



Situation of doctoral candidates 2021 at Humboldt-Universität zu Berlin

1 Introduction and Background

This report is the result of an online survey amongst doctoral candidates in Berlin between Nov 13th, 2021 and Jan 10th, 2022. The invitation link was circulated in various email newsletters as well as on social media, targeting doctoral candidates at all Berlin universities. Participation was possible for anyone receiving the link, the language of the survey was English.

A similar survey had been conducted in 2020 with the aim to quantify influences of the Covid pandemic on the financial situation of doctoral candidates. Results are available from the downloads section of our website docs.hu-berlin.de. Last year's outcomes hinted at deeper and structural problems, beyond the mere Covid restrictions. This prompted us to conduct this year's follow-up survey. A related survey that focused on mental health of doctoral candidates was done by the initiative Scholar Minds www.scholar-minds.net/survey/.

As of today, the pandemic still heavily influences academic and general life for doctoral candidates. Also various mitigation- and coping mechanisms have been established. Most of the answers of the present survey were collected in December 2021, during a phase of high incidence of the "delta" Covid variant in Germany, which resulted in a heavy reduction of academic in-person meetings and -teaching.

In chapter 2, we list the raw answers to the questions. In chapter 3, we compute various correlations with the goal to identify circumstances which are likely to be associated with a problematic situation in the doctorate. Both chapters are purely empirical and descriptive, we make no attempt to interpret these findings in the context of sociological, political or economic theories. Chapter 4 is a short conclusion.

2 Raw results

The survey was answered 230 times. 207 data sets were sufficiently complete to evaluate at least part of the answers, and will be analyzed in the following. Of them, 190 participants answered all questions. These numbers are similar to the 2020 survey.

In the following, percentages will refer to the total number of answers for that very question, not necessarily to the 207 usable data sets. All percentages are rounded to full integers.

Where did you grow up?

In or close to Berlin (including Potsdam).	33 (16%)
In Germany, but not Berlin.	74 (36%)
In a country which today is member of the European Union, or Iceland, Norway, Finland, Switzerland, UK, but not Germany	37 (18%)
In none of the above.	61 (30%)

Table 3: Question 1.1.

Where did you obtain your Master's degree or the degree which allows you to start a doctorate?

In or close to Berlin (including Potsdam).	85 (42%)
In Germany, but not Berlin.	41 (20%)
In a country which today is member of the European Union, ... , but not Germany.	35 (17%)
In none of the above.	42 (21%)

Table 4: Question 1.2.

How old are you?

Up to 26 years old.	25 (12%)
Between 27 and 34 years.	151 (74%)
35 years and older.	28 (14%)

Table 5: Question 1.3.

How well do you speak German?

Not at all.	12 (6%)
A1 or A2 (started learning)	17 (8%)
B1 or B2 (simple conversations and everyday texts)	29 (14%)
C1 or C2 (fluently)	33 (16%)
D (native speaker)	113 (55%)

Table 1: Question 1.4.

What gender do you identify with?

Female.	130 (63%)
Male	72 (35%)
Other / none / prefer not to say.	4 (2%)

Table 2: Question 1.5.

2.1 Personal background information

At which faculty are you enrolled as a doctoral candidate?

I am doctoral candidate at Freie Universität Berlin (FU)	0
I am doctoral candidate at Technische Universität Berlin (TU)	3 (1%)
Charité – Universitätsmedizin Berlin	2 (1%)
HU Faculty of Economics and Business Administration (Wirtschaftswissenschaftliche Fakultät)	15 (7%)
Faculty of Life Sciences (Lebenswissenschaftliche Fakultät)	113 (55%)
Faculty of Mathematics and Natural Sciences (Mathematisch-Naturwissenschaftliche Fakultät)	12 (6%)
Faculty of Humanities and Social Sciences (Kultur-, Sozial- und Bildungswissenschaftliche Fakultät)	7 (3%)
Faculty of Language, Literature and Humanities (Sprach- und literaturwissenschaftliche Fakultät)	6 (3%)
Faculty of Arts and Humanities (Philosophische Fakultät)	45 (22%)
Faculty of Theology (Theologische Fakultät)	2 (1%)
Faculty of Law (Juristische Fakultät)	1 (0%)
I am doctoral candidate at any other university, neither HU nor FU nor TU	0

Table 6: Question 2.1.

Does your doctorate include teaching?

No, teaching is not part of my doctorate.	118 (59%)
I am allowed to teach voluntarily.	34 (17%)
I have to teach	49 (24%)

Table 7: Question 2.2.

When did you start your doctorate? (Please indicate the first semester you were enrolled as a doctoral candidate.)

Winter semester 21/22 (this semester)	21 (10%)
Summer semester 2021	15 (7%)
Winter semester 20/21	25 (12%)
Summer semester 2020	15 (7%)
Winter semester 19/20	28 (14%)
Summer semester 2019	10 (5%)
Winter semester 18/19	21 (10%)
Summer semester 2018	12 (6%)
Winter semester 17/18	15 (7%)
Summer semester 2017	8 (4%)
Winter semester 16/17	13 (6%)
Earlier	21 (10%)

Table 8: Question 2.3.

2.2 Details of your doctorate

According to your original plan (at the time you started your doctorate), when did you want to finish your doctorate? (Please indicate the last semester you planned to be enrolled.)

I wanted to be finished before summer 2020	22 (10%)
Summer semester 2020 (1 year ago)	14 (7%)
Winter semester 20/21 (½ year ago)	11 (5%)
Summer semester 2021 (being finished now)	13 (6%)
Winter semester 21/22	16 (8%)
Summer semester 2022	19 (9%)
Winter semester 22/23	20 (10%)
Summer semester 2023	32 (16%)
Winter semester 23/24	13 (6%)
Summer semester 2024	24 (12%)
Winter semester 24/25 or later	19 (9%)

Table 9: Question 2.4.

As of today, when do you expect to finish your doctorate?

Summer semester 2021 (I am finished now)	6 (3%)
Winter semester 21/22	23 (11%)
Summer semester 2022	29 (14%)
Winter semester 22/23	32 (16%)
Summer semester 2023	33 (16%)
Winter semester 23/24	18 (9%)
Summer semester 2024	28 (14%)
Winter semester 24/25	21 (10%)
Later	14 (7%)

Table 10: Question 2.5.

2.3 Financing

Which sources of financing is your doctorate based on? (Please check all that apply or will apply or have applied during your doctoral studies, even if some only apply for parts of the time.)

Employment at Humboldt-Universität, Haushaltsmittel (funded from regular budget)	25 (12%)
Employment at Humboldt-Universität, funded from Projektmittel, industry partnership, research institute or other external sources	75 (37%)
Employment at Humboldt-Universität, scholarship	9 (4%)
Direct employment at a research institute or other doctorate-related third party	38 (19%)
Scholarship(s) especially meant to finance doctoral students, without employment at HU or third party	66 (33%)
Scholarship(s) which are not primarily aimed at doctoral students, without employment at HU or third party	1 (0%)
Paid jobs which are unrelated to the doctorate	42 (21%)
Support from family/partner/friends...	26 (13%)
Personal savings, inheritance, investment income etc.	26 (13%)
Loans	5 (2%)
Unemployment benefits	12 (6%)
Other	8 (4%)

Table 11: Question 3.1.

For how long is your funding secured? (Please indicate the last semester in which you will certainly receive money. If your contract or scholarship can potentially be extended but this extension is not certain, do not use the extended date.)

My funding is not certain for the current semester	30 (15%)
Winter semester 21/22	30 (15%)
Summer semester 2022	35 (18%)
Winter semester 22/23	19 (10%)
Summer semester 2023	32 (16%)
Winter semester 23/24	15 (8%)
Summer semester 2024	11 (6%)
Winter semester 24/25	12 (6%)
Later	13 (7%)

Table 12: Question 3.2.

How much money do you typically earn per month? (We ask for your income "Nettolohn", where fees for health insurance have already been deducted.)

192 answers, average 1740€, standard deviation 540€.

Quartile boundaries (500€, 1400€, 1795€, 2000€, 5030€).

Table 13: Question 3.3.

Do you personally feel that financing your doctorate is a significant problem?

Yes	91 (44%)
No	94 (45%)
No answer	22 (11%)

Table 14: Question 3.4.

2.4 Office and home office

Are you provided with a workplace or a computer for your dissertation?

I have my own permanent desk in an office of my institution.	123 (64%)
I have access to a desk, but it is shared with someone else or not always the same one.	30 (16%)
I only get a desk temporarily upon request, e.g. in a library.	24 (12%)
I have access to (at least one) desktop computer to write my dissertation.	34 (18%)
I have or can get a laptop from my institution.	49 (25%)
I can get money to buy equipment for my home office.	18 (9%)

Table 15: Question 4.1.

Do you currently (end of 2021) work in home office?

I work (almost) completely in home office.	55 (30%)
I work mostly (e.g. 4/5 days) in home office.	28 (15%)
I work both from home and in presence.	45 (24%)
I work mostly (e.g. 4/5 days) in presence.	20 (11%)
I work (almost) completely in presence.	38 (20%)

Table 16: Question 4.2.

Do you agree with any of the following statements regarding Corona and home office? (Please select all that apply. "In presence" means "in the office your institution provides". For this question, please assume that your institution provides you with an office, even if in reality they do not.)

I would like to work in home office more often because of the risks due to Corona.	59 (31%)
I would like to work in home office more often because it is more efficient or convenient (e.g. saves travel time).	70 (36%)
I feel that there is a subliminal pressure to come and work in presence, even if I would legally be allowed to work in home office.	35 (18%)
I would like to work in presence more often because there I have access to relevant equipment (e.g. labs, books, special computers).	48 (25%)
I would like to work in presence more often because communication with other people is easier there.	79 (41%)
I would like to work in presence more often because the situation in my home office is difficult (e.g. noisy, no internet etc.).	38 (20%)
I feel that expectations are contradictory or not quite clear and I would like to have a more explicit policy of my institution regarding Corona and home office.	25 (13%)
In my opinion, the rules of my institution regarding Corona and home office are too explicit and more freedom should be given to e.g. group leaders.	14 (7%)

Table 17: Question 4.3.

2.5 Supervisor

Did you switch to a different supervisor during your doctorate?

No, I stayed with the same supervisor(s) I started the doctorate with, and I never wanted to switch.	147 (79%)
No, I did not switch, but I want(ed) to.	22 (12%)
Yes, I switched because of a conflict with my supervisor.	6 (3%)
Yes, I switched for organizational reasons (e.g. one of us went to a different university).	8 (4%)
Yes, I switched because I changed the topic of my doctorate.	0
Yes, I switched for other reasons:	2 (1%)

Table 18: Question 5.1.

Do you have a second, parallel supervisor for your doctorate? (This means a second fully official supervisor, who technically could finish the doctorate without the first one.)

Yes	93 (45%)
No	87 (42%)
No answer	27 (13%)

Table 19: Question 5.2.

How many doctoral candidates does your supervisor have at the moment, including yourself?

(In case you switched, this refers to your current supervisor. If you have two supervisors, this refers to the "main" one, i.e. the one you interact with the most.)

160 answers, average 5.8, standard deviation 3.8, quartile boundaries (1, 3, 5, 7, 25)

Table 20: Question 5.3.

Did you experience any of the following situations during your doctorate?

My supervisor was unreachable or did not respond to inquiries for an unacceptably long time period.	41 (22%)
My supervisor refused to read or comment on my work, did not give feedback, or regularly came to our meetings unprepared and not interested in my work.	23 (12%)
My supervisor single-handedly changed our earlier agreement, invalidating my work or causing unnecessary extra effort for me.	17 (9%)
My supervisor or a group member sexually harassed me.	0
My supervisor or a group member made unprofessional comments about my looks, behaviour, religion or other personal attributes.	20 (11%)
My supervisor or a group member used or published my original work without giving me credit.	4 (2%)
My supervisor demands me to do work for them which is unrelated to my doctorate and not covered by an employment contract.	16 (8%)
My supervisor spent money, which originally belonged to me, for other purposes, or made false promises about funding possibilities.	8 (4%)
My supervisor forbid me to cite certain articles / to attend certain conferences / to contact certain scholars without giving me a scientific reason for this.	7 (4%)
I told my supervisor about a problem within our group but my supervisor ignored the complaint.	18 (9%)

The percentages refer to the total number of 190 people answering this question, not only to the people who experienced at least one of the problems.

Table 21: Question 5.4.

2.6 Career preparation

Which of the following career paths would you like to pursue upon completion of your doctorate? (can select multiple)

Research in academia	112 (59%)
Non-research in academia	36 (19%)
Research in industry	81 (43%)
Non-research in industry	50 (26%)
Research within government or non-profit	87 (46%)
Non-research within government or non-profit	48 (25%)
Medical research	13 (7%)
I don't know	22 (12%)
Other	16 (8%)

“Other” include journalism, self-employment and more.

Table 22: Question 6.1.

Which of the following resources do you think PhD students need the most in order to establish a satisfying career? (Please select a maximum of 3 answers.)

Lower competition for grants	45 (24%)
Mentorship with individuals in my field/department/institution	84 (44%)
Gender-specific mentorship with individuals in my field/department/institution	19 (10%)
Better data/information about available career opportunities	80 (42%)
A record of or data on career paths of previous graduates from my programme	31 (16%)
More jobs in academia	112 (59%)
Grants to help PhD holders transition to permanent positions	103 (54%)
Other	14 (7%)

“Other” include “longer contracts”, “Career coaching”, “Be more open-minded to other jobs; be more realistic about academia” “Support to organize and pay for child care at conferences, summer schools, information on how to combine family and PhD and contact to other PhD parents (esp. mothers)”, “Training in all areas of life, money, management, leadership, human resources, planning, strategy, consulting, image and branding basically everything what academia is not meant to be about.” “Strategic guidance (networking, publishing strategies, ...) from their supervisor” “More funding that is not tied to political institutions” “More competition to learn to become better” “more financial opportunities” “more scholarships” “Possibilities for professors to really help PhDs towards the early Post Doc phase. I mean financially” “more opportunities to teach”.

Table 23: Question 6.2.

2.7 Accommodation

Where do you live? (This means your actual physical home, not where you might be registered.)

BVG zone A (inside the S-Bahn ring)	99 (52%)
BVG zone B	60 (32%)
BVG zone C	11 (6%)
Other / Not in Berlin	19 (10%)

Table 24: Question 7.1.

What describes best your housing situation?

I live in a student dormitory.	7 (4%)
I live in a shared apartment (WG).	38 (20%)
I live in an apartment on my own.	53 (28%)
I live together with my partner, without children.	64 (34%)
I live together with my child(ren) or with other people for whom I am responsible.	24 (13%)
I live with my parent(s) and they are not in need of care.	1 (1%)
I live in a hotel/hostel.	1 (1%)
Other	1 (1%)

Table 25: Question 7.2.

What is the legal status of your accommodation?

I have an unlimited rental agreement.	144 (77%)
I have a limited contract that lasts six or more months from now.	7 (4%)
My contract lasts less than six months from now.	25 (13%)
My accommodation is temporary or legally insecure.	10 (5%)

Table 26: Question 7.3.

How much do you pay per month for your accommodation? (This includes all incidental costs such as fees for heating, water, internet, stationary telephone, electricity etc. If you share the total cost with somebody else, please enter only your contribution, not the total amount.)

187 answers, average 630€, standard deviation 260€.

Quartile boundaries (50€, 485€, 600€, 700€, 2500€).

Table 27: Question 7.4.

2.8 Miscellaneous

Assume you want to participate in a workshop which is relevant for your doctorate (e.g. on presentation techniques, time management, soft skills etc). This workshop takes place via video conference. What time(s) do you prefer such workshops to take place?

On a single weekday, from morning to evening.	98 (52%)
On a single day, at a weekend.	36 (19%)
On multiple evenings during one week.	39 (21%)
On evenings of the same day of the week, over multiple weeks.	41 (22%)
On multiple mornings (e.g. 9:00 to 13:00).	80 (43%)
On multiple afternoons (e.g. 13:00 to 17:00).	69 (37%)
Other	6 (3%)

“Other” include “Mornings because of child care” “On one single afternoon. In my experience, many workshops take too much time compared to the contents they teach. Multiple-day workshops tend to suffer from this the most in my opinion.” “two/three days in a row”.

Table 28: Question 8.1.

Now (in autumn/winter 2021, assuming that the Mensa is open), where do you typically eat lunch?

I eat at the Mensa (Cafeteria of Studierendenwerk)	69 (37%)
I prepare food myself, either for only that day or for several days	136 (72%)
I eat packaged preprocessed food (e.g. frozen pizza, packaged sandwich)	23 (12%)
A flatmate or family member cooks for us	20 (11%)
I eat at a restaurant	30 (16%)
I eat at a bistro / Döner / fast food etc.	42 (22%)
I order lunch from a restaurant	10 (5%)
I skip lunch	29 (15%)
Other	3 (2%)

Table 29: Question 8.2.

How or where do you want to be informed about topics regarding life as a doctoral candidate, such as workshops, social events, funding opportunities etc.? (Please select all platforms you ideally want to use, even if you do not know a suitable channel or site on them yet.)

Via an E-Mail newsletter	171 (91%)
In person, e.g. in a group meeting	35 (19%)
Via posters/flyers in my institution library or Mensa	27 (14%)
On a (static) website where such information is listed	78 (42%)
On Telegram	26 (14%)
On Twitter	25 (13%)
On Instagram	20 (11%)
On Facebook	15 (8%)
On Xing / LinkedIn / other career networks	11 (6%)
On Discord	4 (2%)
On Reddit	1 (1%)
On TikTok	1 (1%)
Other	5 (3%)

“Other” include WhatsApp, Signal and Threema.

Table 30: Question 8.3.

Although the invitation to the survey was published on various media, it likely reached the largest number of participants via email (at least, gauged by the number of subscribers on the individual media). Therefore, these outcomes might be slightly skewed in favour of persons who do read their email newsletters and correspondingly value them as an information source.

Do you have any concrete suggestion what the university (or its institutions) should change in order to improve the situation for doctoral candidates?

Table 31: Question 8.4.

The following list is slightly redacted for language, clarity and to protect personal information. Some participants wrote more than one point. Repetitive points by distinct participants are kept to illustrate proportion. Answers were ordered thematically a-posteriori.

A: Financing and Employment

1. Work Contracts for 40h/per week.
2. We need more doctoral positions funded by regular budget at the institutions.
3. To employ doctoral students instead of giving scholarships (no social security, taxes, health insurance)
4. There should be more scholarships that are not tied to political institutions. I personally know many PhD students who give their work a political spin to fit into the profile of one of those institution. I find this highly dangerous for academia and our political climate.
5. Assure full length employment of all doctoral candidates. No temporary contracts for less than a year, so we can focus on the research without needing to always think about when/how the next paycheck will come. (In general no precarious employment: short contracts, unvoluntary parttime, expected unpaid overtime, expected work on weekends, etc)

6. Pay us for 100% of our work and not just for 2/3 of it
7. Offering Grants for buying educational material (books, electronic devices)
8. More transparent and centralised funding for doctoral students, and particularly funding sources for international students that do not require them to already be enrolled in order to apply.
9. more funding to those who really need it (e.g. those with children/ women/ last stage of PhD) - problem especially with funding from "Frauenförderung" which is not open as described (every 6 months)
10. More financial stability
11. If Germany wants to keep high-skilled people in research, they need to pay them more than what a hairdresser earns with 19. PhD students and postdocs are in their 30s and want to start a family instead of being 2 years in waiting line for a 9sqm room in a student dorm.
12. Increased/fair payments would reduce stress as a doctoral candidate and help reduce additional stress. This is especially true for positions in the same group that have different kinds of funding (e.g. 100% for people without a structured graduate program in comparison to 65% for people with a structured program).
13. Giving more credit for the situation of doctoral candidates in third-party funds which have no direct relation to the thesis. For example that it is allowed to mention this in the statement of reasons to prolong the period of time of PhD at the institute.
14. There is a need to compensate for unequal conditions of doctoral students, which mostly result from the employment situation (or the extent of teaching obligations, research outside of the doctorate, duration and extent of the position, financial support for stays abroad/travel and care obligations) through funding. It cannot be that the prerequisites for applying for future positions in science are so strongly based on unequal doctoral conditions (scholarship, budget or third-party funding position, etc.). Additionally, it is necessary to create basic transparency about promotion conditions (rights, duties, contact points for support such as mentoring or conflicts). Ideally, a binding information meeting should take place at the beginning or before the transition to a promotion, so that people have all the information they need to subsequently decide for themselves whether they want to and can work within this science system.
15. Give PhD-students longer (more realistic) contracts
16. Secure financing and adjust it to the true duration of a doctorate. I had financing for 3 years despite the average duration for doctorates in our group being 5 years.
17. Get more funding.
18. Ensure that work contracts last for the time which is typically (in average) needed in the specific subject for completing a PhD. Since PhD students are working mostly more than what is required for a 100% position, every work contract below 100% is exploiting.
19. Ensure funding for the whole period of the doctorate in order to be more independent of the PI.
20. Each PhD student must be supported with a research grant when he has funding for meeting his living expense but not to meet research costs. Which is the case with me.
21. As an employed doc-candidate, it would be very important to have specific amount of time dedicated for doc and for the work for the institute. My 66% job cannot be translated in: 66% of a 40 hours week is free for my PhD (since often, I work more). It is also not clear, whether within the 66% there should be time dedicated for "qualification". No one can tell me specific workloads in hours. No one counts hours anyway. It would be helpful to formalize this, so that I can stand in for my rights...
22. As a PhD WiMi in a household position (Haushaltsstelle), I would like to have less teaching workload as well as other permanent tasks (supervision of BA/MA theses, committee activities, etc.). At our institution, there are so few permanent PostDocs (1 person) that even PhDs (especially those on household positions) have to take on "permanent tasks" (Daueraufgaben) that distract them from their dissertation.
23. Allow more home office (also independent from the pandemic) for those who can work better from home. Provide longer work contracts (I am on my third contract in 3 years now). Reduce administrative hurdles ("Dienstreiseantrag", "Dienstreiseabrechnung", "Antrag auf mobiles Arbeiten", "Beschaffungsauftrag", "Arbeitszeitnachweis", ... uses up a lot of the working hours).
24. 100% for 100% of work
25. More positions
26. Better positions (payment, full positions, not limited)
27. Scholarships to finish your doctorate if you are not employed.
28. Let you record the time you actually worked to ensure insurance on the ways to and from work even if that is more than your contract covers.

B: Other points regarding the doctorate

1. It would have helped to get a laptop after mine broke. I understand that not everyone can have one but at least there should be some on offer for at least 6 months or so.
2. Office space; more opportunities for teaching (perhaps as tutors; would give doctoral students better chances of getting academic jobs after graduating)

3. There should be the possibility for teaching positions during the doctorate.
4. More office space for doctoral students, more secure jobs and job prospects for graduates. More opportunities for teaching.
5. Making teaching a part of a PhD at the faculty for that's one of the only ways to gain teaching experience for docs.
6. Lower teaching obligations
7. It should be mandatory (not only recommended) when starting a doctorate to have a written contract with two (!) supervisors which includes roughly the topic and time scales and also a detailed description of how this doctorate will be funded.
8. Give them official information (instead of merely grapevine info) on things like requirements, defense committees, publishing requirements etc
9. Doctoral candidates must be their own status group at the university, no longer "represented" or rather not-represented by the Studierendenparlament. The latter has a tendency to assume anti-teacher positions which put more workload and responsibilities on the people who teach (often doctoral candidates). Often, the "studentische Selbstverwaltung" not only does not care about doctoral candidates, but directly works against their interests.
10. Better support for (single) parents, more flexibility regarding child care schedules (e.g. no workshops, mandatory meetings etc. after 4pm), extra financial support for parents (babysitters etc.).
11. Need more notice when having to take on a bachelors student, it can't be done on a few days notice
12. The least discard of the assumption of homogeneity (e.g. German and non German students) in learning, adapting to new interactions, and applying official rules. The social/legal/organizational context is not the same everywhere. I can testify to that by having studied in 3 different universities in the world before coming to Germany.
13. Personally, I feel we could spend less time on meetings and seminars, and in contrast spend more of our time doing actual research. However, many people seem to enjoy seminars and such, so I feel it may be a good idea to make participation in more of them voluntary. This primarily applies to graduate schools, though, so this is probably not something the university can easily change. Except for this admittedly rather minor point, everything else is alright.
14. Stop requiring exact times of presence to be reported

C: Supervisor and Faculty

1. There should be an upper body evaluating if supervisors are fulfilling their supervision responsibility.
2. Having some sort of feedback/quality control on the mentorship or guidance provided by the supervisor and imposing sanctions (for example limiting the amount of students they can take in) of those who neglect their students or have a history of students taking way too much time graduating.
3. Address the power imbalance between students and faculty. The faculty needs to be held accountable. The work environment is toxic. The faculty needs more oversight.
4. The supervisors need to spend more time mentoring their students and working on their projects. If they are not able to properly supervise all students, they should simply take fewer students. They should also make an effort to secure you extension funding if you need it; it is inappropriate to suggest that PhD students borrow money from friends or family to finish a doctorate.
5. The dependence of PhD candidates from their supervisor should be limited by different programme rules.
6. Provide trainings in group management and communication for group leaders.
7. Have (mandatory) multiple supervisors for every PhD students
8. More strict selection of doctoral candidates, then offer an office space to each of them within the corresponding group.
9. Change the professor/chair system to an institute system, where researches (in general) are not necessarily attached to a single professor and therefore strengthen the "Mittelbau". Also making (PhD) students less dependent on the whims of a single professor (especially with dual dependencies with PhD supervisor and employer at the same time).
10. Less dependence from supervisors
11. Getting rid of feudal structures
12. More interaction between student and supervisor
13. The students need to know first where they can go to discuss change. And who is the right addressee for the concrete issue? Who can actually help to change or improve things? An organisation chart showing the hierarchies, people, and roles would be great as a starting point.
14. less administrative burden for supervisors, financing lab managers to create better infrastructures for research,
15. Make doctoral candidates less dependent on the supervisor (I was lucky, but not everyone is)

D: University administration, accessibility, languages

1. Another phenomenon in the university communication is leaving out the English version! This makes the text inaccessible, or the cost of reading it higher to many individuals in the PhD community. Maybe someone should explain this to the administration.
2. The process of applying student ID card should be easy.
3. Improve the English translation of the webpage.
4. Some webpage like the faculty of life science only has a German version. And for the homepage of HU, the information of the German version (more often updated) is different from the English version (less updated)
5. One-year German language courses for doctoral candidates who do not speak German yet.
6. The HR relevant processes should not be carried out exclusively by one person for one of the university's institutes. As this person never responds! I personally encountered so frequent unresponsiveness in this regard. My emails have been completely ignored by the HR responsible person. And the person deliberately refuses to respond by email and prefer to send response by mail (to the post of the institute) even without sending a short notification by email, especially that we are in homeoffice and it is known that no one keeps checking their office to see if a post has arrived!
7. I believe that the administrative process is very complicated and still many sections on the website are only in German. It makes it extremely difficult and frustrating for an international student. An English copy can be provided with the documents that are explicitly in German even if only the German version is legally binding.
8. Better communication and responsiveness from the HR department
9. A better translated website, especially for the HU !!!!!

E: Counselling, support, workshops

1. Offer more options for individual doctoral candidates who are not enrolled within a special PhD programme. Allow more last-minute applications for workshops, don't make people decide months ahead when they want to participate in a workshop.
2. Provide psychological counselling for PhD students.
3. I think that my university should offer more psychological support to PhD students. The work is something very tough (criticism of work, papers that get rejected, little positive feedback, high workload) and affects self-confidence, motivation and energy. I think that such services with low participation barriers ("Niedrigschwelliges Angebot") could be very useful, particularly for students who do not work in a group.
4. More support for PhD students with children would be nice.
5. Offer special counselling for PhD candidates with children (especially mothers), since the situation is very much different if you are a PhD candidate or a student with children.
6. More seminars, trainings and coaching on psychological well-being.
7. Maybe give some mentoring or guidance for women in academia, since academia (at least where I come from) tends to be a male-dominated field and I sometimes find it very hard to navigate it.
8. mentoring by someone who is NOT the supervisor
9. a "Schlichtungsstelle" each for employment and PhD study related problems.
10. Free Mentorship programs for International students, especially those who are not fluent in German to be able to improve their soft skills and directly work on the requirements of their future career possibilities.
11. Be a bit more supportive via mentoring
12. Contact person... Low-threshold assistance with e.g. orga difficulties and extension applications or questions about legal matters...e.g. image rights, regulating cooperation with public bodies contractually

F: Housing

1. Create a university-owned student dormitory.
2. There could be more help in regards to housing. It is really hard to find flats in Berlin and really settle in. This was why I moved. I could not stand moving every other month to a new place. My PhD was stagnating because of that.
3. Offering generous subsidies for accommodation
4. Better student accommodation options, potentially accommodation specifically for PhD students.
5. Housing is a big problem. Studentenwerk Berlin does not provide family accommodation because my wife is not a student. Family accommodation should be given to students with family but the condition of both wife and husband should be a student is difficult for a family with kid.
6. No one was giving me a house because I came on a student visa.
7. Accommodation in Berlin is super expensive, especially if you're with your family. Hence, I would be glad if the Universities can negotiate with the Ministry related to housing for reduced rents in such circumstances. In my opinion, the environment you raise-up your children is very important for their psychological orientation.

Essentially, since PhD candidates on scholarship receive stipends which are far less than their worth in terms of remuneration, I do think such intervention(s) can help student-parents to be comfortable with where they live, knowing that the environment is good for their kids, as well as the school system and the pathways. All in all, I live in BVG Zone B with my family and sometimes I feel my family is unduly living on a strict budget, which makes me uncomfortable; especially considering our kids who are all in the Kita. I hope things get better for those at the early stage of their PhD.

G: Future career after doctorate

1. I personally don't know what are my options outside of academia and I know many people in the same position as me. It is very challenging to find this information, the university can provide workshops/talks/seminars and for doctoral candidates to meet people who work in the industry.
2. I think career opportunities for PhD candidates put them in a very vulnerable position. They do not know whether their grant will be extended or not, such temporary situation that is full of insecurities or risks has to change. And especially for foreigners, residence permits, accommodation, their short-term plans or else is linked to this.
3. More Jobs for after the PhD studies are finished.
4. There is a lack of perspectives to be able to work in Berlin at one of the universities in the long term.
5. I think I am in a very good position right now – but without future perspectives in academia I would not recommend anyone doing a PHD. I know it is not the fault of my supervisor that she can not offer me a stable Post Doc position, however I feel not appreciated by the university. Germany has still no lecturer positions and I think that would be a big game changer. Teaching is great, but it takes a lot of time, especially when it is not intertwined with you own research (which is the case in my institute). If we would have more teaching staff at the institute we PhD students would have the freedom to teach something in our research area, which is just more convenient. At the moment I give lectures about basic things, just because nobody else has time for it. It is the same after my PhD. I like teaching a lot, I like doing research at my institute, however on the DFG terms for funding it is very stressful – Post-Doc positions funded by the university would change that.
6. Long-term career perspectives. Option of having permanent positions as post-docs.
7. Provide realistic long-term career opportunities for the time after the doctorate (“unbefristete Verträge” not just for professors).
8. After half the doctorate is over, there should be two tracks that could be individually mentored: one academic and the other non-academic. These two future job-tracks differ significantly and different courses and trainings might be useful or necessary.
9. I'm in the final phase of my PhD (3 years, 6 months) and I'm super excited to be done and move on with my career plans such as a suitable well paying job.
10. Offer a real career path: We are in limbo for ever and the only viable option to pursue is a highly competitive professorship, often in other cities or countries. It is no surprise that it is so hard to find good doctoral candidates: You spent years, up into your late 30s or early 40s trying to shape an extremely uncertain future that makes it nearly impossible to sustain healthy partnerships or even friendships. It is not even about the money (which is significantly lower than what we could earn in the industry with our qualifications), but it is this extreme uncertainty that makes it so difficult to choose this career.

H: Covid

1. The university should provide more information on how the deadline for handing in your Ph. D. dissertation can be extended. The university should give PhD-students more time to finish their doctorate because of the difficulties experienced due to Corona.
2. Lift all restrictions related to Covid.
3. More in-person meetings should be allowed (while respecting corona-related rules, i.e. 2G/3G, AHA+L, etc.).
4. Home office is theoretically allowed but it is severely discouraged or punished in reality. The working conditions are completely unsafe, and demoralizing. Please, bosses must have less autonomy in home office, they only care about being slave drivers and not about the health of workers and their families
5. Allow more home office, and don't allow supervisors to decide what is feasible for home office or not (my boss thinks nothing is possible at home, even if it's reading or writing)
6. Exchange and teaching in person is vital for science but were much more restricted then e.g. sports or industry in Germany. The university should oppose this injustice instead of happily fulfilling every new political order.

I: Networking

1. More opportunities to gather and exchange with other PhD students about research within the institutions

2. Provide up to date information about who is actually doing a PhD at this institute and on what topics (might also be internally shared only). Offer some ways of networking within the institute, so that those not working in a structured Program also find ways to meet and share experiences, etc.
3. There should be a list that you can sign up for if you have kids and want to get to know other PhD students with children. It should include the age of the kids, so that you can find someone to exchange about your situation and support, e.g. by taking turns with looking after the kids.
4. More exchange for new PhD candidates with other PhD candidates
5. All PhD students should get the contact to HU-Docs

J: Miscellaneous

1. Provide space for queer students (if it exists, advertise it)
2. More accessibility to sport facilities around universities/research institutes.
3. Open all Mensas daily 08:00-22:00.
4. No such nonsense as "climate-friendly" nutrition. Provision of a scientifically based nutritional offering in the Mensas.
5. The conditions for taught courses have to be improved. The aim behind some of the university courses should not be just for students to pass the course. Some lecturers make it hard by refusing to share the lecture notes that are saved in a zoom meeting with students or even refuse to share previous years' exams.
6. All courses should have 2 attempts for writing an exam which is not the case now (for some courses offered by BSE). One has to wait for a whole year to write the exam in the course next year, this is very unfortunate!

3 Correlation analysis

In the following chapter, we present the correlation between various quantities. They are subject to two caveats:

1. Correlation is not causation.
2. When percentages are reported, observe the different base rates in our sample. Participants are not equally likely to have a certain background, job, gender, age or family situation. Moreover, certain attributes implicitly require others, such as language requirements for some, but not all jobs or courses.

3.1 Geographical background, language and gender base rates

One goal of this survey is to find out if certain groups of doctoral candidates are facing more or other problems compared to others. We have three different proxies to measure “internationality of a doctoral candidate”: Region of growing up, region of finishing Master studies and German language proficiency. For easier evaluation, we assign numbers to the answer options which indicate “closeness to Berlin”. For the regions, they range from 0 (other countries) to 3 (Berlin), for the language proficiency from 0 (not at all) to 4 (native speaker).

The following table shows that the two regions are correlated, with the notable exception that twice as many Berlin Master students grew up in rest Germany than in Berlin. Keep in Mind that this table only shows persons who end up doing a doctorate in Berlin, therefore the opposite movement (people who grew up in Berlin but are doing the Master’s elsewhere) is missing in our data.

		obtained Master's degree in...			
		Berlin (3)	Germany (2)	EU (1)	Other (0)
grew up in...	Berlin (3)	22	6	1	3
	Germany (2)	44	24	4	2
	EU (1)	12	1	23	1
	Other (0)	7	10	7	36

Table 32: Correlation between geographic origin and place of finishing Master's studies.

In the next table and in all following ones, the uncertainty, indicated by \pm , will always mean the standard deviation of all valid answers in that category.

grew up in...	German proficiency	Master's in...	German proficiency
Berlin (3)	3.8 \pm 0.9	Berlin (3)	3.7 \pm 0.7
Germany (2)	3.9 \pm 0.5	Germany (2)	3.5 \pm 1.0
EU (1)	2.7 \pm 1.1	EU (1)	2.7 \pm 1.2
Other (0)	1.8 \pm 1.1	Other (0)	1.7 \pm 1.2

Table 33: Correlation between international background and German proficiency.

Gender	grew up in (Other (0) ... Berlin (3))	Master's in ...	German proficiency
Female	1.6 \pm 1.1	2.0 \pm 1.1	3.2 \pm 1.3
Male	1.1 \pm 1.1	1.5 \pm 1.2	2.6 \pm 1.5

Table 34: Gender and international background.

For some questions, we want to distinguish the answers of the different faculties. We will consider only those four faculties where at least 10 persons answered the survey. The next two tables show the faculties' base rates with respect to gender and international background in our survey. Note that due to our limited sample size, these numbers do not necessarily reflect the true distributions of these quantities within the faculties, but only within our sample.

We will not include the "other" answers of the gender question in the gender categories since these are so few that they can potentially be identified from their answers to the remaining questions.

Faculty of Humboldt-Universität	grew up in ...	Master's in ...	German prof.
Mathematisch-Naturwissenschaftliche Fak.	1.2 \pm 0.9	1.8 \pm 1.1	2.8 \pm 1.7
Lebenswissenschaftliche Fakultät	1.4 \pm 1.2	1.7 \pm 1.2	2.9 \pm 1.4
Wirtschaftswissenschaftliche Fakultät	1.3 \pm 1.0	2.2 \pm 1.0	3.3 \pm 1.2
Philosophische Fakultät	1.5 \pm 1.0	1.9 \pm 0.9	3.5 \pm 0.8

Table 35: Faculty and international background.

Faculty of Humboldt-Universität	Female survey participants
Mathematisch-Naturwissenschaftliche Fakultät	33%
Lebenswissenschaftliche Fakultät	64%
Wirtschaftswissenschaftliche Fakultät	47%
Philosophische Fakultät	67%

Table 36: Percentage of female survey participants in the respective faculties.

3.2 Duration of the doctorate

To evaluate duration, we asked for three dates: The first semester of the doctorate, the last semester as planned by the beginning and the last semester as planned by now. The start date is the beginning of a semester, the end dates are ends of semesters, for example the period from “Winter semester 19/20” to “Winter semester 20/21” amounts to a duration of 3 semesters.

For all three time points, there are “out of range”-options. We excluded all answers where the beginning of the doctorate was earlier than “WS 16/17”, that is, more than 11 semesters ago. For the two end dates, we excluded all “later” answers. Thereby, the planned durations we compute are, in tendency, “optimistic”, that is, they are slightly distorted so that the durations are shorter than the “true” averages. On the other hand, the delay is slightly overestimated because people with large delays are overrepresented since the survey draws from “all current doctoral candidates” and not “all people who started a doctorate in the last x years and might already be finished”. We assume that these two effects to some extent cancel out each other.

The difference between the first two dates, “beginning” and “planned end at the beginning” indicates the intended duration of the doctorate. The difference between the second and the third date indicates the delay (as of today), compared to the original plan.

Group	Current sem.	Original plan	Delay
All	5.1 ± 3.4	8.0 ± 1.8	1.7 ± 1.8
Female	5.4 ± 3.5	8.0 ± 1.7	2.0 ± 1.9
Male	4.7 ± 3.2	8.0 ± 1.8	1.3 ± 1.6
Mathematisch-Naturwissenschaftliche Fakultät	5.8 ± 1.8	8.7 ± 1.0	1.1 ± 1.7
Lebenswissenschaftliche Fakultät	4.9 ± 3.3	7.8 ± 1.6	1.7 ± 1.8
Wirtschaftswissenschaftliche Fakultät	5.4 ± 3.3	9.2 ± 2.0	1.6 ± 1.3
Philosophische Fakultät	5.5 ± 4.0	8.2 ± 2.0	2.0 ± 1.8

Table 37: Planned and actual duration of the doctorate for various groups.

The following plot shows the (expected) delay compared to the original plan, as a function of the time already spent. The regression line is a 5th-order polynomial, it indicates that people start to perceive a delay only at the end of their doctorate while they expect to have less than 1 semester delay during the first 6 semesters. Note that the expectation is by people in that period, not in retrospect. That means a person who is now in their 5th semester will typically assume to have less than 1 semester delay. Note also that people who have finished the doctorate are not contained in the data. For high semesters, the expected delay grows essentially by 1 semester per semester because the data is only from people who still have not finished the doctorate.

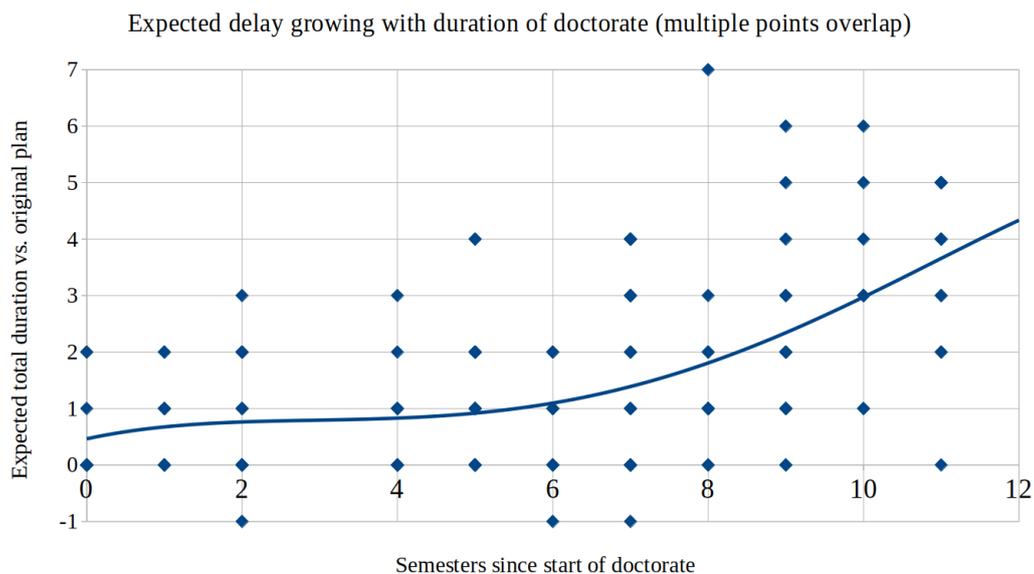


Figure 1: Expected delay growing with duration of the doctorate.

Is the delay caused by the Covid pandemic? Assume that this were the case, concretely assume that during 3 semesters of pandemic essentially no progress has been made while at all other times, the doctorate went as planned. In this scenario, all people who have been in their doctorate for at least 3 semesters should by now have 3 semesters delay. This is not the observed behaviour, indeed people in their 5th semester, who went through all the Covid pandemic, still assume that they have less than 1 semester delay. Of course, the assumed/perceived delay does not necessarily coincide with the actual one, but at least our data suggests that the pandemic is probably not the only cause for delays.

It might be, however, that the pandemic particularly influenced people at the end of their doctorate. In this phase, one typically visits conferences or looks for jobs, which was heavily impeded due to travel restrictions and general planning insecurity. Such a phenomenon can explain why we see comparatively many participants with high delays who originally wanted to finish their doctorate in the past 2 years.

A more detailed analysis of the causes for delays is beyond the scope of our survey, but it is very much desirable to examine this question since delays compared to the original time schedule, especially regarding financing, are a major reason for frustration and problems during a doctorate.

3.3 Jobs and income

There is – despite the differences between groups typically being smaller than within the groups – a clear correlation of income and geographical background. The influence of German language proficiency is less evident.

grew up in...	Average income		Master's in...	Average income
Berlin	1920€ ± 700€		Berlin	1830€ ± 520€
Germany	1780€ ± 400€		Germany	1720€ ± 460€
EU	1700€ ± 410€		EU	1570€ ± 480€
Other	1500€ ± 730€		Other	1540€ ± 810€

German proficiency	not at all	A	B	C	D (native)
Average income	1350€ ± 490€	1830€ ± 800€	1340€ ± 520€	1560€ ± 380€	1810€ ± 520€

Table 38: Average income of international and German doctoral candidates.

We find a 2% relative difference between the average incomes of males and females, which is much less than the standard deviation within the genders.

For the faculties where at least 10 participants answered the survey, we computed their average income. The values themselves are not as different as a cliché might be, but notably, the standard deviations are. Especially for the faculty of Arts and Humanities several participants report an income below 1000€ but at the same time the highest-income participants of our survey belong to this faculty. At each faculty, a significant part of the doctoral candidates feels that their financial situation is problematic. Considering the relative income spent for accommodation alone and the prevalence of a financial gap at the end of the doctorate (both see below), this concern appears justified.

Group	Average income	Financial gap	Problematic?
Female	1690€ ± 570€	1.1 ± 1.7 sem.	53%
Male	1720€ ± 630€	0.9 ± 1.9 sem.	42%
Mathematisch-Naturwissenschaftliche Fakultät	1820€ ± 350€	0.8 ± 1.8 sem.	33%
Lebenswissenschaftliche Fakultät	1730€ ± 540€	0.9 ± 1.8 sem.	47%
Wirtschaftswissenschaftliche Fakultät	1770€ ± 390€	0.8 ± 2.2 sem.	21%
Philosophische Fakultät	1680€ ± 830€	1.4 ± 1.7 sem.	62%

Table 39: Average income and financial gap of various groups.

In the 2020 survey, we found that 46% of participants suffer from a financial gap, that is, they expect to need more time to finish their doctorate than they have secure funding. In the present survey, this figure has grown to 55%. Typically, there is a difference of one or two semesters, but in rare cases, the doctorate can be without secure funding for more than 4 semesters. Interestingly, the rather small variations in the financial gap between the groups (see table 39 above) go hand in hand with variations in the share of people who find their financing problematic.

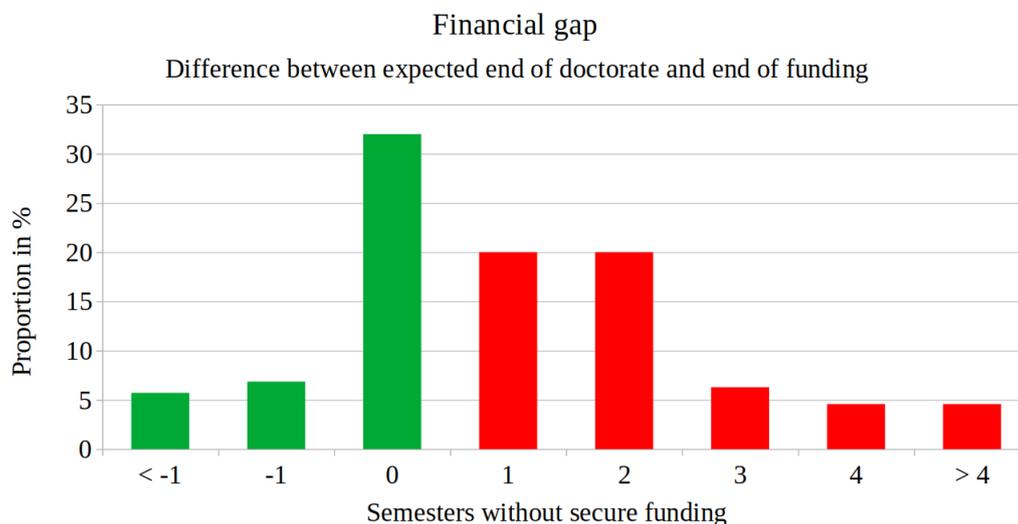


Figure 2: Financial gap between expected end of doctorate and end of secure funding.

The following table shows what proportion of doctoral candidates in specific groups was (at some point during their doctorate) financed by a certain source. The detailed sources are listed in table 11 in section “Financing” above. The last column “S/P” is the average number of financing sources per participant. A value larger than 1.0 indicates that, on average, people obtain money from more than one source.

The groups “Fund. prob.” and “Not problem.” are those participants who subjectively view their financing as problematic. “From B/D” means “grew up in Berlin or Germany”. “German 0-B” is “German proficiency level 0 to B2”.

Group	E U	E P	E S	E I	S D	Other	Job	Sup	Sav	Loan	Un B	S/P
Female	10%	36%	2%	21%	36%	0%	23%	12%	11%	1%	6%	1.6
Male	18%	39%	8%	14%	26%	1%	18%	15%	17%	6%	6%	1.7
Fund. prob.	11%	30%	4%	13%	43%	1%	32%	22%	20%	4%	11%	1.9
Not problem.	16%	46%	4%	24%	21%	0%	12%	4%	6%	0%	1%	1.4
from B/D	19%	43%	1%	23%	27%	0%	23%	5%	7%	3%	7%	1.6
Not from B/D	5%	31%	7%	15%	38%	1%	19%	22%	20%	2%	5%	1.7
German 0-B	5%	19%	12%	21%	36%	0%	17%	14%	17%	2%	3%	1.5
German C-D	15%	45%	1%	18%	31%	1%	22%	13%	10%	2%	7%	1.7
Mat.-Nat. Fak.	8%	42%	8%	17%	8%	0%	0%	8%	8%	0%	0%	1.0
LeWi Fakultät	10%	44%	6%	29%	29%	0%	15%	8%	13%	1%	4%	1.4
WiWi Fakultät	47%	53%	7%	20%	20%	7%	7%	7%	7%	0%	0%	1.7
Philo. Fakultät	7%	23%	0%	2%	51%	0%	37%	28%	16%	7%	14%	1.9

Table 40: Prevalence of various funding sources in different groups of doctoral candidates.

Overall, “Employment funded by Projektmittel” and “Scholarship for doctorates” are the most common forms of financing. However the spectrum is all in all quite diverse. It is not uncommon to be financed in other ways or to have multiple different sources in the course of the doctorate. Since the individual “Group”s have different base rates for e.g. semester, gender and international background, the numbers in this table should not be confused with “People in <Group> where everything else is equal”.

Unsurprisingly, the group which subjectively describe their financing as “problematic” differ notably from the general average: These people tend to depend on scholarships or third-party jobs while they are less likely to be employed by the university or an institute. The following table shows that “problematic” funding is associated with low average income, but also with larger financial gap at the end of the doctorate.

	Funding experienced as “problematic”	“Not problematic”
Average income	1440€ ± 460€	1960€ ± 580€
Current semester	5.7 ± 3.5	4.7 ± 3.2
Financial gap	1.6 ± 2.0 sem.	0.7 ± 1.4 sem.
Proportion Female	67%	59%

Table 41: Statistical properties of people who experience their financial situation as problematic.

3.4 Accommodation

It turned out that the monthly rent paid by doctoral candidates varies significantly. 50% of answers stated that rent ranged from between 485€ and 700€. The following figure shows the relationship between rent and monthly income. One observes that with rising income, the average rent rises only very slowly. This might indicate that – largely irrespective of income – participants try to minimize their spending on rent (as opposed to choosing a more expensive flat if income is sufficient). Conversely, of all 182 participants who answered both income and rent, 110 (60%) pay at least one third of their income as rent, which is the maximum proportion usually accepted by private landlords. 37 participants (20%) spend half of their income or more for rent.

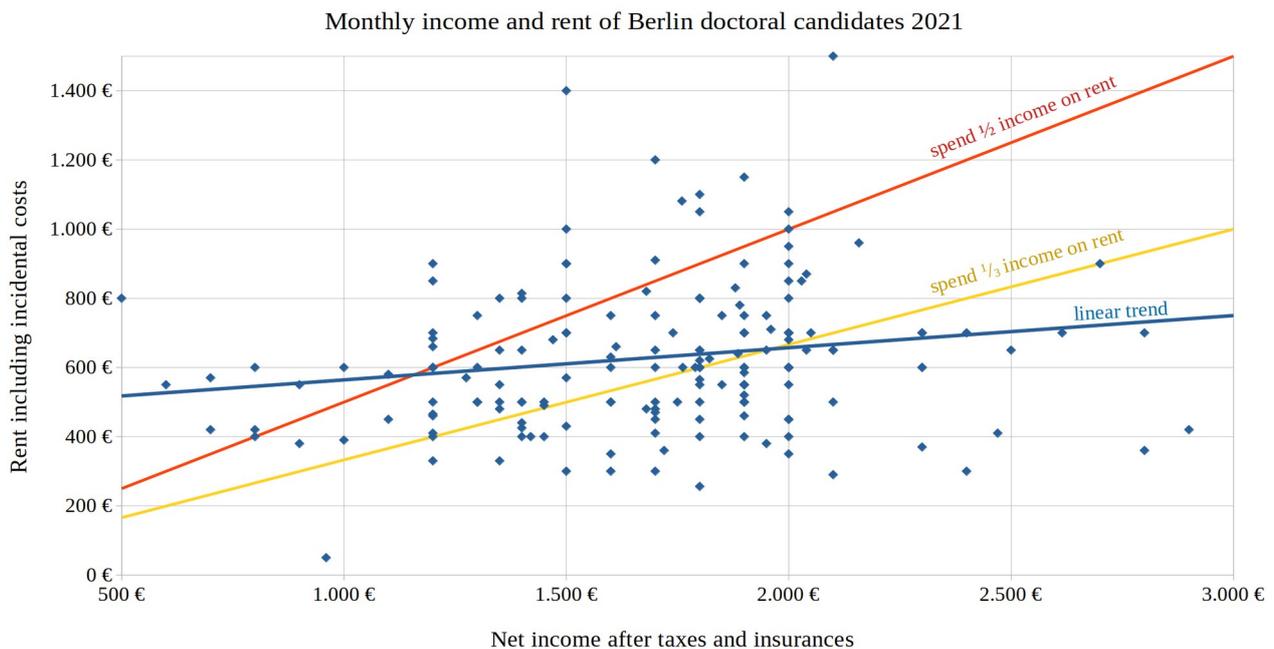


Figure 3: Monthly income and rent. Points above the orange line spend more than 33% of their income on rent, above the red line more than 50%.

The absolute amount of money spent on rent slightly grows with distance from the city centre while the amount relative to income stays roughly the same. Perhaps, people move farther out if they need a larger home (e.g. with kids), but not with the intention to find a cheaper small home.

Location	Average rent	Relative rent
BVG Zone A	600€ ± 180€	0.39 ± 0.18
BVG zone B	630€ ± 230€	0.39 ± 0.15
BVG zone C	830€ ± 290€	0.40 ± 0.09
other	660€ ± 510€	0.36 ± 0.30

Table 42: Average rent depending on location.

The type of accommodation has a significant influence on the rent as shown below. Unsurprisingly, living with child(ren) increases the rent. The higher relative rent in these cases clearly shows that doctoral candidates with children are in a financially even more challenging situation than their

peers. Conversely, shared apartments are clearly the cheapest type of accommodation and their inhabitants spend the smallest proportion of their income, which again indicates that shared apartments are not a typical low-income form of housing, but rather chosen deliberately even with higher income. The latter seems not to be the case with student dormitories.

Circumstances	Average rent	Relative rent
Apartment on my own	680€ ± 300€	0.43 ± 0.19
With partner, without children	650€ ± 230€	0.38 ± 0.22
With children or other persons I am responsible for	780€ ± 290€	0.45 ± 0.16
Shared apartment (WG)	430€ ± 130€	0.33 ± 0.11
Student dormitory	480€ ± 120€	0.42 ± 0.14

Table 43: Average rent depending on type of accommodation.

With regard to the duration of rental agreements (irrespective of accommodation type), no notable differences were visible with one exception: The cases where accommodation is temporary or insecure pay on average less rent (580€) than the longer durations, but the relative rent is rather high with 0.42.

The following three tables show that the influence of origin and German proficiency on rent prices is low. Surprisingly people who grew up in Berlin pay the highest rents, but this is more than compensated by their higher income. While the spendings for rent are largely independent of the background, we can not tell from our data if the value, i.e. the size and quality of the accommodation, is equal as well.

grew up in...	Average rent	Master's in...	Average rent
Berlin	710€ ± 270€	Berlin	650€ ± 340€
Germany	610€ ± 230€	Germany	640€ ± 200€
EU	620€ ± 201€	EU	610€ ± 170€
Other	620€ ± 310€	Other	600€ ± 150€

German proficiency	Average rent	Relative rent
Not at all	600€ ± 140€	0.38 ± 0.16
A	570€ ± 210€	0.29 ± 0.13
B	620€ ± 150€	0.44 ± 0.31
C	650€ ± 400€	0.39 ± 0.23
D (native)	640€ ± 240€	0.36 ± 0.17

Table 44: Average rent depending on international background of tenant.

On average, female participants spent slightly less money on rent which nonetheless was a slightly higher fraction of their income. When comparing to the almost equal average income of genders, note that the average of fractions is not equal the fraction of averages, therefore the (average) relative rent should not be expected to be strictly equal to the average rent divided by average income. Once again, the difference between genders is much smaller than the typical differences within.

Gender	Average rent	Relative rent
Female	620€ ± 220€	0.38 ± 0.21
Male	650€ ± 320€	0.36 ± 0.20

Table 45: Average rent depending on gender.

3.5 Harassment and negative experiences

For the Harassment/negative experiences question (“Did you ever experience...”), we counted, how many of the 10 options were answered “Yes”.

Again, we counted the “Yes”-answers individually for each faculty where at least 10 participants answered the survey. The differences between the faculties are insignificant compared to the standard deviation within faculties, this shows that the negative experiences we asked for are roughly evenly spread and not symptomatic for a particular faculty.

Group	Average number of “Yes”
Female	0.80 ± 1.43
Male	0.88 ± 1.57
Grew up in Germany/Berlin	0.81 ± 1.35
Grew up outside Germany	0.81 ± 1.60
Mathematisch-Naturwissenschaftliche Fakultät	0.72 ± 1.27
Lebenswissenschaftliche Fakultät	0.79 ± 1.54
Wirtschaftswissenschaftliche Fakultät	1.06 ± 1.21
Philosophische Fakultät	0.59 ± 1.00

Table 46: Negative experiences of various groups.

3.5 Home office

Faculty of Humboldt-Universität	Average home office
Mathematisch-Naturwissenschaftliche Fakultät	1.5 ± 1.3
Lebenswissenschaftliche Fakultät	1.9 ± 1.5
Wirtschaftswissenschaftliche Fakultät	2.4 ± 1.3
Philosophische Fakultät	2.7 ± 1.4

Table 47: Prevalence of home office.

We assign numbers to the different home office situations from 0 for “I work completely in presence” to 4 “I work completely in home office”.

While the average income of doctoral candidates is largely comparable between faculties (see above), the material equipment for office or home office clearly is not:

Faculty of Humboldt-Universität	Own desk?	Laptop?	HO equip. money?
Mathematisch-Naturwissenschaftliche Fakultät	90%	45%	36%
Lebenswissenschaftliche Fakultät	75%	33%	8%
Wirtschaftswissenschaftliche Fakultät	71%	21%	7%
Philosophische Fakultät	38%	12%	5%

Table 48: Office equipment.

3.7 Teaching and group size

Faculty of Humboldt-Universität	Optional teaching	Mandatory teaching
Mathematisch-Naturwissenschaftliche Fakultät	33%	17%
Lebenswissenschaftliche Fakultät	24%	15%
Wirtschaftswissenschaftliche Fakultät	15%	7%
Philosophische Fakultät	23%	7%

Table 49: Teaching obligations

We did not find a significant correlation between number of doctoral candidates per supervisor and number of “yes” answers of negative experiences (question 5.4).

Faculty of Humboldt-Universität	Doctoral candidates
Mathematisch-Naturwissenschaftliche Fakultät	6.2 ± 3.7
Lebenswissenschaftliche Fakultät	5.0 ± 2.8
Wirtschaftswissenschaftliche Fakultät	4.4 ± 2.5
Philosophische Fakultät	8.6 ± 5.2

Table 50: Average number of doctoral candidates.

3.8 Information channels

Group	Top 3	Total
Female	email (93%), website (51%), in person (19%)	2.4
Male	email (91%), website (25%), in person (17%)	1.9
Grew up outside EU	email (90%), website (33%), Telegram (17%)	2.1
Grew up in EU	email (88%), website (44%), Telegram (31%)	2.4
Grew up in Ger/Berlin	email (94%), website (47%), in person (22%)	2.2
Up to 26 years old	email (96%), website (50%), person/Telegram/Twitter (21%)	2.5
27-34 years old	email (91%), website (40%), poster (18%)	2.2
From 35 years old	email (92%), website (48%), poster (24%)	2.1
Mat.-Nat. Fakultät	email (73%), website (45%), Telegram (36%)	2.3
LeWi Fakultät	email (94%), website (41%), in person (15%)	2.1
WiWi Fakultät	email (93%), website (36%), poster/person/Twitter (21%)	2.1
Philosophische Fakultät	email (93%), website (40%), in person (23%)	2.3

Table 51: Preferred information channels of various groups.

“Total” is the average total number of channels selected per participant.

The top two ways to get information are clearly email and static websites. Preferences start to differ from rank 3. We stress again that the invitation to this survey probably reached more people via email than via other media, so it is likely that the results are skewed in favour of persons who do read email newsletters.

Conclusion and future perspectives

We examined various aspects of a doctorate in Berlin, particularly at Humboldt-Universität. We wanted to ascertain the conditions under which doctoral candidates undertake their doctoral research ranging from financing, labour conditions, supervisory relationships to private expenditure of doctoral candidates.

Space was also given for doctoral candidates to articulate concrete suggestions what the university (or its institutions) should change in order to improve the situation for doctoral candidates. Many of these suggestions concerned payment, working condition, relations with the supervisor and housing.

It is apparent that there is no standard procedure for doing a doctorate at Humboldt-Universität zu Berlin. Conditions vary greatly amongst doctorates at all faculties as well their satisfaction levels. Also, doctoral candidates' expenditures vary on an individual level.

We asked for the duration of a doctorate and found that most doctorates are planned to last 8 semesters (4 years), while in reality they often take up to one year longer. A consequence of such delays is that 55% of participants expect to need more time than they have secure funding. This number grew from 46% in the survey 2020. 44% of participants this year considered financing their doctorate a “significant problem”, up from 38% in 2020. Candidates have indicated the way the doctorate is financed impacts the research itself, the research output and the individual conditions the doctoral candidate experiences. These findings suggest that doctoral candidates should plan for alternative sources as well as possible future extensions already early during their doctorate. Conversely, the university, supervisors and the relevant funding institutions should openly communicate these basic statistics to give aspiring doctoral candidates a realistic expectation.

We find that 60% of participants pay at least one third of their net income for accommodation, 20% one half or more. The situation is particularly challenging for doctoral candidates with children.

We did examine correlations of various quantities with gender or an international background of the candidate. The statistical influence of gender seems to be rather low. Candidates with international background have on average lower net income and tend to pay less rent than their peers from Germany or even Berlin. However, variations within the groups are often large.

As of end 2021, regarding Covid and home office, opinions were diverse. The vast majority of doctoral candidates worked to some extent in home office at this time. Only 31% report wanting to work in home office more often due to Covid risks, seemingly other arguments for or against home office are at least as important as the infection risk. These findings suggest that the remaining Covid restrictions are also seen as a welcome opportunity to redefine traditional working conditions. The university should actively moderate this process and define future rules in cooperation with doctoral candidates and their supervisors.

All in all, the living and working conditions of doctoral candidates remain challenging and highly individual. Both financing and housing situations leave much to be desired. The large variation between candidates leads to unfair conditions for the individual's scientific success. In future work, a qualitative approach can help to ascertain more detailed information about the wide variety of doctoral lifeworlds at Humboldt-Universität zu Berlin.