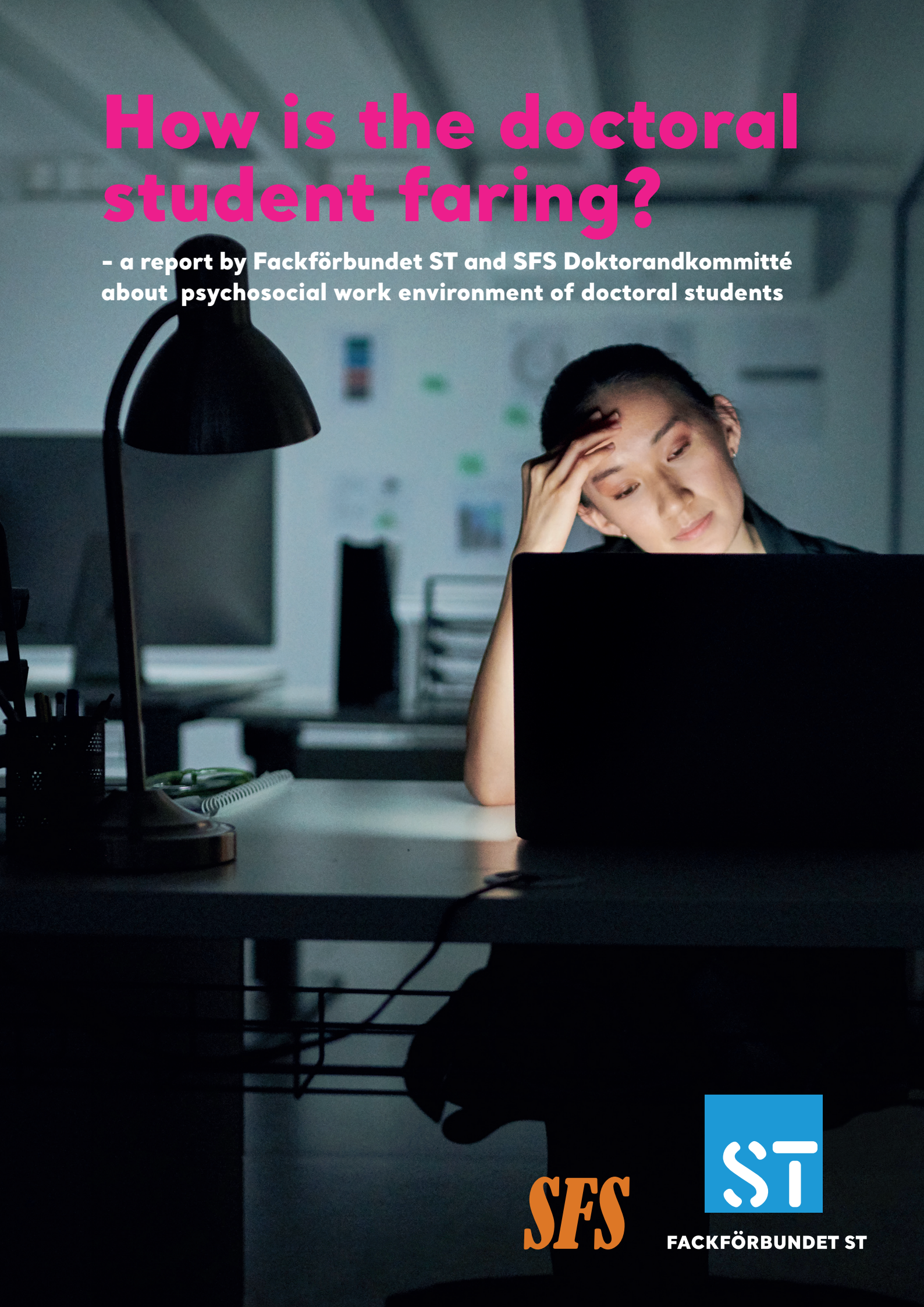
How is the doctoral student faring?

– a report by Fackförbundet ST and SFS Doktorandkommitté about psychosocial work environment of doctoral students



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The results in brief:

- The majority of doctoral students have a doctoral studentship[1] and the vast majority consider themselves to have a good relationship with their supervisor.
- One-fifth of respondents stated that, a couple of days a week, they had difficulties sleeping due to the job. This problem was more common among doctoral students at Stockholm University, where 30 percent stated that they suffered from sleep problems.
- Around 25 percent stated they have to work overtime several days a week. Among respondents with a foreign background, the percentage of those having to work overtime several days a week was 35 percent.
- More than 35 percent of respondents stated that they found it difficult, every day or at least a few times a week, to think of anything other than their thesis work. This was especially true of women, younger doctoral students, and Swedish doctoral students.
- Just under a tenth of the respondents were contacted by someone from their workplace during their spare time, on several occasions per week. About the same number stated that they were contacted in connection with work once a week during their spare time.
- Just over a fifth of all respondents stated that they had not had the possibility to take vacation.
- Almost 25 percent stated that they were always able to exercise influence over their work, and more than 60 percent stated they had this ability for the most part.
- Around 30 percent of respondents felt that their doctoral studies had not progressed in accordance with their expectations.
- Around 30 percent did not think the individual study plan (ISP) was meaningful and just over 10 percent stated that the plan was a source of stress.
- Fifteen percent of the respondents stated that they had felt insecure due to conflicts at work.
- Just over 16 percent of all respondents stated that the pandemic had had a severe negative impact on their doctoral studies. Almost half of the respondents felt that the pandemic had had some degree of negative impact.

[1] A type of employment contract specifically designed for doctoral students

Proposed measures

- Establish doctoral studentships[2] from day one!
- Provide managers at higher education institutions with training on their responsibilities as employers, ensuring they are well informed about the particularly vulnerable position of doctoral students. It must become clear to doctoral students who it is that makes decisions about their working conditions.
- Invite all new doctoral students to an introduction, which should include information on their rights and obligations as doctoral students. Important that such an introduction is adapted to each higher education institution.
- Create a national information source covering doctoral education and the conditions of doctoral students.
- Ensure compliance with the Working Hours Act and the Annual Leave Act for all doctoral students. The department head must take their responsibility as employers, while established researchers should set a good example.
- The trade unions must do active monitoring work to ensure compliance with the Working Hours Act and the Annual Leave Act for doctoral students.
- The trade unions must engage more actively with the conditions of doctoral students and ensure that their work is relevant to doctoral students, and that doctoral students are aware of the work.
- Continue to invest in training for supervisors. The training should address the challenges of doctoral students and should be conducted on an on-going basis. National guidelines and follow up are needed.
- Increase information and knowledge about the role and significance of the individual study plan with regards to both rights and obligations - not least in order to create a supporting framework for the doctoral studies to proceed according to expectations.
- Intensify systematic work with issues pertaining to the work environment. Focus particularly on the working environment of doctoral students. As trade unions and student unions we must be prepared to state the need for this work in all contexts where we interact with employers.
- Work more inclusively: create spaces for doctoral students where they can have real influence, both as employees and students.

[2] A type of employment contract specifically designed for doctoral students

- Work to prevent the occurence of threats, violence, harassment, demeaning treatment and discrimination. The higher education institutions must review their mechanisms for reporting all forms of harassment and threats, to ensure that doctoral students are given a real opportunity to report incidents.

- Keep focused on the consequences of the pandemic on doctoral education, and develop strategies for the higher education institutions to ensure that quality remains high and to minimize negative consequences on the already problematic work environment of doctoral students.

Introduction

Being involved in, and enacting influence on, the organization of research is part of the social responsibility of The Union of Civil Servants (Fackförbundet ST). But the research world is of interest for several other reasons as well. Universities are not only educating tomorrow's researchers. Many of those graduating today will be the experts and leaders of the future, in companies and organizations, in national government and in local administration. Therefore it is of vital importance even beyond academia that higher education institutions (HEIs) offer good working conditions and a democratic working environment.

For the Swedish Alliance of Student Unions (Sveriges Förenade Studentkårer - SFS), who organizes the monitoring of doctoral education at the national level and promotes issues pertaining to doctoral students, it is a matter of course to work towards creating good working conditions and a safe working environment. The reason for SFS's commitment is that doctoral education is a form of education, and SFS works for good conditions for all students, including doctoral students. In order to have the best educational opportunity, doctoral students need a good study and work environment and the appropriate support from the university.

SFS's member unions and the doctoral committee in SFS can attest to shortcomings in today's postgraduate education and the conditions under which doctoral students work. Addressing the issue of the doctoral students' psychosocial work environment is therefore very timely.

There have been warning signs about the pressures created by the work environment of doctoral students for some time. It has also been apparent in the work of local trade unions and of student unions that many doctoral students feel unwell and experience anxiety and stress.

Another reason we are interested in the work environment of doctoral students is that education plays a central role in society. Through research, new knowledge and ideas are often spread far beyond the academic world. It is here that an important part of the public conversation is initiated and maintained. At the same time, the resources given to research are increasing and research is expected to solve many of the problems facing the world. It is for these reasons, among others, that Fackförbundet ST and the doctoral committee in SFS wrote this report. The report is authored by Inger Ehn Knobblock, investigator at Fackförbundet ST.[3]

[3] The report has been translated into English by Irina Dumitru.

01

Spending on research and development is increasing in Sweden

In Sweden, 171.1 billion SEK were spent on research and development (R&D) in 2019, an increase of 3.7 percent compared with 2018 and 4.4 percent compared to 2017. In 2020, the government allocated additional funds to meet emerging needs due to the COVID-19 pandemic and it continues to do so in the research policy bill because, according to the government, restarting society after the pandemic requires research and innovation.

Sweden is among the three countries in the OECD who invest the most in research and development as a share of GDP. The other two, Israel and Finland, invest slightly more than Sweden. In Sweden, R&D expenditure has been relatively stable and maintained a level of between 3–4 percent of GDP during the 2000s.

Doctoral education

The highest degree you can obtain in Sweden is a doctoral degree, which you receive after graduating from a doctoral education programme. Today, 1.3 percent of the population aged 25–64 have a doctorate. This corresponds to approximately 70,000 people.

Women are on the rise

Previously, a majority of the doctoral graduates in Sweden were men, the proportion being almost 80 percent in the early 1990s. In the meantime the proportion of women has increased relatively fast and today the distribution is much more even. If you study the group more closely, you can also see that the proportion of those with a foreign background is higher among doctoral students than in the general population. Nearly 40 percent of the doctoral graduates have a foreign background.[4]

More women than men among newly admitted doctoral students

In 2019, 3.100 doctoral students began an education at the doctoral level. Among these new doctoral students, 51 percent were women and 49 percent men. The share of women among new doctoral students has increased by one percentage point compared to 2018 and is for the first time ever greater than the share of male students. In the early 1990s, around a third of doctoral students were women.

The most common research area among newly admitted doctoral students was medicine and health sciences. The gender distribution in medicine and health sciences is dominated by women, with 62 percent women and 38 percent men. The proportion of men was highest in natural sciences, with 62 percent men and 38 percent women.

[4] https://www.ekonomifakta.se/fakta/utbildning-och-forskning/utbildningsniva/forskarutbildade-i-sverige/ År 2018 var 42 procent, av doktorandnybörjarna utländska doktorandnybörjare. Med utländsk doktorandnybörjare avses de personer som har kommit till Sverige för att genomgå utbildning på forskarnivå.

Number of doctoral students

During Autumn 2019, the number of active doctoral students was 17.000, of which 8.310 were women and 8.690 men. From 1973 to 2019, the number of women among doctoral students has increased from 2.350 to 8.310. The number of men is largely unchanged. This means that nowadays the gender distribution among doctoral students is even.[5]

Men are younger than women

The share of doctoral students who were 29 years of age or younger was 35 percent among men in 2019. Among women, this share was 29 percent. Among women, 27 percent were older than 40 years, compared to 20 percent of men.

Six out of ten doctoral students were studying full time

During Autumn 2019, 58 percent of doctoral students were studying full time. The share of those studying full time was larger among men. The largest share of full time students was in natural sciences, at 73 percent. The share was the lowest in medicine and health science, with 44 percent of doctoral students in these fields studying full time.

Financing: six out of ten doctoral students had doctoral studentships

The most common way of financing education at doctoral level in 2019 was through doctoral studentships. Sixty-four percent of doctoral students had such an employment. The corresponding share for newly admitted doctoral students was 69 percent. In the last two years, new doctoral students have been financed through a doctoral studentship to a greater extent than doctoral students in general, the reason being that the doctoral grant has been gradually abolished at the higher education institutions, and they instead offer doctoral studentships to new doctoral students from the beginning of the education. In 2019, only 30 doctoral students received doctoral grants. As of 1 July 2017, it is not permitted to set up doctoral grants. In addition, new regulation regarding scholarship funding has also led to an increase in the proportion of doctoral students with a doctoral studentship.

Continued high number of doctoral degrees

2,750 doctoral degrees were issued during 2019 - 40 degrees less than in 2018. This means that the number of doctoral degrees has been decreasing for three years in a row. Looking at the situation in a more long term perspective, however, we see that the number of doctoral degrees has increased markedly.[7]

[5] https://www.scb.se/contentassets/58042017f8e646cda97e6749d2bf08e0/uf0204_2019a01_sm_uf21sm2001.pdf
[6] A grant used for the financing of doctoral students, paid by the higher education institution.
[7] Statistics Sweden, Universities and university colleges. Third-cycle students and third-cycle qualifications 2019.

02

Background and past surveys

Doctoral education is the last step before the role of independent researcher takes over. The Royal Swedish Academy of Sciences states that "doctoral education has a key function in the development of higher education and research through its self-propagating task [...]"[8]. Sweden's future research and growth is dependent on well-educated doctors and that postgraduate education is of a high standard. Doctoral education has become a central part of knowledge and innovation policy in most countries.

Doctoral students represent our future cutting-edge competence; providing high quality doctoral education is therefore crucial for Sweden's future.
In 2003, the Swedish Confederation of Professional Employees (TCO)[9] and Fackförbundet ST conducted a survey on life as a doctoral student in order to find out what doctoral students thought about their research education and the supervision they get. The Swedish National Agency for Higher Education[10] - now The Swedish Higher Education Authority (UKÄ)[11] - has also examined the doctoral students' experiences of their education in the reports Doktorandspegeln in 2003, 2008 and 2016.

The quality of doctoral education depends to a large degree on the quality of supervision. In other words, the supervisors in the doctoral program have a great responsibility. According to UKÄ, every fourth doctoral student (27 percent) has experienced shortcomings in supervision serious enough to have hindered their work.

A fifth of doctoral students also stated that their dependency on their supervisors was a source of problems. UKÄ's surveys also reveal a connection between the relationship with the supervisor and the negative pressure and stress that doctoral students experience during their education.

Another study, under the auspices of the The Swedish National Agency for Higher Education and the Delegation for Gender Equality in Higher Education[12], was conducted in 2010. The purpose was to find out why doctoral students abandon their studies without graduating. Two thirds of all doctoral students stated that they had abandoned their studies either for social reasons (35 percent) or due to the doctoral program itself (31 percent). It was significantly more common for women (43 percent) to state social reasons than men (28 percent).

The surveys conducted before 2008 primarily focused on doctoral students and what they thought about the doctoral education and supervision.

Therefore, together with the doctoral committee in SFS, Fackförbundet ST conducted another survey in 2008 where we changed sides and turned to the supervisors. The survey resulted in two reports: Livet som handledare and Hur förbättras forskarutbildningen? In 2012, we were back again with the doctoral students -we wanted to know How is the doctoral student faring? In that report, we shone a light on how the doctoral students' psychosocial work environment looked. Now, eight years later, Fackförbundet ST and SFS are asking the same question and are also wondering if there have been any major changes and, if so, what those changes are.

[8] https://www.scb.se/contentassets/58042017f8e646cda97e6749d2bf08e0/uf0204_2019a01_sm_uf21sm2001.pdf
[9] A grant used for the financing of doctoral students, paid by the higher education institution.
[10] Statistics Sweden, Universities and university colleges. Third-cycle students and third-cycle qualifications 2019.
[11] Statist

[12] Delegation för jämställdhet i högskolan, in Swedish.

How is the doctoral student faring?

03

The survey

Fackförbundet ST and the doctoral student committee in SFS have, with the help of Statistics Sweden (SCB)[13], carried out a comprehensive survey of almost 1,000 doctoral students who answered questions about everything from work and supervision to sleep problems and whether they dare criticize their workplace. The psychosocial work environment of doctoral students has been the core focus of this initiative.

The survey consisted of 32 numbered questions. Four of the questions were background questions and the others were questions about the experience of the respondent. The form ended with three questions about the effects of the current COVID-19 pandemic on the doctoral student. In addition to the variables collected via the questionnaire, the following variables were retrieved from registers:

- Age and gender
- Background [14]

Two thousand questionnaires were sent out and a total of 934 people, representing 44.2 percent of the sample, answered the questionnaire.

Two thousand questionnaires were sent out and a total of 934 people, representing 44.2 percent of the sample, answered the questionnaire.

The population sample was made up of doctoral students at eight higher education institutions:

- University of Gothenburg
- Karolinska Institute
- Linköping University
- Luleå University of Technology
- Lund University
- Stockholm University
- Umeå University
- Uppsala University

Each higher education institution constitutes its own population. A sampling frame containing the eight populations was created from a number of different registers linked to the higher education register maintained by SCB. The sampling frame includes doctoral students up to and including the Autumn 2019 who have been active during Spring 2019 and Autumn 2019. Doctoral students who have defended their dissertations during Spring 2020 have been removed from the sampling frame. Out of those in the sampling frame, 45 doctoral students are active at two higher education institutions (including some higher education institutions outside the eight where the study was conducted). For doctoral students active at more than one higher education institution, the affiliation has been chosen according to the principle that a doctoral student belongs to the higher education institution where they had the highest activity during Autumn 2019. This may differ from the HEI where the doctoral student is enrolled. Furthermore, only doctoral students who have a social security number are included. The sampling frame was created on 31 August 2020 so it would be as current as possible.

Med denna rapport vill ST och SFS förmedla den bild forskarstuderande ger av sin arbetsmiljö. Vi undviker att späcka redogörelsen med tabeller och diagram. I stället kommer några särskilt angelägna teman att lyftas fram och diskuteras. De ger förstås inte en helhetsbild av doktoranders arbetsförhållanden, men det är de områden som vår undersökning pekat ut som mest betydelsefulla. Redan här kan dock konstateras att skillnaderna mellan lärosätena inte är särskilt stor, inte heller avseende kön, ålder och bakgrund. I de fall skillnader förekommer redovisas detta i den löpande texten. Underlaget till rapporten finns i sin helhet inklusive den tekniska rapporten att läsa på st.org samt sfs.se

[13] Statistikmyndigheten SCB, in Swedish.
[14] Swedish/foreign doctoral student: Combination of information from different registers. Foreign doctoral students refer to those who have named their studies as a basis for residence with the Swedish Migration Agency and had immigrated less than two years before the studies began, as well as foreign-born doctoral students who had immigrated less than two years before the doctoral studies began.

How is the doctoral student faring?

04

What is a doctoral student?

Doctoral education is four years long (but often takes longer to complete) and consists of individual studying, research with the help of supervisors, and the writing of a doctoral dissertation. In addition to these tasks, the doctoral student may perform departmental duties, which usually consist of teaching. The educational program leads to a doctoral degree. After the first two years, one can get a licentiate degree. The thinking behind doctoral education is that when one has finished one's dissertation, one should be able to act as an independent scholar. Within the higher education sector, you should be able to apply for a job as a postdoctoral fellow or an associate senior lecturer or, alternatively, apply for grants for various research projects. In practice, however, it is not that simple. During the 1990s, several so-called medium level academic positions disappeared and competition for research funding intensified.

Today, a doctoral student is a mix of student and departmental staff, receiving doctoral studentship. On the one hand, the doctoral student is still enrolled in an educational program; on the other hand, they are employed, just as any teacher or researcher. This results in a lack of clarity concerning responsibility - it is unclear to many doctoral students who is responsible for their work situation. Sometimes the doctoral student is treated as a student and the employer does not properly take into account labor rights. In other contexts, the doctoral student is considered a full-time employee, expected to be part of the research and teaching staff and prepared to perform qualified tasks as such.

05

Stress and the psychosocial work environment

The individual deals with the work environment as a whole: there are both physical and psychosocial factors that affect how one feels at work and how one grows within the workplace. A lot of research has been done on the characteristics of a good work environment and a workplace that offers opportunities for growth and development. These characteristics have to do both with removing physical risks and with creating the right conditions for opportunities to flourish. A good work environment provides stimulation, social connection, and a chance for the employee to understand their work as a part of the bigger picture. In addition, in a good environment, employees are given the opportunity to control and influence their own work. A good work situation is also characterized by the opportunity to combine it with a rich and sustainable private life.

One of the leading theories regarding the connections between health and working life is the *Demand-Control model*[15]. This model shows that the levels of stress in an employee's working life is not determined solely by the demands of the job. The impact of demands on stress depends on how much room for decision over the execution of their tasks the individual has, and on how much control the individual has over their work situation. Control means the employee is given the chance to influence the operation of the organization and to prioritize tasks. When given control, the employee can, using their expertise, handle any surprising situations that may arise. The balance between demands and control affect the individual's health, as does the ability to collaborate with others. A good balance between demands and control allows the individual to find their own approaches to manage stress. Under the right conditions, when the individual has a high degree of control, high demands can be beneficial. One can distinguish four typical situations:

- Tense work situation - high demands and low control.
- Active work - high demands and high control.
- Passive work - low demands and low control.
- Relaxed work situation - low demands and high control.

Tense work situations entail a considerable risk of stress and other problems, while active work leads

[15] https://www.prevent.se/amnesomrade/stress/karaseks-och-theorells-modell/

to a situation that is characterized by learning, development, and high productivity. Passive work, on the other hand, can lead to a negative learning process where you gradually lose previously learned skills. The *Demand-Control model* has been expanded with a third variable, social support, which highlights the significance of the individual's interaction with other people. Good social support has a positive impact on health and counteracts a possible imbalance between high requirements and low control.

Social support can come from both colleagues and managers. It can consist of help with prioritizing tasks, opportunities to hand over tasks to colleagues, or peer support. High control is believed to improve the individual's health, while low control has the opposite effect. The combination of low control, high demands and weak social support has the most negative impact on health.

Another central theory when discussing the psychosocial work environment is the *Effort-Reward model*[16]. In short, the theory says that the effort that the individual puts into the job must be in balance with the recognition or reward they receive from managers. If there is an imbalance, the risk of ill health increases. In the study ***Gränslöst arbete - En forskarantologi om arbetsmiljöutmaningar i anknytning till ett gränslöst arbetsliv,*** the new working life is described as a cause of stress.[17] Part of the explanation is that the new flexibility means that it is the individual who decides when, where, how and with whom they will work. The growing ambiguity in demands - when is work finished or good enough? - leads to the individual working much more than they would have done were the demands clearer. Many professional groups deal with the kind of tasks that can be "performed better than well" - there is no ceiling to quality, no given end point where the result is completely achieved. In addition, the performance reflects on oneself through reviews.

Thus, work becomes more intense overall and the individual needs to find ways to handle the increased demands. There are three major approaches:

- You work more. Within ordinary working hours, the individual achieves more and makes various extra efforts. This can mean increasing the pace, or working during lunches and breaks.
- You work more by exceeding ordinary time limits. If it is not enough to increase the pace within the regular time, you take the work home or stay longer at work.

- You work more by neglecting the conditions for good health. This may mean going to work even when you are ill. This may happen when it is hard to hand over tasks to colleagues, which means that the tasks pile up in the event of absence. An alternative is to take a holiday instead of taking sick leave. Working while sick increases the risk of further ill health as it hinders the possibility of recovery.

In summary, the research identifies several elements that affect the psychosocial work environment. Some factors have a positive effect on stress, health and well-being while others have a negative effect. For several of the factors, however, the relationship to stress is not so simple. Control over one's situation, for example, has a positive effect on health. But it is not enough on its own - it needs to be supplemented with support from colleagues and managers as well as with clarity regarding the demands of the job. The present report identifies both positive and negative signals coming from doctoral students about their psychosocial work environment. On one hand, doctoral students report that they have a lot of influence over their work - on the other hand, they often have to work overtime. The results are not easy to interpret as the responses are often contradictory - especially if one looks at them through the prism of the aforementioned theories.

[16] http://www.su.se/polopoly_fs/1.51208.1321608199!/temablad_arbetsmiljomodeller.pdf
[17] https://www.av.se/globalassets/filer/publikationer/rapporter/granslost-arbete-en-forskarantologi-om-arbetsmiljoutmaningar-i-anknytning-till-ett-granslost-arbetsliv_rap2018_1.pdf

06

Financing of doctoral education

In the following chapters, we present and analyze the responses to the questions in the survey. This section is about financing.

How are your PhD studies primarily financed? The majority of respondents had a doctoral studentship: 64 percent of men and 72 percent of women. In our survey from 2012, the result was almost the same. This result deviates slightly from the total population of doctoral students: in the total population, there are fewer doctoral studentships. According to UKÄ, 64 percent of all doctoral students had doctoral studentships in the autumn of 2019.

Looking at the age distribution among the respondents, it turns out that the younger the doctoral student is, the more likely they are to have a doctoral studentship. As many as 85 percent of those under the age of 30 were employed. The corresponding figure for those who are 40 years of age or older was 40 percent. The second most common form of income in our study was "other financing"; this was especially common among doctoral students who were 40 years of age and older. In this group, it was much more common, compared to other age groups, to be employed as a medical professional or to be employed in some other capacity. The survey does not include doctoral students with doctoral grants, since our sample consisted of doctoral students who had been admitted to the doctoral program for at least one year and thus were at a stage in the doctoral program that more or less excludes the doctoral grant.

[18] https://st.org/sites/default/files/attachment/hur_mar_doktoranden_juni_2012.pdf

07

Stress factors

7.1 Sleep

Sleep has a decisive effect on our mood. Problems with sleep seem to be a common concern among people in Sweden. The quality of sleep is also strongly linked to physical and mental well-being. Everyone who has experienced sleep problems knows what a huge impact these problems can have on their quality of life. Poor sleep often leads to irritability, anxiety, restlessness and a chronic feeling of fatigue. The most common reasons for experiencing sleep problems are stress and anxiety, but there are also other factors such as eating habits, exercise habits, mental state in general and seasonal factors. Because sleep is absolutely crucial for rest and recuperation, we are often strongly affected when our sleep does not work as we would like. We become more stressed, have more difficulty concentrating, and our memory is also affected.[19]

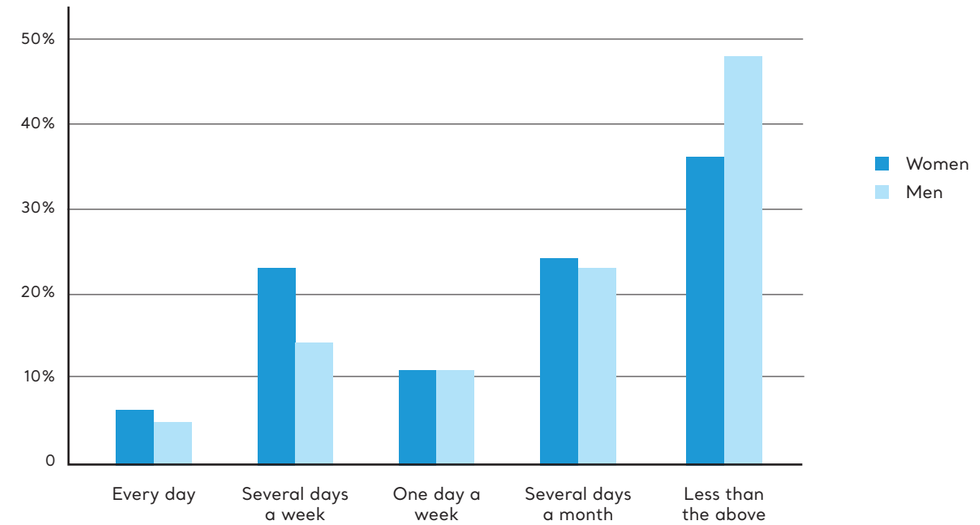
Against this background, we asked a question about the doctoral students' sleep. **How often has your situation as a PhD student led to sleeping problems due to stress, anxiety, or discomfort?** Of all the respondents at the eight higher education institutions, 5 percent stated that they had sleep problems every day. Almost one-fifth stated that their sleep was affected several days a week - this was more common among female respondents, of which 23 percent answered they were affected several days a week. The corresponding figure for men was 14 percent. The result is almost identical to our study from 2012. The proportion of respondents whose sleep was affected several days a week was greater among foreign doctoral students than their Swedish counterparts. The younger the doctoral students were, the greater the sleep problems.

This problem was more common among doctoral students at Stockholm University than at the other higher education institutions: as many as 36 percent of respondents at this HEI stated that they suffered from sleep problems everyday or several days a week, 14 percent of the respondents said that sleep was affected one day a week, and a fifth of the respondents at Stockholm university stated that they had sleep disorders several days a month.

[19] https://teraply.se/somnproblem 2020.

How often has your situation as a doctoral student led to sleep problems due to stress, anxiety or discomfort?

By gender



7.2 Overtime

An important factor in the occurrence of stress-related problems is how often one has to work overtime. Therefore, we wanted to investigate what the situation looked like for doctoral students. Among all respondents, just under 10 percent stated that they have to work overtime every day. Uppsala University stands out, with 17 percent of respondents from this university saying they have to work overtime every day.

Around 25 percent of respondents stated that they worked overtime several days a week. Of foreign doctoral students, as many as 35 percent answered that they have to work overtime several days a week. Just over 30 percent answered that they worked overtime several days per month. All in all, this gives the impression that a relatively large proportion of the doctoral students surveyed have an extensive workload.

This means that time for rest, which we so badly need in order to recuperate, is minimal. But the situation is more serious than that. Most of the employees in the Swedish labor market must from time to time work overtime, or spend some time on work in the evenings. In most cases, this is manageable. However, if the workload stays high for a long time, then problems, such as difficulties with sleeping and a general decline in both physical and mental wellbeing, may appear. Not least, working overtime affects one's private life, as it is safe to assume that family and friends will get less time and attention than what is maybe desirable.

Without exaggeration, it can be said that doctoral life is not exactly a sinecure. It is obvious that the situation of doctoral students reveals a work environment where the boundary between work and leisure does not appear to be particularly clear.

7.3 Stress prevention

Further, we wanted to know if doctoral students were aware of whether their university offered any measures or programs to prevent stress-related illness. Nearly a fifth of respondents stated that their higher education institution offered measures or programs specifically aimed at doctoral students. Slightly more than 25 percent stated that such measures were offered but were aimed at all staff, and almost half did not know if there were such programs at their HEI. Both the University of Gothenburg and Luleå University of Technology stand out here: less than 10 percent of respondents at these HEI stated that higher education institutions offer measures to counteract stress adapted to doctoral students. More than half of respondents at these two HEI stated they had no knowledge of whether stress prevention measures were available to them - a higher percentage than at the other HEI.

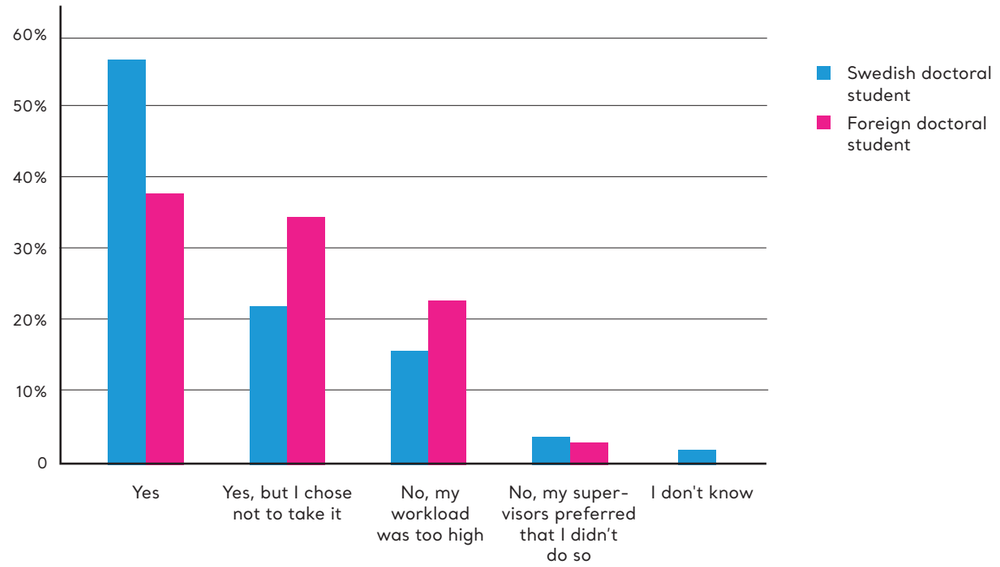
7.4 Holidays

Part of a so-called sustainable working life is that it also includes time off, time for relaxation and recuperation. Not least, it is holidays that give us the opportunity to relax and recover. Therefore, we wondered if the doctoral students had been able to take all the holidays they are entitled to, including four weeks of continuous holiday. Surprisingly, it turned out that almost half of the respondents did not take their holidays. A quarter answered that they could have taken their vacation days but chose not to. A little more than 17 percent stated that they could not take their vacation because the workload was too high. At Uppsala University and Stockholm University, there were more respondents who had given up holidays due to high workloads. Divided by gender, the female doctoral students were slightly more inclined to give up their holidays. Older doctoral students and Swedish doctoral students were more likely to have taken their vacation than younger and foreign doctoral students. In our survey from 2012, 70 percent of respondents stated they took vacation.

This is a worrying result because it means that the employer is breaking the law. The Annual Leave Act gives all employees the right to four consecutive weeks' leave during the summer months (laws and agreements can stipulate longer holidays for employees, depending on their age). The employer must ensure that it complies with this law.

Have you, within the past year, been able to take all the vacation to which you are entitled, including four weeks' continuous holiday?

Divided into Swedish and foreign doctoral students



7.5 Being disturbed during one's free time

We also asked the question of whether the doctoral student was contacted by the university (supervisor, project leaders, managers, administration) with questions related to their PhD studies in the evenings, weekends and holidays. Just under a tenth of the respondents were contacted by someone from work several times a week. About the same number stated that they were contacted with work related issues one day a week. Just over 15 percent answered that it happened several times a month. Older doctoral students (40 years of age and older) were generally contacted to a lesser extent. The opposite applies to foreign doctoral students, who were subjected to more attempts at contact by their employer than Swedish doctoral students. Karolinska Institute and Luleå University of Technology stand out here. At these HEI, it was more common for doctoral students to be contacted by someone from work in their spare time. At these universities too, this phenomenon was more common among foreign doctoral students. If we compare the results with our survey from 2012, it seems that the situation has improved somewhat. Back then, one-fifth of doctoral students stated that they were contacted by someone from work in their free time in a way that caused them stress.

Here we see another example of how work and leisure become blurred. Doctoral education, or rather the research career perhaps, has traditionally been regarded as a kind of vocation. According to this view, a dedicated researcher is never entirely free from work and must always be prepared to show up and work for their subject and their department. Therefore, we wanted to investigate whether doctoral students find it difficult to focus on things other than their dissertation work - for example their private lives.

7.6 Thinking about the dissertation

More than 35 percent stated that, every day or several times a week, they had difficulty focusing on things other than their PhD studies. This was especially true of women, young people and Swedish doctoral students. Older doctoral students (40 years of age and older) seem to find it much easier to focus on their private lives as well. The results indicate that doctoral students in the humanities and social sciences, as well as natural sciences, seem to be more stressed and preoccupied with their dissertation work than those in the medical field.

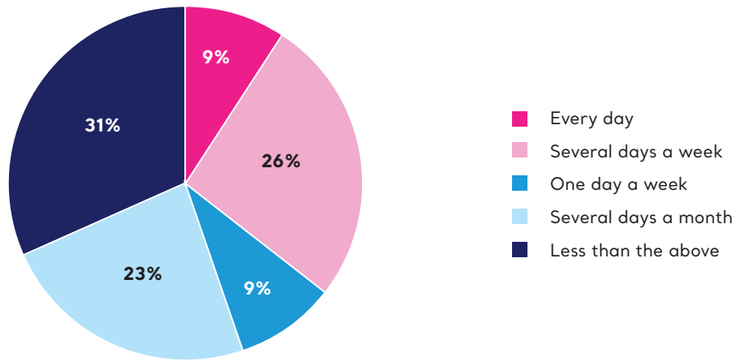
The differences between the experiences of respondents in different fields are not entirely easy to interpret, but the key might be found among the differences between the fields themselves. Some examples of such differences are the way research work is structured, the form of the dissertation (whether you are working towards a monograph or a collection of articles), and whether you are part of a research group and work closely with colleagues or you work mostly on your own. Another possible explanation is that in the field of medical science it is much more common for doctoral students to have a secure job, for example as a doctor.

In our survey from 2012, 40 percent of respondents stated that they had difficulty thinking about anything other than their work. A report from The Swedish Agency for Public Management[20] states that universities and university colleges do less work towards reducing employees' workload and stress compared to other public authorities[21].

[20] Statskontoret, in Swedish
[21] https://www.statskontoret.se/globalassets/publikationer/2017/201714.pdf

How often do you find it hard to focus on other things than your PhD studies, such as your private life?

Of all respondents



7.7 Working while ill

Issues concerning sick leave and working while sick have not exactly been unusual as part of the public debate in recent years. On the contrary, decision-makers and researchers of various kinds have paid close attention to these phenomena. Therefore, we want to find out if it was the case that doctoral students chose to go to work despite illness.

We asked: **Have you worked on your PhD studies while ill?** One-fifth stated that they went to work on three or more occasions when they were ill, during the previous 12 months.[22] This was particularly common among women, Swedish doctoral students and those who are active in the humanities and social sciences. Almost 30 percent of all doctoral students had worked while ill on one to three occasions in the last 12 months. It was most common among doctoral students who were under 30 years of age.

It is undeniable that quite a few doctoral students worked even though they were ill. Possible reasons are that the student was under a lot of pressure to complete some part of their dissertation, or that the student did not have the possibility to delegate urgent tasks to a colleague. Teaching is an example of such a task, as it is not easy to get somebody else to do it at short notice. Another possible reason is that the illness was perceived as relatively mild.

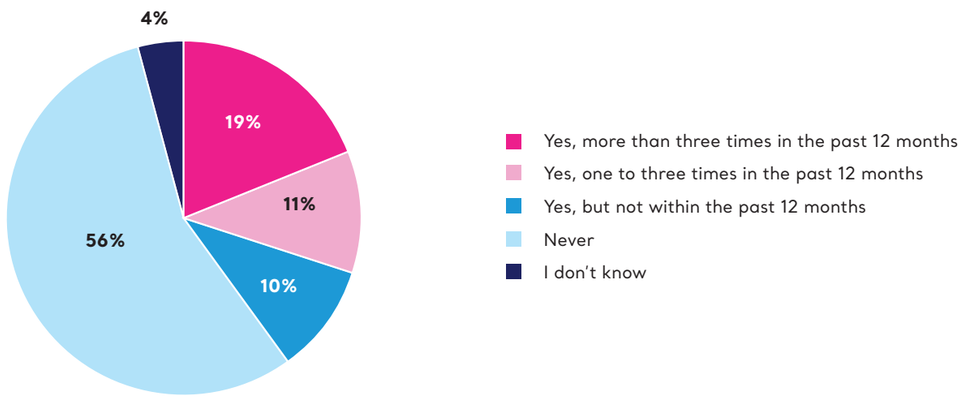
[22] The corresponding figure in 2012 was one third of all doctoral students.

Another question: **During the last 12 months, have you stayed away from your regular workplace due to experiencing stress, anxiety (concern) or discomfort?** Almost one-fifth answered *yes* to the question.[23] This phenomenon was most common among female doctoral students. It was least common among doctoral students in medicine and Life Science, where 14 percent stated that they had stayed at home. The corresponding figure for humanities and social sciences was 25 percent. Just over 20 percent of respondents had made this choice on one to three occasions in the past year. It was especially common among the younger doctoral students (under 40 years of age). This is a worrying result. It is not reasonable for so many people to feel anxious or worried about being at work.

In summary, we encounter far too many doctoral students who suffer from lack of sleep and find it difficult to take time off from their dissertation, or from thinking about it. In addition, we see far too many doctoral students who are contacted by managers and colleagues in their spare time, refrain from taking holidays and, to top it all off, relatively often work despite being ill. This is hardly a work environment to be proud of.

During the last 12 months, have you stayed away from your regular workplace due to experiencing stress, anxiety (concern) or discomfort associated with your workplace?

Of all respondents



[23] In 2012, slightly more than 10 percent stayed at home due to anxiety, worry or discomfort.

08

Influence

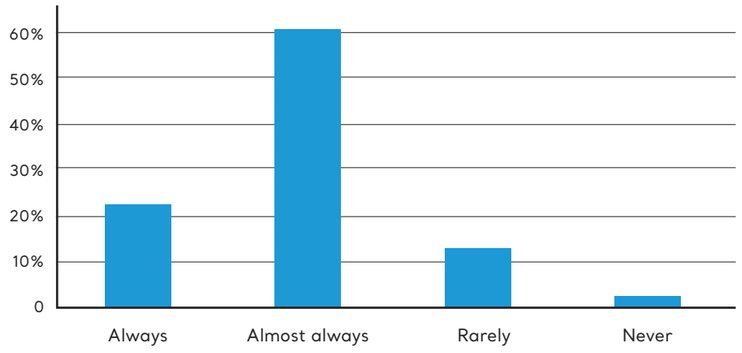
Research on working life often emphasizes the importance of having control and being able to influence one's work life. We know that high demands combined with low influence over one's work often lead to stress and exhaustion. Acute stress reactions and other forms of psychological illness are among the most common reasons for employees to end up on sick leave. Increasing the degree of control in a high-demands situation does not solve any of these issues - unless the employees are also given increased influence over their workplace.

Therefore, we wanted to know if the doctoral students felt that they had influence over their tasks such as, departmental duties, courses, and research. Almost a quarter answered that they always had influence over these. More than 60 percent said that they mostly had such influence, while a little more than 13 percent stated that they rarely had any influence over their work. Of the eight higher education institutions, Luleå University of Technology and Uppsala University stand out in a negative way. There, almost 20 percent of the surveyed doctoral students answered that they rarely had influence over their work. We found no differences depending on gender, age or national background. The result is in line with what we had found eight years earlier.

A report from The Swedish Agency for Public Management states that "employees have less opportunity to express views on the operations of the institution through established channels and forums within government agencies that conduct teaching and research, compared with government agencies in other areas of activity"[24]. According to the results, the views of employees who work in teaching and research are also taken into account to a lesser extent than those of their counterparts in other public authorities.

Do you feel that you have influence over your tasks, such as departmental duties, courses and research?

Of all respondents



[24] https://www.statskontoret.se/globalassets/publikationer/2017/201714.pdf

09

Who really makes the decisions?

The doctoral studentship is a special type of employment. In some cases, the doctoral student is seen as an apprentice (and the supervisor then becomes the master), while in other cases the doctoral student is seen as a full-time employee (this is especially true when it comes to departmental duties and teaching). The responsibility for the doctoral student is clearly stated in the Higher Education Ordinance and in the HEI's governing documents. But the question is whether doctoral students themselves know who is ultimately responsible for their employment and education. To find out we asked the question: **Who do you think is responsible for decisions regarding your employment and enrolment in a PhD programme?**

About 45 percent of doctoral students thought that it was the head of the department or equivalent who made decisions about their terms of employment (in 2012 the corresponding figure was just over 50 percent), while just under a tenth answered someone else and almost 35 percent thought that it is the supervisor who has that responsibility (the equivalent figure in 2012 was 15 percent).

That so many doctoral students do not know who is responsible for their enrolment and employment is surprising. It can be interpreted as a sign that the employer is not providing sufficient information, but it may also be related to the type of funding and research environment the doctoral student has.

Three higher education institutions differ from the others: Karolinska Institute, Linköping University and Luleå University of Technology. At these institutions there is a significantly higher percentage of doctoral students who indicated the supervisor as responsible for both employment and enrolment. In these places, the proportion of project-financed doctoral studentships is high, as is the proportion of foreign doctoral students.

Foreign doctoral students stated to a much greater extent than their Swedish counterparts that the supervisor was ultimately responsible for their employment and enrollment. This may well be the case in practice, even if it is contrary to the Higher Education Ordinance. In everyday life, as is well known, the supervisor plays a crucial role in the work of the doctoral student and in the student's development. Formally, however, it is the head of the department or equivalent who has the responsibilities of an employer in relation to doctoral students. This entails, among other things, responsibility for employment issues, work environment and for overseeing the taking of holidays.

10

Is the dissertation work progressing as it should?

We have asked doctoral students to answer the question of whether their doctoral studies were progressing as they should. More than 60 percent stated that their studies were progressing at the pace they desired. Among foreign doctoral students, an even greater proportion answered in the affirmative. There were no significant differences depending on gender, age, or field of study. Exactly 10 percent stated that they experienced departmental duties taking more time than the agreed hours and almost 30 percent felt that their studies were not progressing as they should.

10.1 The relationship with the supervisor and the quality of the supervision

The majority of the respondents stated that they had a good and respectful relationship with their supervisors. Men had positive experiences to a greater extent, with 76 percent of male respondents agreeing with this statement, compared to 66 percent of female respondents. . Doctoral students were asked to choose between three statements regarding their perception of supervision. The first statement was: The supervision I receive is very good. Just over 40 percent of male doctoral students agreed. The corresponding number among female doctoral students was 34 percent.

The second statement was: The supervision I receive is sufficient and supports me in my PhD studies. Around 45 percent of doctoral students chose this statement - the percentage was the same for female and male doctoral students respectively.

The third statement was: The supervision I receive is not sufficient to support me in my PhD studies. Among the women 18 percent chose this statement. The corresponding figure for men was 12 percent. Older doctoral students (40 years of age and older) had a more negative assessment of the quality of supervision than younger doctoral students.

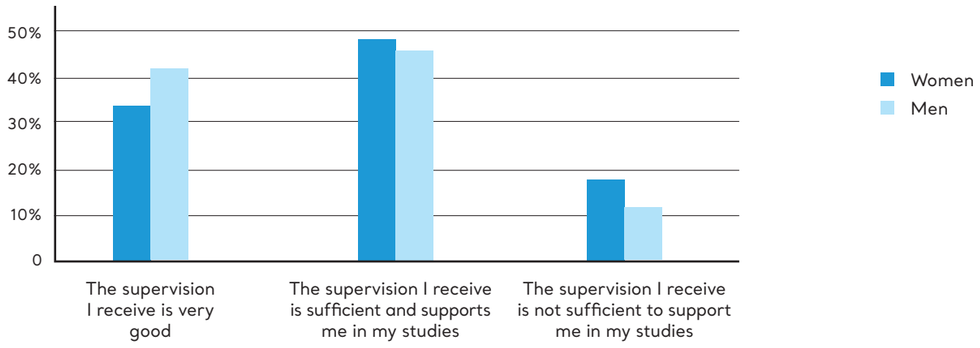
Overall, respondents were fairly satisfied with the relationship they had with their supervisor. But the quality of supervision leaves much to be desired. Since the quality of supervision is decisive for the progress of doctoral studies, each higher education institution should strive to increase satisfaction among doctoral students when it comes to this aspect.

10.2 The impact of the individual study plan on doctoral studies

The individual study plan (ISP) is a tool for planning and documenting the doctoral studies of each student - the doctoral student and the

Which of the statements best matches your perception of the supervision you receive?

By gender



supervisor work together on this plan. The individual study plan establishes what is required of the doctoral student in each stage of their education and, at the same time, protects their rights. The plan creates the framework against which the student's performance and the progress of the studies are measured.

According to the Higher Education Ordinance, the higher education institution has an obligation to ensure that an individual study plan is drawn up for each doctoral student. The plan is decided upon by the higher education institution after consultation with the doctoral student and the supervisor.

The higher education institution must revisit the individual study plan regularly and follow up on whether the studies are proceeding in accordance with this document. When updating the ISP, the doctoral student and the supervisor shall inform the higher education institution how the studies are proceeding. The higher education institution can then make changes to the ISP as needed. Before any change is made, the student and the supervisor shall be consulted.

If a doctoral student mismanages their doctoral studies or, as stated in the Higher Education Ordinance, 'substantially neglects' the obligations described in the individual study plan, the higher education institution may decide to take away the doctoral student's supervision and other resources. It is therefore of the utmost importance that the individual study plan is correct and up to date.

The individual study plan is thus not meaningless paperwork. Against this context, we wanted to find out how the doctoral students would describe its use. The Swedish doctoral students were generally more positive about the individual study plan than their foreign counterparts. Slightly less than 60 percent of all doctoral students thought that the individual study plan was important in guaranteeing their rights and that it was also helpful in planning their studies. Almost 30 percent, on the other hand, did not find the plan useful and just over 10 percent stated that the plan caused stress.

At Umeå University, about 30 percent of respondents stated that the plan causes stress. Almost as many found it to not be of much help. This opinion was shared by doctoral students at the University of Gothenburg, where as many as 35 percent of the responding doctoral students did not think the plan was of any help at all.

The way the individual study plan is perceived is, to put it mildly, disappointing. This governing document should of course give support and security to the individual doctoral student. Instead, the plan is perceived as being both meaningless and stressful. The higher education institutions have good reason to ask themselves how the document is actually used and perceived. Is the plan considered a bureaucratic burden or a legally significant document that protects the doctoral student and gives the department tools to help in the development of the prospective researcher?

11

Who guards the interests of doctoral students?

For a trade union and an organisation of student unions, it is of course important to assess whether doctoral students generally feel that they have the support and backing of surrounding organizations such as the trade unions, SFS and other stakeholders. The doctoral students were therefore asked who they thought ensured that their rights were attended to.

The majority of the respondents - 36 percent - stated that it was the student union or doctoral student union that ensured that doctoral students were guaranteed their rights. At Lund University, more than 50 percent stated that this was the case. The answers that shared second place were the supervisor and the option do not know, with each of these options chosen by around 18 percent of respondents. Among the doctoral students at Linköping University, a third believed that it was the supervisor who ensured that their rights were respected. The second option was the head of department or equivalent, the next option was no one, and then in the very last place came the trade unions. No more than 4 percent believed that it was the trade unions that ensured that doctoral students' rights were respected. This is a remarkably low proportion, given that it is precisely the trade unions that negotiate the terms of employment of doctoral students.

11.1 Introduction for new employees

Most organizations and employers offer an onboarding process, or introduction, to new employees, as a way of helping them find their footing in their new jobs. Of course, this should also be the case with newly admitted doctoral students. We asked whether the respondents found the introduction for newly admitted doctoral students satisfactory. Almost 70 percent of the respondents thought that the introduction had worked very well, or had at least been good enough. One-fifth said that it had not been satisfactory at all and 10 percent answered that the question was not relevant as they were never given an introduction.

11.2 Rights and duties

Another question that we wanted answered was whether the doctoral student had, when starting as a PhD student, been informed of their rights and duties. Slightly more than 15 percent answered that they had been informed to a high degree and almost 60 percent thought that they had been informed to some degree. However, just over a fifth stated that they had not received any information at all about their rights and obligations.

11.3 Extension of the doctoral studentship

A doctoral student may have their doctoral studentship extended due to illness, service in the military, work as a representative in trade unions and student unions, or due to parental leave and leave for childcare.

Other reasons that may form the basis for an extension are so-called special reasons, such as falling behind on one's studies due to problems with the supervisor. We asked whether doctoral students had encountered problems obtaining an extension due to the reasons listed above. Slightly more than 45 percent of the respondents stated that the question was not relevant for them. Of the doctoral students who had needed an extension due to the reasons presented above, just over 40 percent stated that they had not encountered any problems with prolonging their employment. The good news is that no more than 3 percent have encountered substantial problems. Less than 10 percent have encountered some difficulties when they asked for an extension of their employment.

12

Threats of violence, sexual harassment and bullying

The following sections deal with really serious work environment issues, namely threats, violence, harassment and abuse of various kinds. We can see from the responses that being exposed to violence, threats of violence, or sexual assault was not a very common experience among doctoral students.

However, we would like to emphasize that regardless of whether there are very few who had been exposed (or stated that they had been exposed) to threats or sexual harassment, it is unacceptable for this to happen at all. We must never treat work against this type of discrimination as low priority.

We asked whether the doctoral student had been sexually harrassed at work, when studying or at a conference. We cannot draw any reliable conclusions from the data, as very few respondents answered the question.
However, the picture changed somewhat when we asked the following question: Have you experienced others being sexually harassed, harassed in general or subject to discrimination as a PhD student while at work, studying, at conferences or similar? Eight percent stated they had witnessed harassment on less than four occasions in the last 12 months. The proportion of those who had witnessed harassment was greater among women than men, with 10 percent of women answering the affirmative, compared to 6 percent of men. Of all respondents, around 13 percent stated they had witnessed harassment, but further back in time. Among women, this figure was 18 percent, while among men it was 9 percent. More than 75 percent of all respondents stated they had never witnessed anyone being harassed or subject to discrimination.

A follow-up question was whether the doctoral student had reported what happened. Nine percent had done so and had felt that the report was taken seriously, while just over 10 percent had reported the incident but did not feel that the report was taken seriously. A quarter said they refrained from reporting because they did not know how to make such a report. An interesting result, that is hard to interpret, is that as many as 49 percent answered that they did not want to report even though they had knowledge of the reporting procedure.

Employers and education providers must work to prevent discrimination and promote equal rights and opportunities. All grounds of discrimination; gender, gender identity or expression, ethnicity, disability, sexual orientation, religion or other beliefs, as well as age, are now covered by regulation of prevention and promotionwork. Legislation also prescribes a four-step method for conducting the work: the employer must examine the risks of discrimination, analyze the identified risks, take measures against discrimination, and then follow up on these measures and evaluate the result. The steps shall be performed continuously.[25]

A higher education institution thus has certain obligations under The Discrimination Act both as an employer and as an education provider. Therefore, higher education institutions should take into account the special study environment of doctoral students and their special form of employment. They must also take into account the fact that the doctoral student belongs to a vulnerable group who can easily end up in a position of dependence, especially in relation to their supervisor.

[25] https://www.do.se/om-do/pressrum/aktuellt/aktuellt-under-2020/manga-omedvetna-om-att-det-inte-langre-behovs-en-jamstalldhetsplan/

13

Insecurity and criticism

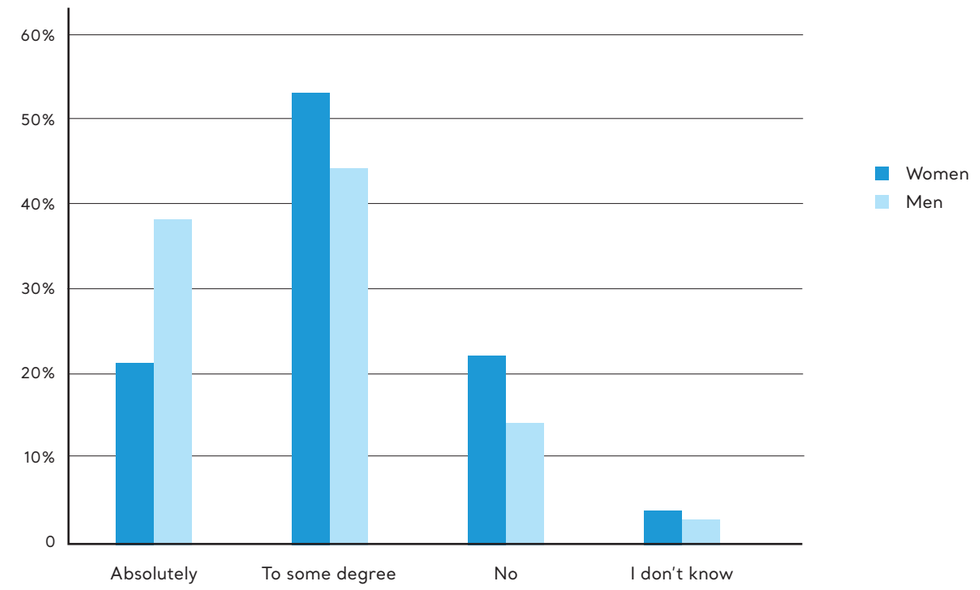
To gain more insight into how doctoral students experience their work environment, we asked two more questions. One was about threats or conflicts making PhD students feel unsafe at work; the other was about expressing criticism of working conditions. The majority of respondents, 85 percent, stated that they had not felt unsafe due to threats or conflicts at work during the previous 12 months. Less than 3 percent answered that they felt unsafe on more than four occasions in the previous 12-month period. Just under 4 percent had felt unsafe on less than four occasions in the previous 12 months. Slightly more than 7 percent stated that they had felt unsafe at work but that it had happened further back in time.

The numbers are low, but every individual exposed to threats or intimidation of various kinds is one individual too many. No one should feel scared or, in the worst case, terrified at work.

When asked if they would feel comfortable criticizing the conditions they work under, there was a wider distribution of answers. One third of the doctoral students answered yes, absolutely they could criticize their conditions. Half of all doctoral students stated they could do so to some degree.

Almost a fifth answered no and four percent stated that they did not know if they could criticize their working conditions. Among the doctoral students at the University of Gothenburg, the share of negative answers was higher: almost 30 percent answered that they could not criticize their conditions, or that they did not know whether they could. That is a serious warning sign. If so many doctoral students experience that there are difficulties in expressing criticism or feel uncertain about whether it is acceptable to express criticism, there seems to be some kind of problem with how criticism is perceived at the university.

Would you feel comfortable criticizing the conditions you work under?
By gender



A report from The Swedish Agency for Public Management states that "employees have less opportunity to express views on the operations of the institution through established channels and forums within government agencies that conduct teaching and research, compared with government agencies in other areas of activity. According to the results, employees' views are also taken into account to a lesser extent".[26]

On this particular issue the results cannot be directly compared to the report from 2012, due to the fact that the past survey was worded somewhat differently. We can, however, see that there is some agreement between the two studies: in 2012, just over a third of respondents refrained from putting forward critical views, always or quite often.

In workplaces that avoid or even counteract open discussion employees become more conflict avoidant as a result, which can in turn lead to a downward spiral of silence and disengagement. Such a development would of course be a serious failure for universities, as they are reliant on openness, creativity and an intellectually stimulating environment.

[26] https://www.statskontoret.se/globalassets/publikationer/2017/201714.pdf

14

The COVID-19 pandemic

Finally, we also decided to ask questions about whether the COVID-19 pandemic had affected doctoral education. The majority of the respondents were working as doctoral students when the pandemic broke out in earnest in Sweden, in March 2020.

The first question concerning COVID-19 was whether the respondent worked more from home during the pandemic than before. Just over 75 percent stated that they worked from home more than before. About a fifth of the respondents answered that they worked from home to the same extent as before. This means that, overall, doctoral students worked remotely to a very large extent. The results are comparable with the report that Fackförbundet ST produced in May 2020 on teleworking Jobba hemifrån – är distansarbete här för att stanna?, which revealed that 65 percent of the surveyed members worked remotely during the pandemic to a greater extent than before.[27]

Looking at the research fields separately, we see that it is primarily doctoral students in the humanities, social sciences and natural sciences who have seen an increase in the share of work from home. Doctoral students under 40 years of age represent the age group that has seen the greatest increase in this share. It was also more common for Swedish doctoral students to have increased their share of work from home, compared to foreign doctoral students. Doctoral students at Karolinska Institute were somewhat different, as significantly more stated that they worked from home to the same extent as before the pandemic. At Uppsala University, on the other hand, the percentage of those who had increased their share of work from home was above average.

We then asked in which ways the pandemic had had an impact on the participant's PhD studies.

[27] https://st.org/sites/default/files/attachment/st_rapport_-_distansarbete.pdf

The respondents were given several options and were asked to check all that felt relevant to their situation. The vast majority of doctoral students pointed at the difficulties with conferences and/or research trips being either canceled or postponed, in particular. The second most common answer was that contact with the supervisor or the research group had decreased. In third place, the respondents stated that working from home presented difficulties. Several also claimed that departmental duties, including teaching, took more time than usual. There were hardly any differences across gender, age group, national background, or university.

The very last question asked in the survey was to what extent the COVID-19 pandemic had affected the work/life balance. Foreign doctoral students were more likely to believe that the pandemic had had a strong negative impact on this balance. In total, just over 16 percent of all respondents stated that their work/life balance had been affected.

Slightly less than half felt that the pandemic had had some negative impact on their doctoral education and twenty percent did not feel affected at all.

What is perhaps a little surprising is that almost 16 percent of doctoral students thought that the pandemic had actually had a positive effect on their doctoral studies. While the reasons for the negative experience of the pandemic are clearly seen in the survey, it is quite unclear why so many people experienced it as something positive. There is space for different interpretations.

Concluding reflections

Doctoral education has constituted an important part of knowledge and research policy for a long time now, in Sweden as in most other countries. More and more people have graduated from such an education. Doctoral students represent our future cutting-edge expertise, and for this reason a high quality doctoral education is crucial for Sweden's future. However, the education must not only maintain a high academic quality, but at the same time offer good working conditions.

Unfortunately, through this study we can conclude that there are shortcomings in this regard. Today's doctoral students work under tough conditions. Feeling compelled to work when ill, or being forced to stay home due to work-related anxiety, distress and discomfort are clear signals of serious failings when it comes to the work environment of doctoral students - not to mention the stress and pressure that too many doctoral students feel.

On the other hand, a large proportion of doctoral students feel that they have control and influence over the work. Their relationship with the supervisor is often good and the quality of the supervision is mostly satisfactory. Overall, the picture is contradictory and raises both concerns and hopes for the future.

It is perhaps not so strange that doctoral students have mixed feelings about their situation. Doctoral education is not just any higher education - it is highly specialized and presents doctoral students with difficult challenges. Being at the forefront of research is demanding, and requires a constant fight to live up to expectations, both those of others and one's own.

Doctoral education has peaks and valleys. The doctoral student has to battle their own demons - can I overcome these challenges or will I be one of those who never finished their thesis? Self-doubt follows one until the public defense of the thesis is completed and the grading committee has given its approval. A doctoral student is also forced to learn the difficult art of receiving criticism and not confusing critical opinions with an attack on one's own worth. But doctoral education is also a time when the student can devote up to five years to their special interest. This is a long period of their life which, at its best, provides the opportunity for personal growth and for developing faith in one's abilities.

How the doctoral student is doing remains of course far from unambiguous. But in any case, this report sheds some light on important aspects of the work situation of the doctoral student.

Our conclusion is that it is high time to bring doctoral education up to current standards and to equip it for the future. The students who are embarking on a research career today want more than previous generations of prospective doctoral students wanted - or were allowed to express a wish for. Doctoral students want to have an influence on their workplace, to be able to express critical views, and to sometimes be able to disconnect from work and recuperate.

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