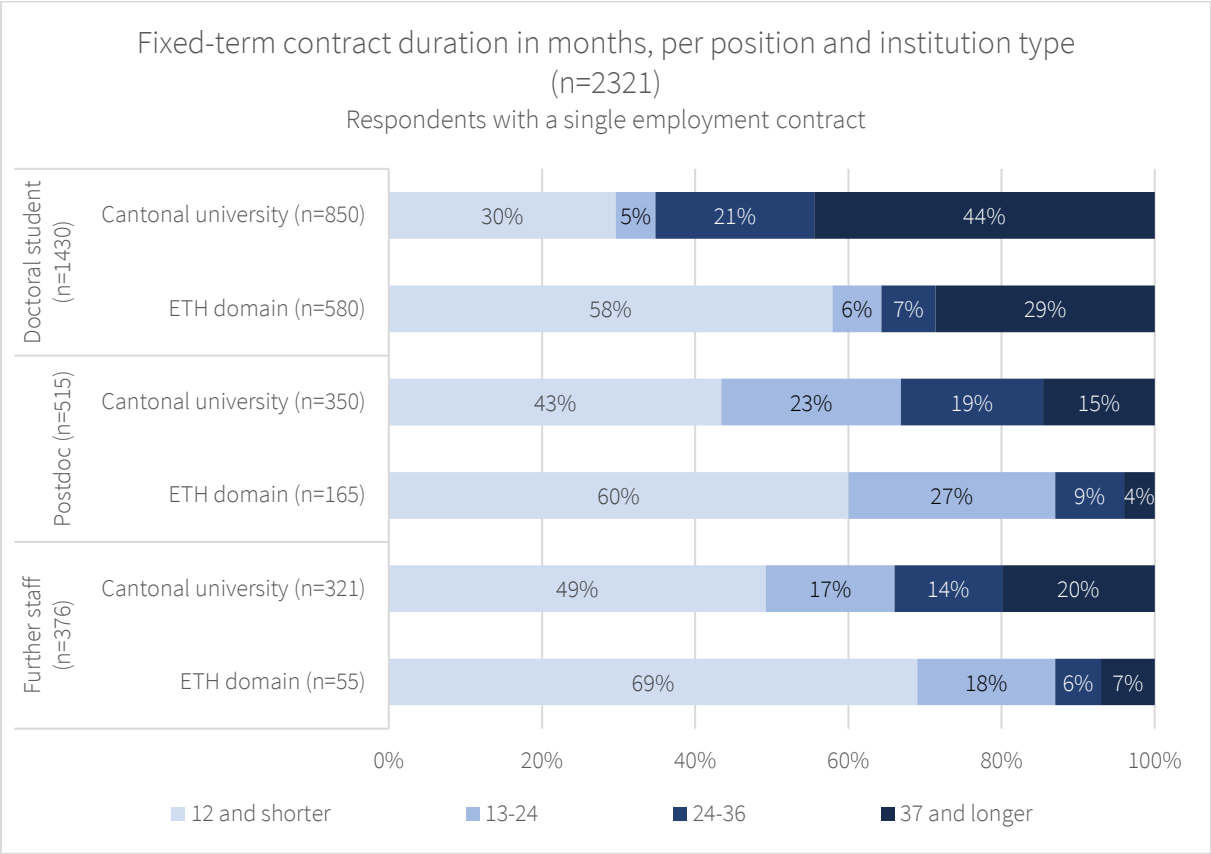
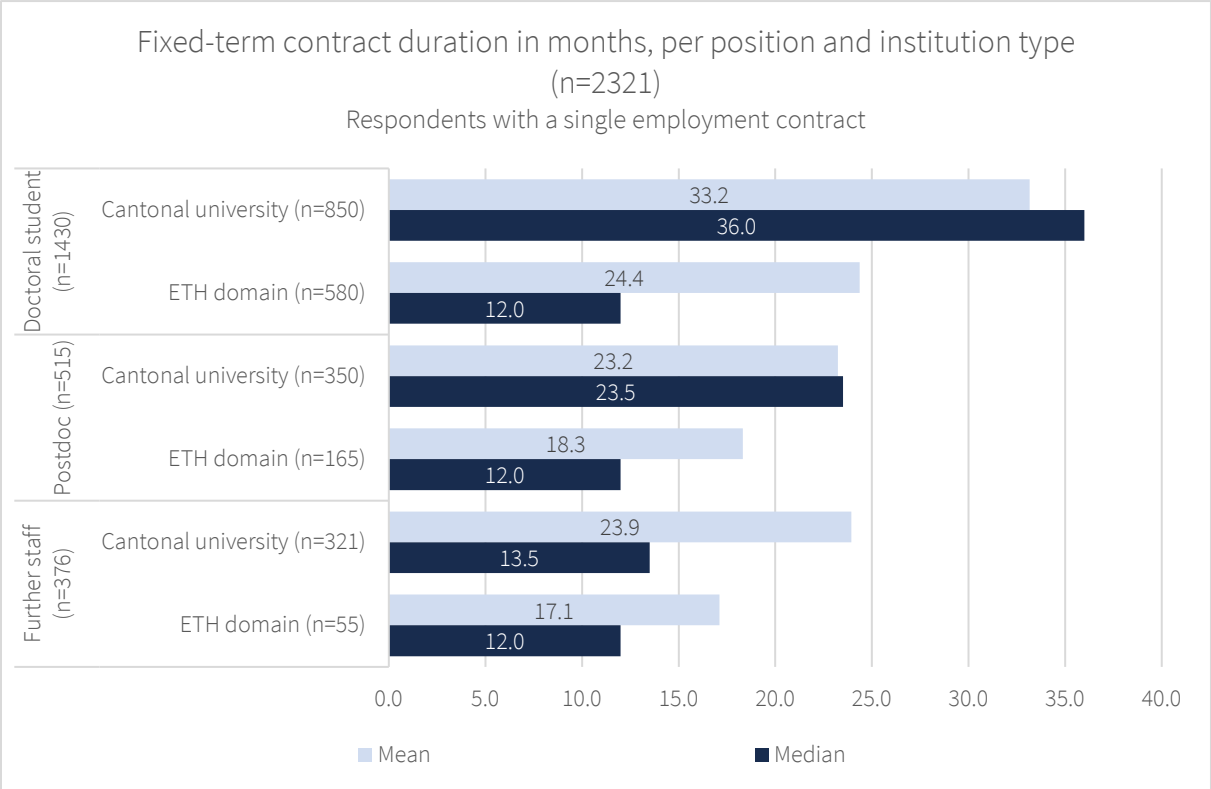


Figure 17



When considering the satisfaction with the duration of fixed-term contracts, we see that most respondents wish to increase contract duration rather than decrease it (Figure 18). Most Postdocs and further staff wish to have a longer designated contract duration, while 60% of Doctoral students are satisfied with their contract duration. As seen previously, Doctoral students tend to have longer contracts. A third of respondents in Postdoc and further staff positions report being satisfied with their designated contract duration. As expected, the results show that individuals who report wanting a longer designated contract duration are those with shorter contract durations (Figure 19). No gender differences can be noted regarding the satisfaction with the contract duration.

Figure 18

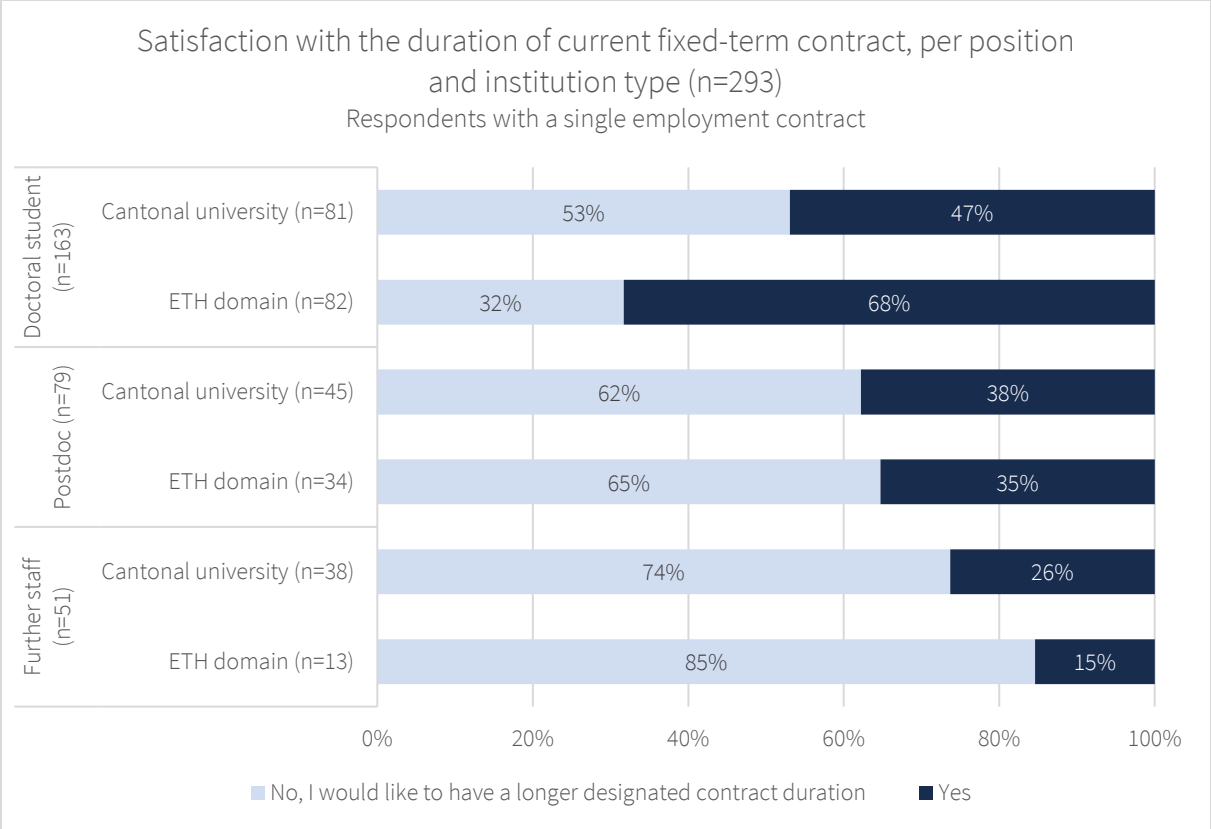
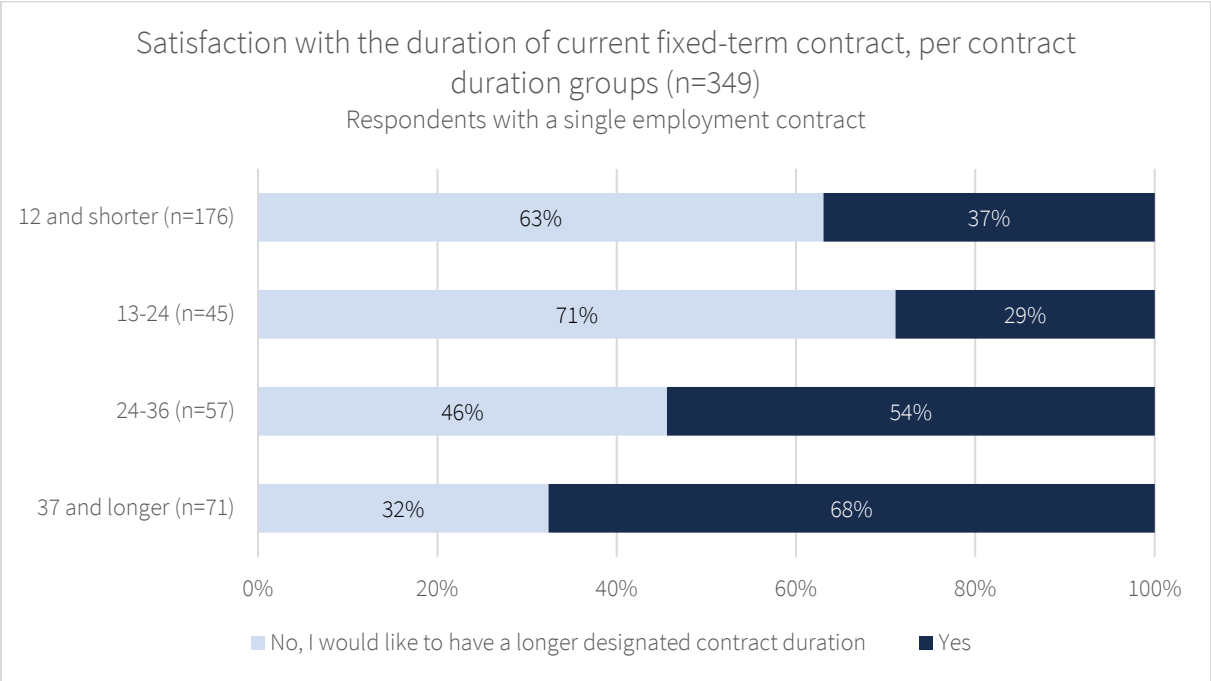


Figure 19



2.4 Contract Percentage

Most Doctoral students (64%) and Postdocs (70%) have designated work-time percentages of 100% (Figure 20 and Figure 21). Work-time percentages are more dispersed among further staff (Figure 22), as only around a third of respondents (32%) have a designated work time of 100% and another third (34%) work at less than 50%. Fairly large differences between the different disciplines can be noted: respondents working in STEM and Life Sciences and Medicine have higher working percentages compared to respondents in SSH disciplines regardless of the position type.

Figure 20

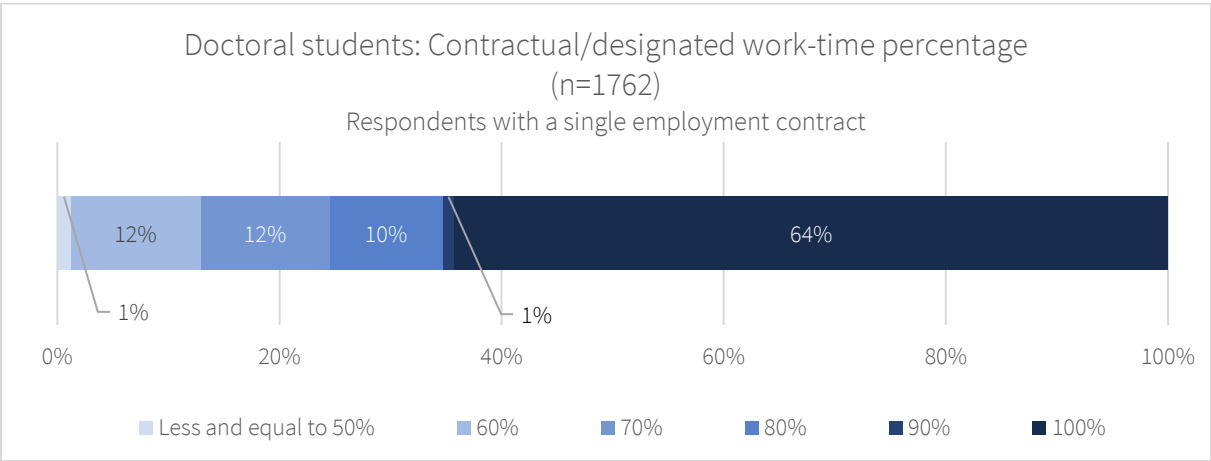


Figure 21

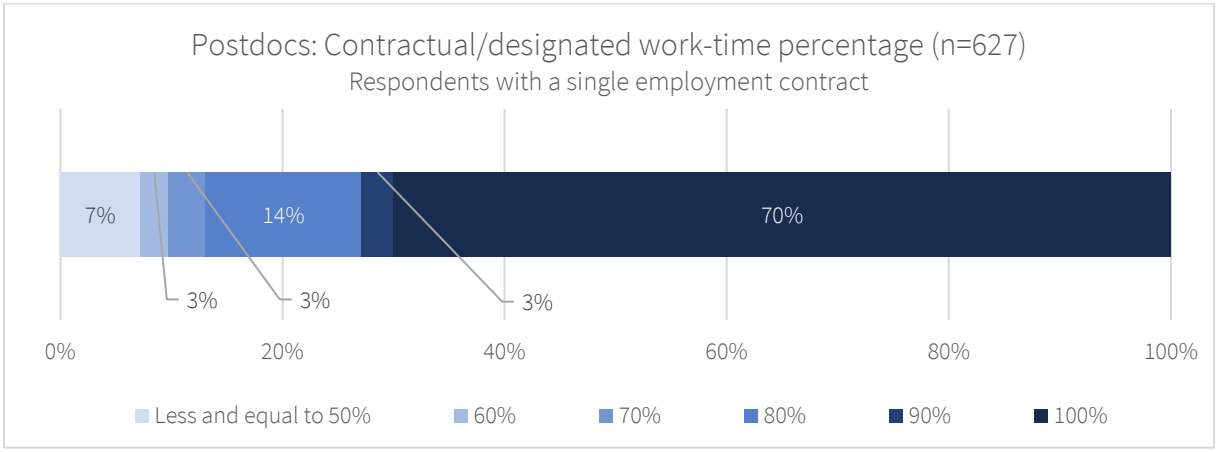


Figure 22

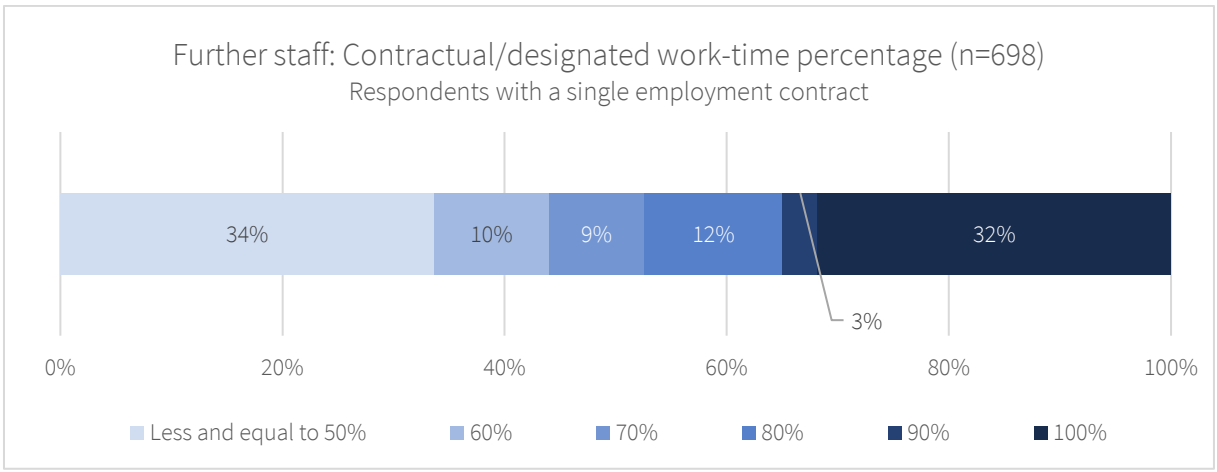
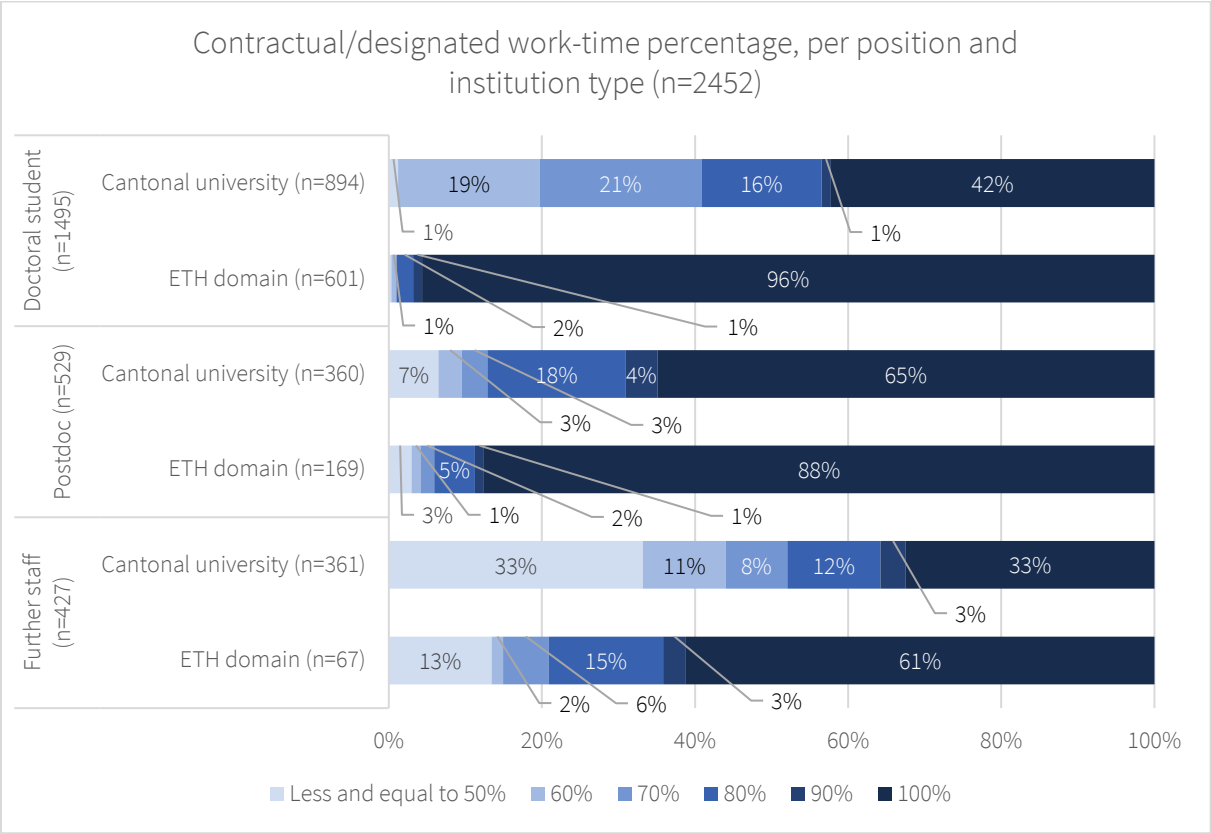


Figure 23



Satisfaction with work-time percentages is high among all three position types with more than 70% of respondents reporting to be satisfied (Figure 24). Eight percent of Doctoral students and less than 5% of Postdocs and further staff wish to lower their work-time percentage. Around a fifth of Doctoral students and further staff would like to increase their work-time percentage. Regarding the degree of satisfaction with the contract percentage, male respondents are more satisfied compared to female respondents (78% versus 72%). Indeed, women more often mention a desire to have their work percentage decreased or increased

Figure 24

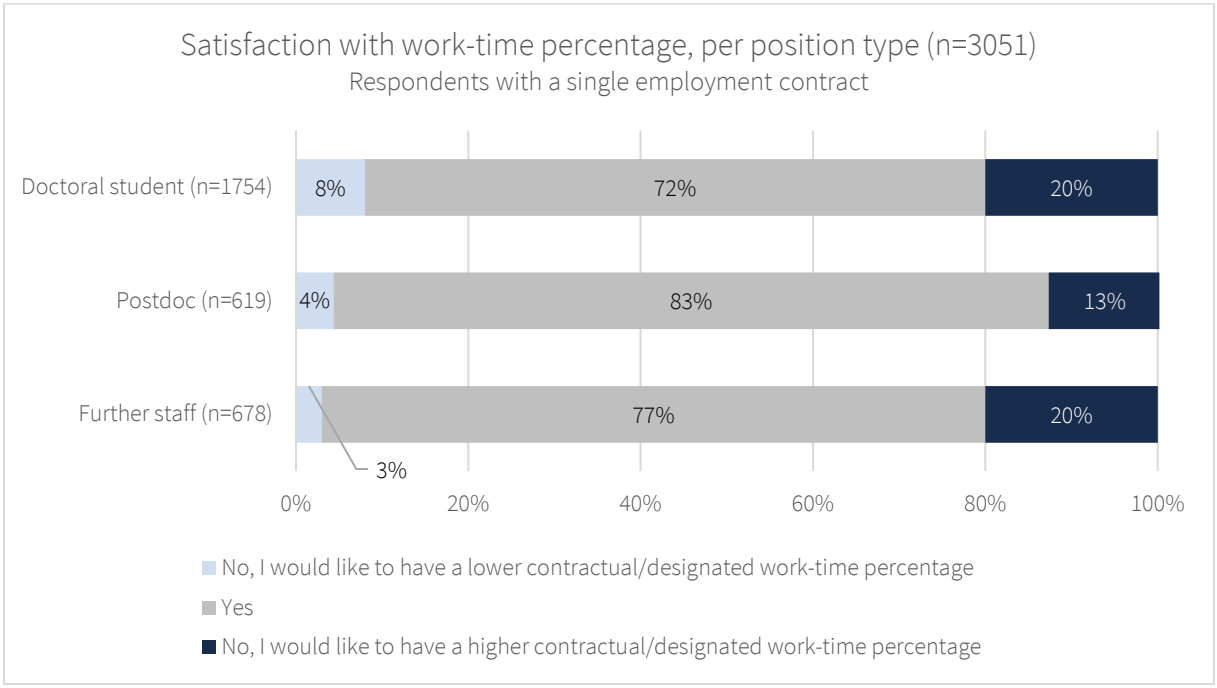
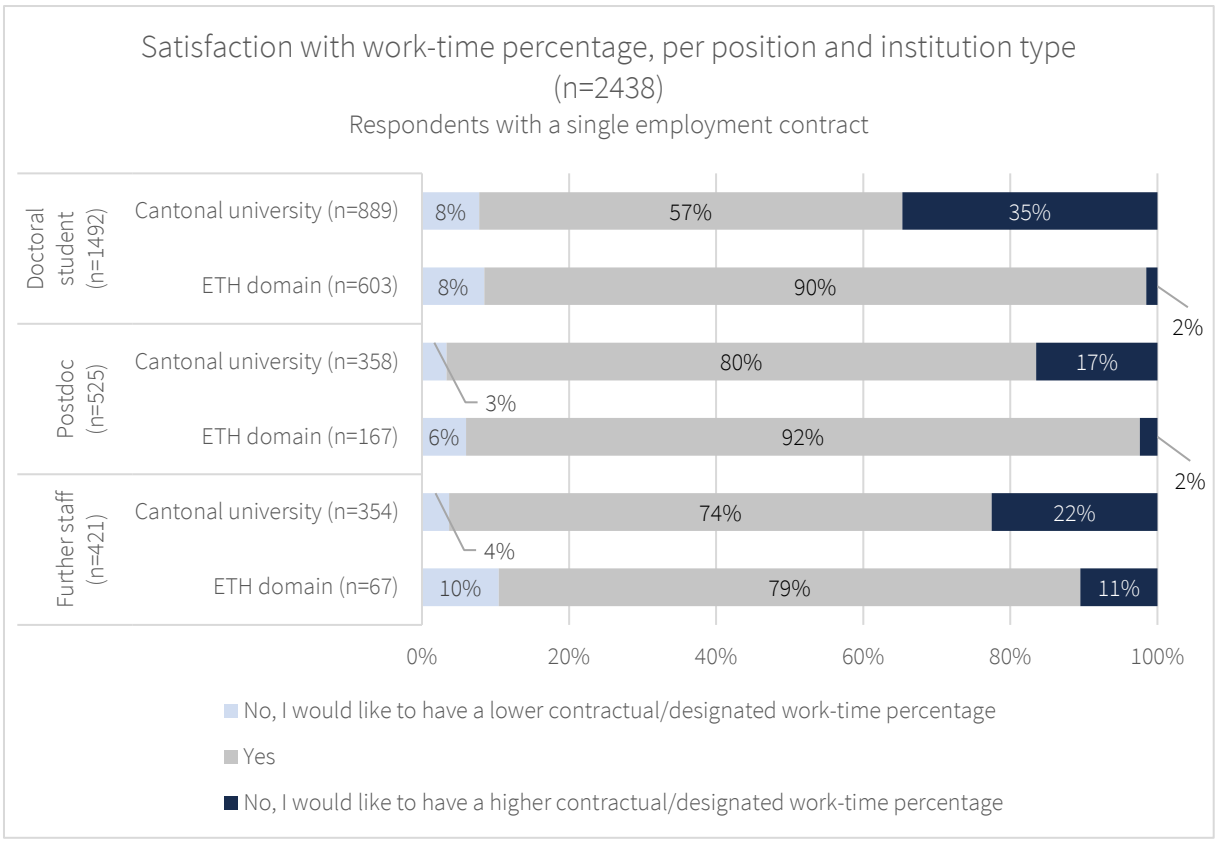


Figure 25



2.5 Other Contracts

At the time of filling out the survey, most respondents were employed under their first contract on the academic project they were working on (Figure 26). About a third of Postdocs and further staff had a previous contract relating to the project before their current one. Among respondents having had a contract before their current one, the majority of Doctoral students and Postdocs have had only one previous contract (Figure 27). For further staff, the number of previous contracts varies more and is also slightly higher than for other positions.

Figure 26

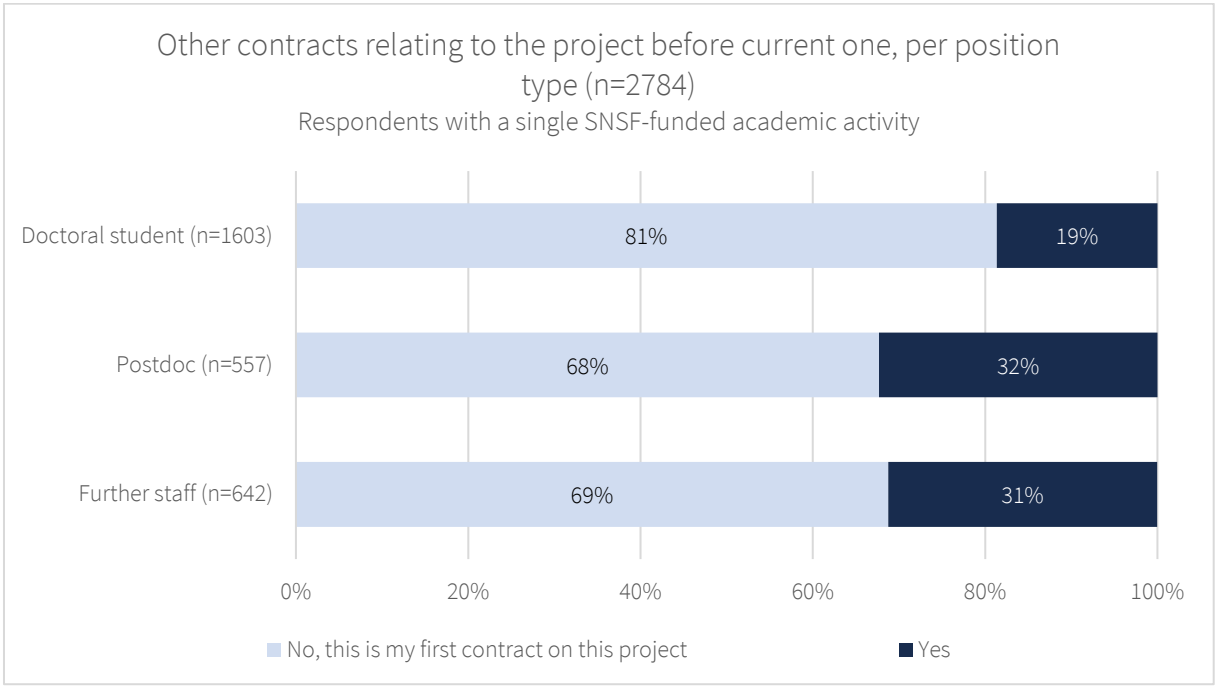
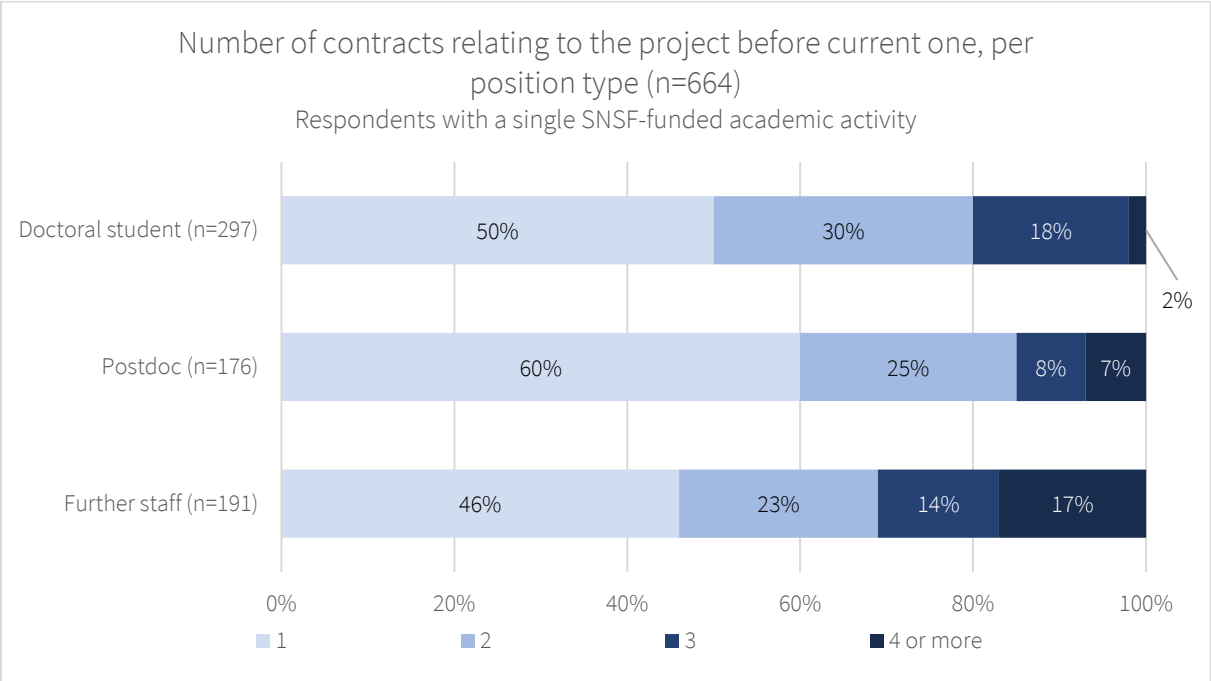


Figure 27



2.6 Working Hours

The average working hours in a typical week among respondents is 42,2 hours (Figure 28). When comparing working hours between position types (Figure 29), we see that Doctoral students and Postdocs have longer hours in a typical week compared to further staff. More than 30% of Doctoral students and Postdocs report working more than 48 hours in a typical week, while the majority of further staff work less than 37,8 hours a week.

Figure 28

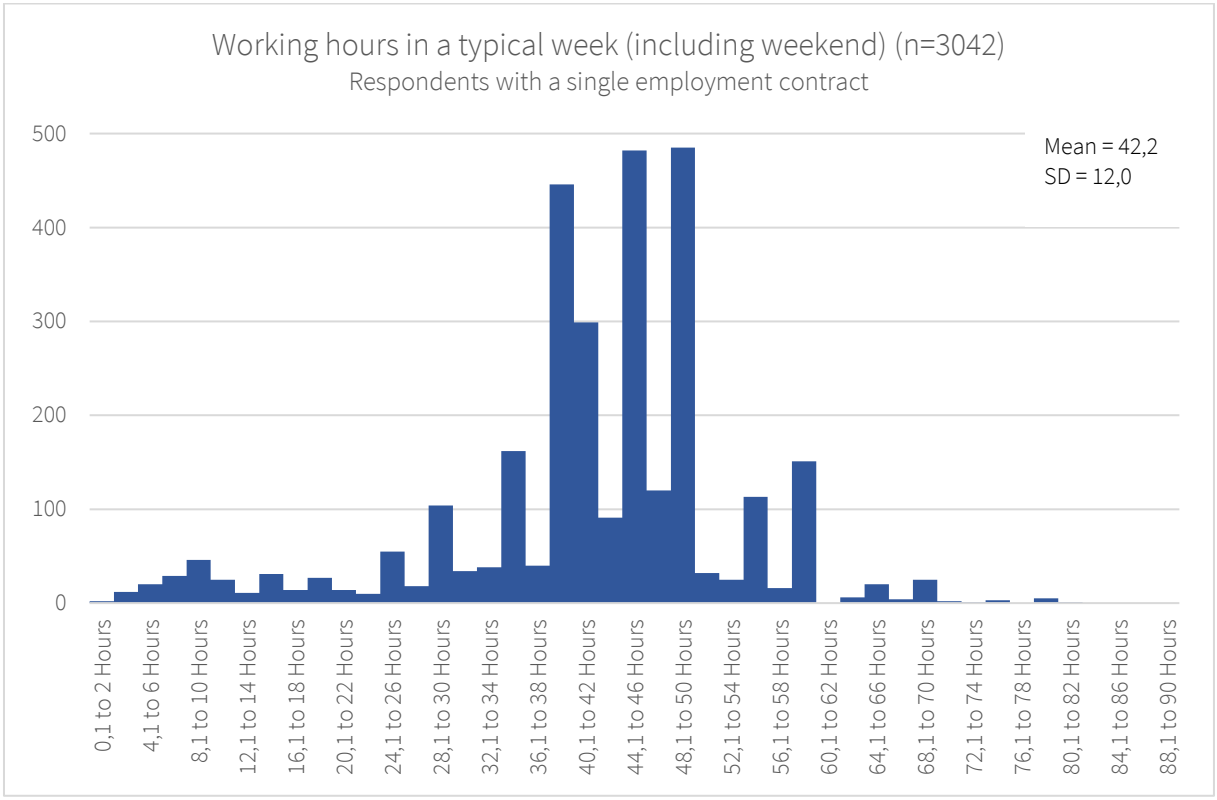
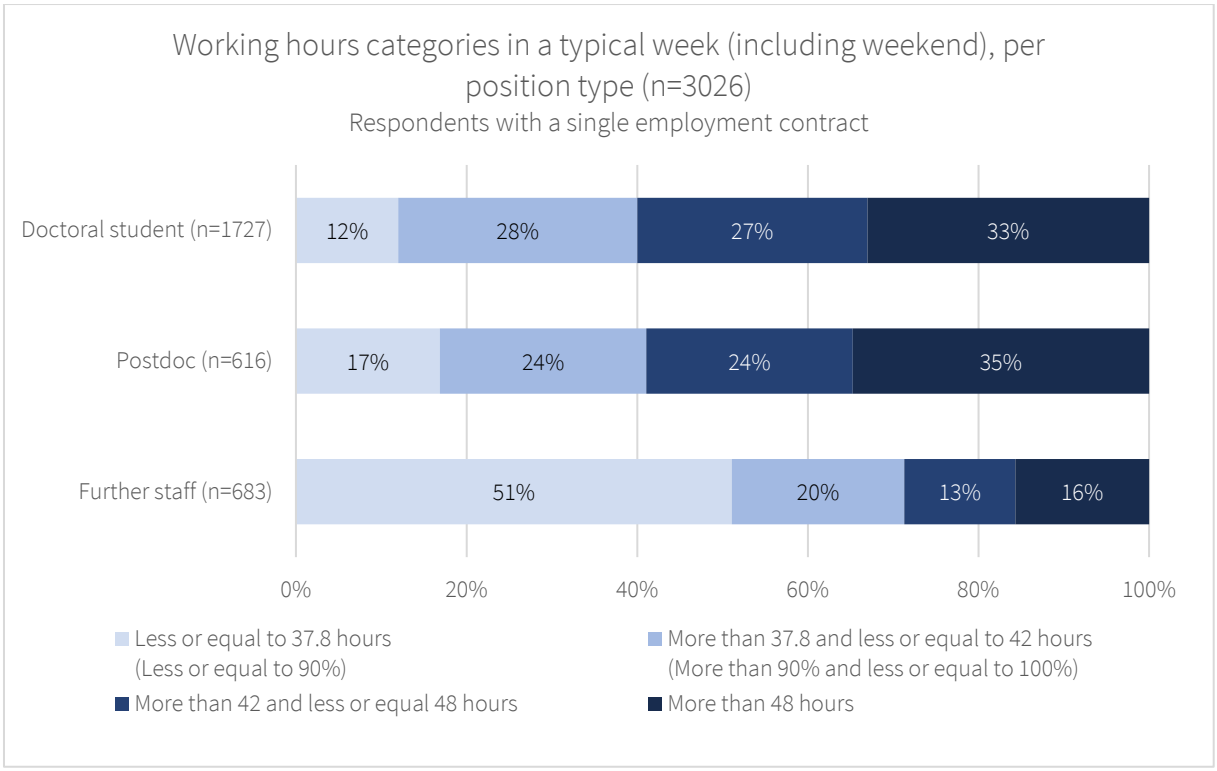


Figure 29

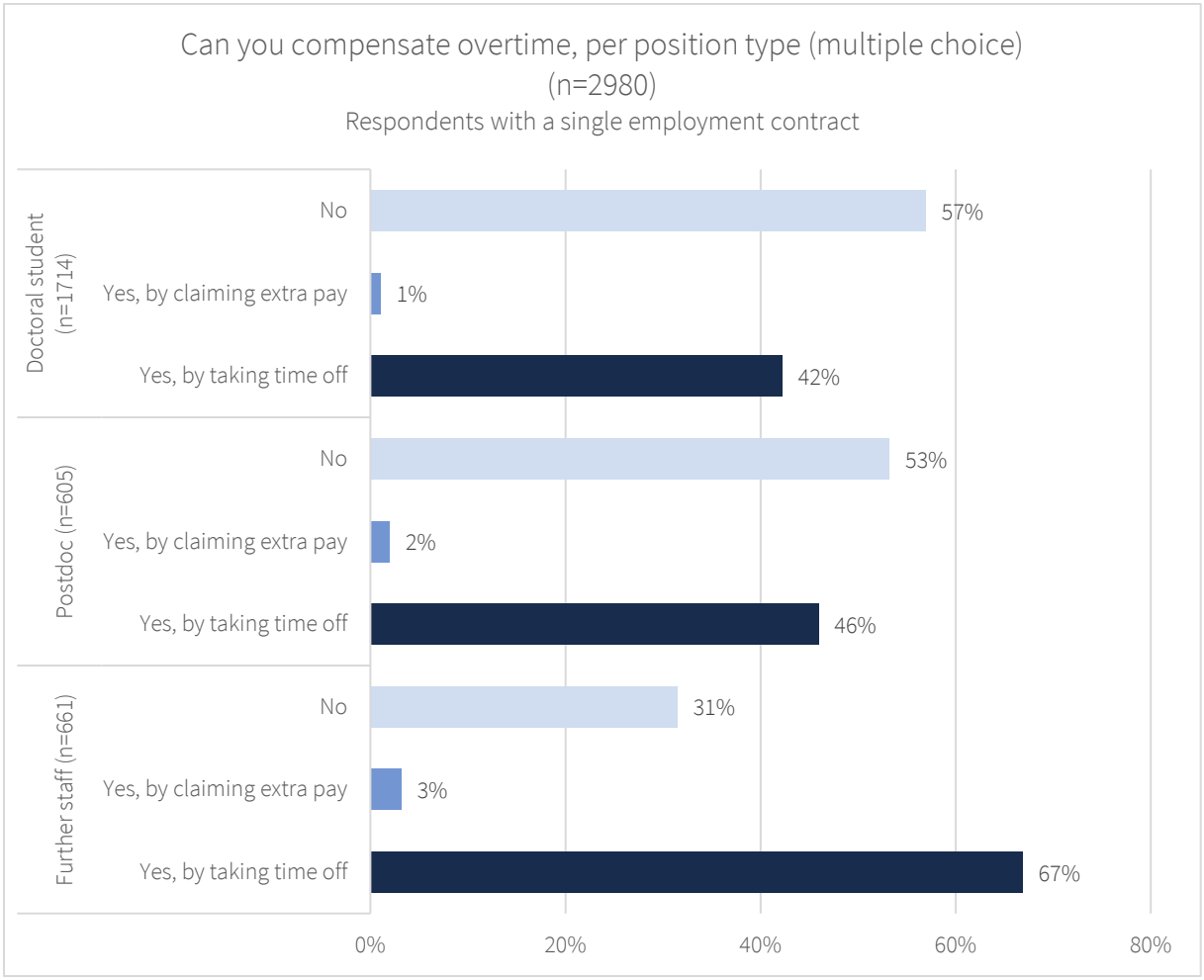


When considering the correspondence between contractual working time and actual working time of respondents, we see that about half of further staff consider that their actual working time corresponds to their contractual working time. In comparison, work-time correspondence is lower for Doctoral students and Postdocs, where a majority report working more than their contractual hours. Only very few respondents respond to working less than their contractual working time.

2.7 Overtime Compensation

When examining overtime compensation among position types (Figure 30), we see that a majority of Doctoral students (57%) and Postdocs (53%) are not compensated for their overtime work. As seen above, these position types also report working more hours than their contractual time. In all position types, most respondents that can compensate overtime do so by taking time off, while only very few can claim extra pay.

Figure 30



2.8 Time Devoted to Career Goals

When asked about being able to devote time to career goals, the majority of respondents in each position type responded in the affirmative (Figure 31). However, slightly less than a third among each position type consider they cannot spend sufficient time pursuing their career goals. A clear gender difference can be noted in this regard (Figure 32): while three quarters of male respondents (75%) reported having enough time to pursue their career goals, this share amounted to two thirds (66%) among female respondents. Age also has an impact on the ability to pursue career goals among respondents, as younger age categories more often answered this question in the positive. This age effect is stronger within male respondents.

Figure 31

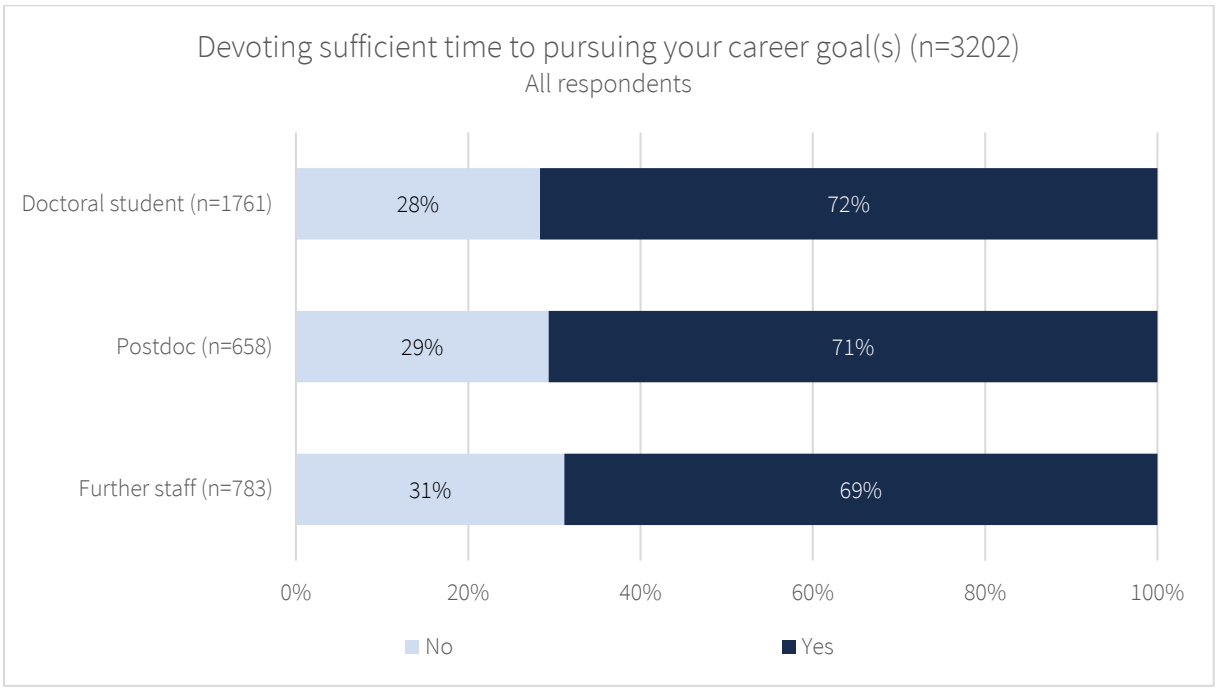
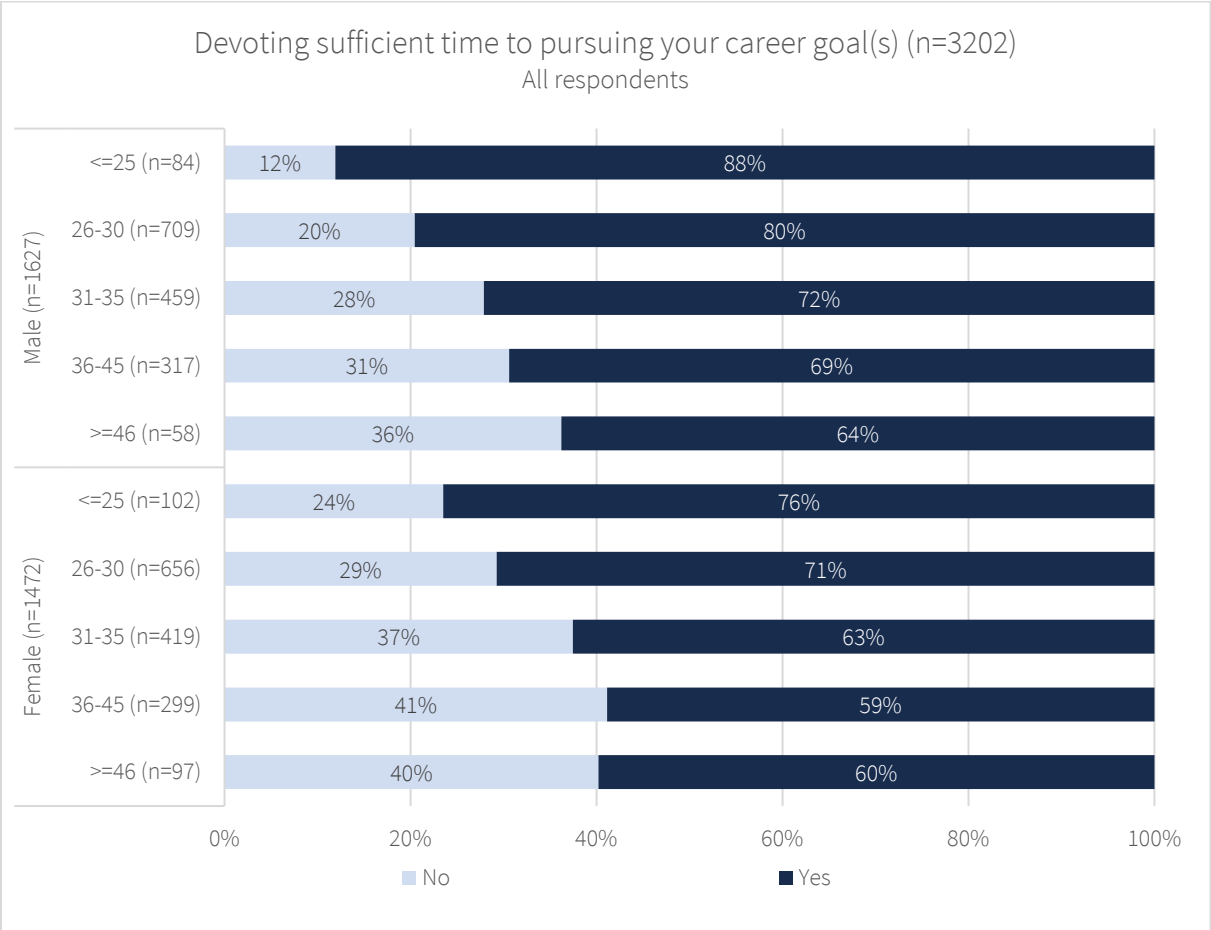


Figure 32

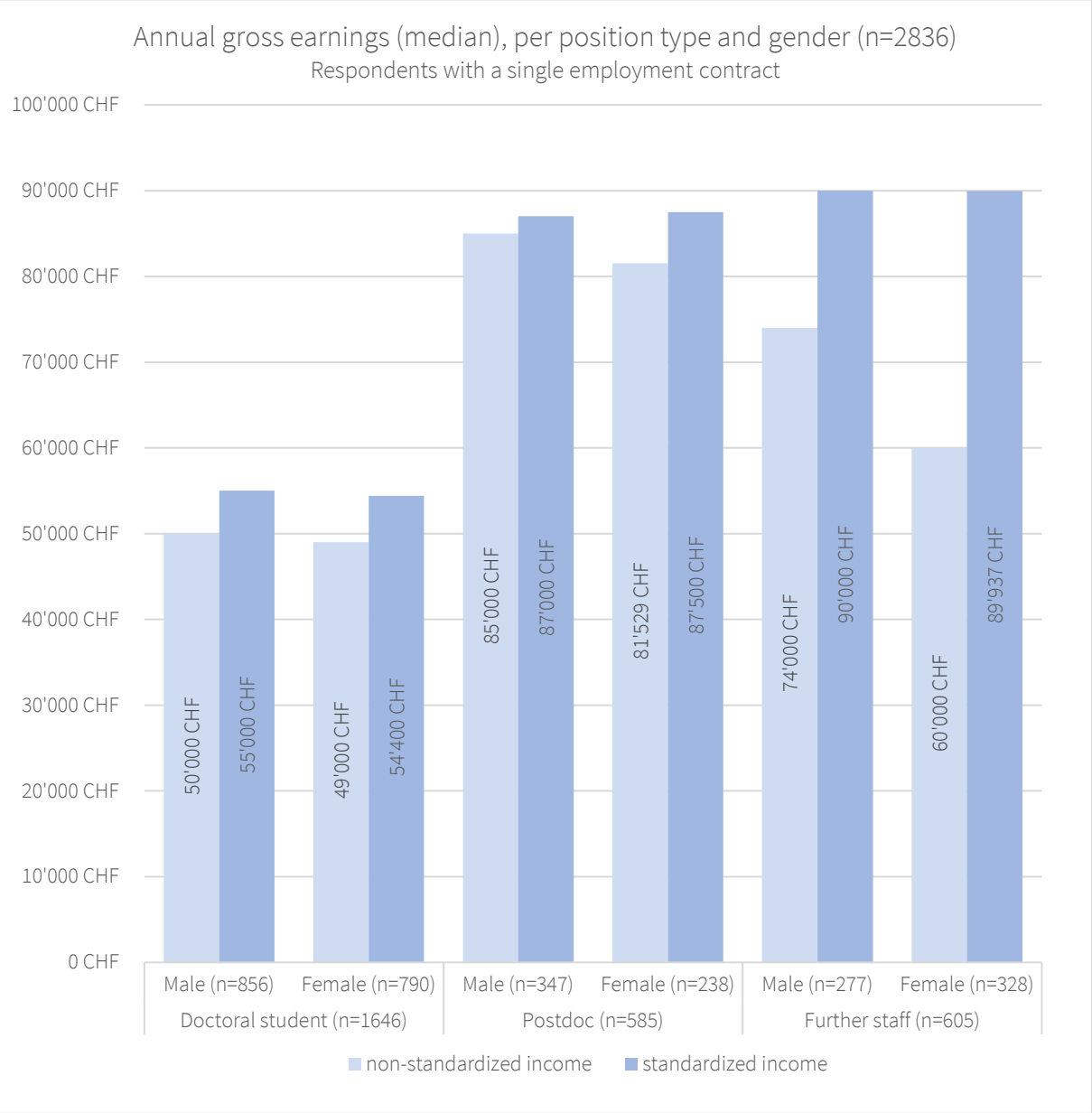


2.9 Income

Income varies strongly between position types when considering annual gross earnings (Figure 33). With 83'500 CHF, Postdocs have the highest median value of reported annual gross income. Further staff have a median value of 68'300 CHF and Doctoral students report the lowest income with a median value of 50'000 CHF. Without taking into account working time, a considerable gender difference of 19% can be noted among further staff, as male respondents' median annual earnings exceed the female respondents' median value by 14'000 CHF. However, if the reported annual income is standardized[2], no significant gender differences can be noted across all position types.

[2] The standardized income for a full-time workload corresponds to the income that the person would earn in a "usual" 100% job in a given occupation. The answer category "10% or less" in the questionnaire regarding workload (selected by less than 1% of respondents with a single contract) was recoded to a value of 10% for the creation of a metric workload variable used in the income standardization.

Figure 33



When comparing salary range guidelines for employees in SNSF-funded projects[3] to the standardized annual gross earnings of the respondents, we can see that the reported total income of almost two thirds of Doctoral students (Figure 34) is higher than the upper end of the defined salary range (50'040 CHF). Twelve percent of Doctoral students report total annual earnings below the lower end of the defined salary range (47'040 CHF). Among Postdocs (Figure 35), the large majority (81%) report annual earnings within the defined salary range for their position type (80'000-105'000 CHF), while 10% report lower earnings and 9% report higher earnings. For

[3] https://www.snf.ch/media/de/RXB0uQp1W3Ps1rff/Anhang_XII_Ausfuehrungsreglement_Beitragsreglement.pdf (accessed on June 21, 2022).

further staff (Figure 36), only a lower salary limit is defined by the SNSF (40'000 CHF). Five percent of further staff report annual total earnings below this threshold.

Figure 34

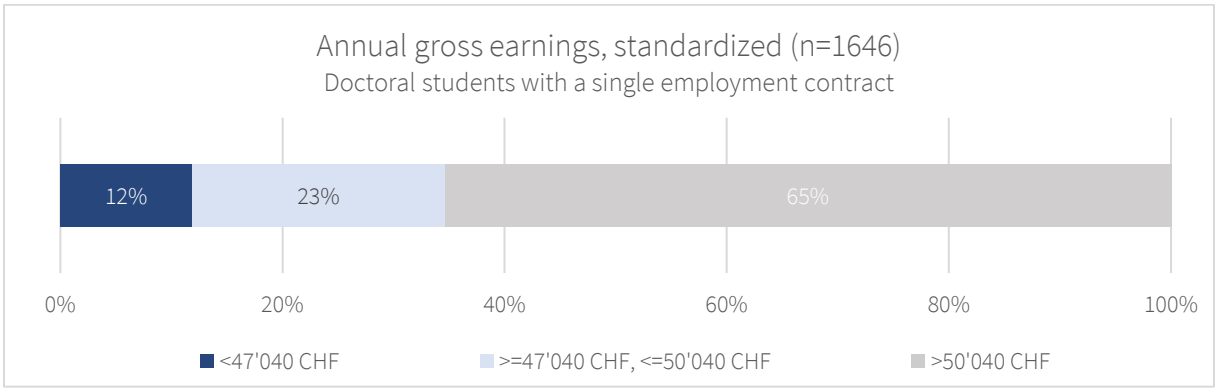


Figure 35

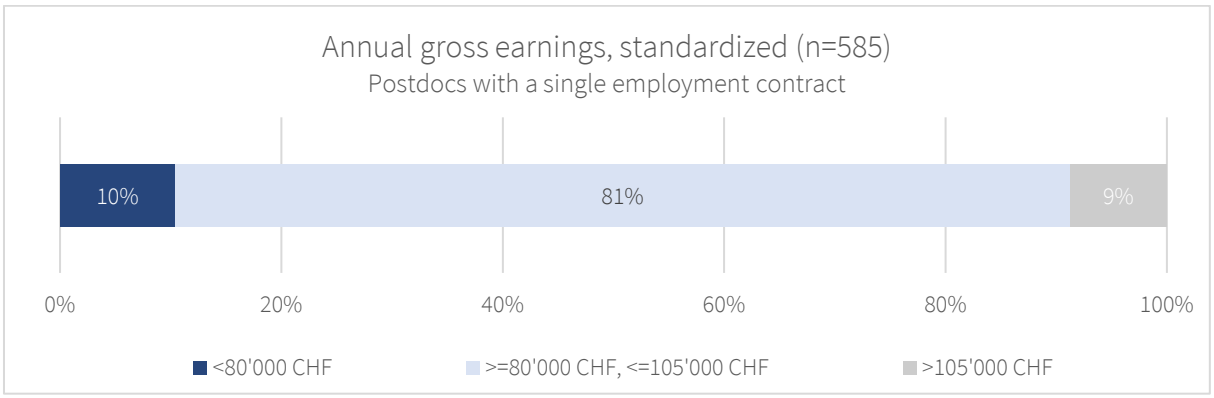
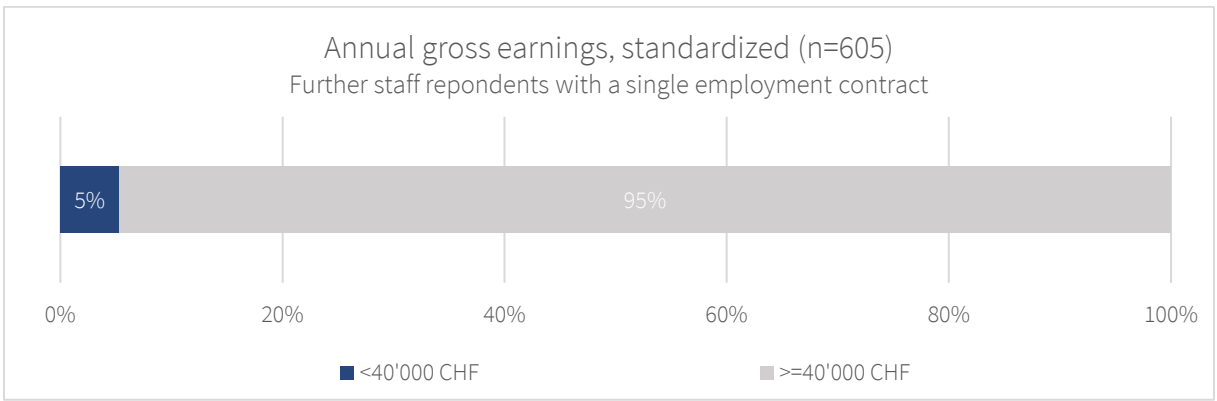


Figure 36



2.10 Satisfaction with Academia

The figures that follow show the satisfaction levels with academia for all position types. Overall, satisfaction levels are similar across all three position types and the majority of respondents are satisfied with all aspects of their employment. Regarding Doctoral students (Figure 37), the

majority of respondent indicate that they are somewhat satisfied or very satisfied with the various aspects of their employment. The intellectual demands of the work is one of the aspects with the highest proportion of satisfied respondents, while a higher number of unsatisfied respondents can be noted regarding aspects of income and job security.

As for Postdocs (Figure 38), the majority of respondents are satisfied or very satisfied with the different aspects of their employment, except regarding job security. Indeed, 22% are somewhat dissatisfied and 33% are not at all satisfied with this aspect. The proportion of dissatisfied respondents for job security is higher among Postdocs than Doctoral students. However, Postdocs tend to be more satisfied with their income.

Looking at further staff (Figure 39), we notice similar trends as among Postdocs with more respondents being unsatisfied with job security in comparison to Doctoral students, but more respondents being satisfied with their income than Doctoral students.

Figure 37

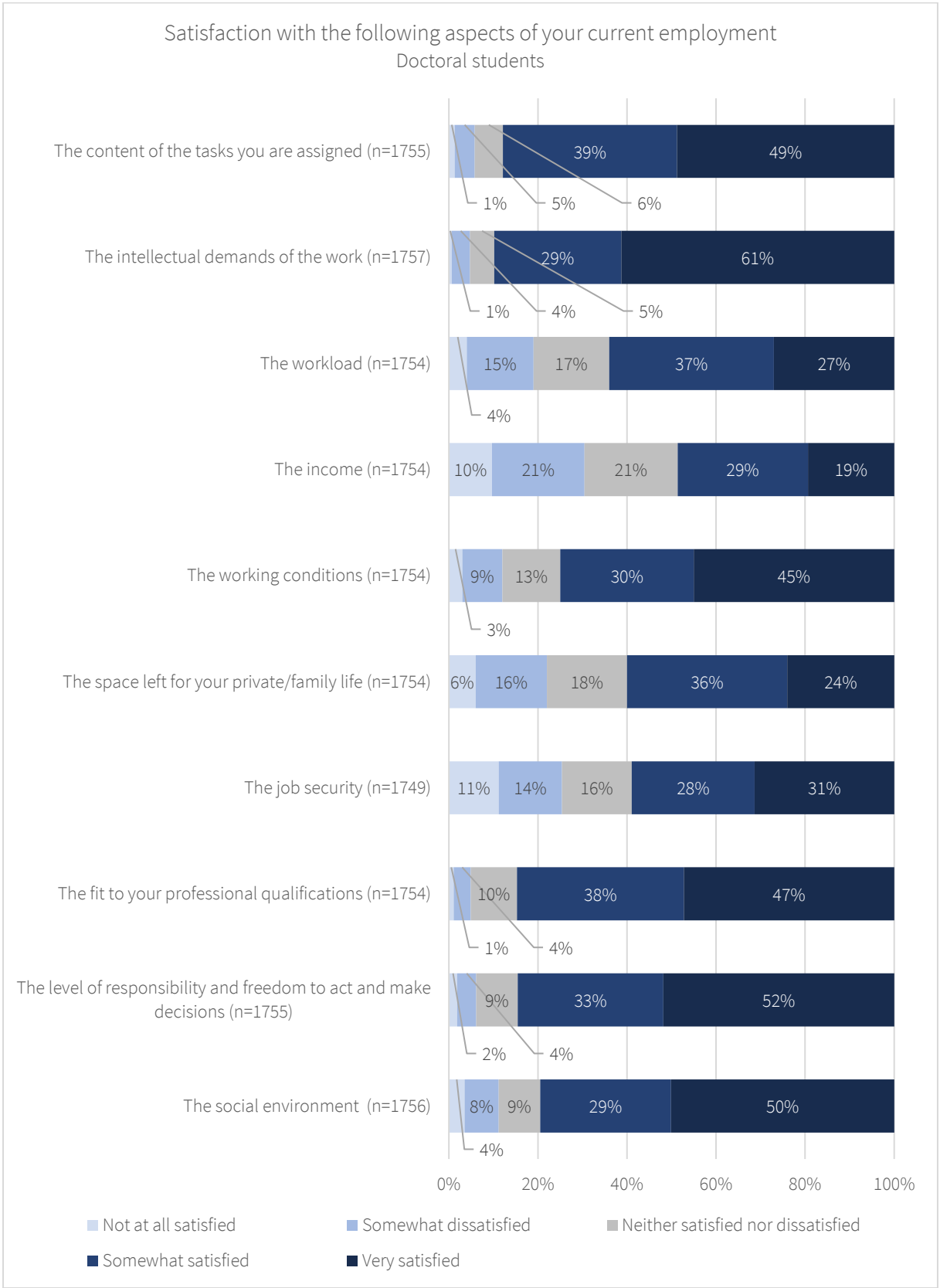

Satisfaction with the following aspects of your current employment
Doctoral students
The content of the tasks you are assigned (n=1755)
39%
49%
1%
5%
6%
The intellectual demands of the work (n=1757)
29%
61%
1%
4%
5%
The workload (n=1754)
15%
17%
37%
27%
4%
The income (n=1754)
10%
21%
21%
29%
19%
The working conditions (n=1754)
9%
13%
30%
45%
3%
The space left for your private/family life (n=1754)
6%
16%
18%
36%
24%
The job security (n=1749)
11%
14%
16%
28%
31%
The fit to your professional qualifications (n=1754)
10%
38%
47%
1%
4%
The level of responsibility and freedom to act and make decisions (n=1755)
9%
33%
52%
2%
4%
The social environment (n=1756)
8%
9%
29%
50%
4%
0%
20%
40%
60%
80%
100%
Not at all satisfied
Somewhat dissatisfied
Neither satisfied nor dissatisfied
Somewhat satisfied
Very satisfied

Figure 38

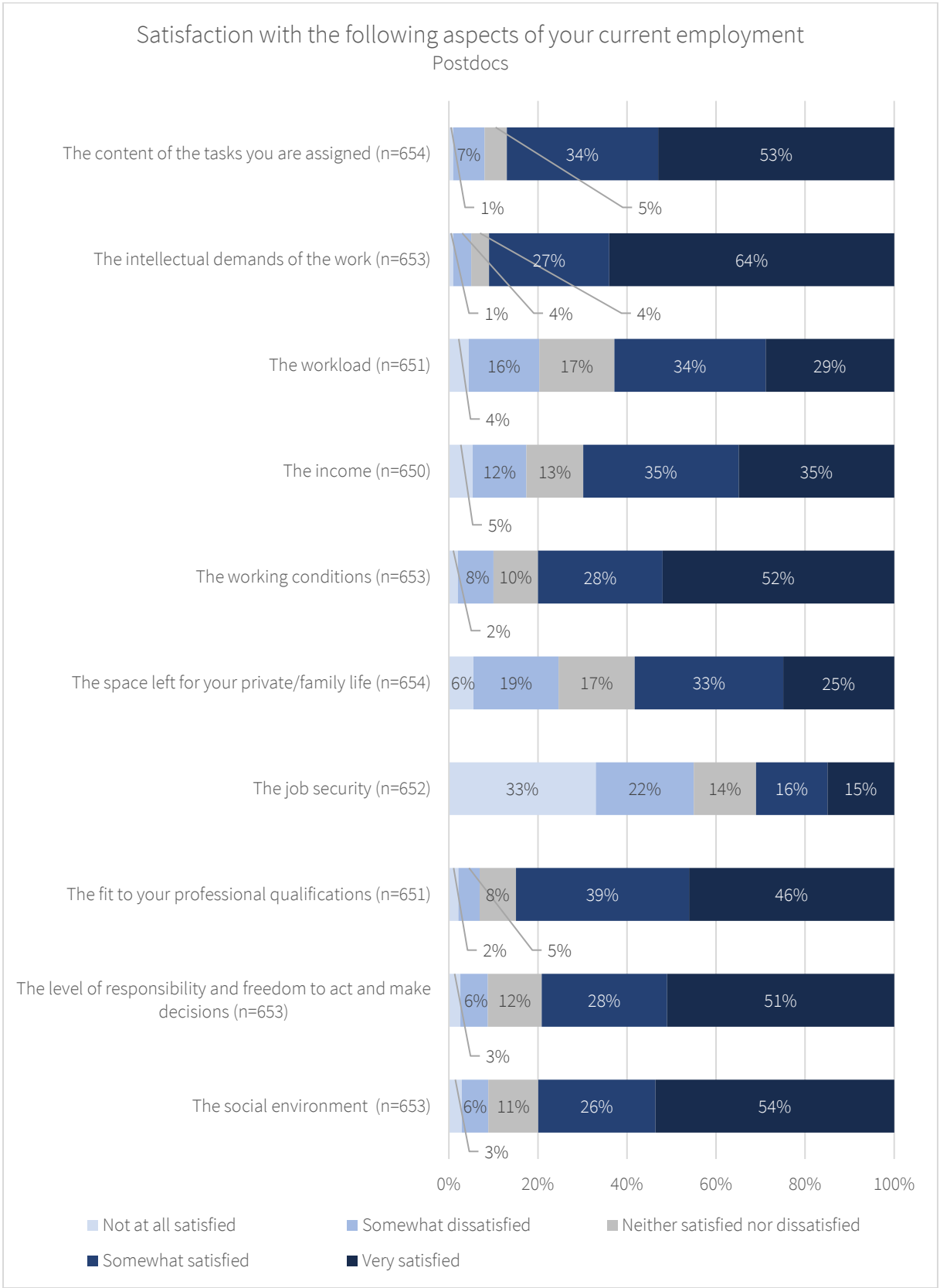
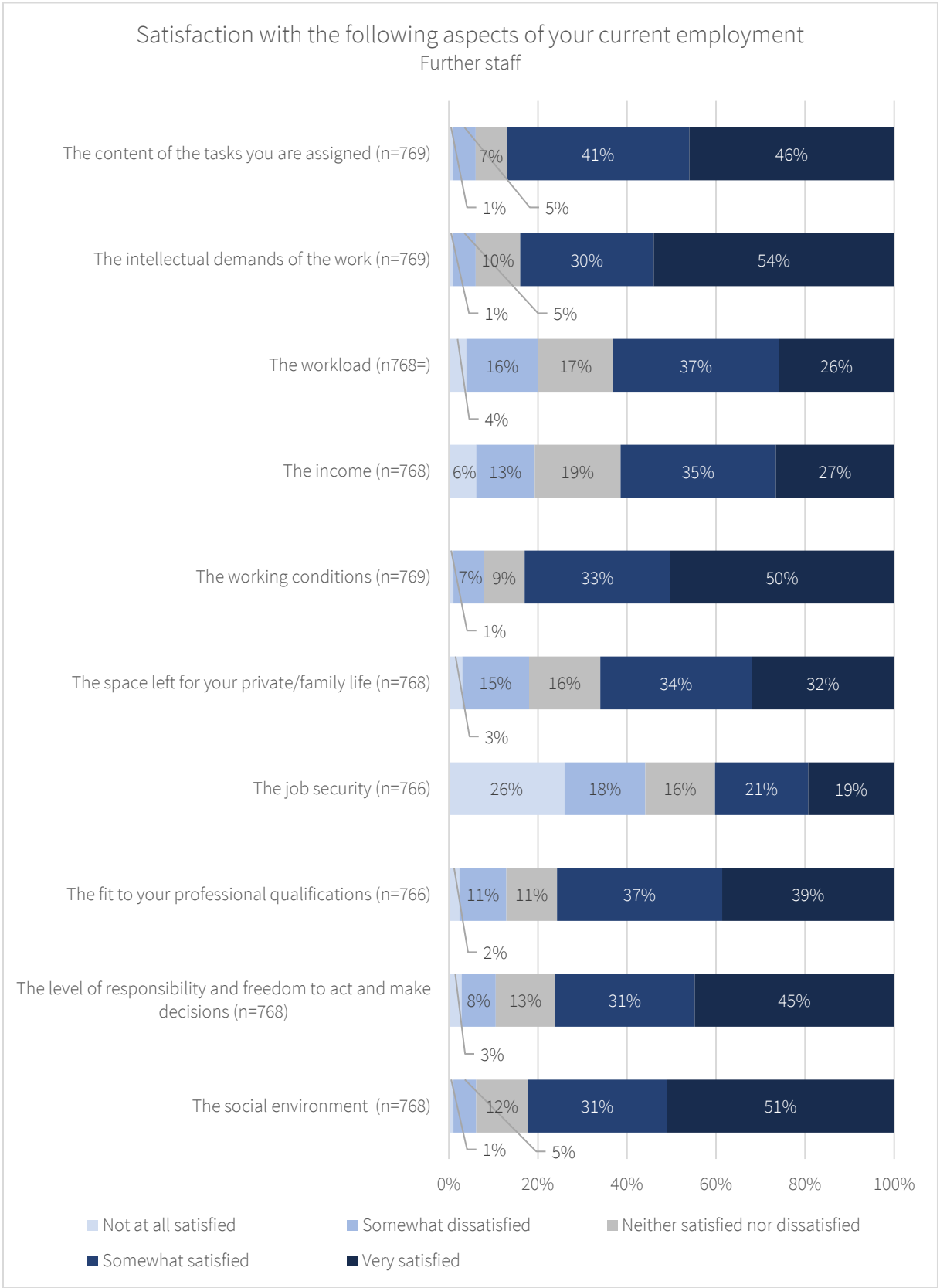

Satisfaction with the following aspects of your current employment
Postdocs
The content of the tasks you are assigned (n=654)
7%
1%
34%
5%
53%
The intellectual demands of the work (n=653)
1%
4%
27%
4%
64%
The workload (n=651)
16%
4%
17%
34%
29%
The income (n=650)
12%
5%
13%
35%
35%
The working conditions (n=653)
8%
2%
10%
28%
52%
The space left for your private/family life (n=654)
6%
19%
17%
33%
25%
The job security (n=652)
33%
22%
14%
16%
15%
The fit to your professional qualifications (n=651)
2%
8%
5%
39%
46%
The level of responsibility and freedom to act and make decisions (n=653)
6%
3%
12%
28%
51%
The social environment (n=653)
6%
3%
11%
26%
54%
0%
20%
40%
60%
80%
100%
Not at all satisfied
Somewhat dissatisfied
Neither satisfied nor dissatisfied
Somewhat satisfied
Very satisfied

Figure 39


Satisfaction with the following aspects of your current employment
Further staff
The content of the tasks you are assigned (n=769)
7%
41%
46%
1%
5%
The intellectual demands of the work (n=769)
10%
30%
54%
1%
5%
The workload (n768=)
16%
17%
37%
26%
4%
The income (n=768)
6%
13%
19%
35%
27%
The working conditions (n=769)
7%
9%
33%
50%
1%
The space left for your private/family life (n=768)
15%
16%
34%
32%
3%
The job security (n=766)
26%
18%
16%
21%
19%
The fit to your professional qualifications (n=766)
11%
11%
37%
39%
2%
The level of responsibility and freedom to act and make decisions (n=768)
8%
13%
31%
45%
3%
The social environment (n=768)
12%
31%
51%
1%
5%
0%
20%
40%
60%
80%
100%
Not at all satisfied
Somewhat dissatisfied
Neither satisfied nor dissatisfied
Somewhat satisfied
Very satisfied

There is a general tendency of women being less satisfied than men regarding aspects of their employment, although differences are very small. The largest differences concern workload (21% unsatisfied versus 18%), income (27% versus 23%) and level of responsibility (9% versus 6%). In terms of age, differences are smaller overall, and no general tendency can be discerned. However, job security is much more of an issue for older respondents. Respondents in the age category 36-45 for instance consider themselves "not at all satisfied" in 35% of the cases, whereas this is the case for 11% of the 26-30 age group. The youngest and oldest age groups have too few respondents, but the same tendency holds. Job security is also significantly more of an issue for respondents with children, with the level of dissatisfaction increasing from 33% to 51% between respondents without and with children. Other aspects are practically not influenced by this factor, be it for instance income, working conditions, or space left for private/family life. Finally, job security is, of course, dependent on contract type, where dissatisfaction is reported by 13% of respondents with permanent contract versus 35% of those with fixed-term contract.

2.11 Career Impact

Overall, the majority respondents respond positively when asked if they feel like their employment on the respective SNSF project has allowed them to progress in their career (Figure 40). Doctoral students have a higher proportion of "definitely yes" answers compared to other position types. There is also a slightly lower proportion of Doctoral students stating they are unsure whether or not an SNSF project has impacted their career positively. No gender or discipline differences are found in this regard. However, a slight age difference is noticeable, where older respondents rate the impact of an SNSF project on their career less positively (Figure 41).

Figure 40

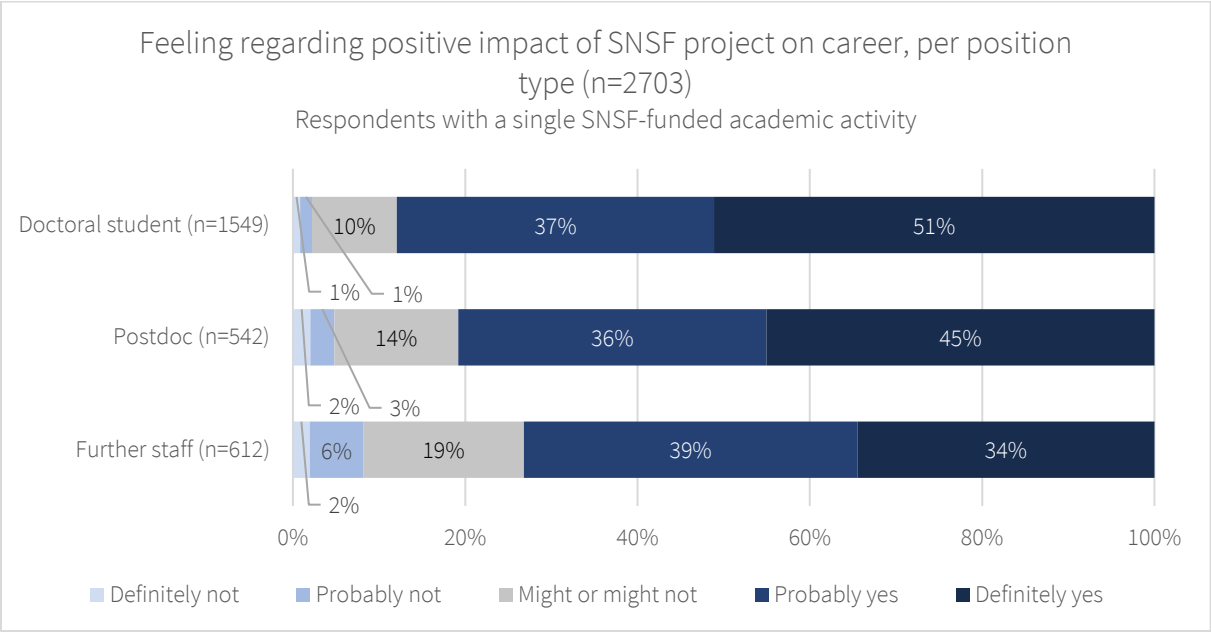
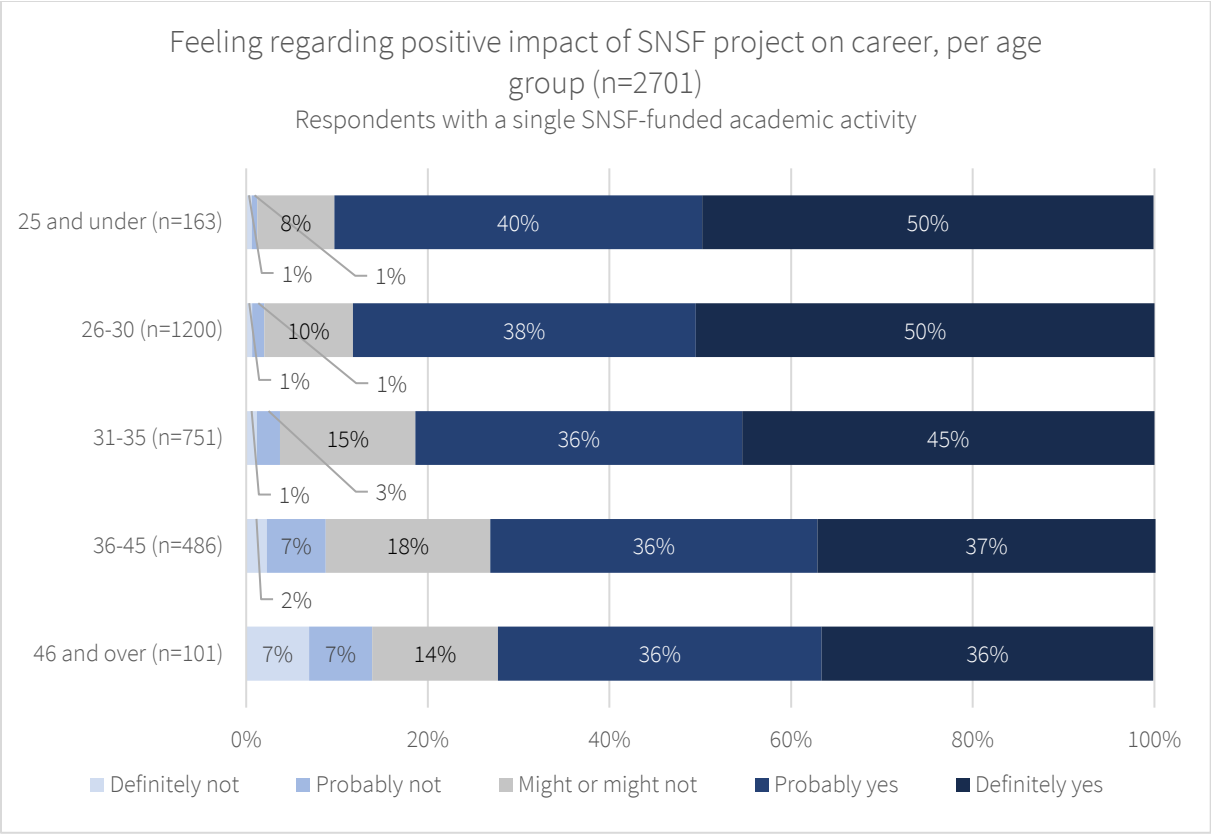


Figure 41



2.12 Work Division with PI

In this chapter we look at how respondents in each position type view work division between them and the principal investigator (PI). When considering the writing of the proposal, almost half of Doctoral students report work being done by the PI alone (48%). "PI alone" is also the most reported answer for Postdocs and further staff. However, work division is more varied within these two position types. The following research phases, such as the design of the research project and the choice of methods are divided in more varied ways among all position types. For example, 27% of Postdocs report that the design of the research project is done mostly by the PI with support from project staff, 39% of them report the work being divided in equal shares and 20% report that it is mainly the project staff that work on the design of research. Slightly more Doctoral students (43%) answer "PI alone" when asked about the supervision of doctoral candidates than any other position type.

Finally, the answer "mainly project staff with support from PI" occurs the most in all position types during the choice of methods. The category “project staff alone” is also very rare during all research phases and position types.

Figure 42

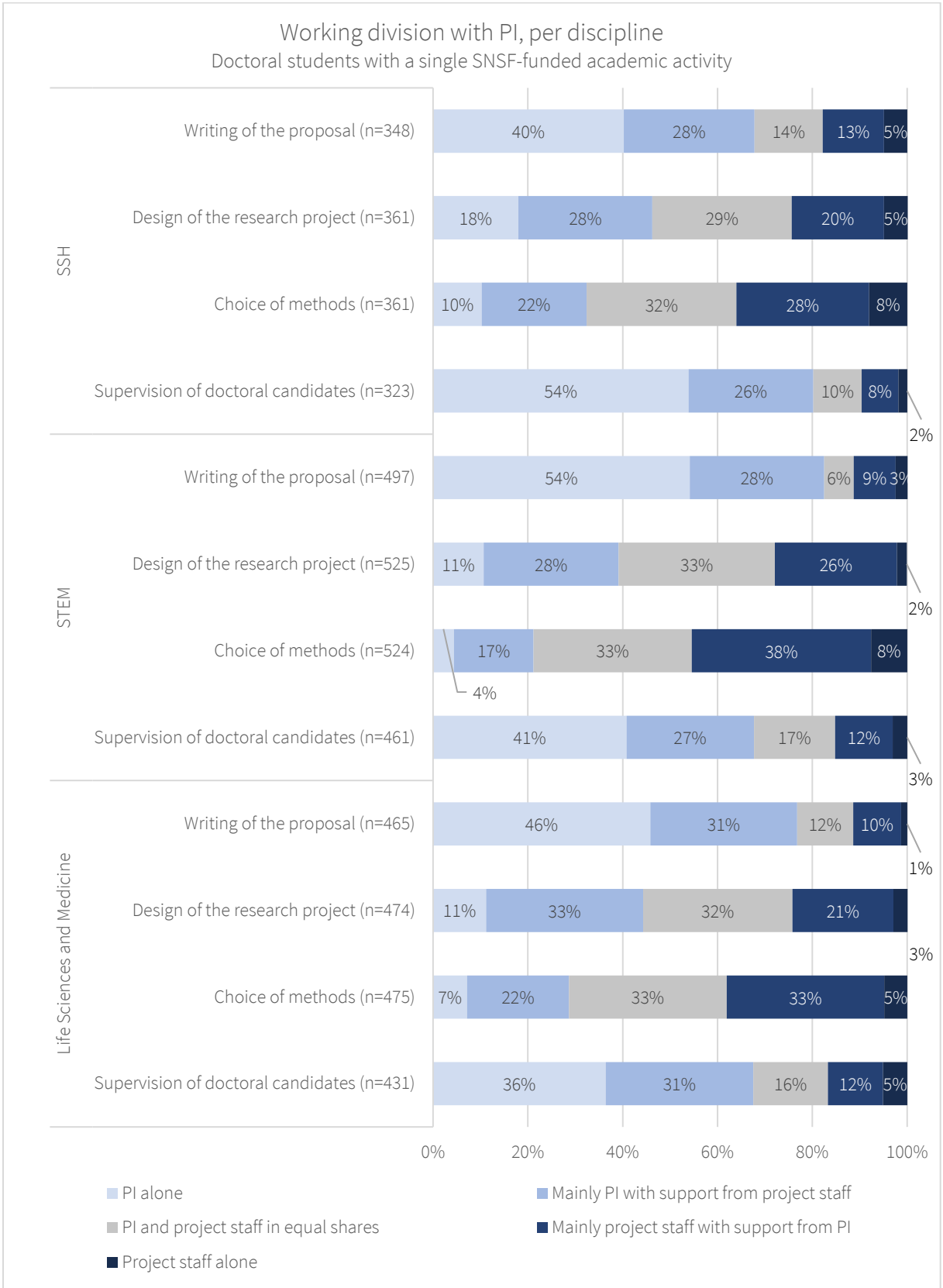

Working division with PI, per discipline
Doctoral students with a single SNSF-funded academic activity
SSH
Writing of the proposal (n=348)
40%
28%
14%
13%
5%
Design of the research project (n=361)
18%
28%
29%
20%
5%
Choice of methods (n=361)
10%
22%
32%
28%
8%
Supervision of doctoral candidates (n=323)
54%
26%
10%
8%
2%
STEM
Writing of the proposal (n=497)
54%
28%
6%
9%
3%
Design of the research project (n=525)
11%
28%
33%
26%
2%
Choice of methods (n=524)
4%
17%
33%
38%
8%
Supervision of doctoral candidates (n=461)
41%
27%
17%
12%
3%
Life Sciences and Medicine
Writing of the proposal (n=465)
46%
31%
12%
10%
1%
Design of the research project (n=474)
11%
33%
32%
21%
3%
Choice of methods (n=475)
7%
22%
33%
33%
5%
Supervision of doctoral candidates (n=431)
36%
31%
16%
12%
5%
0%
20%
40%
60%
80%
100%
PI alone
Mainly PI with support from project staff
PI and project staff in equal shares
Mainly project staff with support from PI
Project staff alone

Figure 43

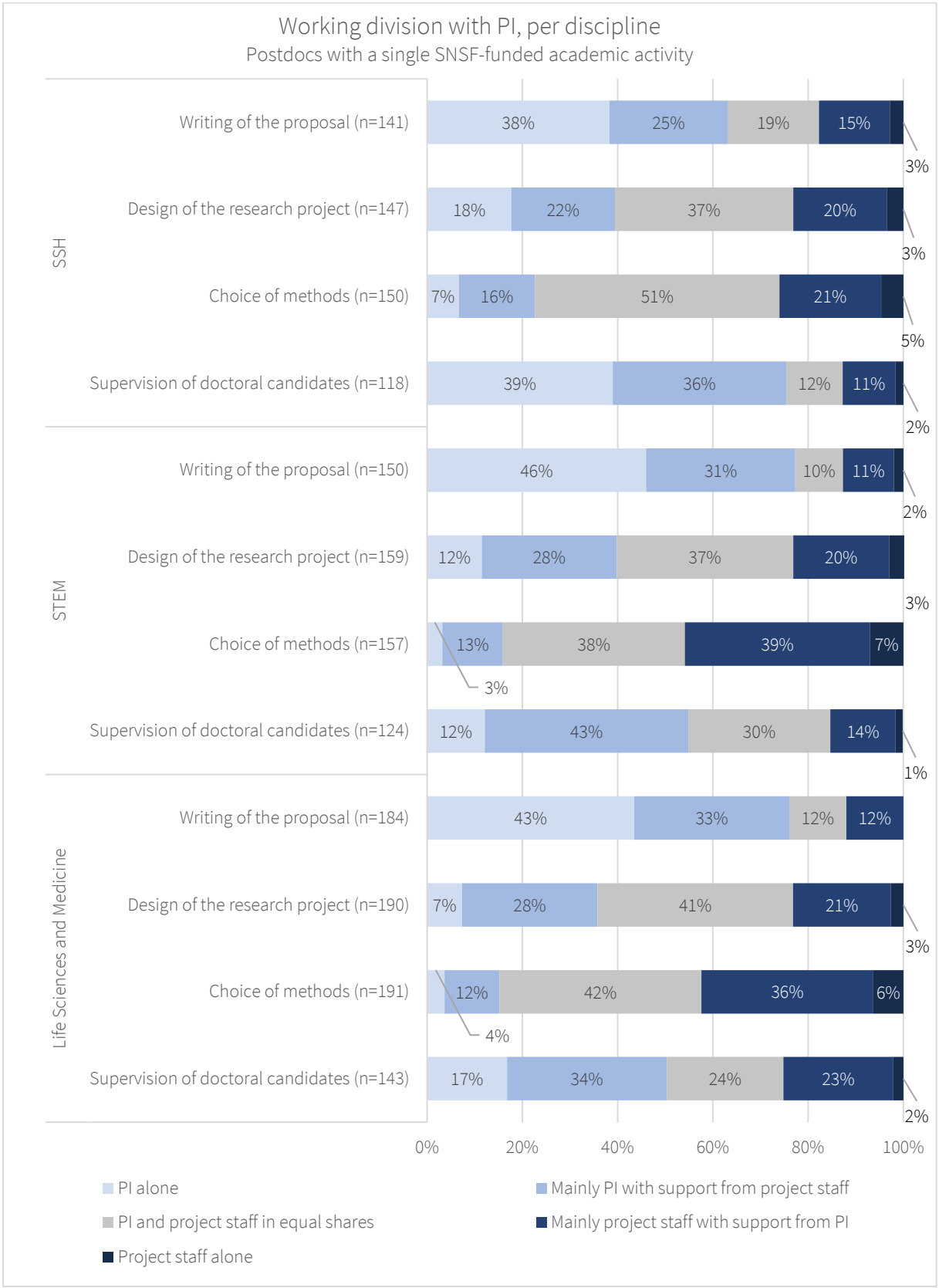
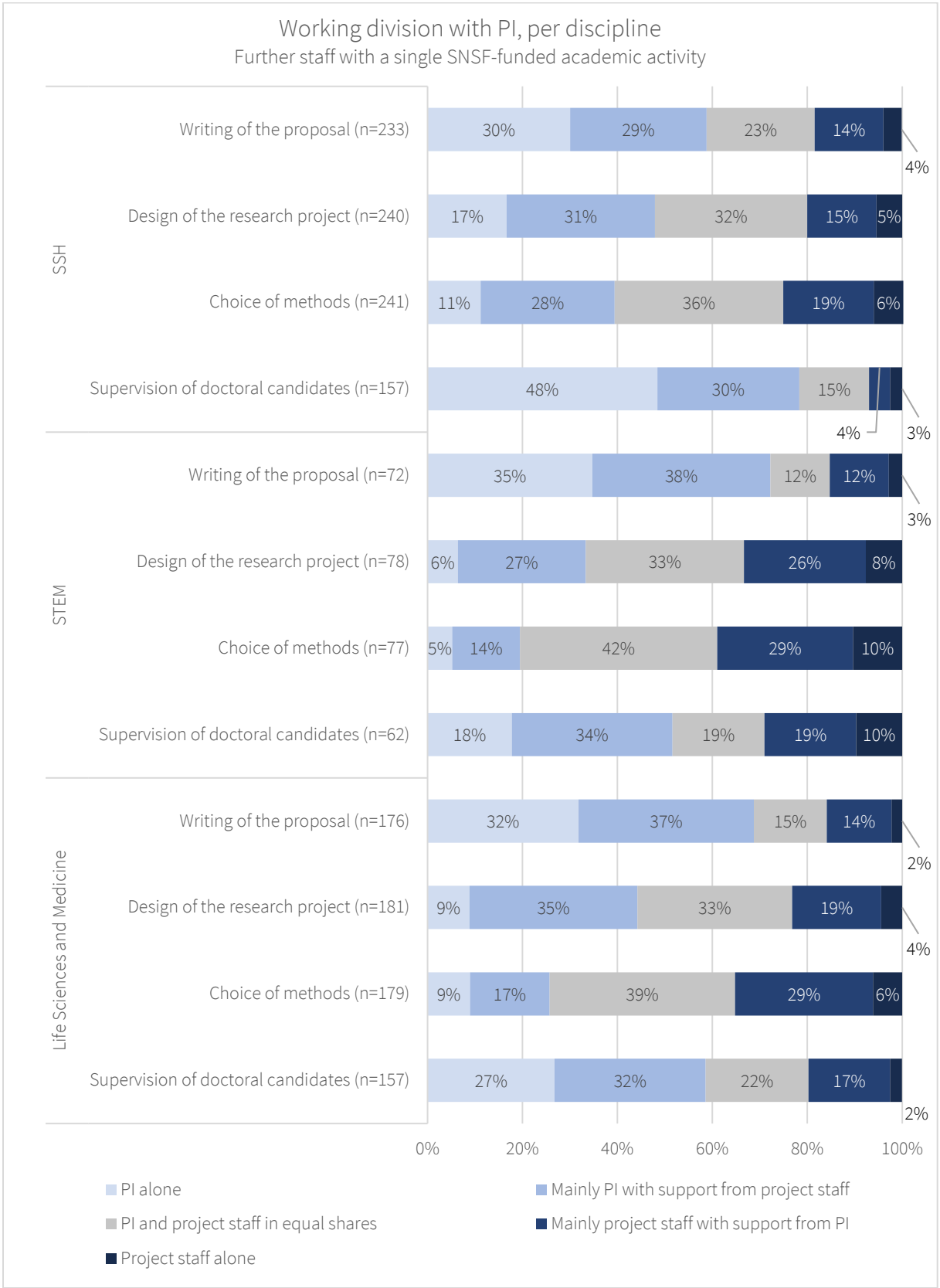

Working division with PI, per discipline
Postdocs with a single SNSF-funded academic activity
SSH
Writing of the proposal (n=141)
38%
25%
19%
15%
3%
Design of the research project (n=147)
18%
22%
37%
20%
3%
Choice of methods (n=150)
7%
16%
51%
21%
5%
Supervision of doctoral candidates (n=118)
39%
36%
12%
11%
2%
STEM
Writing of the proposal (n=150)
46%
31%
10%
11%
2%
Design of the research project (n=159)
12%
28%
37%
20%
3%
Choice of methods (n=157)
13%
38%
39%
7%
3%
Supervision of doctoral candidates (n=124)
12%
43%
30%
14%
1%
Life Sciences and Medicine
Writing of the proposal (n=184)
43%
33%
12%
12%
Design of the research project (n=190)
7%
28%
41%
21%
3%
Choice of methods (n=191)
12%
42%
36%
6%
4%
Supervision of doctoral candidates (n=143)
17%
34%
24%
23%
2%
0%
20%
40%
60%
80%
100%
PI alone
Mainly PI with support from project staff
PI and project staff in equal shares
Mainly project staff with support from PI
Project staff alone

Figure 44


Working division with PI, per discipline
Further staff with a single SNSF-funded academic activity
SSH
Writing of the proposal (n=233)
30%
29%
23%
14%
4%
Design of the research project (n=240)
17%
31%
32%
15%
5%
Choice of methods (n=241)
11%
28%
36%
19%
6%
Supervision of doctoral candidates (n=157)
48%
30%
15%
4%
3%
STEM
Writing of the proposal (n=72)
35%
38%
12%
12%
3%
Design of the research project (n=78)
6%
27%
33%
26%
8%
Choice of methods (n=77)
5%
14%
42%
29%
10%
Supervision of doctoral candidates (n=62)
18%
34%
19%
19%
10%
Life Sciences and Medicine
Writing of the proposal (n=176)
32%
37%
15%
14%
2%
Design of the research project (n=181)
9%
35%
33%
19%
4%
Choice of methods (n=179)
9%
17%
39%
29%
6%
Supervision of doctoral candidates (n=157)
27%
32%
22%
17%
2%
0%
20%
40%
60%
80%
100%
PI alone
Mainly PI with support from project staff
PI and project staff in equal shares
Mainly project staff with support from PI
Project staff alone

2.13 Share of Time Spent on Activities

Looking at time spent on different academic activities, in Figure 45 we see that the average proportion of time allocated to research among respondents by far the highest share with 69%. The task category of clinical duties stands out with the lowest share of time spent, and is concentrated among a particular group of respondents. Examining these indicators in more detail with regard to position types and disciplines (Figure 46), we can note that Doctoral students and Postdocs report similarly high shares of time spent on research (68-77%, depending on discipline). With a median value of 80% of time spent on research for Doctoral students, this indicates that only about half of those persons who responded to this question get to work the required 80% of their time on their dissertation. Researchers in SSH disciplines report lowest share of time spent on research in all position types. Within the lowest-ranking category of clinical activities, further staff working in Life Sciences and Medicine disciplines stand out, as they spend about 5 times more time on this activity (5%) as any other grouping with regard to position type and discipline. It can, furthermore, be noted that further staff spend, on average, around twice as much time on technical duties (12-15%) as Doctoral students and Postdocs (6-7%).

Figure 45

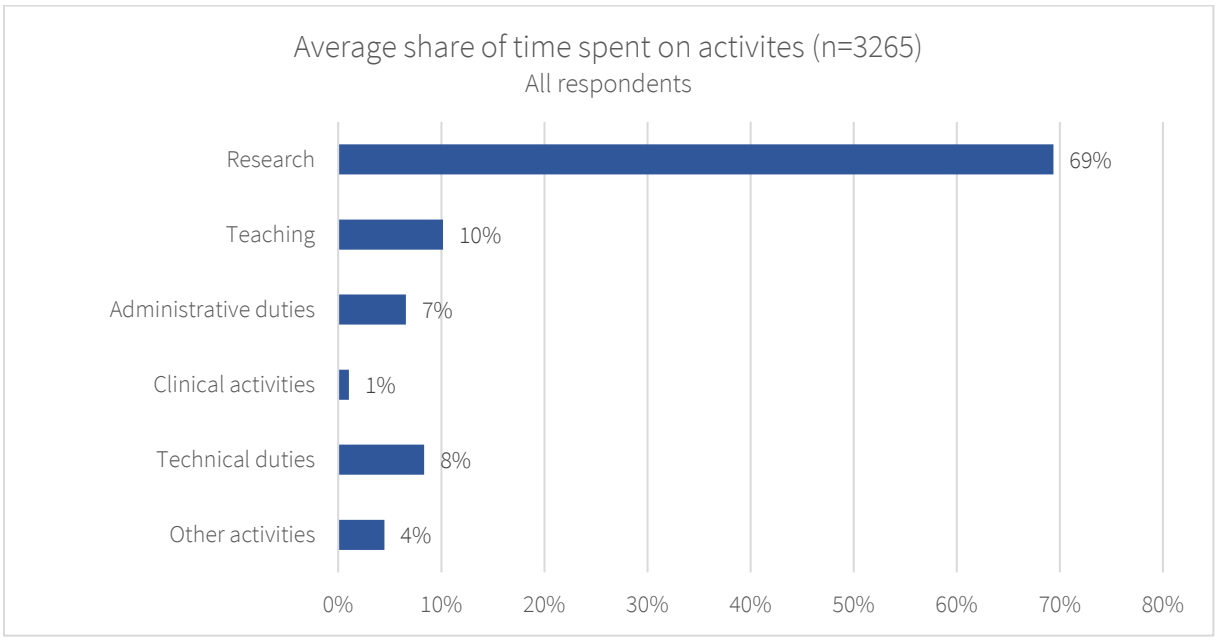
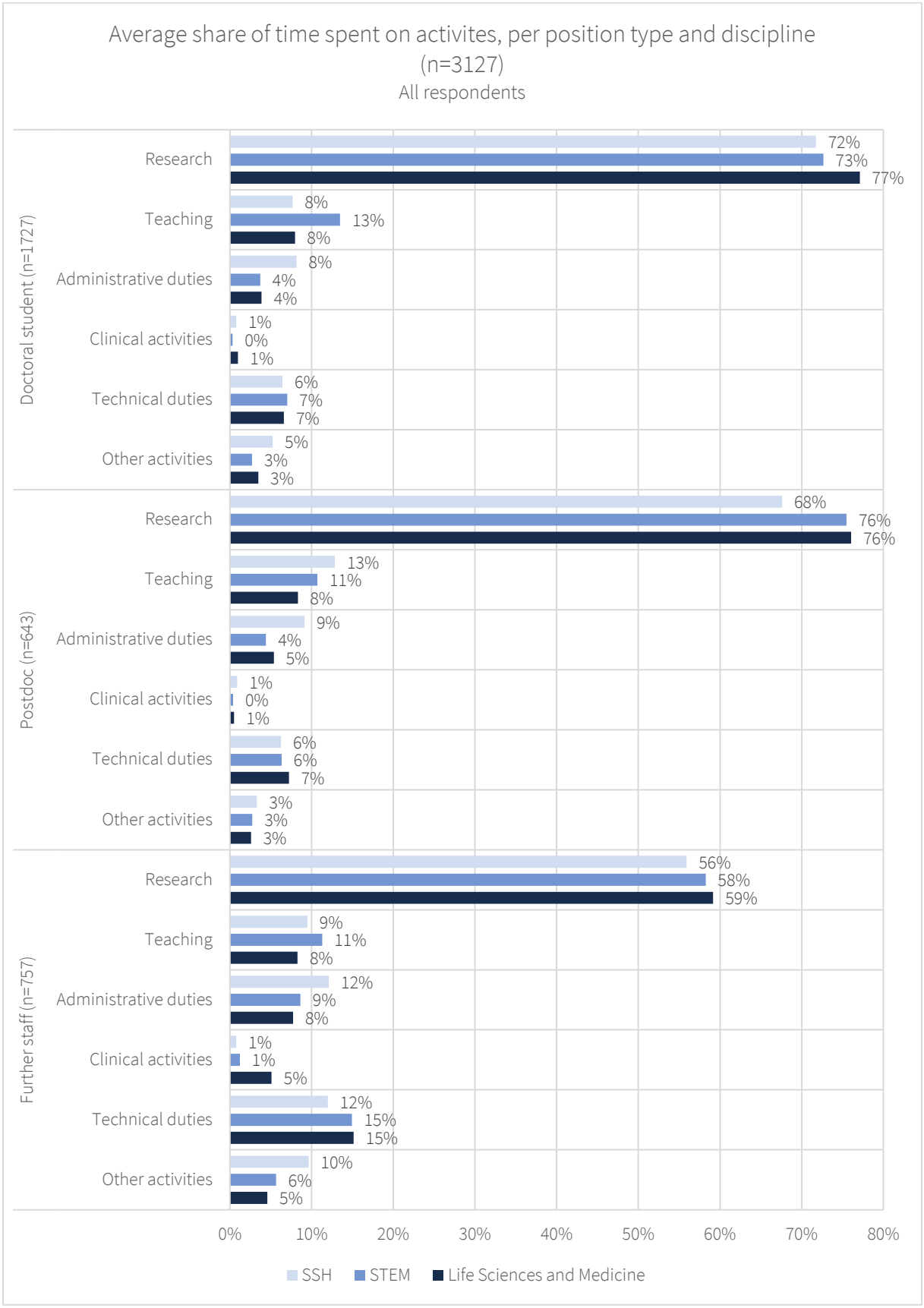


Figure 46


Average share of time spent on activites, per position type and discipline
(n=3127)
All respondents
Doctoral student (n=1727)
Research
72%
73%
77%
Teaching
8%
13%
8%
Administrative duties
8%
4%
4%
Clinical activities
1%
0%
1%
Technical duties
6%
7%
7%
Other activities
5%
3%
3%
Postdoc (n=643)
Research
68%
76%
76%
Teaching
13%
11%
8%
Administrative duties
9%
4%
5%
Clinical activities
1%
0%
1%
Technical duties
6%
6%
7%
Other activities
3%
3%
3%
Further staff (n=757)
Research
56%
58%
59%
Teaching
9%
11%
8%
Administrative duties
12%
9%
8%
Clinical activities
1%
1%
5%
Technical duties
12%
15%
15%
Other activities
10%
6%
5%
0%
10%
20%
30%
40%
50%
60%
70%
80%
SSH
STEM
Life Sciences and Medicine

2.14 Aspirations

Regarding aspirations to different positions among Doctoral students, Postdocs and further staff (Figure 47, Figure 48, and Figure 49), the proportion of respondents aspiring to each position varies considerably among position types. For example, a scientific position outside of academia is the most frequently mentioned top aspiration for Doctoral students (33%). For 43% of Postdocs, the preferred choice is a full tenured professorship. Among further staff respondents, the most sought-after position is a scientific position within academia (mentioned by 42% of this group). Categories which respondents aspire to the least in all groups are a management position within academia, self-employment and other.

Figure 47

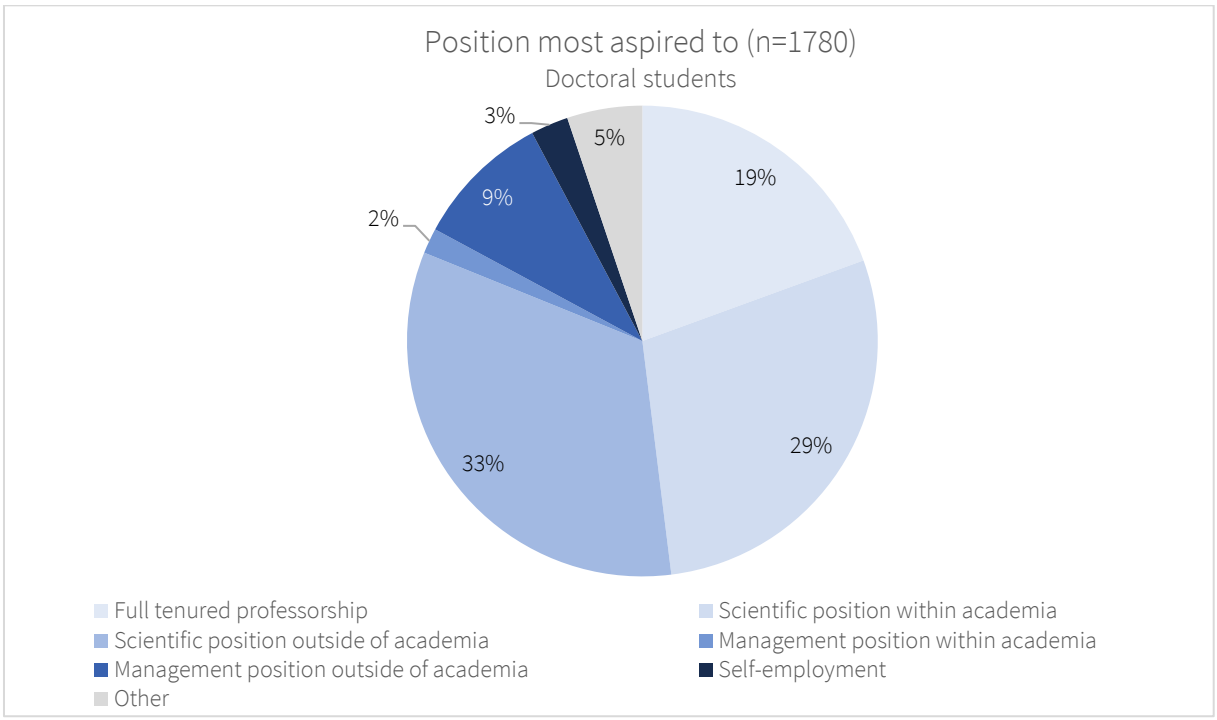


Figure 48

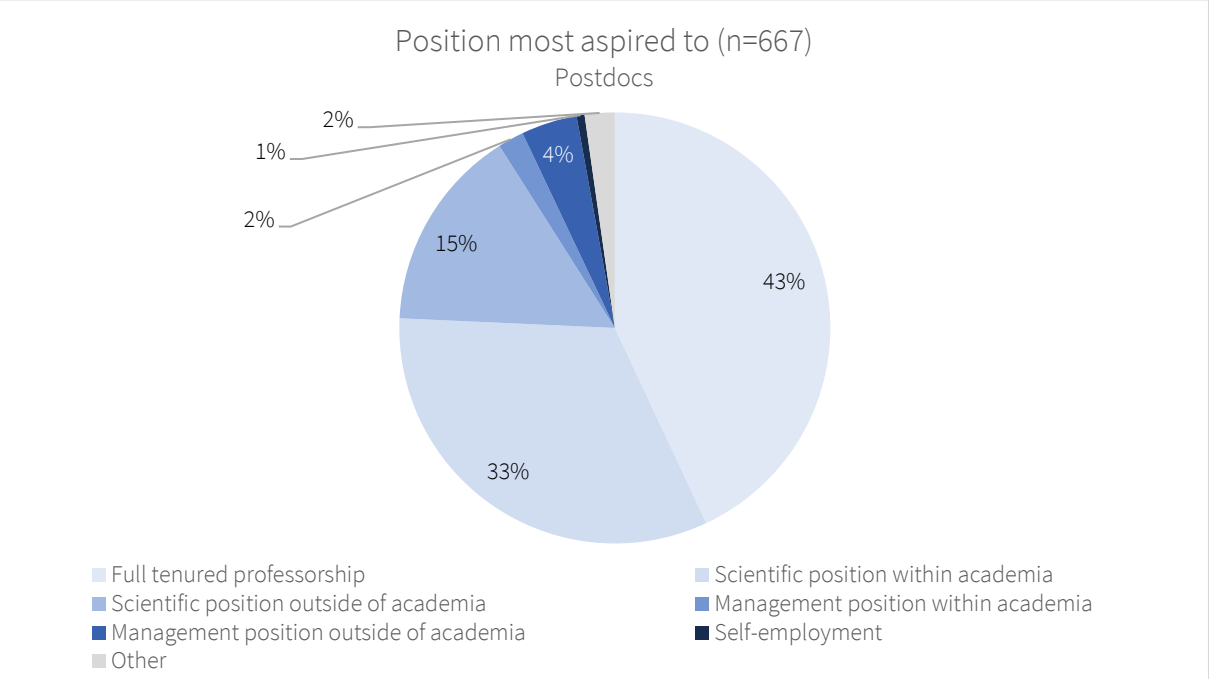
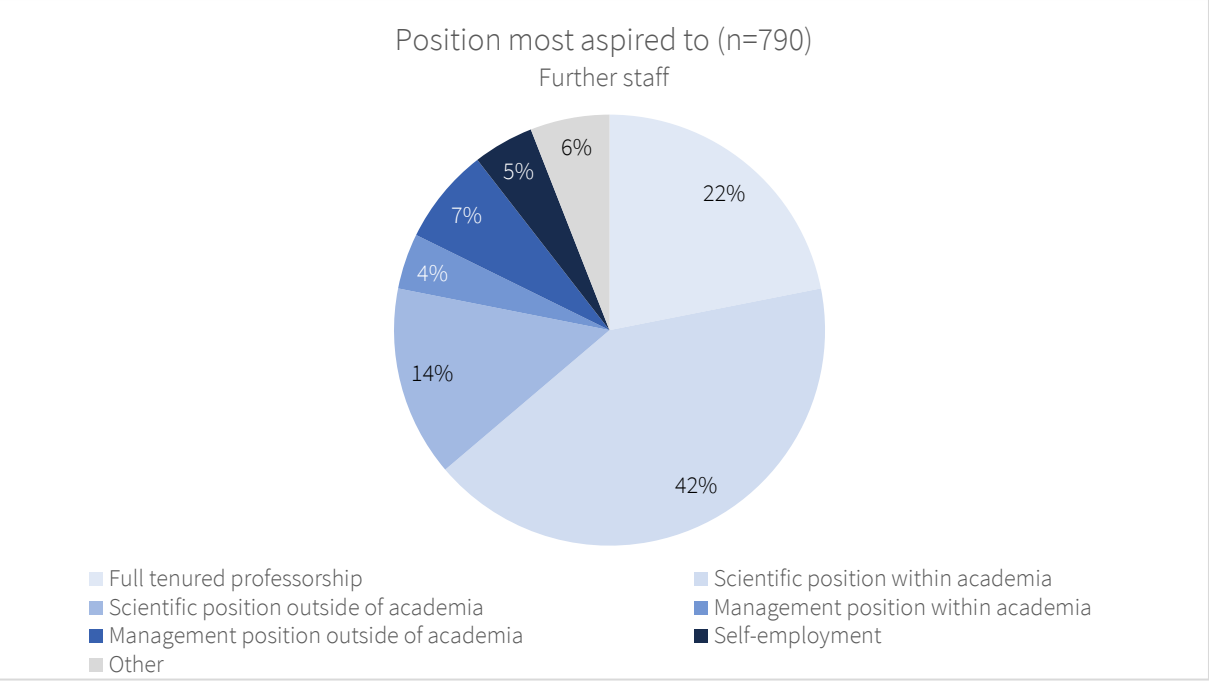


Figure 49



When comparing disciplines, a clear difference can be assessed regarding the wish to pursue a scientific position outside of academia: While almost a third of respondents working in STEM (31%) and Life Sciences and Medicine (32%) answered that this would be their preferred career goal, this was the case for only 14% of SSH respondents. No significant age or gender differences were found regarding reported career aspirations.

2.15 Harassment

The following graphs represent experiences of discrimination or harassment across each position type, starting with experienced discrimination or harassment at current academic jobs (Figure 50). The large majority of all Doctoral students, Postdocs and further staff have not experienced any discrimination or harassment within their current academic activities, with at least around 90 % of respondents overall reporting no discrimination or harassment. The proportion is slightly higher among Postdocs (10%). In all position types, female respondents have indicated more than twice as often than men having experienced some kind of discrimination or harassment at their current academic employment.

Figure 50

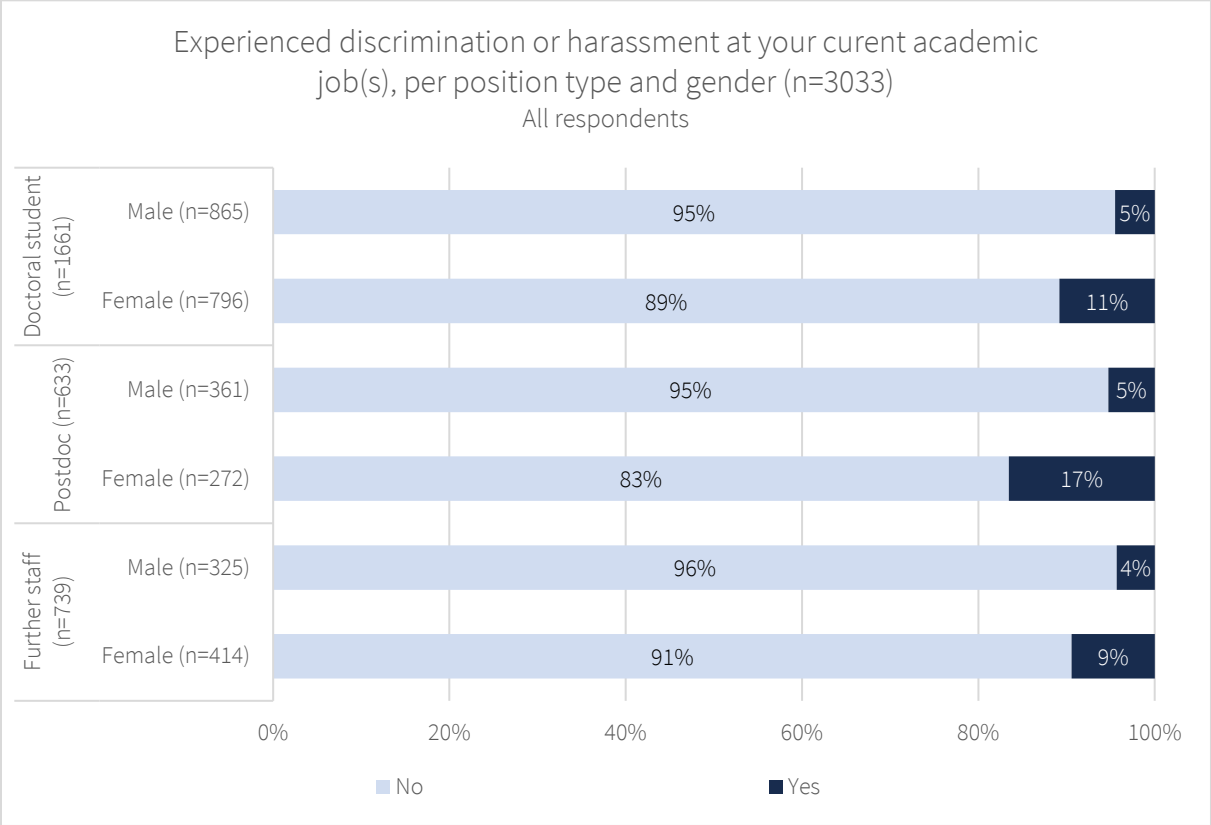


Figure 51, Figure 52 and Figure 53 detail forms of discrimination or harassment. First, this question was well received and trust in the survey was high, as very few respondents did not answer it. Gender discrimination is the most often experienced form of discrimination by respondents and this is true for all position types. The second most experienced form of discrimination or harassment by Doctoral students and further staff are other forms of discrimination or harassment. For Postdocs, the second most often experienced form of discrimination or harassment is race-based (27%). Age discrimination and discrimination because of parenthood duties or

care duties is also experienced by respondents. The lowest forms of discrimination and harassment across all groups LGBTQIA+, religious, and disability discrimination.

Figure 51

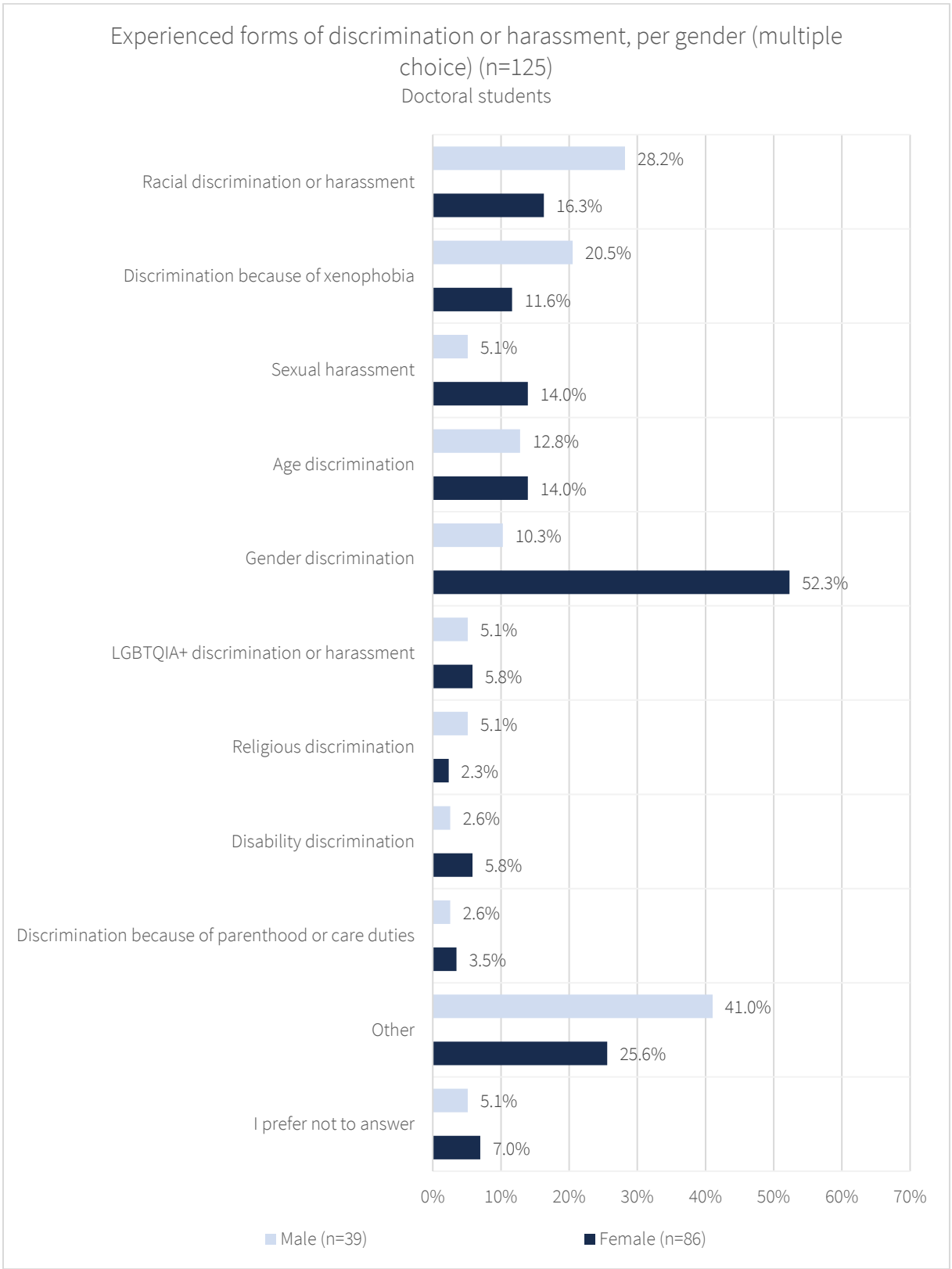


Figure 52

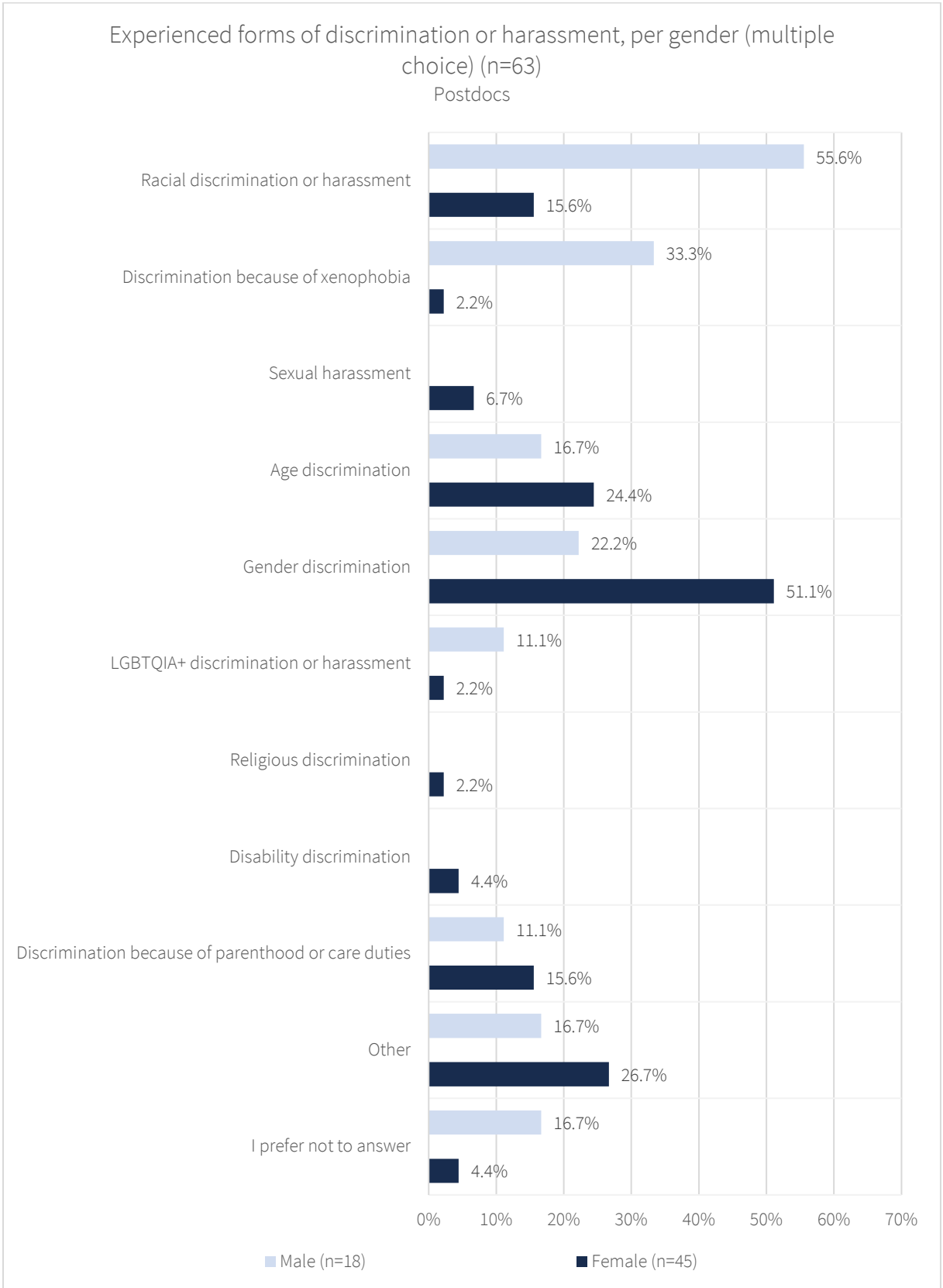
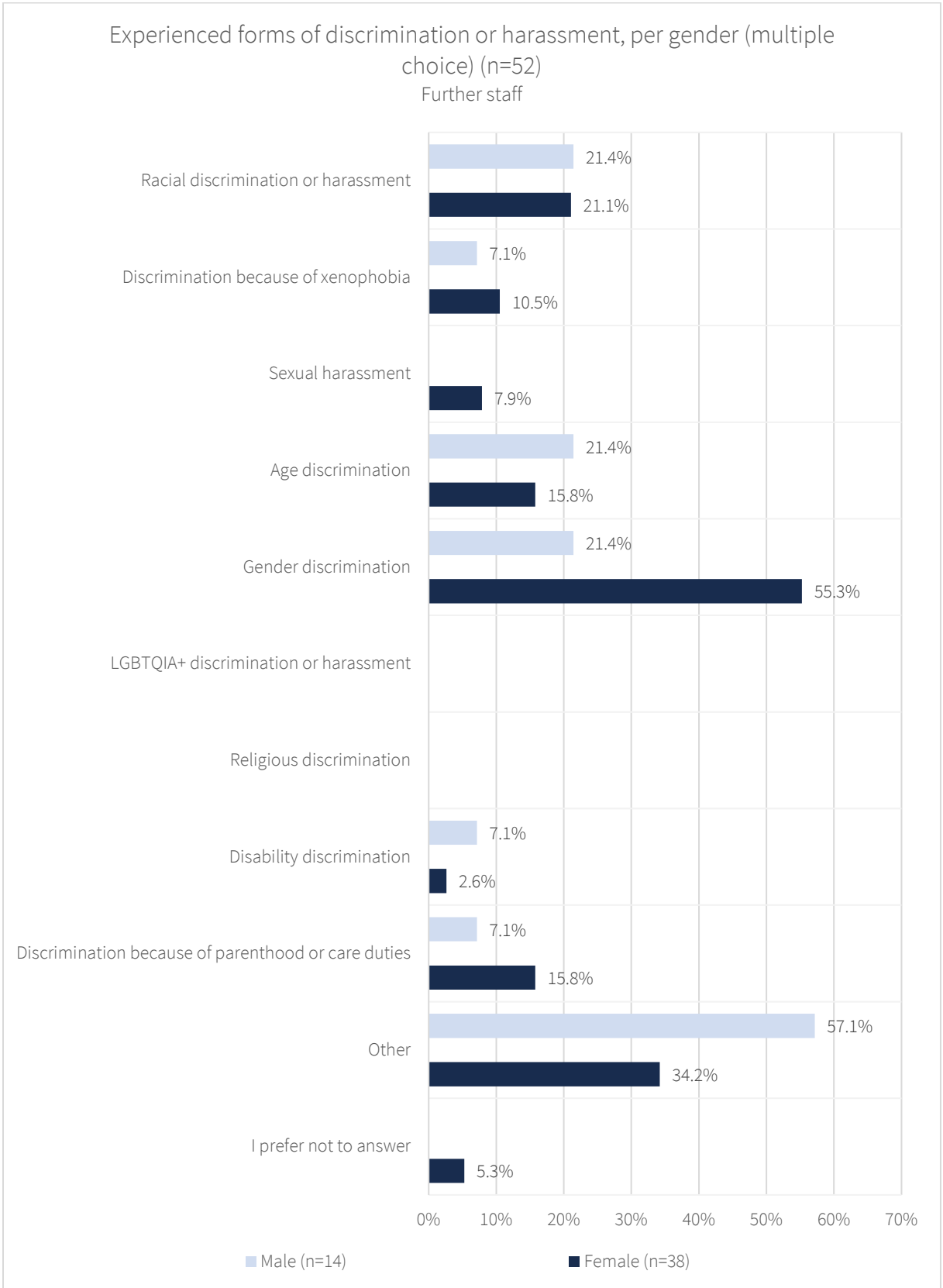
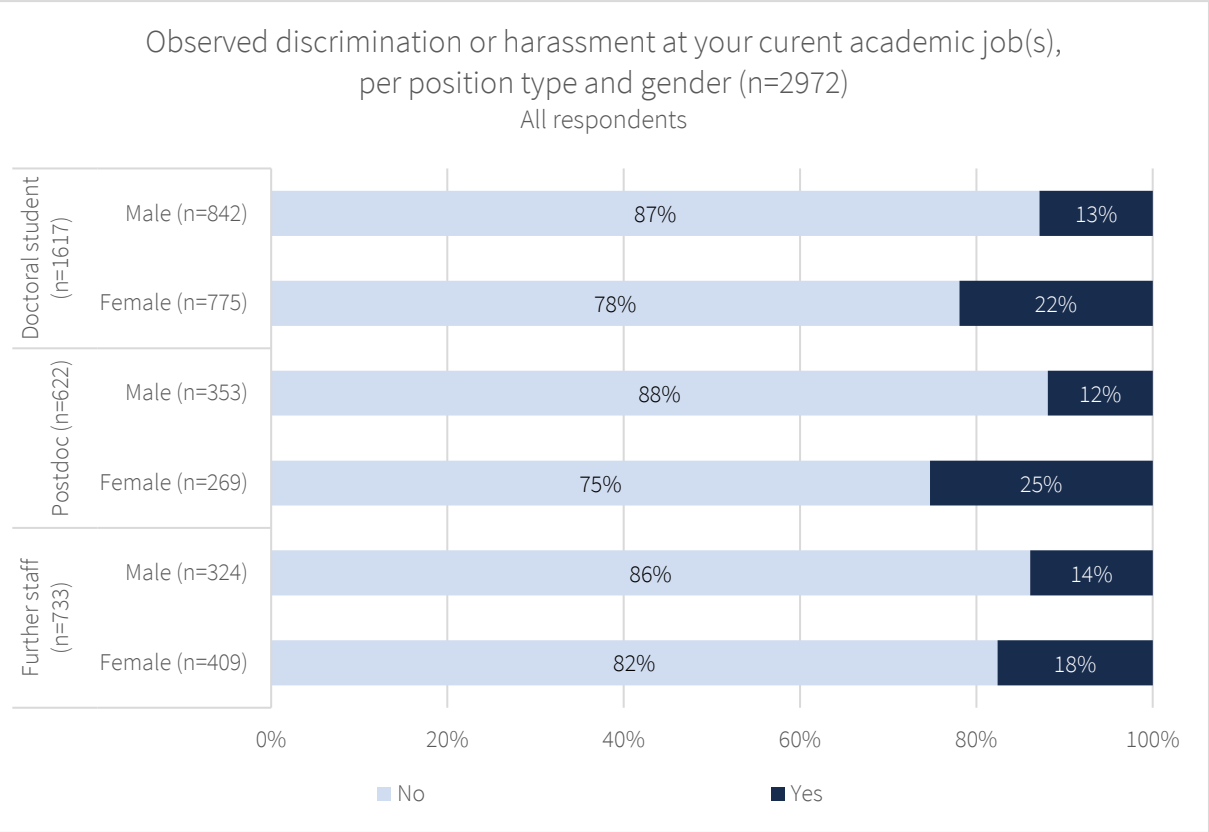

Experienced forms of discrimination or harassment, per gender (multiple choice) (n=63)
Postdocs
Racial discrimination or harassment
55.6%
15.6%
Discrimination because of xenophobia
33.3%
2.2%
Sexual harassment
6.7%
Age discrimination
16.7%
24.4%
Gender discrimination
22.2%
51.1%
LGBTQIA+ discrimination or harassment
11.1%
2.2%
Religious discrimination
2.2%
Disability discrimination
4.4%
Discrimination because of parenthood or care duties
11.1%
15.6%
Other
16.7%
26.7%
I prefer not to answer
16.7%
4.4%
0%
10%
20%
30%
40%
50%
60%
70%
Male (n=18)
Female (n=45)

Figure 53


Experienced forms of discrimination or harassment, per gender (multiple choice) (n=52)
Further staff
Racial discrimination or harassment
21.4%
21.1%
Discrimination because of xenophobia
7.1%
10.5%
Sexual harassment
7.9%
Age discrimination
21.4%
15.8%
Gender discrimination
21.4%
55.3%
LGBTQIA+ discrimination or harassment
Religious discrimination
Disability discrimination
7.1%
2.6%
Discrimination because of parenthood or care duties
7.1%
15.8%
Other
57.1%
34.2%
I prefer not to answer
5.3%
0%
10%
20%
30%
40%
50%
60%
70%
Male (n=14)
Female (n=38)

Trends in observed discrimination or harassment during current academic jobs remain similar across all three position types (Figure 54). Around a sixth (17%) have observed some kind of discrimination or harassment overall.

Figure 54



Regarding specific forms of observed discrimination and harassment (Figure 55, Figure 56 and Figure 57), these follow similar trends as the forms of discrimination or harassment experienced by respondents. Among reported observations of discrimination, gender discrimination is observed most often by Doctoral students, Postdocs and further staff, followed by racial discrimination and harassment, followed by other forms. Age discrimination and discrimination because of parenthood or care duties is observed by a similar proportion of respondents from each group. However, in comparison with experienced forms, the proportion of respondents having observed xenophobia and sexual harassment is proportionally higher for all respondent groups.

Figure 55

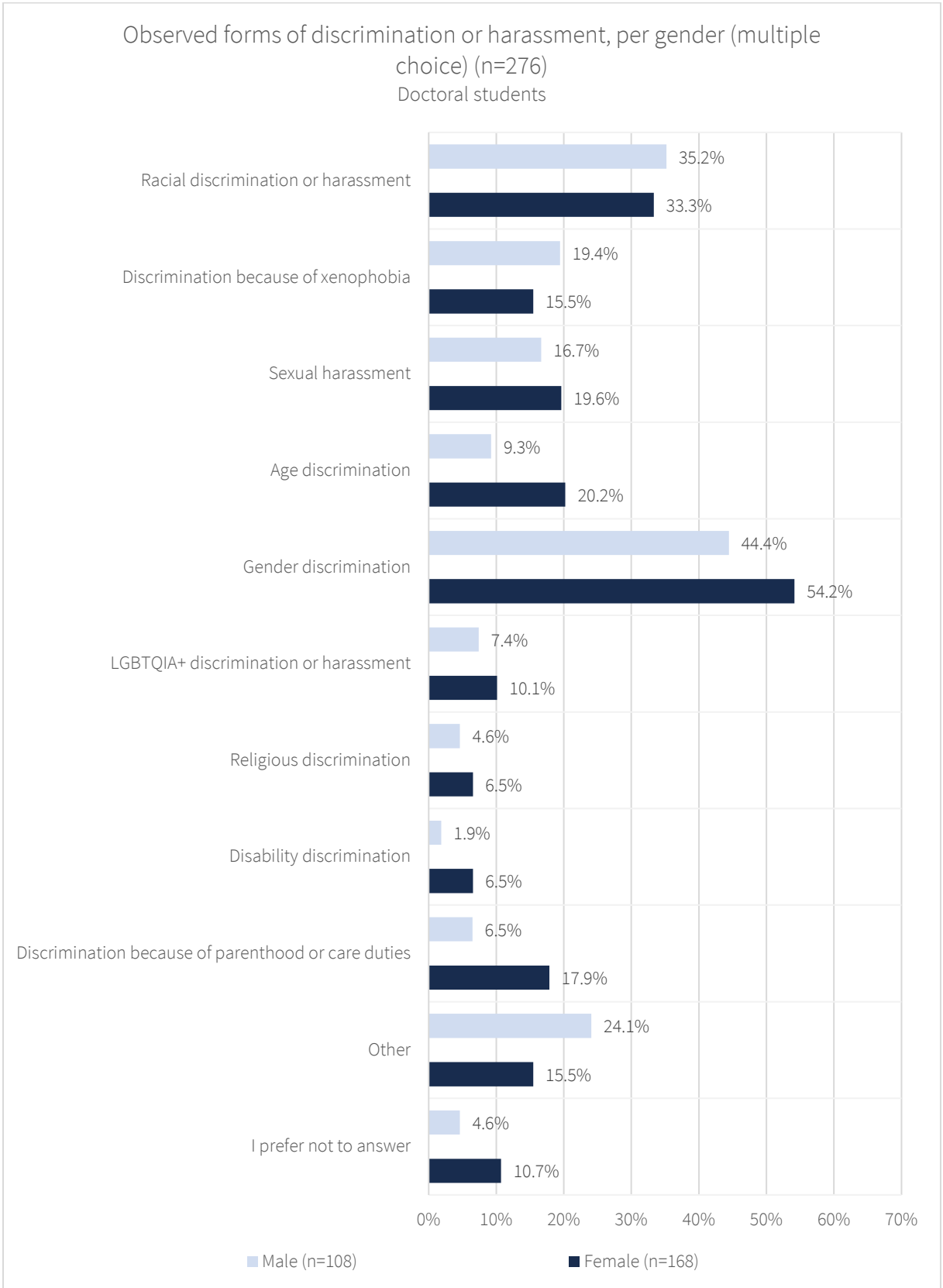

Observed forms of discrimination or harassment, per gender (multiple choice) (n=276)
Doctoral students
Racial discrimination or harassment
35.2%
33.3%
Discrimination because of xenophobia
19.4%
15.5%
Sexual harassment
16.7%
19.6%
Age discrimination
9.3%
20.2%
Gender discrimination
44.4%
54.2%
LGBTQIA+ discrimination or harassment
7.4%
10.1%
Religious discrimination
4.6%
6.5%
Disability discrimination
1.9%
6.5%
Discrimination because of parenthood or care duties
6.5%
17.9%
Other
24.1%
15.5%
I prefer not to answer
4.6%
10.7%
0%
10%
20%
30%
40%
50%
60%
70%
Male (n=108)
Female (n=168)

Figure 56

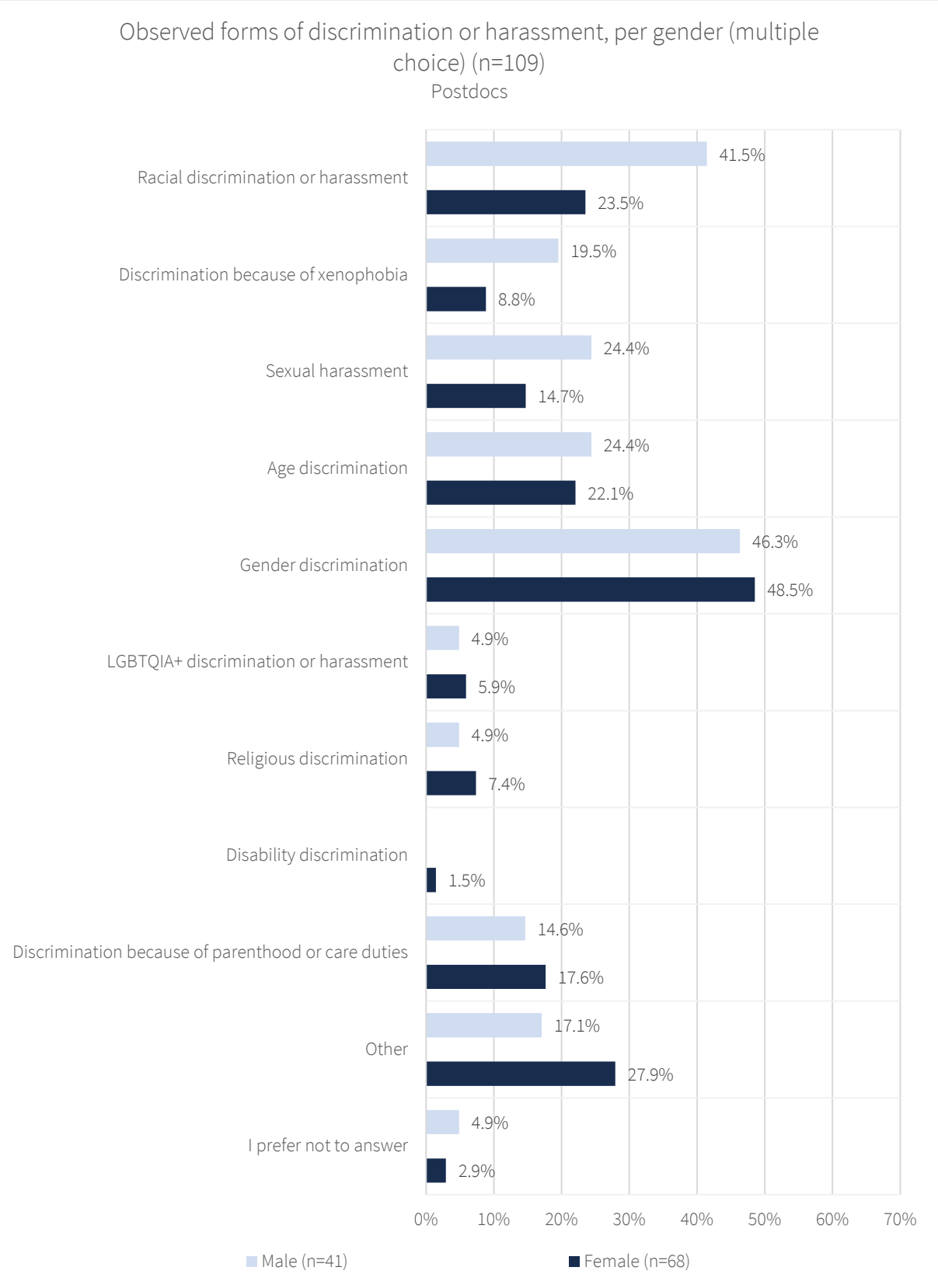
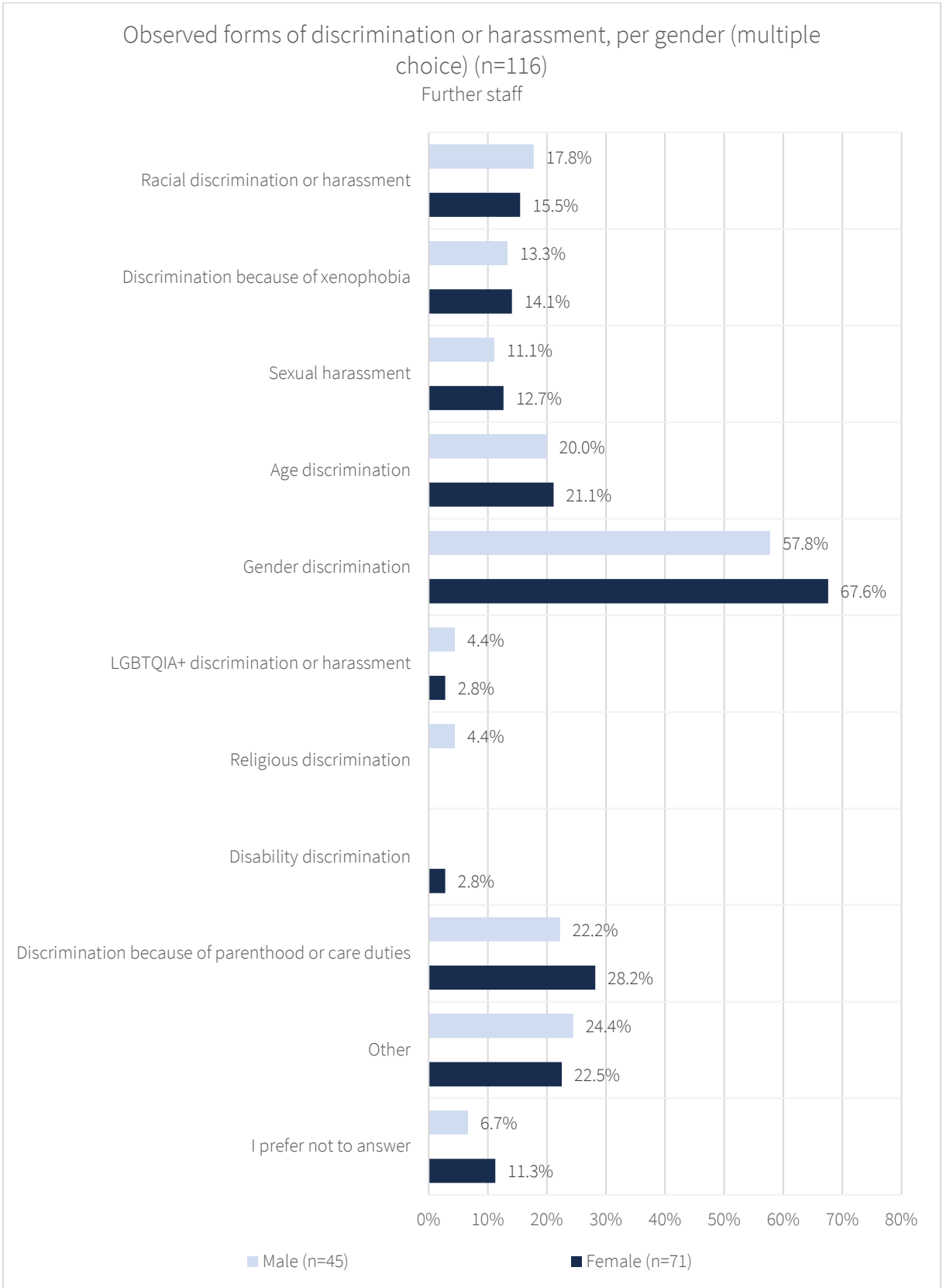

Observed forms of discrimination or harassment, per gender (multiple choice) (n=109)
Postdocs
Racial discrimination or harassment
41.5%
23.5%
Discrimination because of xenophobia
19.5%
8.8%
Sexual harassment
24.4%
14.7%
Age discrimination
24.4%
22.1%
Gender discrimination
46.3%
48.5%
LGBTQIA+ discrimination or harassment
4.9%
5.9%
Religious discrimination
4.9%
7.4%
Disability discrimination
1.5%
Discrimination because of parenthood or care duties
14.6%
17.6%
Other
17.1%
27.9%
I prefer not to answer
4.9%
2.9%
0%
10%
20%
30%
40%
50%
60%
70%
Male (n=41)
Female (n=68)

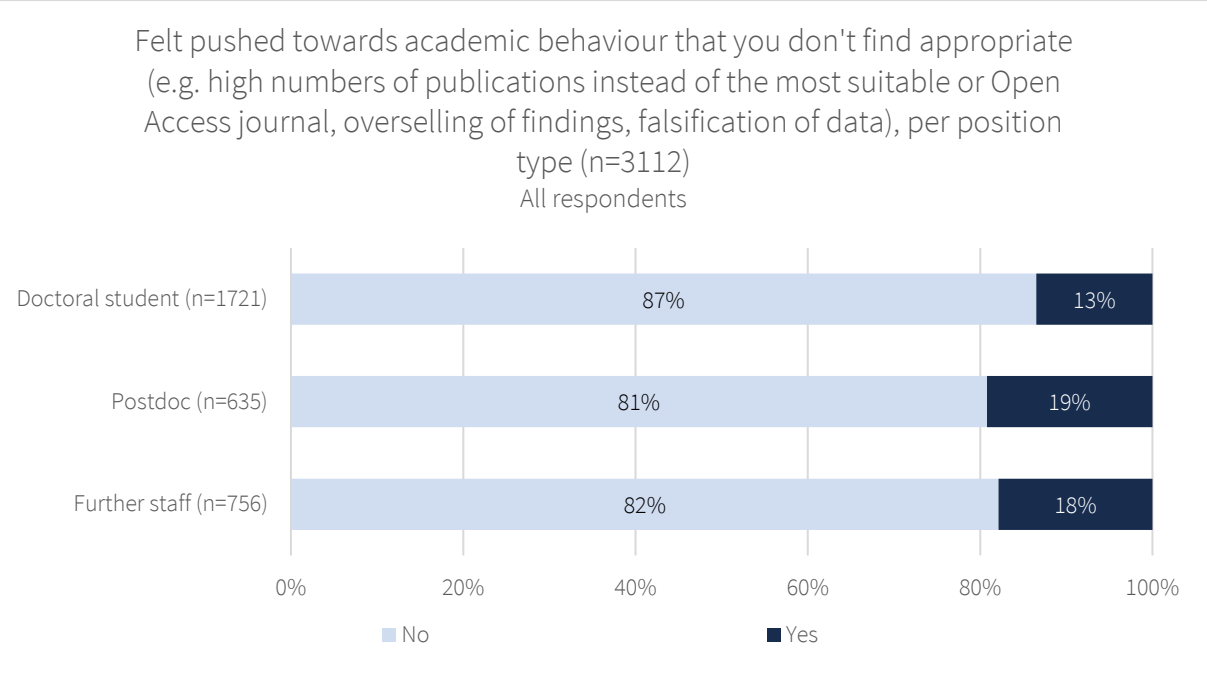
Figure 57


Observed forms of discrimination or harassment, per gender (multiple choice) (n=116)
Further staff
Racial discrimination or harassment
17.8%
15.5%
Discrimination because of xenophobia
13.3%
14.1%
Sexual harassment
11.1%
12.7%
Age discrimination
20.0%
21.1%
Gender discrimination
57.8%
67.6%
LGBTQIA+ discrimination or harassment
4.4%
2.8%
Religious discrimination
4.4%
Disability discrimination
2.8%
Discrimination because of parenthood or care duties
22.2%
28.2%
Other
24.4%
22.5%
I prefer not to answer
6.7%
11.3%
0%
10%
20%
30%
40%
50%
60%
70%
80%
Male (n=45)
Female (n=71)

2.16 Inappropriate Academic Behaviour

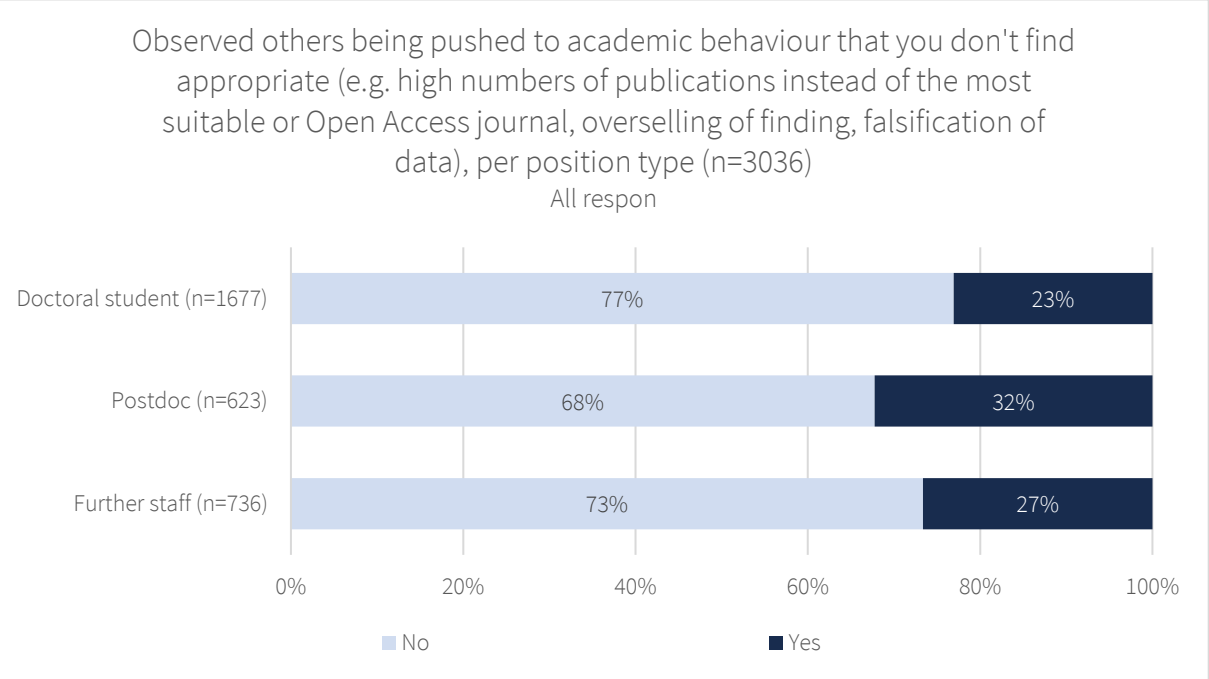
We now turn to situations where respondents were pushed towards inappropriate types of academic behaviours (Figure 58). We see that between 13% and 19% have felt pushed to adopt forms of academic behaviour considered inappropriate. The proportion is lower for Doctoral students (13%) than for the other two groups (18 to 19%).

Figure 58



Regarding observed push toward inappropriate academic behavior (Figure 59), the trend between groups remains similar, with an overall higher percentage, going from 23% for Doctoral students to 32% for Postdocs.

Figure 59

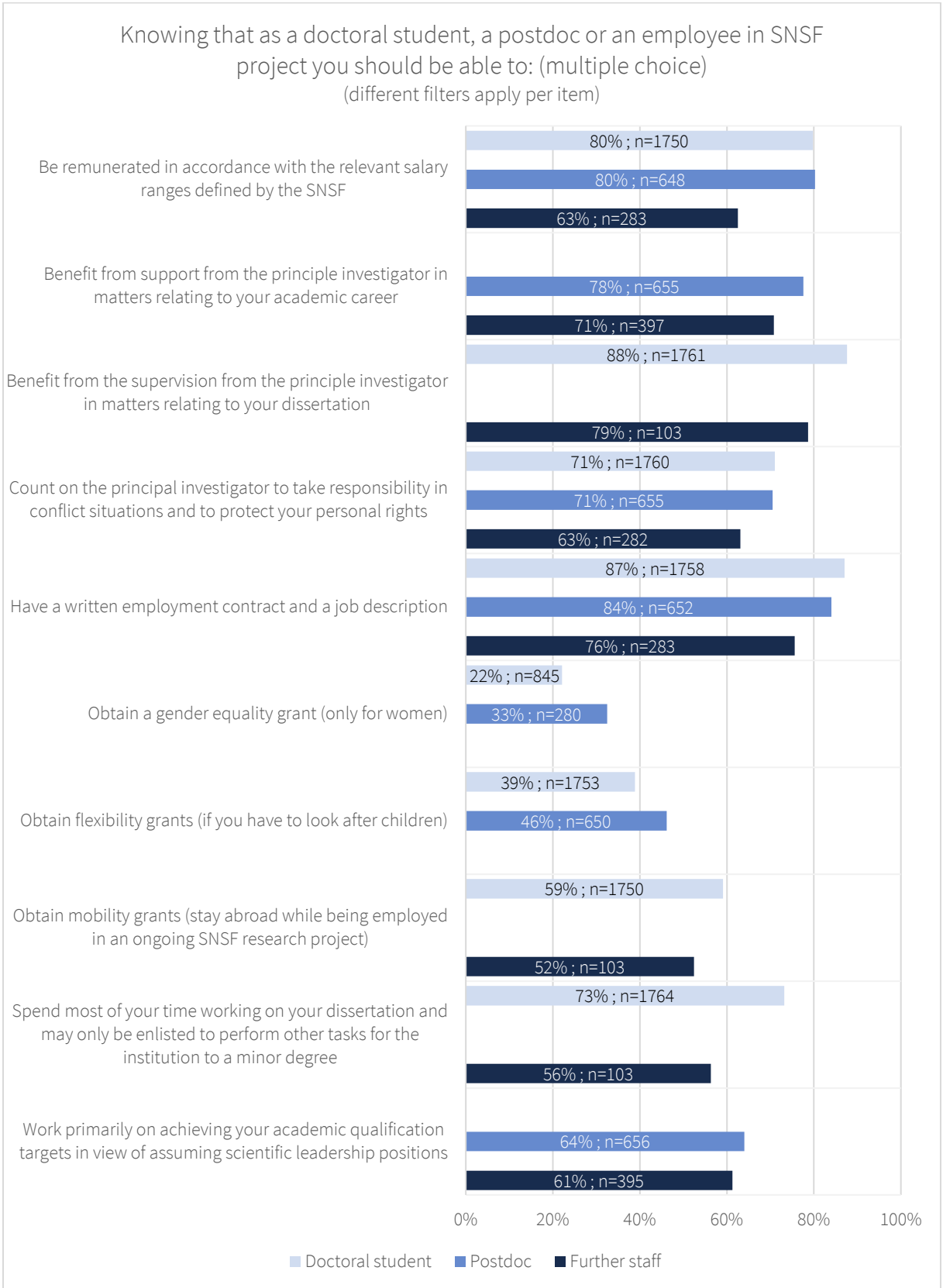


2.17 Knowledge About Rights

Participants were also asked about their knowledge of their respective rights regarding their status as an employee in a SNSF-funded project (Figure 60). Overall, a large majority of report knowing about rights corresponding to remuneration in accordance with the relevant salary ranges, PI support in matters relating to an academic career, PI supervision in matters relating to the dissertation, PI responsibility during conflicts and protection of personal rights and written employment contract and job description.

However, knowledge was lower and more uneven between position types when considering different grants, as well as other possibilities. For example, when asking women about their knowledge of a gender equality grant, only 22% of female Doctoral students and 33% of female Postdocs report knowing about it. Less than half of the respondents looking after children know about the flexibility grants and only slightly more Doctoral students and further staff report knowing about mobility grants. Among Doctoral students, 73% know about the possibility of spending most of their time working on their dissertation and being only enlisted to perform other tasks for the institution to a minor degree. Finally, a majority of Postdocs and further staff report knowing about the right to work primarily on achieving their academic qualification targets in view of assuming scientific leadership positions.

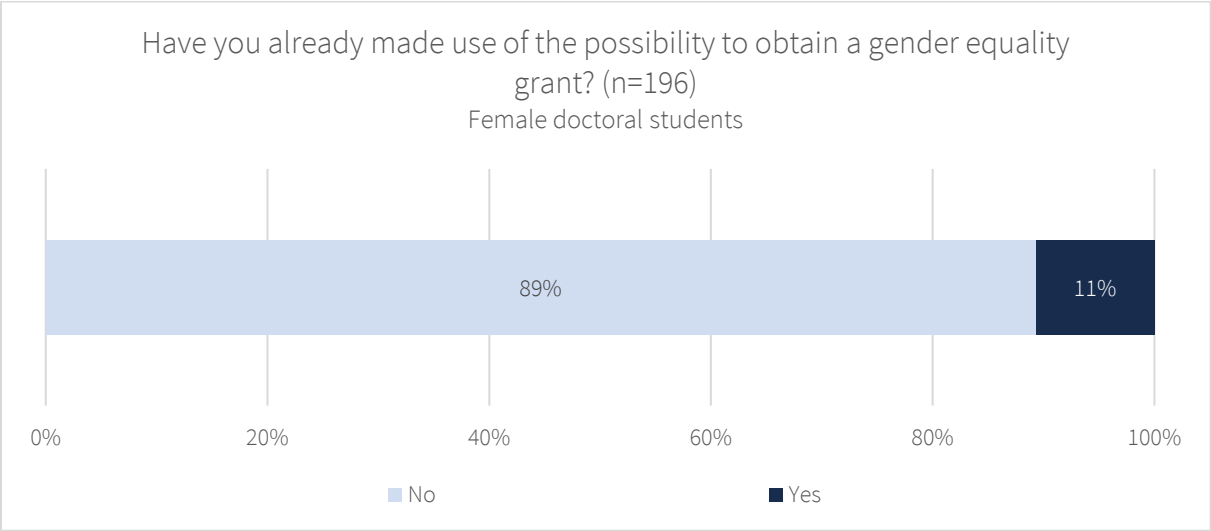
Figure 60


Knowing that as a doctoral student, a postdoc or an employee in SNSF project you should be able to: (multiple choice)
(different filters apply per item)
Be remunerated in accordance with the relevant salary ranges defined by the SNSF
80% ; n=1750
80% ; n=648
63% ; n=283
Benefit from support from the principle investigator in matters relating to your academic career
78% ; n=655
71% ; n=397
Benefit from the supervision from the principle investigator in matters relating to your dissertation
88% ; n=1761
79% ; n=103
Count on the principal investigator to take responsibility in conflict situations and to protect your personal rights
71% ; n=1760
71% ; n=655
63% ; n=282
Have a written employment contract and a job description
87% ; n=1758
84% ; n=652
76% ; n=283
Obtain a gender equality grant (only for women)
22% ; n=845
33% ; n=280
Obtain flexibility grants (if you have to look after children)
39% ; n=1753
46% ; n=650
Obtain mobility grants (stay abroad while being employed in an ongoing SNSF research project)
59% ; n=1750
52% ; n=103
Spend most of your time working on your dissertation and may only be enlisted to perform other tasks for the institution to a minor degree
73% ; n=1764
56% ; n=103
Work primarily on achieving your academic qualification targets in view of assuming scientific leadership positions
64% ; n=656
61% ; n=395
0%
20%
40%
60%
80%
100%
Doctoral student
Postdoc
Further staff

2.18 Gender Equality Grant

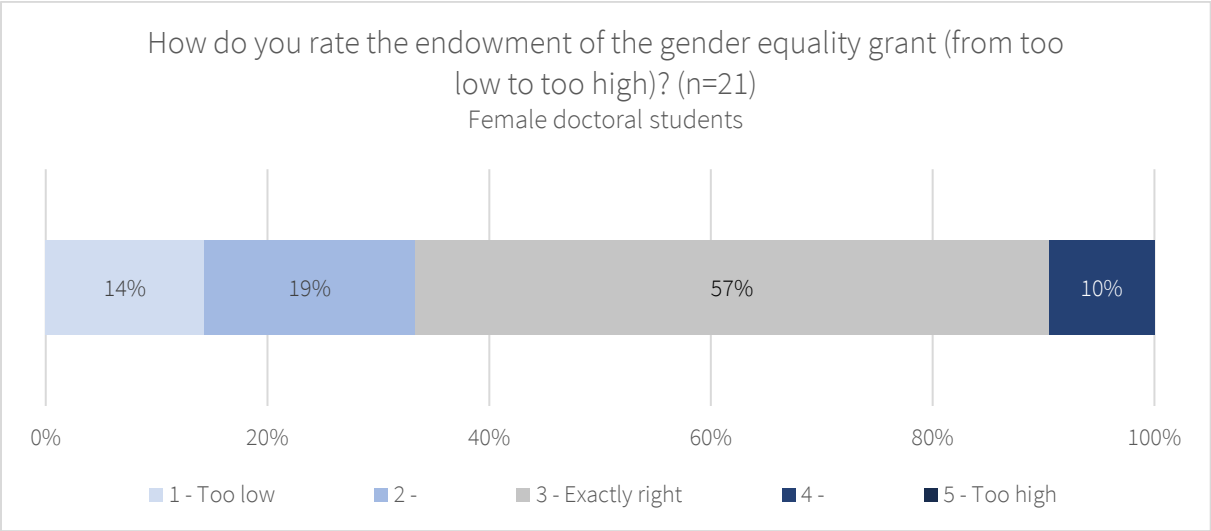
In Figure 61, we see that out of the 196 respondents concerned by the gender equality grant, 11% report having already made use of it.

Figure 61



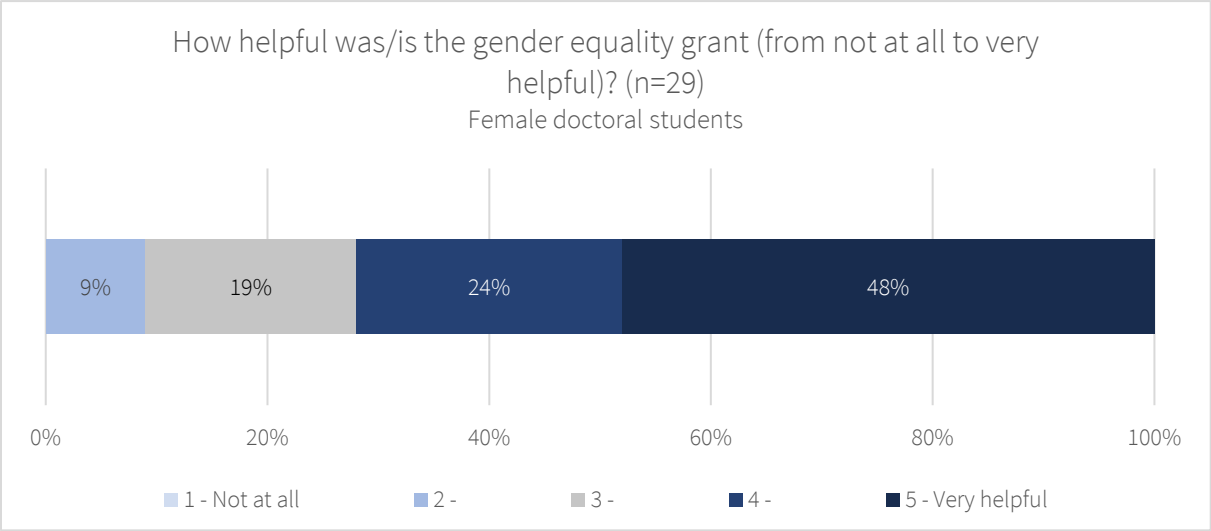
The respondents having made use of the gender equality grant were asked to rate its endowment on a scale from one to five. The majority (57%) rated the endowment as being "exactly right" and about a third considered it too low. However, these figures need to be taken with care, as they are based on a very low number of respondents.

Figure 62



Finally, when asked whether the gender equality grant was helpful, the majority answered positively. Around 48% of respondents having received a grant found it very helpful. The same caveat holds regarding small sample size.

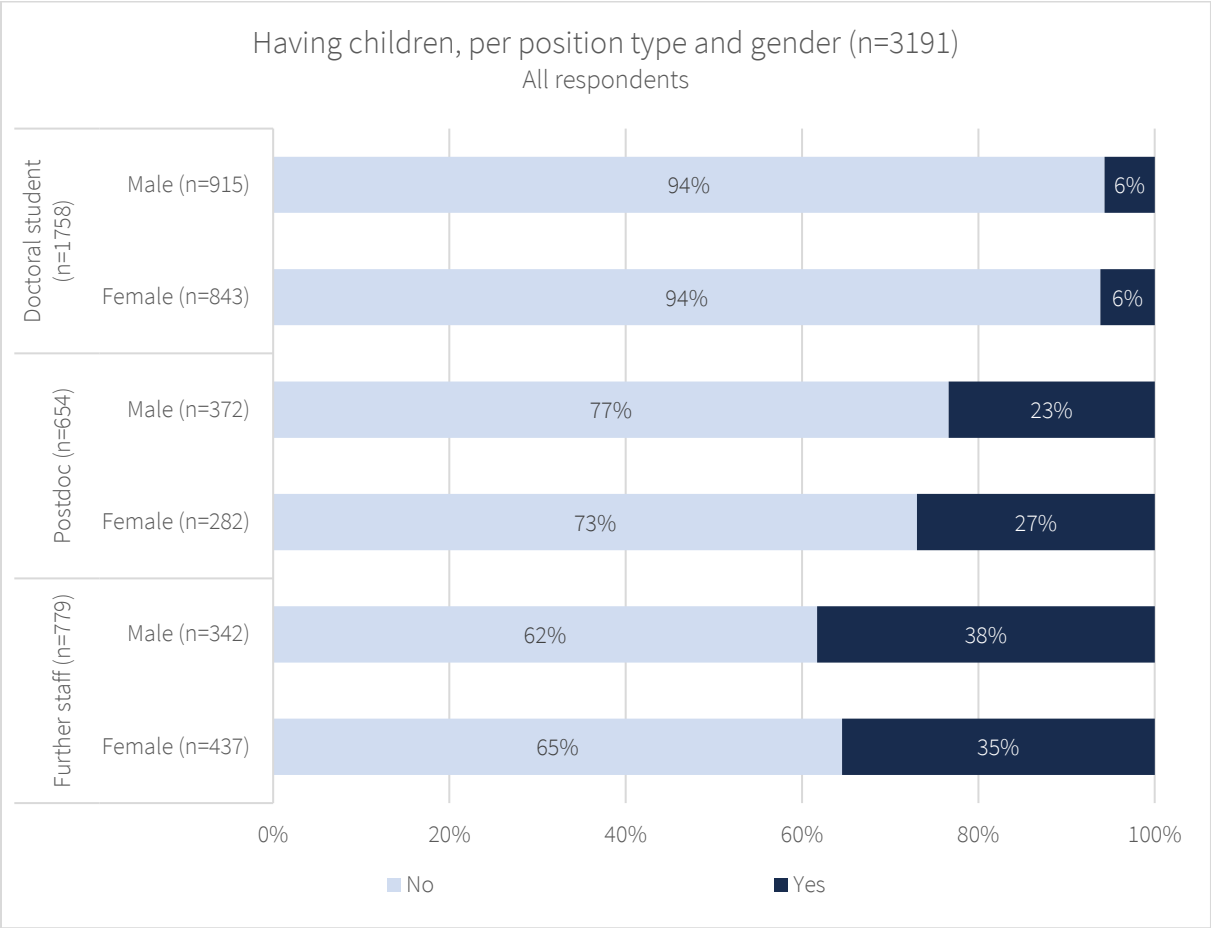
Figure 63



2.19 Personal Situation

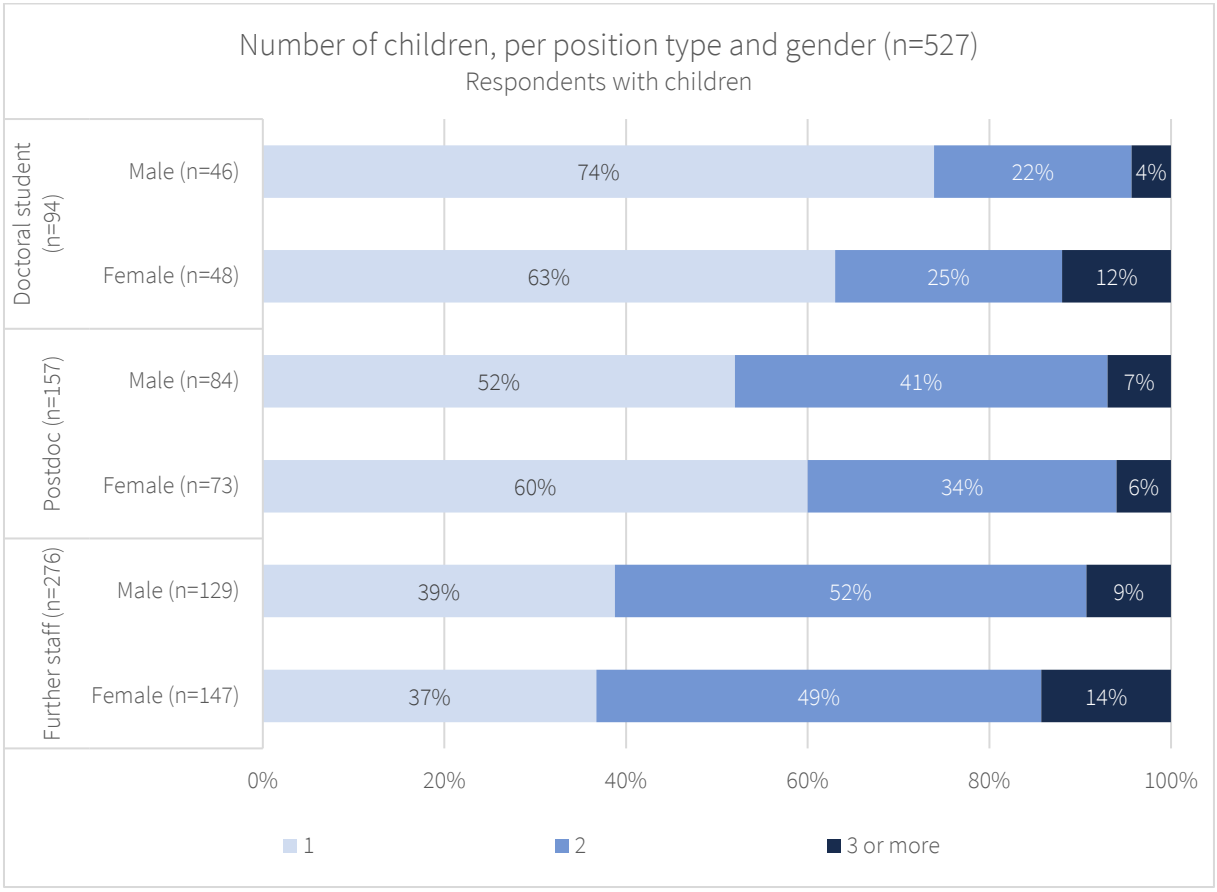
At the end of the questionnaire, participants were asked about their personal situation. Regarding having children, Figure 64 shows us that the majority of all respondent groups do not have children. Further staff have the highest proportion of respondents with children (36%) and only very few Doctoral students have children (5%).

Figure 64



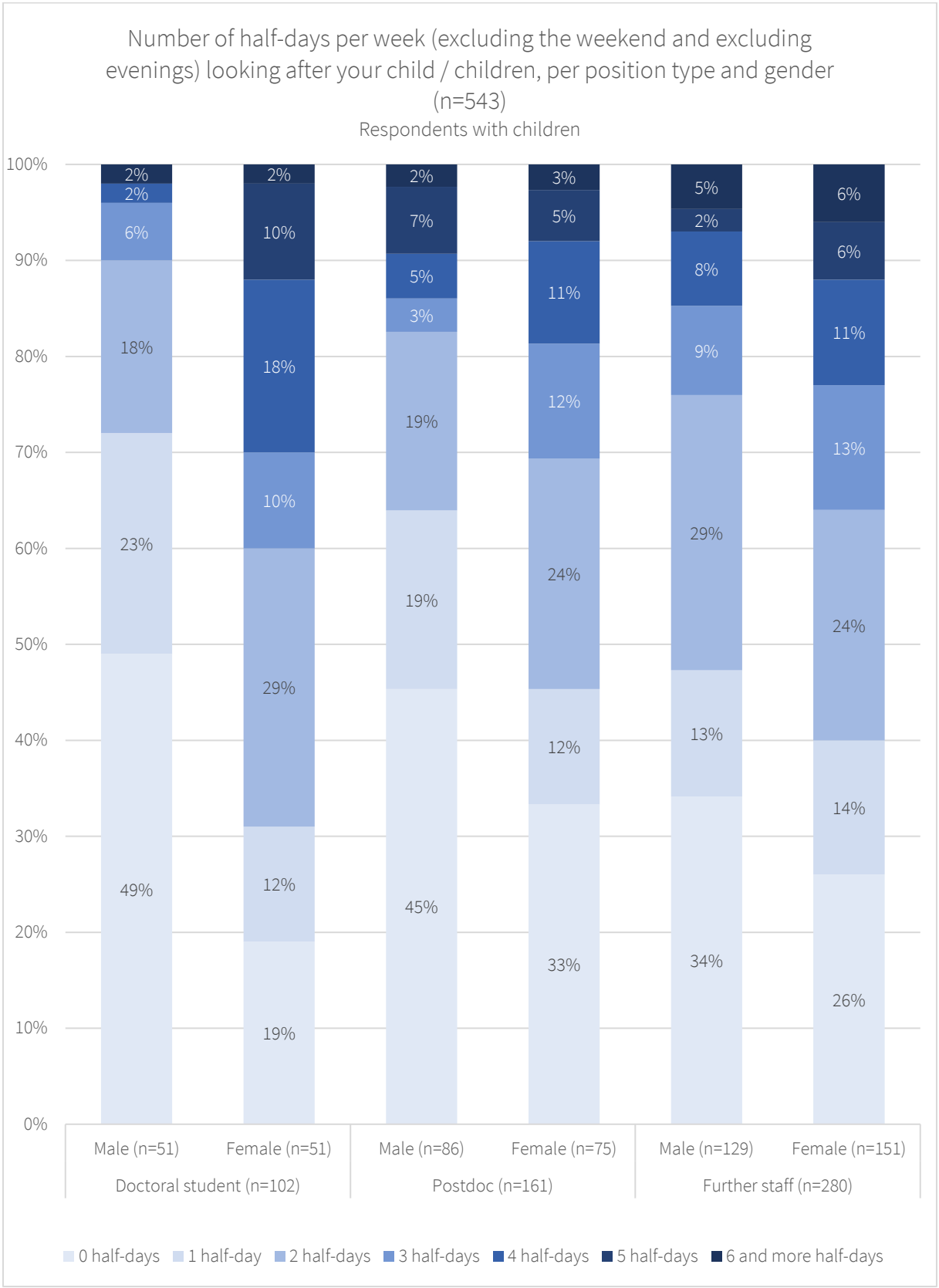
The number of children respondents have also varies according to position type (Figure 65). The majority of Doctoral students with children have one child. Respondents belonging to further staff have the most children, as the majority has two or more.

Figure 65



Finally, we consider the number of half-days spent per week looking after children, not considering weekends and evenings (Figure 66). Up to 40% of Postdocs spend no time with their children during working days. Thirty-four percent of Doctoral students and 30% of further staff also spent zero half-days looking after their children. Slightly less than 40% of all respondent groups spend up to 1 or 2 half-days looking after their children. The number of respondents taking 4 half-days or more to look after their children is low in all position types.

Figure 66


Number of half-days per week (excluding the weekend and excluding evenings) looking after your child / children, per position type and gender (n=543)
Respondents with children
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
2%
2%
6%
18%
23%
49%
2%
10%
18%
10%
29%
12%
19%
2%
7%
5%
3%
19%
19%
45%
3%
5%
11%
12%
24%
12%
33%
5%
2%
8%
9%
29%
13%
34%
6%
6%
11%
13%
24%
14%
26%
Male (n=51)
Female (n=51)
Male (n=86)
Female (n=75)
Male (n=129)
Female (n=151)
Doctoral student (n=102)
Postdoc (n=161)
Further staff (n=280)
0 half-days
1 half-day
2 half-days
3 half-days
4 half-days
5 half-days
6 and more half-days

2.20 Pandemic

Figure 67 shows the perceived impact of COVID-19 on the respondents' future careers by position type. More than half of Doctoral students and Postdocs consider the impact of COVID-19 on their future career to be negative, while the proportion among further staff is slightly lower. Very few find the impact to be positive. Figure 68 shows that having children seems to have a mitigating effect on the perceived impact of the pandemic on respondents' career, as only 39% of respondents with children report a negative or rather negative effect compared to 51% among respondents with no children. Respondents aged between 26 and 35 years stand out as experiencing the most negative impact of the pandemic on their career (Figure 69).No significant gender differences with regard to the impact of COVID-19 on the respondents' career could be noted.

Figure 67

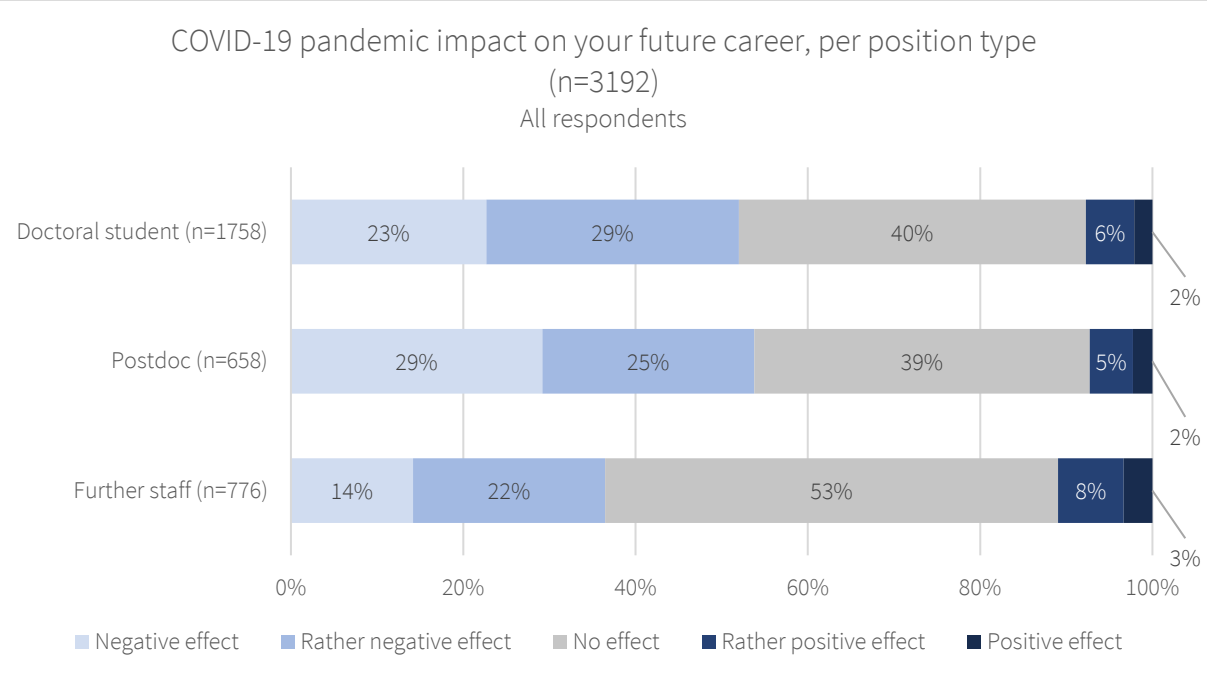


Figure 68

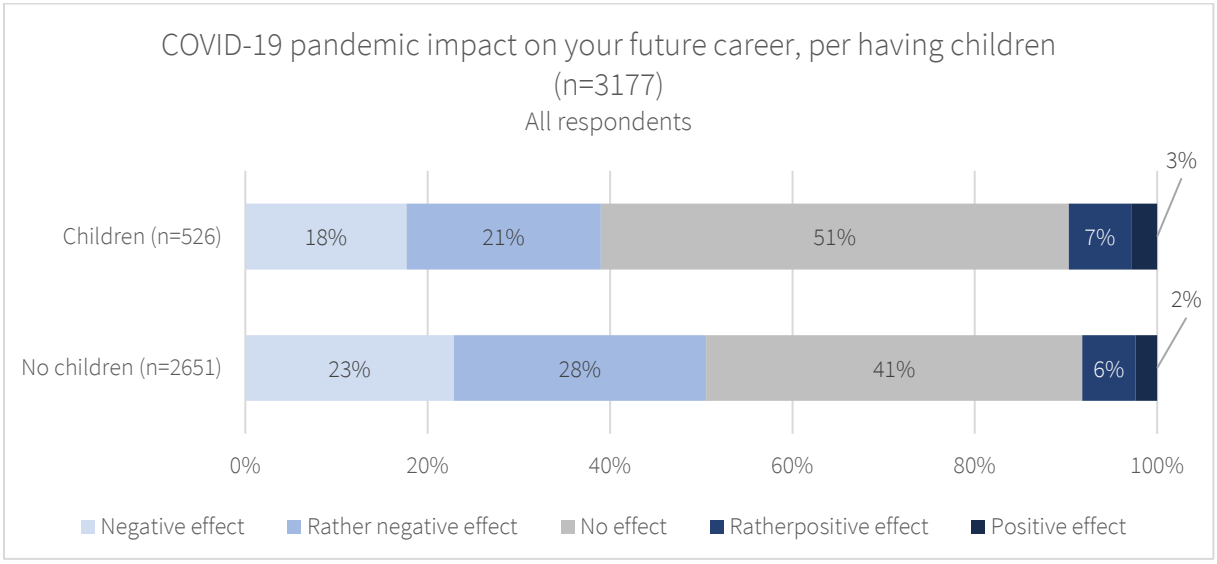
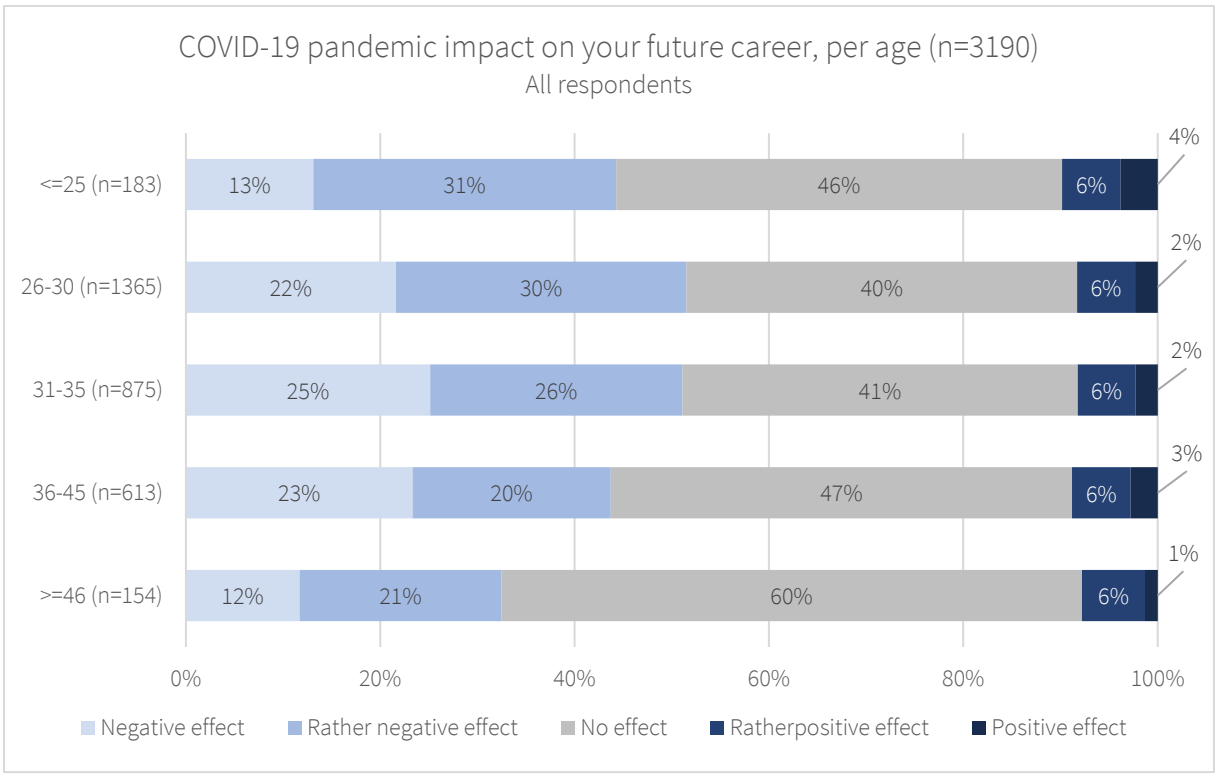


Figure 69



3 Survey description

3.1 Context and Structure

Since there is little systematic knowledge about the professional situation of early career researchers in Switzerland, including the staff funded by the Swiss National Science Foundation (SNSF), the SNSF commissioned the Swiss Centre of Expertise in the Social Sciences (FORS)[4] to conduct a survey among the early career researchers employed in its projects. The aim of the SNSF was to find out more about the actual working conditions of project staff and to be able to better assess the extent to which the working conditions defined by the SNSF are respected by the institutions and benefit early career researchers. Within the framework of the mandate, an online survey was carried out by FORS, preceded by a pre-test. Contacts with respondents were carried out exclusively by e-mail. The SNSF received an anonymised dataset of the results after completion of the survey.

The survey was conducted through an online questionnaire over the Qualtrics platform. FORS has been using Qualtrics since 2015 and the software is a standard in academic research. The system is reliable and easy for participants to use on all available devices (computers, tablets, mobile phones). The servers meet the highest standards of security and data protection.

3.2 Questionnaire Elaboration

The SNSF, as the client, was involved in the development of the survey and provided FORS with a first version of the questionnaire. FORS programmed the questionnaire in Qualtrics in English and ensured compatibility with different devices (e.g., tablets and smartphones). FORS made suggestions for adjustments to the content of the questionnaire based on its expertise in the design and implementation of surveys.

After programming the online questionnaire, a pre-test phase was carried out, with the aim to add improvements in the user-friendliness, intelligibility and accuracy of the content of the questionnaire. The participants recruited by the SNSF were accompanied by FORS staff during

[4] The Swiss Centre of Expertise in the Social Sciences (FORS) was founded in 2008, is considered a reference in survey methodology and is responsible for conducting large-scale national and international scientific surveys. FORS has broad experience in collecting data from the Swiss population and is responsible for surveys such as the Swiss Household Panel (SHP), the Swiss Election Survey (Selects), and the Measurement and Observation of Social Attitudes in Switzerland (MOSAiCH).
FORS sets high methodological quality standards for social science studies. As a non-profit foundation, FORS attaches great importance to the principles of neutrality and anonymisation of survey data in order to protect the privacy of respondents.
For more information on FORS, please visit the website www.forscenter.ch.

the completion of the online questionnaire via video call. The comments, objections and questions of participants were recorded and included into an adjustment in the programming of the questionnaire (such as question sequence, layout and routing) and into a reformulation of certain questions in consultation with the SNSF. Between 25 January and 9 February 2022, a total of 11 pre-tests were conducted by FORS.

3.3 Fieldwork

To ensure that the commissioning party was recognizable, while ensuring the anonymity of the participants, a prenotification e-mail was sent by the SNSF to eligible early career researchers in its database. In this e-mail, the contacted persons were informed about the fact that the SNSF had commissioned FORS to conduct the survey and were given the opportunity to opt out of the survey within a 10-day timeframe (until 31 January 2022). The SNSF then provided FORS with the address list of persons to be contacted, from which persons who had opted out were excluded.

FORS prepared the invitation and reminder e-mails in consultation with the client. The participants received an e-mail invitation from FORS with a personalised link to the online survey[5], followed by three reminders. The reminders were only sent to people who had not yet completed the survey.

- Invitation: 14 February 2022
- 1st reminder: 22 February 2022
- 2nd reminder: 1 March 2022
- 3rd reminder: 8 March 2022

The contact emails to the respondents were managed directly in the Qualtrics software and were sent via the University of Lausanne's mail server, minimising the risk of emails being categorised as SPAM and increasing the trust of recipients. The client also had access to an online reporting system via Qualtrics, in which the advancement of the survey could be tracked in real time.

The questions, remarks and comments with regard to the survey by participants were processed by FORS via an e-mail hotline. This ensured a timely handling of the communication

[5] By using a personal link, it is possible to prevent invited persons from participating more than once. It also allows identification of the responses received, which means that people who have participated can be excluded from reminders. Finally, the identification offers the possibility to compare possible socio-demographic information from sample data with received responses.

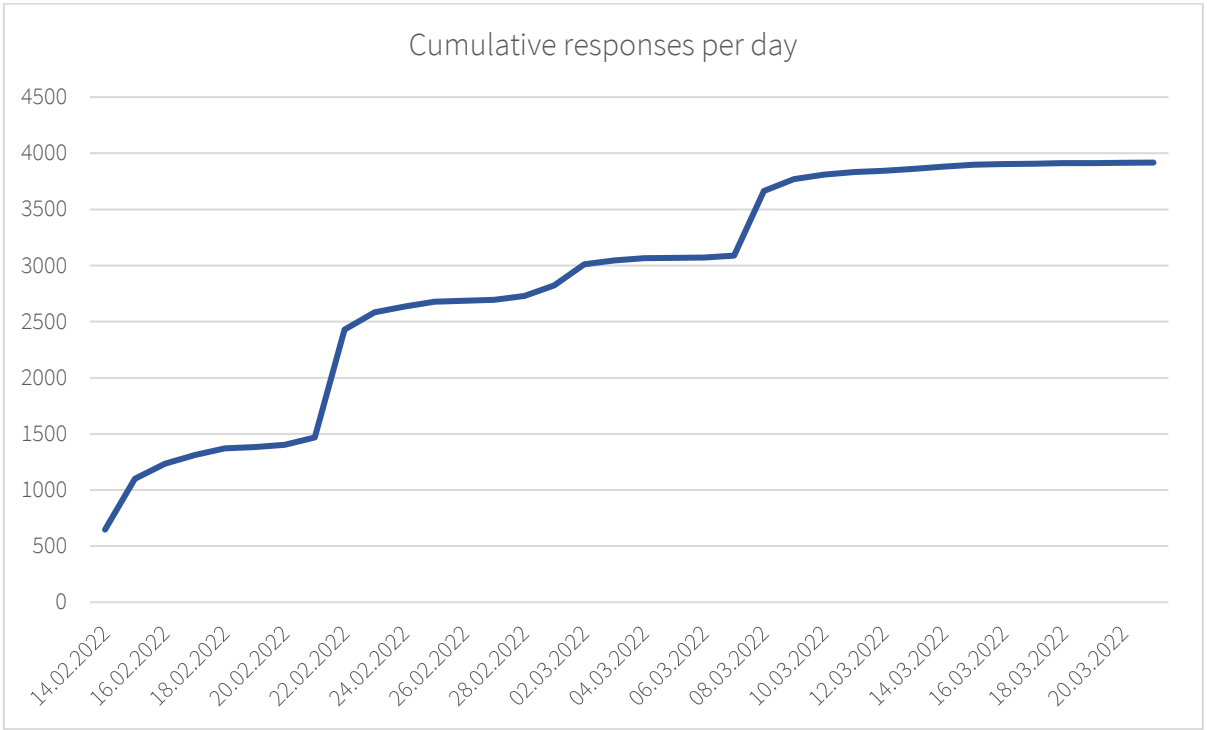
during the field phase and permitted the exclusion from reminders of persons who communicated their unwillingness to participate in the survey during the filed phase.

3.4 Sample Data and Response Rate

The target population of the survey consisted of all early career researchers employed in SNSF-funded research projects at the time of the creation of the address file, which comprised 9'037 persons. In addition to contact data with e-mail address, the list also contained, at the client's discretion, other variables that were of interest for the analysis of the results, such as academic position type, age, gender and citizenship.

The data collection period started with the invitation on 14 February and ended on 21 March 2022 with the closing of the online questionnaire. By the end of this period, a total of 3'917 had started to complete the questionnaire. Among these participants, 3'332 (85.1%) completed the questionnaire in its entirety. Taking into account 639 e-mail addresses in the sample list which proved to be invalid at the time of the invitation (8'398 valid e-mail addresses), the response rate of the survey was 46.6%. The average time required to complete the survey was had a median value of about 12 minutes (715 seconds).

Figure 70



3.5 Representativity

During the data review, light biases were detected in the responses regarding important indicators. The main difference between the sample used for the survey and the received responses concerned the position type. Doctoral students are overrepresented (5 percentage points more than in sample) and further staff underrepresented (6 percentage points less). In terms of research discipline, the bias is lower, but respondents in SSH are somewhat overrepresented (2 percentage points more than in sample) and respondents in Life sciences are underrepresented (3 percentage points less). A slight overrepresentation of women (2 percentage points more than in sample) among the respondents was also noted.

Consequently, tests were conducted to determine whether weights would influence the results. For this, a test weight was created based on position type, discipline and gender. When comparing the results, for instance on all the satisfaction items, the effects were very minimal. In the vast majority of cases, the differences were between 0 and 0.3 percentage points and the highest difference noted was 0.8%. As the numbers in the report are rounded, this would mean at most a difference of 1 percentage point in a result when rounding up or down. The inclusion of weights in the analysis can be important in certain analyses. However, they should in our view be avoided whenever possible, as they can create new issues that are harder to control and understand than with a fully random selection. Weights presuppose for instance that those who responded in a particular group represent the opinion of those who didn't respond, which cannot be guaranteed. For these reasons, no weights were included in the data analysis.

3.6 Data Preparation

After completion of the fieldwork, the collected data was cleaned and prepared for analysis. The raw survey data was only accessible to the persons responsible for the survey at FORS. Once downloaded from Qualtrics, the survey data was treated anonymously and in accordance with applicable data protection laws. The online survey data stored on Qualtrics' servers was deleted after the completion of the fieldwork.

An anonymised dataset was transmitted to SNSF after completion of the data preparation. The anonymisation of the responses comprised the adaptation of sensitive textual answers, the categorisation of sample variables deemed as potentially identifying (e.g. age or nationality) and

the exclusion of other, clearly identifying variables (e.g. e-mail and IP addresses) from the provided dataset. Furthermore, all persons at SNSF who declared an intention to have access to the dataset have signed a terms of use contract[6].

4 Annexes

4.1 Online questionnaire

See separate document

4.2 E-Mails

See separate document

4.3 Variable overview

See separate document

[6] In this context, the client pledged, among other things, not to attempt to allocate the data to individual persons, to respect the confidentiality of personal data and to keep the data secure from access by third parties.