



SURVEY FOR EARLY-CAREER RESEARCHERS IN FINLAND 2017

An English Summary

By the Finnish Union of University Researchers and Teachers

1 Introduction

The Finnish Union of University Researchers and Teachers (FUURT) is the biggest trade union representing university personnel and has notable influence on Finnish research and higher education policies. FUURT's early stage researchers' working group monitors the interests of PhD candidates and those recently awarded their doctorates. The main aim of the working group is to establish the professionalism of early academic career stages and influence any specific questions related to early-career researchers. The term early-career researcher (ECR) refers to doctoral candidates and those who have recently (within 1-4 years) been awarded their doctorates.

ECRs form the biggest personnel group in Finnish universities (over one third of the total person-years). They produce a significant portion of the total research output of the universities and are a notable expert group in both private and public sector. Yet, there has been a growing concern over the status and working conditions of ECRs. The total number of awarded doctorates has increased significantly from circa 800 doctorates awarded in the early 1990's to approximately 1800 awarded in 2018. The number of academic positions has not increased in similar proportions, however. Together with declining funding, these two factors have led to changes in the nature of ECRs' careers and, to some extent, to increasing feelings of insecurity concerning, for instance, career options, working conditions and livelihood.

In this report, we present the results of a survey aimed at ECRs in Finland in late 2017. The survey examined the working conditions, funding, as well as career plans and perspectives of ECRs. The data was collected through an open internet form using mainly multiple-choice questions together with some open questions. In order to reach as many ECRs in Finland as possible, the survey was disseminated in three languages: Finnish, English and Swedish. The analysis consists of mainly descriptive statistics. T-test and analysis of variance have been used in between-group comparisons (where the assumptions of the tests have not been met, non-parametric methods have been applied). For clarity, the numbers in the report have been rounded to the closest whole number (hence, the results are total sums of over 100 % in some tables). The open questions were analysed by the means of thematic analysis (categorising the answers according to the themes arising from the data).

A more comprehensive report covering the results of the survey was published in Finnish in 2018. In this summary, we present the most important results and especially those relevant for the status of foreign (non-Finnish) ECRs working in Finland.

2 Participants

In total, 1870 ECRs took part in the survey. 64 % of the respondents were female and 33 % were male. Approximately 2% did not want to give out their gender or were of the gender 'other' – these responses are left out from the comparisons between the groups. Of the non-Finnish respondents, 51 % were male and 49 % were female.

Table 1 Distribution of respondents' age according to nationality

AGE	FINNISH (%)	OTHER (%)
Under 30	15	26
30-39	59	63
40-49	19	7
50-59	5	4
60+	1	1

1 Kokkonen, Harjumaa, & Salonen (2018)
https://tieteentekijoidenliitto.fi/files/2932/nuoret_tutkijat_raportti_pe_valmis_sivut.pdf

Table 2 Form of dwelling with respect to nationality

FORM OF DWELLING	FINNISH (%)	OTHER (%)
With a spouse	36	33
With a spouse and children	34	22
Alone	24	33
Single parent	4	1
Shared flat	2	9
Other	1	0,6
With parents of relatives	0	0,4

As females make up approximately 54 % of the person-years at the universities at the first career stage (those working under the title of doctoral student or equiv.), we may note that females are significantly overrepresented in the present data.

The mean age of the respondents was 36 (SD = 7,5; Md = 35). The difference between the mean age of females (35,2) and males (36,4) was statistically significant. 86 % of the respondents were Finnish and 9 % were foreign – 5 % did not report their nationality. The proportion of foreign employees of the total person-years at Finnish universities is approximately 30 %. We can therefore say that Finns are significantly overrepresented in this survey. The distribution of the respondents' age according to nationality is presented in Table 1. The housing conditions of the respondents is presented in Table 2. We can see that over two-thirds live with their spouses or with their spouses and children. Living alone or in a shared flat was more common among foreigners, however. The respondents' branches of science are presented in Table 3. There were significant differences in the distribution of branches between genders and between nationalities.

Technical and natural sciences were more common among men and among foreigners. Only 10 % of the foreigners reported humanities as their field of study.

The time it took to complete a doctorate was on average 6,3 years. There were significant differences among branches of science. Those in technological (M = 4,9) and natural sciences (M = 5,4) graduated significantly faster than those in other fields of science. Foreigners also graduated significantly faster than Finns, which can be explained by the fact that most of them work in technological and natural sciences.

The target time for completing one's doctorate is 4 years. Being able to complete one's doctorate in the target time frame was somewhat associated with one's funding. Of those, who had only one funding source for the duration of four years, approximately 60 % could complete their doctorate in time. Of others, only 30 % could complete their doctorate in 4 years. Notably, under 25 % of the respondents had had only one funding source for their PhD research. One fifth had had as many as 5 or more funding sources. It is no wonder then that applying for funding was seen to take too much time.

Table 3 Respondents' branch of science according to gender and nationality

BRANCH OF SCIENCE	GENDER		NATIONALITY		ALL (%)
	Female (%)	Male (%)	Other (%)	Finnish (%)	
Humanities	23	15	8	22	20
Behavioral sciences	9	6	2	9	8
Natural sciences	13	24	30	15	16
Medicine	10	6	5	9	8
Technological sciences	6	17	16	9	9
Social sciences	15	13	10	15	14
Other	24	20	29	22	24

Notably, the amount or quality of supervising was not associated with faster graduation. Still, it is worrying that many are left without sufficient supervising. Approximately one fifth reported that they had not received sufficient supervising. 5 % said that they had discussed their thesis with their supervisor more seldom than once a year and almost 30 % only 1-5 times a year.

3 Working hours and pay-related issues

The level of pay of ECRs is relatively low when compared to Finnish workforce with similar educational background. The median salary for a full-time doctoral candidate was reported to be between 25000–29999 euros, which corresponds to 2000–2500 euros per month. There was no difference between the median salaries of Finnish and foreign doctoral candidates (see Figure 1). The median for ECRs with a doctorate was 40000–49999 euros per year corresponding to 3300–4200 per month. The number of foreign doctorate holders was so small that comparison to Finns is not meaningful.

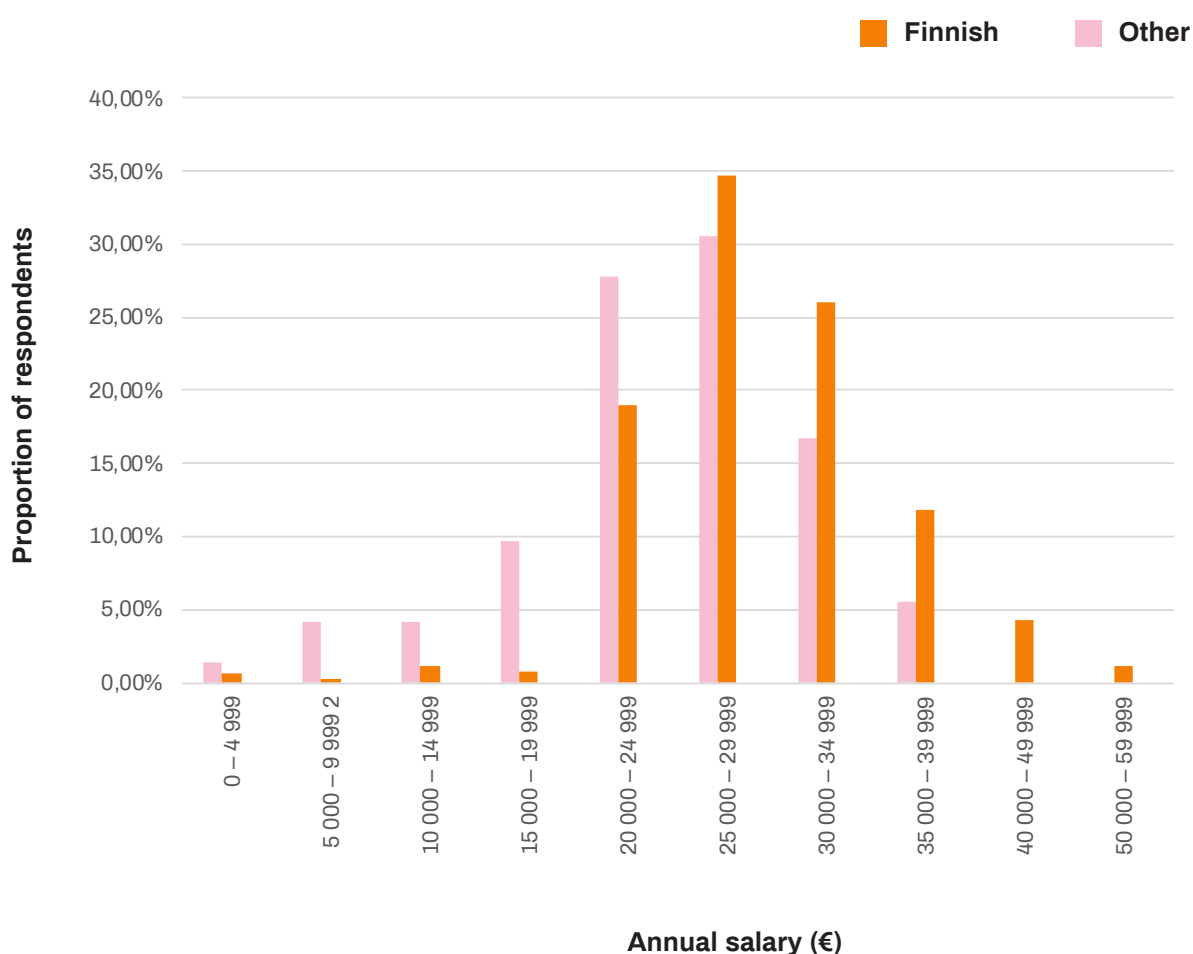
Just over half of the respondents had the opinion that their pay is too low relative to their duties. The other half reported that their pay was adequate. Almost 40 % of the doctoral candidates reported that their pay did not match the workload and demands of their job. Approximately 25 % of those with a doctorate were of this opinion. About 50 % of grant recipients thought that their grant was too small and almost one-third reported that the grant did not match the workload and demands of the job. There were no statistically significant differences between Finns and foreigners in these questions.

About 60 % of the grant recipients and 68 % of employees reported that their income is sufficient to cover their living costs. It is remarkable, however, that 18 % of grant recipients and 14 % of employees had difficulties to make ends meet. There were no differences between nationalities (Finns vs. foreigners) but single parents and those living with a spouse and children had difficulties more often than others.

² Puhakka & Rautopuro (2017) https://tieteentekijoidenliitto.fi/files/2031/Ja_senkysely2016.pdf
Puhakka (2018) https://tieteentekijoidenliitto.fi/files/2598/fuurt_survey.pdf

FUURT's previous surveys² have found that working hours of university personnel exceed the 1624 hour allocated in the collective bargaining agreement. This is especially true for those with more teaching duties. A similar trend is present in our results. The 1624 hours per year amounts to 36,25 hours per week. Yet, doctoral candidates reported that they work 41,5 hours per week on average (SD = 6,9; Md = 40). ECRs with a doctorate reported on average 43,1 hours per week (SD = 6,9; Md = 40). We have excluded those who reported 25 hours or less in order to include only those with a full-time contract in the analysis (this was not explicitly asked in the survey). There were no differences in the reported working hours according to gender or nationality.

Figure 1. Doctoral candidates' yearly (gross) salary for full-time employees according to nationality.



University personnel reported that they had taken on average 3,4 weeks of leave (SD = 2,1; Md = 4) during the last year. Over a half of the respondents had taken less than four weeks leave and 17 % had not taken any. While there were no differences according to gender, foreigners had taken less leave than Finnish respondents: on average only 2 weeks (SD = 2; Md = 2). According to the collective bargaining agreement, university personnel do not have any holidays per se (as the working hours are defined on a yearly basis). This might make the situation rather unclear for the employees. The situation might be worsened by the fact that many supervisors are also the PhD candidates' bosses. As one respondent described:

"The right to have a vacation should be emphasised. During my first two years, I did not have any vacation, as I practically did not have a permission for it from my supervisor (who is also my boss)."

Thus, supervisors should take care in making sufficient holidays possible.

4 Uncertainty over careers

Finnish universities have suffered from the funding cuts made by governments in the 2010s. For example, the University of Helsinki laid off almost 400 persons in 2016 and will reduce almost 1000 persons by 2020. It is no wonder, then, that ECRs feel insecure about their future careers.

According to various reports, approximately 40 % of recently graduated doctorate holders will be employed at universities. In our FUURT survey, over half of the respondents would rather work in the university sector. As only one-fifth of them believed they would be employed at the university sector in the future, one could say that they are realistic in their hopes. Despite this, over 70% of the respondents saw themselves as researchers. The open questions reveal that many would like to pursue an academic career, which was viewed as something they are interested in and would like to devote themselves to. However, many respondents saw that there are various obstacles on the way, which led some to abandon their hopes and pursue a career outside academia. University as an employer, working environment, the insecurity of academic careers and small salary were among the obstacles listed.

Open questions revealed a plethora of reasons for the feelings of insecurity. While many wanted to work as academic researchers, they felt that the societal situation, universities' financial and organisational situation, lack of funding, insecurity and competition over funding and careers, as well as other financial and mental health issues were pushing them away from fulfilling this ambition. Lack of prospects and uncertainty caused some to express cynicism and disappointment. As one respondent put it:

“My dream is a career as a researcher at the university. However, because of the insecurity of the job (fixed term, project-based contracts) the career is not self-evident, as one might suddenly have to apply for other jobs, or worse, be unemployed. This kind of insecurity lowers one’s motivation because no matter how well you do your job it does not guarantee a job at the university. It is difficult to work for several years for something you like and at the same time be afraid of losing the job if, for example, you are not able to acquire funding.”

5 Inequality in the work community

ECRs strongly see themselves as researchers despite the feelings of insecurity regarding their careers. Yet, over 40 % feel that they are not part of their work community. This number was even bigger among the grant recipients. There was no difference between Finnish and foreign ECRs. It is worrying that so many of apparently devoted ECRs consider themselves outsiders in their working community. The open questions revealed that short working contracts and an ambiguous status in the scientific community are among the top reasons for feelings of alienation. One central theme in the open answers was the cry for equality within and among universities. The exclusion of fixed-term employers and grant recipients from university pedagogic training was given as a concrete example of the present inequality. Another example of the alienation and exclusion from the community is the way in which some grant recipients are left out from the university staff mailing lists.

One major issue causing inequality are the fees some grant recipients have to pay to their university in exchange for an office space and other facilities. It is untenable that grant recipients whose research output is included as part of the

result of the university are asked to pay for the right to use the facilities needed to conduct research. 13 % of the grant recipients reported that they have to pay a fee to the university. The typical fee is between 1501–2000 euros per year. On top of these kind of fees, 9 % reported that they have had difficulties in getting a right to use facilities that are essential to conducting research (such as email or a photocopier).

Gender inequality is also an issue in the academia. The short-term nature of the working contracts and grants does not go well with taking care of children – let alone with being a single parent. As much as one third of the female respondents said that they had postponed having children because of career-related issues. This proportion was significantly lower for men (just over 20 %). Also, so called leaky pipeline³ phenomenon works against women. This means that there are fewer women at the more senior positions (lecturers, professors) than among the students or doctoral candidates.

6 Conclusions

The European Charter for Researchers and The Code of Conduct for the Recruitment of Researchers (2005, so-called Charter and Code) issued by the European Commission emphasises that:

“All researchers engaged in a research career should be recognised as professionals and be treated accordingly. This should commence at the beginning of their careers, namely at postgraduate level, and should include all levels, regardless of their classification at national level (e.g. employee, postgraduate student, doctoral candidate, postdoctoral fellow, civil servants).”

Based on the results of the survey, we conclude that this still does not actualise in all cases. The income levels of especially doctoral candidates are relatively low. Additionally, the fragmentary nature of the funding prolongs the graduation and interferes with the research as one might have to apply for additional funding many times during the course of doctoral training.

² Puhakka & Rautopuro (2017) https://tieteentekijoidenliitto.fi/files/2031/Ja_senkysely2016.pdf

Puhakka (2018) https://tieteentekijoidenliitto.fi/files/2598/fuurt_survey.pdf

The Ministry of Education and Culture has proposed that the time allowed to pursue a doctorate to be restricted. This proposition cannot be endorsed. It is difficult to see how it would shorten the graduation times, as the main problems are likely to be funding and the precarious nature of the ECR's career.

One obvious way to strengthen the professionalism of ECRs is to raise the income levels and increase the possibilities for getting the funding for the whole time it takes to complete one's doctorate. With regards to grant recipients, specific means to improve their situation include increasing the level and length of the grants. Also, the Finnish grants should be taken into account in the universities funding scheme. This way, the universities would be compensated for each grant received by its researchers. This could encourage the universities to better recognise the input of the grant researchers and improve their working conditions.

As research careers have become more diverse (that is, more doctorate holders are employed outside academia), universities should include career guidance into the doctoral training. This could alleviate the stress and feelings of insecurity ECRs have over their careers. The guidance could be organised in co-operation with the private and public sector. This could serve a double purpose: make doctoral candidates more aware of their career opportunities and make other sectors of the labor market aware of the skills and competences of the ECRs.



TIETEENTEKIJÄT

**THE FINNISH UNION OF UNIVERSITY
RESEARCHERS AND TEACHERS**

The Finnish Union of University Researchers and Teachers (FUURT) is a professional organisation for teachers, researchers, library personnel and other academic experts at universities and research institutions.