



**“I love research work,
but the competition for
funding is exhausting.”**

Survey for early career researchers
conducted by the Finnish Union of University
Researchers and Teachers in 2024



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SUMMARY

The survey for early career researchers, conducted by the Finnish Union of University Researchers and Teachers (FUURT), is a repetitive data collection method that helps to clarify the experiences and perspectives of doctoral researchers and recent doctoral graduates in the early stage of their research career on their work, livelihood, and the future. The data was collected in February–March 2024 using an online questionnaire form. The target group for the survey included all doctoral researchers and those who graduated with a doctorate within the last four years in Finland, regardless of whether or not they were members of FUURT. A total of 1,138 forms were received from all universities and all fields of science.



The responses indicate that early career researchers are academically active and productive; already publishing scientific articles, attending conferences, teaching, and supervising theses in the early stages of their career. Within a year of beginning their dissertation work, approximately half had already published at least one scientific, peer-reviewed article. Of all the respondents, more than four out of five had published at least one article, and this share has increased from the previous survey. The majority of articles are published in English-language publications, but this is subject to some field-specific variation.

The career stage of early career researchers is characterised by fixed-term funding acquired through grants and employment relationships – particularly at universities. For some, the earnings level is quite low, especially for those whose work is supported by grant funding. A minor improvement has taken place, since some grant-funded researchers now also have a part-time employment contract with a university. This should slightly improve the position of grant-funded researchers as employees, but, on the other hand, this type of combined funding appears to increase the weekly working time in comparison to other forms of work funding.

Periods of unemployment were also very common, both during and after the doctoral dissertation process. One problem is that employment services don't always recognise research funding systems and view doctoral researchers as students rather than as researchers. Additionally, the fragmented livelihood can also affect the possibility to receive unemployment benefits.

Some early career researchers, particularly doctoral researchers and grant-funded researchers, are still working at universities without a dedicated workspace. The fact that universities no longer seem, in practice, to charge grant-funded researchers rent for their workspace, at least directly, is a positive development.

The strongest factors attracting people to academic careers included academic freedom, the work content, and the independence of the work. Factors that decrease the appeal of the field included competition for research funding, the fixed-term aspect of employment relationships, work on grant funding, and the earnings level.

The most appealing workspaces included a personal office within the workplace, sharing an office within the workplace, and working remotely, for example, from one's home. It appears that the appeal of working at a workplace is precisely the opportunity for social contact, while the appeal of remote working is the ability to organise one's day rather than having a peaceful work environment.

Inappropriate treatment within the academic work environment was unfortunately common. It primarily occurred from the top down, which means that the perpetrator was a supervisor or other more experienced person. The most common form of inappropriate treatment was bullying, violence, or discrimination. Sexual harassment was less frequent, as was academic bullying or outright disregard for good scientific practice, although these also occur.

The general development of research funding and official change negotiations or personnel reductions concern respondents, but their outlook on their own career prospects were, however, quite positive. Most foresee themselves continuing their own career in research positions in Finland, but foreign respondents saw themselves more easily resettling outside of Finland or in jobs other than research positions. Early career researchers actively applied for work from universities as well as for grants and work from the public sector, such as research institutes. On the other hand, the free-form answers also indicated an active search for work outside of the academic world due to working conditions, earnings level, or both.



1. INTRODUCTION

The survey of early career researchers, conducted by the [Finnish Union of University Researchers and Teachers \(FUURT\)](#), is a repetitive data collection method that helps to clarify the experiences and perspectives of doctoral researchers and recent doctoral graduates in the early stage of their research career on their work, livelihood, and the future. Data was collected previously in the years 2020–2021, 2017 and 2012. The 2024 survey was conducted for the first time in co-operation with [Research Foundation for Studies and Education Otus sr.](#)

The online questionnaire form was open from 1 February until 13 March 2024. It was intended for all doctoral researchers and those who graduated with a doctorate within the last four years in Finland, regardless of whether or not they were members of FUURT. The survey was promoted through FUURT's own channels, but also through the universities. A total of 1,138 questionnaire forms were received from all universities and all fields of science. Respondents could respond to the questionnaire in either Finnish or English.

The survey collected monitoring data on early career researchers' dissertation work and its funding, scientific pursuits, and their current work and livelihood, unemployment experiences, and outlook on the future. In this survey round, new data was also collected on the academic work environment and its appeal factors, remote working, and inappropriate treatment.

The survey primarily collected quantitative data, but for some questions, it was possible to give further information to a response in a free-form field. Additionally, there was an open question at the end of the form that allowed respondents to elaborate on their experiences and viewpoints on work, career outlooks, or other important issues related to early career researchers. Approximately 250 free-form responses were given. These were not systematically analysed but reviewed. The quotes in this report come from these responses (and their translations).

The development of the questionnaire form and formulation of new questions was realised through co-operation between Otus and FUURT. The actual data collection, processing of results, and analysis work were carried out by Otus. Chapters 1–6 of this report were written by Otus and chapter 7 by FUURT.

2. BASIC INFORMATION ABOUT EARLY CAREER RESEARCHERS

Survey responses were provided by 1,138 early career researchers, of whom 880 were doctoral researchers and 258 graduates who had received their doctorate within the past four years. The response rate decreased in comparison to earlier surveys (1,517 in 2021 and 1,870 in 2017).

The statistics on doctoral researchers found in Vipunen (Education Statistics Finland)ⁱ was used to examine the decline in respondents. Since the majority of the respondents were doctoral researchers and no weighting coefficients were to be calculated for the material, only the data of the doctoral researchers has been used and no detailed information on recent doctoral graduates was specified.

2.1. Background information on respondents

Of the respondents, 66% were female and 31% male. Only 2% described their gender as “other”. Female respondents were clearly overrepresented, since, according to Vipunen data, 54% of the doctoral researchers were female and 46% male. Altogether 81% of the respondents were Finnish citizens (including dual citizens), 7% citizens of other EU/EEA countries, and 12% from non-EU/EEA countries. According to Vipunen data from 2022, 75% of the doctoral researchers were Finnish citizens, 7% were from elsewhere in the EU/EEA region, and 18% were citizens of non-EU/EEA countries. Thus, Finnish respondents were overrepresented in the survey material. Of the respondents, 75% speak Finnish as their native language, 4% Swedish, and 20% another language. According to the data in Vipunen, 66% of doctoral researchers speak Finnish as their native language, so Finnish-speaking respondents were slightly overrepresented.

Of the overall respondents, 75% were Finnish-speaking Finnish respondents, 4% Swedish-speaking, and 2% were Finnish nationals speaking another language. Foreign respondents speaking a language other than Finnish or Swedish as their native language accounted for 18%, and foreign respondents speaking Finnish or Swedish were fewer than 0.5% each. When looking to analyse foreign researchers in particular, the respondent's nationality tells more about the situation than their native language, since Finnish citizens speaking something other than Finnish or Swedish also include, for example, Finns with an immigrant background or Finns who speak Saami.

The average age of all respondents was 36.2, of doctoral researchers 35.5, and of recent graduates with a doctorate 38.5. A total of 38% of the respondents live with a spouse and 27% with a spouse and children. Altogether 26% live alone, 3% as the only adult with children, and 3% in a shared residence. There were more doctoral researchers living alone, while a higher percentage of recent doctoral graduates were living with a spouse and children. Male respondents and those describing their gender as “other”

lived alone more often than female respondents, and female respondents were more often living with a spouse or a spouse and children. Clearly more foreign respondents (40%) than Finnish respondents (23%) lived alone. One third of foreign respondents lived with a spouse (33%, Finnish respondents 40%), but only 12% with a spouse and children (Finnish respondents 31%). Whereas only 1% of Finnish respondents lived in a shared residence, the corresponding percentage of foreign respondents was 12%.

In comparison to the previous data collection (2020–2021), the share of female respondents has slightly increased and male respondents decreased. The share of Finnish respondents has slightly decreased, and the average age of the respondents has risen by nearly one year.

2.2. Academic activities of the respondents

2.3. Academic background data

Responses came from all the Finnish universities and, in addition, 3% of the respondents were completing or had completed a doctorate from a foreign university. The largest number of respondents were from the Universities of Helsinki, Turku, and Oulu as well as from Aalto University. When the respondents were compared in terms of the number of doctoral researchers from the different universities, it was noted that the Universities of Turku and Oulu are slightly overrepresented and the Universities of Helsinki and Tampere are underrepresented. As regards fields of education, the largest number of the respondents represented the fields of arts and humanities, natural sciences, and social sciences. Compared to the number of doctoral researchers, the fields of natural sciences, arts and humanities, and social sciences are overrepresented, and the fields of technology and health and welfare are clearly underrepresented. The respondents' fields of education are presented in table 1 by gender and nationality.

	Gender		Nationality		Total	
	Female	Male	Finnish	Other	Percentage	Respondents
Education	10,0	4,9	9,2	3,8	8,2	93
Arts and humanities	24,4	17,4	25,6	9,5	22,5	255
Social sciences	21,0	13,4	21,1	9,5	19,0	215
Business and administration, law	8,6	8,6	7,6	12,8	8,6	97
Natural sciences	16,3	27,1	15,9	35,6	19,5	221
Information and communication technologies (ICT)	1,7	10,6	3,3	10,0	4,5	51
Engineering, manufacturing, and construction	5,6	11,7	6,5	11,4	7,5	85
Agriculture, forestry, fisheries	1,8	0,6	1,2	1,9	1,3	15
Health and welfare	9,6	5,4	8,9	4,7	8,1	92
Services	1,0	0,3	0,7	1,0	0,7	8
Total	100,0	100,0	100,0	100,0	100,0	
N	729	350	918	211		1132

The majority of the respondents had begun their dissertation work during the years 2020–2023 and estimated that they would complete their dissertation during the years 2024–2027. The average completion time calculated from the difference between the (estimated) year of the completed dissertation and the year of initiation indicates that doctoral researchers have at least the intention to complete their dissertation in a shorter time (average of five years) than recent doctoral graduates who stated the actual time it took to complete their dissertation (average of six years). In the 2021 survey, doctoral researchers estimated that it would take an average of 5.1 years to complete their dissertation and in the 2017 survey, 5.3 years. Recent doctoral graduates stated in 2021 that their doctorate took an average of 5.7 years to complete, while in 2017, the corresponding figure was 6.3 years. It appears that doctoral researchers' own assessment of the amount of time needed for completion may be slightly decreasing. There is no clear trend for those who recently completed their doctorate, and this may be a case of more random variation between the different survey rounds. In any case, the average completion time for both recent doctoral graduates and doctoral researchers, even when calculated with this uncertainty, seems to exceed the target completion time of four years.

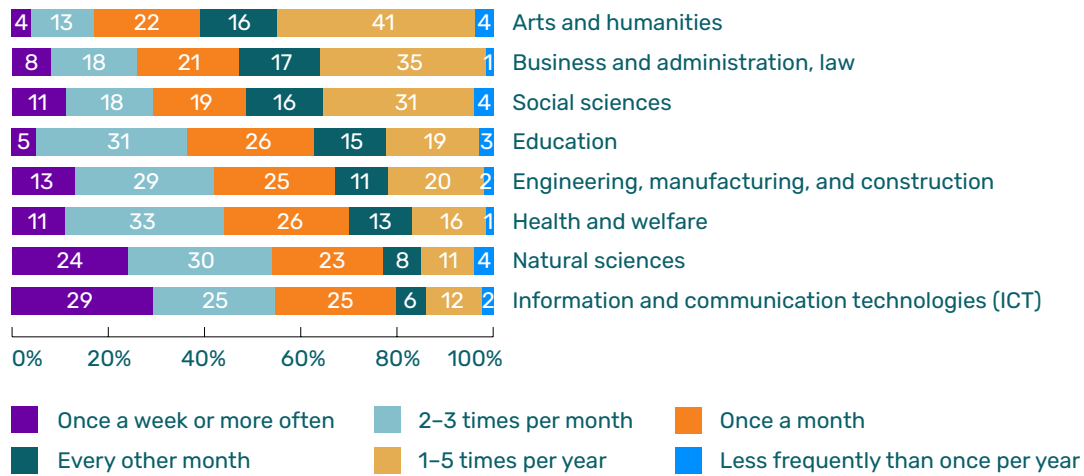
According to Vipunen (Education Statistics Finland), 18% of the completed dissertations during 2019–2022 were monographs and 82% were article-based. The material corresponds well with this, as 19% of the respondents stated that their dissertations were in the form of monographs and 80% were article-based.

2.4. Dissertation supervision and career counselling

Survey respondents had discussed their dissertation with their supervisor at a frequency that corresponded to earlier surveys. Doctoral researchers reported having more frequent discussions with their supervisor than did those who recently graduated with a doctorate. Most discussed their dissertation with their supervisor 1–5 times a year, 2–3 times a month, or once a month. Altogether 3% (3% in 2021) reported discussing their dissertation less frequently than once a year, and 13% (14% in 2021) said once a week or more often. The field-specific differences are, however, significant (Figure 1). Discussions with supervisors are more frequent in the fields of information and communication technologies and natural sciences, and least frequent in the fields of arts and humanities as well as business, administration, and law.

Satisfaction with the amount and quality of the dissertation supervision has slightly declined since the previous survey. The share of satisfied respondents to both questions decreased by 3 percentage points. In the 2024 survey, 59% were satisfied with the amount and 60% with the quality of supervision. The difference is, however, so small that it might be explained by the differences in the respondent base between the two surveys, for example, in terms of the fields of education, and does not necessarily indicate any change in the actual dissertation supervision.

Figure 1: Discussions with a dissertation supervisor by field of education, by percentage.

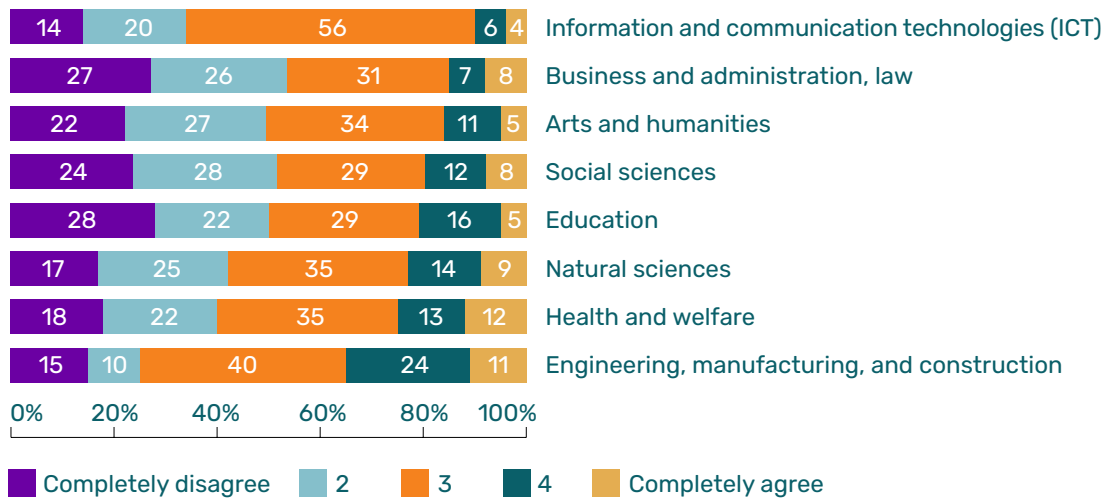


[...] The inability to get hold of the supervisors is a big problem. The doctoral researcher is forced to deal with situations all on their own. The biggest challenge throughout the entire research process has been with the supervision, especially in terms of reaching the supervisors.
 (Translated from original Finnish)

I have been lucky enough to have extremely good supervisors throughout my dissertation process who have been the primary source of help and information for the start of my career development. Otherwise, the information and orientation provided to early career researchers and researchers shifting from a different working culture to the academic culture and its practices, as well as general information about researcher's work is very poor and largely involves trial and error, which prolongs the dissertation process and often decreases motivation. [...]
 (Translated from original Finnish)

Nearly two thirds of the respondents (61%) reported that the dissertation supervisor encouraged them to pursue an academic career. Only one fifth (20%) of the respondents had received encouragement to pursue a career outside of the university setting. There was also significant variation between fields in this area (Figure 2). Every third respondent in the field of engineering, manufacturing, and construction reported that their supervisor encouraged them to pursue a career outside of the university setting, while this was only reported by one in ten in information and communication technologies.

Figure 2: "My dissertation supervisor is encouraging/has encouraged me to pursue a career outside of the university setting" by field of education, by percentage.



One third (32%) of the respondents reported that they received no career counselling during their doctoral research or studies. The results are not completely comparable to the previous survey, since this option was not previously included in the list of answer alternatives. Half (50%) of the respondents reported that they discussed their postdoctoral career plans with their supervisor. In 2021, 64% of the respondents had discussed career plans with their supervisor. However, it is difficult to assess whether a true decline to that extent has actually occurred or whether respondents were quicker in this survey round to report an absence of career counselling than to interpret discussions with their supervisor as career counselling. The other alternatives to the multiple choice question were not nearly as common: altogether 17% of the respondents reported that they had participated in networking events offered by the university, 15% had a steering or thesis group that included a representative from a university or research organisation outside of their own university, and 12% reported using their university's career guides and other materials for early career researchers.

Correspondingly, 42% of the respondents reported that their dissertation work or doctoral studies did not involve any form of mobility outside of their own university. A total of 22% reported having worked or carried out a visiting period at a university abroad, and 4% at another university in Finland. Altogether 7% reported having worked or carried out a visiting period at another research organisation, and 3% somewhere other than a research organisation. A total of 30% reported participating in other co-operation with parties outside of the university, so visiting periods or employment relationships outside of one's own university were not the only form of mobility for early career researchers. These responses were also not directly comparable to the previous survey, which did not provide a *no mobility* alternative. The results of the previous survey round were, however, leaning in the same direction: the most common response was other co-operation with actors outside of the university (65%), and of

the forms of mobility listed, the most common was a period of work or visiting period at a university abroad (39%).

I would love if FUURT could raise the issue of parenting and mobility requirements for postdoctoral funding. I did not delay having children for my career because this is possible in Finland, but it makes moving abroad for 6 months or a year VERY difficult, and is a requirement for lots of postdoc funding and helps in the academic career path in Finland. I have lots of collaborations abroad already - is there not another way to measure international collaboration in this day and age, other than physically moving to another country for some time?

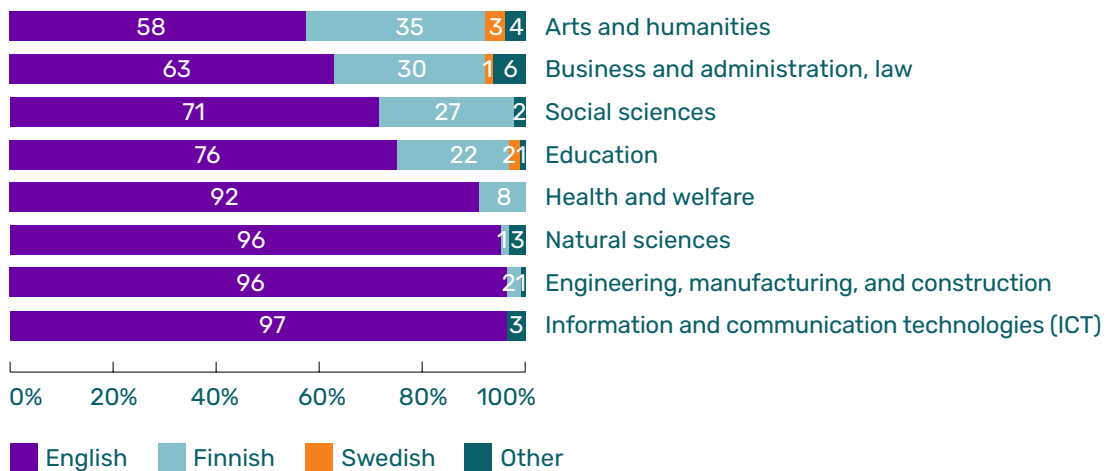
When examining mobility by employer at the time of the survey, some minor differences can be observed with regard to whether the respondent works in an employment relationship or on grant funding. At the time of the survey, grant-funded researchers reported slightly more frequent periods of work or visits to a university abroad than those in employment relationships. On the other hand, researchers in employment relationships reported slightly more frequent periods of work or visits in another Finnish university or at a research organisation other than a university. These results, however, were not statistically significant.

2.5. Scientific activities

The increase in article-based dissertations is also likely related to active scientific publication activities. Of the respondents to the previous survey, 74% had published at least one scientific article, whereas the current figure had risen as high as 84%. Only 17% of the respondents had reported, therefore, that they had not published any scientific, peer-reviewed articles. Even for doctoral researchers, this was true for only 22%. Of those who began working on their dissertation in 2023 or 2024, 47% had not published a single article. Of those who began in 2022, the figure was 28% and for 2021, only 20% fell into this category. Altogether 60% of those who recently completed their doctorate and 12% of doctoral researchers had published more than five articles.

Four fifths (80%) of the articles were published in English publications, and slightly less than every sixth (16%) in Finnish publications. Doctoral researchers publish slightly more often in Finnish publications than recent doctoral graduates, but even among them, English is the dominant publication language. There are clear fluctuations between fields of education (Figure 3), although it is worth noting that, in particular, fluctuations in Swedish and other language publications may be highly random and directly related to the language skills and productivity of individual respondents. The relatively highest number of articles in non-English-language publications were from the fields of arts and humanities. The fields that comparably published the least in languages other than English included information and communication, engineering, manufacturing, and construction as well as natural sciences.

Figure 3: Language of publication of articles by field of education, by percentage.



Participation in scientific conferences was also very common, with only 12% of the respondents reporting that they had not participated in a conference over the past 24 months. A total of 92% of those who had recently completed their doctorate and 87% of doctoral researchers had participated in conferences. These figures have clearly increased since the previous survey, when the results were still partly affected by the restrictions imposed during the COVID-19 pandemic. Of the respondents, 62% had participated onsite in Finland and 58% at conferences held abroad. Remote participation in conferences was already relatively infrequent; only 16% (41% in the previous survey) had participated remotely in a Finnish conference and 18% (58%) in a conference abroad.

The survey also examined the frequency of teaching and thesis supervision as scientific activities. These questions were also limited to activities within the past 24 months and, as a new element, they extended to universities of applied sciences as well as universities. Of all respondents, 60% had taught and 38% supervised thesis work at universities or universities of applied sciences over the past 24 months. Of doctoral researchers, 57% had taught and 33% supervised thesis work, while the corresponding figures for recent doctoral graduates were 71% and 54%. This indicates that teaching and thesis supervision are included in the job description already at the early stages of one's career.

With regard to the examination of primary sources of income, clear differences were observed, as anticipated, between teaching and thesis supervision. At the time of the survey, 56% of grant-funded researchers and 59% of those receiving both a salary and grant funding had taught at a university or university of applied sciences over the past two years. Seventy-two per cent of those who receive a salary from a university had taught and 43% of those who receive their salary from an employer other than a

university. A total of 27% of those receiving grant funding and 51% of those receiving both a salary and grant funding had supervised thesis work. The corresponding figure was 44% for those who receive a salary from a university and 35% for those who receive their salary from an employer other than a university. Finnish respondents had taught (63%) and supervised thesis work (39%) slightly more than foreign respondents (47% and 33%).

2.6. Funding

In order to ensure long-term, uninterrupted doctoral research, it would be optimal for funding (employment, working grants or similar) to last as long as possible and that the dissertation could be completed with as few funding sources as possible. The same is true, of course, for postdoctoral research. In 2021, 58% of the respondents reported having 1–3 sources of income during their dissertation process. This survey round had a separate response option of just one source of income, so the results are not directly comparable. A total of 29% of the respondents reported only one source of income and 35% 2–3 sources, so the relative share of 1–3 sources of income appears to be increasing. It should be noted, however, that for the majority of the respondents, their dissertation process was still ongoing, so their number of sources of income could potentially increase. Table 2 indicates the funding for doctoral research by career phase as well as the number of sources of income for postdoctoral research and funding granted for other than full-time research activities or academic work. More than every third of recent doctoral graduates had had 2–3 sources of income for their doctoral research. One fourth had 4–6 sources of funding and only every fifth had only one source of income.

Table 2: Number of sources of funding by career stage and in total, by percentage.					
	Doctoral research			Postdoctoral research	Other fundings
	Doctoral researchers	Recent doctoral graduates	Total	Total	Total
None	12,0	2,0	9,7	50,5	26,6
1	32,7	19,5	29,7	25,7	22,4
2–3	35,6	37,5	36,0	19,4	27,2
4–6	14,4	25,9	17,1	3,9	16,0
7–10	4,3	10,8	5,8	0,2	4,1
More than 10	1,0	4,4	1,8	0,2	3,7
Total	100,0	100,0	100,0	100,0	100,0
N	660	227	1 085	459	887
I don't know / Does not apply			3,8	48,6	15,6

For a doctoral researcher with no funding, career planning is quite a distant thought. In order to facilitate my dissertation, I spend most of my time living hand to mouth while applying for grant funding and staying alert to any part-time work possibilities. Worn out by these issues, my dissertation process is proceeding slowly. [...]
(Translated from original Finnish)

The uncertainty of funding is excruciating. Foundations' systems and the completion of applications takes so much time: the manual completion of each awarded grant in different portals is really clumsy and takes up everyone's working hours without actually benefiting anyone. The transitional phase from doctoral researcher to postdoctoral researcher is difficult. Support and funding is needed at this phase to ensure that, following graduation, the researcher does not find themselves unemployed as they have had no time while completing their dissertation to apply for postdoctoral funding.
(Translated from original Finnish)

3. WORK AND LIVELIHOOD

3.1. Work

Over half of the respondents (56%) reported a university as their primary employer. Altogether 17% were grant-funded without an employment relationship. A total of 3% of the respondents worked at universities of applied sciences, 10% in the public sector (such as research institutes), and 4% in companies. Employment relationships were more common among those who recently graduated with a doctorate, and grant-funded work was more common among doctoral researchers. Altogether 6% of doctoral researchers and 8% of recent doctoral graduates were unemployed. The most common title was doctoral researcher, followed by postdoctoral research fellow or postdoctoral researcher.

Of those in employment relationships, 19% had a permanent employment and 81% a fixed-term employment, and there was almost no difference in terms of career phase (18% of doctoral researchers and 20% of those who recently graduated with a doctorate were in a permanent employment relationship). Only 6% of the respondents working at a university had a permanent employment relationship. In this area, the universities were in a league of their own: of those employed by a university, 94% had a fixed-term employment, while the second highest was fixed-term employments in the public sector with a figure of 50%. The most permanent employments were reported by those working in companies, followed by those working in universities of applied sciences. The lower number of respondents working for employers other than universities weakened the ability to make any generalisation about these results, however.

It seems absurd that, with this education, a three-year fixed-term employment is like winning the lottery and the salary is 1,000 euro lower than for those with a Master's degree who are working as an expert in my own field within the public sector. The university is not committed to me and doesn't consider how it might support me in my career.

This minimises my desire to be loyal in return.

(Translated from original Finnish)

I am aware that I am in a very exceptional situation in that I was hired into a permanent employment relationship in my field only three years after I graduated with a doctorate. I wish that I wouldn't be such a rare unicorn and that many other universities would permanently hire early career researchers.

(Translated from original Finnish)

There were no career phase-related differences in the average length of fixed-term employments, but there were differences between employers (employers with more than 10 responses): the shortest fixed-term employments were found in the public sector (20.8 months) and the longest in universities of applied sciences (27.6 months). Universities fell in between at 26.0 months. The average length of a grant period was 18.6 months (17.8 for doctoral researchers and 22.8 for those who recently graduated with a doctorate).

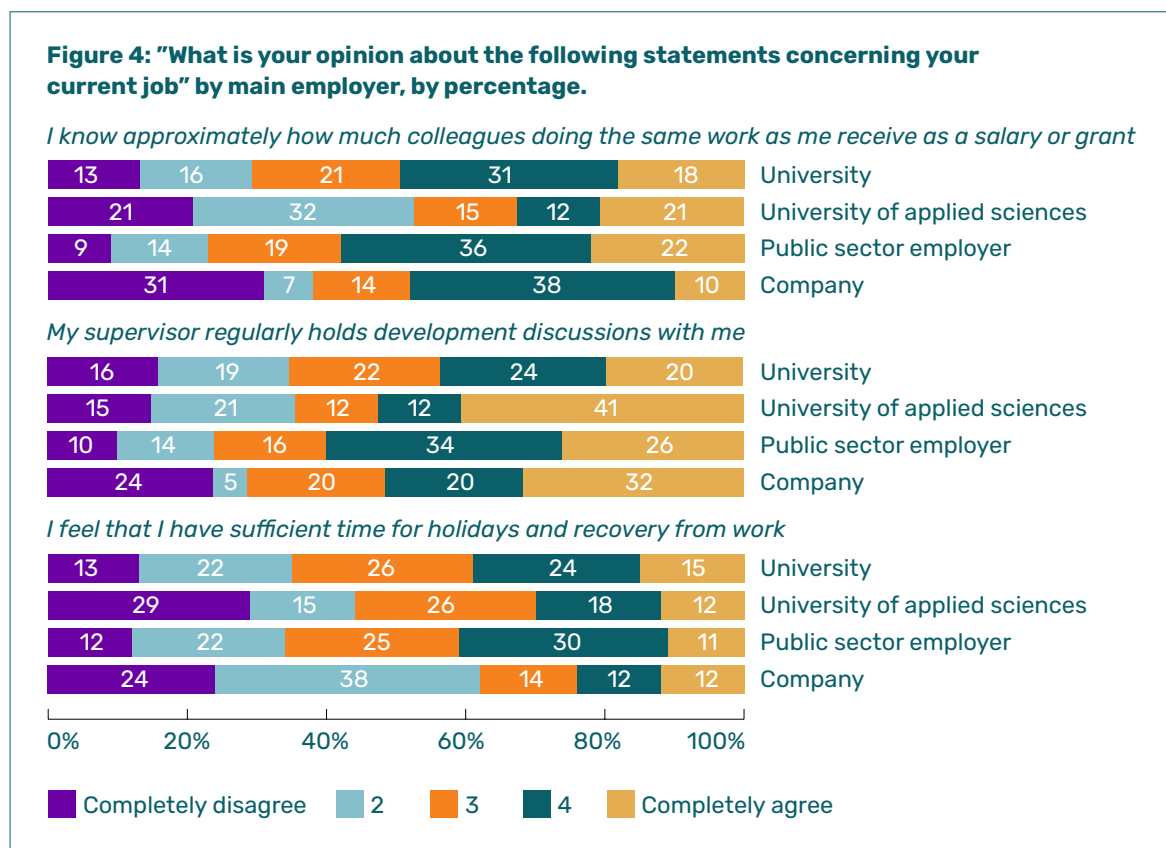
There were multiple differences in employment based on nationality: more foreign respondents (69%) than Finnish respondents (53%) reported that their employer was a university. They were also more often unemployed (10%) than Finnish respondents (6%). On the other hand, Finnish respondents reported more often working in the public sector (11%) or for other employers (10%) than did respondents from other countries (3% and 4%). Working by virtue of grant funding was also more common for Finnish respondents (18%) than for foreign respondents (13%). When looking at the respondents' primary source of income, the discrepancies follow a similar trend. Of Finnish respondents, 20% reported receiving a grant and 7% both a salary and a grant, while the corresponding figures for foreign respondents were 16% (grant) and 11% (salary and grant). Of the foreign respondents, 55% received a salary from a university and 6% from a different employer. Of Finnish respondents, 44% received a salary from a university and 17% from a different employer. Twenty-two per cent of Finnish respondents reported having a permanent employment, while this was only reported by 4% of foreign respondents. Both fixed-term employments and grant periods were, however, slightly longer on average for foreign respondents (employments of 27.4 months, grants of 19.9 months) than for Finnish respondents (employments of 24.7 months, grants of 18.3 months).

Altogether 48% of the respondents reported that their salary was too low in relation to the quality and number of work tasks and 51% found it suitable. As regards grants, respondents were nearly of the same opinion, with 47% thinking the funding was too

low and 53% reporting that it was suitable. Fifty-six per cent of those in an employment relationship had enjoyed 4–6 weeks of paid holiday or time off work during the past year. Of grant-funded researchers, 48% had taken the same amount of time off. Altogether 23% of grant researchers and 12% of those in employment relationships did not take any time off.

Disappointingly, the salary level is very low compared with the salary for those with a similar education in the private sector. Furthermore, the university's annual working hours is a very odd practice for those combining research and teaching. There appears to be a lot of time for a holiday on paper, while in reality, the working hours exceed the calculated 1,612 hours by hundreds of hours, but it is not realistic to take holiday from mid-November until the end of the year, and individual work days can stretch really long. [...]
 (Translated from original Finnish)

Of those respondents in an employment relationship, 49% agreed with the statement “I know approximately how much colleagues doing the same work as me receive as a salary or grant”. Of the respondents, 47% agreed with the statement “My supervisor regularly holds development discussions with me” and 38% with the statement “I feel that I have sufficient time for holidays and recovery from work”. Figure 4 breaks down the distribution of responses by primary employer (employers with more than 30 responses).

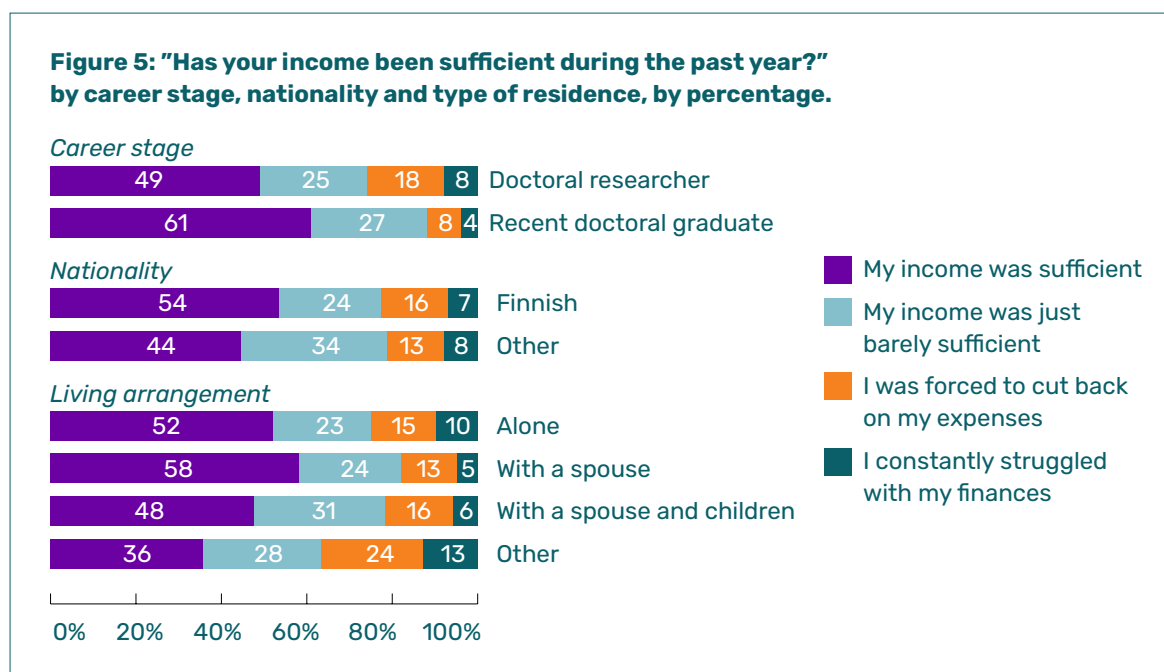


3.2. Livelihood

The distribution of respondents' gross income when examined by source of income tells a very familiar story: those with the lowest income were respondents whose primary source of income was a grant. Those with a salary and a grant reported a slightly higher level. The best income level was those receiving a salary and, in particular, those whose employer is something other than a university. The career phase is also clearly connected to the income level, and recent doctoral graduates earn more than doctoral researchers.

[...] The salary has always been poor, nowhere near the average Finnish income (which I believe is currently already €3,300/month). My own salary has risen very slowly from approx. 2,000 euro in accordance with my first employment contract to the current 2,600 euro. In between, when I decided to commit to doing my doctoral dissertation and transferred from project researcher to doctoral researcher, my salary DROPPED, because apparently the work of doctoral researchers is considered to be easier and less demanding than the work of project researchers. [...]
 (Translated from original Finnish)

The perceived level of livelihood was inquired through a rather direct question: *Has your income been sufficient during the past year?* Figure 5 shows the distribution of responses by career phase, nationality, and living arrangement. The results are not surprising: recent doctoral graduates are more satisfied with their livelihood than doctoral researchers, and Finnish respondents are more satisfied than respondents of other nationalities. The best situation was reported by those living with a spouse but no children, while the worst was reported by those living alone with children, in a shared residence, with parents or relatives, or otherwise (marked as "other" in the figure).



3.3. Experiences with unemployment

Of all respondents at the time of the survey, 6.3% reported being unemployed (2021: less than 4% of the respondents). More than every fourth respondent (28%, 2021:30%) were unemployed during or after work on their doctoral dissertation. A total of 22% of doctoral researchers and 46% of recent doctoral graduates had experiences with unemployment. At the time of the survey, 21% of those employed and 33% of those with grant funding had been unemployed during or after work on their doctoral dissertation. Unemployment had affected 26% of females, 31% of males, and up to 40% of those who described their gender as "other". There were no differences between nationalities.

The biggest problem as a starting doctoral researcher has been that my unemployment benefit ceased once I was accepted to doctoral studies. I found myself relying only on social assistance. I have now applied for jobs and grants, but without financial help from family, I would not have been able to manage. I'm also unable to apply for open temporary job positions, because I am not considered to be an unemployed jobseeker. The reward for applying for doctoral studies was, therefore, a loss in earnings-related income, dropping out of the system and financial difficulties. It seems, nowadays, a highly-educated unemployed person should rather be passively unemployed than to apply for further studies. Hopefully this will change.
(Translated from original Finnish)

Periods of unemployment during the dissertation process had lasted altogether an average of 11.6 months and after graduating with a doctorate, 6.8 months. Those who were unemployed at the time of the survey had been unemployed an average of 9.0 months during the current period of unemployment. With regard to means, there were some differences when examined by gender, native language, nationality, age, or field of education, but due to the smallish number of respondents, these were not statistically significant.

Those who had experienced unemployment were asked to assess several statements concerning unemploymentⁱⁱ. The highest level of agreement was given to the statement "*The most difficult aspect of unemployment is the financial part*" (73%), which was slightly contradictory to the statement that received the second highest level of agreement, "*The most difficult aspect of unemployment is the mental part*" (62%). Both aspects were, thus, viewed as being difficult, but the financial problems were considered worse. As much as 40% of the respondents agreed with the statement "*I have had difficulties getting unemployment benefits*". In the previous survey, 28% of the respondents were of this opinion when the responses "*I don't know/Does not apply*" were included. When calculated this way, the comparable figure for this survey round is 34%, so the share has increased. Only one third of the respondents (32%) agreed with the statement "*I have received expert assistance for my situation from the TE Office or local government pilot on employment*". Half of the respondents (50%)

disagreed with the statement. Compared with the previous survey round, the figure has remained at the same level (comparable figures 2024: 39% and 2021: 40%).

The TE Offices clearly need training, starting with the basics of what research work is, how broadly it brings skills, how much work it is to apply for grants, and that doctoral researchers are not the same as students. There is a lack of basic respect.

(Translated from original Finnish)

Dealing with the TE Office and Unemployment Fund has been truly absurd at times and led, for example, to a nearly two-month delay in receiving my money. I had to report the correcting of individual exams and related compensations, and the most ridiculous was the letter I received stating that I should clarify my entrepreneurial activities regarding my possible farm (because I had paid contributions to the Farmers' Social Insurance Institution of Finland, Mela). :)

(Translated from original Finnish)

Three fourths of the respondents (76%) were of the opinion that they had sufficient language skills in terms of the possibilities for employment and more than half (54%) also had sufficient work experience. There were no differences when assessing work experience, but when assessing language skills, there were significant differences when examined by native language and nationality. As much as 83% of Finnish-speaking respondents and 79% of Swedish-speaking respondents assessed their own language skills as sufficient in terms of the possibilities for employment, but only 46% of those with another language agreed with this statement. Altogether 83% of Finnish respondents reported having sufficient language skills, but only 44% of respondents from other countries felt as confident. A total of 38% of the respondents were of the opinion that they had been overeducated for the positions they applied for. Here, there was a clear difference in gender, as nearly half of the female respondents (43%) agreed with this statement and just slightly more than every fourth male respondent (27%).

Of those unemployed at the time of the survey, two thirds (66%) reported wanting to continue their career as a researcher following their period of unemployment. Half of the respondents (51%) also believed this would happen. One third believed they would gain employment in a position outside of the field of research in the next six months, and only slightly more than one fourth believed that they would get a grant or employment relationship to conduct research in the next six months. The distributions cannot be directly compared with the results of the previous survey, since the latest survey did not provide the possibility to answer "I don't know/Does not apply". One clear difference, however, was that, in 2021, more respondents believed that they would get a grant or employment relationship to conduct research in the subsequent six months than those who believed they would gain employment in a position outside of the field of research, and now the situation was reversed and respondents were more sceptical about research funding.



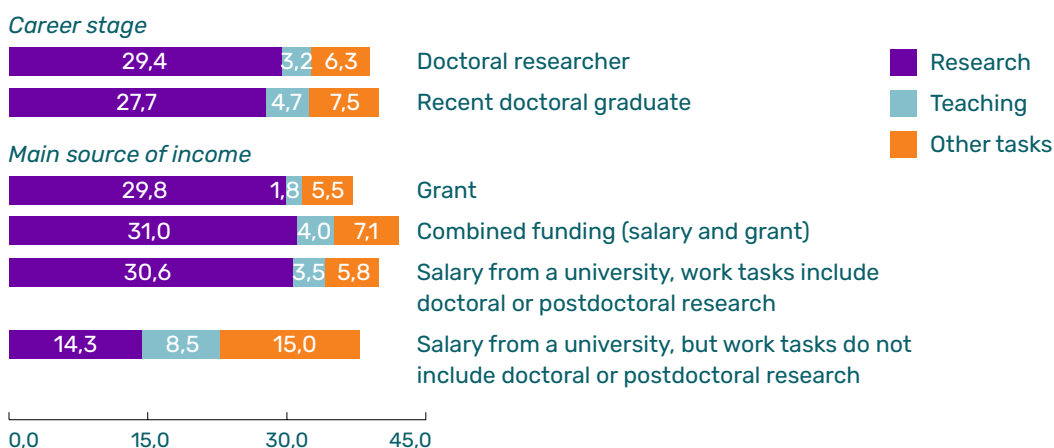
4. WORK AT A UNIVERSITY

Only 12% of those working at a university in some capacity (employment, grant-funded, or both) reported not having a workspace at a university. Altogether 15% worked in an open-plan workspace, 66% in a shared office, and 8% in a private office. Only 7% of doctoral researchers and already 13% of those who recently graduated with a doctorate had a private office. When the respondents were examined by primary source of income, the differences were clearer: only 3% of grant-funded researchers had a private office and every fifth (20%) was entirely without any workspace. The situation for those with both a salary and grant funding was slightly better; 16% of the respondents had no workspace and 4% had a private office. Of those who were employed by a university and whose work tasks included doctoral or postdoctoral research, 6% were without a workspace and 9% had a private office. Of those who were employed by a university, but whose work tasks did not include doctoral or postdoctoral research, as much as 21% had a private office. However, up to 14% of this group as well were without any workspace.

Grant-funded researchers were also asked whether their university charges them rent for their workspace. A clear change was observed in this respect: altogether 90% reported that they are not charged and 10% didn't know – so it is possible that a party that has provided grant funding also pays the university directly for workspace. Still in 2021, nearly one fifth (19%) of grant-funded researchers reported that their university was charging them rent for their workspace, while the percentage is now less than 0.5%.

The division of work time was surveyed by asking separately about the weekly hours spent on research, teaching, and other tasks. Respondents reported spending an average of 29.0 hours per week on research tasks, 3.6 hours on teaching tasks and 6.6 hours on other tasks. When added together, the overall time was an average of 39.2 hours per week. Figure 6 shows the work time spent on different work tasks by career phase and primary source of income. The differences between the different work tasks shown in the figure are not surprising, but the work week of those who receive both a salary and grant funding seems to stretch clearly (and statistically significantly) longer than that of others. The average weekly working time was as much as 4.9 hours more than that of grant-funded researchers.

Figure 6: "Estimate the average amount of work time you spend on the following tasks" by career stage and main source of income. Average comparison, hours per week.



I left university work because the workload was too large and continuously growing. There was so much extra work assigned to me that was not directly related to my doctoral process that it left me with no possibility to work on my dissertation. I had full days and so my research was left to be carried out on the weekends and during my free time. When I asked people who had graduated from other universities, they shared that they had had similar experiences. When working as a university teacher, the amount of work just gathers up and so I often found myself working on Saturdays and Sundays as well. My work days stretched to ten-hour days. [...]
 (Translated from original Finnish)

The questions about working hours were asked in a slightly different way in the previous survey, so the results are not necessarily completely comparable. It seems, however, that the average weekly work time would have slightly decreased.

4.1. Employment relationship with university

Those employed by universities were asked about the composition of their salary, including both the levels of their requirement component (levels 1–11) and the personal performance component (categories 1–4). As with the previous round, the majority of the respondents reported having a requirement component at a level of 2–5 (52%) and a personal performance component in categories 1–2 (49%). However, it was still the case that an enormous share of the respondents did not know the level of their requirement component (37%, same as in 2021) or their personal performance component (44%, same as 2021). It is quite worrisome that the share of people who lack knowledge of the composition of their own salary is so large and, on the other hand, that no development has occurred over the past three years.

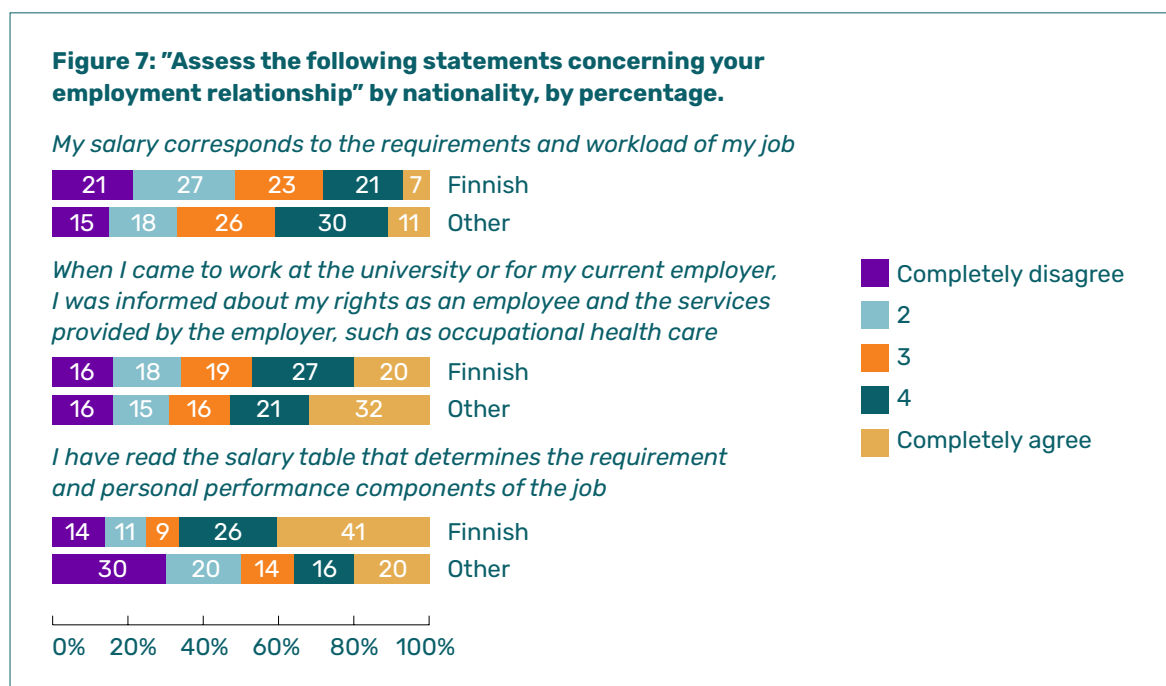
There were clear differences between nationalities in terms of understanding the breakdown of one’s salary. Of Finnish respondents, 30% did not know the level of the

requirement component in their salary and 38% did not know the category of their personal performance component. The corresponding figures for foreign respondents were 59% and 63%. The share of foreign respondents who did not know the composition of their salary has increased further from the previous survey rounds. Doctoral researchers were slightly more uncertain (37% and 45%) than recent doctoral graduates (35% and 39%).

As regards both components, half of the respondents reported that neither component had changed during their current employment relationship. Just under one third (31%) reported that the level of the requirement component had risen and around one fifth (22%) that the personal performance category had risen. Only a few reported that their component levels had dropped. This question was met with a lot of “I don’t know” responses, 19% for the requirement component and as much as 27% for the personal performance component.

In 2021, up to 68% of those in an employment relationship at a university reported that they had read the salary table that determines the requirement and personal performance components of their job. The share in this survey round was down to 60%. The share of those who felt they had been informed about their rights as employees had also decreased (51% in 2021, 48% now).

Figure 7 shows the distribution, by nationality, of the statements, “When I came to work at the university or for my current employer, I was informed about my rights as an employee and the services provided by the employer, such as occupational health care”; “I have read the salary table that determines the requirement and personal performance components of the job”; and “My salary corresponds to the requirements and workload of my job”. There were no differences observed between the different career phases.



4.2. Grant-funded work

The clearly most typical length of grant funding was 12 months (40%). The next most common was six months (11%), closely followed by 24 and 48-month grant periods (9%). The mean value (18.6 months) had increased from 2021 (14.8 months, same median of 12 months). The amount of the grants has slightly increased; the mean value was now €2,354/month (€2,136/month in 2021) with a median of €2,300/month (€2,033/month in 2021).

Nearly two thirds (63%) of grant-funded respondents had signed a resource, affiliation, or similar agreement with a university. Altogether 60% of doctoral researchers and 82% of recent doctoral graduates had signed an agreement. Altogether 65% of Finnish respondents had an agreement and 54% of foreign respondents.

Nearly half (46%) of the respondents were not doing work outside of their grant-funded work for their department or a similar unit. A total of 35% are engaged in other work and receiving financial compensation, and 15% are doing other work without financial compensation. 16% of doctoral researchers and 10% of recent doctoral graduates, 14% of Finnish respondents and 18% of foreign respondents do other work without compensation. Working without compensation seems to be on the decline: in 2021, 21% of grant-funded researchers were doing work without compensation and that share was even higher than in the 2017 survey (17%). The situation may be affected by the increased commonality of combined funding (grant-funding and part-time employment).

Grant-funded researchers were also asked about other income received during the past year as well as about different expert tasks related to academic work and other tasks outside of academic work. More than half had not received remuneration for academic tasks and two thirds had not received remuneration for other tasks. It must be noted, however, that higher additional income comes from non-academic tasks, which is not necessarily motivating from an academic career perspective.

I have finished my dissertation and begun postdoctoral research on grant funding and it has been very painful to notice the degree to which grant-funded researchers are in a weaker position, in all ways, than those in employment relationships. Grant-funded researchers are "research partners" to the academic platform economy and the university doesn't commit to them in any respect, but still takes all wins, i.e. publications, under its own name. This unequal status is visible in every aspect: employment-related benefits (occupational healthcare being the most vital), workspace and other work equipment, communications (grant-funded researchers are not invited to the department Christmas parties or research development events), administrative status (as a grant-funded researchers, I had a so-called student ID and therefore printing

quotas and weaker borrowing rights from the library were imposed, etc., etc.). Feels like no one is interested in the equal rights and issues of grant-funded researchers. Or perhaps more accurately, the interest is present in policies and celebratory speeches, but in practice, everyone just shrugs and simply overlooks the entire group of grant-funded researchers.

[...]

(Translated from original Finnish)

The grant awarded to a postdoctoral researcher by the Finnish Cultural Foundation was €2,500/month in 2022. It's not even possible to really live on this amount, much less pay off one's mortgage and interest. My income level as a PhD holder is the same as before I even graduated with my Master's degree. That is completely ridiculous and, above all, a dangerous situation – who has the energy to do all that demanding work when there is not even a guarantee of a basic level of income?

[...]

(Translated from original Finnish)

4.3. Work environment experiences of those working at a university

All respondents working at a university (whether in an employment relationship, on grant funding or combined funding) were asked to assess two series of statements.

Of the statements related to professional identity and the work community, respondents mostly agreed with the statement *"I view myself as a researcher"* (81%). A total of 79% of doctoral researchers and 88% of recent doctoral graduates agreed with this statement. This is in line with the results from the previous round, as anticipated. Support was also given to the statements *"I feel like part of the work community in my workplace"* (57%) and *"I work as part of a research group"* (52%). It was slightly surprising that the experience of belonging to one's work community was not statistically significant when examined by career phase or nationality, but it was when examined by native language. A total of 58% of Finnish-speaking respondents agreed with the statement, while the corresponding figures for respondents who spoke Swedish or another language were 63% and 53%. There was also a clear difference as to whether the respondent was working within an employment relationship or by virtue of grant funding: altogether 61% of those in an employment relationship but only 43% of those working on grant funding viewed themselves as part of their work community.

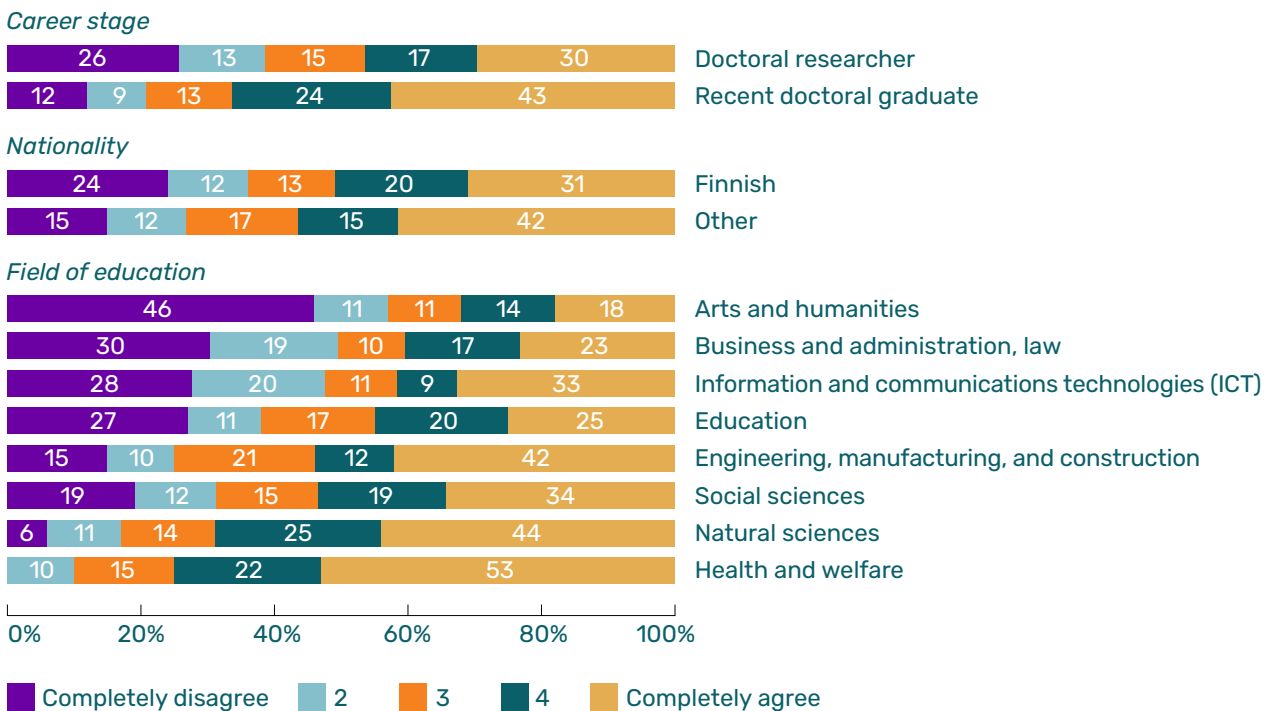
Universities should really invest more on ensuring the inclusion of doctoral researchers in the university community (for personal interactions and the sake of scientific discourse, not just for work opportunities). Many doctoral researchers who are just starting out

find themselves very alone and they are largely left to their own devices when seeking to network. [...]
 (Translated from original Finnish)

Working as part of a research group varies in terms of career phase and field of education. Since the share of international researchers varies by field, this also became clear when examined by nationality. The distributions for this statement by background variables are presented in Figure 8. Those who recently graduated with a doctorate work in research groups more often than doctoral researchers, as do foreign respondents in comparison to Finnish respondents. Group work was most common in the field of natural sciences and least common in the fields of arts and humanities.

I had to largely do my dissertation on my own, because I am not part of any research group or project. That puts me at a disadvantage compared to others who have been able to publish as part of a research group. Additionally, some doctoral researchers' supervisors write articles with them for top publications, while others write publications by themselves. On the basis of my own experience, the supervisors and subject affect the way one's career is supported. [...]
 (Translated from original Finnish)

Figure 8: "I work as part of research group" by career stage, nationality and field of education, by percentage.



The other section of questions for those working at universities concerned more concrete work arrangements. The statement that was met with the highest level of agreementⁱⁱⁱ was *"I have sufficient access to my university's electronic systems and other important facilities for the purposes of my research"* (85%). On the other hand, 7% of the respondents (same as in 2021) disagreed with the statement, which is, of course, a problem in terms of their work. The problem seems focused on doctoral researchers (7% disagreed vs. recent doctoral graduates 4%) and those working on a grant (11% vs. those in an employment relationship 5%).

The next highest percentage of agreement was given to the statements *"I have the right, if I wish, to participate in university pedagogical studies and/or personnel training"* (69%) and *"I am able to organise my work tasks so that I have sufficient working time for my research"* (67%). Within these responses, there were enormous differences according to whether the individual respondents were working within an employment relationship or on grant funding. Three fourths (76%) of those in employment relationships but less than half of grant-funded researchers (47%) were of the opinion that they can participate in university pedagogical studies, if desired. Altogether 81% of grant-funded researchers but only 64% of those with employment and grant funding and 62% of those in an employment relationship were able to arrange sufficient work time for research. Within the group of respondents in employment relationships, it is worthwhile to separate those whose work tasks include doctoral or postdoctoral research (67% in agreement) from those whose work tasks do not (30% in agreement).

Respondents mostly disagreed with the statements *"I have participated in the planning of the teaching for my area of study or a similar unit"* (47%) and *"The university offers sufficient support and tools for planning and realising teaching duties"* (31%). Doctoral researchers (50%) more often do not participate in the planning of teaching than those who recently graduated with a doctorate (37%), and the same is true for grant-funded researchers (57%) and those with employment and grant funding (53%) in comparison to those in an employment relationship (42%). The gender difference was quite minimal (46% of females and 50% of males disagreed, did not participate), but Finnish respondents had fewer who did not participate (45%) than those of other countries (56%).

Forty per cent of all respondents felt that they receive sufficient support and tools for the planning and realisation of teaching duties. Foreign respondents (52%, Finnish respondents 36%) and male respondents (50%, females 36%) agreed with this statement most often. Those with combined employment and grant funding (46%) and those in employment relationships (41%) had received support and tools for the planning and realisation of teaching duties to a more sufficient level than grant-funded researchers (33%). The difference cannot be explained by examining whose work tasks do not include teaching since all *"I don't know/Does not apply"* responses were removed.

4.4. Images of working at a university

One entirely new question in this survey was directed at all respondents: “What kind of experience or image do you have of working at a university? Assess the following statements according to whether you feel they increase or decrease the appeal of an academic career.” The basis for the question was the idea that all respondents have experience with a university community, at least as concerns dissertation research, but not all have necessarily been in an employment relationship with the university or working as a grant-funded researcher, at least not for long periods of time. Furthermore, some may have worked for many years at a university, even though their dissertation is not yet complete or it is less than four years since they received their doctorate.

The areas for assessment were divided into three subcategories:

Employment relationship factors

- Working within an employment relationship
- Working on a grant
- Salary system
- Earnings level
- Fixed-term aspect of employment relationships
- Permanency of employment relationships

Other work-related factors

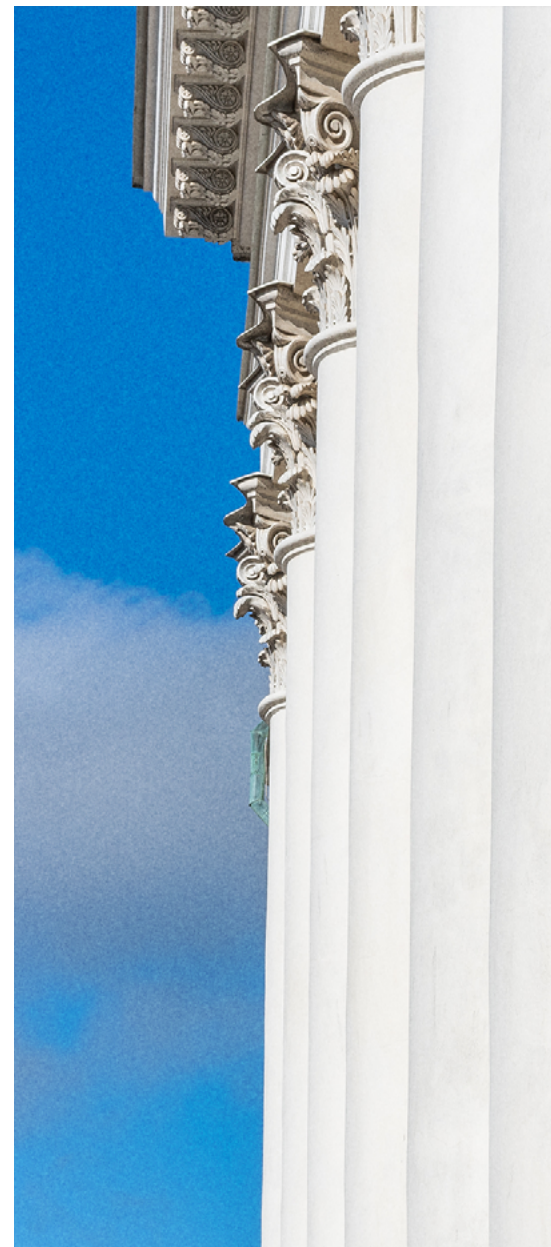
- Work community and colleagues
- University as a work community and employer
- Work content
- Independence of work
- Work as part of a research group
- Competition for research funding

Career-related factors

- Possibilities for career advancement
- Academic freedom
- Mobility between different universities
- International mobility
- Teaching tasks
- Project work

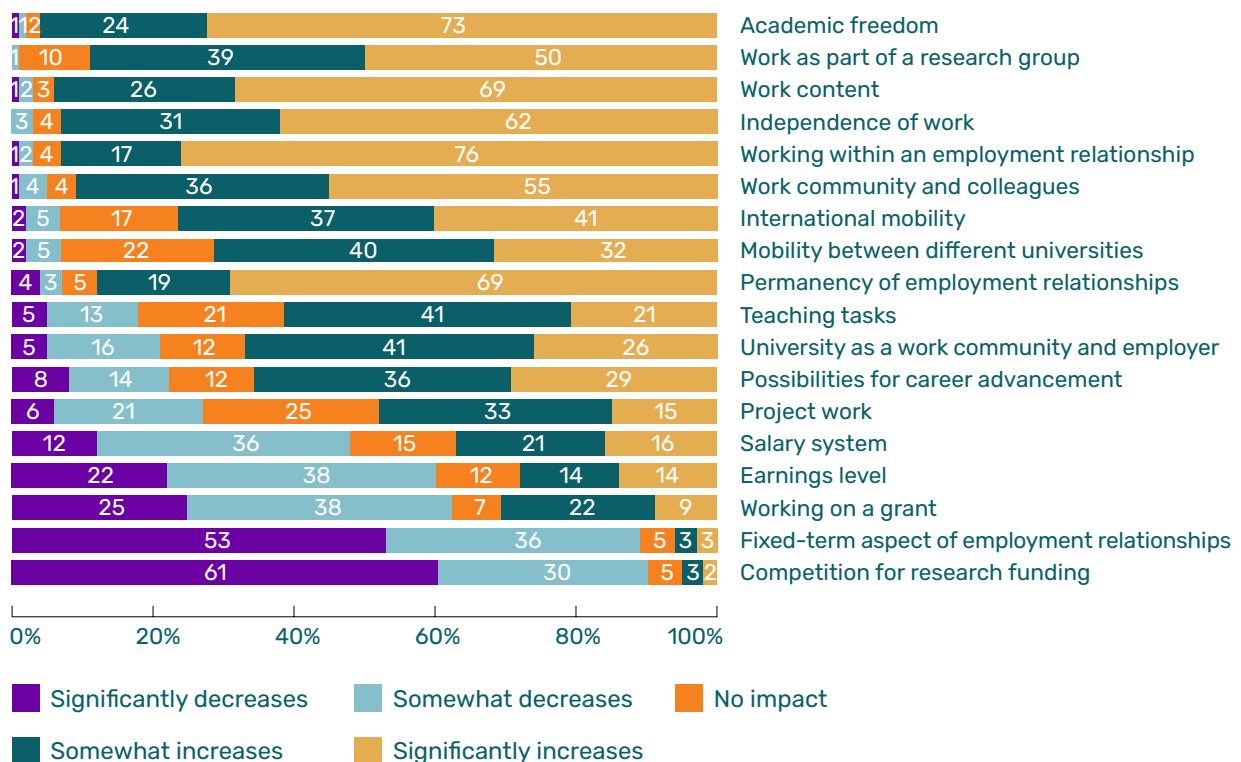
The assessment scale was as follows:

- Significantly decreases
- Somewhat decreases
- No impact
- Somewhat increases
- Significantly increases
- I don't know (*removed from the analyses*)



The strongest factors increasing the appeal of an academic career included academic freedom (96% of the respondents felt that it increased the appeal at least somewhat), work content (95%), independence of work (93%), working within an employment relationship (93%), and work community and colleagues (91%). The factors that most decreased the appeal included competition for research funding (90% of the respondents felt that it at least somewhat decreased the appeal), fixed-term aspect of employment relationships (89%), working on a grant (62%) and earnings level (60%). The distribution of the responses is shown in Figure 9.

Figure 9: Factors increasing and decreasing the appeal of an academic career, by percentage.



When the appeal factors are examined in accordance with whether the respondent was working at a university at the time of the survey (employed, on grant funding, or with employment and grant funding) or not, only certain minor differences were observed^{iv}. Academic freedom appears to be slightly more appealing for those working at a university, and the same can be said for work content and the independence of the work. Teaching duties are, however, seen as more appealing among those who do not work at a university. The factor that split opinions the most was working on a grant, which was clearly a more unappealing factor for those working at a university than for those who do not.

In terms of appeal factors, there were no differences as to whether the respondent was in an employment relationship (anywhere) or working on a grant. The only statistically significant differences specifically concerned the forms of employment: those working in an employment relationship considered working in an employment relationship to be a factor that increases appeal more often than those working on a grant, while those working on a grant considered working on a grant to be less of a decreasing factor than those working in an employment relationship.

The gender differences were also minor and primarily held no statistical significance. Female respondents seemed slightly more inclined than the male respondents to consider working in an employment relationship, work community and colleagues, and university as a work community and employer as appeal factors. Female respondents also viewed competition for research funding as a factor that decreases appeal to a higher degree than the male respondents.

Some differences were noted between the different age groups of the respondents. The appeal of the independence of the work and academic freedom appear to increase with age. The impact of a life situation that is presumably related to age can be seen when it concerns those working on a grant and international mobility: the decreasing impact on the appeal of work on grant funding is less and the increasing impact is more as people grow older. International mobility works best as an appeal factor for the youngest and oldest respondents, while those age groups in between most often view it as a factor that decreases the appeal of an academic career.

As opposed to the other background variables used, nationality had a clear and statistically significant impact on nearly all examined appeal factors concerning academic careers. While the factors that most increase the appeal of an academic career for Finnish respondents included academic freedom (98%), work content (96%) and working within an employment relationship (95%), the three top factors for foreign respondents were independence of work (92%), work content (91%) and academic freedom (88%). Similarly, the factors that decrease the appeal for Finnish respondents were competition for research funding (94%), fixed-term aspect of employment relationships (94%), earnings level (66%) and working on a grant (54%), and for foreign respondents, competition for research funding (72%), fixed-term aspect of employment relationships (68%), working on a grant (53%) and earnings level (37%). Thus, the opinions were of a similar nature, only the strength of the factors differed.

The appeal of an academic career is significantly decreased by the uncertainty of funding and low earnings level. There is inequality between those working in the same salaried position, because there are differences between research groups in terms of their salary amounts and related adjustments. Furthermore, there doesn't appear to be any possibility for a doctoral researcher to increase their performance category higher than category I no matter how well they perform the tasks that

belong or don't belong to their dissertation work. I don't know how much the situation will improve once one reaches the postdoctoral research fellow phase, but I am not planning to stay around and see.

(Translated from original Finnish)

[...] I love research work, but the competition for funding is incredibly tough and the worst aspect of an academic career.

(Translated from original Finnish)

The most loading factor of all is career uncertainty due to the randomness of funding and related competition. Universities have far too many fixed-term employment relationships. Furthermore, individual heads of research groups have too much power over the advancement of others' careers and whether their work continues or ends.

(Translated from original Finnish)

[...] I would love working at a university, in principle, but it feels that the framework conditions are tightening and funding is decreasing while demands are increasing. I keep wondering whether I should just go back to working in technology in order to get a proper salary and better working conditions. The academic field is not the only field that has a lot of freedoms, so academic freedom is not, on its own, enough to attract people to this field.

(Translated from original Finnish)

5. WORKING CONDITIONS

There was a desire with this survey to examine two themes related to working conditions, namely remote working and inappropriate treatment. Remote working became considerably more common as a result of the COVID-19 pandemic and it has retained its popularity in many fields. The purpose of this section was to clarify the preferences of early career researchers regarding their workspace, their ability and readiness to work remotely and the connections between remote work and the work community. Inappropriate treatment was approached by asking about experienced bullying or violence, sexual harassment and discrimination, and, more specifically, academic bullying.

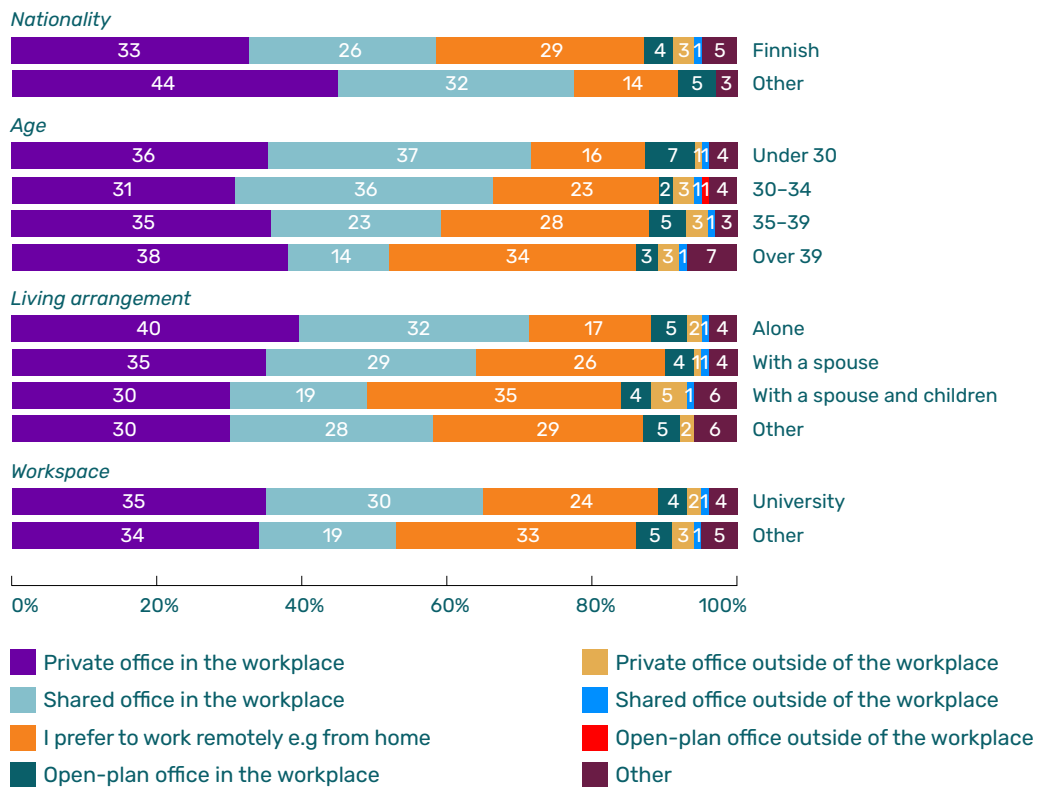
5.1. Remote work

All respondents were asked to select their ideal workspace. The most popular choice was a *private office in the workplace*, which was the ideal workspace for more than one third of the respondents (35%). The next highest percentages were received by a *shared office in the workplace* (27%) and *remote work, for example, from home* (26%). The ideal workspaces are presented in Figure 10 by nationality, age, living arrangement and workplace. A private office in the workplace was relatively the most popular response for foreign respondents (44%), those living alone (40%) and those over the age of 39 (38%). A shared office in the workplace was most popular among those under 30 (37%) and aged 30–34 (36%), non-Finnish respondents (32%) and those living alone (32%). Remote work was selected as the ideal option more often for those living with a spouse and children (35%), those over the age of 39 (34%) and those who work somewhere other than a university (33%). Remote work from home was most infrequently selected as ideal by foreign respondents (14%), those under the age of 30 (16%) and those living alone (17%). There were no detectable differences between genders. It appears that the appeal of working in the workplace is related more to social interaction and the choice of remote working relates more to life situation and daily arrangements, and the workspace is not primarily selected for peace and quiet to work.

Respondents were given six statements concerning remote working and independent work. The responses with which respondents were most in agreement were “*I perform tasks well independently*” (90%) and “*I can work in a self-directed manner*” (89%). Respondents were also very similar in opinion with the statements “*I feel that I have the necessary skills for remote work*” (83%) and “*The possibility to work remotely enhances my well-being*” (78%). Opinions were slightly more divided on the statements “*I am able to efficiently schedule my own work*” (66% agreed and 11% disagreed) and “*I have the suitable space, devices and equipment for remote work*” (57% agreed and as high as 22% disagreed).

The five statements^v can be combined to create a sum variable that illustrates readiness to work remotely and independently. The mean of the sum variable is 4.28 on

Figure 10: Most ideal workspace by nationality, age, living arrangement and job, by percentage.



a scale of 1–5, indicating that the respondents are generally very capable of working remotely and independently, which is not surprising given the target group for the survey. In order to bring out both extremes, however, the sum variables are categorised on the basis of the mean value and standard deviation (0.68) as low (14%), medium (65%), and high (21%) levels of readiness. When the sum variable distributions are examined against the same background variables that were associated with the preference for remote working, some similar differences are observed – the one exception was nationality, which did not have any statistically significant connection to the readiness for independent work. A high level of readiness for independent work was more common among the older age groups, those living with a spouse and children, and those who do not work at a university. A low level of readiness was most common among those living alone.

Respondents were also asked to assess six statements concerning remote work and the work community. The highest level of agreement was met by the positive statements “Communication with my supervisor works well regardless of how much I work remotely” (70%), “I am satisfied with my most common remote working environment” (69%) and “I can genuinely always choose the place of work that best suits my specific situation” (61%). Opinions were most divided for the statement “Too much remote work is hindering my professional networking” (40% agreed and 41% disagreed). The

highest level of disagreement was with the statements “*My presentation and co-operation skills have not sufficiently developed while working remotely*” (69% disagreed and 14% agreed) and “*I am disappointed with the co-operation experiences I have had while working remotely*” (60% disagreed and 22% agreed).

The large amount of remote work at my research institute affects my integration into the work community. I believe this is a key problem that threatens the expertise development of the younger research generation I represent. The knowledge and skills of an expert are not only internal but closely connected with the culture, interaction and community of practice in which they operate. This interaction and the on-the-job learning it facilitates is largely cut off by remote working. [...]

(Translated from original Finnish)

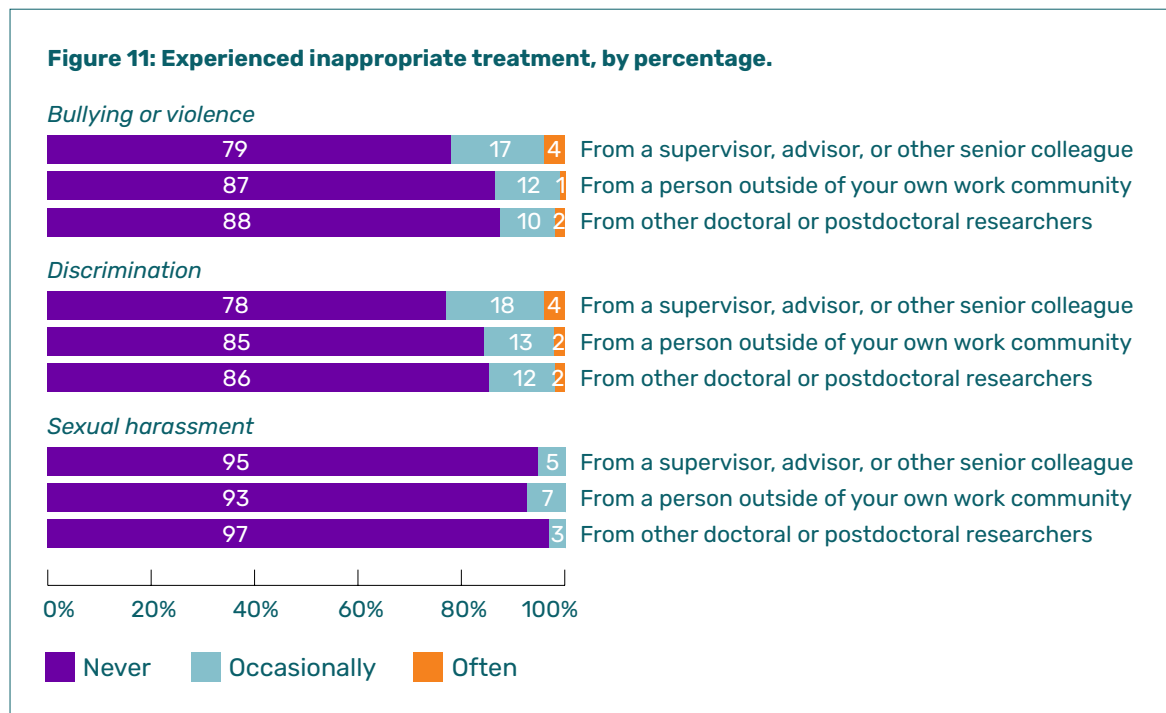
A sum variable^{vi} is created from the statements to illustrate perceptions of remote working and the work community. The mean value of the sum variable is 3.71. As is evident from this and the aforementioned distributions, opinions concerning readiness for remote work were clearly more positive than experiences of remote work from a work community perspective. The sum variable was once again categorised on the basis of the mean value and standard deviation (0.82) as low (17%), medium (67%), and high (15%) level of experiences. As opposed to the previous categorisation, nationality did play a significant role here. Finnish respondents clearly more often had a high (16%) and more rarely a low (16%) level of experience with remote work from a community perspective than did respondents from other countries (11% high and 26% low level of experiences). The living arrangements also seem to play a part in experiences with remote work and the work community: those living alone more often had a low level of experience (22%) compared to those living with a spouse (15%) and those living with a spouse and children (14%). Age and workplace, on the other hand, did not have any statistical significance in terms of experiences with remote work and work community. This further supports the presented idea that the choice between remote work and working at a workplace has more to do with the social aspects of working than the other practical arrangements.

5.2. Inappropriate treatment

The questions about inappropriate treatment were presented to all respondents, although they were limited to the academic work setting: *The following questions concern academic work settings, i.e. work at a university either as a doctoral or postdoctoral researcher, on grant funding, or in an employment relationship. If you are currently not working at a university, answer the questions on the basis of your earlier experience.*

The questions were “*Have you experienced bullying or violence in an academic work setting?*”, “*Have you experienced sexual harassment in an academic work setting?*”, and

“Have you experienced discrimination in an academic work setting?”. The responses were further specified according to the individual who perpetrated the behaviours: *other doctoral or postdoctoral researchers; a supervisor, advisor, or other senior colleague; and a person outside of your own work community*. The response options were *Never, Occasionally, and Often*. The distribution of the responses is shown in Figure 11.



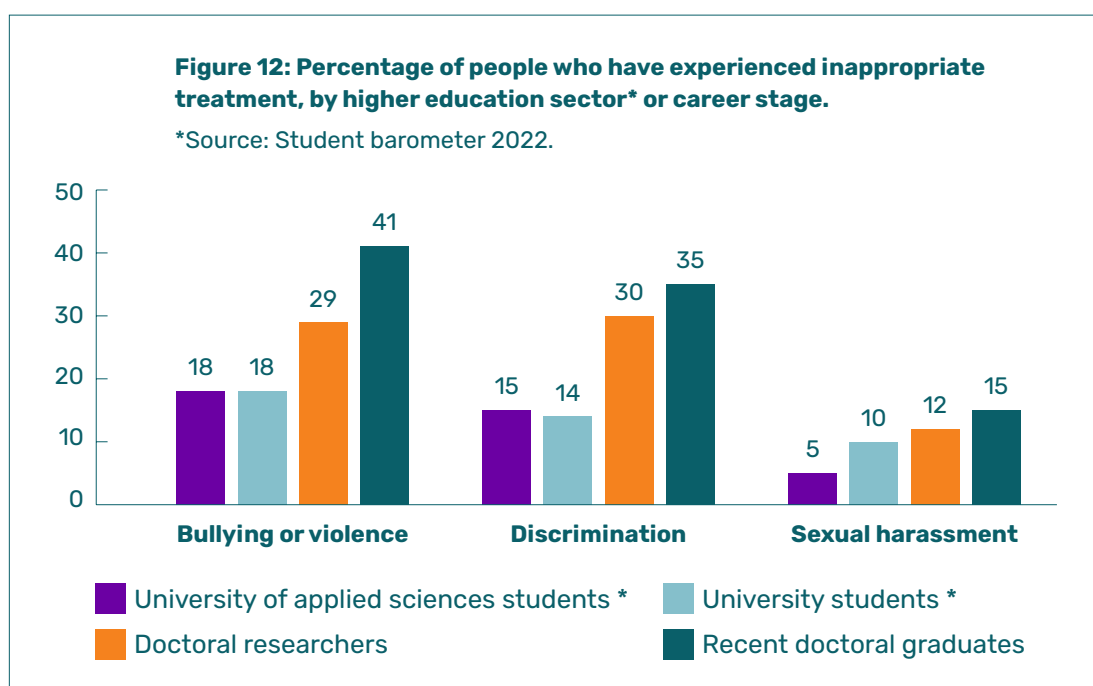
When the response shares are examined by those who had at least occasionally experienced inappropriate treatment, the material indicates that the most common response was discrimination (22% occasionally or often) and bullying and violence (21%) by a supervisor, advisor or other senior colleague. It is quite shocking that more than every fifth early career researcher feels that they have faced discrimination, bullying, or violence from their own supervisor, advisor or other senior colleague. Least common was an experience of sexual harassment by other doctoral or post-doctoral researchers (3%), a supervisor or advisor (5%) and a person outside of one’s own work community (7%).

Universities are still poor at addressing, in particular, the bullying and abuse of employees by professors. It is rarely talked about for fear that raising the issue might hurt one’s future career opportunities or advancement. During my project-based employment, the research director made multiple inappropriate comments and baseless threats to me to end my employment relationship for reasons unrelated to work, but the only real help I ultimately got was therapy just for me. As a result of this experience, my interest in an academic career decreased considerably.
(Translated from original Finnish)

Mental health and workplace treatment by supervisors to PhD students should be paid attention to more closely. Because PhD students are less likely to stand up against unethical supervisors due to the pressure of graduation.

When examining the forms of inappropriate treatment, regardless of the perpetrator, nearly one third (32%) of the respondents report having encountered bullying or violence at least occasionally within the academic setting. A total of 31% of the respondents had experienced discrimination and 13% sexual harassment. When the responses are similarly examined by perpetrator, regardless of the form of the behaviour, nearly one third (31%) of the respondents had experienced inappropriate behaviour at least occasionally from a supervisor, advisor, or other senior colleague. One fourth (24%) of the respondents had experienced inappropriate treatment from a person outside of their own work community and every fifth (19%) from peers, which means other doctoral or postdoctoral researchers.

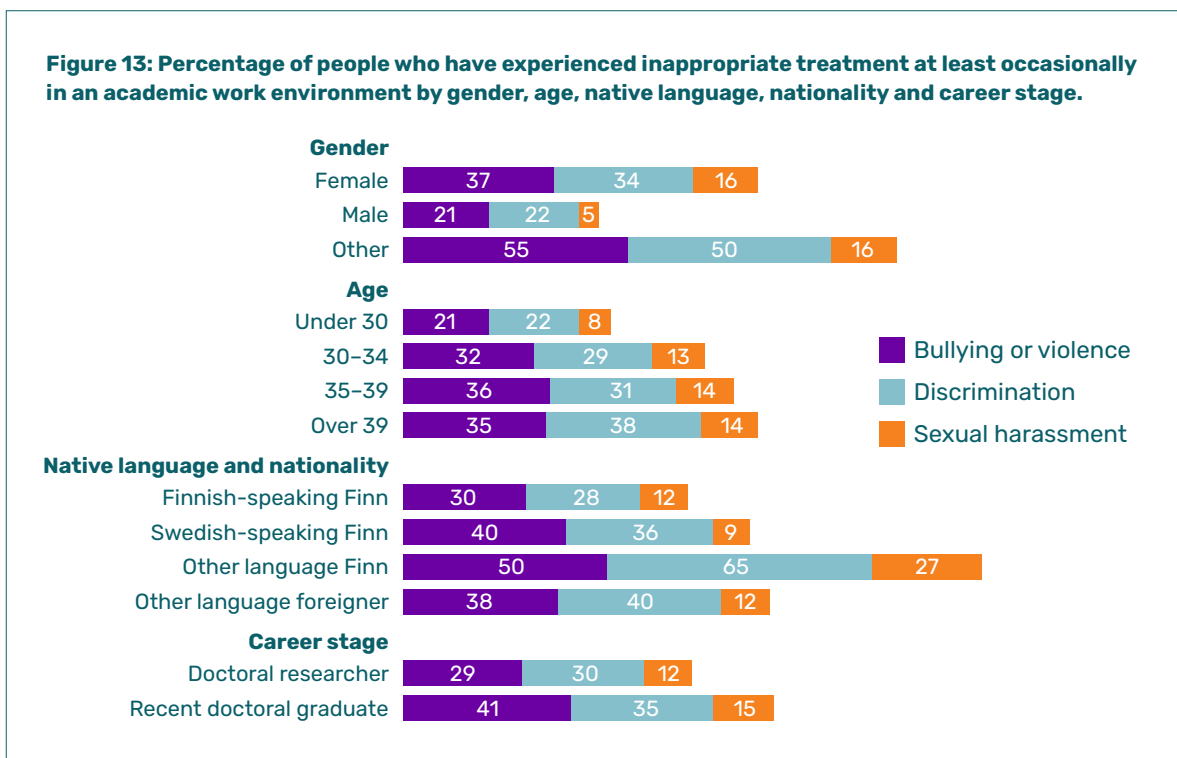
It is worthwhile to compare the seemingly high percentages of those who had experienced inappropriate treatment to statistical data from other materials. The questions about inappropriate treatment were asked nearly verbatim in the 2022 Student Barometer^{vii}, so it is possible to compare the early career researchers' responses to those of students studying for a Bachelor's or Master's degree at a university of applied sciences or university (Figure 12). All types of inappropriate treatment were clearly more common for early career researchers than for higher education students, and those who had recently completed their doctorate had met with more inappropriate treatment than doctoral researchers. As regards sexual harassment, there is also a clear difference between universities of applied science and university students with harassment being more common in universities. In a way, it can be considered a good result that under-



graduate students encounter inappropriate treatment less frequently than those who have already entered their actual career track, but the commonality of inappropriate treatment within the academic work environment appears to be at an alarming level.

According to the results of the survey study^{viii} conducted by the UniSAFE project, two thirds of students and employees of European higher education and research institutions have encountered gender-based violence during their studies or work. Within the project, gender-based violence has quite a broad definition, the target group for the survey was notably broader, and there were no country-specific results available, so it is not possible to make any direct comparison. On a general level, however, one could safely state that the results of the data collection support the discovery that inappropriate treatment within the academic work setting is extremely common.

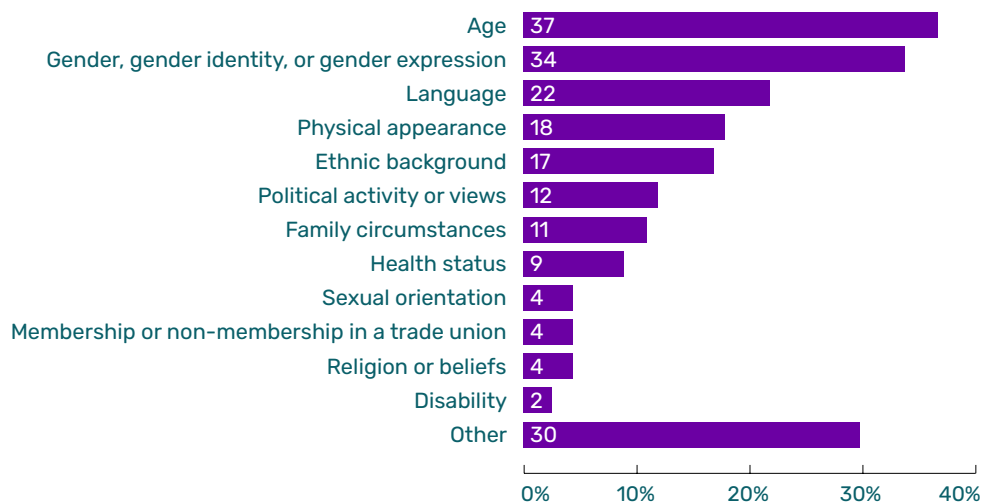
Inappropriate treatment is not evenly distributed, but rather is experienced in different ways by different groups. Figure 13 shows the percentages of those who experienced different forms of inappropriate treatment at least occasionally in accordance with their gender, age, native language, nationality^{ix}, and career phase. All in all, the most incidences of inappropriate treatment are experienced by Finnish respondents who speak a language other than Finnish or Swedish as their native language and those whose gender was reported to be “other”. Bullying was common for these groups as well as for recent doctoral graduates and Swedish-speaking Finnish respondents. Discrimination was also experienced often by foreign respondents who speak a language other than Finnish or Swedish and respondents over the age of 39. Sexual harassment was relatively common also for female respondents and recent doctoral graduates.



Respondents who experienced inappropriate treatment at least occasionally were asked what they believe was the reason for their being treated inappropriately (Figure 14). More than one third believed it was based on their age (37%) or gender, gender identity, or gender expression (34%). It is possible to experience inappropriate treatment based on age at any age, but it was most often experienced by the youngest and oldest respondents: more than half (58%) of the respondents under the age of 30 had experienced inappropriate treatment based on their age, one third (33%) of those 30–34, one fourth (24%) of those 35–39, and as high as 43% of those over the age of 39. 15% of male respondents, 37% of female respondents, and as high as 75% those who reported their gender as “other” had experienced inappropriate treatment based on gender, gender identity, or gender expression. While the differences are significant, it indicates that no specific gender seems to be completely safe from inappropriate treatment.

Nearly one third of the respondents selected the response option “*Other, specify*” as the basis for the inappropriate treatment they had experienced, and 98 respondents specified further. Situations vary greatly, but some of the responses were relatively common. Some of the respondents experienced that their own class, education, or professional background was wrong for an academic work setting. Some explained that there were personal or scientific conflicts, problems with personal chemistries, or work community cliques. Many stated that their family situation, for example pregnancy or single parenthood, was a problem. It was very common for there to be mentions of academic ranking, the subordinate position of doctoral or grant-funded researchers, or challenges otherwise presented by an early career phase and being less merited.

Figure 14: “Do you feel that you have been treated inappropriately for the following reasons in an academic setting?” Multiple choice question, by percentage.



Family and young children are presented only as a disadvantage, and a lot of energy is spent on covering up one's life situation. The reality is that the energy necessary for doctoral research comes precisely from life's other important areas. [...]

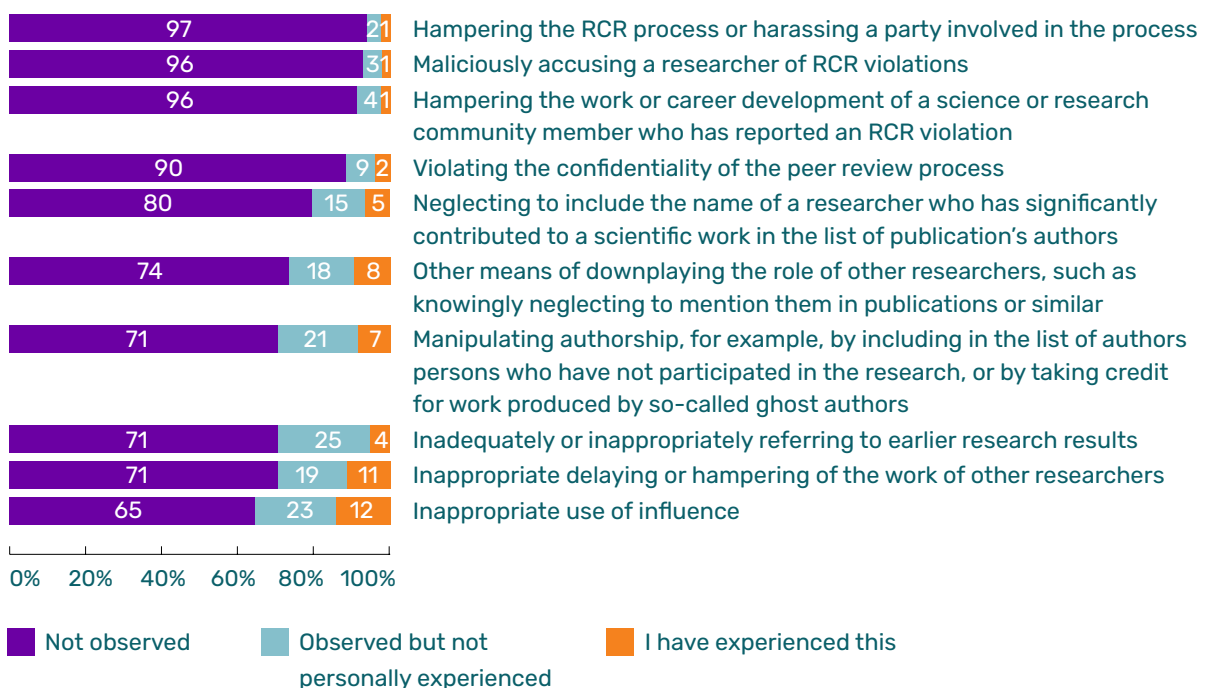
(Translated from original Finnish)

It is particularly difficult, if not impossible, to maintain work motivation within the social Darwinian burnout culture permeated by competition and power games, without any type of (positive) career outlook. [...]

(Translated from original Finnish)

There was an interest in examining academic bullying more closely. The phenomenon was approached by selecting examples of a disregard for the responsible conduct of research (RCR)* as presented by the Finnish National Board on Research Integrity TENK. Respondents were asked whether they had observed or personally experienced inappropriate behaviour within the academic community. The distribution of the responses is shown in Figure 15. The most often observed behaviours included *Inadequately or inappropriately referring to earlier research results* (25%), *Inappropriate use of influence* (23%), and *Manipulating authorship, for example, by including in the list of authors persons who have not participated in the research, or by taking credit for work produced by ghost authors* (21%). The respondents have most often personally experienced the *Inappropriate use of influence* (12%) and *Inappropriate delaying or hampering of the work of other researchers* (11%).

Figure 15: "Have you ever observed or personally experienced the following behaviours within the academic community?", by percentage.



[...] It has also been horrible to notice that different hindering tactics have been imposed on colleagues who are in the earlier stages of their career to a shockingly common degree, particularly in the phase following their dissertation work. It might be that I just happen to have heard an exceptional number of horrendous cases. Somehow, I imagined that, in Finland, we would be above such behaviour (stealing research ideas, not giving proper credit, doing free work without even being mentioned in the final product), but it appears we are not. [...]
(Translated from original Finnish)

The Research Integrity Barometer 2023^{xi} of the Finnish National Board on Research Integrity TENK more broadly examined suspected research misconduct. Of those forms of disregard that were also examined in the survey for early career researchers, phenomena that arose commonly in the TENK survey included *unjustified addition of a researcher in the list of authors, other unjustified dismissal of a researcher's work or failure to cite them, and inappropriate use of academic position of power in scientific activity*. Compared to these results, it appears that early career researchers are more prone to the inappropriate use of influence and the inappropriate delaying or hampering of work than those further along in their career, while ambiguities related to authorship, such as inadequate referencing or other manipulation of authorship are not specific to early career stages but occur more generally.

Compared to how common experiences of bullying or violence (32%) and discrimination (31%) were among the respondents, it seems that academic bullying is, however, reasonably uncommon. As the Research Integrity Barometer has also indicated, quite a small portion of misconduct suspicions lead to an RCR (responsible conduct of research) allegation, and an even smaller portion of those to the establishment of an RCR violation. Of course, every possible disregard for responsible conduct of research is too much, but the situation does not appear to be as bad as one might fear based on the distribution of questions surveying inappropriate treatment on a broader scale.

6. WORK CAREER AND THE FUTURE

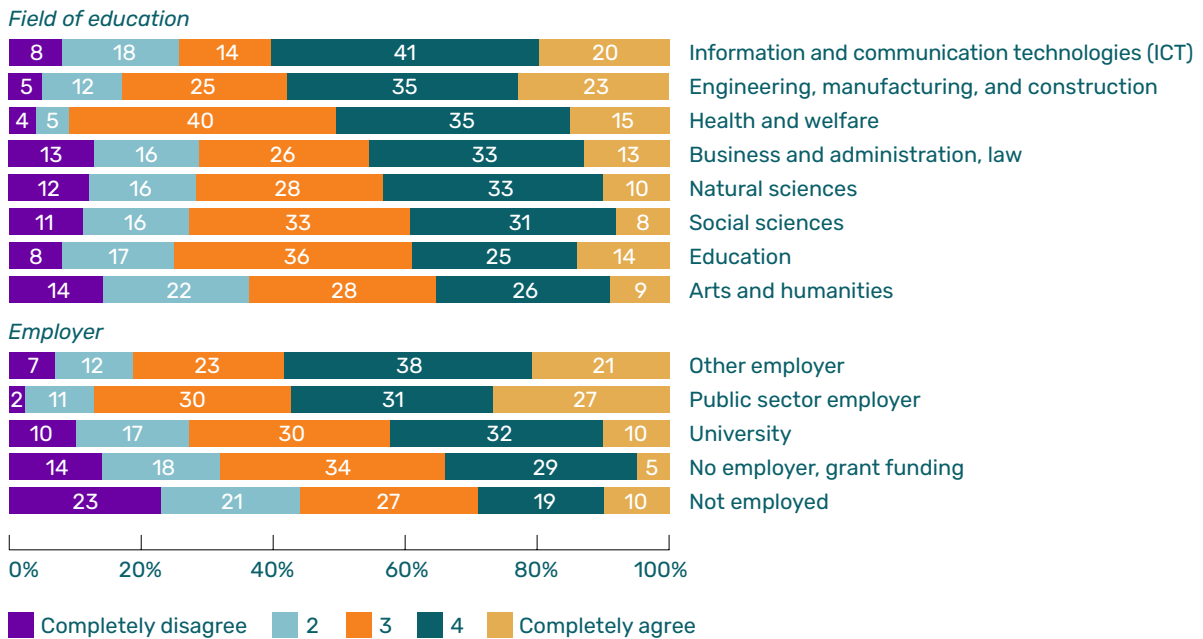
Respondents were asked to assess five statements concerning their work career. The statement that was most agreed with (78%) was *"The general development of research funding worries me"*. However, the second most agreed with statement - although clearly less (43%, while 27% disagreed) - was the positive statement *"I feel positive about my career prospects"*. *"Change negotiations or personnel reductions at my workplace or affiliation"* were of concern to 36% of the respondents, but 43% disagreed with the statement. One third of the respondents (32%) reported that they had *"delayed having children for their career"*, but more than half (55%) of the respondents disagreed with the statement. Only every tenth respondent (11%) felt that *"their gender has benefitted their university career"*, while nearly half (48%) disagreed.

It was slightly surprisingly that the concern about change negotiations or personnel reductions at the workplace or affiliation was not connected in any statistically significant way to employer or even form of work funding (salary vs. grant). Presumably, all sectors and many types of workplaces are currently undergoing general rounds of savings measures. Those who recently graduated with a doctorate (45% agreed and 36% disagreed) were, however, more concerned than doctoral researchers (33% agreed and 45% disagreed). The differences according to field of education were clear: the largest percentage of disagreement with the statement was seen in the field of engineering, manufacturing, and construction (70% disagreed) and health and welfare (50%), while the largest percentage of agreement was in the field of education (53% agreed) and arts and humanities (42%).

Doctoral researchers (45%) were more positive about their career prospects than those who recently graduated with a doctorate (36%). Those in an employment relationship (for any employer) (47%) agreed more often than those working on a grant (34%) with the statement *"I feel positive about my career prospects"*. Those working somewhere other than a university (49%) were more positive about their career prospects than those employed or working by virtue of grant funding at a university (41%). Disagreement with the statement was most common in the fields of arts and humanities (36%), while agreement was highest in information and communications (61%) as well as engineering, manufacturing, and construction (58%). The distributions of responses by field of education and primary employer are presented in Figure 16.

Respondents were quite worried across the board about the general development of research funding (78% agreed and 7% disagreed). Recent doctoral graduates were still slightly more worried (85%) than doctoral researchers (76%), and those working on a grant (84%) were more concerned than those in an employment relationship (76%). There were, however, clear differences noted here according to the respondents' field of education. Once again, information and communication technologies (55% agreed and 16% disagreed) as well as engineering, manufacturing, and construction (58% agreed and 16% disagreed) stood out in that they were clearly less concerned than

Figure 16: "I feel positive about my career prospects" by field of education and main employer, by percentage.



other fields. The highest percentage of concern was seen in education (85%), arts and humanities (83%), and social sciences (83%).

Research work, as such, is a very attractive sector. However, the current structures are increasingly focusing only on research programmes that are already commercially viable, such as medicine and programming, while important but less commercially interesting areas such as social sciences, as a broad category, are increasingly left without funding. There are only a handful of suitable grants compared to the relative abundance seen in other sectors, with even fewer paid doctoral research positions, and, at the same time, employment seems impossible due to a combination of a lack of seniority and over-qualification. [...]
 (Translated from original Finnish)

More than half (56%) of female respondents disagreed with the statement "My gender has benefitted my university career", while only 5% agreed. Of the male respondents, 30% disagreed and 26% agreed. Of those who responded that their gender was "other", only 5% agreed and as much as 75% disagreed, but the distribution should be viewed with some reservation due to the low number of respondents.

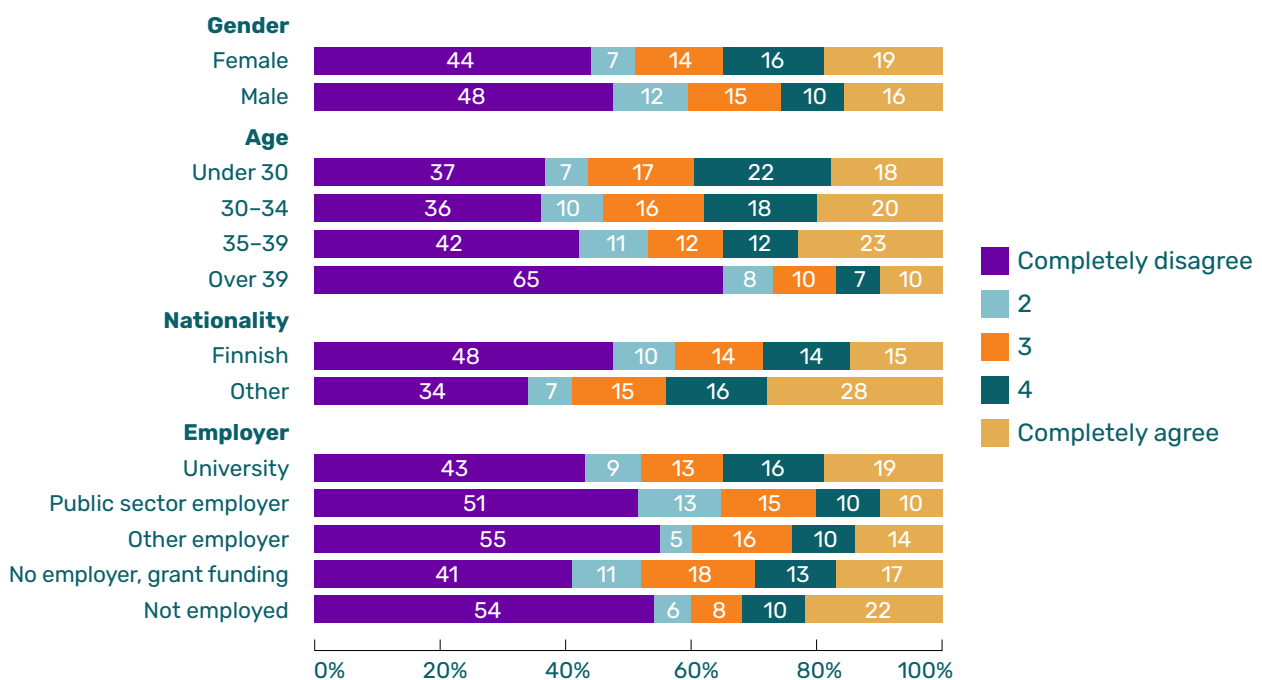
[...] Throughout all the career coaching and counselling, family life was never mentioned or considered. For a woman, in particular, it feels quite impossible to combine family and a career, and if you do try, you are met

with a lot of judgement and attitudes saying that “well, you can go have children, but it’s your own choice then to let your career slip away”. I wish that the academic world would offer more social support and incentive to establish a family already during doctoral studies. I fear that I will remain childless against my wishes due to my career choice (and my spouse’s career choice).

(Translated from original Finnish)

Those who delayed having children for their career are shown in Figure 17 by gender, age, nationality, and primary employer. It was more common for female respondents (35%) to delay than male respondents (26%). The percentage decreases as age increases, with the result that only 17% of those over the age of 39 reported delaying having children. From the question posed, it is impossible to know whether the delay to have children was earlier in life or whether it still remains a current issue. The delay to have children was more common among foreign respondents (44%) than Finnish respondents (29%), which presumably has to do precisely with international mobility. The differences between employers appears to be slightly concerning: the highest percentage of respondents who delayed having children work at a university (35%) – even more than those working on a grant (30%) or those outside of working life (31%). Only 20% of those working in the public sector had delayed having children and 24% of those working elsewhere (such as companies or universities of applied sciences). The high percentage of those working at universities may be explained, at least in part, by mobility demands, particularly international mobility.

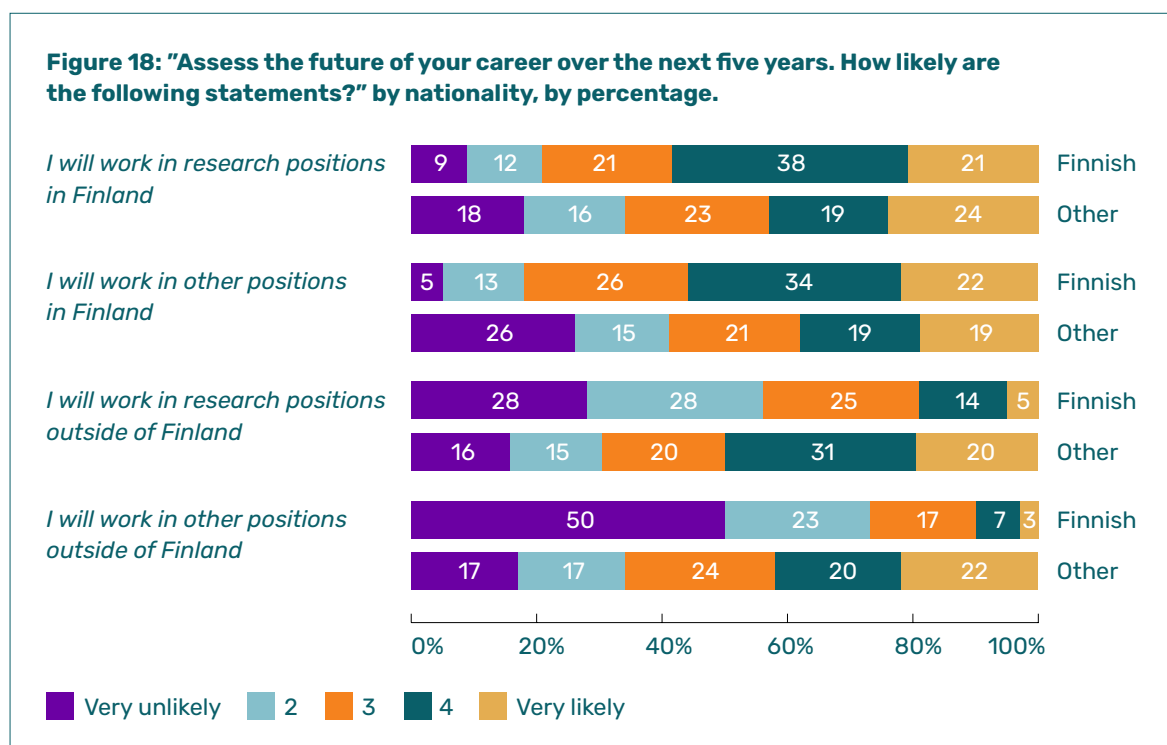
Figure 17: “I have delayed having children for my career” by gender, age, nationality and main employer, by percentage.



As a childless woman slightly over the age of 30, I feel a conflict between advancing my career and establishing a family. I will soon be completing my doctoral dissertation and this would be the ideal time to start planning the next move for my career. On the other hand, I would like to start a family, but its impact on my career development is concerning. I feel that discussing the issue with colleagues/advisors could damage my career.
 (Translated from original Finnish)

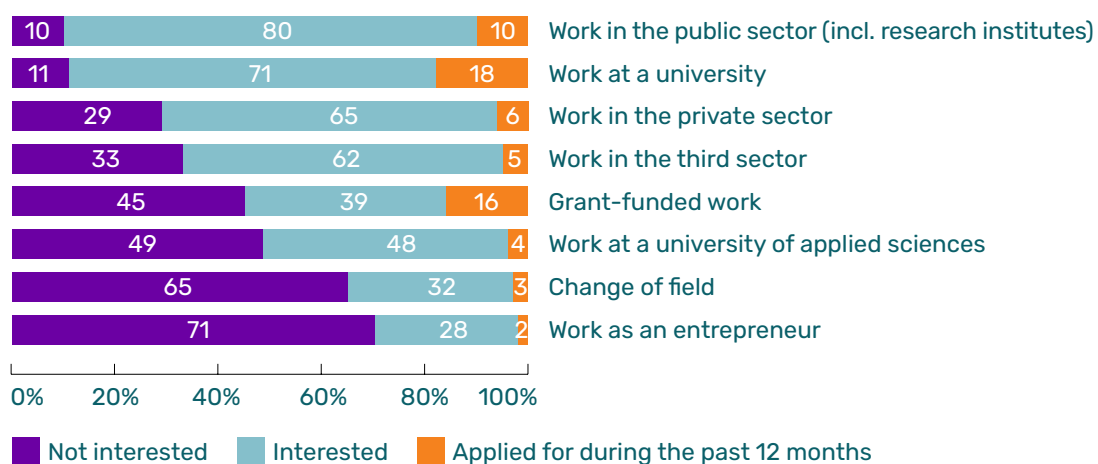
Respondents were also asked to assess the future of their career over the next five years according to how likely they feel it is that they would be working in Finland or abroad, and in research or other tasks. The distributions of responses by nationality are presented in Figure 18. Finnish respondents thought it was likely that they would work in research tasks in Finland (59%) and in other tasks in Finland (56%). Only 19% believed it was likely they would be working abroad in research tasks and 10% in other tasks abroad. Half of foreign respondents (50%) thought it was likely they would be working in research tasks abroad and 43% in Finland. Of those who thought it likely they would be working in other tasks, 42% believed it would be abroad and 38% in Finland.

[...] Research itself is interesting, it is just truly a shame that the research process has been made so unappealing in Finland. My supervisor has actively encouraged me to apply to foreign programmes in order to avoid the deficient practices related to research in Finland and to safeguard my health. [...]
 (Translated from original Finnish)



The respondents were further asked more specifically what types of work alternatives interested them (Figure 19). During the past year, respondents applied most for positions in universities (18%), grant-funded work (16%) and work in the public sector (including research institutes, 10%). The least interest was shown in work as an entrepreneur (71% reported not being interested) and in changing fields (65%). It is worth noting that although 45% of the respondents responded that they are not interested in grant-funded work, it was the second most sought form of work.

Figure 19: "What type of work options interest you?", by percentage.



7. FUURT'S CONCLUSIONS BASED ON THE RESULTS OF THE SURVEY

The title of doctoral researcher has become established, but the work remains fragmented

In many respects, the results of FUURT's survey for early career researchers continue to reflect familiar themes and observations from previous surveys. The results concerning funding and working conditions particularly carry over from earlier results. Even though the employment relationships of doctoral researchers seem to have lengthened slightly, the funding and employment relationships for doctoral and postdoctoral research remain fragmented. The clear majority of early career researchers must continuously apply for new funding for their research. Too often research is forced to discontinue or be delayed by unemployment caused by interruptions in funding.

It is clear that the most efficient way to reduce the time it takes to complete a doctorate would be to secure funding with one source of funding for the entire research period. The doctoral education pilot programme (2024–2027) and its three-year employments for doctoral researchers are one step in the right direction. The aim for all funding methods would be to actively seek to secure guaranteed funding for the entire period of one's doctoral research. Our surveys repeatedly show that recently graduated postdoctoral researchers have a less positive outlook on their career prospects than doctoral researchers. It is clear that more direct and secure career prospects in different sectors must be created for postdoctoral research.

In comparison to earlier surveys, one clear improvement was the establishment of the title of doctoral researcher. FUURT has long advocated for an established title for doctoral researchers that corresponds to their professional competence and career phase, rather than being referred to as "students" or "trainee/in-training". Many Finnish universities have, over the past few years, decided to take the title of doctoral researcher into use, which is reflected in the current survey results. It is especially important for research careers to be regarded professionally from the start, as required by the European Charter for Researchers^{xii}. We are especially grateful to universities for clearly expressing their willingness to adopt these title practices.

Doctoral education, supervision, and mobility during the dissertation process

From the perspective of doctoral education and dissertation supervision, the results of the survey do not indicate any significant changes from previous years. The content and amount of dissertation supervision appear to be similar to the results of previous survey rounds. Supervision discussions are still held more frequently in those fields in which doctoral researchers work as part of research groups. This does not, however,

directly reveal anything about the quality or content of the supervision, but just about the frequency of supervision meetings. As has been shown in connection with the doctoral education pilot currently getting underway, dissertation supervision must be one of the areas of development in doctoral education.

We challenge researchers, supervisors, research groups, and faculties to deliberate on the field-specific practices and established culture regarding dissertation supervision. Independent research work does not need to mean working alone. On the other hand, doctoral researchers are different from one another and they have different needs and expectations concerning supervision. The drafting of a supervision plan by the researcher and supervisor is a good way to agree on the arrangements for supervision and to review the hopes and expectations of both parties.

In addition to scientific supervision, supervisors must be trained and supported so that they might better support the career planning of those they are supervising. Even though, due to the way the questions are framed, the results are not directly comparable to the previous survey, it is astounding that only half of the survey respondents reported discussing their career plans with their dissertation supervisor. Still, these discussions are the most typical form of career guidance and support throughout doctoral education. Other forms of career guidance, such as networking events, mentoring, multidisciplinary steering or thesis groups, are still only reaching a relatively small group of early career researchers. As much as one third of the respondents said that their doctoral education did not include any career guidance.

We know that many universities have developed career planning support as part of their doctoral education over recent years. The problem is likely, however, the fact that different forms of career guidance are still not sufficiently scaled so as to be accessible to the majority. Furthermore, the results of the survey raise the question as to whether dissertation supervisors have sufficient resources, working hours, and competence to really invest in the career planning support of those they are supervising. And, on the other hand, do the universities, supervisors, and early career researchers view career guidance in the same way; are early career researchers able to recognise and take advantage of the type of career guidance and career planning support that the universities or supervisors are offering?

It is FUURT's opinion that career guidance for early career researchers should be based on open dialogue in which different career options are not positioned against one another. All the different postdoctoral employment opportunities are equally possible and valuable, even if the primary hope for one's career may be in the academic world. Multidisciplinary career guidance and networking could also be supported by guaranteeing more than one supervisor for doctoral researchers and having potential thesis or steering groups also take advantage of parties outside the university. Additionally, supervisors need a sufficient amount of time for supervisory work, of course. The supervision of students and doctoral researchers should be better recognised and

included in the working hours and work plans of the research and teaching personnel.

Mobility and collaboration with parties outside of one's own university during doctoral research were generally along the same lines as during earlier surveys. The most typical form of mobility is international mobility between universities, which means mobility to another university abroad. Even this form of mobility, however, has decreased since the previous survey, which is probably not the desired direction of development. On the other hand, we must realise that some of the respondents have just recently initiated their doctoral research and have not yet had the chance for mobility, even though it may be in the planning.

The diversity of supervision and different possibilities for mobility and collaboration play an especially important role in supporting the career outlooks for early career researchers with international backgrounds so that an increasing number will remain and become employed in Finland after they complete their doctorate. Furthermore, doctoral researchers with an international background should have the possibility to include Finnish or Swedish language studies as part of their doctoral studies. Doctoral education is required to have a stronger level of working life relevance and, for this reason also, the possibility for language studies as part of the doctoral degree is justified.

Working conditions for early career researchers

The working conditions and earnings level of university employees and grant-funded researchers are quite in line with the previous survey. As earlier, it was curious to notice how unfamiliar the respondents were with the university salary system or the bases for their own salary, even though they knew the euro amount of their income. Early career researchers with international backgrounds, in particular, very often respond that they do not know the levels of the requirement or personal performance components that are used to determine their salary.

Another glaring factor is whether respondents are or are not taking time off from work. On average, respondents assessed the number of weekly working hours as being slightly over 39 hours. If they work that amount every week, they should have the possibility to have more time off from work – holiday time – than they report actually taking. On the basis of the survey, the majority (56% of the respondents) had taken 4–6 weeks of holiday or paid leave during the previous 12 months. The annual working hours of university research and teaching personnel of 1,612 hours divided into 39 hour work weeks would mean slightly more than 41 work weeks per year. Calculated thus, those within the total working hours system of the universities would have the possibility for 10–11 weeks of holiday each year.

Those who work by virtue of grant funding had taken less time off, and up to 23% of grant-funded researchers had not taken any time off. We feel that not taking time off is

a concerning phenomenon which, particularly in the long run, does not support coping and well-being at work. As stated in our good grant practices (2024)^{xiii}, “research financiers, universities, supervisors, and research groups can promote a healthy working culture and sustainable well-being by reminding grant-funded researchers of the importance of holidays and recovery and also by supporting them in their recovery from work.” It is important to recognise and communicate clearly that the working hours of grant-funded researchers are not monitored, and that financiers do not expect recipients to work without time off for the entire 12-month period of the year, even if funding is granted for a period of 12 months.

Generally speaking, the image and experiences reported through the survey paint a negative picture of grant-funded work. On the other hand, the survey also shows that positive changes have taken place in this area. The first and notable change is that nearly everyone who is working on grant funding reported that their university does not charge rent for their workspace. This means that FUURT’s recommendation not to charge grant-funded researchers for their workspace is taking root very nicely. We hope that this new state of things will become the established practice. The output of grant-funded researchers – publications, completed doctorates, and other scientific and societal impact – definitely compensates universities for the workspace and tools they provide.

This latest survey seems to indicate that the amount of other work that grant-funded researchers are doing without receiving compensation has decreased. It may be that the part-time employment contracts signed with grant-funded researchers at many universities have clarified the situation and work is no longer being done without compensation to the same degree. Having said that, the situation could still be better, and we hope that in the next survey, there will no longer be any respondents reporting doing work without proper compensation.

Moving forward, there is a need to monitor the development of the workload and working hours of those with combined funding (simultaneous employment and grant funding). At the moment, those with combined funding report working longer work weeks than other respondents. Even though a part-time employment relationship can be a good form of additional income for someone receiving grant funding and may help to establish the researcher’s position within the workplace, we do not feel that, in the long run, it is recommendable for this form of funding and working to become excessively burdensome in terms of working time and volume.

The majority of those with grant-funding reported that they had a resource, affiliation, or similar agreement with a university. Such an agreement is, however, more common among Finnish respondents than those with an international background. Is this also an indication that the provision of orientation concerning working conditions and rights is weaker for international researchers than it is for Finnish researchers? Another possible factor may be that an international researcher from a non-EU/EEA

country must have a hosting agreement with the receiving research organisation in order to get the necessary residence permit, and this may, in practice, be viewed as a compensatory agreement.

At FUURT, we hope, especially now when the number of doctoral researchers and early career researchers is growing at Finnish universities and many of the researchers have an international background, that their orientation would be realised thoroughly and a sufficient amount of time would be set aside for that purpose. It is in everyone's interest for employees and researchers, regardless of their source of income, to fully know their rights and obligations, or at least to know whom to ask and where answers may be found.

Academic unemployment and insufficient guidance

Of the respondents, 6.3% were unemployed at the time of the survey, but as previously stated, experiences of unemployment are more common than this figure indicates and the periods of unemployment are also relatively long. The lengthening of unemployment periods is a sad indication of the slow pace of academic recruiting processes and research funding applications as well as the limited scale of the labour market for researchers in Finland. Respondents who were or had been unemployed often had negative experiences with the TE Office services and even had difficulty getting unemployment benefits. Some of the problems may stem from the fact that the availability of employment services and unemployment benefits for persons with the right to pursue doctoral studies varies depending on the individual's work history or the current stage of their dissertation.

An individual is not entitled to unemployment benefits if they are studying full-time for a doctorate. But the guidelines on how different studies might still be advanced during a possible period of unemployment are not entirely clear either. We would like the relevant authorities to provide clear information and guidance for unemployed jobseekers on what part-time studies might entail. At the same time, we, as a Union, would like to remind the employment authorities that working by virtue of grant funding is not comparable to being an entrepreneur. When the grant ends, the full-time research work also ends and the individual is not "unnecessarily" applying to be an unemployed jobseeker.

Problem situations within the academic community

This most recent survey also included completely new topics and questions. We wanted to focus on experiences with the academic environment and work community from many different angles, and for that reason, we also asked about possible negative experiences with the community. The responses we received regarding experiences with bullying, discrimination, and sexual harassment within the academic

setting painted a more unfortunate picture of the university community that is rarely discussed. We feel it is important to encourage discourse, also as concerns this difficult topic. It is not our intention to cast blame but to strengthen the openness and equality of the academic environment.

On the basis of our survey, early career researchers most commonly experience inappropriate treatment by their advisors, supervisors, and other senior colleagues. It is particularly interesting that the perceived reason for such treatment was often stated as being the respondent's age. The next most common reasons were factors related to gender, language, or another issue, such as one's family circumstances. Is there some optimal type of researcher, and if a (early career) researcher does not correspond to that based on their age, life situation, or background, will they be subject to inappropriate treatment within the work community?

It is important for supervisors to be aware of the sensitivities related to academic work and the environment and to be able to take into account and address any negative experiences that may arise, for example, in supervision situations. On the other hand, universities must consider their own structural factors, particularly those concerning hierarchy and power relations, which can have a negative impact on interactions both within an educational institution setting and a workplace and work community setting. Inappropriate behaviour can have serious consequences for an individual's health and well-being. This is why it is vital that, as a community, we endeavour to eliminate such adverse phenomena and, if such problems should arise, to address them properly and with equal respect for and input from all parties involved. In possible problem situations universities must ensure the possibility for individuals to complete their research work and doctoral studies.

For the first time, the survey also contained a question about experiences regarding responsible conduct of research (RCR). Experiences with RCR violations are less frequent than the more common forms of inappropriate treatment. The difference may lie in the fact that the definitions and examples of RCR violations are more concrete and limiting than one's understanding of inappropriate treatment based on personal experience. Training, guidance, and rules on research ethics and responsible conduct of research are also more readily available. Although some respondents had negative observations and experiences related to RCR, the general situation regarding research ethics appears to be quite good within the Finnish scientific community.

Factors for strengthening the appeal of academic careers

At the end of our previous survey report (2021), we considered the factors that affect the appeal of a career in research. This time around, we decided to ask about it directly from the early career researchers. To that end, we added a comprehensive question

in which we asked respondents to assess different work related factors and whether they feel that those factors increase or decrease the appeal of an academic career.

The strongest factors in terms of the appeal of an academic career included academic freedom, work content, independence of work, work within an employment relationship, as well as the work community and colleagues. These are issues for which we can be grateful and which we want to continue to nurture in the future as well. Let's maintain and strengthen these positive factors together as we move forward!

The factors that respondents felt had a weakening effect on the appeal of an academic career included competition for research funding, the fixed-term aspect of employment relationships, working on a grant, and the low earnings level in comparison to other workplaces and positions. These are not surprising results by any means. This does not, however, mean that they should be overlooked as meaningless but, rather, they require action: by developing and improving these factors, we can significantly strengthen the appeal of academic careers.

From FUURT's perspective, this translates to a need for considerably more stability when it comes to research funding and research work. A significant amount of overall research funding is currently being budgeted in Finland, but it is not distributed equally among different financiers, organisations, or fields of research. As a Union, it is our opinion that public R&D funding should be allocated more directly to the core funding for higher education in order to strengthen research careers and, in particular, multidisciplinary basic research must be nurtured. At the same time as doctoral education numbers increase, R&D funding must ensure that R&D jobs requiring a doctorate will become widely available in different sectors.^{xiv}

Furthermore, strengthening the appeal and stability of research careers requires that research financiers trust their researchers and employers commit to their employees by guaranteeing them an employment relationship, funding, and the required working conditions through the entire planned project. With regard to those working on grant funding, continued focus needs to be placed on assuring that their working conditions and position as part of the work community are strengthened and clarified, and that social security is developed further to better consider grant-funded work. Additionally, the monetary value of grants should be increased to a level that would genuinely "free" the researcher from having to do other salaried work, as is the objective of many organisations that award grant funding. As part of the upcoming collective bargaining round of the universities (spring 2025), attention should particularly be paid to the salary development of early career researchers, since it badly trails behind that of other sectors.

RDI investments must bolster the career outlooks for early career researchers

In terms of career outlooks, the hopes and plans of early career researchers remain quite the same as earlier: the highest level of interest is in universities and jobs in the public sector, but there also appears to be interest in employment options in the private sector and even entrepreneurship. It is worth noting that there is increased interest in universities of applied sciences as employers.

Particular notice should be given to the fact that many of the respondents with an international background view it as likely that they will continue their career outside of Finland. This scenario was true for both research positions and other positions. It is natural for international researchers to have a heightened interest in career opportunities abroad, but we must pay more attention to this issue in Finland. It is FUURT's opinion that we, as a whole society, must decisively take measures to ensure that international talent has an increased opportunity to become employed and settle in Finland.

Finally, it should be noted that, at the same time as political measures are being taken in Finland and public R&D funding is being increased so that RDI investments can reach four per cent of the GDP by 2030, it does not seem that this yet boosts early career researchers' confidence in their career outlooks and research activities in the future. The majority of survey respondents expressed concern about the general development of research funding. We believe that this reflects the long prevalent experience that research funding and investments are divided very differently among different sectors and organisations.

Particularly respondents from the humanities and social sectors, which is a significant percentage of our survey respondents, are worried about their own sectors and career prospects. It is FUURT's opinion that, in particular, public research and development funding must be allocated so as to ensure that the diversity of our research activities does not taper off disproportionately, but that the quality and vitality of scientific activities and the highest competence are assured across the board.

8. REFERENCES

- i [Students and degrees, University education](#). The most recently available data was used (2022 or 2023 depending on the variable in question).
- ii Possible "*I don't know/Does not apply*" responses were removed.
- iii "*I don't know/Does not apply*" responses were removed. These statements accounted for a higher proportion than usual (up to almost a third), as not everyone's job involves teaching, for example.
- iv Only factors with statistical significance ($p < 0.05$) are presented here.
- v Cronbach's alpha for the six variables is 0.777. If the statement "*I have the suitable space, devices and equipment for remote work*" were removed, Cronbach's alpha for the five remaining variables is 0.780. Since the content of this statement is different, the sum variable is made for the five variables without it.
- vi When the statements are aligned, Cronbach's alpha for the six variables is 0.753. The result is not improved by removing any of the statements, so the sum variable was made from all six variables.
- vii [Student Barometer 2022](#) The response options for questions concerning inappropriate treatment in the Barometer was *other students; teachers* and *other educational institution personnel*. (in Finnish)
- viii [Results from the largest European survey on gender-based violence in academia](#).
- ix The data on Finnish and Swedish-speaking foreign respondents was so minimal that they were removed from the Figure.
- x [The Finnish Code of Conduct for Research Integrity and Procedures for Handling Alleged Violations of Research Integrity in Finland 2023](#).
- xi [Research integrity during the COVID-19 era: Research Integrity Barometer 2023](#). (in Finnish)
- xii Revised [European Charter for Researchers \(2023\)](#).
- xiii [Grant-funded work! FUURT's policy for good grant practices in universities \(2024\)](#)
- xiv See [FUURT's statement \(24 May 2024\) on the multiannual plan for the use of state research and development funding](#). (in Finnish)



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