

N² Survey Report

General Report



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Chapter 1

Introduction

This report presents the findings of the Third N² Survey 2024, conducted to assess the overall situation of doctoral researchers (DRs) at three of Germany's leading non-university research organizations: the Max Planck Society, the Leibniz Association, and the Helmholtz Association. Building on the success of the previous N² Surveys conducted in 2019 and 2021, it is now run for the third time in a coordinated manner, meaning that the majority of questions are asked to all DRs in the same way in all organizations.

Within the Helmholtz Association, the survey was distributed to over 6800 DRs across all Helmholtz centers except for Karlsruhe Institute of Technology. The data collection was conducted from April 8 to May 19, 2024. The overall participation in the survey increased slightly from 2143 full responses in 2021 to 2317 in 2024, reflecting our growing recognition and acceptance as a stakeholder among the DR community. The full catalog of questions answered by participating DRs can be found in the appendix of this report.

A total of 2317 DRs completed the survey, representing 33.6% of all DRs listed within the Helmholtz network, to the best of our knowledge.¹ It is crucial for our survey to include DRs with all types of employment. We are eager to collaborate to improve the baseline data, particularly regarding external DRs and DRs on stipends, who might be underrepresented in the official numbers.

The Third N² Survey 2024 collected data on 9 topics, namely: General (Chapter 2), Working Conditions (Chapter 3), Satisfaction (Chapter 4), Mental Health (Chapter 5), Supervision (Chapter 6), Power Abuse (Chapter 7), Integration and Inclusion (Chapter 8), Career Development (Chapter 9), and Family (Chapter 10), which will be presented in the following.

¹The total number of DRs at each center was provided by the respective center with their approval of the Third N² Survey 2024.

Chapter 2

General

In this section, we explore the demographics within the Helmholtz network. As we aim to create a diverse and inclusive community and work environment, the demographic status of the center should be utilized to guide decisions in both short- and long-term policies regarding recruitment procedures and support mechanisms for DRs.

2.1 Gender Diversity

Diversity of gender identifications is crucial to create an inclusive work environment where everyone feels welcome and supported. Figure 2.1 shows the gender distribution of DRs within the Helmholtz network

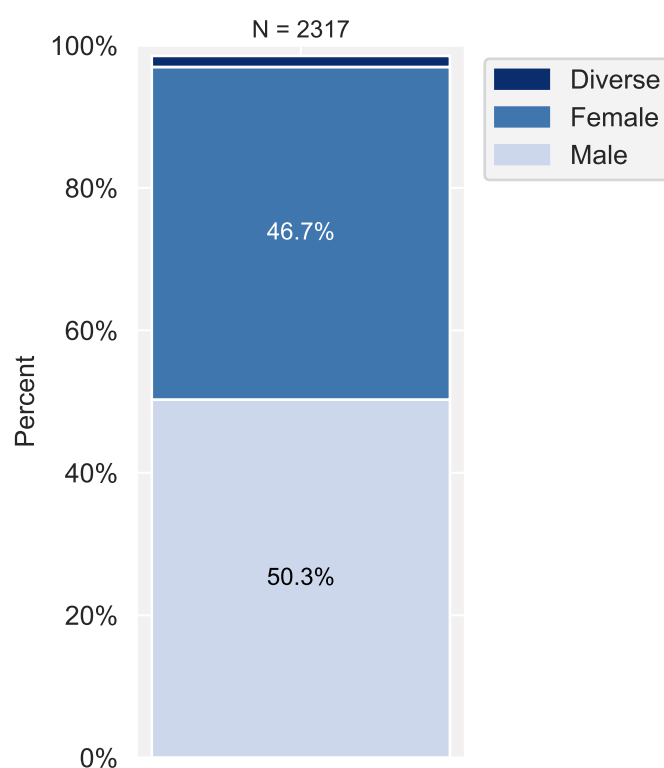


Figure 2.1: Gender representation among DRs. The answers to this question were asked in a single-choice format. Answers “Gender-Diverse”, “Non-binary” and “Other” were summed up; answers “I don’t know” and “I don’t want to answer this question” were excluded.¹

The female-to-male ratio (FMR)² within the Helmholtz network is 0.93. Non-binary and gender-diverse responses are low in all Helmholtz centers, which could imply an under-representation of these groups.

2.2 Nationality

Given the significant effort that state-related processes entail and other emerging challenges, it is crucial to assist international DRs, especially those not native to the EU. Therefore, an assessment of citizenship is highly beneficial for increasing diversity and identifying where support is needed (see Figure 2.2). There are 54.9% German, 14.9% EU, and 29.4% non-EU citizens. The ethnic origins or ancestry of participating DRs are summarized in Figure 2.3. Participants were asked to choose all geographical areas from which close relatives originate.³

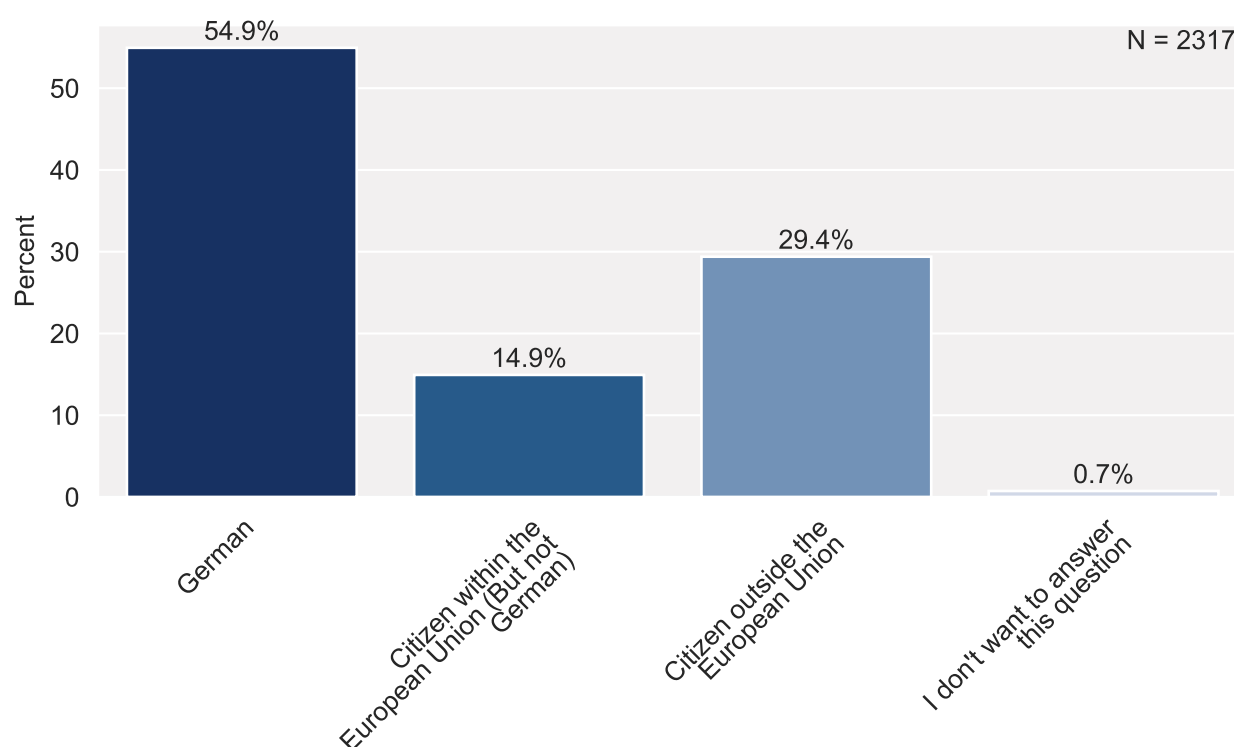


Figure 2.2: Citizenship of DRs or citizenship DRs feel best represented by, should they have multiple.

2.3 Field of Work

Participants were further asked for the field (subject) they are working in (Figure 2.4). If this contradicts internal data collections, it still may influence your actions based on this report and help to better support certain represented groups.

²The FMR is calculated as n_f/n_m , where n_f is the number of females and n_m is the number of males. If the FMR is 1, it indicates equality, while values above or below 1 indicate female or male prevalence, respectively.

³Note that the number of respondents for some ethnicities is very low (<1% of the total number of respondents, Figure 2.3). Therefore, some of our ethnicity findings are to be viewed cautiously. However, due to the scarcity of ethnicity data in German science [4] at the time of this report, we decided to report these findings anyway.

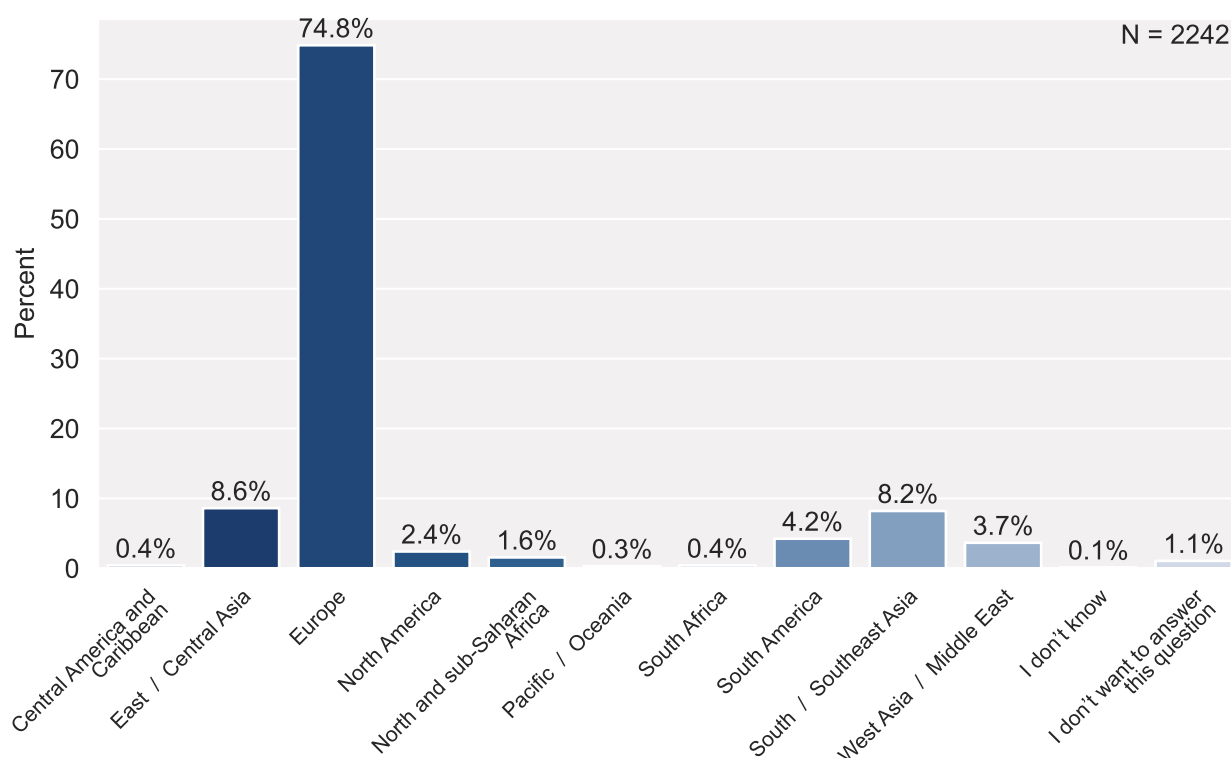


Figure 2.3: Ethnic origins of participating DRs. Participants were asked to select all geographic areas from which close relatives (last two generations) originate in a multiple-choice format.

Specific scientific fields closely correlate with differences in daily work routines and work requirements. Some fields, for instance, allow DRs to do more home office, whereas in other fields there is an almost exclusive need to work in a laboratory. But generally, every field has varying demands on performance, structuring of work schedules, and work-life balance. The most frequent type of work are Laboratory work (43.8%) and Computational work (41.6%), as can be seen in Figure 2.5.

2.4 Estimated Project Duration

Durations of doctoral research projects have a significant impact on doctoral candidates' lives, future job prospects, mental health, and family situations. The expected duration of the DRs' dissertation is shown in Figure 2.6.

The survival plot shows that most first-year DRs expect to finish their dissertation in three years. However, as they progress along their project, potential delays might add to the initially expected time frame, as shown in Figure 2.6. From their responses, we calculate the estimated duration of DRs in their first year (3.6 years), and DRs in later years (4.1 years). Concomitantly, the average duration of a doctorate in Germany has been shown to be approximately 4.3 years [8], which seems to be in closer agreement with the DRs in later years rather than the first year DRs.

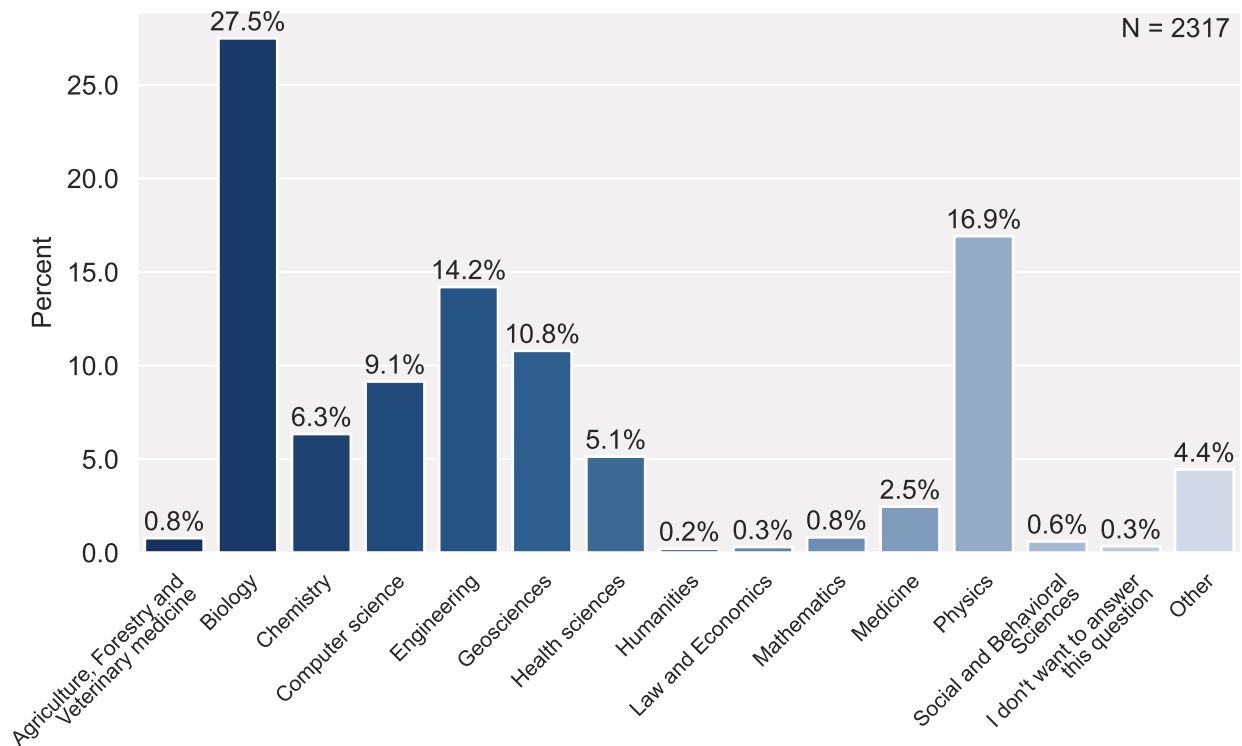


Figure 2.4: Field or subject DRs are working in.

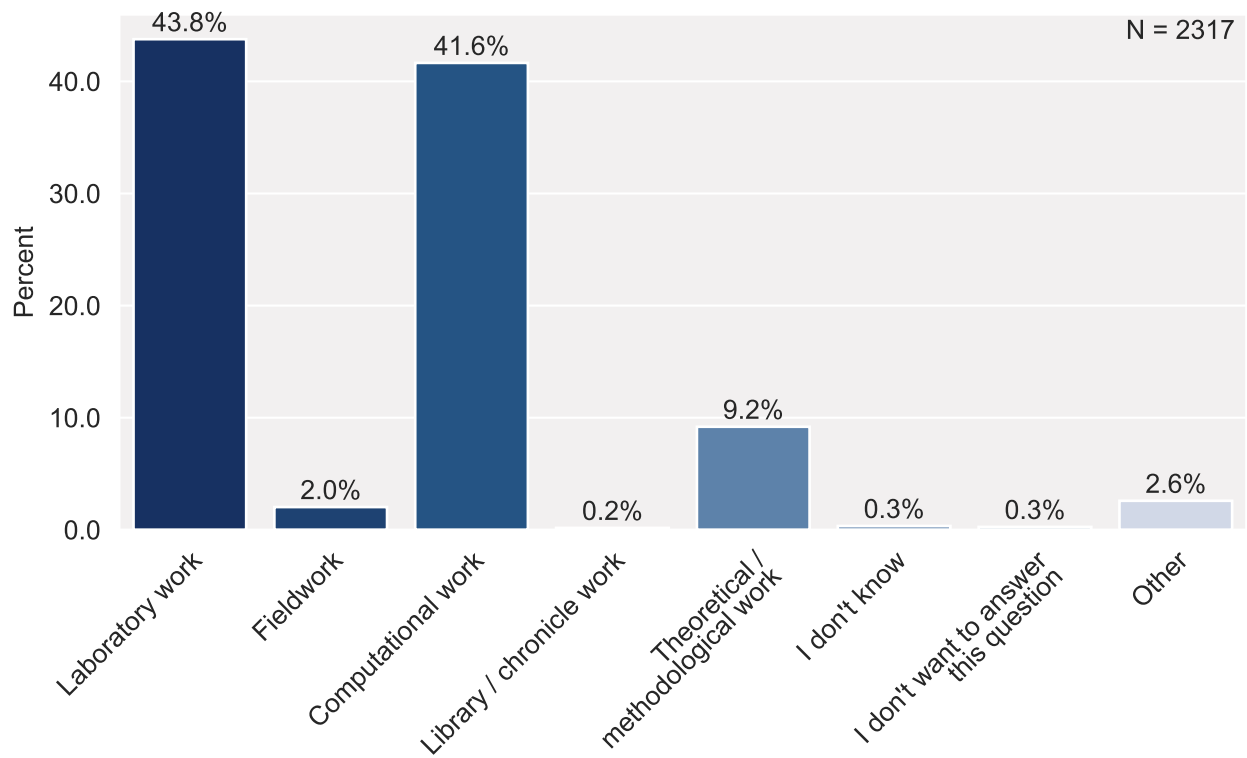


Figure 2.5: Type of work the participating DRs are predominantly involved in.

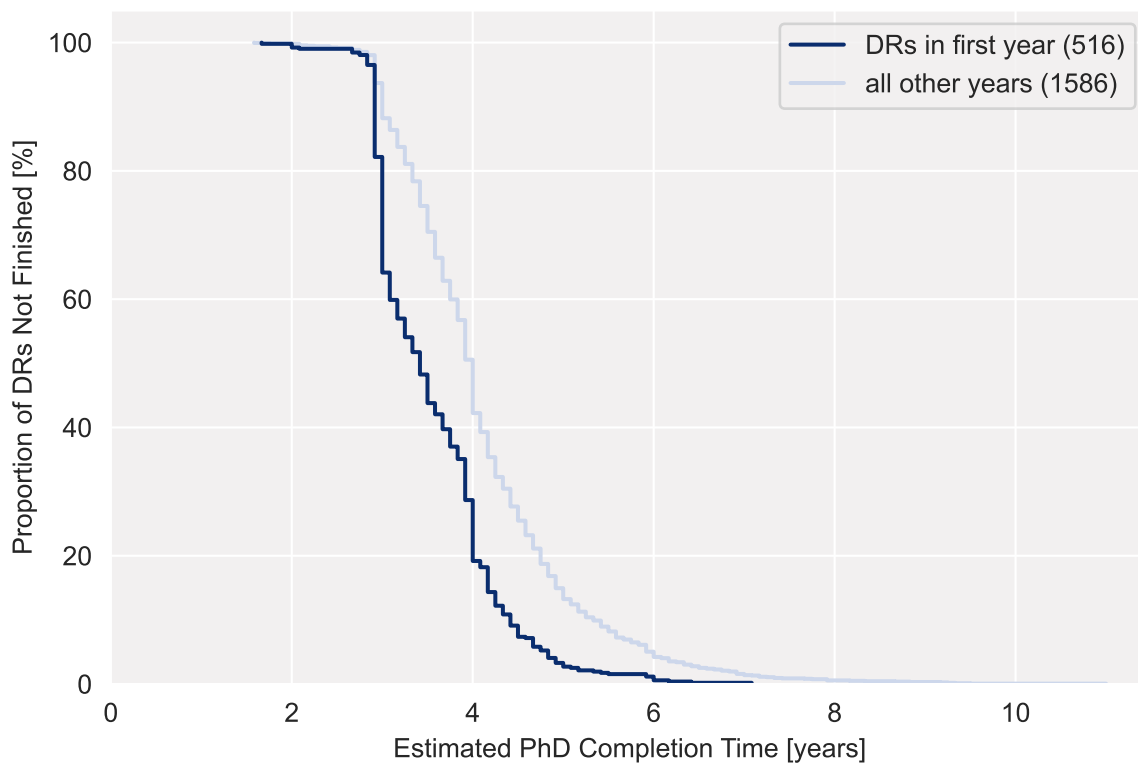


Figure 2.6: Survival plot of estimated project duration of first year DRs (dark blue) and all other years (light blue).

Chapter 3

Working Conditions

Fostering healthy working conditions should be the aim of each research institution, as it has been shown to be a cost-effective way of increasing employee satisfaction and labor productivity [24]. This section presents observations about working conditions of DRs across the entire Helmholtz Association. It is focused on different aspects of working conditions such as *financial resources*, *contract period*, *working hours*, or *freedom to take vacations*.

In general, internal or external contracts are the most preferred by the DRs as they reduce financial uncertainty during the course of their studies in comparison to stipends and scholarships. The N2-survey asked participants to indicate their source of income (Figure 3.1).

Overall, 82.8% of DRs indicate that they are employed on a contract, while 12.8% receive stipends.

This marks a welcome change and a continuing trend of a smaller fraction of stipend holders among DRs in the Helmholtz Association, which has already been observed for recent years.

With 70.0% of DRs at the Helmholtz Association, internal contracts are the most common type of employment, signifying more beneficial conditions for individuals.

3.1 Salaries and Expenses

The standard at all Helmholtz centers is to offer salaries to the DRs on the public pay scale (TVöD/TVL, E13) between 65 - 100%. The majority of DRs (39.9%) fall within 65 – 74% (Figure 3.2). Especially noticeable is that 12.6% of the DRs do not even know which pay scale bracket they fall into.¹

Furthermore, we asked DRs if their contractual salary is increased by a top-up contract. A total of 20.9% rely on a top-up contract. Top-ups are problematic in the sense that they can technically be revoked at any time and are not part of the working contract.

This is particularly important considering the distribution of monthly net income. In this regard, the DRs were asked about their rent and associated living costs (including heating, gas, water, internet, and electricity). The relative percentage of living costs to net income is derived from the two aforementioned results and is presented in Figure 3.3. Here, 71.9% of DRs are above the German average of 24.5%, considering the results of the EU-SLIC Micro Census for 2024 [27]. While living costs are clearly location-specific as well as subject to individual living circumstances, the net income can and should be adapted for DRs to guarantee a lower percentage.

¹This is probably due to confusion in the question. We asked DRs “which pay scale bracket (ger. Entgeltgruppe)” their income falls within. This is a clearly defined term and should be “E13” for all DRs (as stated above). What was meant (and also, what the provided answer options hinted at) was the percentage working time (“prozentuale Arbeitszeit”).

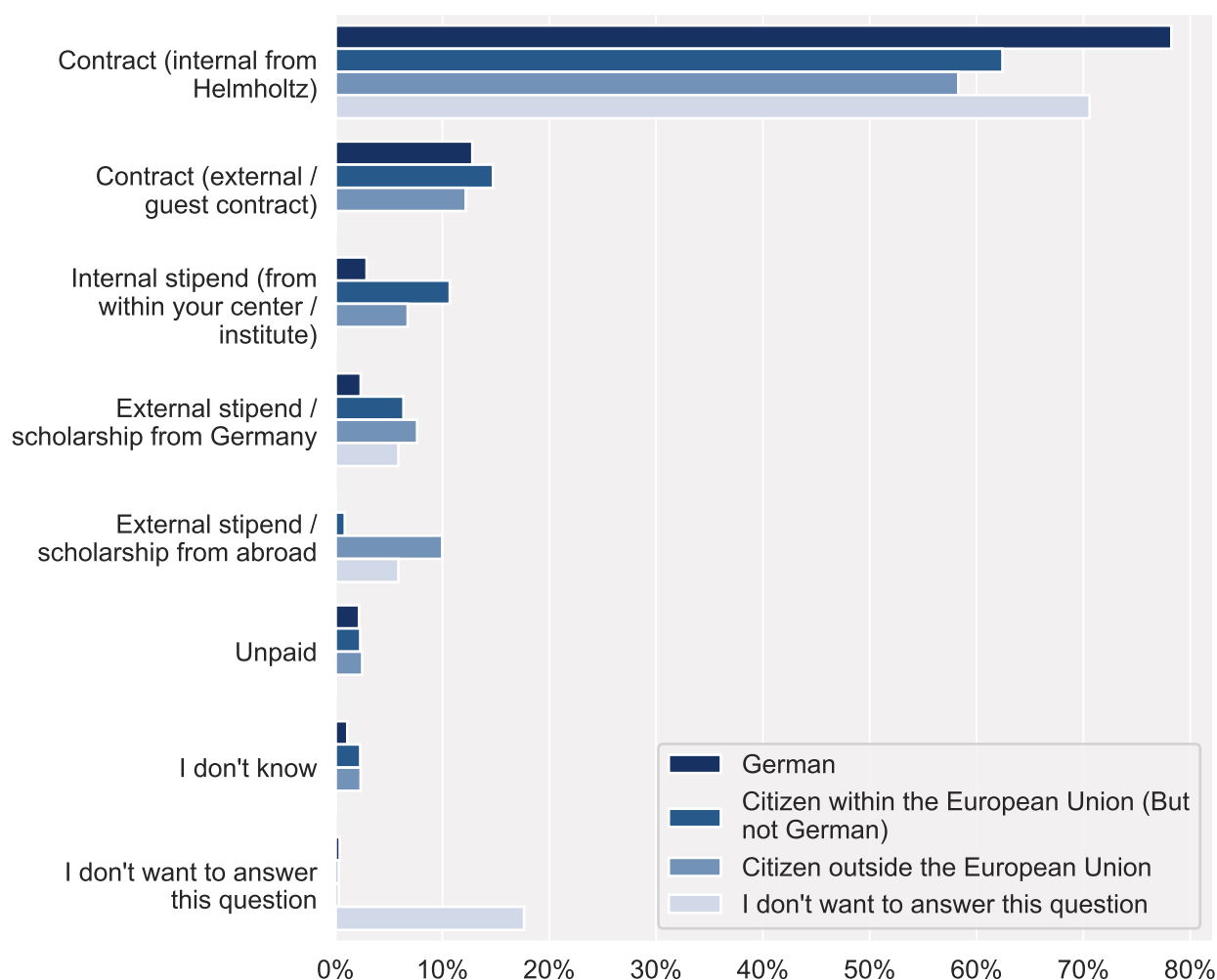


Figure 3.1: Nature of financial sources for DRs from different nationalities at the Helmholtz Association.

In total, 2.3% of DRs stated to currently work unpaid at the Helmholtz Association. Figure 3.4 shows the time for how long this has been the case, with the main reason across centers being the lack of follow-up funding (Figure 3.5). The number of unpaid DRs that rely on unemployment benefits amounts to 50.9%. It is without question that unpaid long-term work constitutes a financial, mental, and social extreme situation. It likely impacts the working efficiency, making the process of unpaid work even longer when the funding has already run out.

On the one hand, 15.1% of DRs are financially responsible for someone else. Here, it should always be kept in mind that financial responsibility can weigh heavily on individuals and exacerbate the situations for those on short-term contracts due to the financial insecurity involved. On the other hand, 22.9% of DRs are financially dependent on others to be able to cover their living expenses (Figure 3.6). Even though the majority states only a weak dependency (Figure 3.7), 32.2% are strongly and even very strongly dependent on it. Naturally, this is also a burden for the DRs.

The individual centers of the Helmholtz Association are expected to provide all equipment required for work purposes. This may differ with the working environment of the individuals. Due to remote work and home office, DRs felt the urge to buy equipment with part of their salary. 38.6% of DRs indicate that they did spend salary on items primarily used for work in the past year. When compared to the N2 survey 2021, this can not be explained by the special situation during the COVID-19 pandemic, when

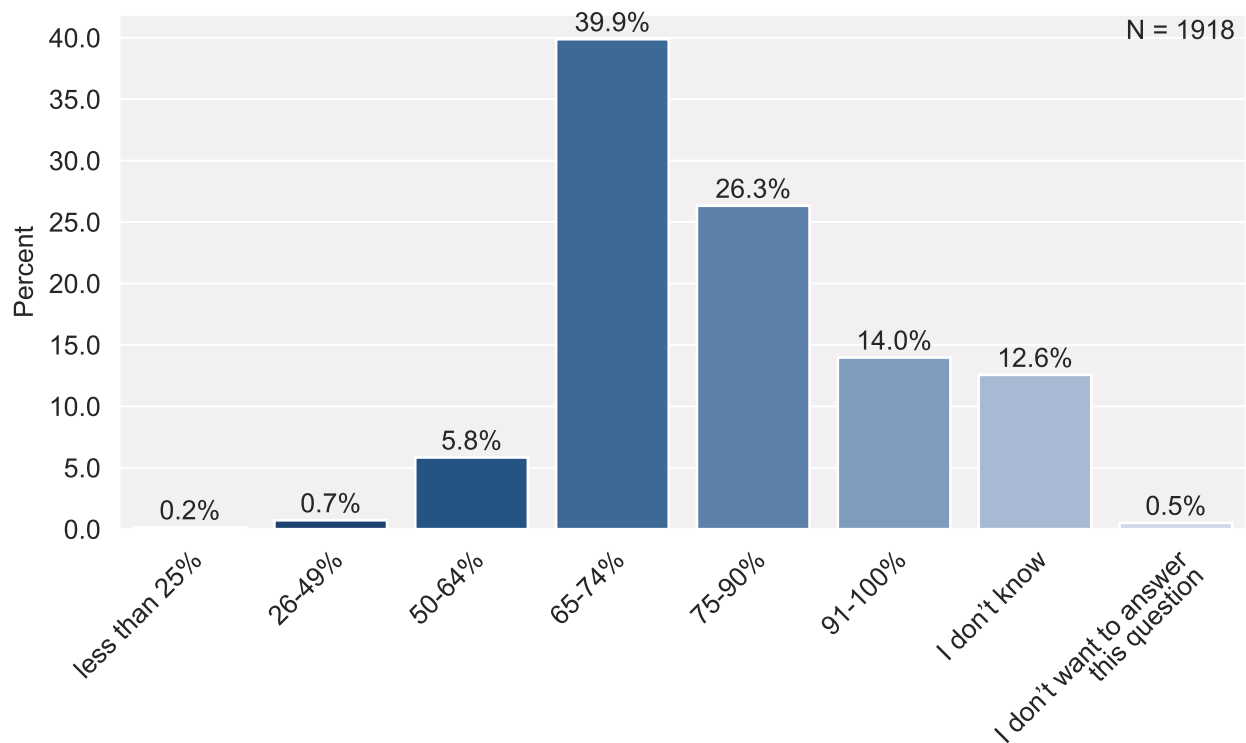


Figure 3.2: Pay scale bracket distribution according to the TvöD/TVL remuneration system at the Helmholtz Association. This plot presents the fractions of participating DRs submitting the respective answers, which are DRs with an internal or external contract in Figure 3.1. Furthermore, his question was posed in a single-choice format.

mobile working hit everybody in an equally unexpected manner. The most commonly bought items included (see Figure 3.8 for all items):

- Computer hardware (cable, mouse, camera, microphone, headset),
- Office equipment (folders, pens, ...),
- Books and articles.

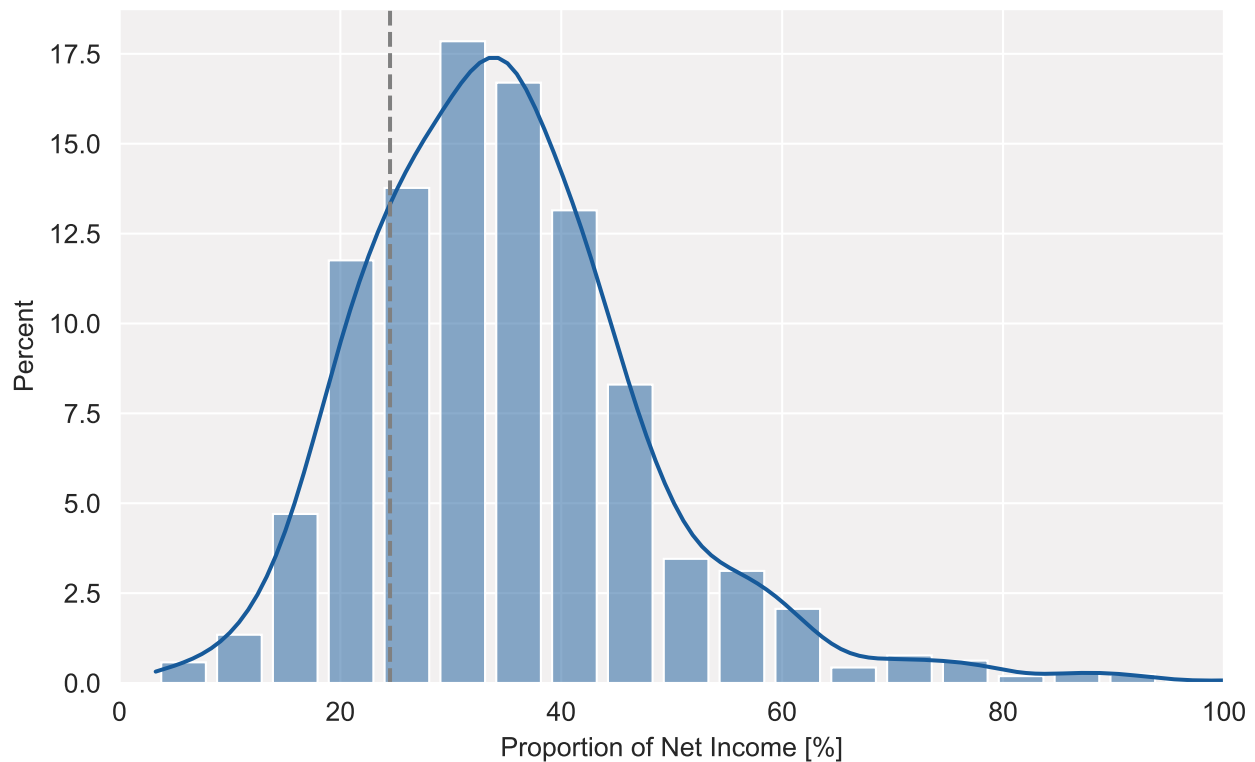


Figure 3.3: Proportion of monthly net income that is spent on rent (including associated costs) by the respective amount of DRs at the Helmholtz Association. Each bar represents the collective results of 5% steps, so the first bar combines results from 0% to 5%, and so forth. The lines show the kernel density estimate for each group. A vertical dashed line marks 24.5%, which is the German average of 2024 [27].

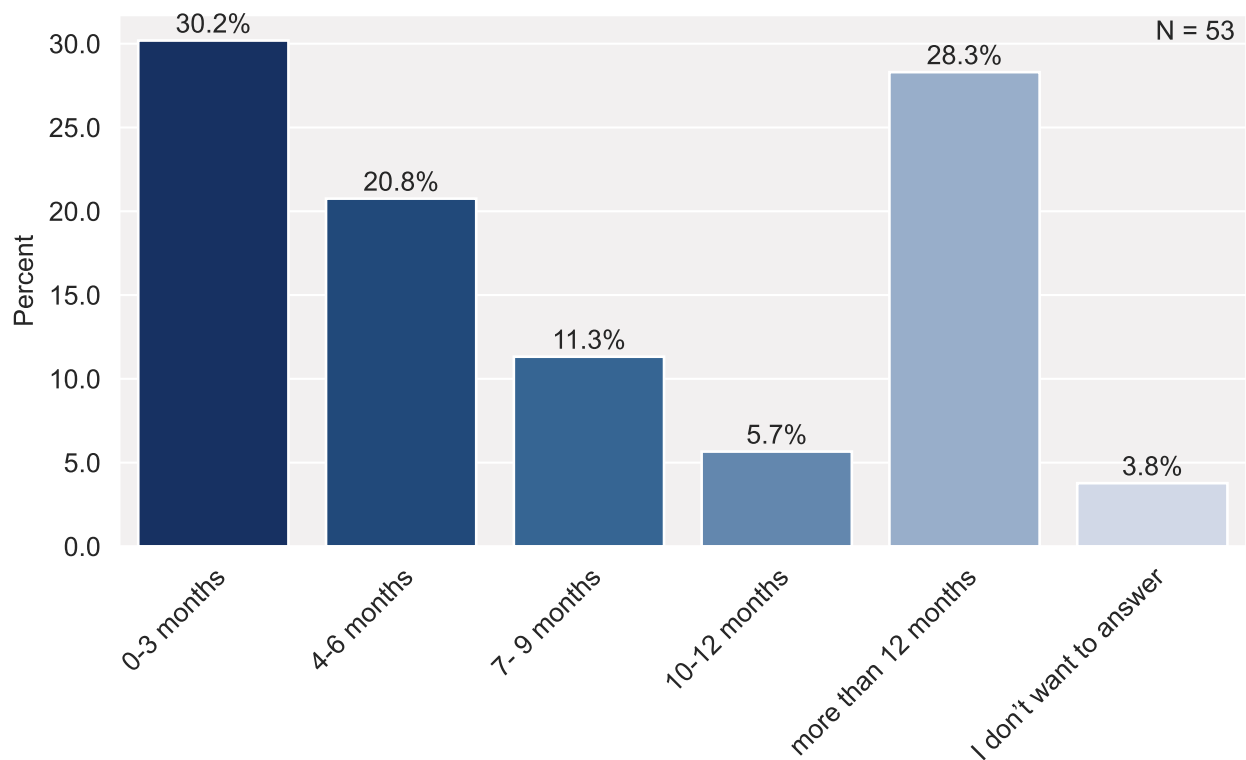


Figure 3.4: Duration of unpaid work for DRs who still pursue their degree at a Helmholtz Center, but work without payment.

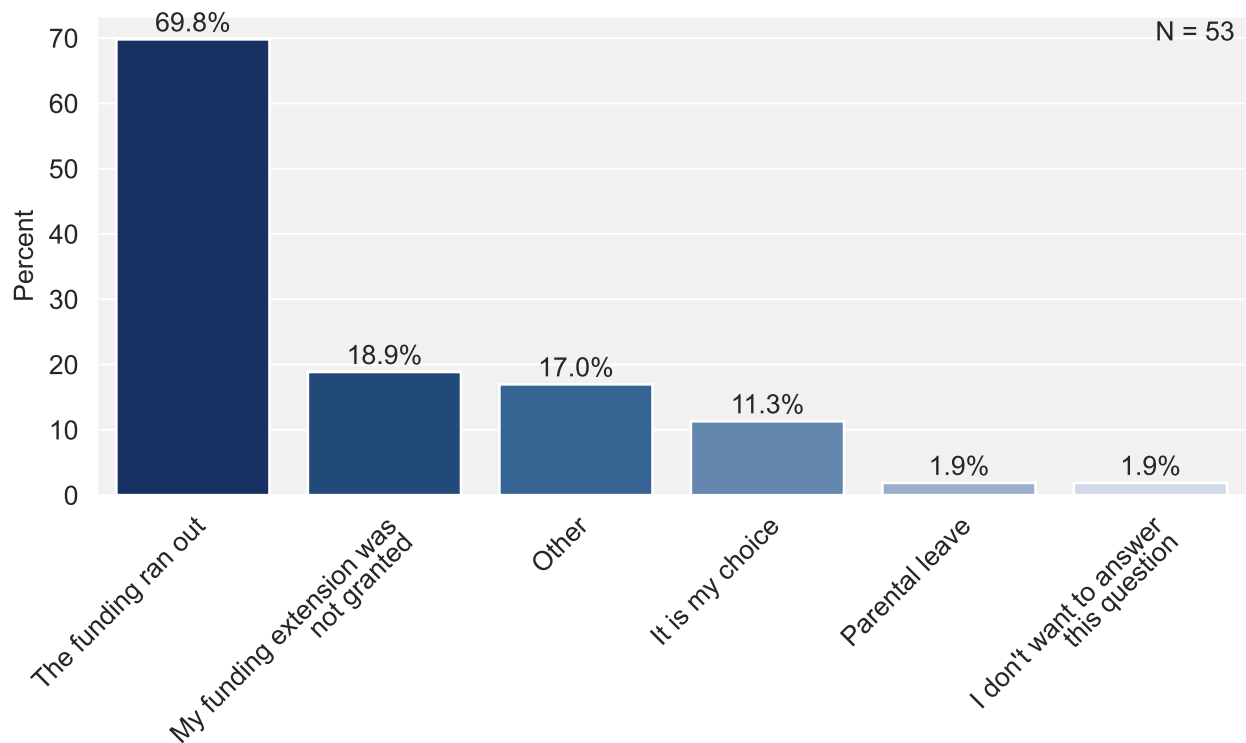


Figure 3.5: Reasons for working unpaid for DRs who still pursue their degree at a Helmholtz Center, but work without payment.

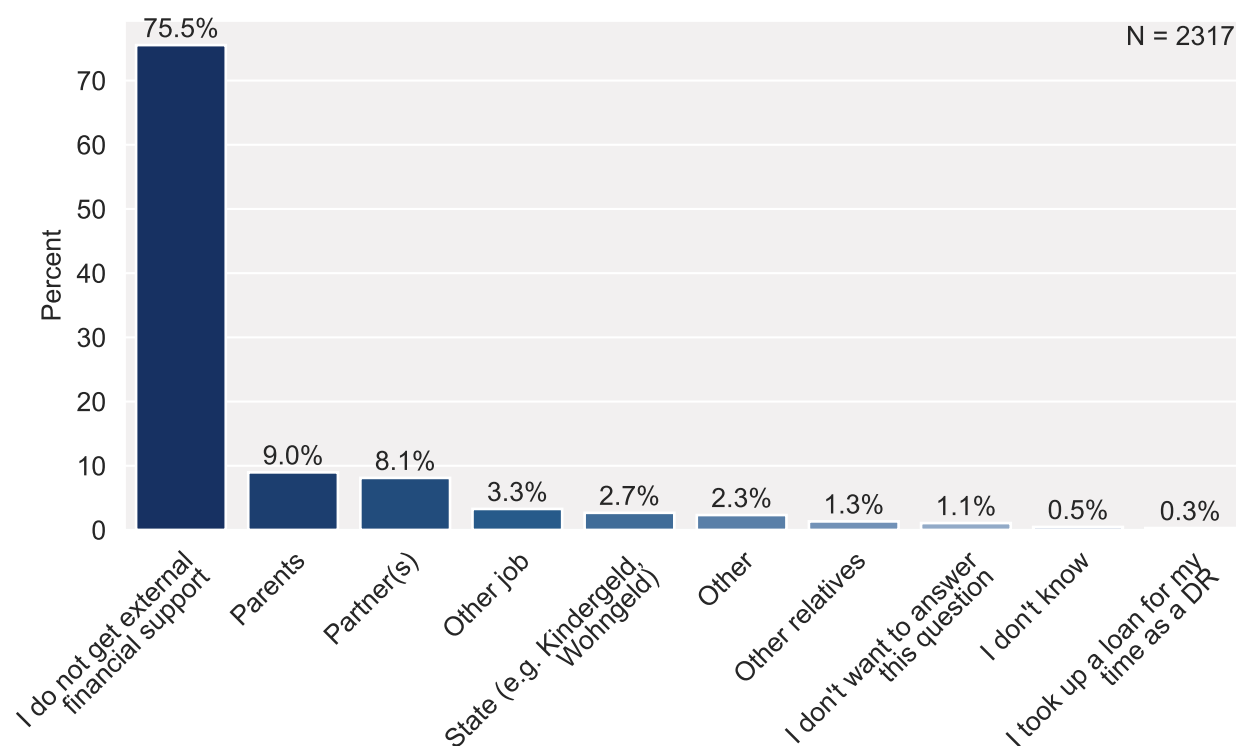


Figure 3.6: Portions of DRs either receiving or not receiving financial support and their respective sources at the Helmholtz Association. This question was asked in a multiple-choice format.

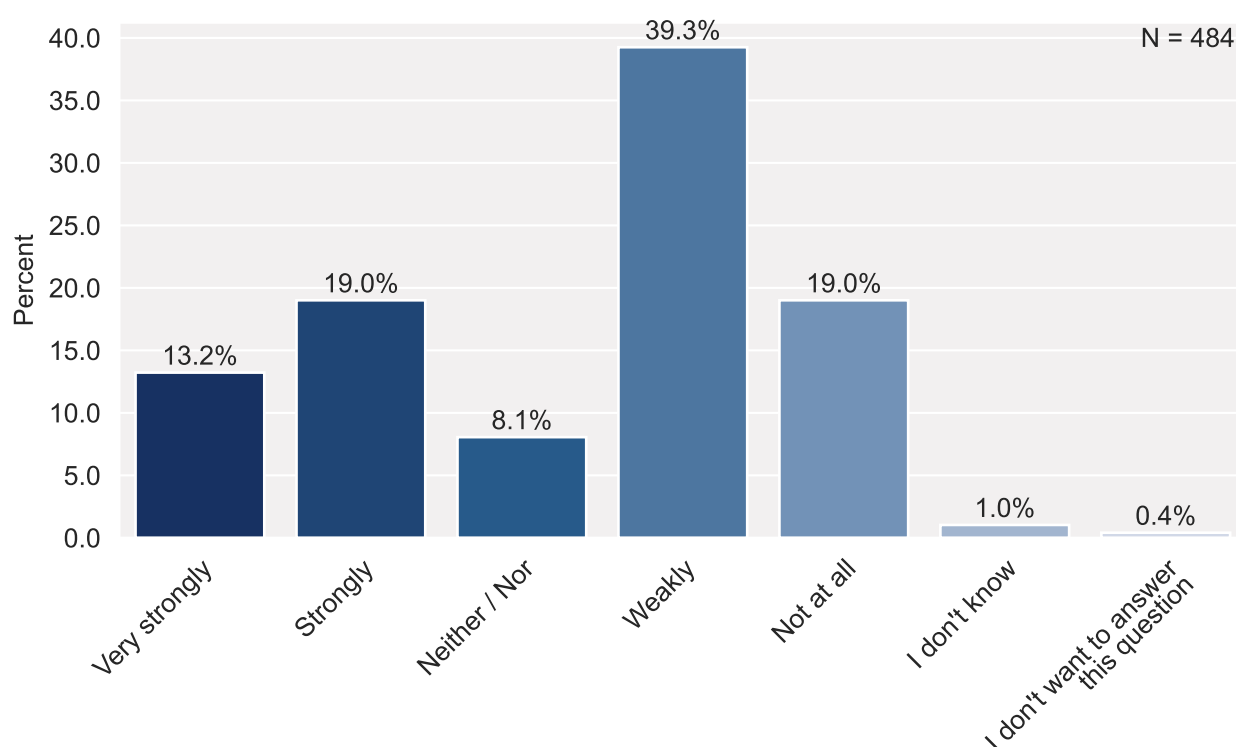


Figure 3.7: Degree of dependency on the financial support of DRs. This plot presents the fractions of participating DRs submitting the respective answers, which are DRs that stated a dependency in Figure 3.6. This question was posed in a single-choice format.

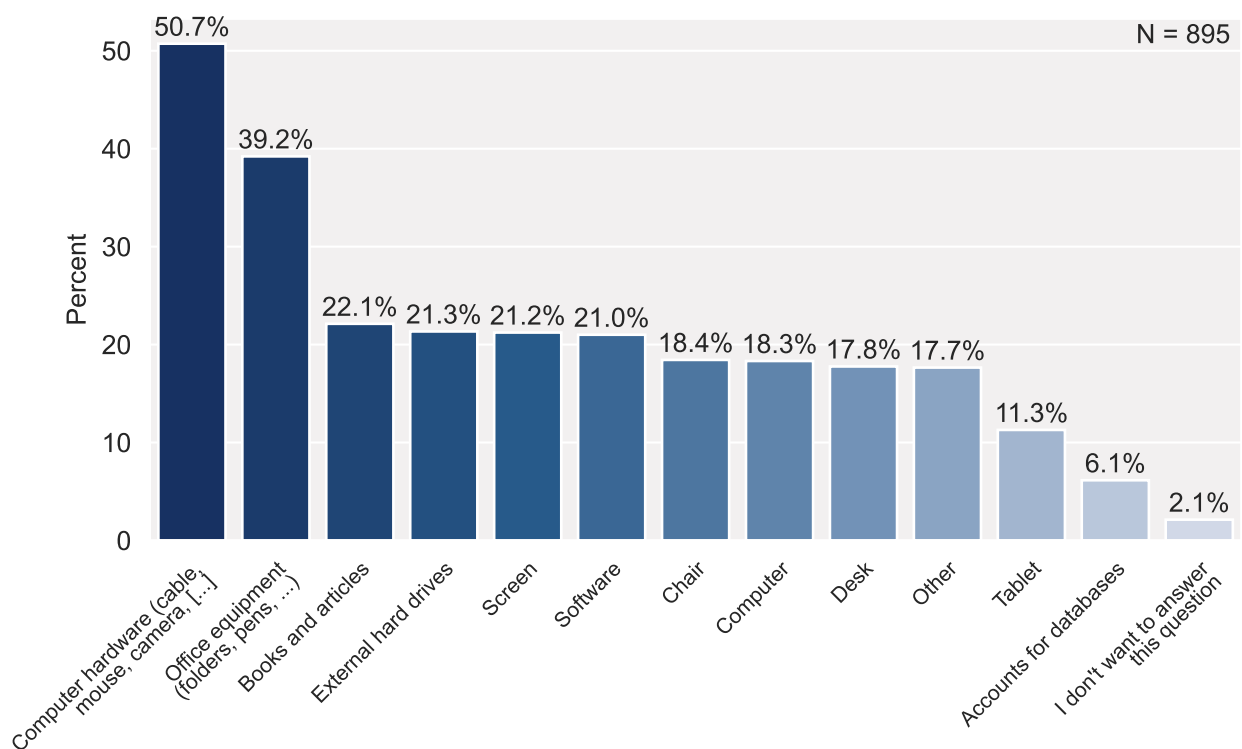


Figure 3.8: Categories of self-paid items that DRs primarily used for work at the Helmholtz Association. This plot presents the fractions of participating DRs submitting the respective answers, which are DRs that generally reported spending. This question was posed in a multiple-choice format.

3.2 Contracts

Another struggle for DRs is the uncertainty regarding contract duration and extensions to cover the whole period of their doctoral project. Lacking a secured employment status for the whole duration of the doctorate can amplify financial insecurities and boost occupational stress, possibly being detrimental to mental health ([16]). Therefore, we strongly advocate for a general contract duration of 4 years for all DRs and to abolish the practice of handing out multiple short-term contracts following each other towards the end of the project while the DR is still working on their thesis. Currently, the most common contract duration across all centers is 25-36 months, with 39.6% of DRs having at least received 1 contract extension and 7.0% 3 or even more so far. Of note, all DRs irrespective of their current year of doctoral project were asked this question.

It is frequently observed that DRs require more time than the duration of their contract. Centers may offer contract/stipend extensions to allow DRs to complete their studies. Survey participants were asked if their centers provide possibilities to extend their contract with 17.6% of DRs answering “yes” in regards to needing more to finish the project, 17.2% saying “yes” for a wrap-up phase and 12.9% responding with “yes” in case of parental leave (Figure 3.9). Of note, parental leave is a legally binding reason for contract extensions [5], which many DRs are either not aware of or the opposite is communicated within their research group.

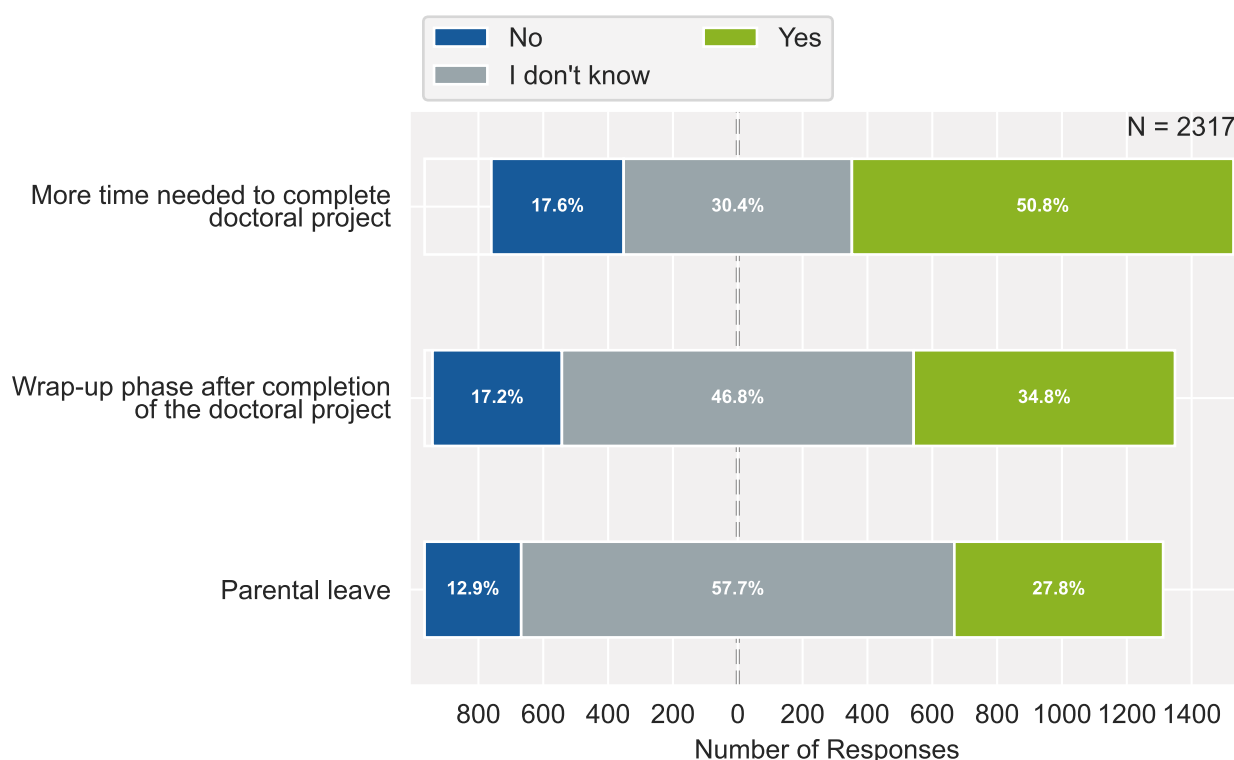


Figure 3.9: Possibility to extend a contract/stipend for the listed reasons at the Helmholtz Association. The bars are centered around the neutral answer “I don’t know” (grey) while the agreement to an option via “Yes” is stacked to the right (green) and the disagreement via “No” to the left (blue).

3.3 Holidays and Workload

Now, we would like to move on to another aspect of working conditions addressed in the survey. DRs are entitled to have a specific number of days as paid vacation days per year, in accordance with their contract or stipend agreement (Figure 3.10). Of note, as per standard Helmholtz guidelines, a DR with a contract should have 30 paid vacation days.

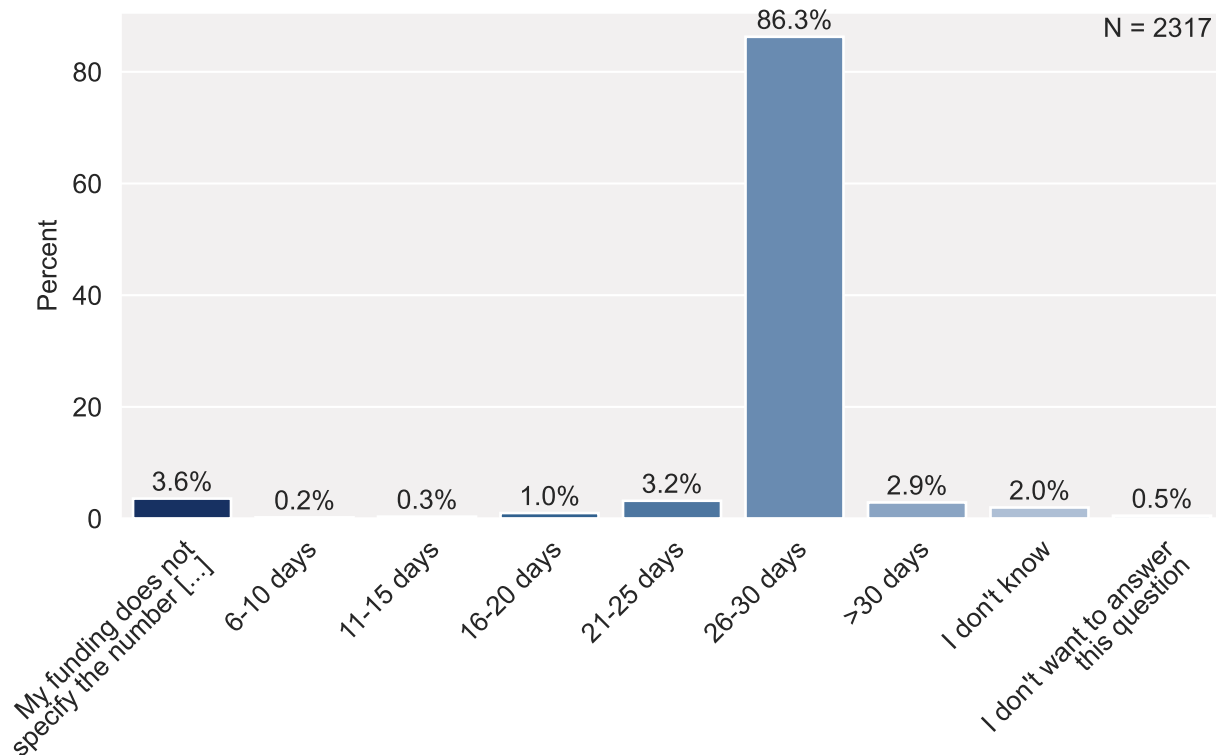


Figure 3.10: Number of holidays available to DRs according to the respective contract or stipend at the Helmholtz Association.

While there is an official number of vacation days for DRs, it is often the case that DRs do not take holidays. This may be due to a variety of reasons. The DRs were asked in the survey about the number of vacation days that they took off in the last one year. We observe that in this case, over 30.3% of the DRs have taken 15 or less vacation days in the past year (Figure 3.11).

Considering the fact that high percentages of DRs who do not feel free to take holidays could suggest unhealthy working conditions, we decided to investigate the underlying reason why DRs do not sufficiently utilize their vacation days. They were asked to provide any working environment-related issues that prevented them from taking a vacation, such as high workload, pressure from supervisor, etc. Figure 3.12 represents the combined responses from all participants.

While it could be a personal choice not to take a vacation, any of these factors may negatively influence the work quality as sufficient time to recharge is not claimed, and taking time off from work is important for work-life balance and mental health. Those who do not feel free to take holidays (36.8% across the Helmholtz Association) have listed the following top reasons as to why that is:

- the pressure to finish work with given time,
- high workload,
- I want to have high performance with my project.

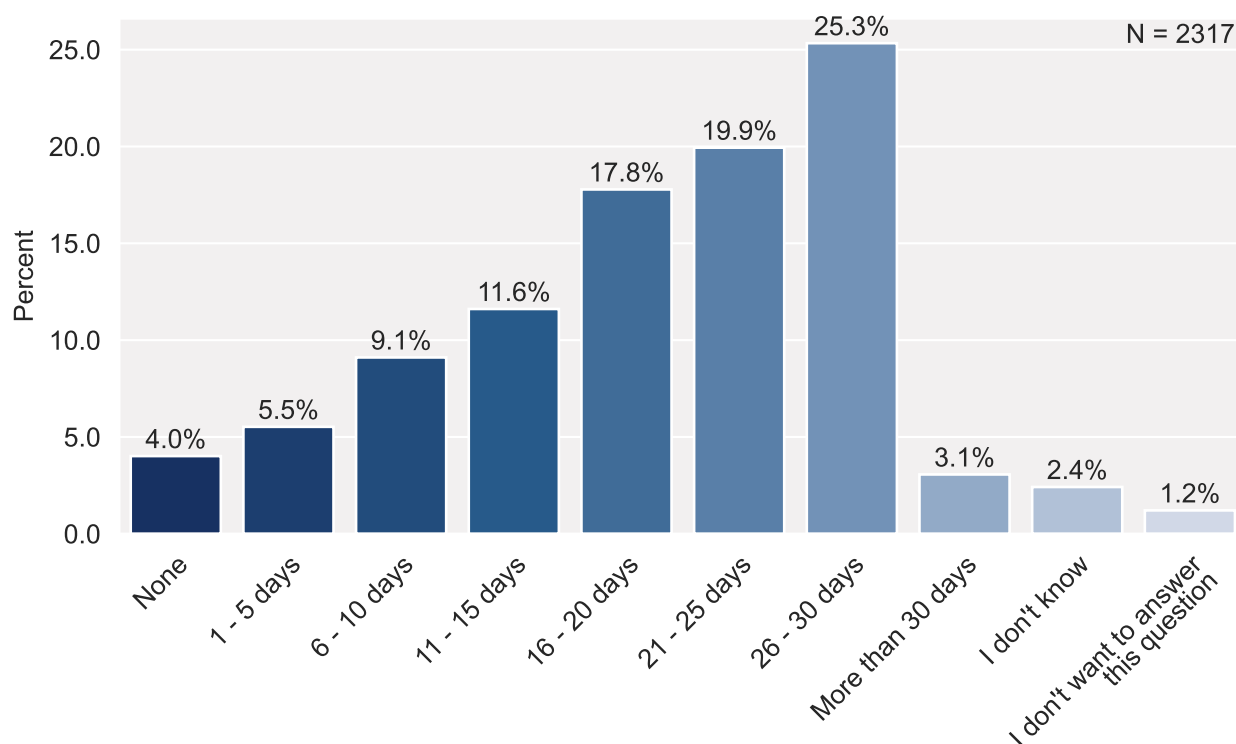


Figure 3.11: Number of vacation days actually taken by DRs at the Helmholtz Association. This question was posed in a single-choice format.

As a high workload is one of the key components contributing to a low level of job satisfaction among DRs, we asked for the average working hours of DRs per week across the Helmholtz Association. Putting this into perspective with the contractually agreed working hours of DRs gives the distribution of overhours (Figure 3.13). In total 67.2% of DRs do overhours in respect to their contractually given worktime, while 59.6% generally work more than 40 hours per week on average. The top reasons for working more than 40 h per week are (Figure 3.14):

- Intrinsic (self) pressure,
- I'm worried that I won't finish my doctorate before my contract/stipend ends,
- I have too many projects / work tasks in addition to my doctorate.

It is crucial to mention that working time consists not only of hours spent working on the dissertation but also of scientific work not related to the doctoral research, such as helping other projects, as well as attending courses and seminars, performing administrative tasks, and, in some cases, teaching. The insecurity due to insufficient available time to finish the doctorate during contract time (as already discussed above) manifests itself in overwork.

Moreover, 64.5% of DRs at the Helmholtz Association have indicated that they have worked at least once a month during weekends and public holidays in the past year (Figure 3.15). Our results indicate that providing a platform and support for well-managed work-life balance and taking time off from work is incredibly important to improving the DRs working conditions. This is further highlighted in the next sections, especially in Figure 5.3, where workload is the most important factor correlated to both depressive syndrome and state anxiety of DRs.

One measure to shed light on overhours and raise awareness for potential exhaustion is the tracking of working hours, which by a landmark ruling of the European Court of Justice in May 2019 based on the EU Working Time Directive (2003/88/EC) became mandatory [9]. However, in 2024, only

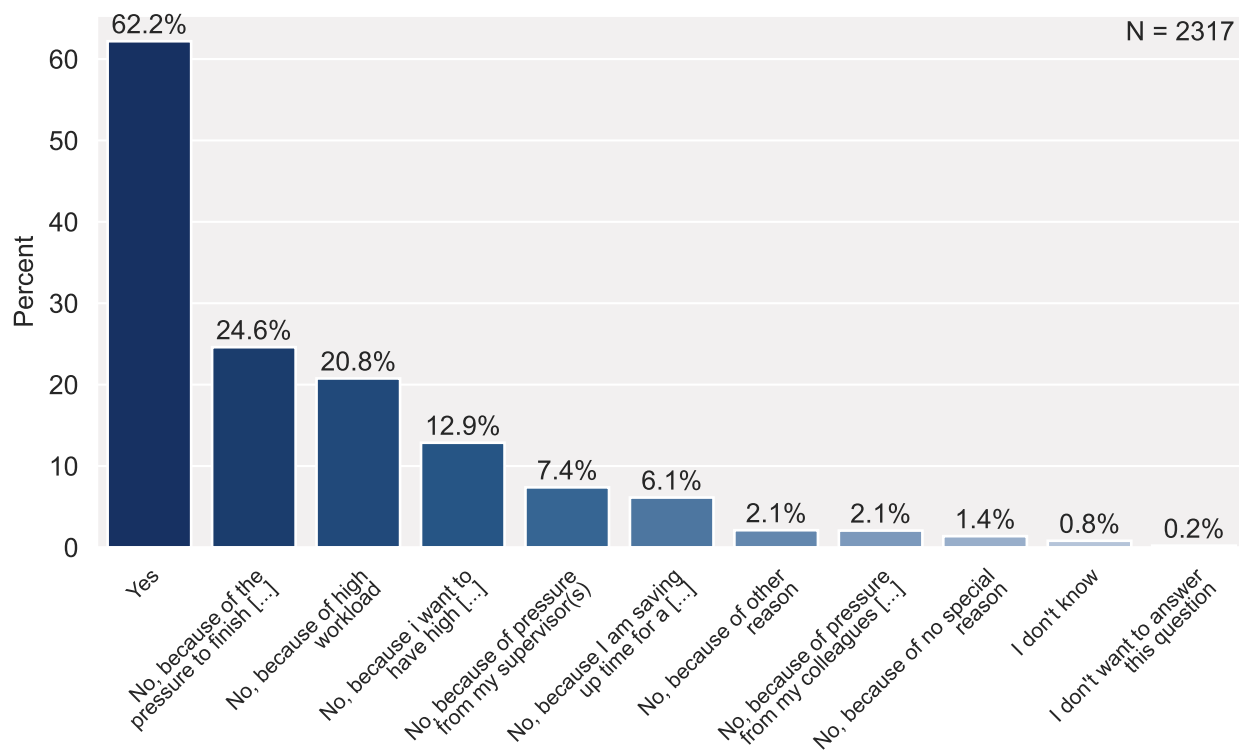


Figure 3.12: Utilization of holidays by DRs at the Helmholtz Association. This question was posed in a multiple-choice format.

a minority of DRs answered that their working hours are tracked officially at their institute (Figure 3.16). This percentage definitely needs to be increased in the upcoming years to finally reach a value of 100% and thereby giving DRs an important tool for achieving reasonable working hours.

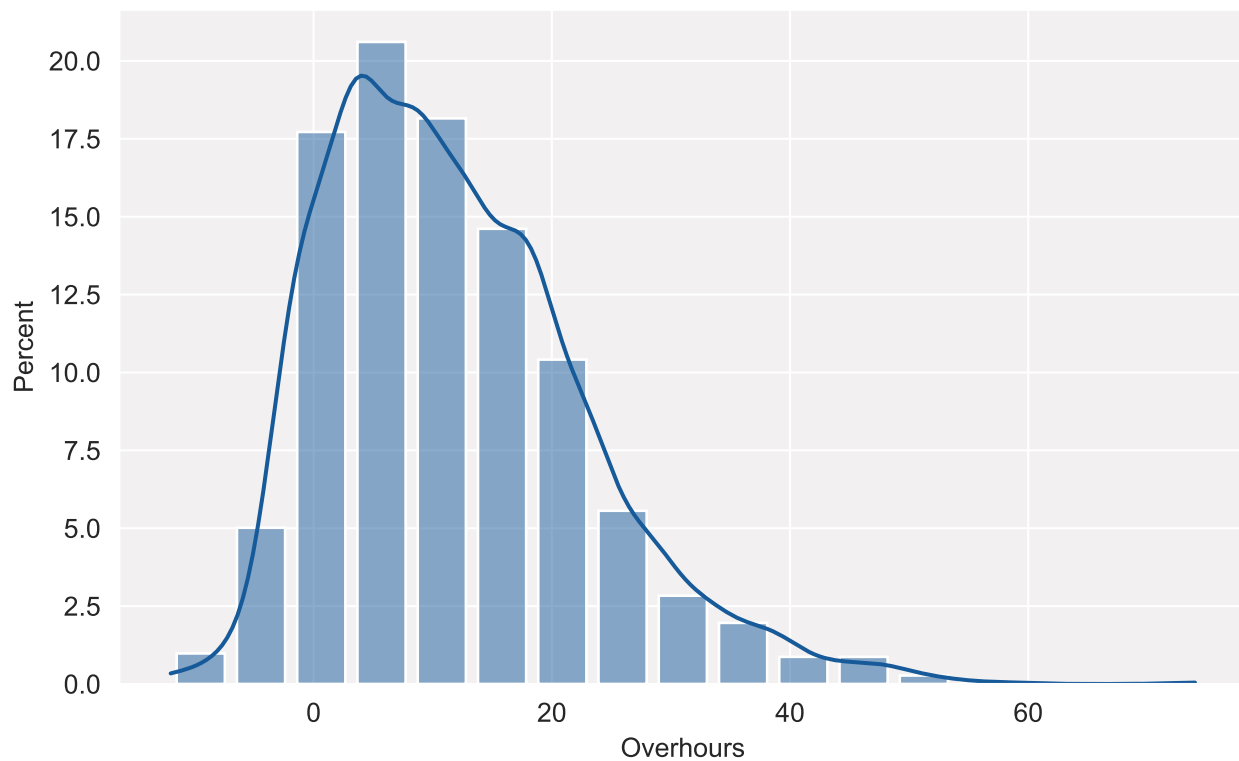


Figure 3.13: Number of hours worked relative to the number of hours contractually agreed at the Helmholtz Association. Each bar represents the collective results of 5-hour steps, with the numbers shown on the x-axis being the upper boundary of this combination. Accordingly, the bars at "20" show the summarized results for people stating to work 16 to 20 hours more than their contractual working time. Numbers greater than 0 represent overhours. Therefore, the "0" bar and each one before signify that fewer hours have been worked than the contract dictates. The y-axis shows the combined proportion of participants who reported working fewer or additional hours, placing them within the respective 5-hour range. The lines show the kernel density estimate for each group.

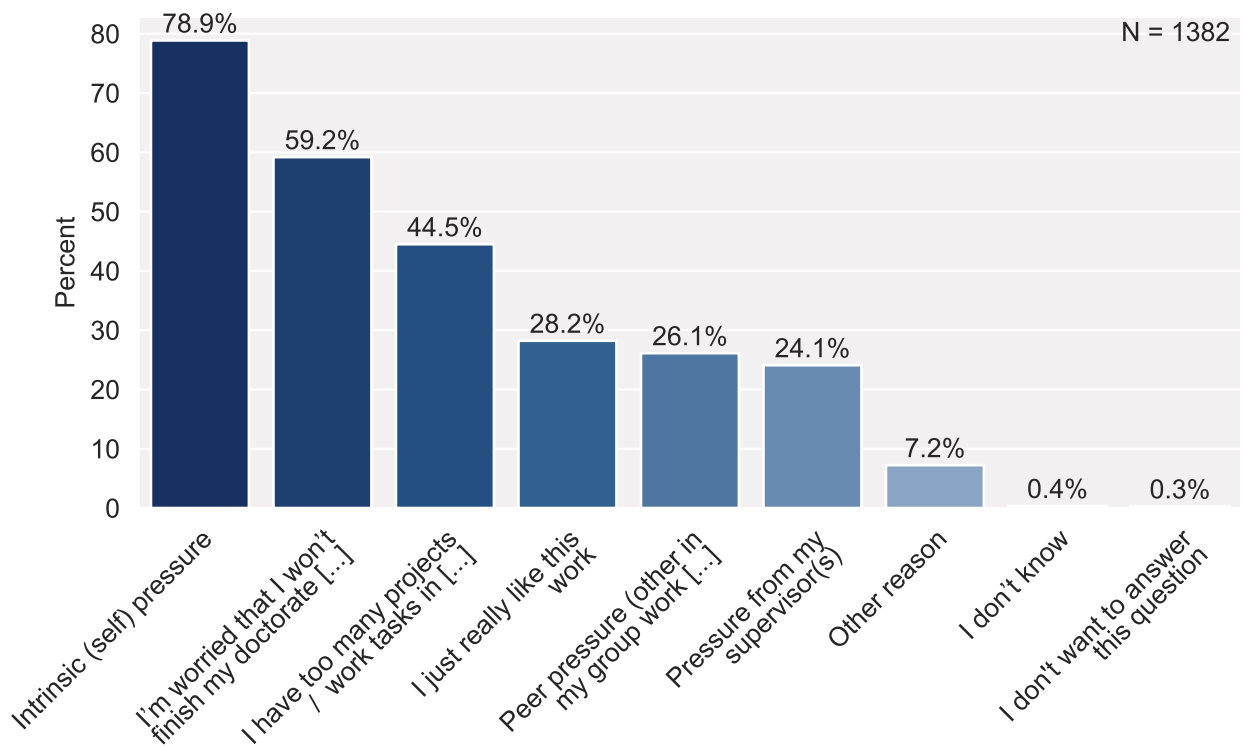


Figure 3.14: Reasons given by DRs for working more than 40 hours per week at the Helmholtz Association. This question was given to all DRs with a multiple-choice selection.

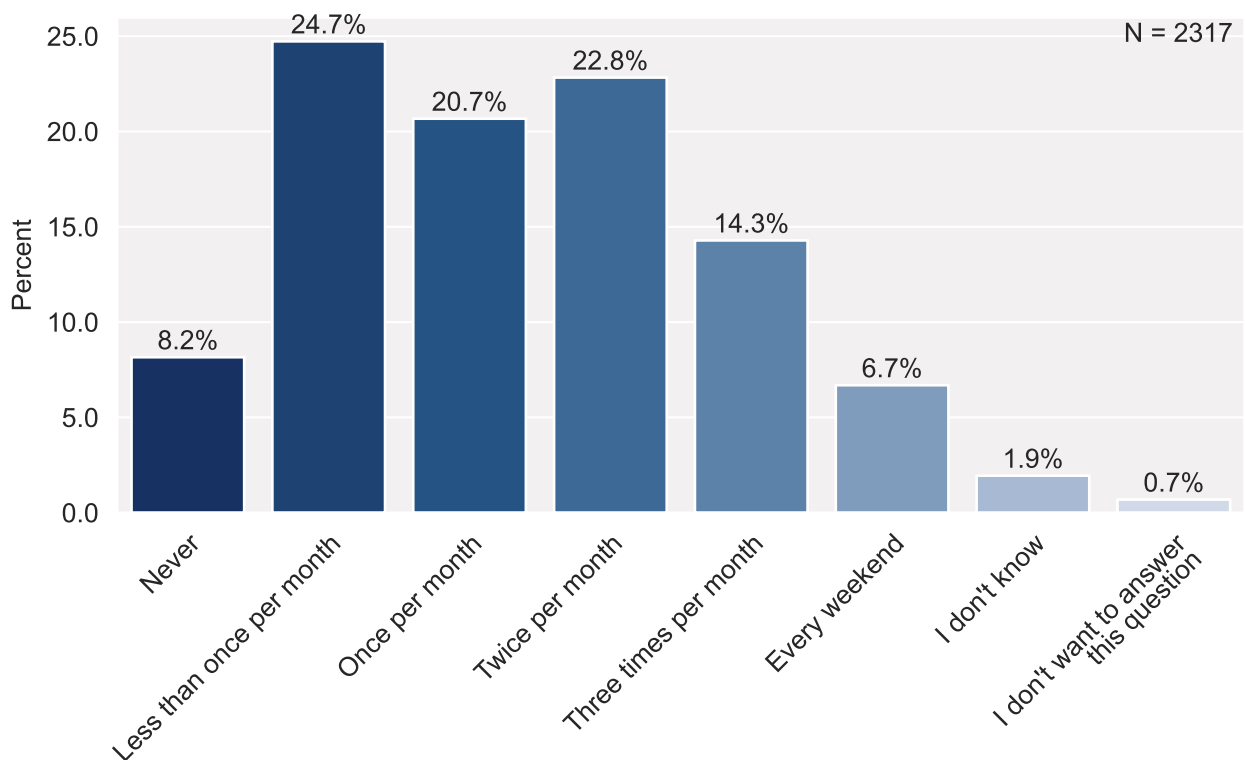


Figure 3.15: Frequency of work on weekends or public holidays for DRs across the Helmholtz Association.

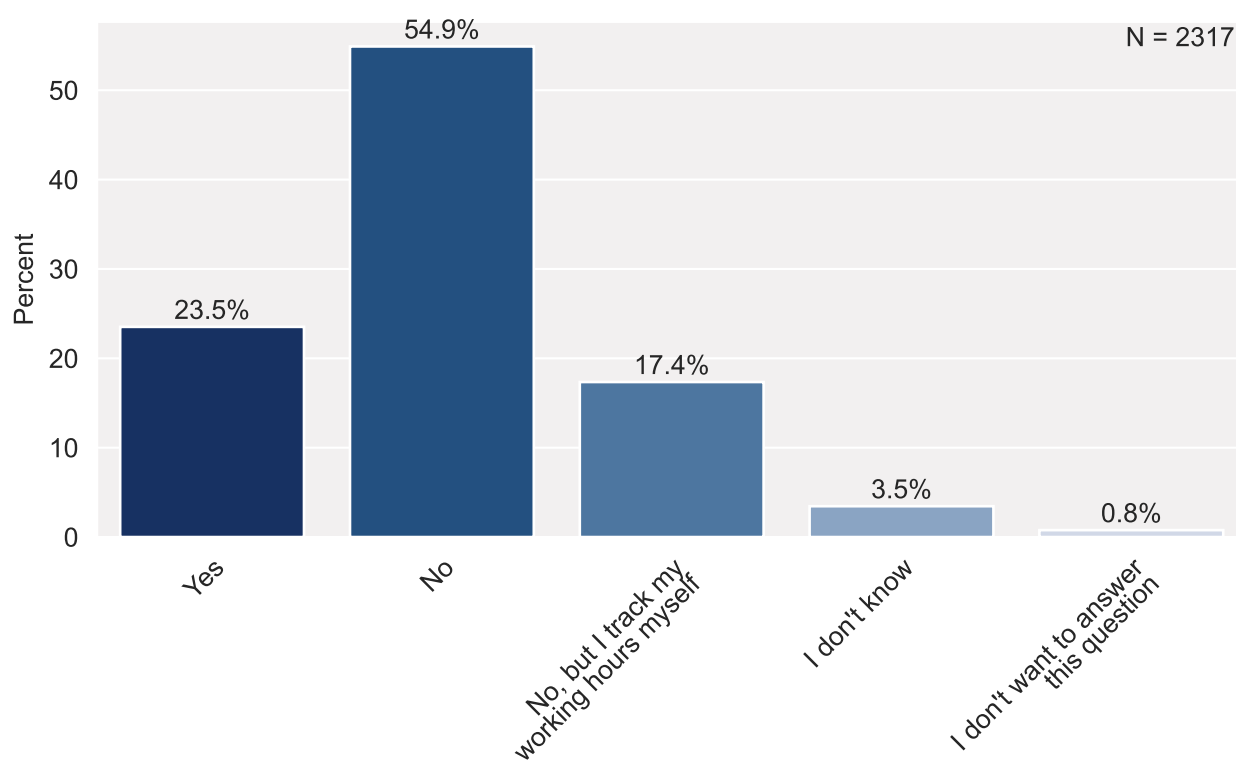


Figure 3.16: DRs' answers to whether their work hours are tracked officially across all centers of the Helmholtz Association.

Chapter 4

Satisfaction

Workplace satisfaction plays a pivotal role in shaping the experience of DRs, significantly influencing their productivity, mental health, and motivation to achieve innovative research excellence. Globally, over 30% of DRs experience mental health issues such as depression and anxiety, largely stemming from high work pressure and poor work-life balance [16, 30, 17]. A well-supported research environment, including quality mentorship, sufficient financial resources, and opportunities for career advancement, can mitigate these risks, leading to better research outcomes and personal well-being. The academic landscape poses unique challenges, with nearly 80% of DRs reporting stress linked to job insecurity and the demanding nature of research [30]. Addressing workplace satisfaction through improved policies, mental health support, and clearer career paths can help reduce burnout rates and improve retention among DRs, ensuring long-term success both for the researchers and their institutions.

In this section of the survey, satisfaction of DRs is evaluated. We have delved into questions concerning different aspects of work culture in Helmholtz centers, e.g., supervision, workload, and career development. The overall job satisfaction was assessed through the question “If you think about your own situation as a DR, how satisfied are you with the following aspects?”, which included 22 areas that were rated from very dissatisfied to very satisfied.

Overall satisfaction is displayed in Figure 4.1, while Figure 4.2 shows satisfaction with individual factors. The following areas have been found to be the most dissatisfying: Level of administrative digitalization, Psychological support offered within your institute/center, Salary/funding, Supervision, and Administrative support.

4.1 Considerations about Quitting

DRs were asked if they have considered quitting their doctoral program (Figure 4.3). 37.6% of participants have at least occasionally considered to quit (sum of occasionally and often responses).

We additionally asked DRs to specify the reasons for that situation (Figure 4.4). As the most problematic, they reported:

- I do not feel qualified enough.
- I have difficulties with my supervisor(s).
- I do not like my working conditions.
- I have no or poor academic results.
- I find my career prospects unattractive.

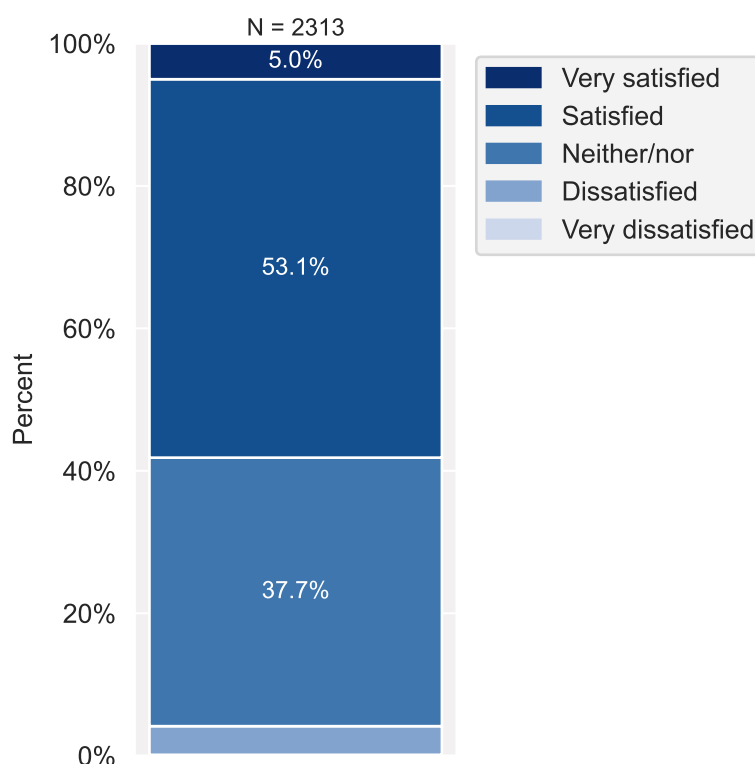


Figure 4.1: Overall job satisfaction for DRs. The overall satisfaction score was calculated as the mean of all categories included in the question. Note: Percentages do not take non-answers (“I don’t want to answer” and “Does not apply”) into consideration.

Here it should be noted that the answers to this question were only proposed to DRs who have at least stated that they rarely considered quitting their doctoral program. Additionally, the question was stated in a multiple-choice format.

4.2 Areas of Improvement

In addition, DRs were asked about their opinion of multiple layers of the academic research environment (Figure 4.5) and which specific aspects of their work as a DR they would like to be improved (Figure 4.6). Every aspect was ranked by the participants of each respective center based on their satisfaction or lack thereof. To identify the most relevant areas for improvement, the number of answers indicating a desire for improvement (“Very much” and “To some extent”) was summed for each possibility and then compared. The highest-ranked aspects are:

- Salary/funding
- Career development
- Level of administrative digitalization

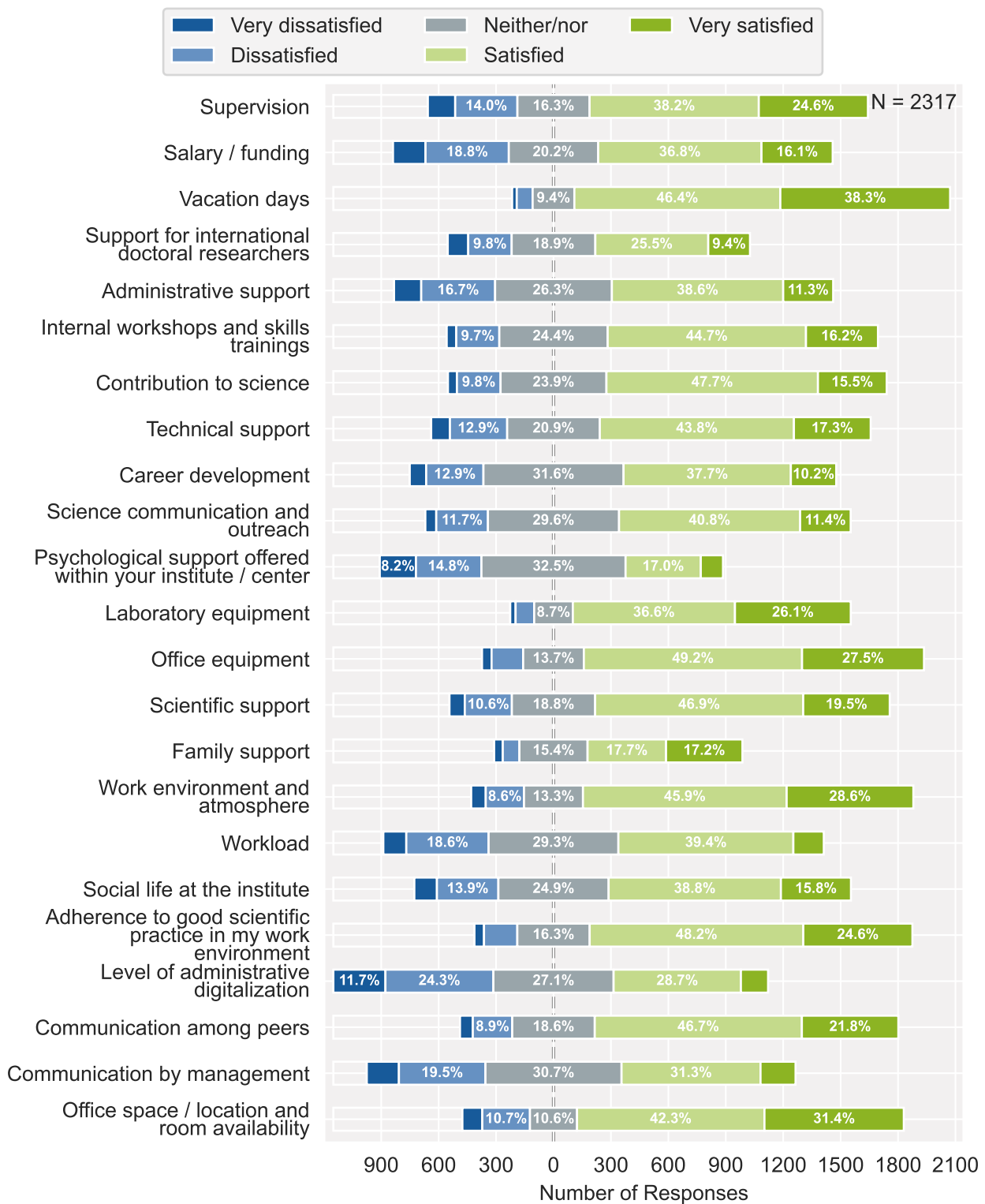


Figure 4.2: Factors contributing to the satisfaction of DRs. The plot presents the degree of agreement of participating DRs on a Likert scale. Bars are centered around neutral answers, with positive answers stacked on the right (in shades of green) and negative answers stacked on the left (in shades of blue).

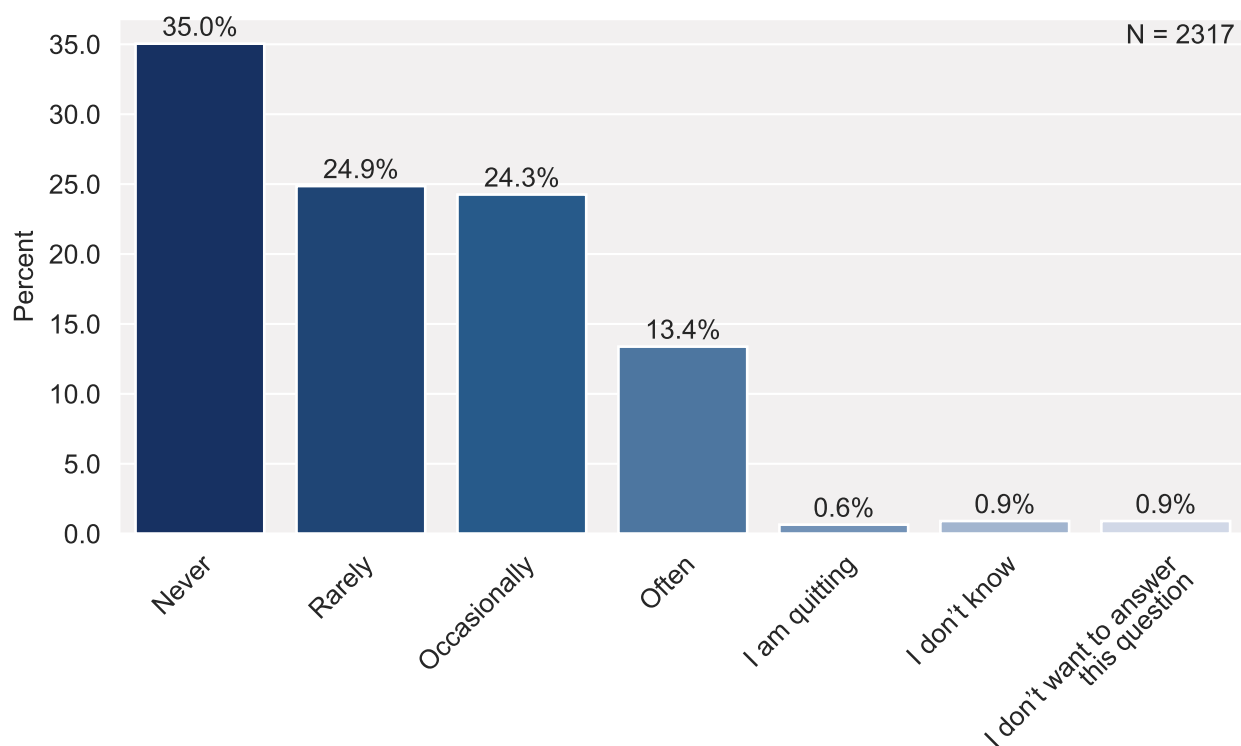


Figure 4.3: The frequency at which DRs consider quitting their doctoral work. This plot presents the fractions of participating DRs submitting the respective answers. Please note that the answers to this question were asked in a single-choice format.

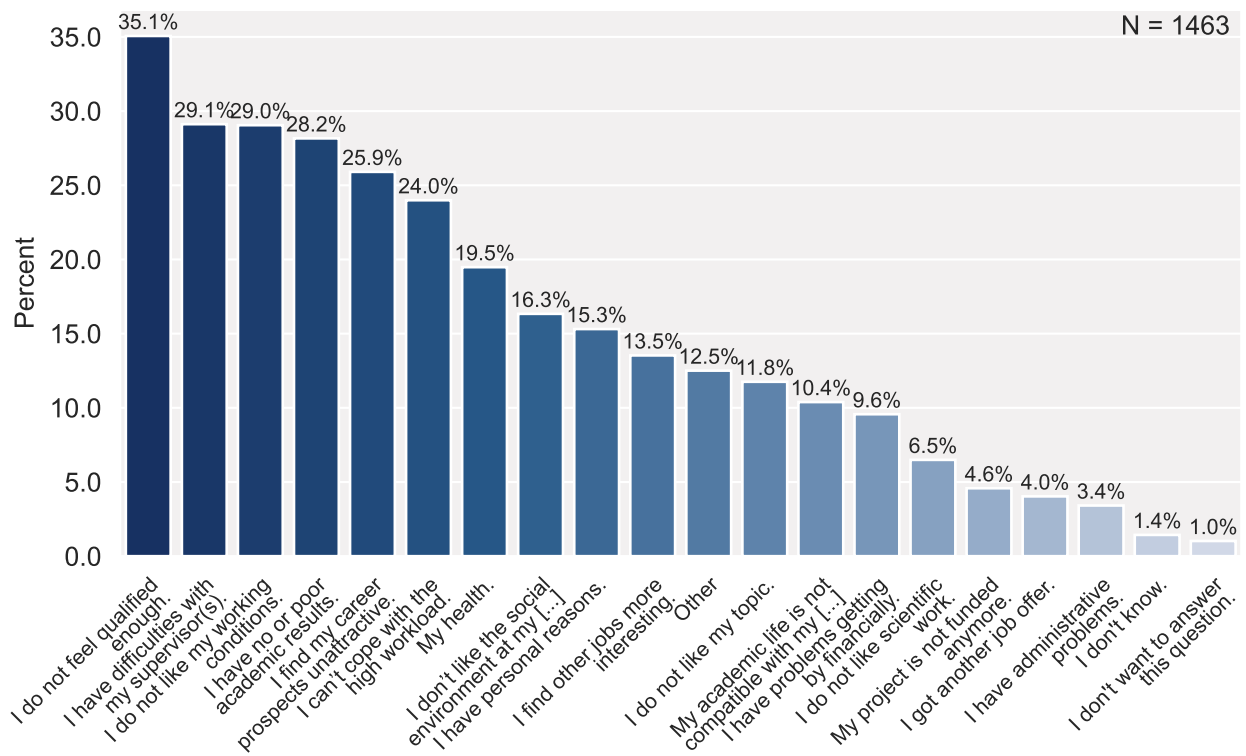


Figure 4.4: Reasons for DRs to consider quitting their doctoral program. This plot presents the fractions of participating DRs submitting the respective answers. Please note that the answers to this question were asked in a multiple-choice format. In addition, the percentages were calculated with respect to the total amount of DRs that at least rarely consider quitting their project.

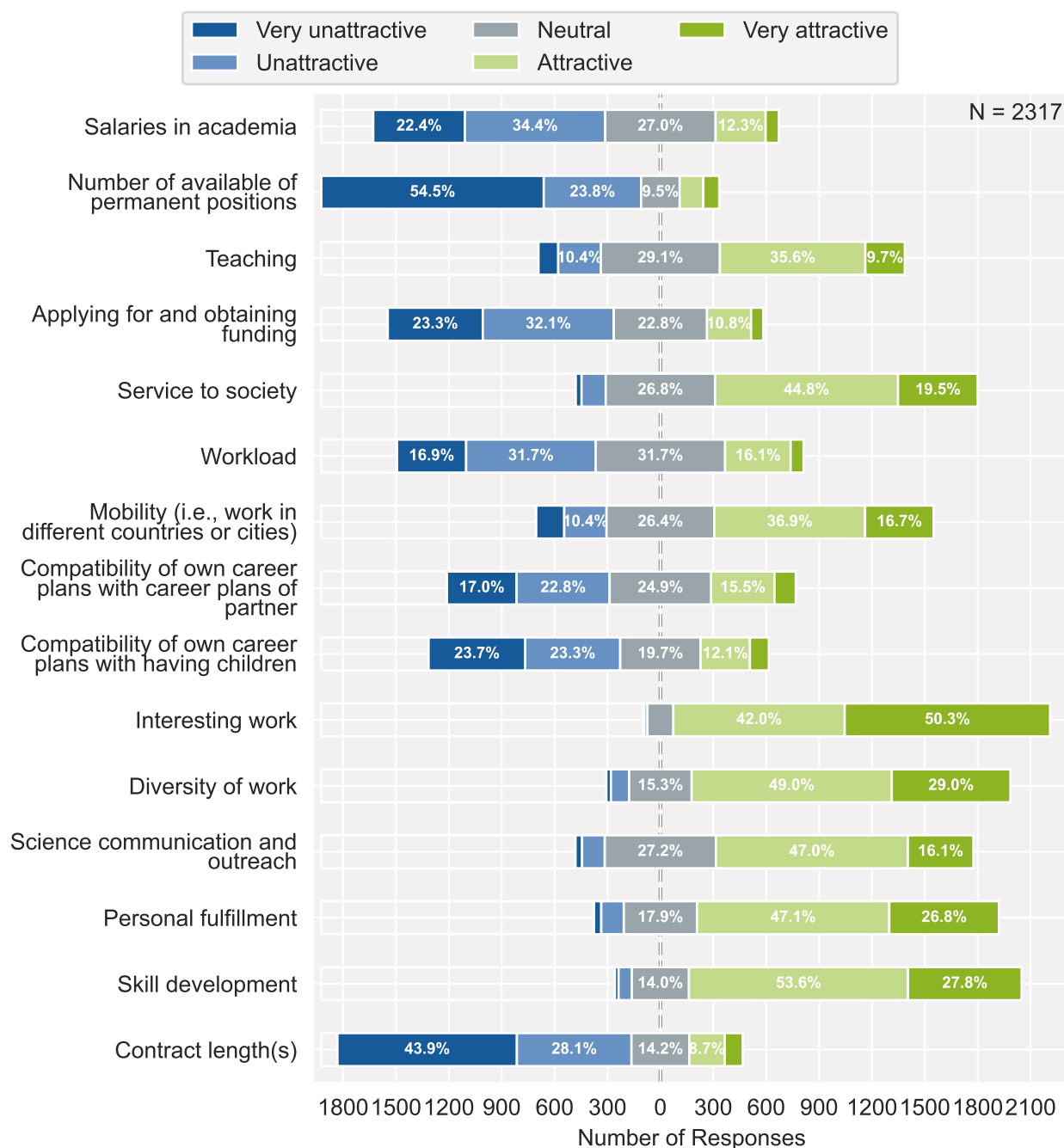


Figure 4.5: Academic research aspect status as judged by DRs. The plot presents the degree of agreement of participating DRs on a Likert scale. Bars are centered around neutral answers, with answers indicating attractiveness of an aspect stacked on the right (in shades of green) and answers showing unattractiveness of an aspect stacked on the left (in shades of blue).

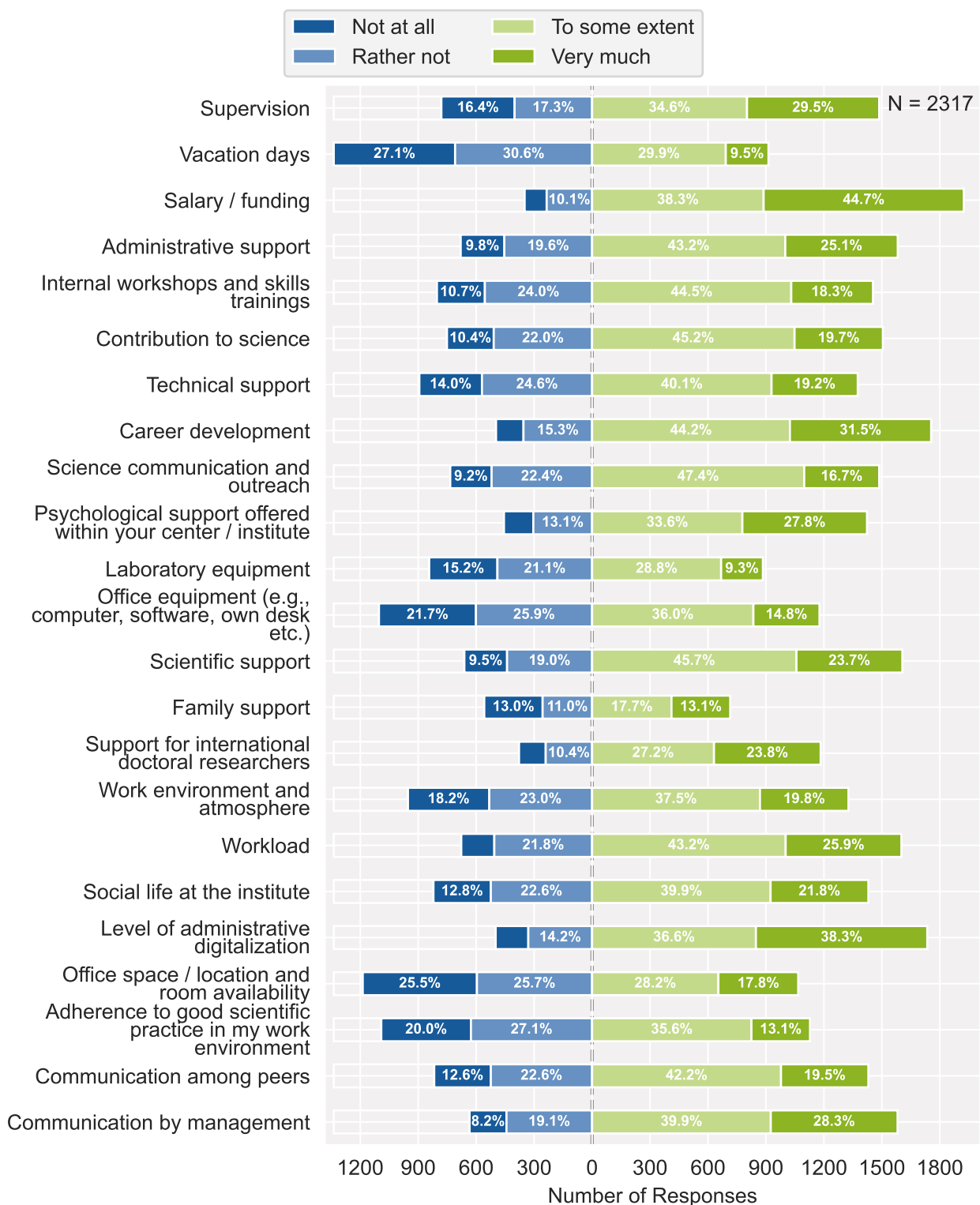


Figure 4.6: Aspects which DRs would wish to improve at their center. The plot presents the degree of agreement of participating DRs on a Likert scale. Bars are centered around neutral answers, with answers indicating a wish for improvement stacked on the right (in shades of green) and answers representing no wish for improvement stacked on the left (in shades of blue).

Chapter 5

Mental Health

WHO describes mental health as a state of mental well-being that enables people to cope with the stresses of life, realize their abilities, learn and work well, and contribute to their community [31]. DRs work in challenging environments where high workload, time constraints, difficult supervision, financial insecurity, and pressure to publish tend to have adverse effects on their daily lives. Previous studies have shown that DRs tend to experience higher levels of depression and anxiety compared to the general public [3, 25]. Hence, ascertaining the state of DRs' mental health at the Helmholtz centers is crucial to understand and improve personal, social, and professional well-being. We use the Patient Health Questionnaire 8 (PHQ-8) for assessing depressive syndrome [13] and the State-Trait Anxiety Inventory (STAI) for anxiety [18]. Additionally, we also assess effects on physical health through somatic symptoms scoring (PHQ-15) since these can arise when mental health is affected [13].

5.1 Anxiety, Depression and Somatic Symptoms

STAI assesses two forms of anxiety: state anxiety, referring to DRs' current anxiety symptoms (their experience at the time of taking the survey), and trait anxiety that describes their tendency to experience anxiety in various situations (how they generally feel). Scores were obtained similarly, and categorized into bins: 20–40 points translate to no or low anxiety, 41–60 to moderate anxiety, and 61–80 to high anxiety¹. 18.4% suffered from high state anxiety (Figure 5.1a). Similarly, for trait anxiety, 10.7% fell in the high bracket (Figure 5.1b).

Depression is a mental disorder marked by persistent feelings of sadness, inactivity, hopelessness, difficulty in thinking and concentration, and sometimes suicidal ideation. Using PHQ-8, we could determine the severity of depressive symptoms by calculating a final score based on the statements. We use the standard binning to map ranges of scores to severity: 0–4 points correspond to no to minimal depression, 5–9 points correspond to mild depression, 10–14 points correspond to moderate depression, 15–19 points correspond to moderately severe depression, and 20–24 points correspond to severe depression. We found that 67.9% had symptoms suggesting minimal to mild depression, while 6.9% had symptoms indicating moderately severe to severe depression (Figure 5.1c).

Disturbed mental health and stress can have a direct effect on physical well-being. By using PHQ-15 we can assess a variety of somatic symptoms that DRs might encounter in this context. As

¹Please note that in the 2021 [10] (and earlier) survey reports, the binning for anxiety scores was 20–37: no or low anxiety, 38–44: moderate anxiety, 45–80: high anxiety. Hence, numbers from this and earlier reports cannot be directly compared. We have adopted this change for consistency with N² reports. To the best of our knowledge, there is no accepted “standard” binning.

for PHQ-8, we use the standard binning to map ranges of scores to severity: 0–4 points correspond to no somatic symptoms, 5–9 points correspond to mild somatic symptoms, 10–14 points correspond to moderate somatic symptoms, and 15–30 points correspond to severe somatic symptoms. 57.0% had no to mild somatic symptoms while 30.1% had moderate to severe somatic symptoms (Figure 5.1d). The top physical symptoms that DRs were most bothered by were feeling tired or staying asleep, or sleeping too much and back pain.

On plotting stratified plots of mental health scores by years since the beginning of the PhD (??), a clear trend is evident, with anxiety, depression, and somatic symptom scores increasing progressively through the years of the PhD. This tracks very well with a recently published study [3], where the rate of prescribed psychiatric medicine to Swedish DRs increased with the number of years of PhD.

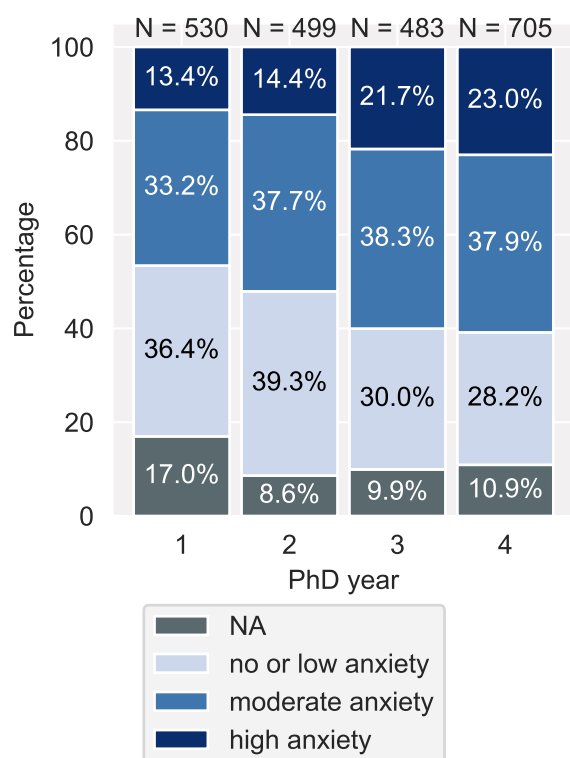
5.2 Correlations with Satisfaction

From all the DRs across the Helmholtz Association who answered the survey, more than 50% had stated that they at least experienced minor effects on their mental and physical health. When we conducted correlation analysis of satisfaction with mental and physical health scores, we observed that workload, work environment and psychological support (or lack thereof) were the top features that correlated most strongly (Figure 5.3). 56.0% knew about the mental health services offered by their center, out of which 4.1% had used it and were satisfied with it (Figure 5.4).

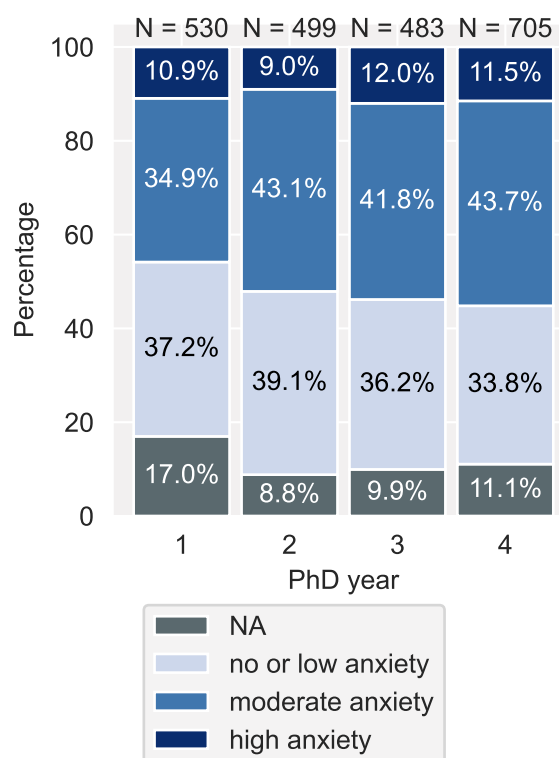
38.3% were not aware of the mental health services provided at their center, compared to 43% in the last survey. Although there has been an improvement, we would encourage continued efforts at raising awareness about mental health and the services offered by the center for its betterment.



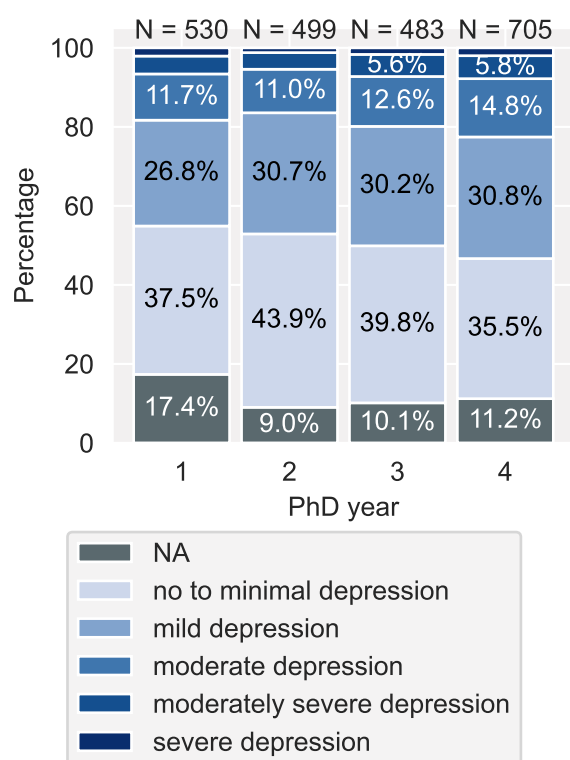
Figure 5.1: Comparison of Mental Health scores. State and trait anxiety, depression and somatic scores have been binned into categories and shown as percentages. Unanswered responses are not shown as percentages.



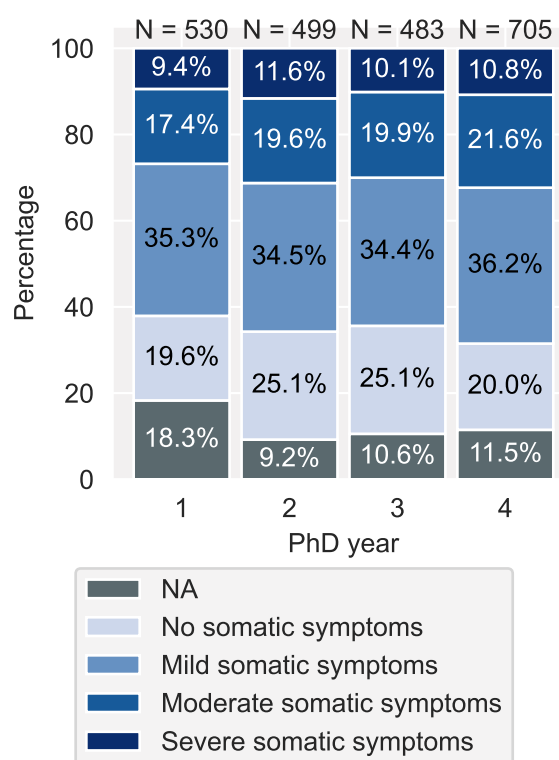
(a) State Anxiety Score



(b) Trait Anxiety Score



(c) Depression Score



(d) Somatic Score

Figure 5.2: Stratification of Mental Health scores with Years of PhD. State and trait anxiety, depression and somatic scores have been binned into categories and shown as percentages. Unanswered responses are not shown as percentages.

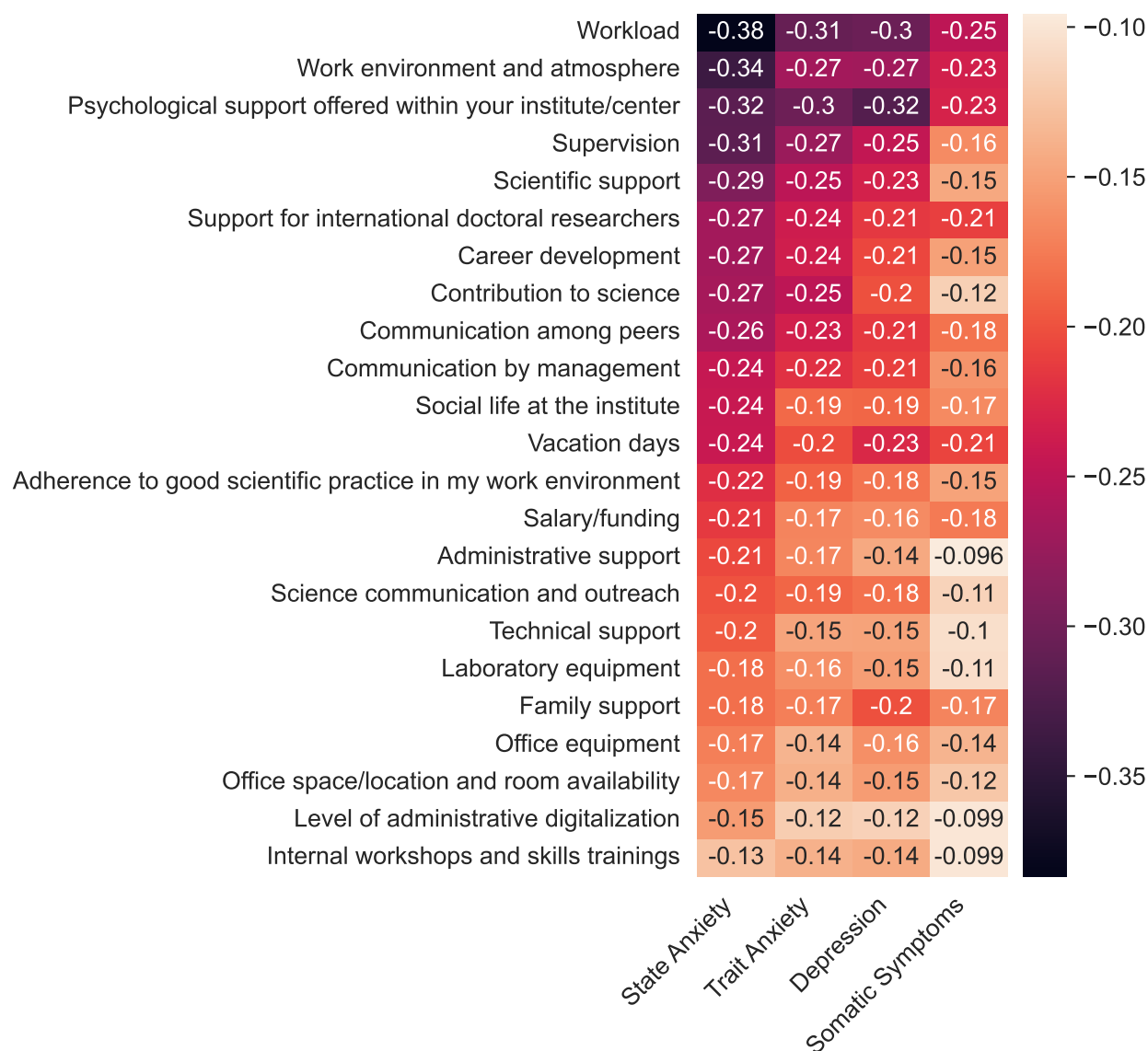


Figure 5.3: Spearman correlation coefficients between the discussed mental/physical health factors and satisfaction components for all Helmholtz centers. A darker color indicates a stronger correlation. The sign of the coefficient indicates the direction of association between factors; e.g., low satisfaction ratings regarding the workload correlate with high anxiety scores.

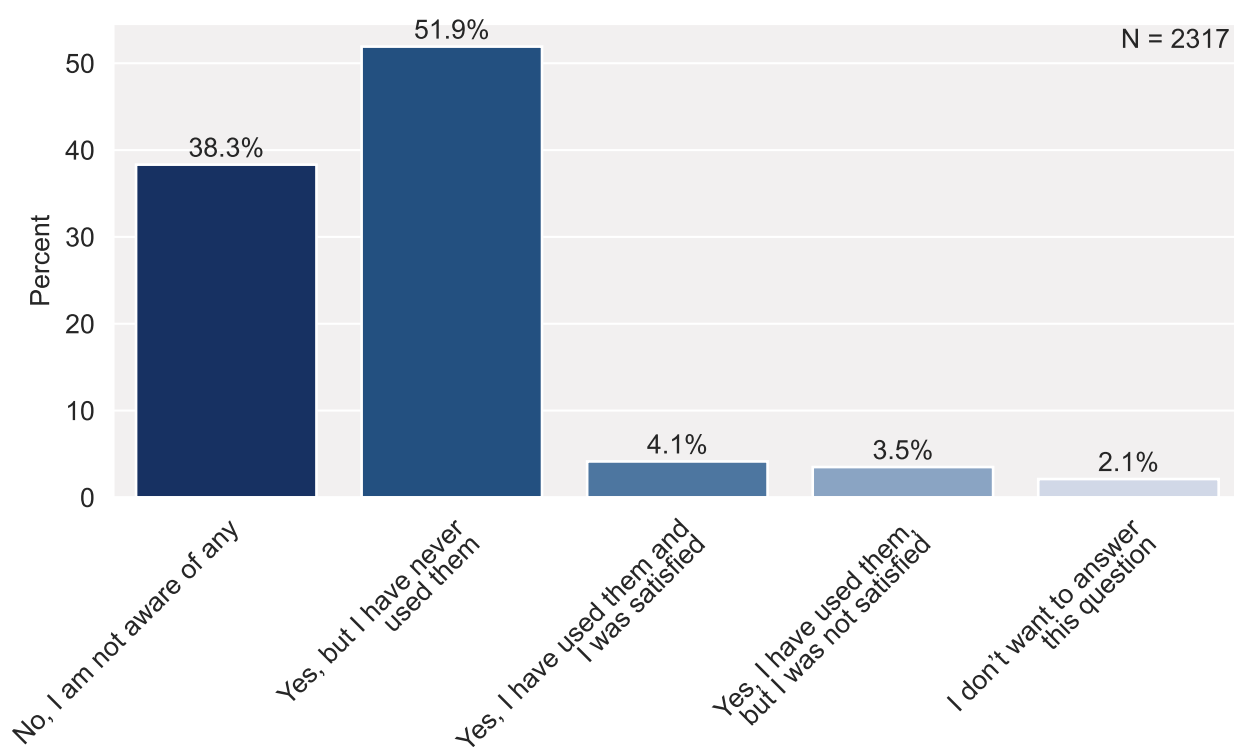


Figure 5.4: Awareness of mental health resources in all Helmholtz centers. This plot presents the fractions of participating DRs submitting the respective answers. For the value of all other centers, the fraction is calculated from the data of all participating DRs at these centers.

Chapter 6

Supervision

The goal of every DR is to successfully complete the doctoral project with a strong or even outstanding grade while contributing meaningful and original research to the academic field. During this journey, supervision plays an essential role as it is one of the key elements in achieving a successful doctorate [28]. Similar to a doctoral project, qualities required for good supervision as well as challenges they present are extremely diverse [6]. Although a good supervisor alone cannot guarantee a successful thesis, research has shown that higher-quality supervision increases the likelihood of success [2]. In this section, we discuss various aspects of supervision at the centers. Firstly, we focus on the supervision structure, examining which supervision tools are implemented at the centers and the roles of the supervisors within the institutes. Secondly, we look at the execution of these tools, mainly focusing on the meeting frequency. The third and major part of this section will address the evaluation of supervision by the DRs and how they perceive the presence of conflicts. In the end, we take a look at how DRs are involved in the supervisor hiring process.

6.1 Supervision Structure

A common supervision structure consists of a formal supervisor, the professor or doctoral advisor, and a direct day-to-day supervisor. Of course, the same person can play both roles. At the Helmholtz Association, 47.3% of the DRs have the same person as their formal and direct supervisor, while 47.6% of the DRs indicate having two contact persons (see Figure 6.1). A small percentage does not have a formal supervisor (2.1%) or direct supervisor (1.0%) yet. Only 0.4% don't have a direct or formal supervisor, or are not aware of them. Across all centers, we do not really see a trend in the FMR of supervisors, as it goes from 0.28 in 2021 to 0.31 in 2024 for formal and from 0.37 to 0.34 for direct supervisors. Since the respective overall ratios are very low, this clearly displays the presence of a gender gap, the so-called "leaky pipeline", in the Helmholtz Association [26]. Not only is this a diversity issue, but it also reduces the productivity of DRs [7].

To support both the DRs and the supervisors, various tools might exist within different institutions. Among these are:

- **Supervision agreement:** A written agreement between the formal/primary supervisor and the DR outlining their responsibilities from the beginning of the doctoral project until the completion of their doctoral thesis.
- **Project outline:** Preliminary project plan defining the objectives of the doctoral research project, as well as the methodology to achieve them within a given period.

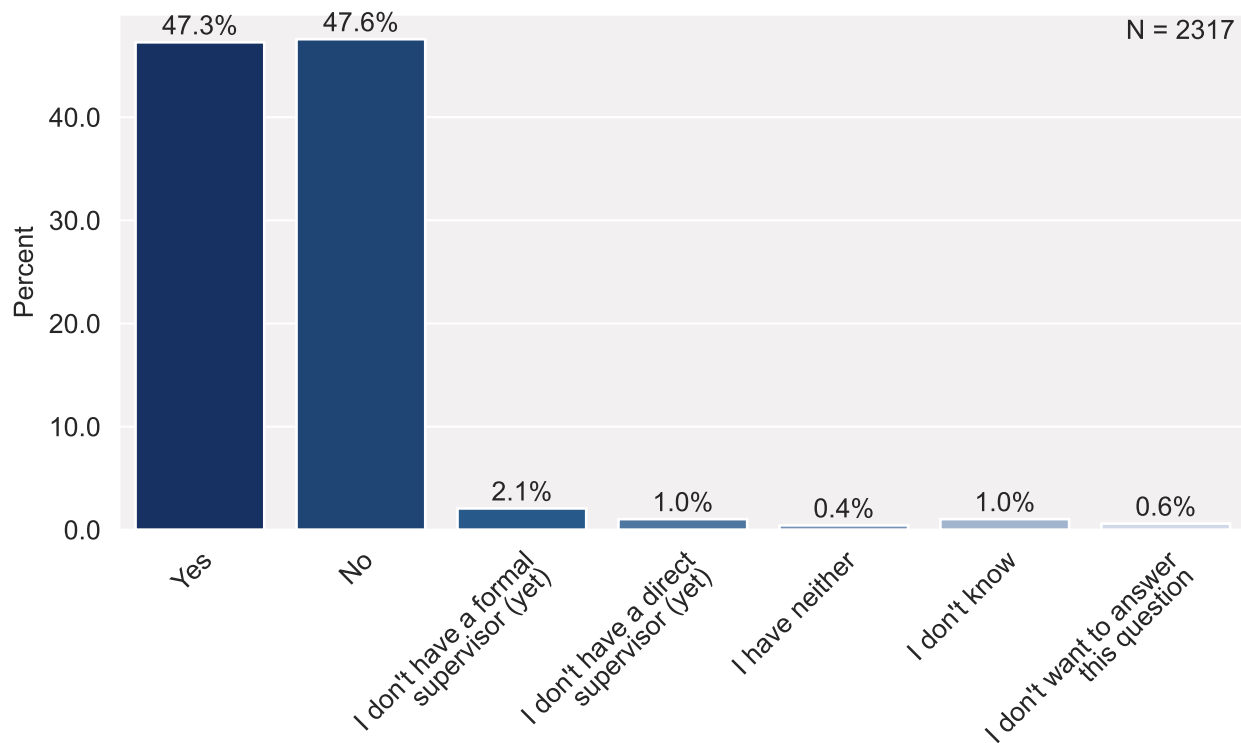


Figure 6.1: Supervisor situation for DRs at the Helmholtz Association. The answer “Yes” implies that the DR has the same person as a formal and direct supervisor, while “No” indicates that these two roles are occupied by different people.

- **Training plan:** It contains the details about the courses that are mandatory for the completion of the doctoral project.
- **Thesis advisory committee (TAC):** Group of two or more independent researchers (including the formal supervisor). The DR meets with the TAC on a regular basis and gets advice on how to progress and successfully complete their doctoral project.
- **Doctoral Guidelines:** A set of formal regulations and recommendations provided by the faculty or institution that define the framework, rights, responsibilities, and procedures for doctoral studies.
- **Graduate School:** An academic institution or unit within a university that coordinates and supports doctoral education, offering administrative assistance, interdisciplinary training opportunities, and ensuring quality standards in doctoral programs.

Figure 6.2 shows an overview of very common supervision tools and how they are implemented in the Helmholtz Association. Some of the tools listed above are also part of the requirements of the universities in which DRs are enrolled. While they do not have to be necessarily enforced by the center itself, they do serve as an external directive to support the progress of doctoral projects. This survey shows that 75% of DRs in the Helmholtz Association have supervision agreements with their formal supervisors, 56% of DRs have written project outlines, while only 13% have written training plans that they have to follow. In the N² Survey 2021 [10], the percentages are 71%, 61% and 15% respectively. Additionally, 51% of the DRs report to have an implemented TAC, and 48% of all DRs indicated that

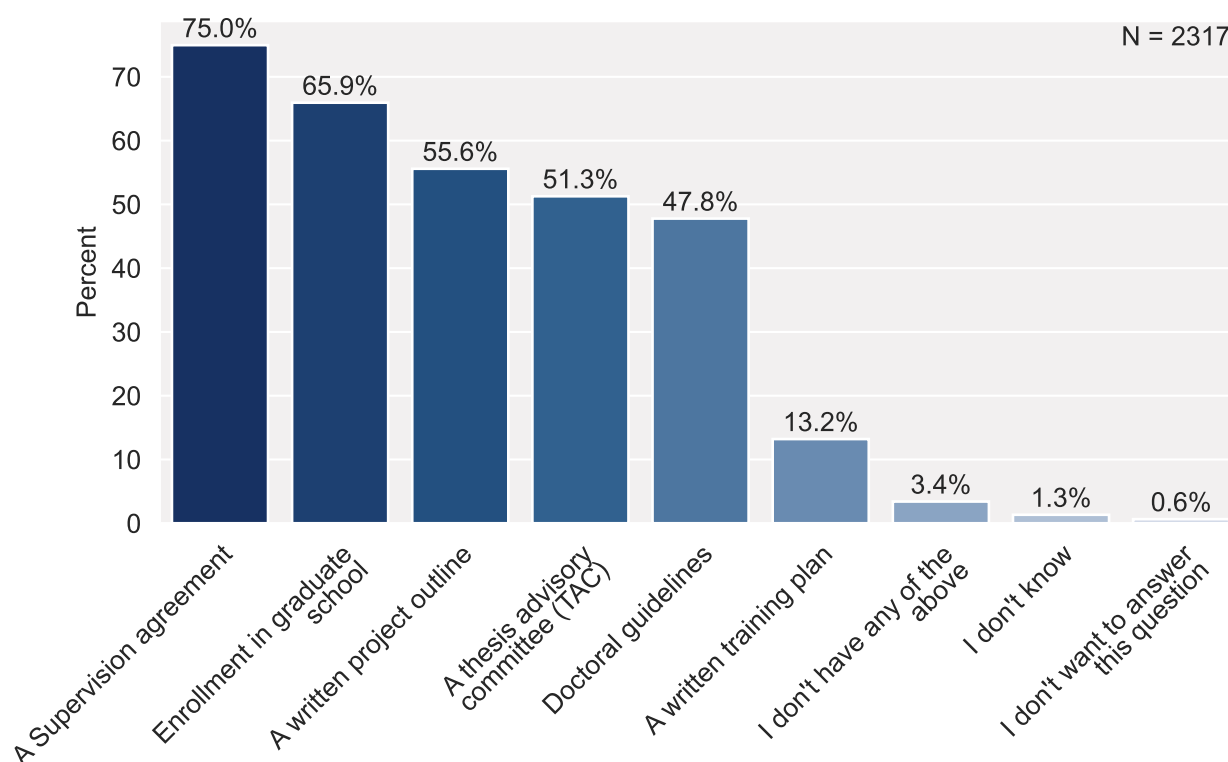


Figure 6.2: Supervision tools at the Helmholtz Association. This plot presents the fractions of participating DRs submitting the respective answers in a multiple-choice format.

they have Doctoral guidelines. The percentages for both are around 6% less than their reported values in 2021 (57% and 55% respectively). Last but not least, 66% of DRs are enrolled at a graduate school.

6.2 Implementation of supervision in the notion of DRs

Frequent meetings do not inherently lead to better research projects or a shorter duration of the doctoral project. However, they are an important part and a helpful tool to keep track of the progress of the project. We evaluate the implementation of supervision quantitatively by reporting the meeting frequency. First, regarding TACs, 12% of the DRs in the Helmholtz Association meet their TAC twice a year or more (see Figure 6.3). The remaining DRs either meet their TAC once per year, have no regular meetings, or don't know the meeting frequency.

When it comes to formal and direct supervisors, the majority of DRs meet them weekly as seen in Figure 6.4 and Figure 6.5. Generally, meeting frequencies with the direct supervisors are much higher than with the formal supervisor, which is not surprising.

A clear tendency emerges: more DRs prefer increasing their meeting frequency rather than reducing it. While most individuals with very frequent meetings (daily or weekly) are satisfied with their current schedule, a significant proportion of those with less frequent meetings (e.g., monthly or quarterly) express a desire for more frequent interactions.

Overall, weekly meetings appear to be a well-balanced approach to supervision. We recommend that DRs and their supervisors discuss and align on a preferred meeting frequency to ensure effective guidance and support.

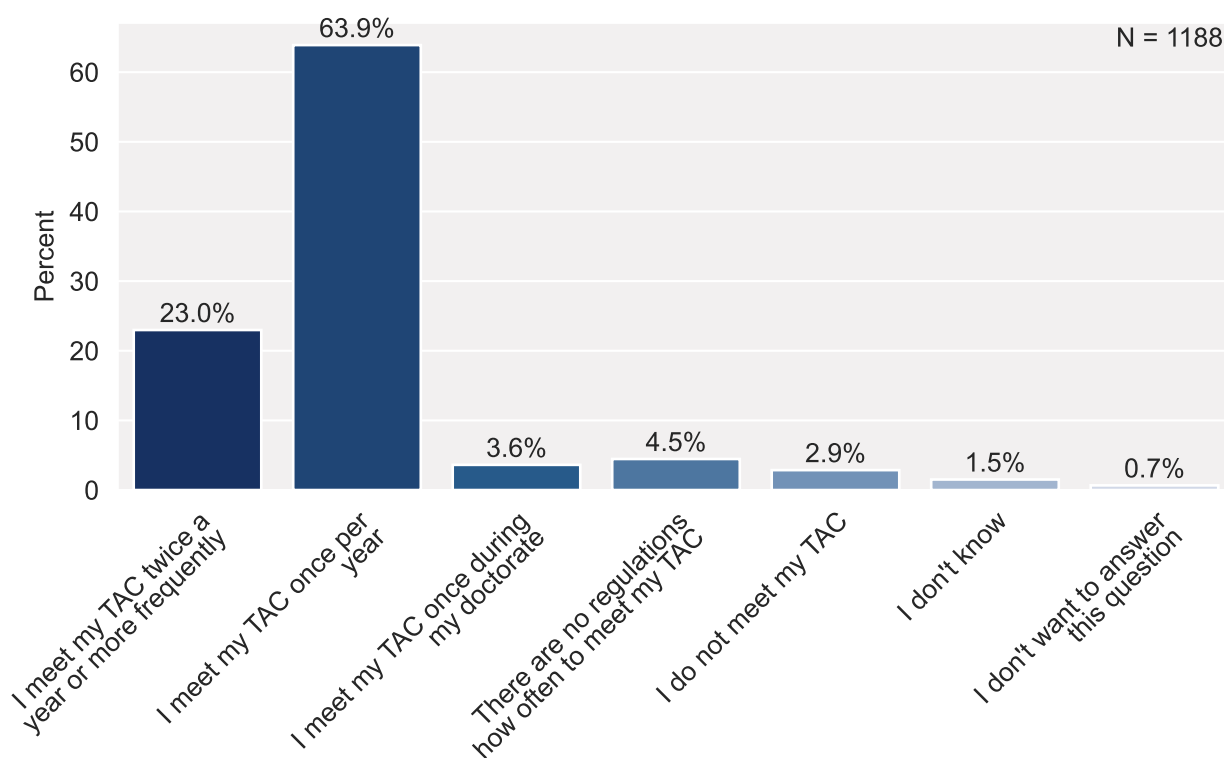


Figure 6.3: How often do you meet your TAC or similar? This question was asked in a single-choice format to all participants who indicated they have a TAC in the previous question (Figure 6.2).

6.3 Supervision rating and conflict prediction

We evaluate responses to different aspects of supervision. The detailed answers are shown in Figure 6.6 and Figure 6.7.

In order to compare the center-specific results of this section with other centers, we have broken down the complexity by counting the ratio of agreement with the questions asked compared to neutral or disagreement options. Note that agreement with the statements is associated with a positive evaluation of supervision.

The majority of DRs responded positively when asked to rate their formal supervisor and direct supervisor by fully or partially agreeing with the different statements posed for the rating.

Data obtained in the survey portrays the fact that the majority of DRs are at least partially satisfied with the quality of supervision at the Helmholtz Association. Nonetheless, the level of satisfaction with supervision can also be addressed by taking a closer look at specific problems that DRs report regarding the supervision (see Figure 6.8). The top problems listed by DRs are:

1. Not enough experts in your group (29.4%)
2. Not enough scientific discussion (21.7%)
3. Not enough meetings (19.6%)

Taking into account that the number of publications in high-ranked journals drives the rankings of scientific institutes, and that publications from DRs contribute the vast majority of the research output of centers, we would recommend strengthening supervision as an important consideration in maximizing the DRs contribution to published material and therefore boosting the international standing of the individual research institutes.

6.4 Involvement in supervision hiring

An effective way to enhance quality assurance when hiring new supervisors is to involve those who will be supervised, the DRs. Therefore, the question was posed whether or not the participating DRs are involved in this hiring process. Looking at all centers, the majority reported that they were unsure about their participation (76%) or that they were not involved in the hiring process (46%). However, 6% of respondents indicated they were involved, with 3% even stating that they had an active say in the process. These results indicate that the inclusion of DRs in the hiring process is already happening to a degree. Nevertheless, they also show that there is plenty of room for improvement, which is a valuable insight for centers to consider in order to enhance the supervision for everyone involved.

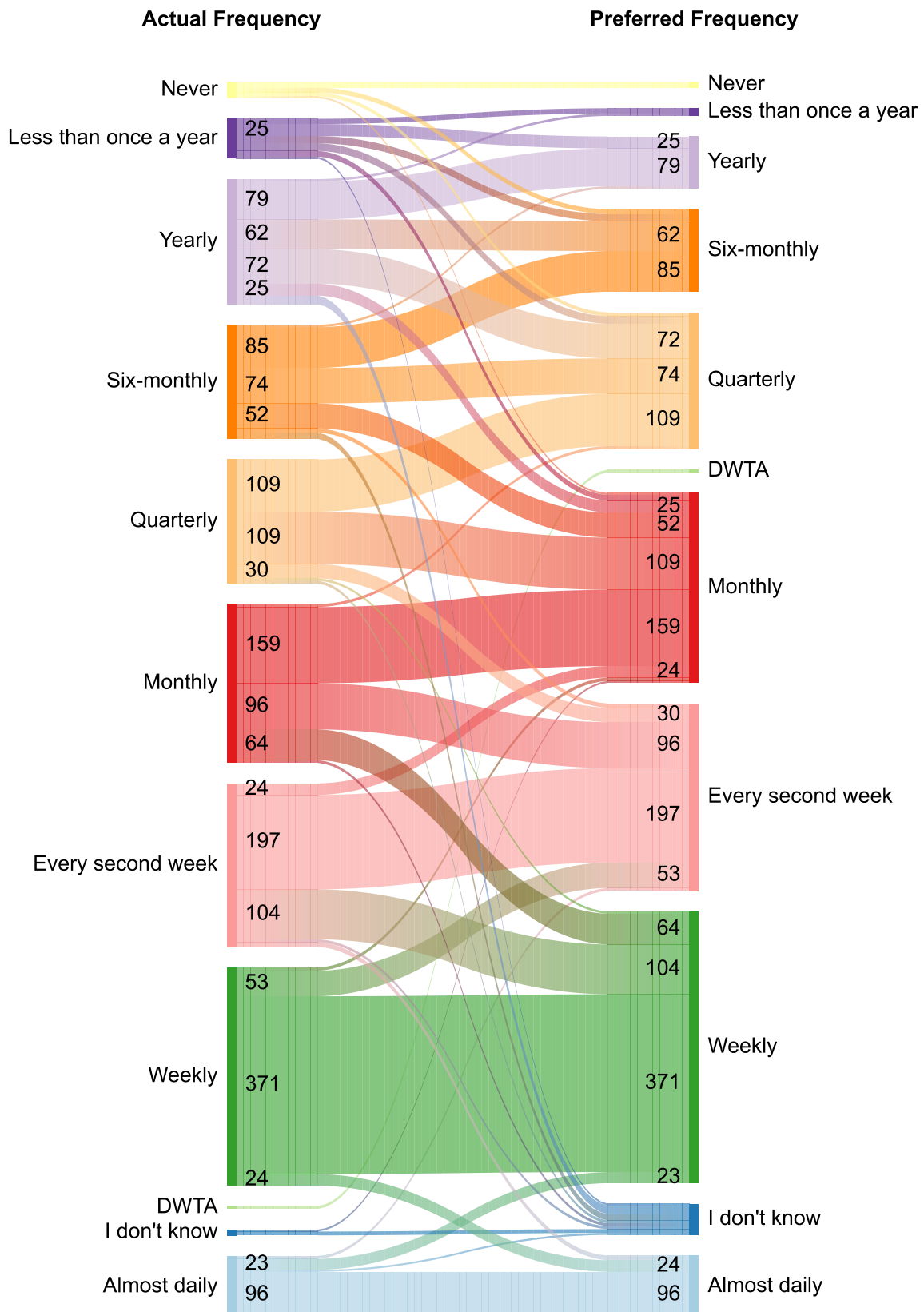


Figure 6.4: How often do you communicate on average with your *formal* supervisor about your doctoral project? The numbers included are the number of DRs who responded with the respective frequency. Additionally, only options with more than three answers are being shown.

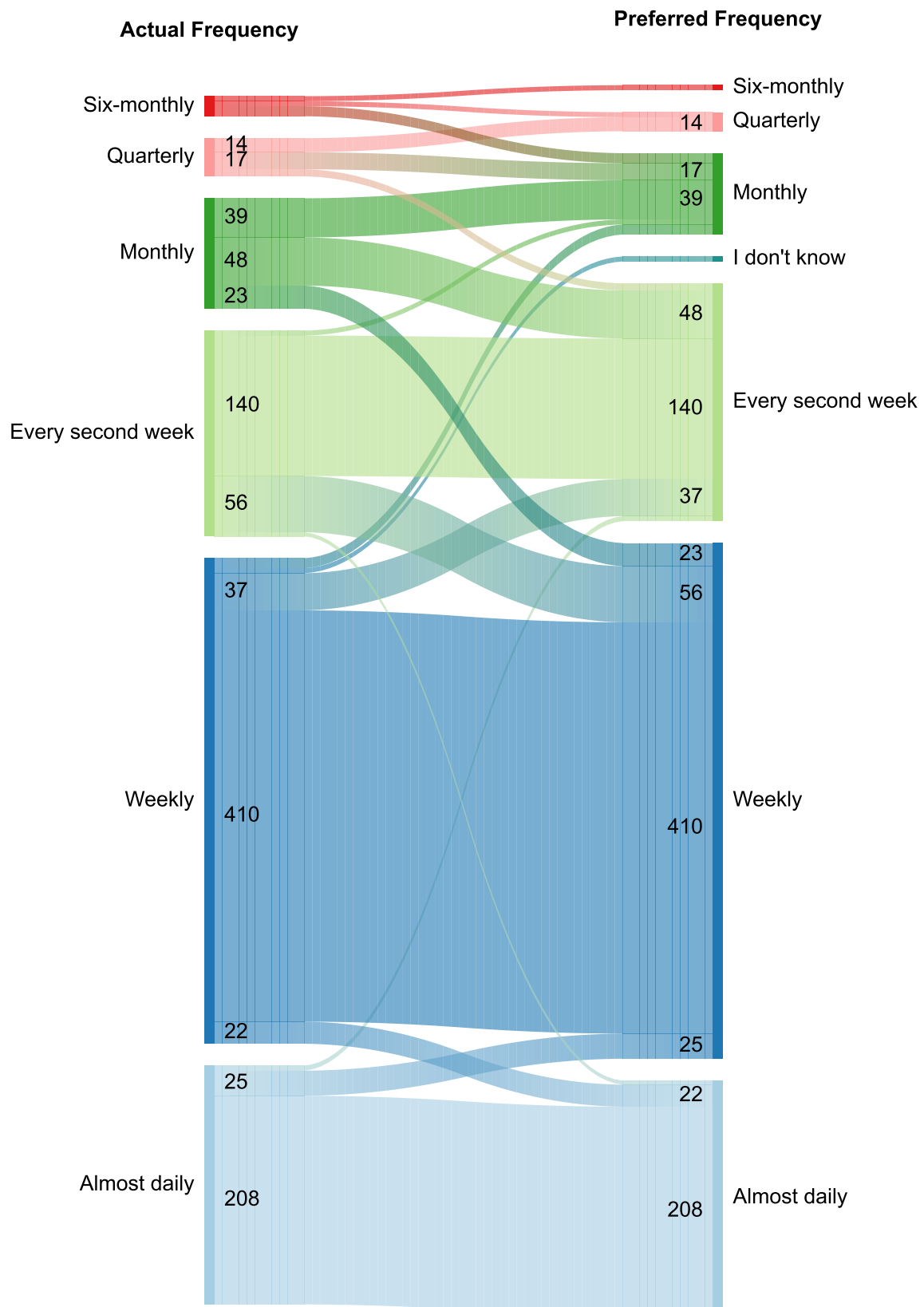


Figure 6.5: How often do you communicate on average with your *direct* supervisor about your doctoral project? The numbers included are the number of DRs who responded with the respective frequency. Additionally, only options with more than three answers are being shown.

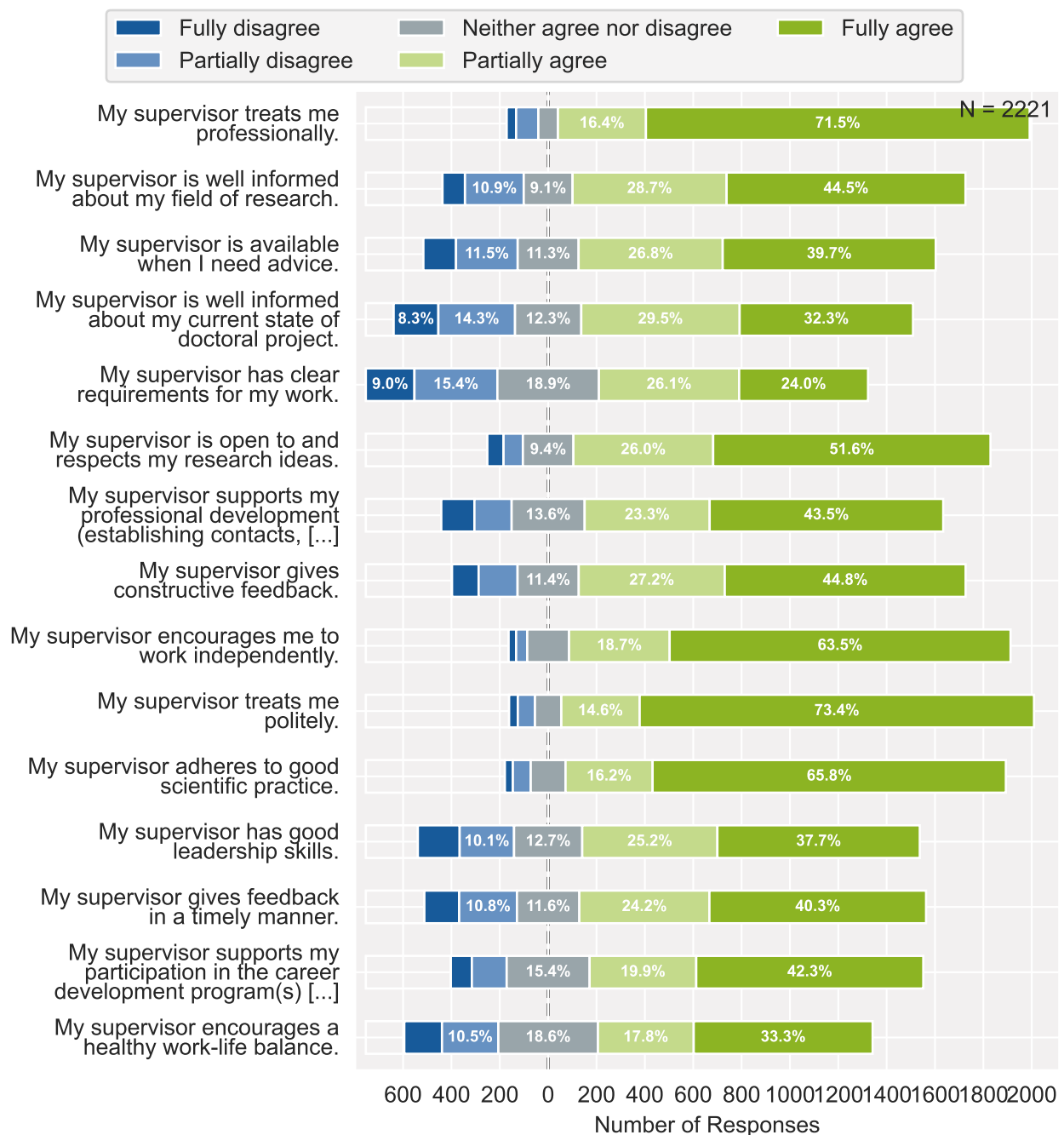


Figure 6.6: Rating of formal supervisors in Helmholtz Association. This plot presents the fractions of agreement of participating DRs for the Helmholtz Association in the form of positive (greens), negative (blues), and neutral responses (grays). Each bar represents 100% of DRs answers and is filled according to their answer levels. Additionally, the bars are moved corresponding to the tendency of the answers, with neutral responses (including I don't know or I don't want to answer this question) centered in the middle, positive answers stacked to the right, and negative responses stacked to the left. According to the resulting left- or right-alignment of the bars, you can compare the answer tendencies of DRs.

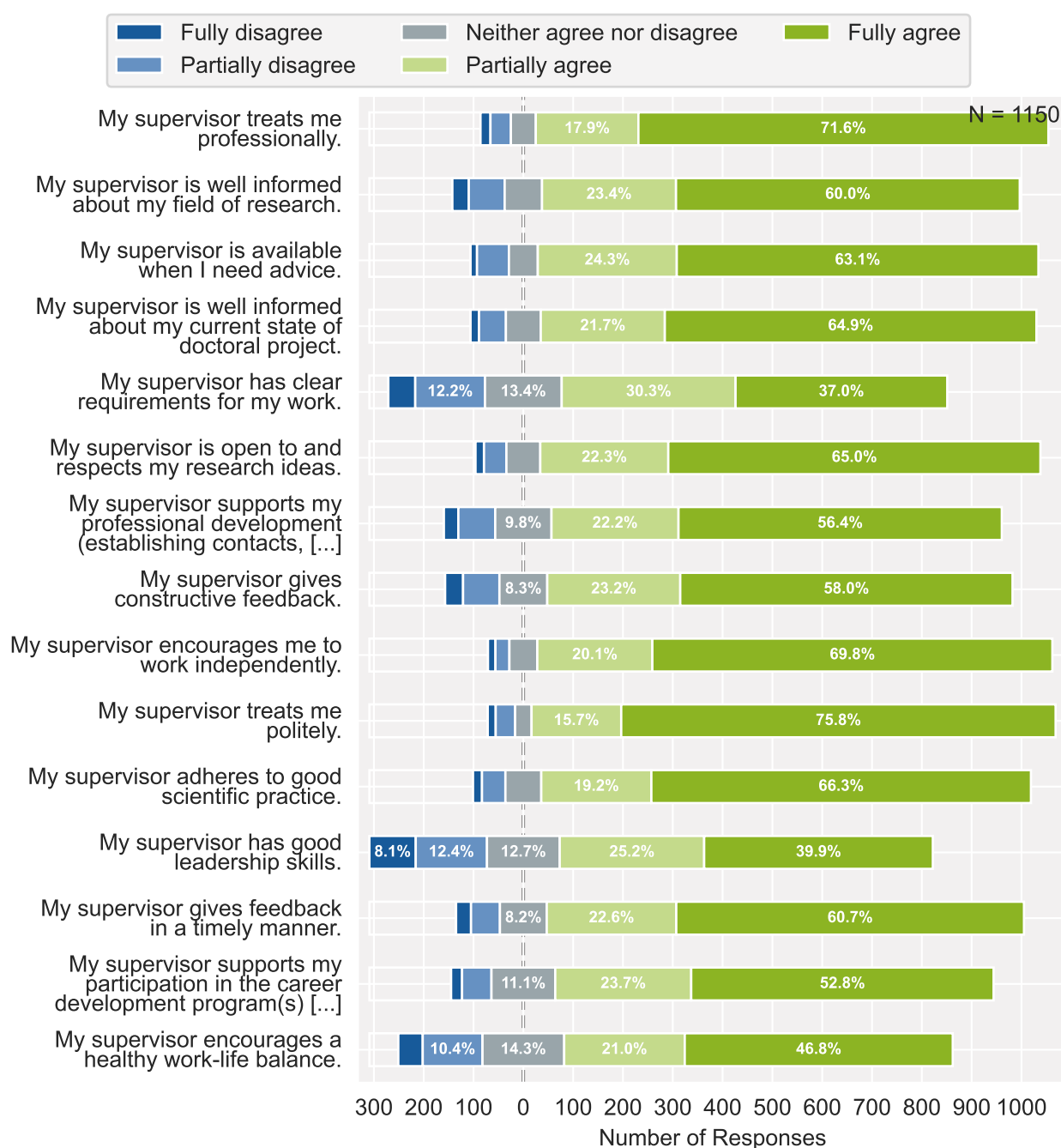


Figure 6.7: Rating of direct supervisors in the Helmholtz Association. This plot presents the fractions of agreement of participating DRs for the Helmholtz Association in the form of positive (greens), negative (blues), and neutral responses (grays). Each bar represents 100% of DRs answers at the Helmholtz Association and is filled according to their answer levels. Additionally, the bars are moved corresponding to the tendency of the answers, with neutral responses (including I don't know or I don't want to answer this question) centered in the middle, positive answers stacked to the right, and negative responses stacked to the left. According to the resulting left- or right-alignment of the bars, you can compare the answer tendencies of DRs.

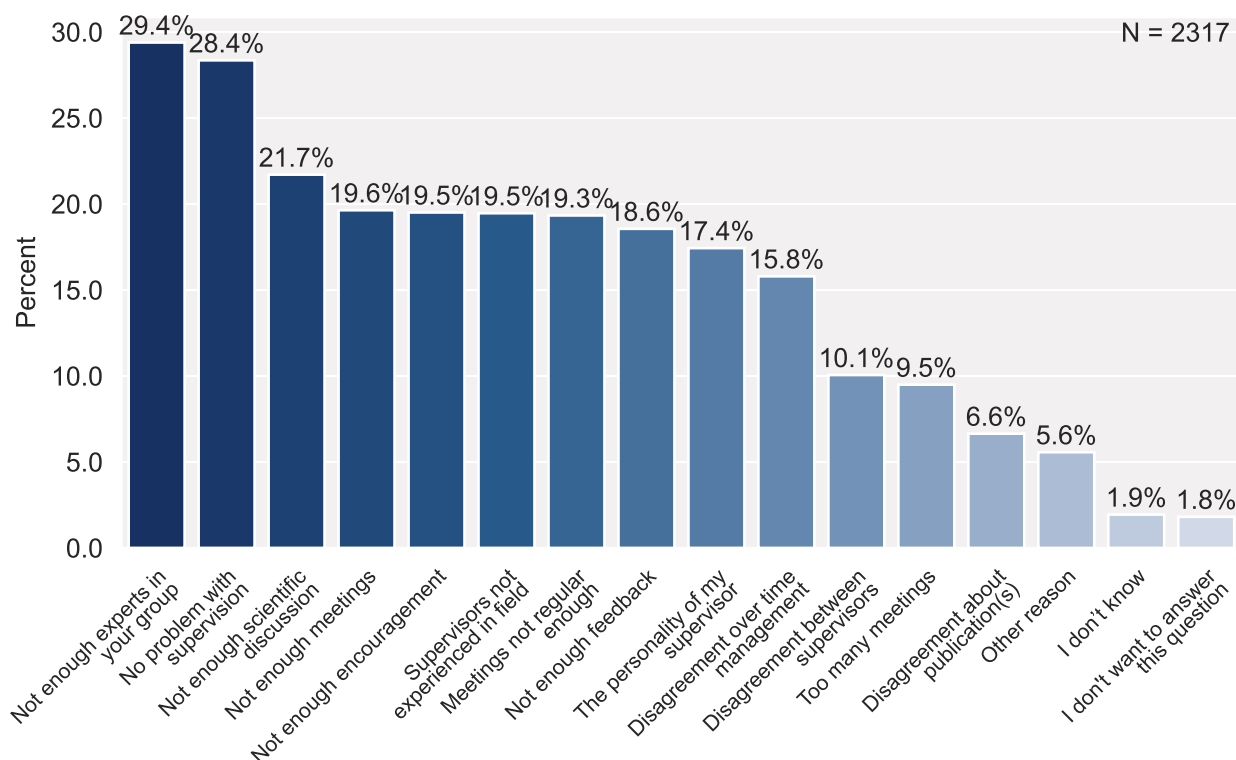


Figure 6.8: Reported problems with supervision. This plot presents the fractions of participating DRs submitting the respective problems with supervision in the Helmholtz Association (blue). Please note that the answers to this question were asked in a multiple-choice format.

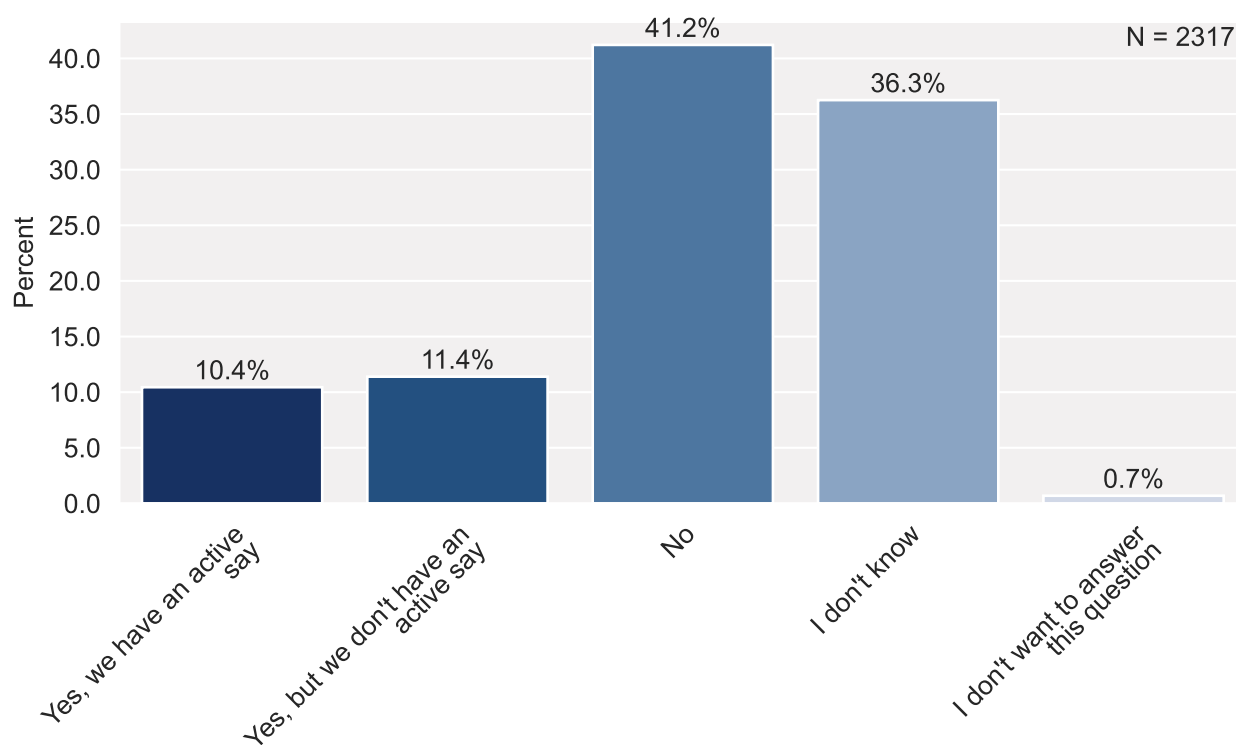


Figure 6.9: Involvement of DRs in the supervisor hiring process in the Helmholtz Association.

Chapter 7

Power Abuse

DRs are often only minimally, if at all, represented in academic decision-making processes [20], and as such are vulnerable to power abuse [19]. Power abuse is a broad term, and individual cases vary widely in nature; it has been defined in this survey as encompassing general conflicts, sexual harassment, bullying, and discrimination. An overview of the frequency and types of power abuse faced by DRs in the Helmholtz centers will be summarized and analyzed by demographics.

It is easy to recognize that power abuse negatively impacts the victim, and whilst this should already be enough to promote active countermeasures in academia, it is also important to note that it can have negative consequences for the organizations involved, too. This can come in the form of high staff turnover and an increase in staff sickness absences [22], meaning that organizations will be rewarded for the protection of their workforce by a higher quantity and quality of output.

The Helmholtz Association website states that “we want to ensure the quality of our scientific work, take responsibility for young researchers and prevent misconduct by researchers” [1]. This survey aims to provide an overview of power abuse at the centers, as perceived by the DRs, to identify whether previously implemented measures have been successful and where more attention is needed. This can help to ensure that the Helmholtz Association remains a world leader in terms of the science it conducts and the talented researchers it develops.

In this section, survey participants who gave their consent to be asked sensitive questions 2242 were asked whether they have experienced or witnessed varied forms of power abuse whilst working at their center. Participants were also asked about their awareness of and satisfaction with the process of reporting conflicts at their centers. Data was not collected on the perpetrators of power abuse.

7.1 General Conflicts

DRs were asked to indicate whether they had witnessed a case of power abuse whilst working at their center and whether they reported it. No definition of power abuse was provided within the questions, and DRs were allowed to define this as they saw fit. It is also important to note that this question asked only about witnessed incidents of power abuse and not direct personal experiences. 15.3% of respondents said that they had witnessed power abuse at their center. Of this number, only 2.9% reported the power abuse they witnessed. 7.3% of respondents indicated that they didn't know whether they had witnessed power abuse, which indicates a training need among DRs. Without accurate identification of power abuse, no actions can be taken to protect the DRs and the institute.

DRs were separately asked whether they had experienced a conflict whilst working at their center. 13.6% of DRs indicated that they had experienced a conflict. Of those who experienced a conflict, 7.1% did not report it. The reasons given by DRs for not reporting a conflict are shown in Figure 7.1.

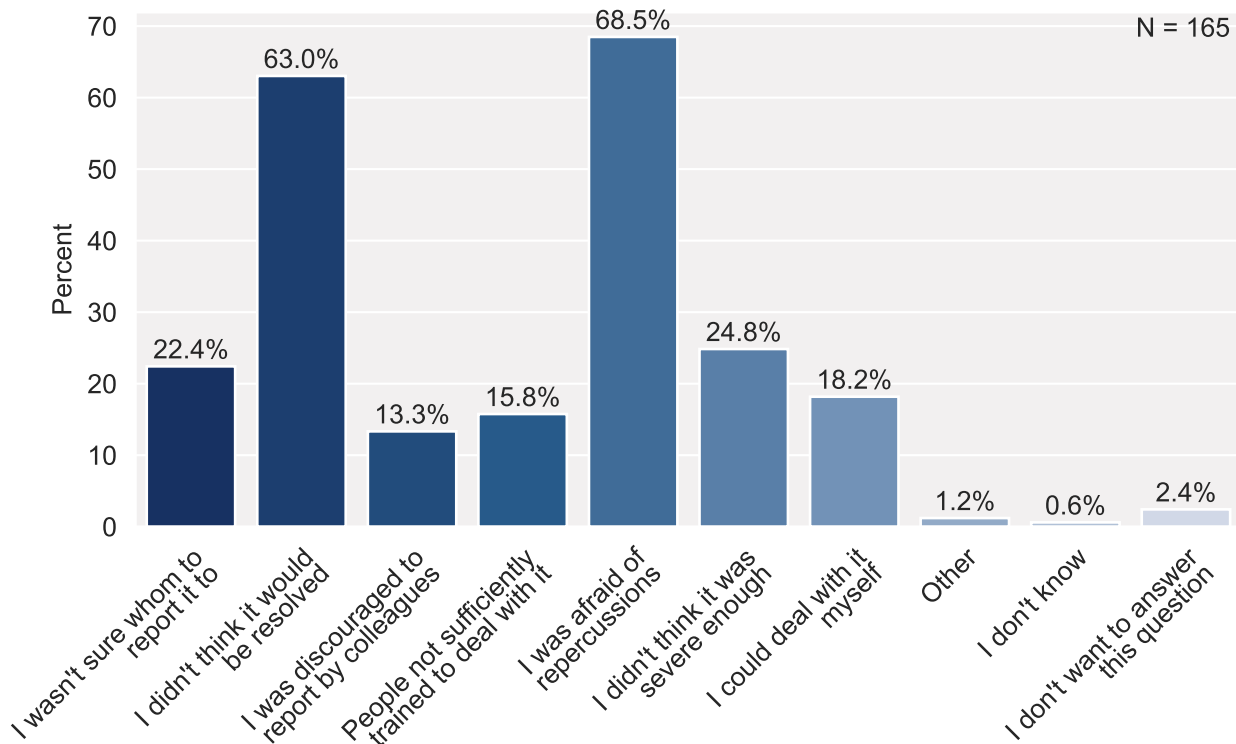


Figure 7.1: Reasons that participating DRs did not report a conflict that they had experienced.

It is important that insufficient awareness of reporting routes does not become a barrier for reporting conflicts and that these support mechanisms are well publicized to reduce the negative consequences for staff and centers alike. The awareness of participating DRs regarding support mechanisms in case of a conflict with a superior is shown in Figure 7.2. 12.0% of participants were unaware of any mechanisms to help them in case of a conflict with a superior. Any DRs who are completely unaware of reporting mechanisms are at significant risk of mental health problems should they experience power abuse, due to a lack of support and resolution [22]. Centers should proactively publicize available support mechanisms to ensure that this is not the case for any DR.

In Figure 7.3, DRs who indicated that they had reported a conflict were asked about their satisfaction regarding the outcome of the process. 25.5% reported that they were satisfied or very satisfied, whilst 44.3% were dissatisfied or very dissatisfied. It is important to review the reporting process and the consequences experienced by those who do report. By monitoring this system and verifying that the outcomes are fair and just, the satisfaction of those who report conflicts should increase. Furthermore, cases where DRs don't report power abuse due to reasons like fear of repercussion, worries about it not being properly resolved or being discouraged by colleagues should decrease, therefore allowing for more accurate knowledge of the environment as well as more targeted approaches where necessary.

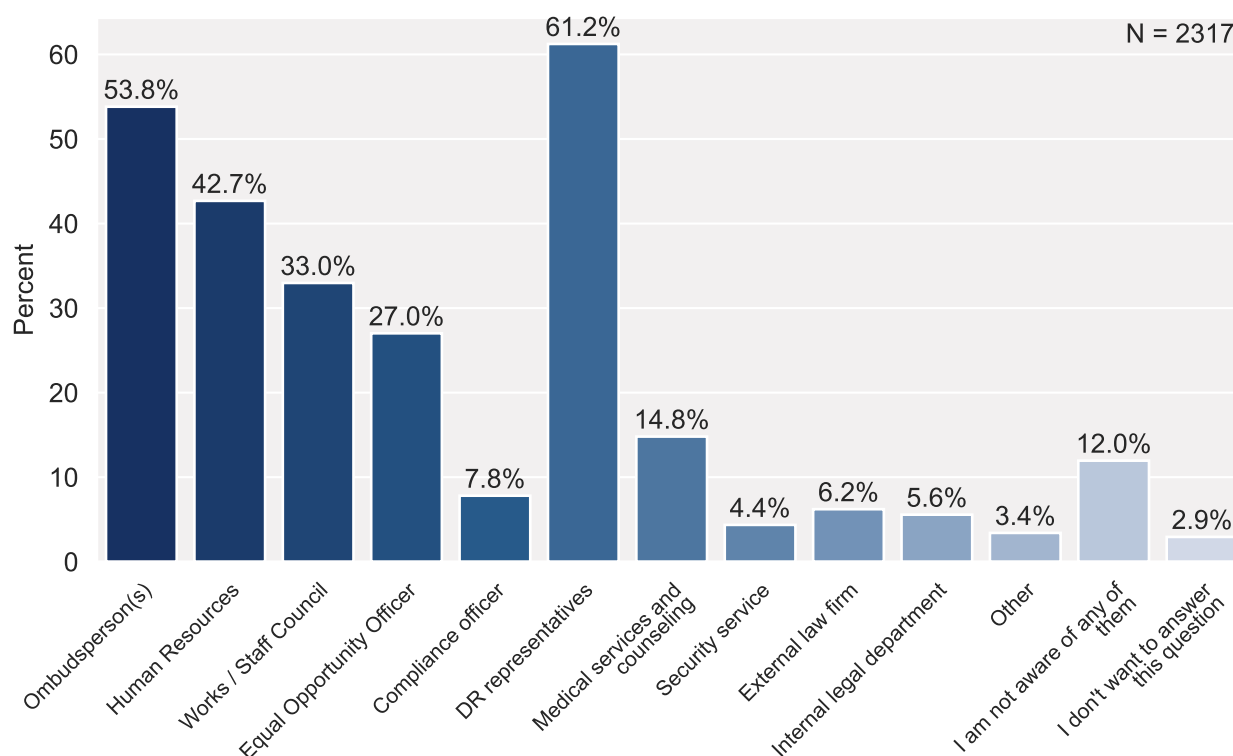


Figure 7.2: Participating DRs awareness of different points-of-contact in case of a conflict with a superior.

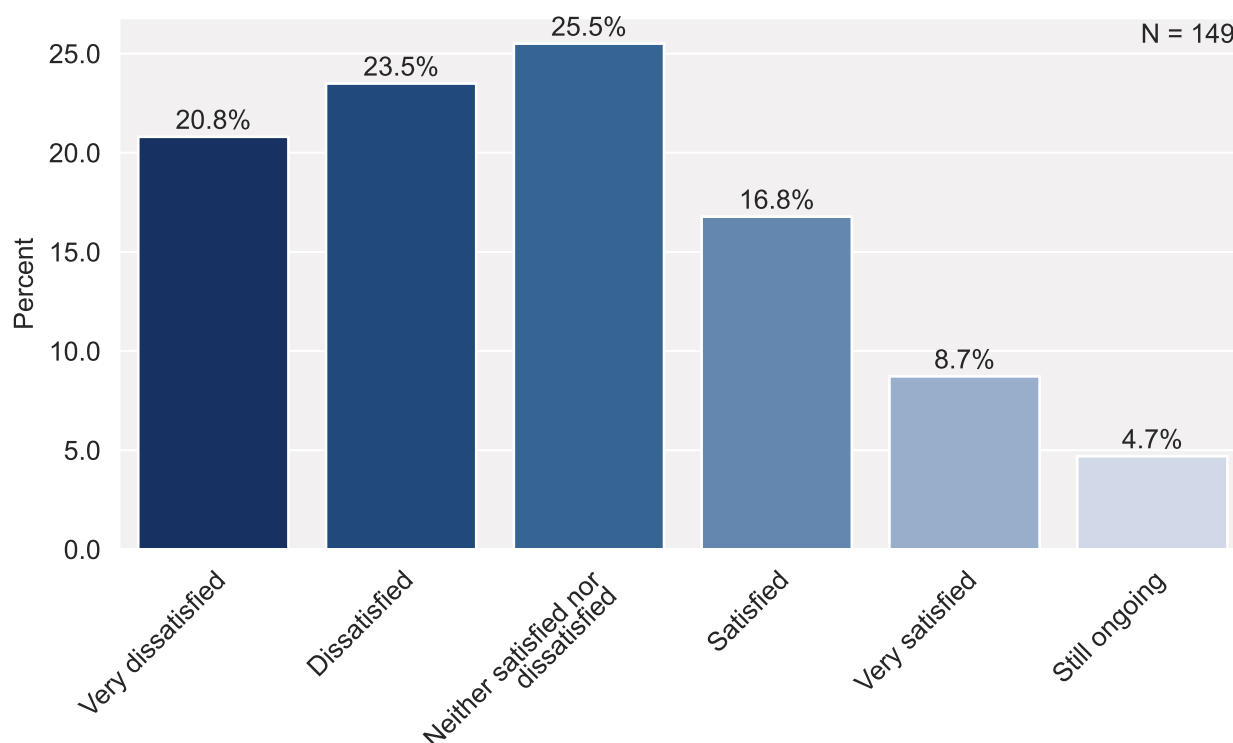


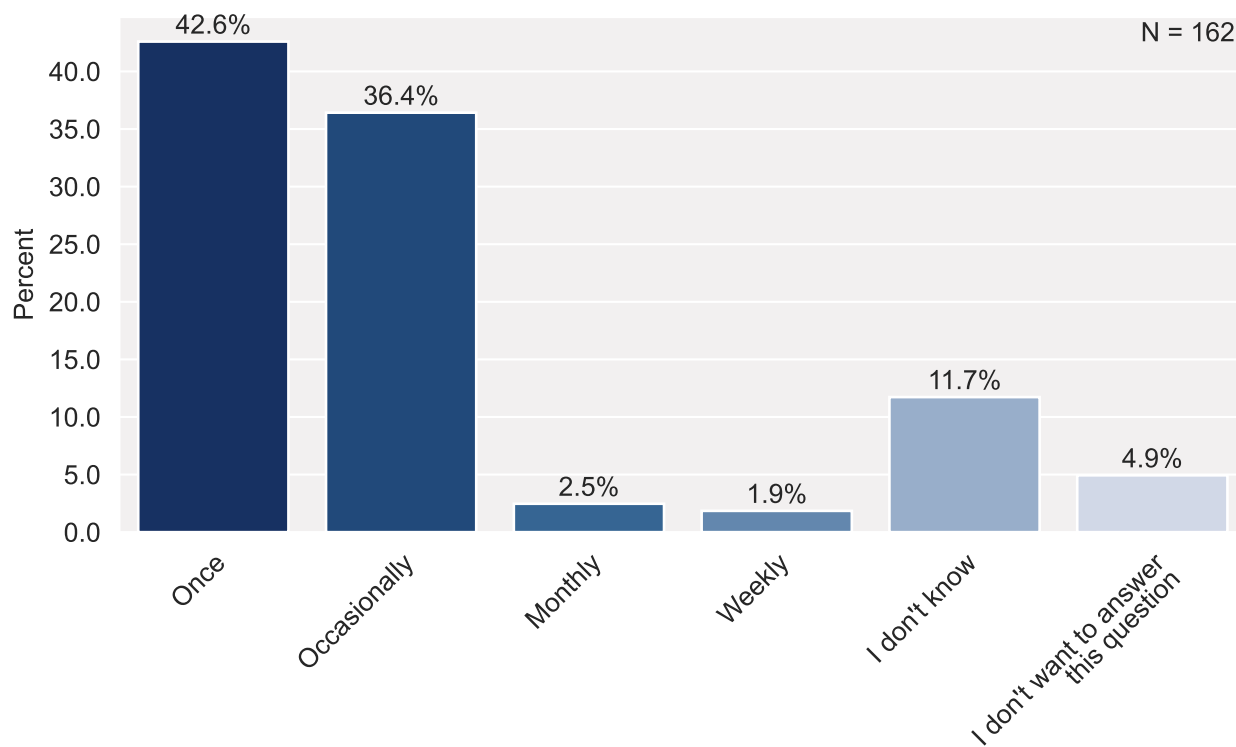
Figure 7.3: Satisfaction with the aftermath of reporting a conflict.

7.2 Sexual Harassment

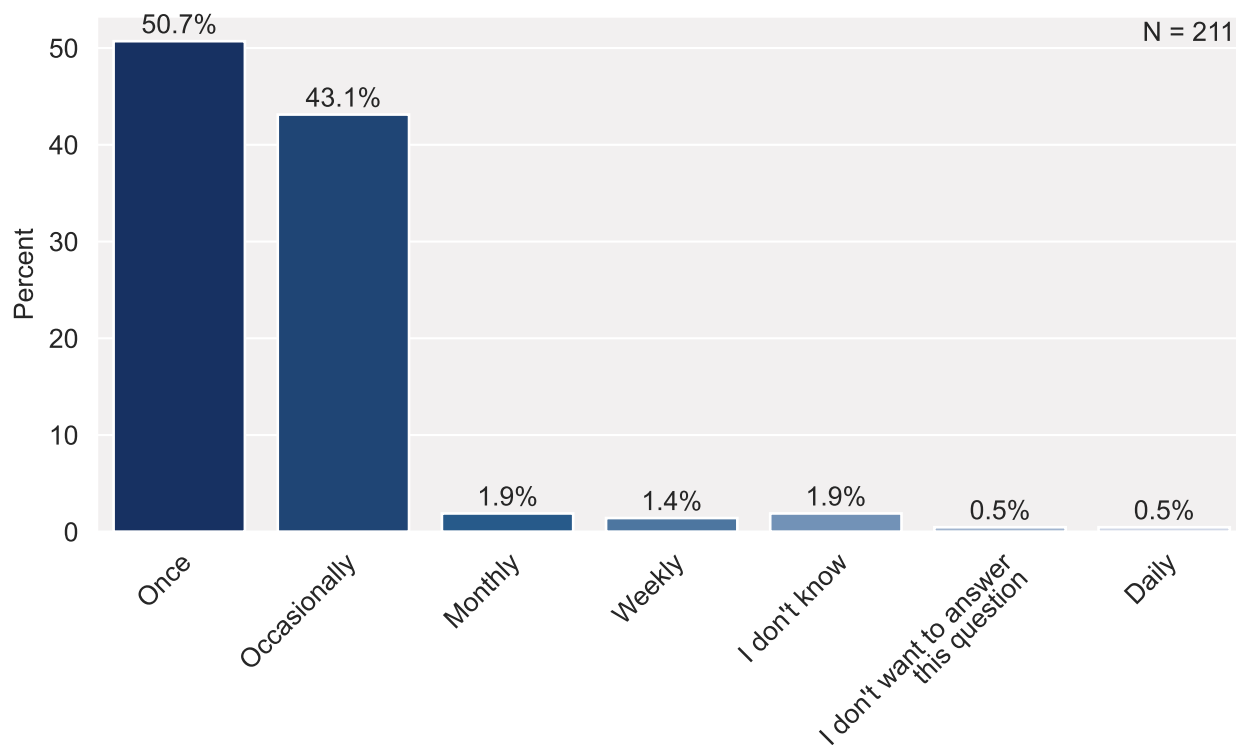
Sexual harassment was defined for participants as “all behavior and actions [...] that are humiliating in sexual terms and result in the person concerned being threatened, humiliated and/or harassed. They can manifest themselves in verbal and non-verbal form or through physical assault. 7.8% of DRs reported experiences of sexual harassment, whilst 9.1% of DRs reported witnessing incidents of sexual harassment. These numbers may not seem significantly high, but every single case of sexual harassment is one too many.

DRs were also asked to report on the frequency with which they had experienced (Figure 7.4a) or witnessed (Figure 7.4b) sexual harassment. Additionally, respondents were questioned about the types of sexual harassment that they experienced from a multiple-choice list, to raise awareness of the varied nature of sexual harassment and allow victims to specify. The multiple-choice options can be seen in Figure 7.5.

Incidents of experienced and witnessed sexual harassment have been analyzed according to the citizenship and gender of the victim to allow for more insight as to which demographics are disproportionately targeted (see Figure 7.6). Non-male DRs appear to be significantly more at risk of experiencing sexual harassment than male DRs; however, no clear correlation with citizenship can be identified.



(a) Frequency of incidents of sexual harassment *experienced* by participating DRs.



(b) Frequency of incidents of sexual harassment *witnessed* by participating DRs.

Figure 7.4: Frequency of sexual harassment incidents.

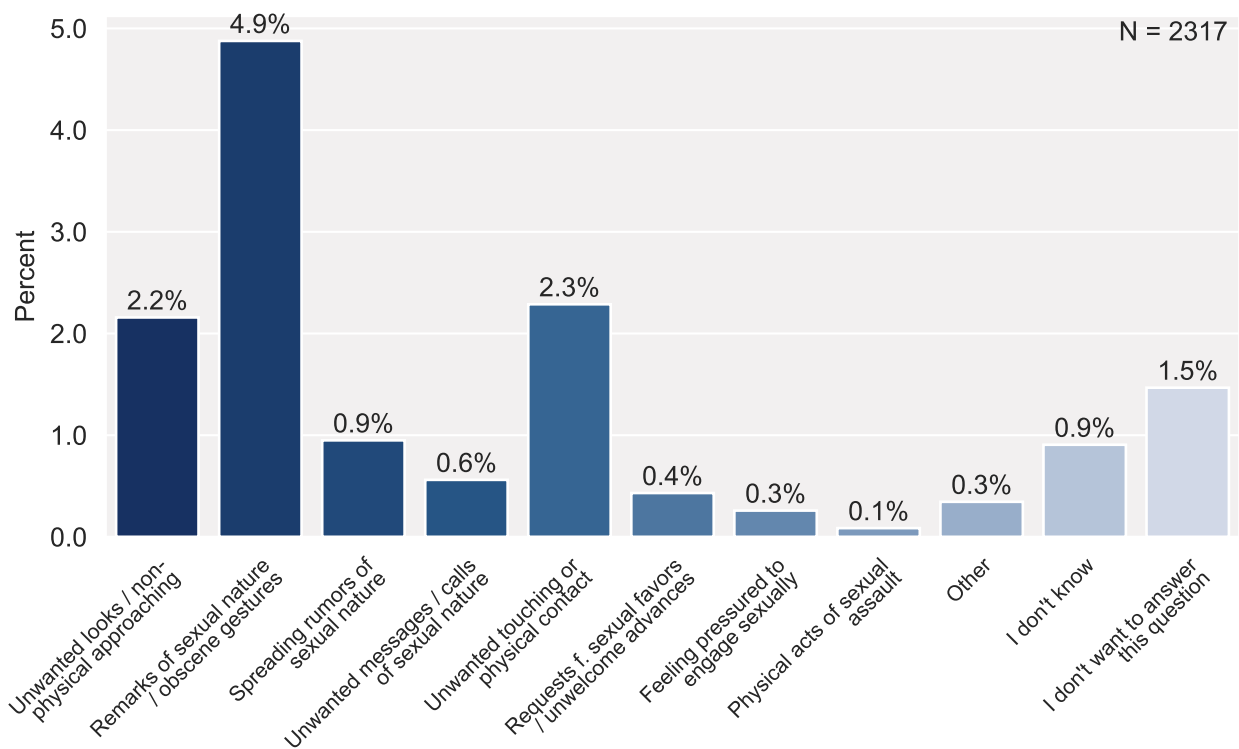


Figure 7.5: Types of sexual harassment experienced by participating DRs.

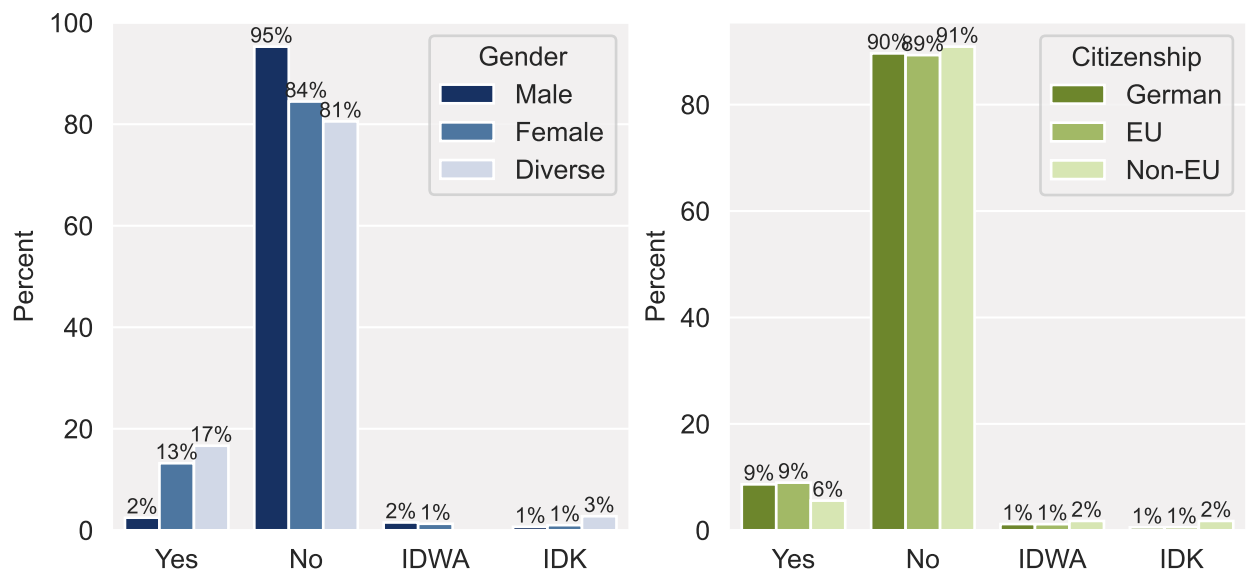


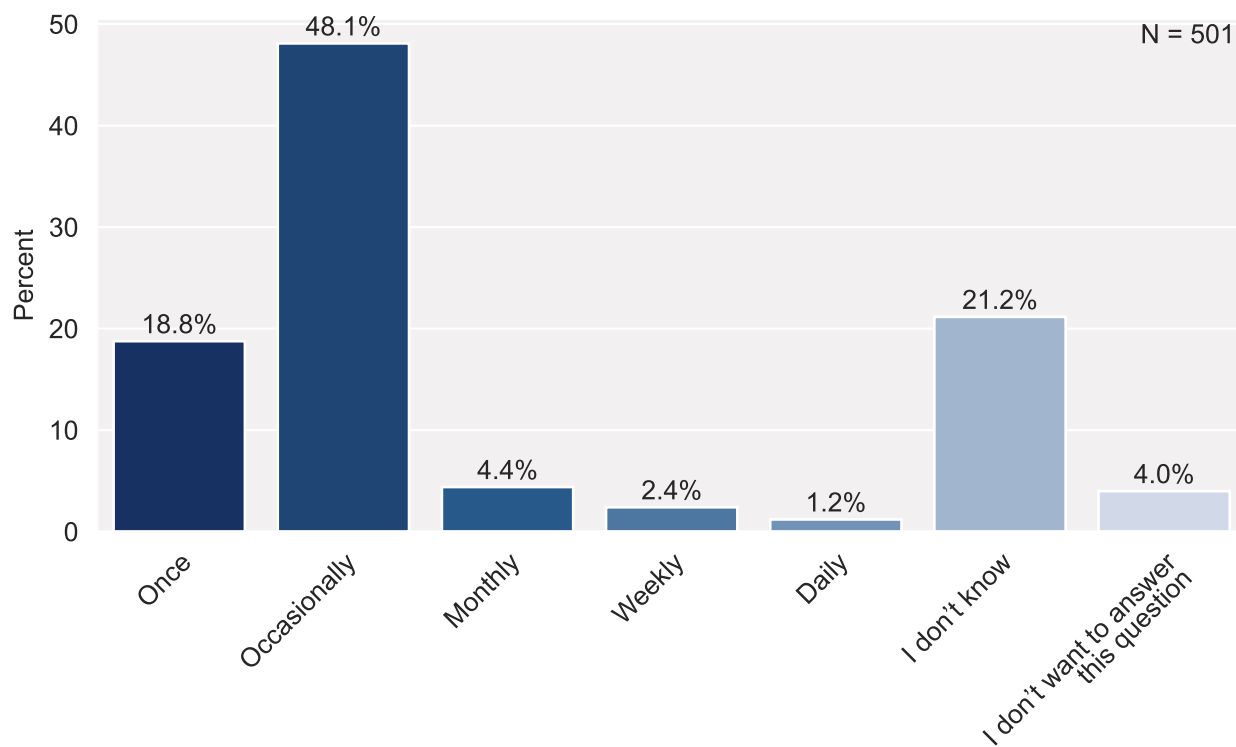
Figure 7.6: Did DRs experience *any* kind of sexual harassment? The data was grouped by gender (left) and citizenship (right).

7.3 Discrimination

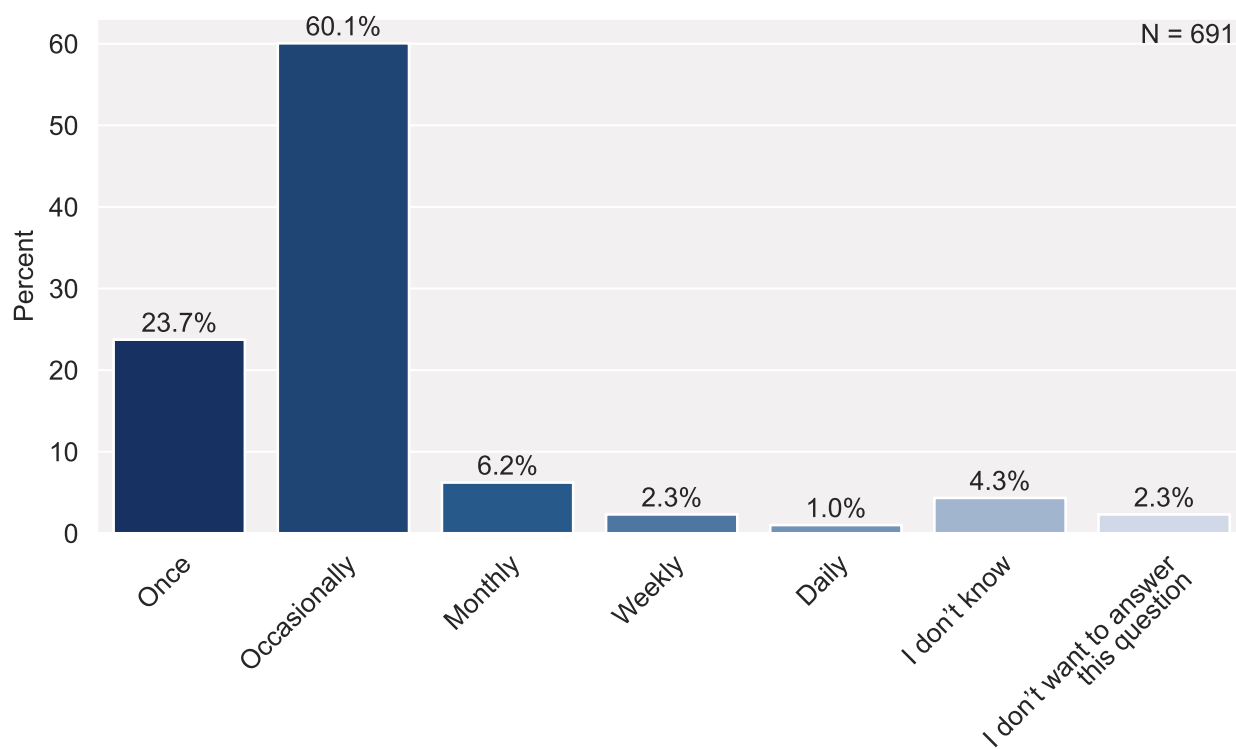
Discrimination was defined in the survey as the “unjust or prejudicial treatment of different categories of people.” 21.6% of DRs indicated that they have been subject to discrimination, whilst 29.8% of DRs reported witnessing incidents of discrimination. The frequency with which discrimination was experienced (Figure 7.7a) or witnessed (Figure 7.7b) was also recorded.

Respondents were asked to indicate the types of discrimination that they experienced from multiple-choice options, to raise awareness of the varied nature of discrimination. The types of discrimination presented to respondents can be seen in Figure 7.8. All reported cases of “reprisal or retaliation after coming forward” should be a matter of concern, particularly when examined in conjunction with the results in Figure 7.1, which indicates that victims are often afraid of repercussions brought by reporting power abuse. Any confirmation that this could be the case should be a priority for centers as a first step for tackling issues of power abuse.

Participants were also questioned about the perceived basis of discrimination that they experienced or witnessed in a multiple-choice format. The options can be seen in Figure 7.9. The basis for discrimination is not always clear to those other than the perpetrator, although these results can show some insight into where support is needed for individuals in demographics more vulnerable to discrimination. As with the sexual harassment data, incidents of experienced and witnessed discrimination have been analyzed according to the citizenship and gender of the victim to allow for more insight as to which demographics are disproportionately targeted (see Figure 7.10). Similar to sexual harassment, non-male DRs appear to be more at risk of experiencing discrimination than male DRs, although a significant proportion of male DRs also indicated experiences of discrimination. A stronger correlation with citizenship becomes apparent than for sexual harassment, with a higher proportion of non-EU and non-German EU citizens experiencing discrimination than German DRs. Figure 7.9 indicates both gender and nationality as a perceived basis for experienced and witnessed discrimination, so these correlations are unfortunately unsurprising.



(a) Frequency of incidents of discrimination *experienced* by participating DRs.



(b) Frequency of incidents of discrimination *witnessed* by participating DRs.

Figure 7.7: Frequency of discrimination incidents.

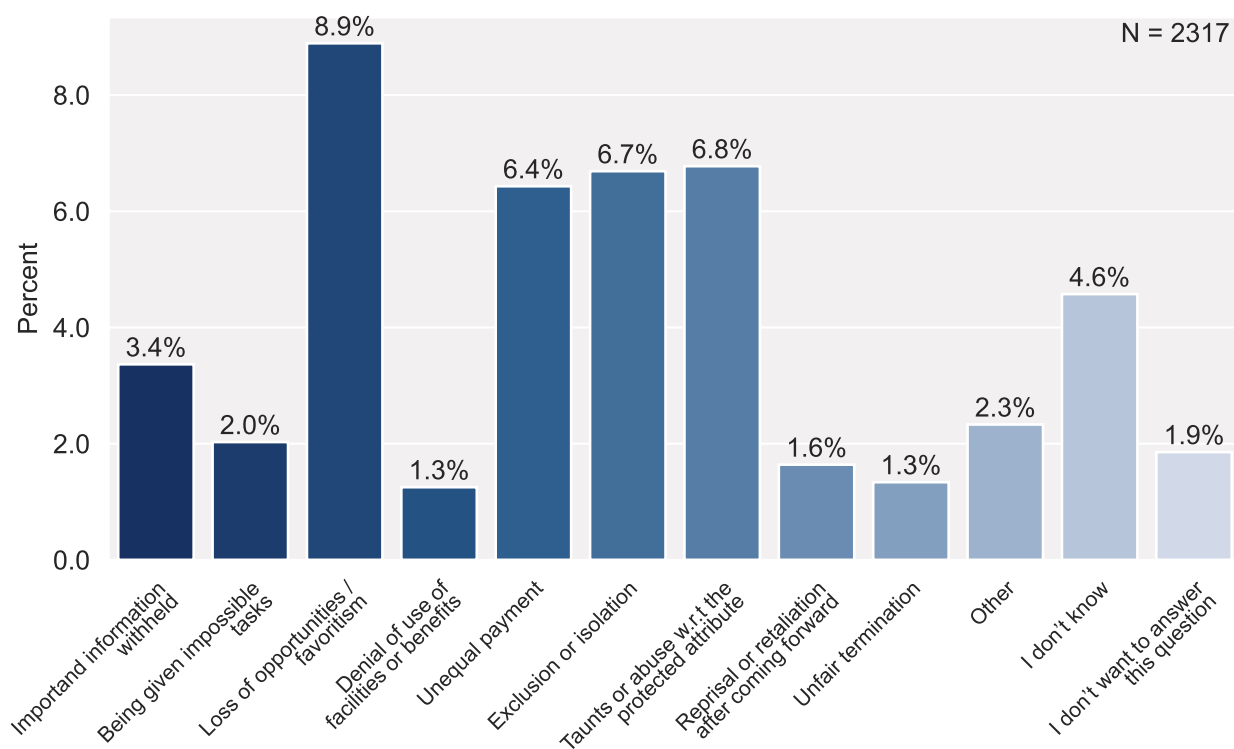
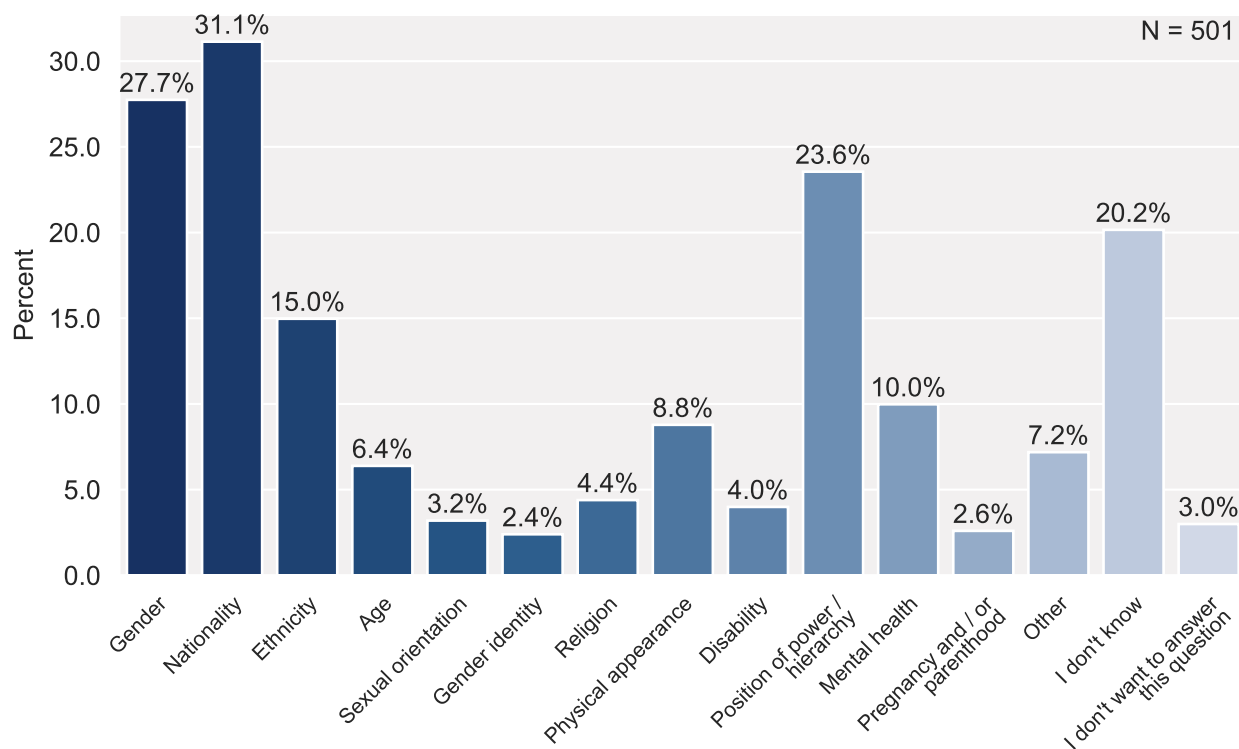
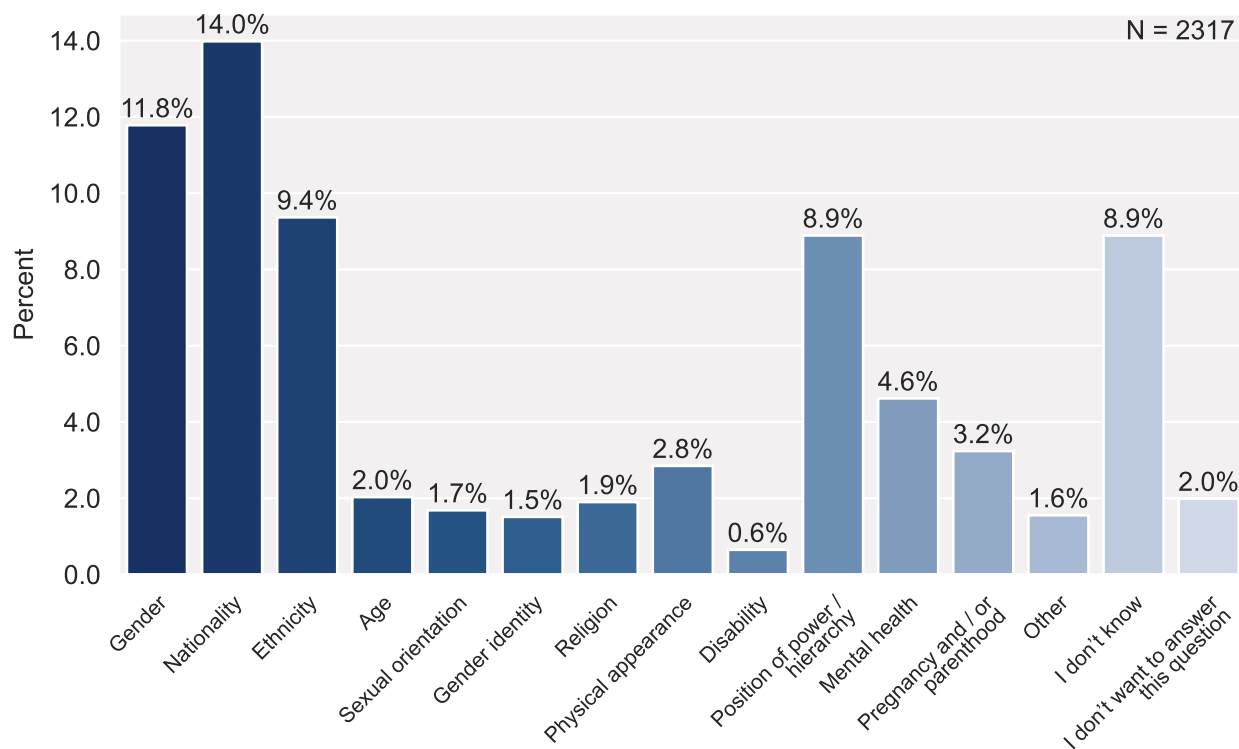


Figure 7.8: Types of discrimination experienced by participating DRs.



(a) Perceived basis of *experienced* discrimination.



(b) Perceived basis of *witnessed* discrimination.

Figure 7.9: Perceived basis of discrimination incidents.

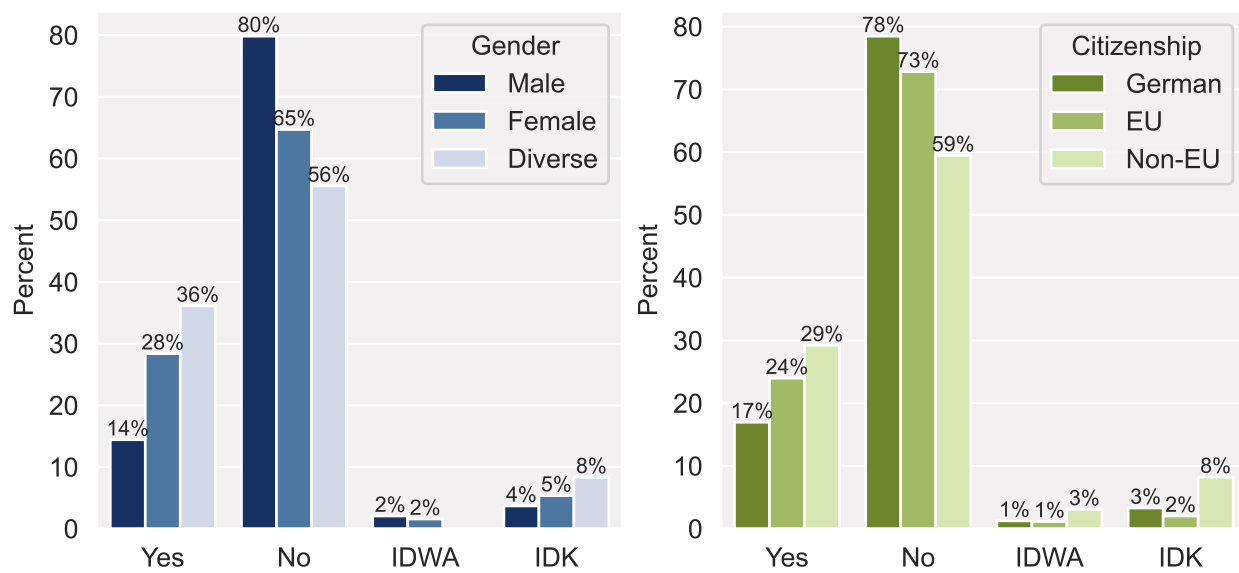


Figure 7.10: Did DRs experience *any* kind of discrimination? The data was grouped by gender (left) and citizenship (right).

7.4 Bullying

Bullying was defined in the survey as the “repeated and persistent negative behavior directed towards one or several individuals, which creates a hostile work environment. 20.9% of DRs indicated that they had been subject to bullying, whilst 21.5% of DRs reported witnessing incidents of bullying. This is significantly higher than that of the general German work force (17.1%) [14]. As previously discussed, this is likely a result of academia’s hierarchical nature, perpetrated by the lack of DRs involved in decision-making processes. DRs were also asked to report on the frequency with which they had experienced or witnessed bullying, as shown in Figure 7.11. After this, respondents were asked to indicate the types of bullying they have experienced from multiple-choice options offered to them (Figure 7.12). As with discrimination, bullying that is a form of “reprisal or retaliation after coming forward” should be a matter of serious concern, especially in combination with the majority stating that they are afraid of repercussions when reporting power abuse, as seen in Figure 7.1. Similar to the section concerning discrimination, DRs were offered options in a multiple-choice format for their perceived basis of experienced or witnessed bullying. These possible answers, as well as their results, are presented in Figure 7.13. Likewise with discrimination, the reasons for bullying are not always clear to those affected, and discrimination itself could be the reason. Nevertheless, the collected data can be used as a directive to improve areas of concern and thus protect individuals who are more likely to experience bullying. As with the sexual harassment and discrimination data, incidents of experienced and witnessed bullying have been analyzed according to the citizenship and gender of the victim to allow for more insight as to which demographics are disproportionately targeted (see Figure 7.14). Similar to sexual harassment and discrimination, non-male DRs appear to be more at risk of experiencing bullying than male DRs, although in this case, more female DRs indicated experiences of bullying than those of diverse gender DRs. In the cases of sexual harassment and discrimination, DRs of diverse genders were more at-risk than female DRs. The same pattern is present with citizenship data, with a higher proportion of non-EU and non-German EU citizens experiencing bullying than German DRs, but female DRs being the most at-risk. A much smaller percentage of DRs who indicated instances of bullying identified the perceived basis as gender or nationality in Figure 7.13 compared to discrimination, which further supports the weaker correlation.

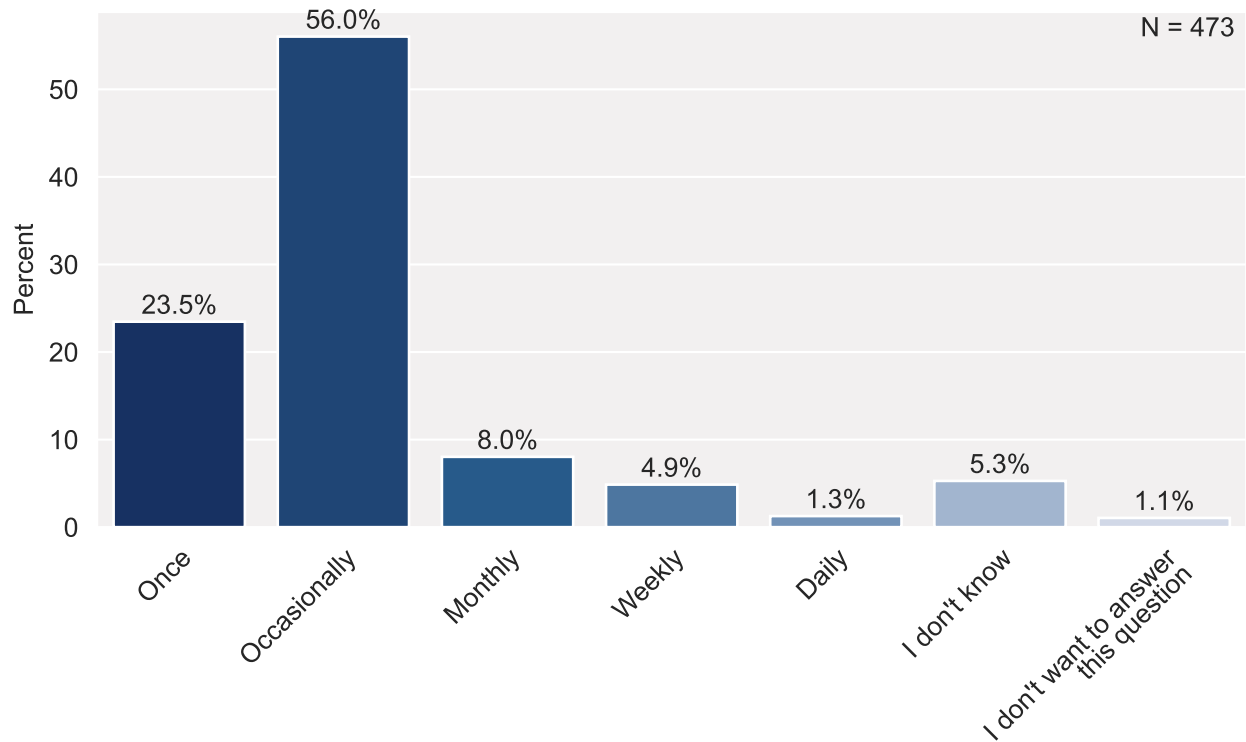
7.5 Summary

It can be seen from the data presented above that the perceived bases for discrimination and bullying can be the same. Certain demographics are more susceptible to multiple forms of power abuse, and this is of particular concern, particularly during efforts to increase diversity in the workplace.

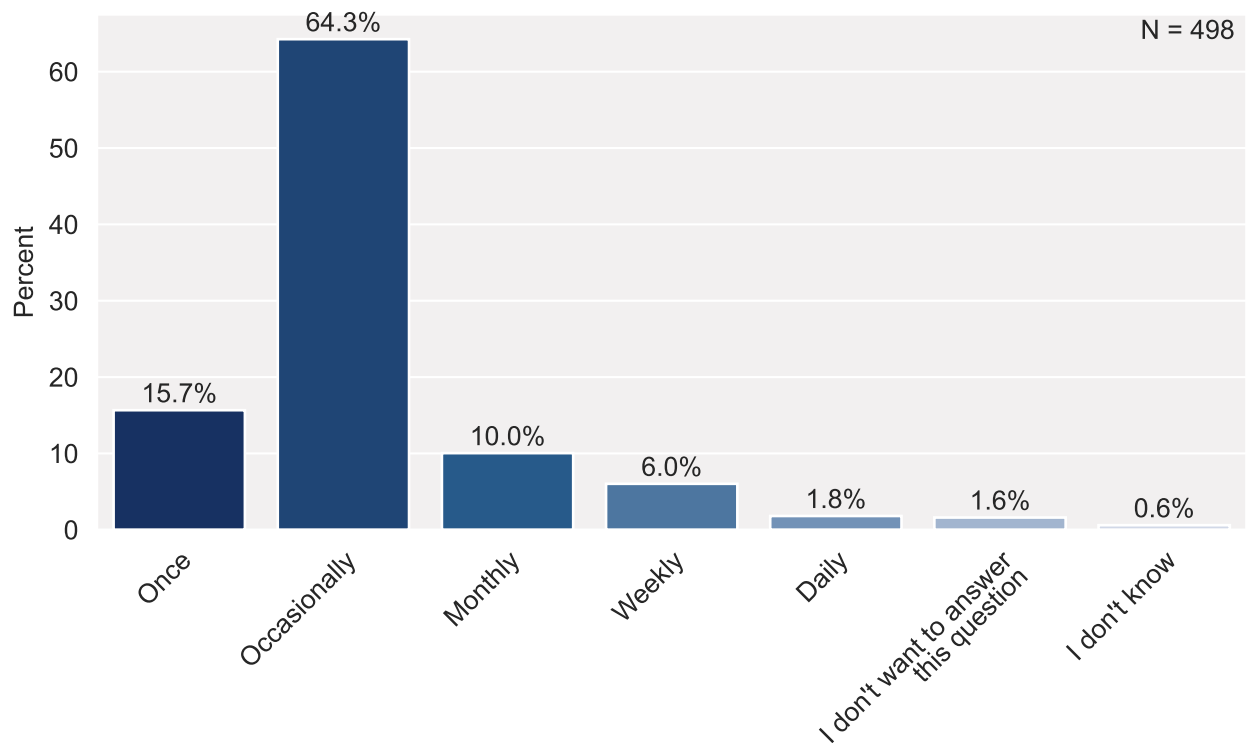
There is a potential skew in the data that should be addressed, coming from the likelihood that those who had been subject to a form of power abuse may have been more likely to take the survey. This is because the survey provided an anonymous mechanism for reporting these incidents without the fear of repercussions. This highlights why anonymous reporting routes are extremely important to improve the conditions across all the Helmholtz centers [15].

7.6 Key Messages from Statistics

- 13.6% of DRs experience conflicts during their doctorate, however, only 6.4% of them report these.
- The main reasons for not-reporting were "I was afraid of repercussions" (4.9%) and "I didn't think it would be resolved" (4.5%).
- 7.8% of DRs experienced some kind of sexual harassment, and 5.9% are unable to identify sexual harassment.
- 21.6% of DRs have been subject to discrimination and report the most common perceived basis to be Nationality and Gender.
- 29.8% of DRs have witnessed discrimination and report the most common perceived basis to be No, I have not been a witness to discrimination and Nationality.
- 20.9% of DRs have experienced bullying and report the most common perceived basis to be Position of power/hierarchy and Other.
- 21.5% of DRs have witnessed bullying and report the most common perceived basis to be Position of power/hierarchy and Nationality.
- The data also highlights the importance of anonymous reporting mechanisms of power abuse to protect DRs from retaliation.



(a) Frequency of incidents of bullying *experienced* by participating DRs.



(b) Frequency of incidents of bullying *witnessed* by participating DRs

Figure 7.11: Frequency of bullying incidents.

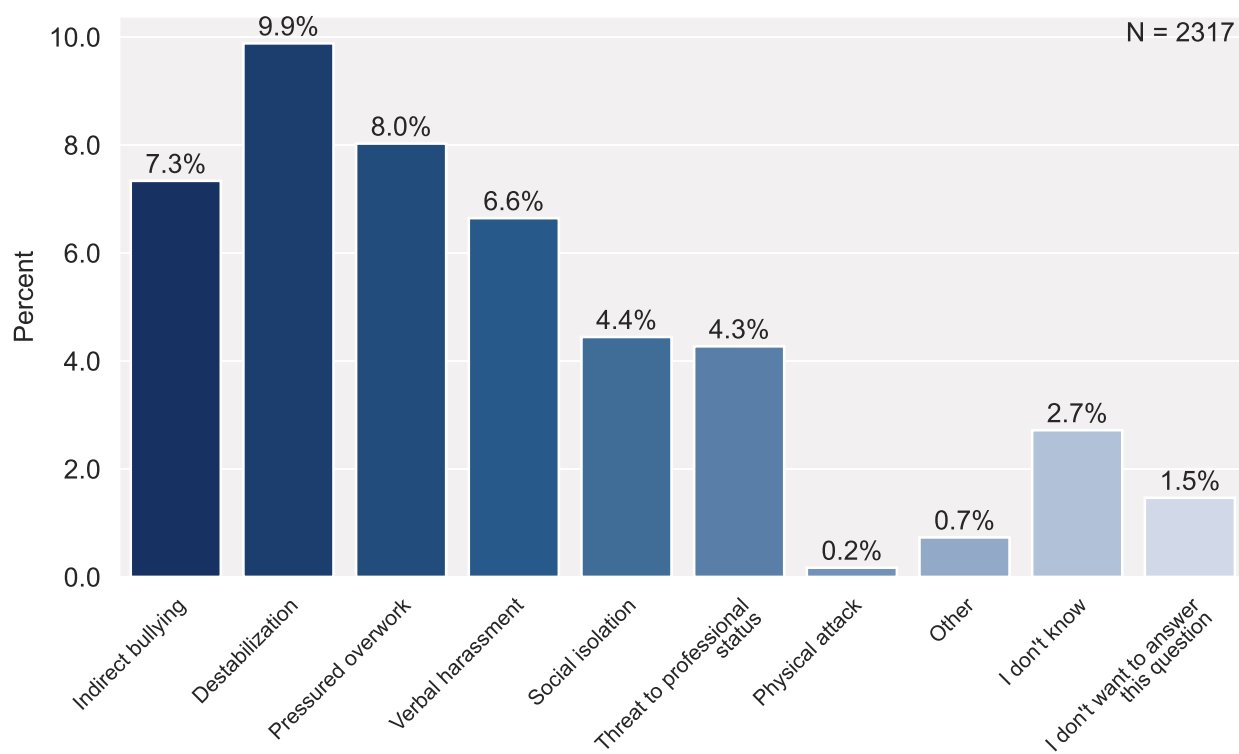
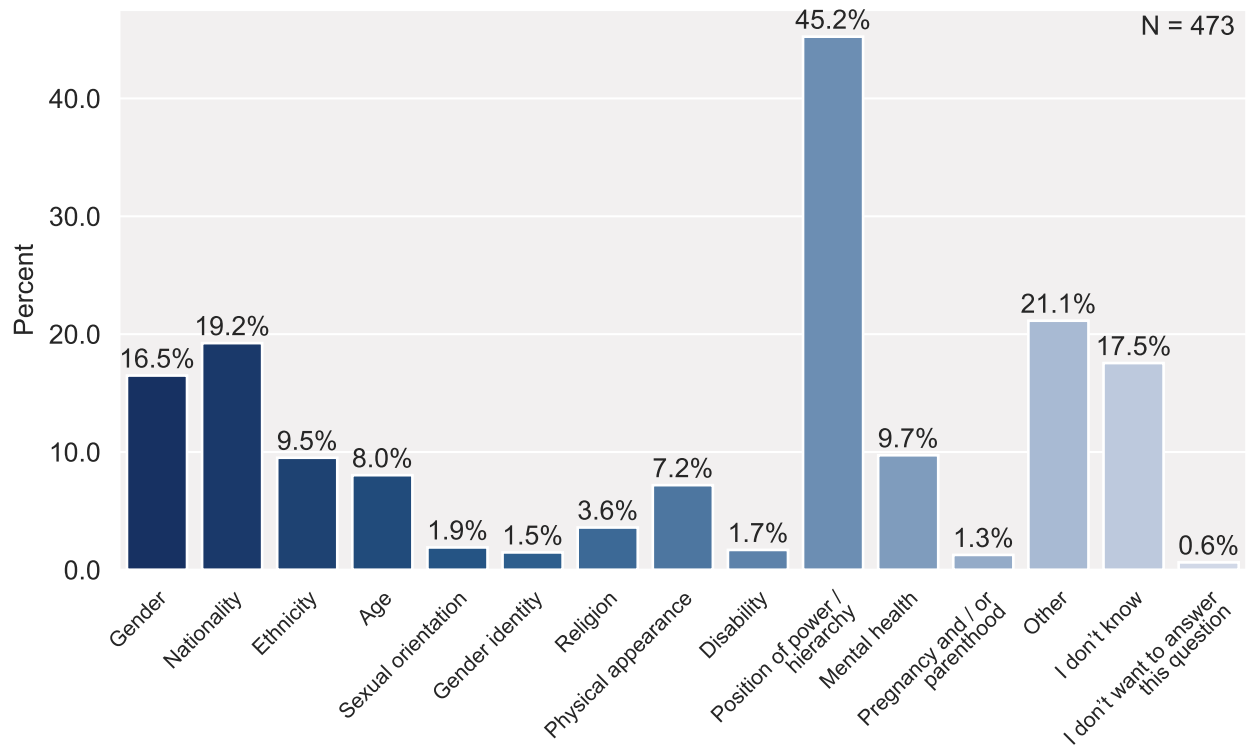
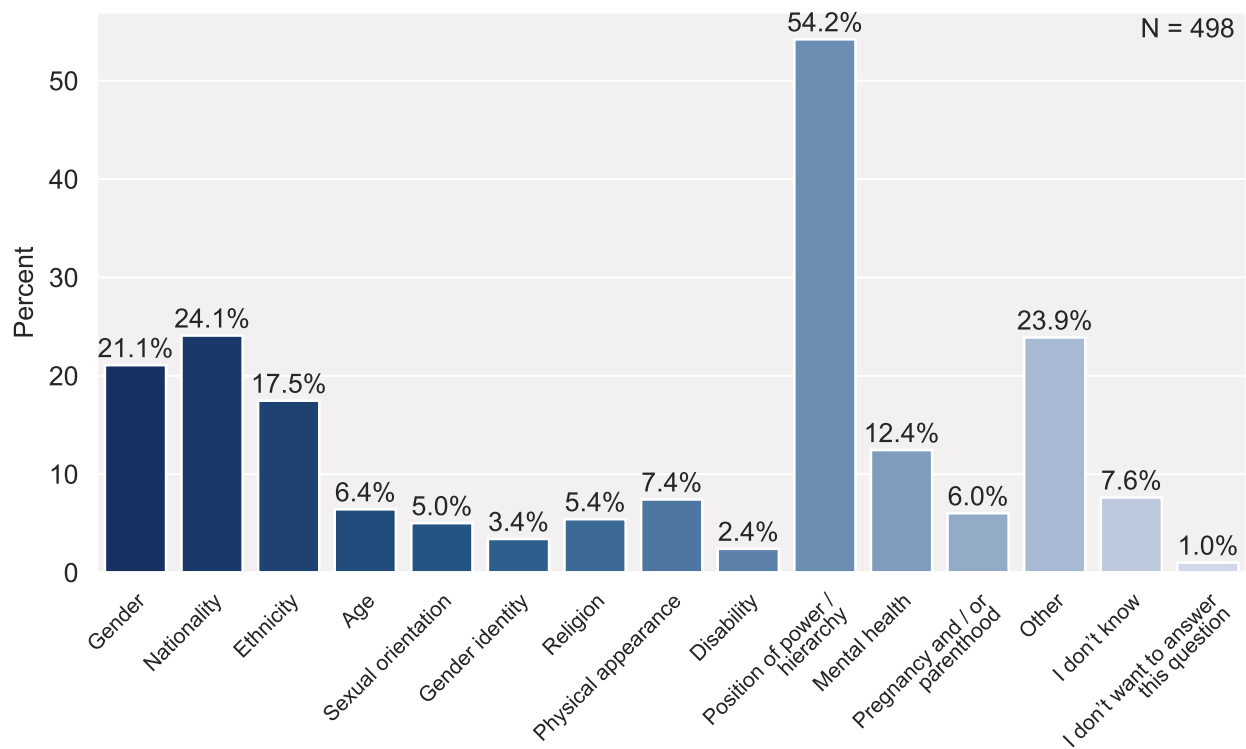


Figure 7.12: Types of bullying experienced by participating DRs.



(a) Perceived basis of incidents of bullying *experienced* by participating DRs.



(b) Perceived basis of incidents of bullying *witnessed* by participating DRs

Figure 7.13: Perceived basis of bullying incidents.

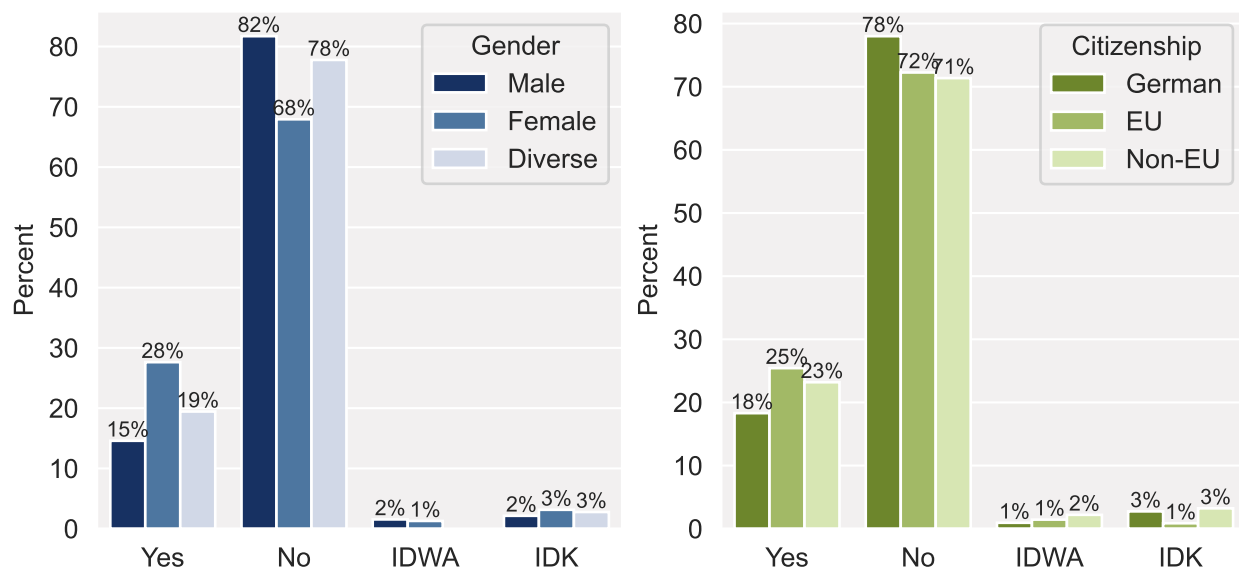


Figure 7.14: Did DRs experience *any* kind of bullying? The data was grouped by gender (left) and citizenship (right).

Chapter 8

Integration

Successful integration means people feel equally valued, accepted, and respected. This has multiple benefits, from simply creating a more open and pleasant work environment for all to enabling participation and contribution from all employees. The quality of science and the mental health of employees benefit from better inclusion and integration policies. Diversity has been found to increase groups' problem-solving abilities and performance. Having a richer array of perspectives in research brings higher rates of scientific novelty. On top of that, researchers from under-represented backgrounds tend to bring a less self-focused attitude to research [29, 12, 11].

However, diversity efforts are thwarted by a lack of inclusion and integration efforts [23]. DRs with disabilities or impediments may encounter a lack of reasonable accommodation and understanding from colleagues, and might experience feelings of isolation [21].

In this section, we look into how barriers to integration are handled in the Helmholtz network. DRs moving to Germany from a non-German speaking country in particular face not only the challenges of their doctoral research project, but are also adapting to a different culture and facing the same administrative hurdles in a foreign language. Additional support is often needed to help with finding accommodation and understanding various levels of bureaucracy, both within their center and potentially with visa processes.

8.1 Support at the beginning of the doctorate

To fully support DRs in their work and well-being, it is key that centers ensure that information is available, accessible, and up-to-date. This is particularly vital in the beginning phases of the doctoral project, to ensure a fast and relatively stress-free start and make it possible for the researchers to start contributing and networking.

DRs were asked about what kind of support was provided by their center (Figure 8.1). Additionally, DRs were questioned in which areas they would have needed additional support, resulting in the following list:

- University enrollment
- Application to a graduate school
- Finding accommodation
- Registering at the local resident registration office
- Visa for their residency
- Interacting with the immigration office
- Translation of working contract and relevant documents

- Language courses

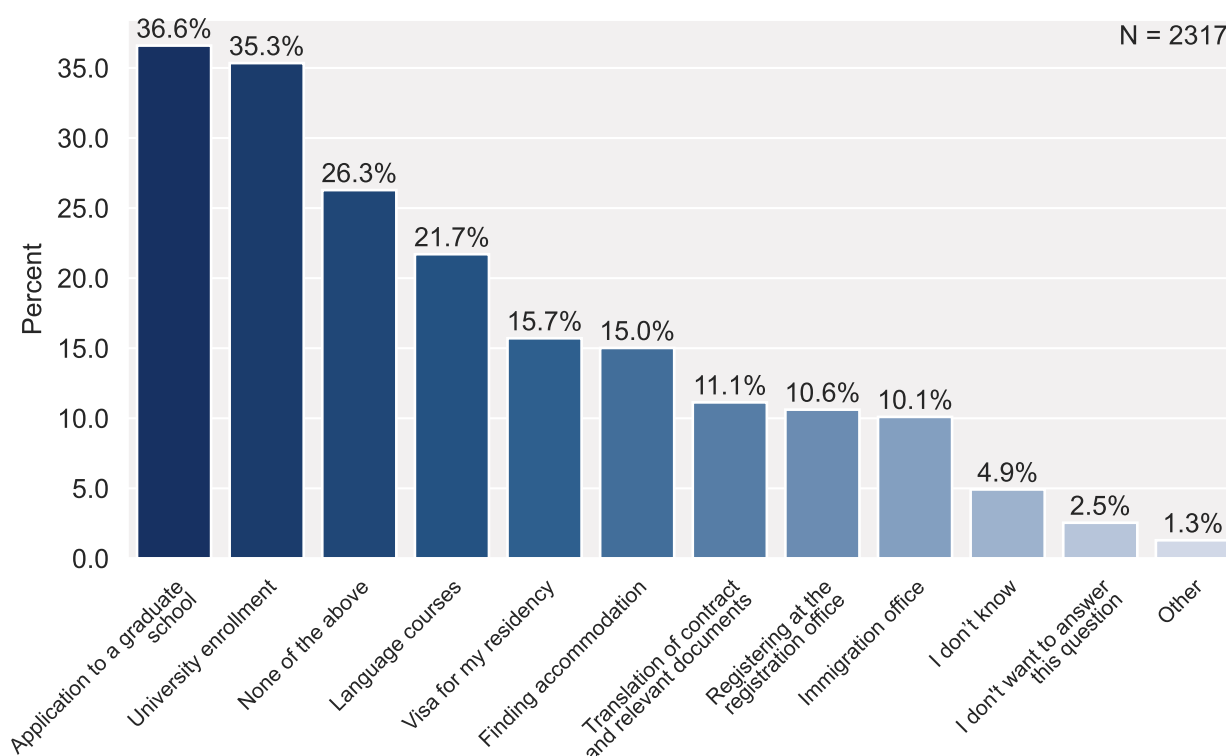


Figure 8.1: Support received by DRs

From Figure 8.1, we see that 26.3% of DRs reported that they didn't receive any kind of support. When asked about which aspect more support would have been needed, we see that 40.5% do not feel like they needed any additional support. But this also shows that less than half of DRs feel like they are satisfied with the level of support received. For the remaining 59.5%, we see 26.6% would have needed more support regarding university enrollment, 22.6% would have needed help with finding accommodation, 14.1% would have benefited from a bigger offer of language courses and 12.7% lacked support with enrollment into a graduate school. Furthermore, 10.4% needed support with the translation of work documents, while 9.6%, 8.7%, and 8.6%, respectively, needed more assistance dealing with the immigration office, the local resident registration, and their visa documentation, respectively. The variety of hurdles and the number of participants encountering a lack of help with them emphasize the need for major changes to improve the integration process and, consequently, the scientific contribution of new DRs.

8.2 Language barrier

To look deeper into the effects of language barriers on integration, non-German participants were asked to grade their level of German fluency.

The results show (Figure 8.2) that 59.2% either speak no German or have a beginner level in the language. 26.4% of non-German participants consider their level to be intermediate, and 13.5% of the non-German DRs are either fluent or native in the language.

To understand how big an additional barrier to integration this creates, non-German participants were asked whether language presents an obstacle for communication within the institutes (Figure 8.3). 42.5% of respondents find that language is *very much* or *to some extent* a problem.

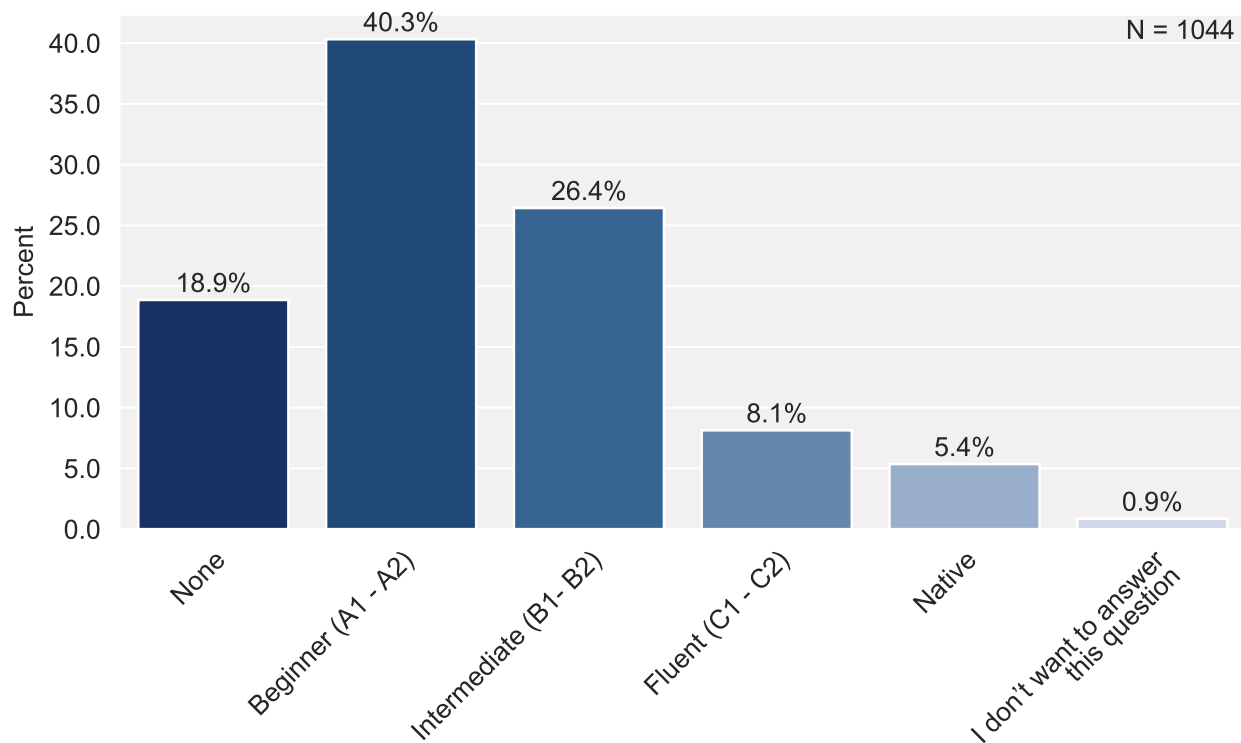


Figure 8.2: Level of German fluency among non-German DRs

On top of day-to-day communication, the availability of important information was also investigated for non-German participants. The findings are shown in Figure 8.4. 17.8% of respondents find that only some or none at all of the relevant information is available to them in a language they understand. This points to the fact that an opportunity to foster more inclusion is to simply invest in official translations of relevant information.

8.3 Social Events and Integration

Finally, regardless of language, integration is fostered by social activities. To look further into integration through socialization, participants were asked about the organization of such activities, both regarding their frequency and the organizers (Figure 8.5).

On a positive note, just a small proportion of respondents state that events never or just once happened, with the majority of DRs having events take place occasionally or even regularly each month. This gives DRs the chance to get to know their co-workers and working group better and thus helps them connect and integrate. Looking at the attendance also shows that DRs take these opportunities with less than 5% saying that they do not attend any event, while the majority visit them often. Although when focusing on the respondents who are not or rarely attending, it raises the question of whether they actively decide themselves not to do so, or if they do not feel like they can attend due to their amount of work. The latter could be the case based on similar trends seen in the Working Conditions section, and shows the need for a less pressuring environment in order for proper socialization in scientific working groups. Lastly, when viewing the main driving forces of these events in the form of the organizers, the answers are rather balanced. With the question being posed in the multiple choice format, the main group of organizers being DR representatives with around 50%. But other important contributors are the institutions like the group, the department, the center,

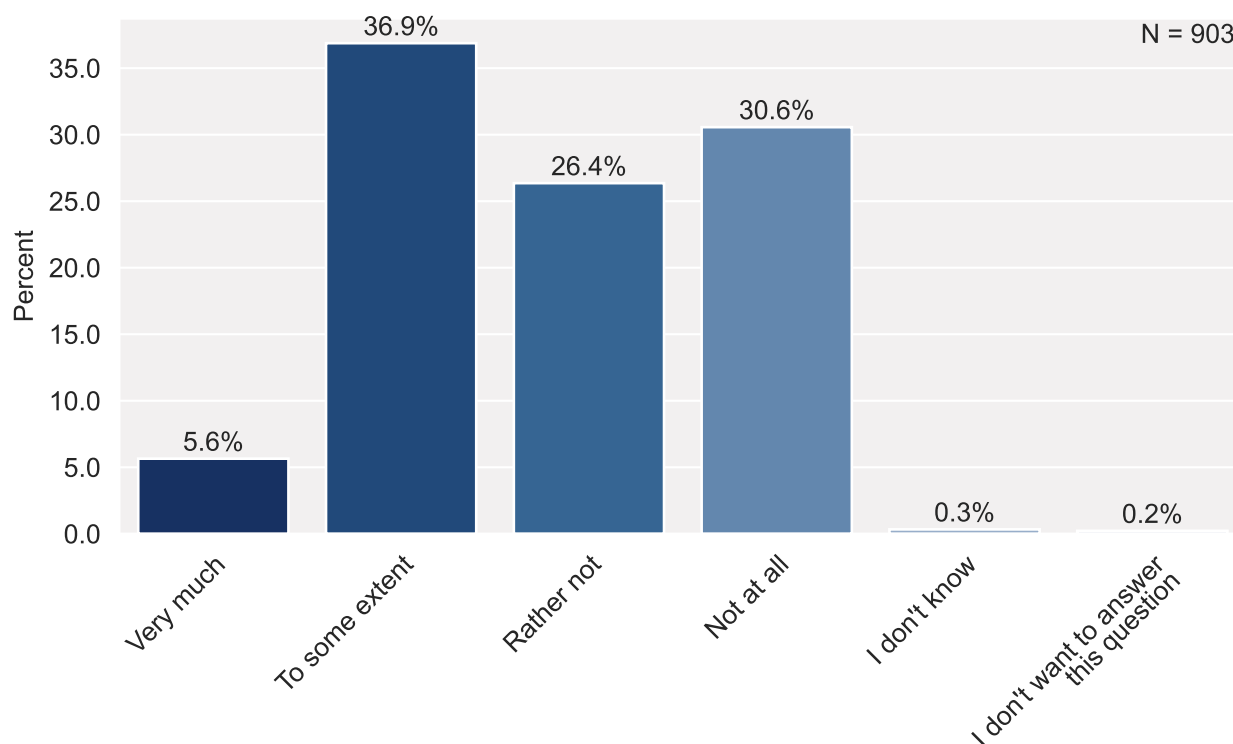


Figure 8.3: Language as an obstacle for communication within their center for DRs not fluent in German.

or the supervisor which collectively contribute around 75%. So even though the frequency and the attendance might be improvable, the obligation of organizing such events is well-distributed. The only caveat to this might be that DR representatives are the highest single contributing faction, implying that they might feel the biggest responsibility to enable socialization and integration in their groups or centers. This could be changed by the general organizational institutions taking the initiative more or working with the DR representatives more closely to fully equalize the contributions towards events.

8.4 Disability

Any special need that is not adequately met by the research centers can create huge difficulties for DRs. Regretfully, it is not possible at the moment to provide insight into the current treatment and integration of DRs with disabilities, due to the low number of special needs participants and related privacy concerns. We are open to suggestions for future surveys and strongly support DEI initiatives that would bring forth an increase of people with special needs to be employed by research centers within the Helmholtz network.

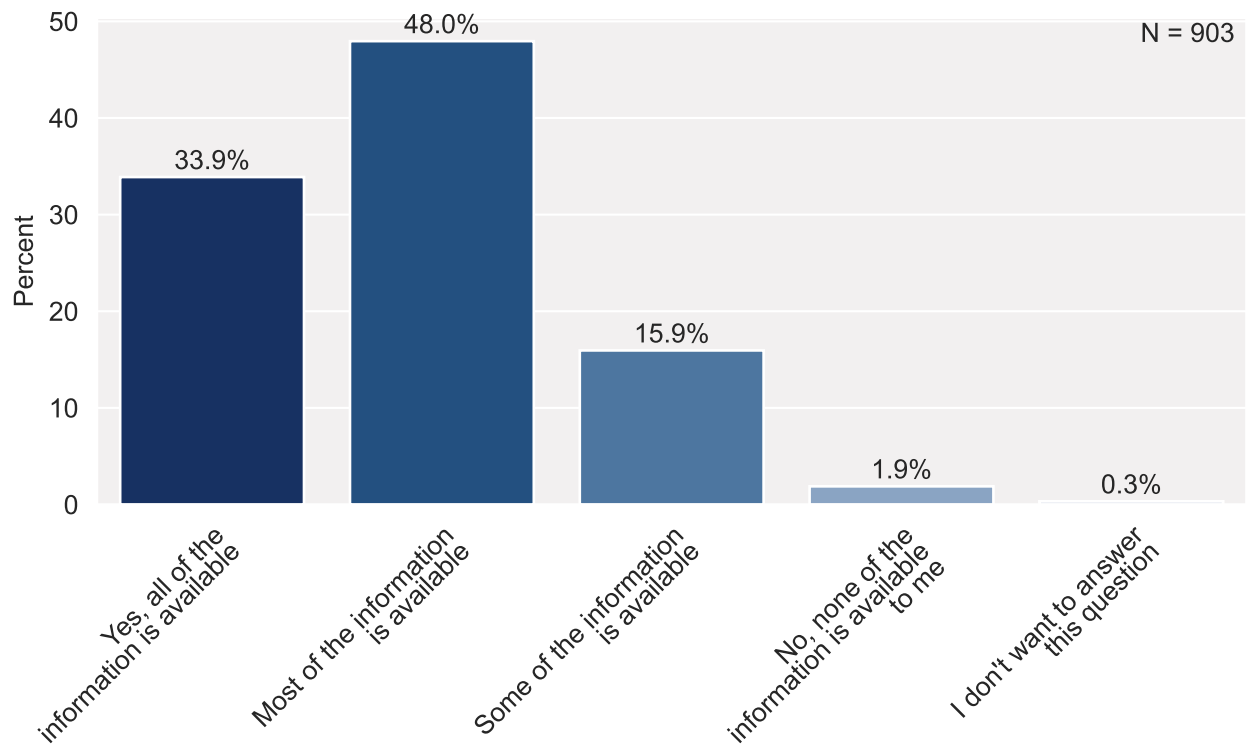


Figure 8.4: Availability of important documents within their center in a language that they understand for DRs not fluent in German.

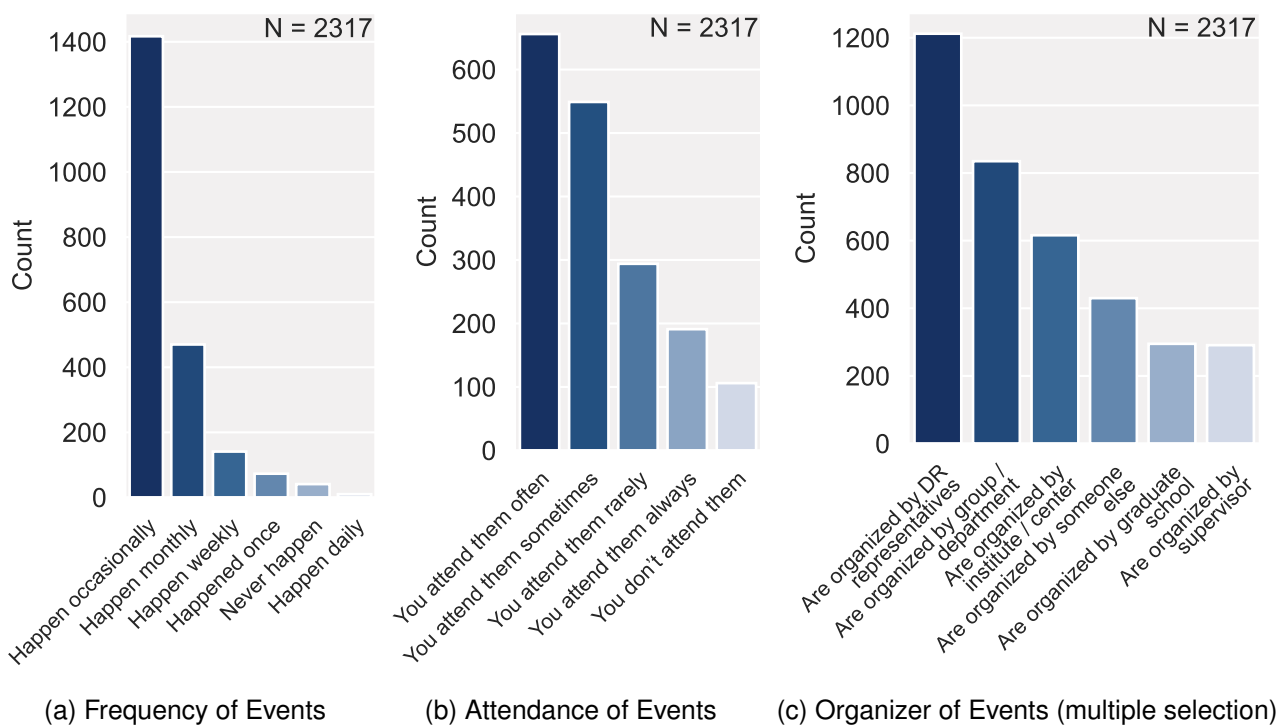


Figure 8.5: Frequency, attendance, and organizers of social activities across centers

Chapter 9

Career Development

After completion of the doctorate, many career paths open up. Choosing the right one is a multifaceted problem. DRs face the difficult question, whether they want to stay in academia, find a job in industry, or explore less traveled paths (e.g. science management, starting their own business, teaching, etc). The sheer number of possibilities demonstrates the importance of offering guidance in career planning. Career counseling is increasingly offered by Helmholtz Centers for both DRs and supervisors. Here, we review how well career counseling is supported across the Helmholtz network.

9.1 Enrollment in Graduate Schools

The majority of DRs, 78.0%, are enrolled at a graduate school at their institution or somewhere else. An overview of all answers can be seen in Figure 9.1. Of note, enrollment in a Graduate Program and at a university are not necessarily mutually inclusive.

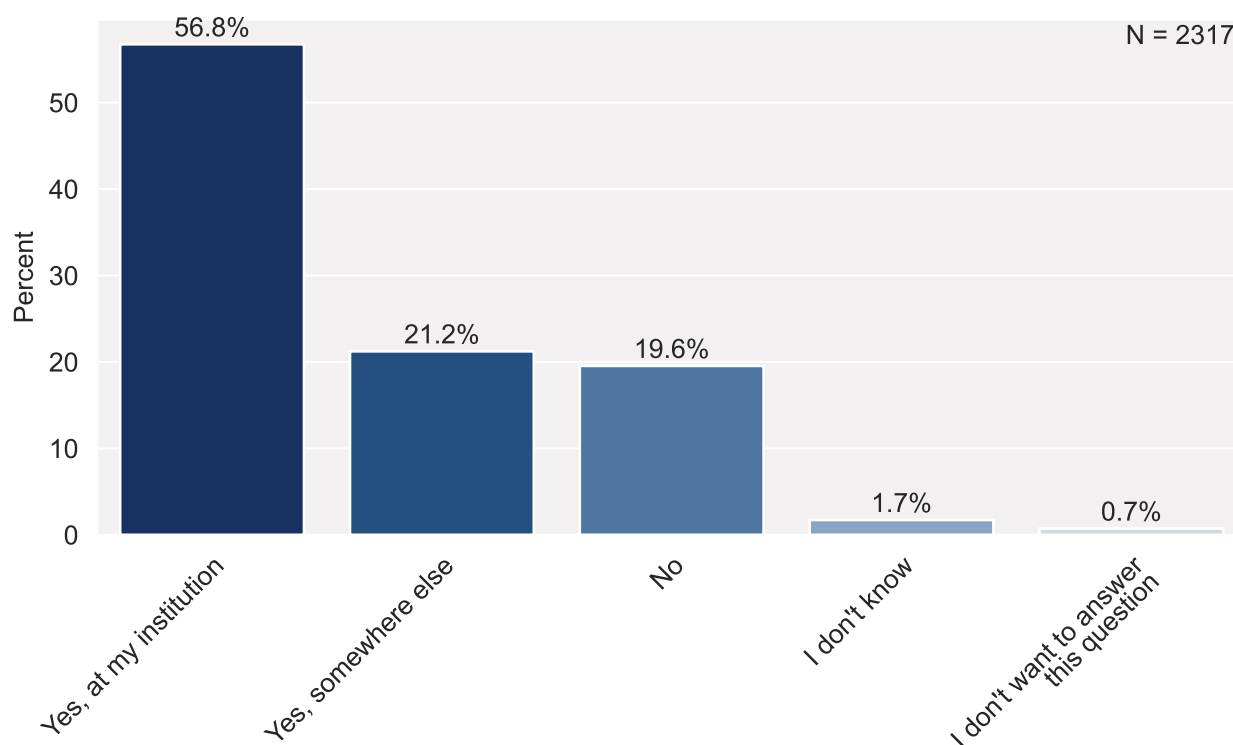


Figure 9.1: Number of DRs currently enrolled in a graduate school

9.2 Field of Work after Doctorate

When asked about the future prospects, non-academia scientific research (e.g. scientific research in industry) is the most obvious choice for most participants. As seen in Figure 9.2, 79.2% of DRs would like to work there. The next obvious choice is academia (47.4% , which is followed by private sector science-related job (e.g. public relationship or science management) (41.6%. 30.0 of DRs express the wish for an extended break after their doctorate. The number of DRs who would like to start their own business is above 17.3%, the number of DRs who would like to continue their education is 8.8%. When asked why the DRs would like to leave academia, the most common reasons were “I do not like scientific working conditions” (547), “I find my career prospects unattractive” (543), and “I find other jobs more interesting” (350).

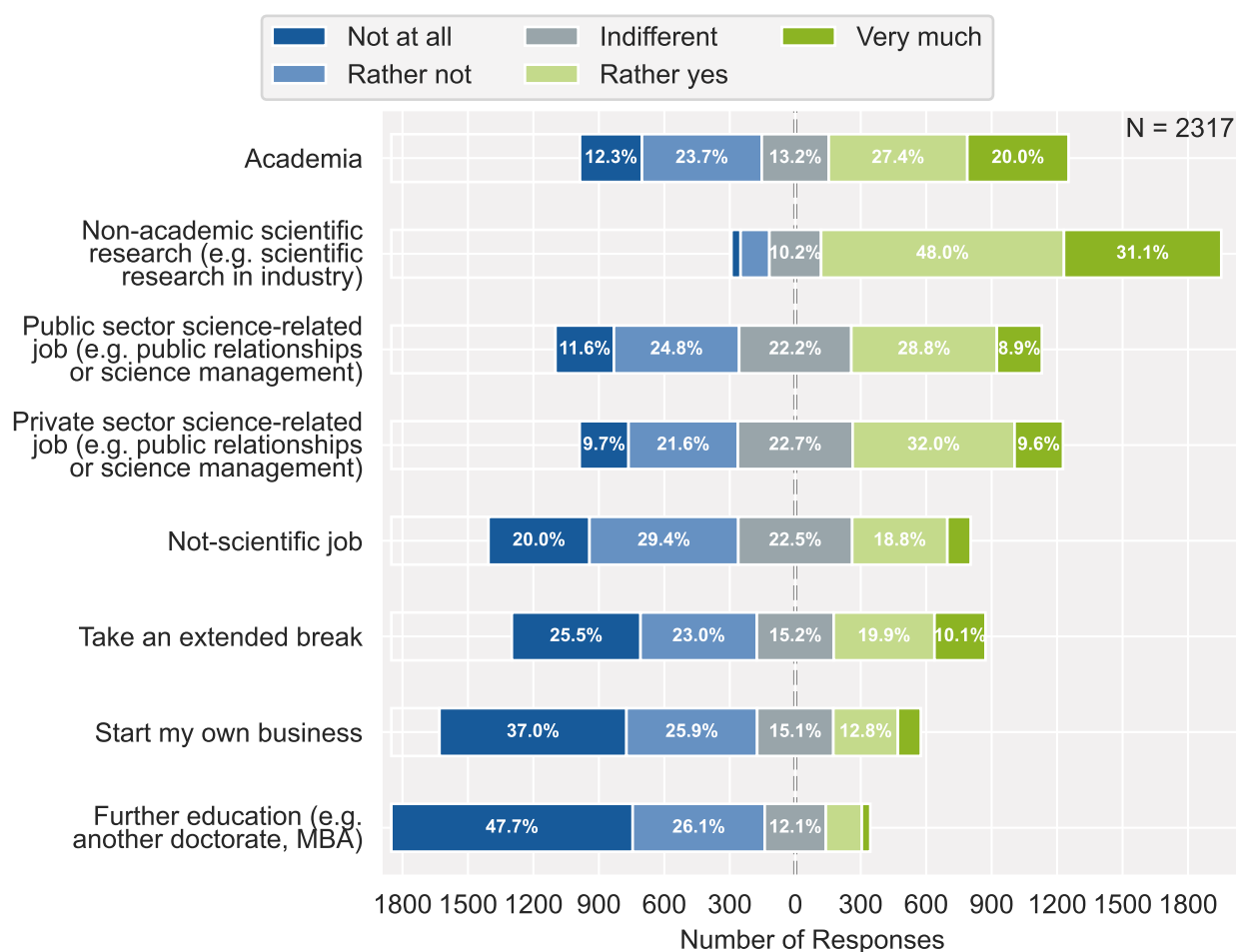


Figure 9.2: Preferred field of work after completing the doctorate.

9.3 Career development supporting measure by the Helmholtz Center

Figure 9.3 shows how the career development measures are perceived by their participating DRs. The commitment of the centers to career support is visible in the predominantly positive responses of the DRs, who reported feeling well supported across all career support measures that were asked for in the survey. Among these, soft skill courses stand out as the most highly valued. Overall, the DRs also feel well supported through practical courses, mobility opportunities, career development offices

or career centers, language classes, mentoring, and assistance with transitioning to non-academic careers.

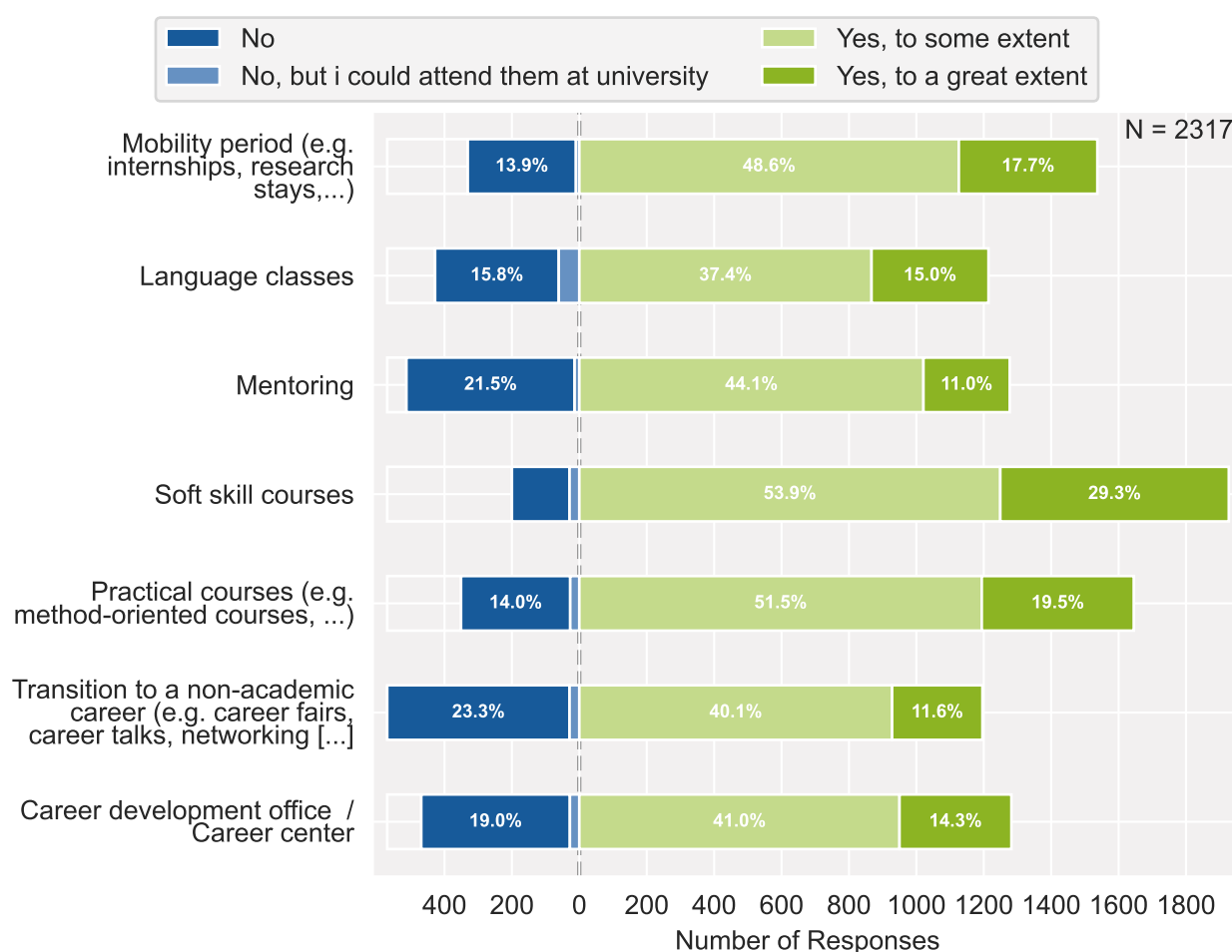


Figure 9.3: Perception of the career development measures.

9.4 Perceived Preparation for Future Career

The participating DRs feel more prepared for jobs inside than outside academia. More precisely, 67.6% of DRs feel well to very well-prepared for a job inside academia, while 34.6% feel well to very well-prepared for a job outside academia.

More precisely, 34.6% of DRs feel well to very well-prepared for a job outside academia, while 67.6% feel well to very well-prepared for a job inside academia.

Interestingly, as seen in Section 9.2, most DRs would prefer a job outside of academia after their doctorate, although they feel less prepared for it.

In both cases, the numbers are remarkably low, indicating an urgent need to incorporate more offers or courses to actively prepare DRs for their upcoming career path.

Chapter 10

Family

This section contains questions related to family life and caring responsibilities while conducting the doctoral project. We aim to obtain an overview of the Helmholtz Association. We also try to identify ways for centers to offer further support and effectively meet the needs of DRs with caring responsibilities.

10.1 Parenthood

For many DRs, the timing of their doctoral project coincides with an age similar to the average age of mothers at the birth of their first child. Both a thesis and a family are time-consuming endeavors and therefore could possibly clash with one another. The survey results support this hypothesis, as shown in Figure 10.1.

87.2% of the participants have no children nor do they plan on starting a family during their doctorate. The percentage of respondents who are either already parents or expecting is 6.7%.

When considering previous N2 surveys, The percentage of parents in 2021 was about 8.6% and in 2019 about 8.7% of all respondents.

To get a better insight into whether the low portion of parents is due to personal reasons or rooted in the academic system, participants were then questioned whether they planned on having (more) children during their doctoral research period, and further asked to specify why they did not expect to have children in case of a negative reply. The results are shown in Figure 10.2.

If people answered they have children (see Figure 10.1), they were further inquired about the childcare facility attended by their youngest child. The results are shown in Figure 10.3. 51.7% of parents have their youngest child currently enrolled in daycare. This insight can be helpful when planning support measures for DRs with parental responsibilities.

Childcare services offered by a workplace can help plan for and manage family life. Availability of childcare services from the research center of employment can help reconcile a family life with scientific work, to the benefit of both. However, clear communication of offers and benefits can make the difference. Participants who answered positively to either having or expecting to have children during their doctoral research period were asked about the support offered by their center.

The answers, shown in Figure 10.4, show that 6.2% of doctoral researchers are not aware of any type of childcare support. Although the generally low percentage of DRs even considering becoming parents during their doctorate strongly implies that the offers available to DRs or their awareness thereof are too low to make them comfortable in taking this step.

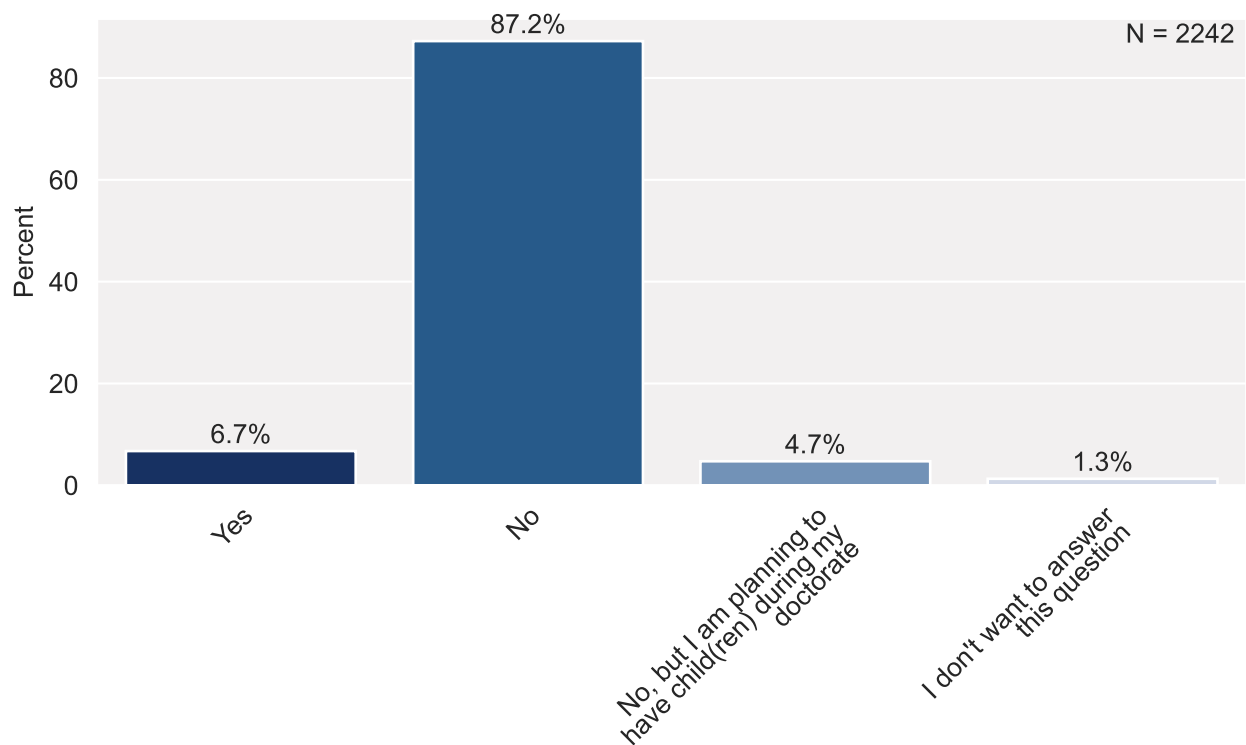


Figure 10.1: Number of DRs who have or expect children at the time of the survey, and those who do not. Please note that the answers to this question were asked in a single-choice format.

Another interesting insight is given by the fact that 51 respondents are aware of the offer of daycare facilities, but say that the available offer is not enough to cover the needs of employees.

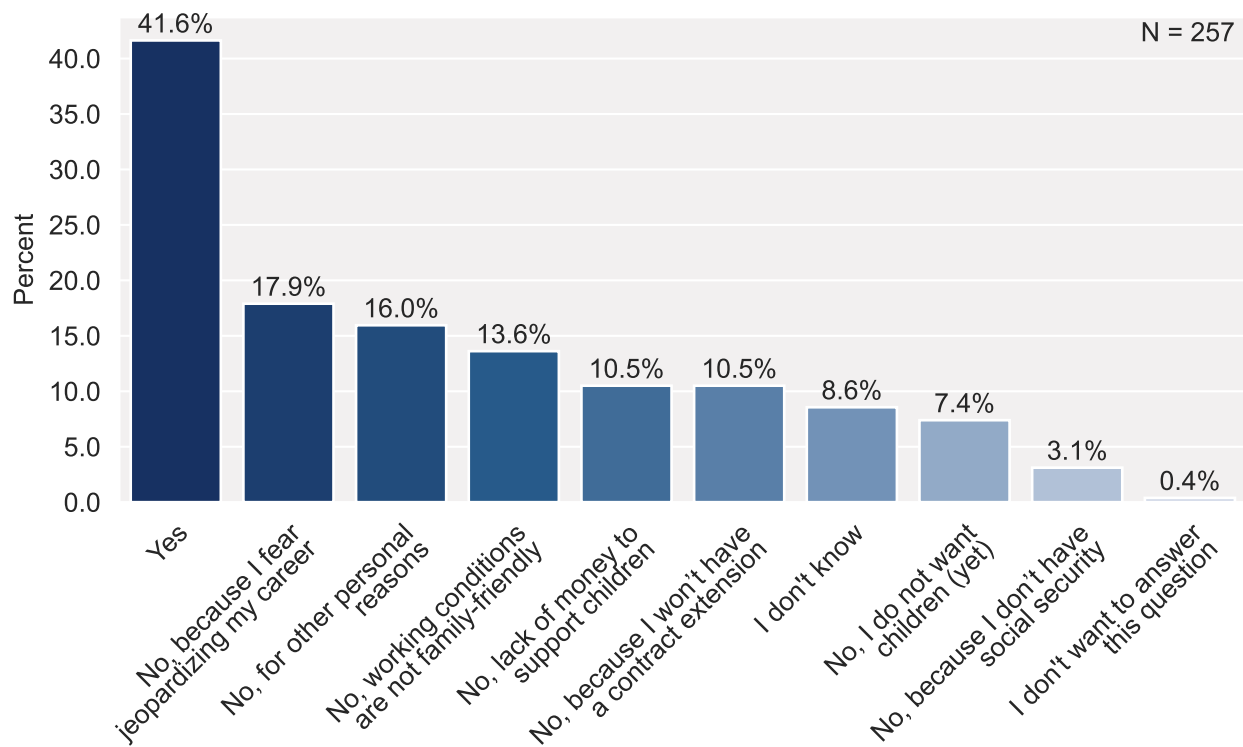


Figure 10.2: Number of DRs who are either considering/expecting or not considering/expecting (additional) children during their doctoral project. The latter is split into specific reasons, which were offered in a multiple-choice setting.

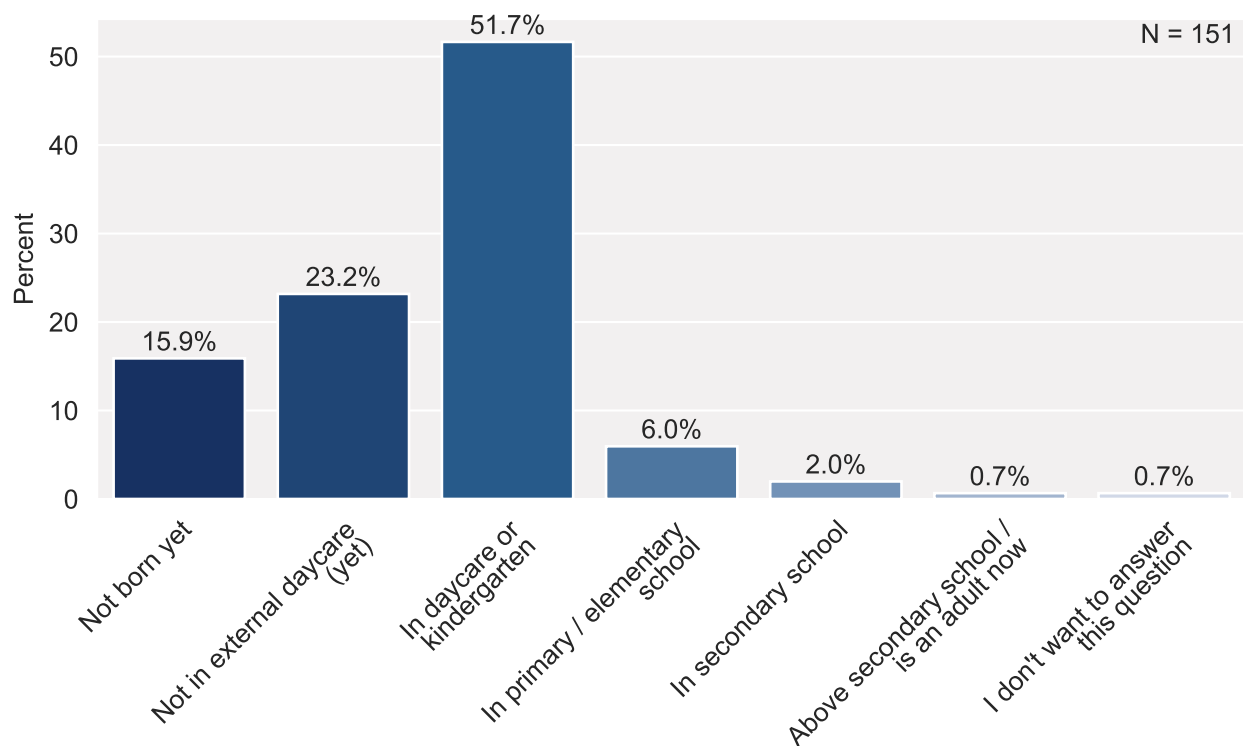


Figure 10.3: Childcare facility for the youngest child of respondents with or expecting children.

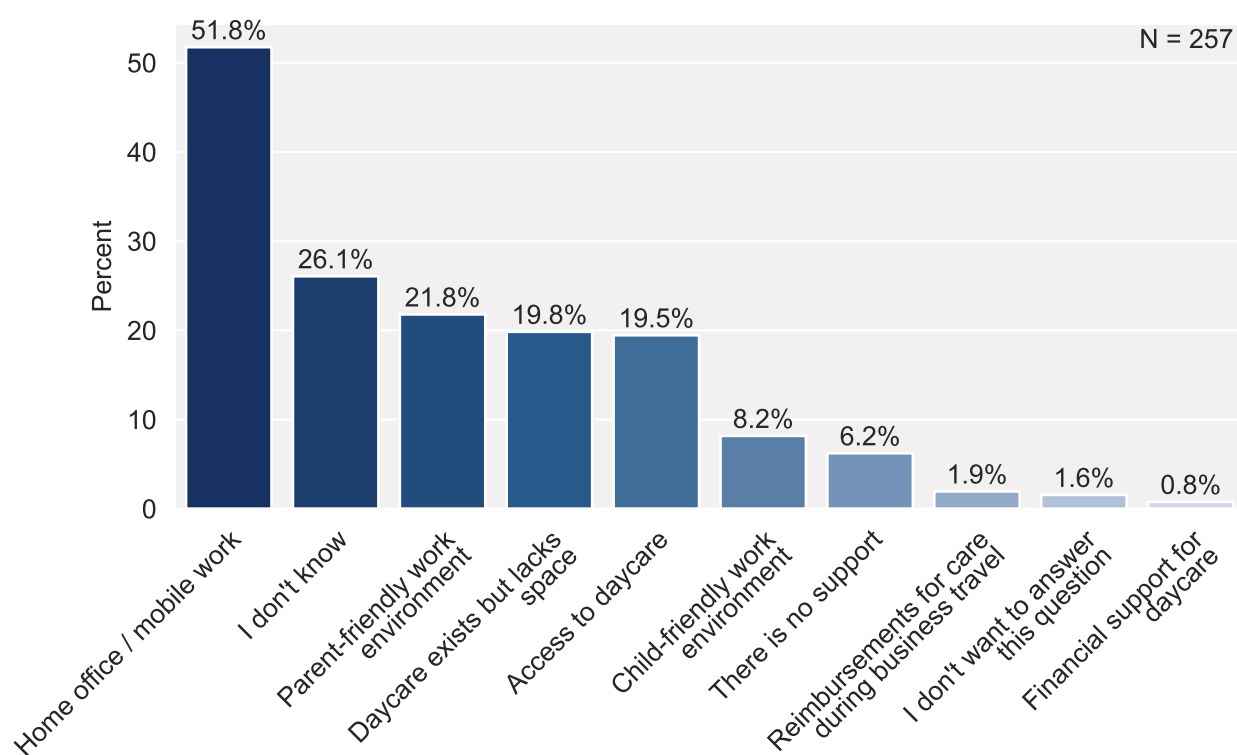


Figure 10.4: Childcare support services offered to the DRs. Note that multiple answers were possible.

10.2 Further caring responsibilities

To get a more complete picture, we further assessed other caring responsibilities apart from children in Figure 10.5 and observed that 5.0% of DRs have this kind of family situation. As this might become a growing trend within our aging society, we would like to start highlighting this additional challenge not only for DRs but also for other employees.

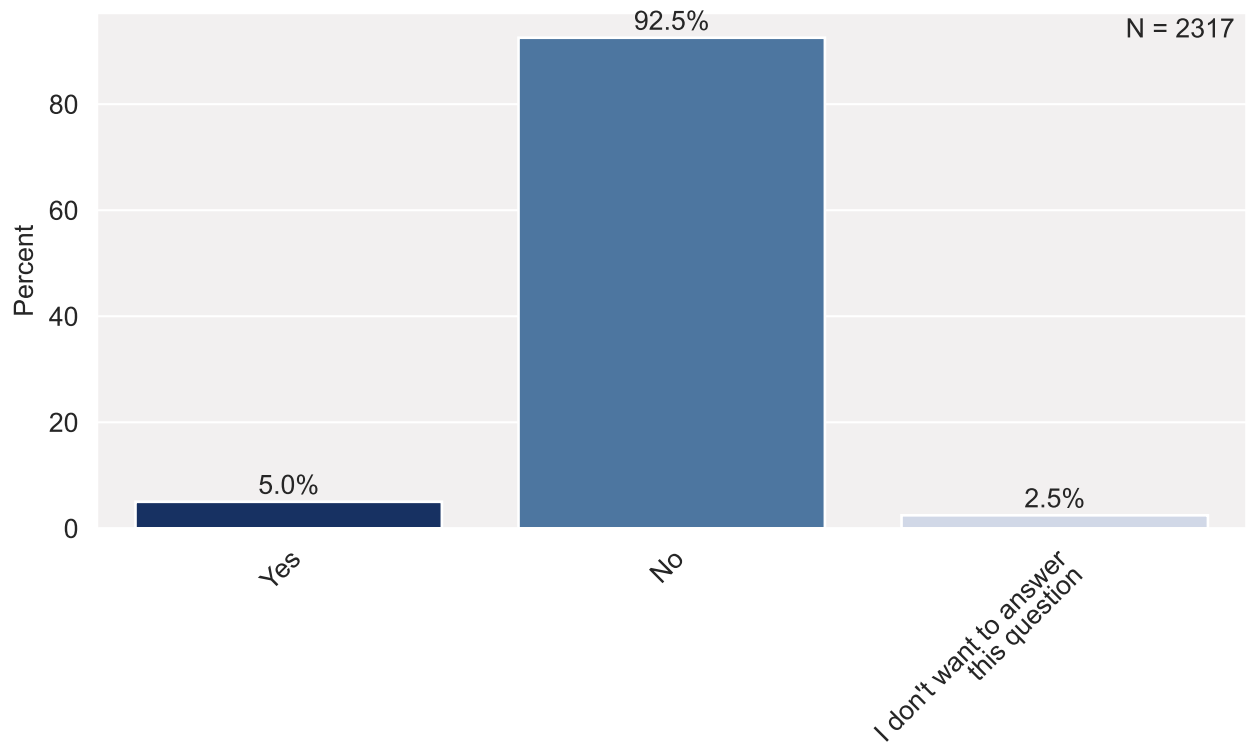


Figure 10.5: DRs with caring responsibilities apart from children, such duties can be connected to e.g., the elderly or other family members.

As shown in Figure 10.6, a large amount of people (40.5%) specifically states that their additional workload in caregiving responsibilities apart from children is not sufficiently supported due to a lack of official recognition.

Sufficient support is only felt by 10.3% of respondents. Notably, 5.2% of DRs are aware of certain support offers, but they feel like they should be more supported when having multiple caregiving responsibilities.

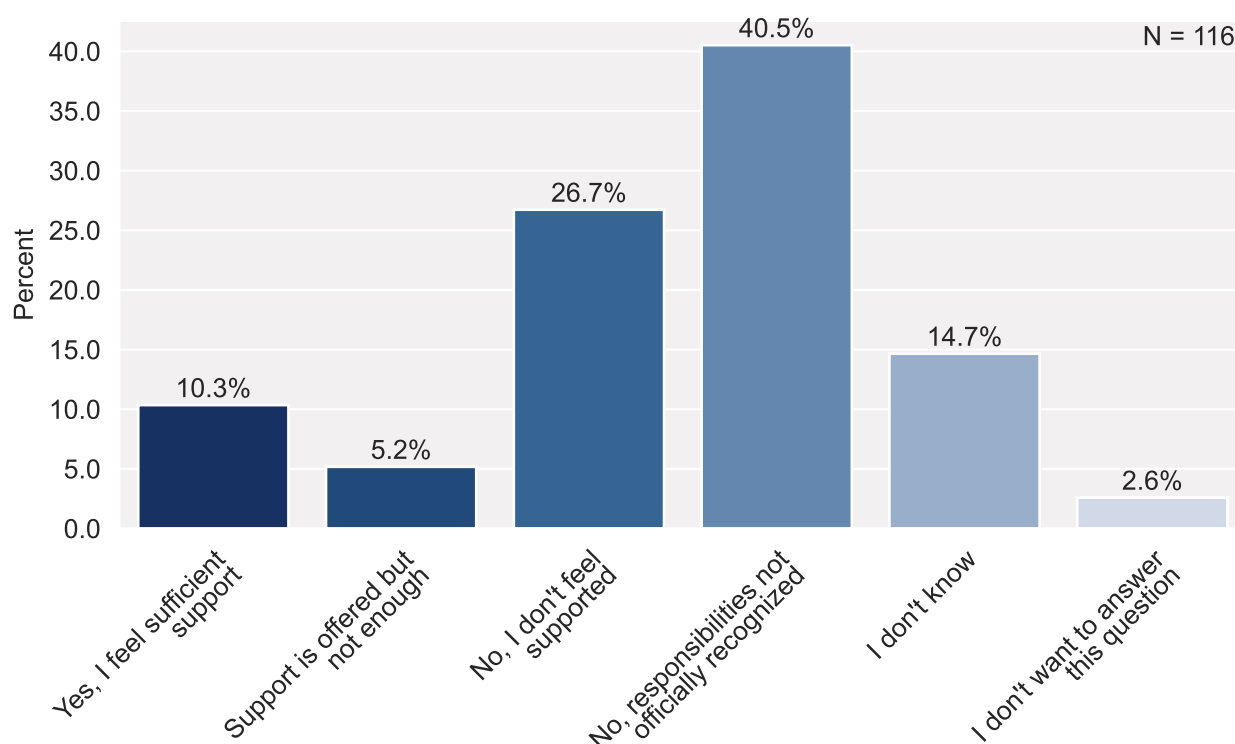


Figure 10.6: Perception of the amount of support DRs receive regarding their caring responsibilities apart from children. Such duties can be connected to, e.g., caring for the elderly or other family members.

10.3 Reconciliation between doctorate and family

The question was asked whether DRs felt able to unite their caregiving responsibilities for both children and others with their doctoral project (Figure 10.7). Around 55.0% confirm they are able to unite these two workloads to some extent or even very much. Nevertheless, some DRs (36.7%) answered rather not or not at all. While there is still room for improvement, most DRs with caring responsibilities are able to unite these with their doctorate. Still, many DRs might have decided against having children because of possible failures within the academic system.

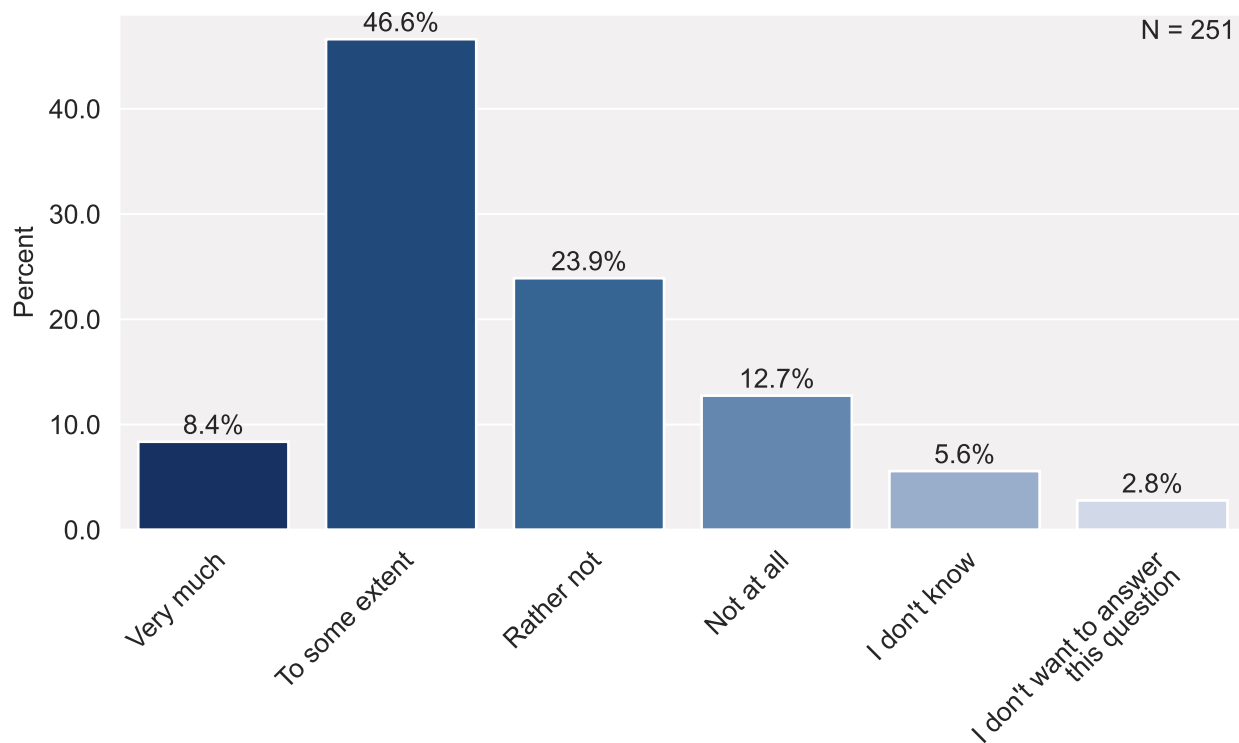


Figure 10.7: DRs agreement with their ability to unite caring responsibilities with their doctoral studies. Filtered for present or expecting parents, as well as other caregivers.

Pursuing a doctorate and having a family are not necessarily contradictory, and is already common in Scandinavian countries. An improvement in working conditions and the establishment of a family-friendly environment and sufficient support structures could help to reconcile family and academia.

Chapter 11

Conclusion

Thank you very much for reading the DRs N² survey report for the Helmholtz Association. It is based on data collected for the N² Survey 2024 for DRs doing their doctorate across all Helmholtz Centers except for Karlsruhe Institute of Technology.

Results from this survey will be presented and shared within the Helmholtz Junior network, as well as shared publicly. The center-specific results will only be available if the specific center agrees to the disclosure of its results, which we strongly encourage.

11.1 Chapter Summaries

In the following, we briefly summarize the main findings from each chapter.

General

Among participating DRs, we see a relatively even distribution between males (50.3%) and females (46.7%). Gender minorities may be underrepresented, but we lack data for the general public to compare against. Over half of the participants have German nationality, an additional $\approx 15\%$ are EU citizens, and the remaining $\approx 30\%$ have a nationality outside the European Union.

Participants in the first year of their doctorate estimate the total duration of their studies to be 3.6 years on average, while DRs in later years estimate 4.1 years. This indicates that the prevalent practice of three-year contracts should be reviewed critically.

Working Conditions

With 82.8%, the majority of DRs working in the Helmholtz Association are securely covered by an internal or external contract. But this still leaves the portion of DRs who either depend on a stipend, which often does not cover their living costs, or are unpaid in general. For the latter, the main reason was the lack of follow-up funding. In any case, it is advisable to aim for a 100% hire rate based on contracts and to guarantee employed DRs payment until their thesis is finished, which could be realized by longer base contract durations than the standard 3 years. This would also eliminate the need for top-up contracts that roughly 21% of stipend holders receive and reduce the necessity for extensions that 39.6% of DRs claimed due to different reasons.

Furthermore, 94.4% of DRs with a contract receive at least 65% of the TvöD/TVL remuneration system. While paying only 65% of a full salary is not ideal, it should serve as an absolute minimum.

The remaining 5.6% need to be raised at least to this baseline of 65% as soon as possible. The importance of this issue is highlighted when relating income to the cost of living, specifically renting an apartment: We see that 71.9% of participants spend more than the German average of 24.5% of their net income on rent and associated costs.

Paying rent as well as general living costs becomes even more difficult in the case of financial responsibility for other parties. 15.1% state such a responsibility. On the contrary, 26% of DRs reported a dependency on other financial sources to cover their day-to-day costs. While these dependencies and responsibilities might vary for each individual, both aspects point out a need for proper payment to adequately support DRs and thus reduce their financial and mental burdens. Furthermore, the financial strain on DRs could be reduced by providing more work-centered tools, as 38.6% of participants stated that they paid out of pocket for items that are primarily used for work.

When looking at the workload of DRs, different trends can be observed. First of all, when looking at contractual holidays, 89.2% of DRs receive 30 or more days of vacation, as mandated by TVöD, which is above the German minimum of 20 days for a 5-day work week. However, only 28.4% actually use 26 or more of them. While 62.2% at least stated that they feel free to take them, 35.4% mentioned reasons that kept them from doing so, with the main ones being the pressure to finish their project and too high a workload. This same issue can be observed in the amount of overhours worked in relation to the contractually agreed-upon work hours. A whole 67.2% work more than intended, with the main reasons again being pressure, worries about finishing, and too many tasks. This is in line with the fact that 89.2% additionally work on a weekend at least once per month. These tendencies might also be alleviated by longer base durations of the contracts and (where possible) by establishing time tracking to give DRs leverage in case of work hour discussions. The latter is only the case for 23.5% of DRs across the Helmholtz Association so far.

Satisfaction

The strongest source of dissatisfaction among DRs has been found to be the level of administrative digitization, communication by management, psychological support offered, and workload. This highlights areas of improvement that might raise satisfaction among DRs, with all related benefits. On the other hand, satisfaction is high with the number of vacation days and the laboratory or office equipment provided by the centers.

Concerningly, a high percentage of DRs have considered quitting their PhD. Difficulties with their supervisor and unideal working conditions were among the most common reasons to consider not finishing their doctorate. We encourage the centers to look into these problems and take actions to improve them, with the goal of improving retention among DRs.

As for academic aspects that are deemed most unattractive, we find that contract length and the number of available positions are seen as very unattractive, whereas interest in the work and skill development are rated as highly attractive aspects of academic research. We encourage centers to consider offering longer and permanent positions to retain talent and make academic research more attractive.

Mental Health

From the questionnaires for state and trait anxiety, about half of the participants had moderate or worse levels of state and trait anxiety. Around 30% of the participants also fell in the mild depression category, while $\approx 20\%$ had moderate to severe symptoms of depression. Somatic symptoms estimates also

followed a similar trend. All the aforementioned symptoms seemed to worsen with the number of years spent doing the PhD. This was similar to the trend reported by Bervall et al. [3] where use of psychiatric medicine increased significantly by the fifth year of DRs in Swedish institutions. Our data, in addition to this study, captures the alarming trend of worsening mental health with time spent in the PhD.

Around 90% of the participants have never used the mental health services offered at the center, while $\approx 40\%$ of them were not even aware of such services. We would urge emphasis on the mental health services provided at the centers through emails, newsletters, and seminars, and also attempt to normalize their usage so that more DRs seek help when they deem it necessary.

Power Abuse

Several participants felt unable to determine whether they witnessed cases of power abuse. We recommend centers to take action towards training DRs and power holders alike on the topic, as it would help give them the tools to interface with such events. Moreover, a fear of repercussions and a lack of trust in the ability or willingness of the centers to resolve such cases were found to be the main factors discouraging respondents from reporting such incidents, and indeed almost half of DRs who did report an incident of power abuse were dissatisfied with the outcome.

A concerning number of respondents have been the victim or have witnessed sexual harassment, most prominently in the form of remarks, gestures, looks, and physical contact. Being the victim or witness of incidents of discrimination was also reported by a non-negligible number of DRs, with the most common perceived root of such discrimination being nationality and gender, both when witnessing and being a victim of it. The perceived reason behind incidents of bullying was instead overwhelmingly identified as people holding positions of power over the victims.

We encourage centers to take swift measures to reduce the number of incidents of power abuse of any form and raise trust in the reporting process. We believe this will increase workplace diversity and job satisfaction among DRs.

Integration

More than a quarter of respondents reported not having received support from their center regarding integration. This points to the need for centers to be more proactive in communicating the offers currently in place. We also found that language was found to be an obstacle for communication within the respondent's centers, and would encourage efforts in providing important documentation in English.

Finally, the number of DRs with disabilities was too low to allow for much insight, apart from the fact that more effort in outreach and accommodation for DRs with disabilities would allow for a higher representation among the DRs body.

Career Development

We find that graduate school enrollment is very high among DRs, which is a very successful result.

However, we also find that the preferred field of work for respondents after completing their degree is non-academic scientific research, while they feel less prepared for such a job outside of academia than inside it. This suggests that it would be beneficial for DRs to have career development courses to prepare for jobs outside of academia.

Family

The number of DRs with children results to be quite low compared to the expected number for the age range. Additional children are seen by a portion of the respondents as a risk to their career. Moreover, among the respondents who do have children, many are either not aware of any childcare support services or find these offers to be lacking. Dissatisfaction is even higher for respondents with additional caring responsibilities apart from children.

We encourage centers to look for ways to increase support and awareness of support measures across DRs to increase the number of respondents who feel able to unite caring responsibilities with their doctorate.

11.2 Thanks

Thank you for reading this survey report. We hope these results can enable centers within the Helmholtz association to improve the quality of life of DRs, and therefore to guarantee a better quality of research conducted with fairness and humanity. Specifically, we hope this report and the high-quality data help DRs advocate for better conditions and have, therefore, a more positive experience during their research period.

We believe in transparency, and we therefore encourage centers to divulge their center-specific reports as well. Moreover, we encourage DRs to contact decision makers at their centers to ask them to make their center-specific results public.

Results of surveys from previous years can be found at the official Helmholtz Junior page. Feel free to reach out to us at heju-survey@listserv.dfn.de.

The Helmholtz Juniors.

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Appendix A

Survey Questionnaire

Welcome to N² Survey and thank you for participating! This is a voluntary survey for all doctoral researchers working within the Helmholtz Association, Leibniz Association and Max Planck Society. They are united in the N² 'Network of Networks' representing the doctoral researchers in all these organizations.

The aim of this survey is to provide a clear picture of the situation of doctoral researchers in Germany's non-university research organizations. This includes: demographics, working conditions, the quality of the supervision, caregiving responsibilities, experiences with power abuse and discrimination, as well as mental health.

By participating in this survey, you may provide information that could be used to infer personal details. We commit to safeguarding your privacy and keeping your responses confidential.

There are 140 questions in this survey.

A.1 Survey participation

Please take the time and carefully read the following **terms and conditions**:

- Please be assured that your personal information and data will be treated confidentially and will only be accessible to the members of the Survey Group of the Helmholtz Juniors.
- Any publication or sharing of information with groups outside the survey group will comply with the General Data Protection Regulation (link: <https://gdpr-info.eu/>) (GDPR). Accordingly, only aggregated and anonymized data will be shared with the administrative bodies of the centers/institutes/units and the public (as well as with doctoral researcher representatives upon request).
- This survey is hosted on the servers from the Helmholtz Association employing the software solution LimeSurvey. You can leave and come back to complete this survey using your personal link. Please note that only completed surveys will be analyzed.
- In order for this survey to be representative, it is vital that the majority of doctoral researchers participate. This questionnaire will take around 30 minutes to complete, progress can be saved at any point and you can continue filling out the survey later.
- Please do not enter any names or other information in the open text boxes that would allow your person to be identified, as this would jeopardize the anonymity of the survey.

If you have any questions, or wish to report technical issues, you can reach us at heju-survey@listserv.dfn.de.

Declaration of consent

I consent to the Helmholtz Gemeinschaft Deutscher Forschungszentren e.V. and its 18 Centers:

Alfred-Wegener-Institut, Helmholtz-Zentrum für Polar- und Meeresforschung, SdöR, Deutsches Elektronen-Synchrotron DESY, SdbR, Deutsches Krebsforschungszentrum, SdöR, Deutsches Zentrum für Neurodegenerative Erkrankung e.V., GEOMAR Helmholtz-Zentrum für Ozeanforschung Kiel, SdöR, Forschungszentrum Jülich GmbH, GSI Helmholtzzentrum für Schwerionenforschung GmbH, Helmholtz-Zentrum Berlin für Materialien und Energie GmbH, Helmholtz-Zentrum Dresden-Rossendorf e. V., Helmholtz-Zentrum Hereon GmbH, Helmholtz Zentrum für Infektionsforschung GmbH, Helmholtz Zentrum München Deutsches Forschungszentrum für Gesundheit und Umwelt GmbH, Helmholtz-Zentrum Potsdam, Deutsches GeoForschungsZentrum, SdöR, Helmholtz-Zentrum für Umweltforschung GmbH, Karlsruher Institut für Technologie, KöR, Max-Delbrück-Centrum für Molekulare Medizin, KöR and CISPA – Helmholtz-Zentrum für Informationssicherheit gGmbH

processing personal data about me for the purpose of conducting the “Helmholtz Juniors Survey 2024”. Participation in this survey is voluntary. By means of the first question, I can decide whether additional sensitive data about my person regarding sexual orientation and identity, ethnic origin, my migration background, my physical and mental health, psychological violence suffered at work, disability, pregnancy and parenthood, and religious beliefs may be processed. This declaration of consent expressly includes the processing of this sensitive data in the case of my corresponding answer to the first question. Part of the processing is the immediate anonymization of my answers, so that no inference of the answers to my person is possible. The data concerning me will only be passed on to third parties anonymously, published and stored for 10 years after publication. I can revoke this declaration of consent at any time with effect for the future. I have taken note of this data protection notice.

I have taken note of the data protection information.

*

Please choose **all** that apply:

- Yes, I have taken note of it.

I accept the terms and conditions and would like to participate in the survey. *

Please choose **all** that apply:

- Yes, I accept them and would like to participate in this survey.

A.2 Sensitive questions

This survey contains questions that could be perceived as sensitive and very personal. This includes questions regarding: gender, sexual orientation, ethnicity, general family situation, bullying, sexual

harassment, discrimination as well as health. For these sensitive questions, there will always be the “I don't want to answer this question” option.

Due to the sensitive nature of these questions, below you can choose to not be presented with any of these questions.

However, it is very important for us to ask these questions because they are key determinants for the well-being of doctoral researchers and the environments they work in. Furthermore, we want to understand and portray the diversity present in our organizations.

For example, the data is used to assess discrimination: If e.g. 50 people feel discriminated against because of their sexual orientation does not help us to evaluate the whole problem, as those 50 people could represent only 2% of the doctoral researchers from the LGBTQIA+ community or 100%. The first one, would be problematic, as every case of discrimination is one too many but the second one could indicate a structural problem.

Would you like to be presented with these questions?

*

Only answer this question if the following conditions are met:

Answer was at question ' [A000]' (I have taken note of the data protection information.) *and* Answer was at question ' [A001]' (I accept the terms and conditions and would like to participate in the survey.)

Please choose **only one** of the following:

- Yes, it is okay for me and I agree with the data protection regulations for these sensitive questions
- No, I prefer not to see them

A.3 Demographics

In this section, we will ask general questions about yourself and your doctoral project.

Section 1/10

Did you participate in the last N² survey 2021? *

Please choose **only one** of the following:

- Yes
- No
- I don't remember
- I don't want to answer this question

Which institute/center are you associated with? In the comment section, please specify in which city your institute/center is located. *

Please choose **only one** of the following:

- Alfred-Wegener-Institut, Helmholtz-Zentrum für Polar- und Meeresforschung (AWI)
- Deutsches Elektronen-Synchrotron (DESY)
- Deutsches Zentrum für Luft- und Raumfahrt (DLR)
- Deutsches Krebsforschungszentrum (DKFZ)
- Deutsches Zentrum für Neurodegenerative Erkrankung (DZNE)
- GEOMAR Helmholtz-Zentrum für Ozeanforschung Kiel
- Forschungszentrum Jülich
- GSI Helmholtz-Zentrum für Schwerionenforschung
- Helmholtz-Zentrum Berlin für Materialien und Energie
- Helmholtz-Zentrum Dresden-Rossendorf (HZDR)
- Helmholtz-Zentrum Hereon
- Helmholtz Zentrum für Infektionsforschung (HZI)
- Helmholtz Zentrum München Deutsches Forschungszentrum für Gesundheit und Umwelt
- Helmholtz-Zentrum Potsdam, Deutsches GeoForschungsZentrum (GFZ)
- Helmholtz-Zentrum für Umweltforschung (UFZ)
- Max-Delbrück-Centrum für Molekulare Medizin (MDC)
- CISPA Helmholtz-Zentrum für Informationssicherheit
- I don't want to answer this question

Make a comment on your choice here:

Which field (subject) are you predominantly working in?

Please choose only one of the following:

*

If you choose 'Other, please specify' please also specify your choice in the accompanying text field.

Please choose **only one** of the following:

- Humanities
- Law and Economics

- Social and Behavioral Sciences
- Biology
- Medicine
- Health sciences
- Agriculture, Forestry and Veterinary medicine
- Chemistry
- Physics
- Mathematics
- Geosciences
- Computer science
- Engineering
- I don't want to answer this question

My overall work is predominantly:

Choose one of the following answers. Please refer to your overall situation during your doctorate. If you choose "Other", please also specify your choice in the accompanying text field.

*

If you choose 'Other:' please also specify your choice in the accompanying text field.

Please choose **only one** of the following:

- Laboratory work
- Fieldwork
- Computational work
- Library/chronicle work
- Theoretical/methodological work
- I don't know
- I don't want to answer this question

What is your year of birth? *

Please choose **only one** of the following:

- 1970
- 1971

- 1972
- 1973
- 1974
- 1975
- 1976
- 1977
- 1978
- 1979
- 1980
- 1981
- 1982
- 1983
- 1984
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- 1986
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- 1992
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- 1994
- 1995
- 1996
- 1997
- 1998
- 1999
- 2000

- 2001
- 2002
- 2003
- 2004
- 2005
- I don't want to answer this question

To which gender do you identify most? *

Please choose **only one** of the following:

- Woman
- Man
- Gender diverse
- Non-binary
- I don't want to answer this question
- I don't know

Which sexual orientation do you identify most with? *

Only answer this question if the following conditions are met:

Answer was 'Yes, it is okay for me and I agree with the data protection regulations for these sensitive questions' at question ' [A00]' (Would you like to be presented with these questions?)

Please choose **only one** of the following:

- Heterosexual
- Homosexual
- I don't know
- I don't want to answer this question

In which year did you start your doctorate? *

Please choose **only one** of the following:

- 2024
- 2023
- 2022
- 2021

- 2020
- 2019
- 2018
- 2017
- 2016
- 2015 or earlier
- I don't know
- I don't want to answer this question

Explanation: The start of your doctoral research is either the start of your first contract/stipend or your enrollment in a university as a doctoral researcher, whichever is earlier.

In which month did you start your doctorate? *

Please choose **only one** of the following:

- 01
- 02
- 03
- 04
- 05
- 06
- 07
- 08
- 09
- 10
- 11
- 12
- I don't know
- I don't want to answer this question

Explanation: The start of your doctoral research is either the start of your first contract/stipend or your enrollment in a university as a doctoral researcher, whichever is earlier.

In which year do you expect to submit your doctorate? *

Please choose **only one** of the following:

- 2024
- 2025
- 2026
- 2027
- 2028
- 2029
- 2030
- 2031 or later
- I have already submitted my thesis
- I will not be able to submit and/or defend my thesis
- I don't know
- I don't want to answer this question

Explanation: End of your contract is not equivalent to submitting your thesis. We are interested in a realistic timeline for finishing your doctoral project, writing your thesis and submitting it to faculty.

In which month do you expect to submit/have you submitted your doctorate? *

Only answer this question if the following conditions are met:

----- Scenario 2 -----

Answer was NOT 'I don't want to answer this question' at question ' [A9]' (In which year do you expect to submit your doctorate?)

----- or Scenario 3 -----

Answer was NOT 'I don't know' at question ' [A9]' (In which year do you expect to submit your doctorate?)

----- or Scenario 4 -----

Answer was NOT 'I will not be able to submit and/or defend my thesis' at question ' [A9]' (In which year do you expect to submit your doctorate?)

----- or Scenario 5 -----

Answer was NOT 'I have already submitted my thesis' at question ' [A9]' (In which year do you expect to submit your doctorate?)

Please choose **only one** of the following:

- 01
- 02
- 03

- 04
- 05
- 06
- 07
- 08
- 09
- 10
- 11
- 12
- I will not be able to submit and/or defend my thesis
- I don't know
- I don't want to answer this question

What are your ethnic origins or ancestry?

Please select ALL the geographic areas from which your close relatives (last two generations) originate from:

*

Only answer this question if the following conditions are met:

Answer was 'Yes, it is okay for me and I agree with the data protection regulations for these sensitive questions' at question ' [A00]' (Would you like to be presented with these questions?)

Select all that apply

Please choose **all** that apply:

- Europe
- North and sub-Saharan Africa
- South Africa
- West Asia / Middle East
- South / Southeast Asia
- East / Central Asia
- Pacific / Oceania
- North America

- Central America and Caribbean
- South America
- I don't know
- I don't want to answer this question

What is your citizenship? If you have multiple citizenships, please select the one you identify most with while pursuing a doctorate in Germany.

*

Please choose **only one** of the following:

- German
- Citizen within the European Union (But not German)
- Citizen outside the European Union
- I don't want to answer this question

Were your parents born in Germany? *

Only answer this question if the following conditions are met:

Answer was 'German' at question ' [A11]' (What is your citizenship? If you have multiple citizenships, please select the one you identify most with while pursuing a doctorate in Germany.) and Answer was 'Yes, it is okay for me and I agree with the data protection regulations for these sensitive questions' at question ' [A00]' (Would you like to be presented with these questions?)

Please choose **only one** of the following:

- Yes, both of my parents were born in Germany
- Only one of my parents were born in Germany
- No, none of my parents were born in Germany
- I don't know
- I don't want to answer this question

Were you born in Germany? *

Only answer this question if the following conditions are met:

Answer was 'German' at question ' [A11]' (What is your citizenship? If you have multiple citizenships, please select the one you identify most with while pursuing a doctorate in Germany.) and Answer was 'Yes, it is okay for me and I agree with the data protection regulations for these sensitive questions' at question ' [A00]' (Would you like to be presented with these questions?)

Please choose **only one** of the following:

- No, I was born outside of Germany
- Yes, I was born in Germany
- I don't want to answer this question

Do you consider yourself to have a disability? *

Only answer this question if the following conditions are met:

Answer was 'Yes, it is okay for me and I agree with the data protection regulations for these sensitive questions' at question ' [A00]' (Would you like to be presented with these questions?)

Please choose **only one** of the following:

- Yes, and I have a "Schwerbehindertenausweis" (eng. handicapped pass)
- Yes, but I did not apply for "Schwerbehindertenausweis" (eng. handicapped pass) or similar
- Yes, but I don't have a diagnosis
- Yes, but it is not officially recognized in Germany
- No, but I have a chronic illness
- No
- I don't know
- I don't want to answer this question

A.4 Working conditions

In this section, we ask you about your salary or income, possible contract extensions, your working hours or the amount of holidays that you are entitled to.

Section 2/10

How is your doctoral research currently financed?

*

Please choose **only one** of the following:

- Contract (internal from Helmholtz)
- Contract (external/guest contract)
- Internal stipend (from within your center/institute)
- External stipend/scholarship from Germany
- External stipend/scholarship from abroad

- Unpaid
- I don't know
- I don't want to answer this question

Explanation: A contract is usually paid according to the TVöD / TVL system (e.g. 50% or 65%) and also includes the Fördervertrag. With a stipend, you are not legally bound to your workplace but also do not pay into the social security system

Is your funding currently increased by a top-up contract/stipend from your center/institute? *

Only answer this question if the following conditions are met:

----- Scenario 1 -----

Answer was 'External stipend/scholarship from Germany' at question ' [B1]' (How is your doctoral research currently financed?)

----- or Scenario 2 -----

Answer was 'External stipend/scholarship from abroad' at question ' [B1]' (How is your doctoral research currently financed?)

----- or Scenario 3 -----

Answer was 'Internal stipend (from within your center/institute)' at question ' [B1]' (How is your doctoral research currently financed?)

Choose one of the following answers

Please choose **only one** of the following:

- No, I don't get a top-up
- Yes, I get a top-up contract/stipend
- I don't know
- I don't want to answer this question

For how long have you been working at your current research institute/center on your doctorate without pay?

*

Only answer this question if the following conditions are met:

Answer was 'Unpaid' at question ' [B1]' (How is your doctoral research currently financed?)

Choose one of the following answers

Please choose **only one** of the following:

- 0-3 months
- 4-6 months
- 7- 9 months
- 10-12 months

- more than 12 months
- I don't want to answer

Please select all that apply as to why you are currently unpaid. *

Only answer this question if the following conditions are met:

Answer was 'Unpaid' at question ' [B1]' (How is your doctoral research currently financed?)

Select all that apply

Please choose **all** that apply:

- It is my choice
- My funding extension was not granted
- The funding ran out
- Parental leave
- I don't want to answer this question

Are you currently collecting unemployment benefits ("Arbeitslosengeld")? *

Only answer this question if the following conditions are met:

Answer was 'Unpaid' at question ' [B1]' (How is your doctoral research currently financed?)

Please choose **only one** of the following:

- Yes
- No
- I don't want to answer this question

Right now, what is your monthly net income for your doctoral work at your research organization in Euros?

*

Only answer this question if the following conditions are met:

Answer was NOT 'Unpaid' at question ' [B1]' (How is your doctoral research currently financed?)

Please choose **only one** of the following:

- < 500
- 500-700
- 701-1000
- 1001-1100
- 1101-1200

- 1201-1300
- 1301-1400
- 1401-1500
- 1501-1600
- 1601-1700
- 1701-1800
- 1801-1900
- 1901-2000
- 2001-2100
- 2101-2200
- 2201-2300
- 2301-2400
- 2401-2500
- 2501-2600
- 2601-2700
- 2701-2800
- 2801-2900
- 2901-3000
- 3000-3100
- more than 3100
- I don't know
- I don't want to answer this question

Explanation: Net income is the amount of money transferred to your bank account every month. Do not count any bonuses such as a Christmas bonus etc. Scholarship holders and freelancers: deduct tax and health insurance. Income not related to work in the institute/doctoral research should not be included, but any top-up funding to your basic funding should be included.

According to the TvöD/TVL remuneration system, which pay scale bracket (ger. Entgeltgruppe) does your income fall within?

*

Only answer this question if the following conditions are met:

Answer was 'Contract (internal from Helmholtz)' or 'Contract (external/guest contract)' at question '[B1]' (How is your doctoral research currently financed?)

Choose one of the following answers

Please choose **only one** of the following:

- less than 25%
- 26-49%
- 50-64%
- 65-74%
- 75-90%
- 91-100%
- I don't know
- I don't want to answer this question

How much do you pay for your rent and associated living costs per month in euros (heating, gas, water, internet and electricity)? *

Please choose **only one** of the following:

- <100
- 100-200
- 201-300
- 301-400
- 401-500
- 501-600
- 601-700
- 701-800
- 801-900
- 901-1000
- 1001-1100
- 1101-1200

- 1201-1300
- 1301-1400
- 1401-1500
- 1501-1600
- 1601-1700
- 1701-1800
- 1801-1900
- 1901-2000
- >2000
- I don't know
- I don't want to answer

Example: Your rent is 600€, you additionally pay 70€ for warm water and heating, 20€ for electricity, 20€ for internet and 10€ for garbage disposal plus elevator fees. This amounts to total costs of 720€.

Please tell us about the duration and number of contracts and stipends you have received during your doctorate.

Please select at least one answer

Please choose the appropriate response for each item:

Contract (in- ter- nal from within Helmholtz)	Contract (ex- ter- nal from within Helmholtz)	Internal stipend (from within Helmholtz)	External stipend (from within Helmholtz)	Scholarship (from outside Helmholtz)	Unpaid	N/A	Duration									
							<3 months	3-6 months	7- 12 months	13- 24 months	25- 36 months	37- 48 months	>48 months	N/A		
1st con- tract/stipend																
2nd con- tract/stipend																
3rd con- tract/stipend																

Contract (in- Contract ter- (ex- Internal External nal ter- stipend stipend scholarship from nal/guest) from from stipend/scholarship within con- within Ger- from Helmholtz) Helmholtz) abroad Unpaid N/A	<3 months	3-6 months	7- 12 months	13- 24 months	25- 36 months	37- 48 months	>48 months	N/A
4th con- tract/stipend								
5th con- tract/stipend								
6th con- tract/stipend								
7th con- tract/stipend								
8th con- tract/stipend								
9th con- tract/stipend								
10th con- tract/stipend								

Example: you began your doctorate on a six-month probationary stipend, followed by a three-year contract, then you got a six-month extension to finish up the project. This should be recorded on three separate lines.

Would it be possible for you to extend your current contract/stipend for the following reasons? *

Please choose the appropriate response for each item:

	Yes	No	I don't know	I don't want to answer this question
More time needed to complete doctoral project				

	Yes	No	I don't know	I don't want to answer this question
Wrap-up phase after completion of the doctoral project				
Parental leave				

Are you financially responsible for anyone else? *

Please choose **only one** of the following:

- Yes
- No
- I don't want to answer this question

Do you get external financial support to cover your living expenses? If yes, who is assisting you financially? *

Please choose **all** that apply:

- I took up a loan for my time as a doctoral researcher
- Parents
- Other relatives
- Partner(s)
- State (e.g. Kindergeld, Wohngeld)
- Other job
- I do not get external financial support
- I don't know
- I don't want to answer this question

How strongly do you depend on this external financial support to cover your living expenses? *

Only answer this question if the following conditions are met:

Answer was 'State (e.g. Kindergeld, Wohngeld)' or 'Other job' or 'Partner(s)' or 'Other relatives' or 'Parents' or 'I took up a loan for my time as a doctoral researcher' at question '[B7]' (Do you get external financial support to cover your living expenses? If yes, who is assisting you financially?)

Please choose **only one** of the following:

- Very strongly

- Strongly
- Neither/Nor
- Weakly
- Not at all
- I don't know
- I don't want to answer this question

Did you spend parts of your salary on items you primarily used for work in the past 12 months? If yes, how much money in Euros did you spend in the last 12 months?

*

Only numbers may be entered in 'Yes, i spent roughly the following amount: €' accompanying text field.

Please choose **only one** of the following:

- No
- Yes, but i do not know or do not want to disclose the amount
- I don't know
- I don't want to answer this question

What did you buy from parts of your salary on items you primarily used for work? *

Only answer this question if the following conditions are met:

Answer was 'Yes, but i do not know or do not want to disclose the amount' or 'Other' at question ' [B9]' (Did you spend parts of your salary on items you primarily used for work in the past 12 months? If yes, how much money in Euros did you spend in the last 12 months?)

Select all that apply

Please choose **all** that apply:

- Computer
- Chair
- Computer hardware (cable, mouse, camera, microphone, headset)
- Tablet
- Screen
- External hard drives
- Office equipment (folders, pens, ...)
- Software

- Desk
- Books and articles
- Accounts for databases
- I don't want to answer this question

How many holidays per year can you take according to your contract or stipend? *

Please choose **only one** of the following:

- My funding does not specify the number of holidays
- 1-5 days
- 6-10 days
- 11-15 days
- 16-20 days
- 21-25 days
- 26-30 days
- >30 days
- I don't know
- I don't want to answer this question

How many hours per week are you expected to work according to your contract? Please specify the number of hours in the field "Hours per week".

*

Only answer this question if the following conditions are met:

Answer was 'Contract (internal from Helmholtz)' or 'Contract (external/guest contract)' at question '[B1]' (How is your doctoral research currently financed?)

Please choose **only one** of the following:

- 0
- 1
- 2
- 3
- 4
- 5
- 6

- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17
- 18
- 19
- 20
- 21
- 22
- 23
- 24
- 25
- 26
- 27
- 28
- 29
- 30
- 31
- 32
- 33
- 34
- 35

- 36
- 37
- 38
- 39
- 40
- 41
- 42
- 43
- 44
- 45
- More than 45h
- I don't know
- I don't want to answer this question

On average, how many hours do you typically work per week in total? *

Please choose **only one** of the following:

- < 20
- 21 - 25
- 26 - 30
- 31 - 35
- 36 - 40
- 41 - 45
- 46 - 50
- 51 - 55
- 56 - 60
- 61 - 65
- 66 - 70
- 71 - 75
- 76 - 80
- > 80

- I don't know
- I don't want to answer this question

Explanation: working time - that is both for your dissertation and all other tasks you have to perform at your institute or university, for instance, project work or meetings (in your office as well as at other places) and teaching.

Why do you work more than 40 hours per week? *

Only answer this question if the following conditions are met:

Answer was '41 - 45' or '46 - 50' or '51 - 55' or '56 - 60' or '61 - 65' or '66 - 70' or '71 - 75' or '76 - 80' or '> 80' at question ' [B12]' (On average, how many hours do you typically work per week in total?)

Select all that apply

Please choose **all** that apply:

- Pressure from my supervisor(s)
- Intrinsic (self) pressure
- Peer pressure (other in my group work longer hours, and I feel I have to conform)
- I'm worried that I won't finish my doctorate before my contract/stipend ends
- I have too many projects / work tasks in addition to my doctorate
- I just really like this work
- Other reason
- I don't know
- I don't want to answer this question

What percentage of your time do you currently spend on average on the following tasks? *

Your answer must be between 0 and 100

The sum must be at most 100

Only integer values may be entered in these fields.

Please write your answer(s) here:

- Scientific work directly related to the doctoral research
- Scientific work not related to the doctoral research (helping other projects, maintenance, etc.)
- Attending courses and seminars
- Teaching
- Supervision
- Administrative tasks
- Community work
- Other

Are your working hours tracked officially in your institute? *

Please choose **only one** of the following:

- Yes
- No
- No, but I track my working hours myself
- I don't know
- I don't want to answer this question

How often have you worked during weekends or public holidays in the past year? *

Please choose **only one** of the following:

- Never
- Less than once per month
- Once per month
- Twice per month
- Three times per month
- Every weekend
- I don't know
- I don't want to answer this question

Please note: This question asks for work related to your doctorate. It is place-independent and includes all work done at your institute/center/unit, your home or any other location. It does not include an additional part-time job or other work which is unrelated to your doctorate.

How many days did you take off (holiday) in the past 12 months? *

Please choose **only one** of the following:

- None
- 1 - 5 days
- 6 - 10 days
- 11 - 15 days
- 16 - 20 days
- 21 - 25 days

- 26 - 30 days
- More than 30 days
- I don't know
- I don't want to answer this question

Do you feel free to take days off (holidays)? *

Please choose **all** that apply:

- Yes
- No, because of pressure from my supervisor(s)
- No, because of pressure from my colleagues/peers
- No, because of high workload
- No, because of the pressure to finish work with given time
- No, because i want to have high performance with my project
- No, because I am saving up time for a longer period of vacation
- No, because of no special reason
- No, because of other reason
- I don't know
- I don't want to answer this question

Are you currently paying back a loan you took to pay for your Bachelor or Master's Degree?

*

Please choose **only one** of the following:

- Yes
- No
- I don't know
- I don't want to answer this question

A.5 Satisfaction

In this section, we ask questions about how satisfied you are with different aspects of your work as a doctoral researcher, e.g. which of them could be improved, what you think about a career in academia, and if you have ever considered quitting your doctorate.

Section 3/10

If you think about your own situation as a doctoral researcher, how satisfied are you with the following aspects? *

Please choose the appropriate response for each item:

	Very satisfied	Satisfied	Neither/nor	Dissatisfied	Very dis- satisfied	Does not apply	I don't want to answer this question
Supervision							
Salary/funding							
Vacation days							
Support for interna- tional doctoral re- searchers							
Administrative support							
Internal work- shops and skills trainings							
Contribution to science							
Technical support							
Career develop- ment							
Science communi- cation and outreach							
Psychological support offered within your insti- tute/center							

	Very satisfied	Satisfied	Neither/nor	Dissatisfied	Very dis- satisfied	Does not apply	I don't want to answer this question
Laboratory equip- ment							
Office equip- ment							
Scientific support							
Family support							
Work envi- ronment and atmo- sphere							
Workload							
Social life at the institute							
Adherence to good scientific practice in my work environ- ment							
Level of adminis- trative digitaliza- tion							
Communication among peers							
Communication by man- agement							

	Very satisfied	Satisfied	Neither/nor	Dissatisfied	Very dis- satisfied	Does not apply	I don't want to answer this question
Office space/location and room availabil- ity							

Have you ever considered quitting your doctorate? *

Please choose **only one** of the following:

- Never
- Rarely
- Occasionally
- Often
- I am quitting
- I don't know
- I don't want to answer this question

What was/were the reason(s) for considering to quit your doctorate? *

Only answer this question if the following conditions are met:

Answer was 'Often' or 'Occasionally' or 'Rarely' or 'I am quitting' at question ' [C2]' (Have you ever considered quitting your doctorate?)

Select all that apply

Please choose **all** that apply:

- I do not like scientific work.
- I do not like my topic.
- I have problems getting by financially.
- I do not like my working conditions.
- I have difficulties with my supervisor(s).
- I don't like the social environment at my workplace.
- I find my career prospects unattractive.
- I have personal reasons.

- I do not feel qualified enough.
- I have no or poor academic results.
- I find other jobs more interesting.
- I can't cope with the high workload.
- My academic life is not compatible with my family responsibilities.
- My project is not funded anymore.
- I have administrative problems.
- My health.
- I got another job offer.
- I don't know.
- I don't want to answer this question.

From your experience, how do you judge the following aspects of an academic research career?

*

Please choose the appropriate response for each item:

	Very attractive	Attractive	Neutral	Unattractive	Very unattrac- tive	Does not apply to me	I don't want to answer this question
Salaries							
in							
academia							
Number of							
available							
of perma-							
nent							
positions							
Teaching							
Applying							
for and							
obtaining							
funding							
Service to							
society							
Workload							

	Very attractive	Attractive	Neutral	Unattractive	Very unattrac- tive	Does not apply to me	I don't want to answer this question
Mobility (i.e., work in different countries or cities)							
Compatibility of own career plans with career plans of partner							
Compatibility of own career plans with having children							
Interesting work							
Diversity of work							
Science communi- cation and outreach							
Personal fulfillment							
Skill devel- opment							
Contract length(s)							

From your experience, which of the following aspects of your work as a doctoral researcher would you like to improve? *

Please choose the appropriate response for each item:

	Not at all	Rather not	To some extent	Very much	Does not apply	I don't want to answer this question
Supervision						
Vacation days						
Salary/funding						
Administrative support						
Internal workshops and skills trainings						
Contribution to science						
Technical support						
Career development						
Science communication and outreach						
Psychological support offered within your center/institute						
Laboratory equipment						
Office equipment (e.g., computer, software, own desk etc.)						
Scientific support						
Family support						

	Not at all	Rather not	To some extent	Very much	Does not apply	I don't want to answer this question
Support for international doctoral researchers						
Work environment and atmosphere						
Workload						
Social life at the institute						
Level of administrative digitalization						
Office space/location and room availability						
Adherence to good scientific practice in my work environment						
Communication among peers						
Communication by management						

A.6 Supervision

For the following questions, we would like to make the distinction between “formal” and “direct” supervisor clear:

“Formal” supervisor refers to the main advisor of your thesis as present in your committee.

“Direct” supervisor refers to the person you actually consult and discuss your project with on a more regular basis.

Section 4/10

Which of the following do you have?

*

Please choose **all** that apply:

- A supervision agreement with your formal supervisor
- A written project outline
- A written training plan
- A thesis advisory committee (TAC) or similar
- Doctoral guidelines
- Enrollment in graduate school
- I don't have any of the above
- I don't know
- I don't want to answer this question

Explanation doctoral supervision agreement: This is a written agreement between the formal supervisor and the doctoral researcher outlining their responsibilities from the beginning of the doctoral project until the completion of the doctoral thesis.

Explanation project outline: This is a preliminary project plan defining the objectives of the doctoral project as well as the methodology to achieve them within the given timeframe of a doctoral research project.

Explanation training plan: This is a plan detailing the courses mandatory for the completion of your doctorate.

Explanation thesis advisory committee: A thesis advisory committee or “TAC” is a group of two or more independent researchers (including your formal/primary supervisor) who you meet on a regular basis, give you advice on how to progress and successfully complete your doctoral project.

How often do you meet your thesis advisory committee (TAC) or similar? *

Only answer this question if the following conditions are met:

Answer was at question ' [E1]' (Which of the following do you have?)

Please choose **only one** of the following:

- I meet my TAC twice a year or more frequently
- I meet my TAC once per year

- I meet my TAC once during my doctorate
- There are no regulations how often to meet my TAC
- I do not meet my TAC
- I don't know
- I don't want to answer this question

Is your formal supervisor your direct supervisor? *

Please choose **only one** of the following:

- Yes
- No
- I don't have a formal supervisor (yet)
- I don't have a direct supervisor (yet)
- I have neither
- I don't know
- I don't want to answer this question

“Formal” supervisor refers to the main advisor of your thesis as present in your committee.

“Direct” supervisor refers to the person you actually consult and discuss your project with on a more regular basis.

My direct supervisor is (a) *

Only answer this question if the following conditions are met:

Answer was 'No' or 'I don't have a formal supervisor (yet)' at question ' [E3]' (Is your formal supervisor your direct supervisor?) *and* Answer was 'Yes, it is okay for me and I agree with the data protection regulations for these sensitive questions' at question ' [A00]' (Would you like to be presented with these questions?)

Please choose **all** that apply:

- I don't want to answer this question
- From Germany
- From the EU (but not German)
- From outside the EU
- Director, department/division head or similar
- Group leader
- Postdoc

- Doctoral researcher
- Mainly located at the University
- Mainly located at the Institute
- Resides in university and institute equally

My direct supervisor presents/identifies/reads as (a)? *

Only answer this question if the following conditions are met:

Answer was 'I don't have a formal supervisor (yet)' or 'No' at question ' [E3]' (Is your formal supervisor your direct supervisor?) *and* Answer was 'Yes, it is okay for me and I agree with the data protection regulations for these sensitive questions' at question ' [A00]' (Would you like to be presented with these questions?)

Please choose **only one** of the following:

- Male
- Female
- Gender diverse
- I don't know
- I don't want to answer this question

My formal supervisor is (a) *

Only answer this question if the following conditions are met:

Answer was 'I don't have a direct supervisor (yet)' or 'No' or 'Yes' at question ' [E3]' (Is your formal supervisor your direct supervisor?) *and* Answer was 'Yes, it is okay for me and I agree with the data protection regulations for these sensitive questions' at question ' [A00]' (Would you like to be presented with these questions?)

Please choose **all** that apply:

- I don't want to answer this question
- From Germany
- From the EU (but not German)
- From outside the EU
- Director, department/division head or similar
- Group leader
- Postdoc
- Doctoral researcher
- Mainly located at the University
- Mainly located at the Institute
- Resides in university and institute equally

My formal supervisor presents/identifies/reads as (a)? *

Only answer this question if the following conditions are met:

Answer was 'No' or 'Yes' or 'I don't have a direct supervisor (yet)' at question ' [E3]' (Is your formal supervisor your direct supervisor?) *and* Answer was 'Yes, it is okay for me and I agree with the data protection regulations for these sensitive questions' at question ' [A00]' (Would you like to be presented with these questions?)

Please choose **only one** of the following:

- Male
- Female
- Gender diverse
- I don't know
- I don't want to answer this question

How often do you communicate on average with your formal supervisor about your doctoral project? *

Only answer this question if the following conditions are met:

Answer was 'No' or 'I don't have a direct supervisor (yet)' or 'Yes' at question ' [E3]' (Is your formal supervisor your direct supervisor?)

Please choose **only one** of the following:

- Almost daily
- Weekly
- Every second week
- Monthly
- Quarterly
- Six-monthly
- Yearly
- Less than once a year
- Never
- I don't know
- I don't want to answer this question

How often would you like to communicate with your formal supervisor about your doctoral project? *

Only answer this question if the following conditions are met:

Answer was 'I don't have a direct supervisor (yet)' or 'No' or 'Yes' at question ' [E3]' (Is your formal supervisor your direct supervisor?)

Please choose **only one** of the following:

- Almost daily
- Weekly
- Every second week
- Monthly
- Quarterly
- Six-monthly
- Yearly
- Less than once a year
- Never
- I don't know
- I don't want to answer this question

How often do you communicate on average with your direct supervisor about your doctoral project? *

Only answer this question if the following conditions are met:

Answer was 'I don't have a formal supervisor (yet)' or 'No' at question ' [E3]' (Is your formal supervisor your direct supervisor?)

Please choose **only one** of the following:

- Almost daily
- Weekly
- Every second week
- Monthly
- Quarterly
- Six-monthly
- Yearly
- Less than once a year
- Never

- I don't know
- I don't want to answer this question

How often would you like to communicate with your direct supervisor about your doctoral project? *

Only answer this question if the following conditions are met:

Answer was 'I don't have a formal supervisor (yet)' or 'No' at question ' [E3]' (Is your formal supervisor your direct supervisor?)

Please choose **only one** of the following:

- Almost daily
- Weekly
- Every second week
- Monthly
- Quarterly
- Six-monthly
- Yearly
- Less than once a year
- Never
- I don't know
- I don't want to answer this question

Please rate the supervision provided by your formal supervisor. *

Only answer this question if the following conditions are met:

Answer was 'No' or 'Yes' or 'I don't have a direct supervisor (yet)' at question ' [E3]' (Is your formal supervisor your direct supervisor?)

Please choose the appropriate response for each item:

	Fully agree	Partially agree	Neither agree nor disagree	Partially disagree	Fully disagree	I don't know	I don't want to answer this question
My supervisor treats me professionally.							
My supervisor is well informed about my field of research.							
My supervisor is available when I need advice.							
My supervisor is well informed about my current state of doctoral project.							
My supervisor has clear requirements for my work.							

	Fully agree	Partially agree	Neither agree nor disagree	Partially disagree	Fully disagree	I don't know	I don't want to answer this question
My supervisor is open to and respects my research ideas.							
My supervisor supports my professional development (establishing contacts, recommending conferences, scientific skills development....).							
My supervisor gives constructive feedback.							
My supervisor encourages me to work independently.							

	Fully agree	Partially agree	Neither agree nor disagree	Partially disagree	Fully disagree	I don't know	I don't want to answer this question
My supervisor treats me politely.							
My supervisor adheres to good scientific practice.							
My supervisor has good leadership skills.							
My supervisor gives feedback in a timely manner.							
My supervisor supports my participation in the career development program(s) and soft skills trainings.							

My super-
visor
encour-
ages a
healthy
work-life
balance.

Please rate the supervision provided by your direct supervisor. *

Only answer this question if the following conditions are met:

Answer was 'No' or 'I don't have a formal supervisor (yet)' at question ' [E3]' (Is your formal supervisor your direct supervisor?)

Please choose the appropriate response for each item:

	Fully agree	Partially agree	Neither agree nor disagree	Partially disagree	Fully disagree	I don't know	I don't want to answer this question
My super- visor treats me profes- sionally. My super- visor is well informed about my field of research. My super- visor is available when I need advice.							

	Fully agree	Partially agree	Neither agree nor disagree	Partially disagree	Fully disagree	I don't know	I don't want to answer this question
My supervisor is well informed about my current state of doctoral project.							
My supervisor has clear requirements for my work.							
My supervisor is open to and respects my research ideas.							

	Fully agree	Partially agree	Neither agree nor disagree	Partially disagree	Fully disagree	I don't know	I don't want to answer this question
My supervisor supports my professional development (establishing contacts, recommending conferences, scientific skills development...).							
My supervisor gives constructive feedback.							
My supervisor encourages me to work independently.							
My supervisor treats me politely.							
My supervisor adheres to good scientific practice.							

	Fully agree	Partially agree	Neither agree nor disagree	Partially disagree	Fully disagree	I don't know	I don't want to answer this question
My supervisor has good leadership skills.							
My supervisor gives feedback in a timely manner.							
My supervisor supports my participation in the career development program(s) and soft skills trainings.							
My supervisor encourages a healthy work-life balance.							

Did you ever encounter problems regarding your supervision? *

Please choose **all** that apply:

- Not enough meetings
- Too many meetings
- Not enough scientific discussion
- Meetings not regular enough

- Not enough experts in your group
- Supervisors not experienced enough in your field
- Not enough feedback
- Not enough encouragement
- The personality of my supervisor
- Disagreement between supervisors
- Disagreement about publication(s)
- Disagreement over time management/micromanagement
- Other reason
- No problem with supervision
- I don't know
- I don't want to answer this question

Are doctoral researchers involved in the process of director/professor/group leader hirings at your institution? *

Please choose **only one** of the following:

- Yes, we have an active say
- Yes, but we don't have an active say
- No
- I don't know
- I don't want to answer this question

E.g. by giving a letter of recommendation or being asked for their opinion after a presentation by the applicant, etc.

A.7 Integration & inclusion

In this section, we ask you how integrated you feel at your center/institute in terms of language barriers and inclusion and if you received support with administrative tasks.

Please bear in mind that integration and inclusion are often used interchangeably, but they are not the same thing. Integration refers to the act of bringing someone into an existing group or system, while inclusion means creating an environment that values and respects all individuals, regardless of their differences.

Section 5/10

For which of the following aspects did you receive support from your institute/center? *

Please choose **all** that apply:

- University enrollment
- Application to a graduate school
- Finding accommodation
- Registering at the local Resident Registration Office
- Visa for my residency
- Immigration office
- Translation of working contract and relevant documents
- Language courses
- None of the above
- I don't know
- I don't want to answer this question

Explanation "support": you may have received support to fulfill different administrative tasks and to give you guidance in the process. This support may have been in the form of an information document, personal e-mail or oral correspondence and has been given to you directly or at least upon request. Examples of 'support' can be checklists for University enrollment, visa application, or local resident registration etc.

For which of the following aspects would you have needed more support from your institute/center? *

Please choose **all** that apply:

- University enrollment
- Application to a graduate school
- Finding accommodation
- Registering at the local Resident Registration Office
- Visa for my residency
- Immigration office
- Translation of working contract and relevant documents
- Language courses
- None of the above
- I don't know
- I don't want to answer this question

Do you speak German? *

Only answer this question if the following conditions are met:

Answer was 'I don't want to answer this question' *or* 'Citizen outside the European Union' *or* 'Citizen within the European Union (But not German)' at question ' [A11]' (What is your citizenship? If you have multiple citizenships, please select the one you identify most with while pursuing a doctorate in Germany.)

Please choose **only one** of the following:

- None
- Beginner (A1 - A2)
- Intermediate (B1- B2)
- Fluent (C1 - C2)
- Native
- I don't want to answer this question

Is language an obstacle for communication with people at your institute/center? *

Only answer this question if the following conditions are met:

Answer was 'I don't want to answer this question' *or* 'Intermediate (B1- B2)' *or* 'Beginner (A1 - A2)' *or* 'None' at question ' [H2]' (Do you speak German?)

Please choose **only one** of the following:

- Very much
- To some extent
- Rather not
- Not at all
- I don't know
- I don't want to answer this question

Is all the important information (group internal, administrative, your contract/stipend) available in a language you understand? *

Only answer this question if the following conditions are met:

Answer was 'None' *or* 'Beginner (A1 - A2)' *or* 'Intermediate (B1- B2)' *or* 'I don't want to answer this question' at question ' [H2]' (Do you speak German?)

Please choose **only one** of the following:

- Yes, all of the information is available
- Most of the information is available
- Some of the information is available

- No, none of the information is available to me
- I don't want to answer this question

Social activities (e.g., sports events, going out for dinner/drinks, discussion forums, movie nights, or respective online versions during the pandemic...) at your institute/center:

*

Please choose **all** that apply:

- Never happen
- Happened once
- Happen occasionally
- Happen monthly
- Happen weekly
- Happen daily
- I don't know
- I don't want to answer this question
- You attend them always
- You attend them often
- You attend them sometimes
- You attend them rarely
- You don't attend them
- No, there are no social activities
- I don't know
- I don't want to answer this question
- Are organized by supervisor
- Are organized by institute/center
- Are organized by group/department
- Are organized by doctoral researcher representatives
- Are organized by graduate school
- Are organized by someone else

A.8 Career development

In this section, we ask you about your career plans and how you evaluate the measures in place at your institute/center to prepare you for your future career (publications, transferable skills, soft skills, etc.).

Section 6/10

Are you currently enrolled in a graduate school? *

Please choose **only one** of the following:

- Yes, at my institution
- Yes, somewhere else
- No
- I don't know
- I don't want to answer this question

Which field would you like to work in after completing your doctorate? *

Please choose the appropriate response for each item:

	Very much	Rather yes	Indifferent	Rather not	Not at all	I don't know	I don't want to answer this question
Academia							
Non- academic scientific research (e.g. scientific research in industry)							

	Very much	Rather yes	Indifferent	Rather not	Not at all	I don't know	I don't want to answer this question
Public sector science- related job (e.g. public relation- ships or science manage- ment)							
Private sector science- related job (e.g. public relation- ships or science manage- ment)							
Not- scientific job							
Take an extended break							
Start my own business							
Further education (e.g. another doctorate, MBA)							

Why would you like to leave academia? *

Only answer this question if the following conditions are met:

Answer was 'Rather not' or 'Not at all' at question ' [I2]' (Which field would you like to work in after completing your doctorate? (Academia))

Please choose **all** that apply:

- I have had a negative experience in academia so far.
- I do not like scientific work.
- I have problems getting by financially/issues with finding funding.
- I do not like scientific working conditions
- I find my career prospects unattractive.
- I have personal reasons.
- I do not feel qualified enough.
- I have no or poor academic results.
- I find other jobs more interesting.
- I can't cope with the high workload in academia.
- My academic life is not compatible with my family responsibilities.
- My health.
- I have administrative/bureaucratic problems.
- I got another job offer.
- Other reason(s).
- I don't know.
- I don't want to answer this question.

How well do you feel the following aspects are supported by your institute/center?

*

Please choose the appropriate response for each item:

	Yes, to a great extent	Yes, to some extent	No	I don't know	I don't want to answer this question	No, but i could attend them at university
Mobility period (e.g. internships, research stays,...)						
Language classes						
Mentoring						
Soft skill courses						
Practical courses (e.g. method- oriented courses, ...)						
Transition to a non- academic career (e.g. career fairs, career talks, networking possibili- ties,...)						
Career de- velopment office / Career center						

How does your center/institute support you in learning German? *

Only answer this question if the following conditions are met:

Answer was NOT 'German' at question ' [A11]' (What is your citizenship? If you have multiple citizenships, please select the one you identify most with while pursuing a doctorate in Germany.)
and Answer was NOT 'Native' at question ' [H2]' (Do you speak German?)

Please choose **only one** of the following:

- My institution offers German courses
- My institution offers monetary support for external courses

- My institution permits attendance of courses during working hours
- My institution does not offer any support for learning German
- My institution does offer German courses but I would not join them
- I don't know
- I don't want to answer this question

Do you think that you are well trained for a job outside science/academia? *

Please choose **only one** of the following:

- Very well prepared
- Well prepared
- Neither prepared nor unprepared
- Unprepared
- Very unprepared
- I don't know
- I don't want to answer this question

A job outside academia can be in industry or public service not related to publicly funded research institutions.

Have you ever worked full-time outside of academia? *

Please choose **only one** of the following:

- Yes
- No
- I don't want to answer

A job outside of academia can be in industry or public service not related to publicly funded research institutions.

Do you think you are well trained for a job inside science/academia? *

Please choose **only one** of the following:

- Very well prepared
- Well prepared
- Neither prepared or unprepared

- Unprepared
- Very unprepared
- I don't know
- I don't want to answer this question

A.9 Family

In this section, we ask questions related to family life while conducting your doctoral research project. We are interested in whether you have children and how families are supported by your institute/center in terms of childcare, organizational and financial aspects.

Section 7/10

Do you have or are you currently expecting children? *

Only answer this question if the following conditions are met:

Answer was 'Yes, it is okay for me and I agree with the data protection regulations for these sensitive questions' at question ' [A00]' (Would you like to be presented with these questions?)

Please choose **only one** of the following:

- Yes
- No
- No, but I am planning to have child(ren) during my doctorate
- I don't want to answer this question

Your youngest child is... *

Only answer this question if the following conditions are met:

Answer was 'Yes, it is okay for me and I agree with the data protection regulations for these sensitive questions' at question ' [A00]' (Would you like to be presented with these questions?) *and* Answer was 'Yes' at question ' [J1]' (Do you have or are you currently expecting children?)

Please choose **only one** of the following:

- Not born yet
- Not in external daycare (yet)
- In daycare or kindergarten
- In primary/elementary school
- In secondary school
- Above secondary school/is an adult now
- I don't want to answer this question

Are you considering having (more) children during your doctoral research project? *

Only answer this question if the following conditions are met:

Answer was 'Yes, it is okay for me and I agree with the data protection regulations for these sensitive questions' at question ' [A00]' (Would you like to be presented with these questions?) *and* Answer was 'Yes' *or* 'No, but I am planning to have child(ren) during my doctorate' at question ' [J1]' (Do you have or are you currently expecting children?)

Please choose **all** that apply:

- Yes
- No, I do not want children (yet)
- No, because I don't have the money to support children
- No, because my working conditions are not family-friendly
- No, because I fear jeopardizing my career
- No, because I won't have a contract extension
- No, because I don't have social security
- No, for other personal reasons
- I don't know
- I don't want to answer this question

Does your center/institute offer support in childcare services? *

Only answer this question if the following conditions are met:

----- Scenario 1 -----

Answer was 'Yes, it is okay for me and I agree with the data protection regulations for these sensitive questions' at question ' [A00]' (Would you like to be presented with these questions?) *and* Answer was at question ' [J2]' (Are you considering having (more) children during your doctoral research project?)

----- or Scenario 2 -----

Answer was 'Yes, it is okay for me and I agree with the data protection regulations for these sensitive questions' at question ' [A00]' (Would you like to be presented with these questions?) *and* Answer was 'Yes' *or* 'No, but I am planning to have child(ren) during my doctorate' at question ' [J1]' (Do you have or are you currently expecting children?)

Please choose **all** that apply:

- Access to daycare
- There is a daycare, but there are not enough available space
- Financial support for daycare
- Child-friendly environment work environment
- Parent-friendly work environment

- Reimbursements for daycare during business travel
- Home office/mobile work
- There is no support
- I don't know
- I don't want to answer this question

Do you feel there is sufficient support (financial and organizational) from your center/institute for raising/caring for a child? *

Only answer this question if the following conditions are met:

----- Scenario 1 -----

Answer was 'Yes, it is okay for me and I agree with the data protection regulations for these sensitive questions' at question ' [A00]' (Would you like to be presented with these questions?) *and* Answer was 'No, but I am planning to have child(ren) during my doctorate' *or* 'Yes' at question ' [J1]' (Do you have or are you currently expecting children?)

----- or Scenario 2 -----

Answer was 'Yes, it is okay for me and I agree with the data protection regulations for these sensitive questions' at question ' [A00]' (Would you like to be presented with these questions?) *and* Answer was at question ' [J2]' (Are you considering having (more) children during your doctoral research project?)

Please choose **only one** of the following:

- Yes, I feel sufficient support
- Support is offered but is not enough
- No, I don't feel supported
- I don't know
- I don't want to answer this question

Do you have caregiving responsibilities apart from children? *

Please choose **only one** of the following:

- Yes
- No
- I don't want to answer this question

Explanation: Caregivers provide assistance with another person's social or health needs.

Do you feel you are supported by your center/institute in your caregiving responsibilities apart from children? *

Only answer this question if the following conditions are met:

Answer was 'Yes' at question ' [J5]' (Do you have caregiving responsibilities apart from children?)

Please choose **only one** of the following:

- Yes, I feel sufficient support
- Support is offered but not enough
- No, I don't feel supported
- No, because those other responsibilities are not officially recognized
- I don't know
- I don't want to answer this question

Explanation: Caregivers provide assistance with another person's social or health needs.

Do you feel able to unite your caregiving responsibilities with your doctorate? *

Only answer this question if the following conditions are met:

----- Scenario 1 -----

Answer was 'Yes' at question ' [J1]' (Do you have or are you currently expecting children?)

----- or Scenario 2 -----

Answer was 'Yes' at question ' [J5]' (Do you have caregiving responsibilities apart from children?)

Please choose **only one** of the following:

- Very much
- To some extent
- Rather not
- Not at all
- I don't know
- I don't want to answer this question

Explanation: Caregivers provide assistance with another person's social or health needs.

A.10 Power Abuse

In this section, we ask you about mechanisms for conflict resolution in place at your institute/center, conflicts you are experiencing during your doctorate, for instance with a superior and your satisfaction with the resolution of these conflicts.

Conflict refers here to a situation where there is a disagreement or discord between an employee and a superior, who holds a position of power or influence over the employee's career or employment status. This could arise from a variety of reasons such as differing opinions, interests, or values and may involve an abuse of power.

Section 8/10

Which of the following mechanisms are you aware of that can help you in case of a conflict with a superior? *

Please choose **all** that apply:

- Ombudsperson(s)
- Human Resources
- Works/Staff Council
- Equal Opportunity Officer
- Compliance officer
- Doctoral researcher representatives
- Medical services and counseling
- Security service
- External law firm
- Internal legal department
- Other
- I am not aware of any of them
- I don't want to answer this question

Did you ever report a conflict to one of the institutions above? *

Please choose **only one** of the following:

- Yes
- No, although I had a serious conflict
- No, I never had any serious conflict
- I don't know
- I don't want to answer this question

Why did you not report your conflict? *

Only answer this question if the following conditions are met:

Answer was 'No, although I had a serious conflict' at question ' [F2]' (Did you ever report a conflict to one of the institutions above?)

Please choose **all** that apply:

- I wasn't sure whom to report it to
- I didn't think it would be resolved

- I was discouraged to report by other colleagues
- I felt the people who I could report to were not sufficiently trained to deal with it
- I was afraid of repercussions
- I didn't think the conflict was severe enough
- I could deal with it myself
- Other
- I don't know
- I don't want to answer this question

How satisfied were you with the consequences of your report? *

Only answer this question if the following conditions are met:

Answer was 'Yes' at question ' [F2]' (Did you ever report a conflict to one of the institutions above?)

Please choose **only one** of the following:

- Very dissatisfied
- Dissatisfied
- Neither satisfied nor dissatisfied
- Satisfied
- Very satisfied
- Still ongoing
- I don't know
- I don't want to answer this question

While working at your institute/center/unit, have you at any point experienced unwanted behaviour that you would call sexual harassment?

Definition: All behavior and actions are considered sexual harassment and sexual violence that are humiliating in sexual terms and result in the person concerned being threatened, humiliated and/or harassed. They can manifest themselves in verbal and non-verbal form or through physical assault.

*

Please choose **all** that apply:

- Intrusive/unwanted looks and/or non-physical approaching, e.g. catcalling , whistling, staring,...
- Unwanted verbal remarks of a sexual nature and/or obscene gestures, e.g. innuendos, jokes, comments...
- Spreading information/rumors/lies of a sexual nature about a person

- Unwanted material/messages/calls of sexual nature
- Unwanted touching or physical contact, e.g. patting your back, stroking, hugging,...
- Requests for sexual favors or unwelcome sexual advances
- Feeling pressured to engage with someone sexually
- Physical acts of sexual assault
- Other
- No, I have not been subject to sexual harassment
- I don't want to answer this question
- I don't know

While working at your institute/center, how often have you been subjected to sexual harassment? *

Only answer this question if the following conditions are met:

----- Scenario 1 -----

Answer was at question ' [F4]' (While working at your institute/center/unit, have you at any point experienced unwanted behaviour that you would call sexual harassment? Definition: All behavior and actions are considered sexual harassment and sexual violence that are humiliating in sexual terms and result in the person concerned being threatened, humiliated and/or harassed. They can manifest themselves in verbal and non-verbal form or through physical assault.)

----- or Scenario 2 -----

Answer was at question ' [F4]' (While working at your institute/center/unit, have you at any point experienced unwanted behaviour that you would call sexual harassment? Definition: All behavior and actions are considered sexual harassment and sexual violence that are humiliating in sexual terms and result in the person concerned being threatened, humiliated and/or harassed. They can manifest themselves in verbal and non-verbal form or through physical assault.)

----- or Scenario 3 -----

Answer was at question ' [F4]' (While working at your institute/center/unit, have you at any point experienced unwanted behaviour that you would call sexual harassment? Definition: All behavior and actions are considered sexual harassment and sexual violence that are humiliating in sexual terms and result in the person concerned being threatened, humiliated and/or harassed. They can manifest themselves in verbal and non-verbal form or through physical assault.)

----- or Scenario 4 -----

Answer was at question ' [F4]' (While working at your institute/center/unit, have you at any point experienced unwanted behaviour that you would call sexual harassment? Definition: All behavior and actions are considered sexual harassment and sexual violence that are humiliating in sexual terms and result in the person concerned being threatened, humiliated and/or harassed. They can manifest themselves in verbal and non-verbal form or through physical assault.)

----- or Scenario 5 -----

Answer was at question ' [F4]' (While working at your institute/center/unit, have you at any point experienced unwanted behaviour that you would call sexual harassment? Definition: All behavior and

actions are considered sexual harassment and sexual violence that are humiliating in sexual terms and result in the person concerned being threatened, humiliated and/or harassed. They can manifest themselves in verbal and non-verbal form or through physical assault.)

----- or Scenario 6 -----

Answer was at question ' [F4]' (While working at your institute/center/unit, have you at any point experienced unwanted behaviour that you would call sexual harassment? Definition: All behavior and actions are considered sexual harassment and sexual violence that are humiliating in sexual terms and result in the person concerned being threatened, humiliated and/or harassed. They can manifest themselves in verbal and non-verbal form or through physical assault.)

----- or Scenario 7 -----

Answer was at question ' [F4]' (While working at your institute/center/unit, have you at any point experienced unwanted behaviour that you would call sexual harassment? Definition: All behavior and actions are considered sexual harassment and sexual violence that are humiliating in sexual terms and result in the person concerned being threatened, humiliated and/or harassed. They can manifest themselves in verbal and non-verbal form or through physical assault.)

----- or Scenario 8 -----

Answer was at question ' [F4]' (While working at your institute/center/unit, have you at any point experienced unwanted behaviour that you would call sexual harassment? Definition: All behavior and actions are considered sexual harassment and sexual violence that are humiliating in sexual terms and result in the person concerned being threatened, humiliated and/or harassed. They can manifest themselves in verbal and non-verbal form or through physical assault.)

Please choose **only one** of the following:

- Once
- Occasionally
- Monthly
- Weekly
- Daily
- I don't know
- I don't want to answer this question

While working at your institute/center, have you at any point witnessed unwanted behaviour that you would call sexual harassment? *

Please choose **only one** of the following:

- Yes
- No
- I don't know
- I don't want to answer this question

How often have you witnessed sexual harassment? *

Only answer this question if the following conditions are met:

Answer was 'Yes' at question ' [F5]' (While working at your institute/center, have you at any point witnessed unwanted behaviour that you would call sexual harassment?)

Please choose **only one** of the following:

- Once
- Occasionally
- Monthly
- Weekly
- Daily
- I don't know
- I don't want to answer this question

While working at your institute/center, have you at any point experienced discrimination?

Discrimination is unjust or prejudicial treatment of different categories of people.

*

Please choose **all** that apply:

- Having information you need to do your job deliberately withheld
- Being given impossible tasks
- Loss of opportunities/favoritism
- Denial of use of the center's facilities or benefits (e.g. disability leave, maternity leave, or travel grants. . .)
- Not being paid the same as someone doing the same job with the same experience and qualifications
- Exclusion or isolation
- Being subjected to taunts or abuse that references the protected attribute (e.g. inappropriate comments or jokes)
- Reprisal or retaliation after coming forward
- Unfair termination
- Other
- No, I have not been subject to discrimination
- I don't know
- I don't want to answer this question

While working at your institute/center, have you ever felt discriminated against because of one or more of the following?

Discrimination is unjust or prejudicial treatment of different categories of people.

*

Only answer this question if the following conditions are met:

Answer was NOT at question ' [F6]' (While working at your institute/center, have you at any point experienced discrimination? Discrimination is unjust or prejudicial treatment of different categories of people.) *and* Answer was NOT at question ' [F6]' (While working at your institute/center, have you at any point experienced discrimination? Discrimination is unjust or prejudicial treatment of different categories of people.) *and* Answer was NOT at question ' [F6]' (While working at your institute/center, have you at any point experienced discrimination? Discrimination is unjust or prejudicial treatment of different categories of people.)

Please choose **all** that apply:

- Gender
- Nationality
- Ethnicity
- Age
- Sexual orientation
- Gender identity
- Religion
- Physical appearance
- Disability
- Position of power/hierarchy
- Mental health
- Pregnancy and/or parenthood
- Other
- I don't know
- I don't want to answer this question

While working at your institute/center, how often have you been subjected to discrimination?

*

Only answer this question if the following conditions are met:

Answer was NOT at question ' [F6]' (While working at your institute/center, have you at any point experienced discrimination? Discrimination is unjust or prejudicial treatment of different categories of

people.) and Answer was NOT at question ' [F6]' (While working at your institute/center, have you at any point experienced discrimination? Discrimination is unjust or prejudicial treatment of different categories of people.) and Answer was NOT at question ' [F6]' (While working at your institute/center, have you at any point experienced discrimination? Discrimination is unjust or prejudicial treatment of different categories of people.)

Please choose **only one** of the following:

- Once
- Occasionally
- Monthly
- Weekly
- Daily
- I don't know
- I don't want to answer this question

While working at your institute/center, have you ever witnessed a situation where someone was discriminated against in your work environment because of one or more of the following?

*

Please choose **all** that apply:

- Gender
- Nationality
- Ethnicity
- Age
- Sexual orientation
- Gender identity
- Religion
- Physical appearance
- Disability
- Position of power/hierarchy
- Mental health
- Pregnancy and/or parenthood
- Other
- No, I have not been a witness to discrimination
- I don't know
- I don't want to answer this question

How often have you witnessed discrimination? *

Only answer this question if the following conditions are met:

Answer was NOT at question ' [F7]' (While working at your institute/center, have you ever witnessed a situation where someone was discriminated against in your work environment because of one or more of the following?) *and* Answer was NOT at question ' [F7]' (While working at your institute/center, have you ever witnessed a situation where someone was discriminated against in your work environment because of one or more of the following?) *and* Answer was NOT at question ' [F7]' (While working at your institute/center, have you ever witnessed a situation where someone was discriminated against in your work environment because of one or more of the following?)

Please choose **only one** of the following:

- Once
- Occasionally
- Monthly
- Weekly
- Daily
- I don't know
- I don't want to answer this question

While working at your institute/center, have you at any point been subjected to any of these forms of bullying?

“Bullying” here denotes repeated and persistent negative behaviour directed towards one or several individuals, which creates a hostile work environment. The targeted individuals have difficulty defending themselves.

*

Please choose **all** that apply:

- Indirect bullying, e.g. spreading rumors, lies, making fun of a person, withholding information,...
- Destabilization, e.g., having your opinions ignored, failure to give credit when due, constant non-constructive criticism, being ridiculed or humiliated at your workplace, removal of responsibility, preventing access to opportunities,...
- Pressured overwork, e.g., impossible deadlines, unnecessary disruptions...
- Verbal harassment, e.g. having insulting or offensive remarks made about yourself, your views, or your private life, being shouted at or being the target of spontaneous anger, name-calling, insults, intimidation, yelling,...
- Social isolation, e.g. damage to friendship networks, exclusion,...
- Threat to professional status, e.g., degrading one's opinion, public professional humiliation, accusation regarding lack of effort, tampering with a person's work equipment,...

- Physical attack, e.g. pushing,...
- Other
- No, I have not been subject to bullying
- I don't know
- I don't want to answer this question

While working at your institute/center, how often have you been subjected to these forms of bullying? *

Only answer this question if the following conditions are met:

----- Scenario 1 -----

Answer was at question ' [F8]' (While working at your institute/center, have you at any point been subjected to any of these forms of bullying? "Bullying" here denotes repeated and persistent negative behaviour directed towards one or several individuals, which creates a hostile work environment. The targeted individuals have difficulty defending themselves.)

----- or Scenario 2 -----

Answer was at question ' [F8]' (While working at your institute/center, have you at any point been subjected to any of these forms of bullying? "Bullying" here denotes repeated and persistent negative behaviour directed towards one or several individuals, which creates a hostile work environment. The targeted individuals have difficulty defending themselves.)

----- or Scenario 3 -----

Answer was at question ' [F8]' (While working at your institute/center, have you at any point been subjected to any of these forms of bullying? "Bullying" here denotes repeated and persistent negative behaviour directed towards one or several individuals, which creates a hostile work environment. The targeted individuals have difficulty defending themselves.)

----- or Scenario 4 -----

Answer was at question ' [F8]' (While working at your institute/center, have you at any point been subjected to any of these forms of bullying? "Bullying" here denotes repeated and persistent negative behaviour directed towards one or several individuals, which creates a hostile work environment. The targeted individuals have difficulty defending themselves.)

----- or Scenario 5 -----

Answer was at question ' [F8]' (While working at your institute/center, have you at any point been subjected to any of these forms of bullying? "Bullying" here denotes repeated and persistent negative behaviour directed towards one or several individuals, which creates a hostile work environment. The targeted individuals have difficulty defending themselves.)

----- or Scenario 6 -----

Answer was at question ' [F8]' (While working at your institute/center, have you at any point been subjected to any of these forms of bullying? "Bullying" here denotes repeated and persistent negative behaviour directed towards one or several individuals, which creates a hostile work environment. The targeted individuals have difficulty defending themselves.)

----- or Scenario 7 -----

Answer was at question ' [F8]' (While working at your institute/center, have you at any point been subjected to any of these forms of bullying? "Bullying" here denotes repeated and persistent negative

behaviour directed towards one or several individuals, which creates a hostile work environment. The targeted individuals have difficulty defending themselves.)

Please choose **only one** of the following:

- Once
- Occasionally
- Monthly
- Weekly
- Daily
- I don't know
- I don't want to answer this question

What did you perceive as the basis for bullying? *

Only answer this question if the following conditions are met:

----- Scenario 1 -----

Answer was at question ' [F8]' (While working at your institute/center, have you at any point been subjected to any of these forms of bullying? "Bullying" here denotes repeated and persistent negative behaviour directed towards one or several individuals, which creates a hostile work environment. The targeted individuals have difficulty defending themselves.)

----- or Scenario 2 -----

Answer was at question ' [F8]' (While working at your institute/center, have you at any point been subjected to any of these forms of bullying? "Bullying" here denotes repeated and persistent negative behaviour directed towards one or several individuals, which creates a hostile work environment. The targeted individuals have difficulty defending themselves.)

----- or Scenario 3 -----

Answer was at question ' [F8]' (While working at your institute/center, have you at any point been subjected to any of these forms of bullying? "Bullying" here denotes repeated and persistent negative behaviour directed towards one or several individuals, which creates a hostile work environment. The targeted individuals have difficulty defending themselves.)

----- or Scenario 4 -----

Answer was at question ' [F8]' (While working at your institute/center, have you at any point been subjected to any of these forms of bullying? "Bullying" here denotes repeated and persistent negative behaviour directed towards one or several individuals, which creates a hostile work environment. The targeted individuals have difficulty defending themselves.)

----- or Scenario 5 -----

Answer was at question ' [F8]' (While working at your institute/center, have you at any point been subjected to any of these forms of bullying? "Bullying" here denotes repeated and persistent negative behaviour directed towards one or several individuals, which creates a hostile work environment. The targeted individuals have difficulty defending themselves.)

----- or Scenario 6 -----

Answer was at question ' [F8]' (While working at your institute/center, have you at any point been subjected to any of these forms of bullying? "Bullying" here denotes repeated and persistent negative

behaviour directed towards one or several individuals, which creates a hostile work environment. The targeted individuals have difficulty defending themselves.)

----- or Scenario 7 -----

Answer was at question ' [F8]' (While working at your institute/center, have you at any point been subjected to any of these forms of bullying? “Bullying” here denotes repeated and persistent negative behaviour directed towards one or several individuals, which creates a hostile work environment. The targeted individuals have difficulty defending themselves.)

Please choose **all** that apply:

- Gender
- Nationality
- Ethnicity
- Age
- Sexual orientation
- Gender identity
- Religion
- Physical appearance
- Disability
- Position of power/hierarchy
- Mental health
- Pregnancy and/or parenthood
- Other
- I don't know
- I don't want to answer this question

While working at your institute/center, have you at any point witnessed bullying? *

Please choose **only one** of the following:

- Yes
- No
- I don't know
- I don't want to answer this question

How often have you witnessed bullying? *

Only answer this question if the following conditions are met:

Answer was 'Yes' at question ' [F9]' (While working at your institute/center, have you at any point witnessed bullying?)

Please choose **only one** of the following:

- Once
- Occasionally
- Monthly
- Weekly
- Daily
- I don't know
- I don't want to answer this question

What did you perceive as the basis for bullying? *

Only answer this question if the following conditions are met:

Answer was 'Yes' at question ' [F9]' (While working at your institute/center, have you at any point witnessed bullying?)

Please choose **all** that apply:

- Gender
- Nationality
- Ethnicity
- Age
- Sexual orientation
- Gender identity
- Religion
- Physical appearance
- Disability
- Position of power/hierarchy
- Mental health
- Pregnancy and/or parenthood
- Other
- I don't know
- I don't want to answer this question

While working at your institute/center, have you ever witnessed a case of power abuse and did you report it?

*

Please choose **only one** of the following:

- Yes, and I did
- Yes, but I didn't report it
- Yes, but I couldn't report it
- No, I didn't
- I don't know
- I don't want to answer this question

A.11 Mental health

In this section, we ask you about your well-being. With this section we acknowledge the obstacles, pressure to perform, as well as the impact the latter can have on your mental health.

The term "mental health" has been explained by many scholars. According to the WHO, it has been described as: "subjective well-being, perceived self-efficacy, [...] and self-actualization of one's intellectual and emotional potential, among others."

We want to, again, stress the importance of confidentiality and anonymity of the answers submitted during your participation in this survey. If you feel uncomfortable with the questions in this section, you will always have the option "I don't want to answer this question".

Since it is a particularly sensitive topic, we want to provide you with the option to not be presented with these questions.

Please bear in mind that the questions you will be presented with are based on standardized methods in the field of mental health for the purposes of population studies.

Section 9/10

Would you like to be presented with these questions?

*

Please choose **only one** of the following:

- Yes, it is okay for me
- No, I prefer not to see them

Please read each statement below and then indicate how you feel right now, at this moment. *

Only answer this question if the following conditions are met:

Answer was 'Yes, it is okay for me' at question ' [D0]' (Would you like to be presented with these questions?)

Please choose the appropriate response for each item:

	Not at all	Somewhat	Moderately	Very much	I don't want to answer this question
I feel calm					
I feel tense					
I feel upset					
I feel relaxed					
I feel content					
I feel worried					

Please read each statement below and then indicate how you generally feel. *

Only answer this question if the following conditions are met:

Answer was 'Yes, it is okay for me' at question ' [D0]' (Would you like to be presented with these questions?)

Please choose the appropriate response for each item:

	Not at all	Somewhat	Moderately	Very much	I don't want to answer this question
I am "calm, cool and collected"					
I feel that difficulties are piling up so that I cannot overcome them					
I worry too much over something that really doesn't matter					
I am happy					
I have disturbing thoughts					

	Not at all	Somewhat	Moderately	Very much	I don't want to answer this question
I lack self-confidence I feel secure I take disappointments so keenly that I can't put them out of my mind					

Over the last two weeks, how often have you been bothered by any of the following problems?

*

Only answer this question if the following conditions are met:

Answer was 'Yes, it is okay for me' at question ' [D0]' (Would you like to be presented with these questions?)

Please choose the appropriate response for each item:

	Not at all (0-1 days)	Several days (2-6 days)	More than half the days (7-11 days)	Nearly every day (12-14 days)	I don't want to answer this question
Little interest or pleasure in doing things Feeling down, depressed, or hopeless Trouble falling or staying asleep, or sleeping too much Feeling tired or having little energy Poor appetite or overeating					

	Not at all (0-1 days)	Several days (2-6 days)	More than half the days (7-11 days)	Nearly every day (12-14 days)	I don't want to answer this question
Feeling bad about yourself - or that you are a failure or have let yourself or your family down Trouble concentrating on things such as reading the newspaper or watching television Moving or speaking so slowly that other people could have noticed? Or the opposite - being so fidgety or restless that you have been moving around a lot more than usual					

Have you had such problems at this intensity before? *

Only answer this question if the following conditions are met:

Answer was 'Yes, it is okay for me' at question ' [D0]' (Would you like to be presented with these questions?)

Please choose **only one** of the following:

- No, never
- Yes, but only since I have started my doctorate
- Yes, I have had such symptoms for a longer time of my life, already before I started my doctorate
- I don't know

- I don't want to answer this question

How much do you sleep a day? *

Only answer this question if the following conditions are met:

Answer was 'Yes, it is okay for me' at question ' [D0]' (Would you like to be presented with these questions?)

Please choose **only one** of the following:

- 0-4 hours
- 4-6 hours
- 6-8 hours
- 9-10 hours
- More than 10 hours
- I don't know
- I don't want to answer this question

How would you rate the quality of your sleep? *

Only answer this question if the following conditions are met:

Answer was 'Yes, it is okay for me' at question ' [D0]' (Would you like to be presented with these questions?)

Please choose **only one** of the following:

- Great
- Good
- Neither good nor bad
- Bad
- Really bad
- I don't know
- I don't want to answer this question

Please read the following statements and indicate how often you felt like that in the last 12 months:

*

Only answer this question if the following conditions are met:

Answer was 'Yes, it is okay for me' at question ' [D0]' (Would you like to be presented with these questions?)

Please choose the appropriate response for each item:

	Never	A few times a year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day	I don't want to answer this question
I feel emotion- ally drained from my work								
I feel used up at the end of the workday								
I feel tired when I get up in the morning and have to face another day on the job								
Working all day is really a strain for me								
I can ef- fectively solve the prob- lems that arise in my work								

	Never	A few times a year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day	I don't want to answer this question
I feel burned out from my work I feel I am making an effective contribu- tion to what this organi- zation does I have become less in- terested in my work since I started this job I have become less enthusi- astic about my work In my opinion, I am good at my job								

	Never	A few times a year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day	I don't want to answer this question
I feel ex- hilarated when I accom- plish some- thing at work I have accom- plished many worth- while things in this job I just want to do my job and not be both- ered I have become more cynical about whether my work con- tributes anything I doubt the signifi- cance of my work								

	Never	A few times a year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day	I don't want to answer this question
At my work, I feel con- fident that I am effective at getting things done								

During the last four weeks, how much have you been bothered by any of the following problems?

*

Only answer this question if the following conditions are met:

Answer was 'Yes, it is okay for me' at question ' [D0]' (Would you like to be presented with these questions?)

Please choose the appropriate response for each item:

	Not bothered	Bothered a little	Bothered a lot	I don't know	I don't want to answer this question/does not apply
Stomach pain					
Back pain					
Pain in your arms, legs or joints (knees, hips, etc.)					
Feeling tired or staying asleep, or sleeping too much					
Menstrual cramps or other problems with your periods					

	Not bothered	Bothered a little	Bothered a lot	I don't know	I don't want to answer this question/does not apply
Pain or problems during sexual intercourse					
Headaches					
Chest pain					
Dizziness					
Fainting spells					
Feeling your heart pound or race					
Shortness of breath					
Constipation, loose bowels or diarrhea					
Nausea, gas, or indigestion					

Have you had such symptoms in this intensity before?

*

Only answer this question if the following conditions are met:

Answer was 'Yes, it is okay for me' at question ' [D0]' (Would you like to be presented with these questions?)

Please choose **only one** of the following:

- No, never
- Yes, but only since I have started my doctorate
- Yes, I have had such symptoms for a longer time of my life, already before I started my doctorate
- I don't know
- I don't want to answer this question

If you have been bothered by any problems, how difficult have the above-mentioned problems made it for you to do your work? *

Only answer this question if the following conditions are met:

Answer was 'Yes, it is okay for me' at question ' [D0]' (Would you like to be presented with these questions?)

Please choose **only one** of the following:

- Not difficult at all
- Somewhat difficult
- Very difficult
- Extremely difficult
- I have not been bothered by any problems
- I don't know
- I don't want to answer this question

You answered 'I don't want to answer this question' to one question or more questions in mental health section. We would be interested in your reasons for not answering.

*

Only answer this question if the following conditions are met:

----- Scenario 2 -----

Answer was 'I don't want to answer this question' at question ' [D3a]' (Have you had such problems at this intensity before?)

----- or Scenario 3 -----

Answer was 'I don't want to answer this question' at question ' [D6]' (If you have been bothered by any problems, how difficult have the above-mentioned problems made it for you to do your work?)

----- or Scenario 4 -----

Answer was 'I don't want to answer this question' at question ' [D3b]' (How much do you sleep a day?)

----- or Scenario 5 -----

Answer was 'I don't want to answer this question' at question ' [D3c]' (How would you rate the quality of your sleep?)

----- or Scenario 6 -----

Answer was 'I don't want to answer this question' at question ' [D5]' (Have you had such symptoms in this intensity before?)

----- or Scenario 7 -----

Answer was 'I don't want to answer this question' at question ' [D6]' (If you have been bothered by any problems, how difficult have the above-mentioned problems made it for you to do your work?)

----- or Scenario 10 -----

Answer was 'I don't want to answer this question ' at question ' [D1]' (Please read each statement below and then indicate how you feel right now, at this moment. (I feel calm))

----- or Scenario 11 -----

Answer was 'I don't want to answer this question ' at question ' [D1]' (Please read each statement below and then indicate how you feel right now, at this moment. (I feel tense))

----- or Scenario 12 -----

Answer was 'I don't want to answer this question ' at question ' [D1]' (Please read each statement below and then indicate how you feel right now, at this moment. (I feel upset))

----- or Scenario 13 -----

Answer was 'I don't want to answer this question ' at question ' [D1]' (Please read each statement below and then indicate how you feel right now, at this moment. (I feel relaxed))

----- or Scenario 15 -----

Answer was 'I don't want to answer this question ' at question ' [D1]' (Please read each statement below and then indicate how you feel right now, at this moment. (I feel content))

----- or Scenario 16 -----

Answer was 'I don't want to answer this question ' at question ' [D1]' (Please read each statement below and then indicate how you feel right now, at this moment. (I feel worried))

----- or Scenario 17 -----

Answer was 'I don't want to answer this question' at question ' [D2]' (Please read each statement below and then indicate how you generally feel. (I am "calm, cool and collected"))

----- or Scenario 18 -----

Answer was 'I don't want to answer this question' at question ' [D2]' (Please read each statement below and then indicate how you generally feel. (I feel that difficulties are piling up so that I cannot overcome them))

----- or Scenario 19 -----

Answer was 'I don't want to answer this question' at question ' [D2]' (Please read each statement below and then indicate how you generally feel. (I worry too much over something that really doesn't matter))

----- or Scenario 20 -----

Answer was 'I don't want to answer this question' at question ' [D2]' (Please read each statement below and then indicate how you generally feel. (I am happy))

----- or Scenario 21 -----

Answer was 'I don't want to answer this question' at question ' [D2]' (Please read each statement below and then indicate how you generally feel. (I have disturbing thoughts))

----- or Scenario 22 -----

Answer was 'I don't want to answer this question' at question ' [D2]' (Please read each statement below and then indicate how you generally feel. (I lack self-confidence))

----- or Scenario 23 -----

Answer was 'I don't want to answer this question' at question ' [D2]' (Please read each statement below and then indicate how you generally feel. (I feel secure))

----- or Scenario 24 -----

Answer was 'I don't want to answer this question' at question ' [D2]' (Please read each statement below and then indicate how you generally feel. (I take disappointments so keenly that I can't put them out of my mind))

----- or Scenario 25 -----

Answer was 'I don't want to answer this question' at question ' [D3]' (Over the last two weeks, how often have you been bothered by any of the following problems? (Little interest or pleasure in doing things))

----- or Scenario 26 -----

Answer was 'I don't want to answer this question' at question ' [D3]' (Over the last two weeks, how often have you been bothered by any of the following problems? (Feeling down, depressed, or hopeless))

----- or Scenario 27 -----

Answer was 'I don't want to answer this question' at question ' [D3]' (Over the last two weeks, how often have you been bothered by any of the following problems? (Trouble falling or staying asleep, or sleeping too much))

----- or Scenario 28 -----

Answer was 'I don't want to answer this question' at question ' [D3]' (Over the last two weeks, how often have you been bothered by any of the following problems? (Feeling tired or having little energy))

----- or Scenario 29 -----

Answer was 'I don't want to answer this question' at question ' [D3]' (Over the last two weeks, how often have you been bothered by any of the following problems? (Poor appetite or overeating))

----- or Scenario 30 -----

Answer was 'I don't want to answer this question' at question ' [D3]' (Over the last two weeks, how often have you been bothered by any of the following problems? (Feeling bad about yourself - or that you are a failure or have let yourself or your family down))

----- or Scenario 31 -----

Answer was 'I don't want to answer this question' at question ' [D3]' (Over the last two weeks, how often have you been bothered by any of the following problems? (Trouble concentrating on things such as reading the newspaper or watching television))

----- or Scenario 32 -----

Answer was 'I don't want to answer this question' at question ' [D3]' (Over the last two weeks, how often have you been bothered by any of the following problems? (Moving or speaking so slowly that other people could have noticed? Or the opposite - being so fidgety or restless that you have been moving around a lot more than usual))

----- or Scenario 33 -----

Answer was 'I don't want to answer this question/does not apply' at question ' [D4]' (During the last four weeks, how much have you been bothered by any of the following problems? (Stomach pain))

----- or Scenario 34 -----

Answer was 'I don't want to answer this question/does not apply' at question ' [D4]' (During the last four weeks, how much have you been bothered by any of the following problems? (Back pain))

----- or Scenario 35 -----

Answer was 'I don't want to answer this question/does not apply' at question ' [D4]' (During the last four weeks, how much have you been bothered by any of the following problems? (Pain in your arms, legs or joints (knees, hips, etc.)))

----- or Scenario 36 -----

Answer was 'I don't want to answer this question/does not apply' at question ' [D4]' (During the last four weeks, how much have you been bothered by any of the following problems? (Feeling tired or staying asleep, or sleeping too much))

----- or Scenario 39 -----

Answer was 'I don't want to answer this question/does not apply' at question ' [D4]' (During the last four weeks, how much have you been bothered by any of the following problems? (Headaches))

----- or Scenario 40 -----

Answer was 'I don't want to answer this question/does not apply' at question ' [D4]' (During the last four weeks, how much have you been bothered by any of the following problems? (Chest pain))

----- or Scenario 41 -----

Answer was 'I don't want to answer this question/does not apply' at question ' [D4]' (During the last four weeks, how much have you been bothered by any of the following problems? (Dizziness))

----- or Scenario 42 -----

Answer was 'I don't want to answer this question/does not apply' at question ' [D4]' (During the last four weeks, how much have you been bothered by any of the following problems? (Fainting spells))

----- or Scenario 43 -----

Answer was 'I don't want to answer this question/does not apply' at question ' [D4]' (During the last four weeks, how much have you been bothered by any of the following problems? (Feeling your heart pound or race))

----- or Scenario 44 -----

Answer was 'I don't want to answer this question/does not apply' at question ' [D4]' (During the last four weeks, how much have you been bothered by any of the following problems? (Shortness of breath))

----- or Scenario 45 -----

Answer was 'I don't want to answer this question/does not apply' at question ' [D4]' (During the last four weeks, how much have you been bothered by any of the following problems? (Constipation, loose bowels or diarrhea))

----- or Scenario 46 -----

Answer was 'I don't want to answer this question/does not apply' at question ' [D4]' (During the last four weeks, how much have you been bothered by any of the following problems? (Nausea, gas, or indigestion))

----- or Scenario 47 -----

Answer was 'I don't want to answer this question' at question ' [D3d]' (Please read the following statements and indicate how often you felt like that in the last 12 months: (I feel emotionally drained from my work))

----- or Scenario 48 -----

Answer was 'I don't want to answer this question' at question ' [D3d]' (Please read the following statements and indicate how often you felt like that in the last 12 months: (I feel used up at the end of the workday))

----- or Scenario 49 -----

Answer was 'I don't want to answer this question' at question ' [D3d]' (Please read the following statements and indicate how often you felt like that in the last 12 months: (I feel tired when I get up in the morning and have to face another day on the job))

----- or Scenario 50 -----

Answer was 'I don't want to answer this question' at question ' [D3d]' (Please read the following statements and indicate how often you felt like that in the last 12 months: (Working all day is really a strain for me))

----- or Scenario 51 -----

Answer was 'I don't want to answer this question' at question ' [D3d]' (Please read the following statements and indicate how often you felt like that in the last 12 months: (I can effectively solve the problems that arise in my work))

----- or Scenario 52 -----

Answer was 'I don't want to answer this question' at question ' [D3d]' (Please read the following statements and indicate how often you felt like that in the last 12 months: (I feel burned out from my work))

----- or Scenario 53 -----

Answer was 'I don't want to answer this question' at question ' [D3d]' (Please read the following statements and indicate how often you felt like that in the last 12 months: (I feel I am making an effective contribution to what this organization does))

----- or Scenario 54 -----

Answer was 'I don't want to answer this question' at question ' [D3d]' (Please read the following statements and indicate how often you felt like that in the last 12 months: (I have become less interested in my work since I started this job))

----- or Scenario 55 -----

Answer was 'I don't want to answer this question' at question ' [D3d]' (Please read the following statements and indicate how often you felt like that in the last 12 months: (I have become less enthusiastic about my work))

----- or Scenario 56 -----

Answer was 'I don't want to answer this question' at question ' [D3d]' (Please read the following statements and indicate how often you felt like that in the last 12 months: (In my opinion, I am good at my job))

----- or Scenario 57 -----

Answer was 'I don't want to answer this question' at question ' [D3d]' (Please read the following statements and indicate how often you felt like that in the last 12 months: (I feel exhilarated when I accomplish something at work))

----- or Scenario 58 -----

Answer was 'I don't want to answer this question' at question ' [D3d]' (Please read the following statements and indicate how often you felt like that in the last 12 months: (I have accomplished many worthwhile things in this job))

----- or Scenario 59 -----

Answer was 'I don't want to answer this question' at question ' [D3d]' (Please read the following statements and indicate how often you felt like that in the last 12 months: (I just want to do my job and not be bothered))

----- or Scenario 60 -----

Answer was 'I don't want to answer this question' at question ' [D3d]' (Please read the following statements and indicate how often you felt like that in the last 12 months: (I have become more cynical about whether my work contributes anything))

----- or Scenario 61 -----

Answer was 'I don't want to answer this question' at question ' [D3d]' (Please read the following statements and indicate how often you felt like that in the last 12 months: (I doubt the significance of my work))

----- or Scenario 62 -----

Answer was 'I don't want to answer this question' at question ' [D3d]' (Please read the following statements and indicate how often you felt like that in the last 12 months: (At my work, I feel confident that I am effective at getting things done))

Please choose **only one** of the following:

- I feel uncomfortable answering such questions

- I can't relate to this type of questions
- Because my current situation is unrelated to work
- Other
- I don't know
- I don't want to answer this question

Are you aware of your center's/institute's mental health resources?

*

Please choose **only one** of the following:

- No, I am not aware of any
- Yes, but I have never used them
- Yes, I have used them and I was satisfied
- Yes, I have used them, but I was not satisfied
- I don't want to answer this question

Have you sought out help outside of your institute/center? *

Only answer this question if the following conditions are met:

----- Scenario 1 -----

Answer was 'Extremely difficult' at question ' [D6]' (If you have been bothered by any problems, how difficult have the above-mentioned problems made it for you to do your work?) *and* Answer was 'Yes, it is okay for me' at question ' [D0]' (Would you like to be presented with these questions?)

----- or Scenario 2 -----

Answer was 'Very difficult' at question ' [D6]' (If you have been bothered by any problems, how difficult have the above-mentioned problems made it for you to do your work?) *and* Answer was 'Yes, it is okay for me' at question ' [D0]' (Would you like to be presented with these questions?)

----- or Scenario 3 -----

Answer was 'Somewhat difficult' at question ' [D6]' (If you have been bothered by any problems, how difficult have the above-mentioned problems made it for you to do your work?) *and* Answer was 'Yes, it is okay for me' at question ' [D0]' (Would you like to be presented with these questions?)

Please choose **only one** of the following:

- Yes
- No
- I don't want to answer

Anything regarding this section you would like to tell us?

Please note that no personal data should be entered here.

Please write your answer here:

Your mental health is utmost important for the success of your doctoral research project, but also for a happy and fulfilled private life. This survey aims to raise awareness amongst you, your colleagues and the scientific community.

Please do not hesitate to turn to one of the included help lines, friends or your doctoral representatives, if especially emotionally touched by these questions.

Most Helmholtz centers have psychological counseling available, which can be used by any doctoral researcher free of charge and within their working time.

If you need help, contact the applicable service from your center:

Email of psychological services: seemann@baz-hb.de

More information for immediate help can be found on your center's webpage.

Only answer this question if the following conditions are met:

Answer was 'Alfred-Wegener-Institut, Helmholtz-Zentrum für Polar- und Meeresforschung (AWI)' at question ' [A2]' (Which institute/center are you associated with? In the comment section, please specify in which city your institute/center is located.)

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Most Helmholtz centers have psychological counseling available, which can be used by any doctoral researcher free of charge and within their working time.

If you need help, contact the applicable service from your center:

Email of psychological services: birte.walther@desy.de, 4435

More information for immediate help can be found on your center's webpage.

Only answer this question if the following conditions are met:

Answer was 'Deutsches Elektronen-Synchrotron (DESY)' at question ' [A2]' (Which institute/center are you associated with? In the comment section, please specify in which city your institute/center is located.)

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If you need help, contact the applicable service from your center:

Hotline service: 0800 724 055 6

More information for immediate help can be found on your center's webpage.

Only answer this question if the following conditions are met:

Answer was 'Deutsches Zentrum für Luft- und Raumfahrt (DLR)' at question ' [A2]' (Which institute/center are you associated with? In the comment section, please specify in which city your institute/center is located.)

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If you need help, contact the applicable service from your center:

<https://intranet.dkfz.de/en/mein-arbeitsplatz/gesundheit/translate-to-english-betriebliches-gesundheitsmanagement-to-english-angebote-von-a-z/translate-to-english-psychische-gesundheit>

More information for immediate help can be found on your center's webpage.

Only answer this question if the following conditions are met:

Answer was 'Deutsches Krebsforschungszentrum (DKFZ)' at question ' [A2]' (Which institute/center are you associated with? In the comment section, please specify in which city your institute/center is located.)

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If you need help, contact the applicable service from your center:

phone: 0800 801007000, website: <https://mein.familienservice.de/?r=l7dw7cDnZI>

More information for immediate help can be found on your center's webpage.

Only answer this question if the following conditions are met:

Answer was 'Deutsches Zentrum für Neurodegenerative Erkrankung (DZNE)' at question ' [A2]' (Which institute/center are you associated with? In the comment section, please specify in which city your institute/center is located.)

Your mental health is utmost important for the success of your doctoral research project, but also for a happy and fulfilled private life. This survey aims to raise awareness amongst you, your colleagues and the scientific community.

Please do not hesitate to turn to one of the included help lines, friends or your doctoral representatives, if especially emotionally touched by these questions.

Most Helmholtz centers have psychological counseling available, which can be used by any doctoral researcher free of charge and within their working time.

If you need help, contact the applicable service from your center:

p.mertens@fz-juelich.de

a.k.paulus@fz-juelich.de

<https://intranet.fz-juelich.de/en/organization/gp/expertise/p-m/social-counselling>

More information for immediate help can be found on your center's webpage.

Only answer this question if the following conditions are met:

Answer was 'Forschungszentrum Jülich' at question ' [A2]' (Which institute/center are you associated with? In the comment section, please specify in which city your institute/center is located.)

Your mental health is utmost important for the success of your doctoral research project, but also for a happy and fulfilled private life. This survey aims to raise awareness amongst you, your colleagues and the scientific community.

Please do not hesitate to turn to one of the included help lines, friends or your doctoral representatives, if especially emotionally touched by these questions.

Most Helmholtz centers have psychological counseling available, which can be used by any doctoral researcher free of charge and within their working time.

If you need help, contact the applicable service from your center:

<https://intranet.geomar.de/leitungsgremien/hse/mental-healthunterstuetzungsprogramm fuerbeschaeftigte-und-fuehrungskraefte/>

More information for immediate help can be found on your center's webpage.

Only answer this question if the following conditions are met:

Answer was 'GEOMAR Helmholtz-Zentrum für Ozeanforschung Kiel' at question ' [A2]' (Which institute/center are you associated with? In the comment section, please specify in which city your institute/center is located.)

Your mental health is utmost important for the success of your doctoral research project, but also for a happy and fulfilled private life. This survey aims to raise awareness amongst you, your colleagues and the scientific community.

Please do not hesitate to turn to one of the included help lines, friends or your doctoral representatives, if especially emotionally touched by these questions.

Most Helmholtz centers have psychological counseling available, which can be used by any doctoral researcher free of charge and within their working time.

If you need help, contact the applicable service from your center:

info@benefit-at-work.de;

0331-231 879 40

More information for immediate help can be found on your center's webpage.

Only answer this question if the following conditions are met:

Answer was 'Helmholtz-Zentrum Potsdam, Deutsches GeoForschungsZentrum (GFZ)' at question ' [A2]' (Which institute/center are you associated with? In the comment section, please specify in which city your institute/center is located.)

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If you need help, contact the applicable service from your center:

https://www.gsi.de/jobskarriere/arbeiten_bei_fair_und_gsi/sozialberatung

https://www.gsi.de/work/forschung/ethics_rules/ombudsperson

More information for immediate help can be found on your center's webpage.

Only answer this question if the following conditions are met:

Answer was 'GSI Helmholtz-Zentrum für Schwerionenforschung' at question ' [A2]' (Which institute/center are you associated with? In the comment section, please specify in which city your institute/center is located.)

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Most Helmholtz centers have psychological counseling available, which can be used by any doctoral researcher free of charge and within their working time.

If you need help, contact the applicable service from your center:

0 800 976 976 0;
peter.rappert@helmholtz-berlin.de

More information for immediate help can be found on your center's webpage.

Only answer this question if the following conditions are met:

Answer was 'Helmholtz-Zentrum Berlin für Materialien und Energie' at question ' [A2]' (Which institute/center are you associated with? In the comment section, please specify in which city your institute/center is located.)

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Most Helmholtz centers have psychological counseling available, which can be used by any doctoral researcher free of charge and within their working time.

If you need help, contact the applicable service from your center:

Katrin Mähler BAD Gesundheitsvorsorge und Sicherheitstechnik GmbH
katrin.maehler@bad-gmbh.de

More information for immediate help can be found on your center's webpage.

Only answer this question if the following conditions are met:

Answer was 'Helmholtz-Zentrum Dresden-Rossendorf (HZDR)' at question ' [A2]' (Which institute/center are you associated with? In the comment section, please specify in which city your institute/center is located.)

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Most Helmholtz centers have psychological counseling available, which can be used by any doctoral researcher free of charge and within their working time.

If you need help, contact the applicable service from your center:

meinEAP

0800 - 280 280 5

More information for immediate help can be found on your center's webpage.

Only answer this question if the following conditions are met:

Answer was 'Helmholtz-Zentrum Hereon' at question ' [A2]' (Which institute/center are you associated with? In the comment section, please specify in which city your institute/center is located.)

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Most Helmholtz centers have psychological counseling available, which can be used by any doctoral researcher free of charge and within their working time.

If you need help, contact the applicable service from your center:

Mental Health First Aid: mhfa@helmholtz-hzi.de

Tel: 0531 6181 2159 or 2154

More information for immediate help can be found on your center's webpage.

Only answer this question if the following conditions are met:

Answer was 'Helmholtz Zentrum für Infektionsforschung (HZI)' at question ' [A2]' (Which institute/center are you associated with? In the comment section, please specify in which city your institute/center is located.)

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Most Helmholtz centers have psychological counseling available, which can be used by any doctoral researcher free of charge and within their working time.

If you need help, contact the applicable service from your center:

info@pritter.de, info@verhaltenstherapie-witt.de

More information for immediate help can be found on your center's webpage.

Only answer this question if the following conditions are met:

Answer was 'Helmholtz Zentrum München Deutsches Forschungszentrum für Gesundheit und Umwelt' at question ' [A2]' (Which institute/center are you associated with? In the comment section, please specify in which city your institute/center is located.)

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Most Helmholtz centers have psychological counseling available, which can be used by any doctoral researcher free of charge and within their working time.

If you need help, contact the applicable service from your center:

Uta Marx (ASU)
uta.marx@ufz.de

More information for immediate help can be found on your center's webpage.

Only answer this question if the following conditions are met:

Answer was 'Helmholtz-Zentrum für Umweltforschung (UFZ)' at question ' [A2]' (Which institute/center are you associated with? In the comment section, please specify in which city your institute/center is located.)

Your mental health is utmost important for the success of your doctoral research project, but also for a happy and fulfilled private life. This survey aims to raise awareness amongst you, your colleagues and the scientific community.

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Most Helmholtz centers have psychological counseling available, which can be used by any doctoral researcher free of charge and within their working time.

If you need help, contact the applicable service from your center:

030/ 28 37 25 71
sylvie.tappert@therako.de

More information for immediate help can be found on your center's webpage.

Only answer this question if the following conditions are met:

Answer was 'Max-Delbrück-Centrum für Molekulare Medizin (MDC)' at question ' [A2]' (Which institute/center are you associated with? In the comment section, please specify in which city your institute/center is located.)

Your mental health is utmost important for the success of your doctoral research project, but also for a happy and fulfilled private life. This survey aims to raise awareness amongst you, your colleagues and the scientific community.

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Most Helmholtz centers have psychological counseling available, which can be used by any doctoral researcher free of charge and within their working time.

If you need help, contact the applicable service from your center:

<https://www.stw-saarland.de/beratung>

ppb@stw-saarland.de

(0681) 302-2515

More information for immediate help can be found on your center's webpage.

Only answer this question if the following conditions are met:

Answer was 'CISPA Helmholtz-Zentrum für Informationssicherheit' at question ' [A2]' (Which institute/center are you associated with? In the comment section, please specify in which city your institute/center is located.)

A.12 The end

Section 10/10

Would you recommend doing a doctoral research project at your center/institute to a friend?

*

Please choose **only one** of the following:

- Yes
- No
- I don't know
- I don't want to answer this question

Anything regarding the questionnaire of this survey you would like to tell us?

Please write your answer here:

The data of this survey is invaluable for the realistic assessment of the situation of doctoral researchers in the Helmholtz Association and the basis for future improvement for our situation. We will carefully analyse the results after the survey closes and will publish the aggregated survey results in the form of a report as soon as we can.

This questionnaire has been developed in the framework of N² the 'Network of Networks'. It represents more than 18.000 doctoral researchers of the Helmholtz Association, the IPP community Mainz, the Leibniz Association, and the Max Planck Society. It aims to promote doctoral researchers, focusing on working conditions, career development, supervision, and equal opportunities.

For any questions, comments and concerns, you are welcome to contact us via email (heju-survey@listserv.dfn.de) or to get in touch with us directly.

21.05.2024 – 06:15

Submit your survey.

Thank you for completing this survey.