

Executive Summary of the Max Planck PhDnet Survey Report 2021

The Max Planck PhDnet represents around 5000 doctoral researchers (DRs) working in Max Planck Society (MPS). This year's survey report focuses on working conditions, especially reflecting the impact of the raise in salary level in the doctoral support contract (Doktorandenfördervertrag) since the beginning of 2021. Moreover, this survey was conducted in harmony with the Helmholtz Juniors and the Leibniz PhD Network. A detailed comparison of the similarities and differences will be featured in separate reports, in the name of N² (The Network of Doctoral Researcher Networks).

Relevance of the current survey

For the current Max Planck PhDnet survey, we contacted 5145 DRs, out of which 2555 (or 49.7%) participated. Of the total respondents, 44% identified themselves as women and 53% as men, and 1% of participants identified themselves as gender diverse. Across the sections of the MPS, 38% of all responses came from the Biology and Medicine (BM) section, 46% from the Chemistry, Physics and Technology (CPT) Section, and 15% from the Human Science (HS) section. These numbers are in accordance with the general distribution of DRs across sections in the MPS. 42% of respondents hold German citizenship, while 19% hold citizenship from other EU-countries and 37% from outside the EU. Of all respondents, a total of 63.6% identified as of European descent, followed by 8.9% East and Southwest Asian, 5.6% Latino/Hispanic, 6.3% South Asian, 3.1% Middle Eastern. Together, this provides invaluable data to gain statistically relevant and representative insights. In the following paragraphs, we present an overview of the key findings of the survey which we consider the most compelling, relevant, and trend-setting for future points of action regarding the work of the PhDnet and the support of DRs by the MPS.

Working conditions

Working conditions have always been one of the key components of our surveys in order to reflect on the status quo of doctoral researchers and trace how the change of policy has been executed at local institutes. The vast majority of doctoral researchers in the MPS do receive contracts: 88% in the BM section, 91% in the CPT section, and 82% in the HS section respectively. This is thanks to the effort of ending stipends in the general administration. However, it concerns us that more than 10% of DRs in the fields of humanities, law and economics, and social and behavioral sciences are paid with stipends instead of employment contracts. Additionally, DRs in the fields of humanities as well as mathematics have the highest rates of doing a PhD without being paid at all - 8% and 10% respectively. That leads to our suspicion that most stipend holders and unpaid DRs in the MPS originate from certain institutes in those fields.

At the same time, we observed that contracts are preferentially handed to men. At the same time more ethnic minorities and citizens from countries outside European Union hold stipends, which could be due to how many of them are granted stipends for the research stay in Germany by an institution in their home country. However, one must be

aware that these DRs face less financial stability, no social security, a precarious immigration status, and in general less income. Noticeably, only around 2% doctoral researchers are currently unpaid, and the majority of them have already worked on their PhD for more than 3 years. Only 23% of doctoral researchers answered that being unpaid is their own choice; the majority of them have been unpaid for over 3 months, and only 38% of those who are unpaid are collecting unemployment benefits. That raises our concern about contract extensions and whether the current contract duration and extension regulations effectively cover all doctoral researchers.

Since January 2021, the minimum payment of doctoral support contract has been raised from an amount equal to 50% of TVöD (Collective Wage Agreement for the Civil Service) E13 to 65%. We confirmed this by seeing the median net income has increased to 1901-2000 euros a month. As a result, the gender pay gap is no longer observed this year. However, in the HS section, there is a relatively high variability of the payment, possibly caused by more stipend holders.

Most DRs are not able to complete their thesis in three years, even though this is the standard length of the doctoral support contract. Only 20% of survey participants expect that they will submit their thesis by the end of the third year, and only 50% expect to submit by the end of their fourth year. In total, over 40% of DRs have received at least one extension. This illustrates again the point that three-year contracts are not sufficient for covering the majority of DRs' stay in the MPS. When asked about the possibility of extensions, a large proportion of participants are not aware if there will be an extension option. In the HS section there are notably fewer extension possibilities, which can be explained again by a larger amount of DRs not being paid by standard contract, which leaves them less financial security.

In general, a large proportion of DRs work much longer than their contracts require, especially in BM section: the majority reported working 46-65 hours per week. Alarming, only 12% of DRs reported using most of their holidays, meanwhile around 41% of participants took less than 15 days off in the last year. Only 53% of DRs feel free to take their holidays, and among those who don't, the high workload is the greatest reason to not take holidays.

Career Development & Integration

Similar to last year's result, around 60% of DRs would like to work in academia after their PhD. Interesting work, skill development, diversity of work, and self-fulfillment are the most attractive aspects of the academic research career, whereas availability of permanent positions, applying for funding, and compatibility of career path with having a family (including having children and career path of partner) are most unattractive aspects. While around 75% of participants feel well prepared for jobs inside science/academia, only around 33% feel well prepared for jobs outside science/academia.

The Max Planck Society remains an international workplace, with around 58% DRs coming from countries outside Germany, which creates a great challenge for supporting integration. 90% of DRs reported that their institute offers German language classes. However, 51% reported that not all of the important information at work (such as group information, administrative information, and their contract/stipend) is provided in the language they understand. As the bureaucratic process can be difficult to handle when settling in a new country, more than 90% of international DRs reported that they would have needed more support with registering at the local residence office, visa matters, and dealing with the immigration office. Strikingly, around 97% of international DRs would have needed more support on the translation of working contracts and relevant documents.

Supervision

A successful doctorate relies not only on the capacities of the DRs but also on the quality of supervision and support received. In general, around 60% of DRs have a thesis advisory committee or supervision agreement with their formal supervisor. Other support documents such as written project outline, PhD guidelines, and written training plan are less prevalent. Approximately half of the DRs have two separate supervisors: direct supervisor and formal supervisor. Overall, the supervisors are good at treating DRs politely and professionally, adhering to good scientific practices, and encouraging DRs to work independently. However, there is still room for improvement in having clear and strict requirements for the work, having good leadership skills, and supporting DRs' professional development. Around 60% of DRs have encountered problems regarding supervision, the majority of whom are DRs in their third year or beyond. Similarly to last year's result, 47% DRs would like to meet with their formal supervisor more frequently, and 24% wish to meet more often with their direct supervisors. Those who meet more often with their direct supervisors show higher satisfaction. When it comes to new hiring at the institute, only 8% DRs are involved and have an active say.

General Satisfaction

There is high satisfaction on the laboratory equipment, vacation days, and office equipment among DRs in the MPS. On the other hand, they would most like for career development, salary and benefits, and psychological support to be improved. While 39% DRs have never thought of quitting their PhD, 12% often thought of quitting. The most frequent reasons for thinking of quitting are that DRs do not feel qualified enough, they find career prospective unattractive, and having poor academic results. As of 2019, MPS offers all employees the Employee and Manager Assistance Program (EMAP). However, 66% of DRs haven't heard of it. Among those who have used it, 50% had satisfying to very satisfying experiences, and 26% had dissatisfying experiences.

Conclusion

We celebrate the change of doctoral support contract from 50% TVöD level to 65%. Besides more income for DRs to cover their living expenses, such change also improved the equality among DRs in MPS. As monitored from our survey, it eliminates the pay gap between genders and sections. This survey also reflects the improvement over the years, such as wide coverage of German language classes and high

satisfaction on the holidays. Nevertheless, we would like to highlight that the 3-year contract is not efficient to cover doctoral researchers' stay, and extension rules seem unclear. In some fields/institutes, there is excessive usage of both internal and external stipends and a high percentage of unpaid DRs, even though we know that the stipend holders face more financial and social instability than contract holders.

Support structures such TACs and supervision agreements are not implemented everywhere. Correspondingly, DRs find the clear and strict requirements for doctoral work, and good leadership skills are most lacking from their supervisors. We hope that the propagation of well-implemented TACs and supervision agreements can improve this situation in the future.

Lastly, many DRs would like psychological support to be improved, yet the majority of them are not aware of EMAP. We would like to emphasize the importance of the onboarding project which can provide good guidance about mental health support to DRs upon their arrival.

Sincerely yours,

Hang Liu

On behalf of the PhDnet Steering Group

Adriana Vucetic

On behalf of the PhDnet Survey Group