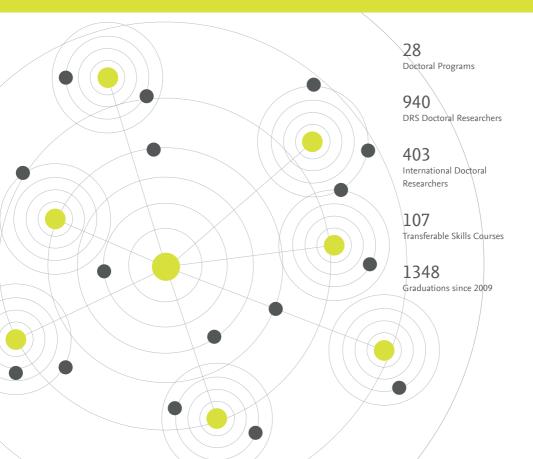
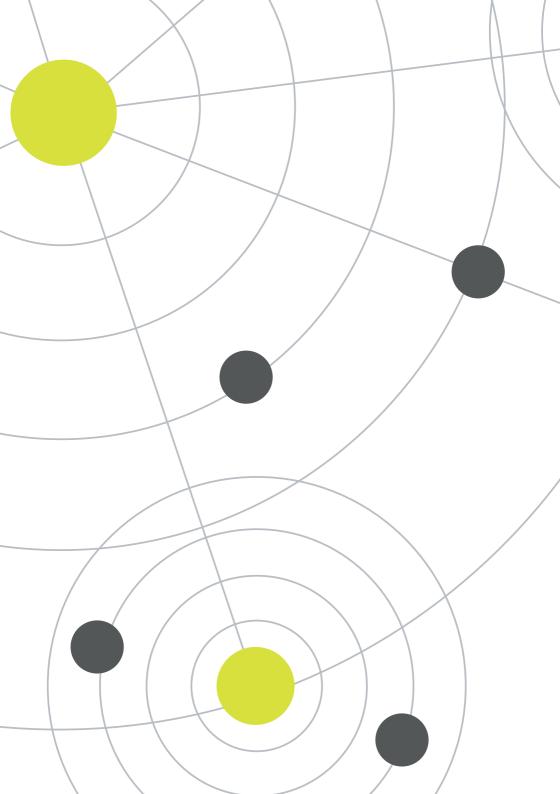


DAHLEM Center for Junior Researchers

## Facts and Figures | 2019





#### SUMMARY

"Facts and Figures 2019" is based on

- data collected from DRS Doctoral Programs in December 2019,
- university enrollment statistics from December 2019,
- DRS training statistics for winter semester 2018/19 and summer semester 2019,
- and the 2019 survey of the National Academics Panel Study Nacaps, a longitudinal study of doctoral researchers and doctorate holders by the DZHW (German Centre for Higher Education Research and Science Studies).

## Highlights of 2019:

- The Berlin University Alliance of Freie Universität Berlin, Humboldt-Universität
  zu Berlin, Technische Universität Berlin, and Charité Universitätsmedizin Berlin
  was granted in July 2019. One of the Alliance's goals is to establish a Berlin-wide
  integrated space for researchers at every career stage. Dahlem Research School
  and its sister institutions will deliver a Berlin Graduate Studies Support program
  across all partner universities.
- DRS member programs maintained extensive research partnerships. As part of
  the Berlin University Alliance, they link Berlin's universities with non-university
  research institutions, public sector organizations and universities regionally,
  nationally and internationally. In Summer 2019, DRS admitted the new member
  program "Medical Neurosciences", an interdisciplinary international graduate
  program focusing on translational research embedded within the Cluster of
  Excellence "NeuroCure" (https://neurocure.de/en/index.html).
- The successful graduate school model offers doctoral researchers the opportunity
  to learn and research together across disciplines and institutions. Support
  structures, framework curricula and the resulting networking effects proved
  supportive to successful completion. In 2019, Freie Universität invested in its
  Excellence Graduate Schools to carry on after the German Research Foundation's
  funding fell away.
- Freie Universität Berlin is one of 53 universities participating in the National
  Academics Panel Study (Nacaps) of the German Centre for Higher Education
  Research and Science Studies (DZHW). Nacaps is a survey of study conditions,
  future career plans and general living conditions of doctoral researchers and
  doctorate holders. Freie Universität will use the findings to determine which
  factors influence happiness and success of doctoral researchers and to assess
  the effectiveness of current processes and support offers, aiming to ensure high
  quality doctorate conditions and to support doctoral researchers according to
  their needs.

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Research School?"



#### DAHLEM RESEARCH SCHOOL AT A GLANCE

Freie Universität Berlin is committed to improving the conditions for doctoral training and to sustainably ensuring the quality of research achievements, including doctoral research. As the Center for Junior Researchers, Dahlem Research School develops strategies and measures to safeguard the high quality of doctoral education at Freie Universität Berlin. In addition to advice and services for its member programs, it provides comprehensive training, counseling, and advice for doctoral and postdoctoral researchers at all career stages.

Dahlem Research School seeks to increase awareness of the needs of junior researchers and to implement support structures – especially during transition phases of their career within and beyond academia.

Dahlem Research School also coordinates the Postdoctoral Researchers International Mobility Experience (P.R.I.M.E.) of the German Academic Exchange Service (DAAD) and administers the Elsa Neumann Scholarship program of the state of Berlin.

Figure 1 Dahlem Research School - key information

| for 2019   |      |       |
|--|------|-------|
| DRS doctoral programs  | 28   |       |
| including projects within doctoral programs                            | 50   |       |
| Graduate Schools/Programs (Excellence Initiative)                      | 8    |       |
| Applications for entry   | 2024 |       |
| DRS doctoral candidates  | 940  |       |
| of which are women   | 499  | (53%) |
| of which are international doctoral candidates                         | 403  | (43%) |
| DRS Dream Mentees  | 15   |       |
| Elsa Neumann Scholarships at Freie Universität                         | 27   |       |
| DRS Postdoc Fellows  | 13   |       |
| Transferable Skills Courses (Winter Term 2018/19 and Summer Term 2019) | 107  |       |
| since 2009   |      |       |
| DRS doctoral graduations   | 1348 |       |
| of which are women   | 648  | (48%) |
| of which are international doctoral candidates                         | 514  | (38%) |
| DRS Dream Mentees  | 104  |       |
| DRS Postdoc Fellows  | 150  |       |
| Transferable Skills Courses (Summer Term 2014 until Summer Term 2019)  | 994  |       |

## **Doctoral Programs of Dahlem Research School**

## **Humanities & Social Sciences**

### Berlin Doctoral Program in Business Research

#### **Berlin School of Economics**

previously: Berlin Doctoral Program in Economics and Management Science

## Berlin Graduate School for Global and Transregional Studies

previously: Berlin Graduate School for Transpational Studies

## Berlin Graduate School Muslim Cultures and Societies

Berlin Graduate School of Ancient Studies with 5 Member Programs

#### Cinepoetics - Center for Advanced Film Studies

# Friedrich Schlegel Graduate School of Literary Studies

with 1 Member Program

**Graduate School of East Asian Studies** 

**Graduate School of North American Studies** 

Graduate School Global Intellectual History

**History and Cultural Studies** 

**Human Rights under Pressure** 

International Max Planck Research School Moral Economies of Modern Societies

Latin American Studies from a Comparative and Transregional Perspective

with 1 Member Program

## **Natural & Life Sciences**

Berlin-Brandenburg School for Regenerative Therapies

#### Berlin Mathematical School

with 1 Member Program and 1 Associated Program

#### Berlin School of Integrative Oncology

Dahlem Research School Biomedical Sciences with 5 Member Programs

Dahlem Research School Molecular Science with 6 Member Programs and 1 Associated Program

## Graduate Program Biodiversity, Evolution and Ecology

Graduate School
Future Information Technologies

## Graduate School Materials for Solar Energy Conversion

Graduate School Plant Sciences with 2 Member Programs

International Graduate Program Medical Neurosciences

International Max Planck Research School for Biology AND Computation

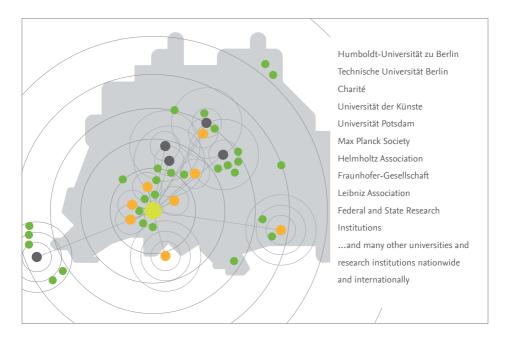
MyoGRAD – International Research Training Group for Myology

Berlin School of Mind and Brain\*

International Max Planck Research School on the Life Course\*

<sup>\*</sup> Program with strong interdisciplinary elements

Figure 2 Regional networks of partner institutions in member programs



Berlin's universities and the University of Potsdam host about 100 graduate schools and doctoral programs between them. They combine the strengths of different institutions and existing links with non-university research institutes.

Examples for jointly hosted programs are the Berlin-Brandenburg School for Regenerative Therapies (BSRT, graduate school of the German Excellence Initiative), a joint initiative of the Charité – Universitätsmedizin Berlin, Humboldt-Universität zu Berlin, Freie Universität Berlin, Technische Universität Berlin, Universität Potsdam, and the Berlin Graduate School of Ancient Studies (BerGSAS) of Freie Universität and Humboldt-Universität. Both BSRT and BerGSAS also maintain an extensive network of global partners.

Research institutions involved in BerGSAS include the German Archaeological Institute, the Prussian Cultural Heritage Foundation, the Berlin-Brandenburg Academy of Sciences and Humanities and the Max Planck Institute for the History of Science. Cooperating institutions of BSRT are Max Planck and Helmholtz institutes, the Robert Koch Institute, the Zuse Institute Berlin and other high-ranking research institutes in Berlin and Brandenburg.

Main types of doctoral programs are:

- Excellence Graduate Schools
- DFG Research Training Groups
- Integrated Research Training Groups in DFG Collaborative Research Centers
- International Max Planck Research Schools
- Graduate Programs at Helmholtz Centers

Most programs include doctoral positions funded by a variety of third-party sources, together with individual scholarships like those awarded by Berlin's Elsa Neumann Program, other federally funded scholarships or from the university's own budget. As of December 2019, 940 of the (est.) 4200 doctoral researchers of Freie Universität Berlin pursue their research in one of Dahlem Research School's 28 doctoral degree programs. Doctoral researchers registered in partner universities are not included in the data presented to maintain comparability.



Figure 3 Dahlem Research School – development since 2009

Figures for 2019 are based on data provided by DRS doctoral programs, similarly the figures for 2009–2014, while the 2015–2018 figures are based on Freie Universität's enrollment statistics.

These figures do not represent the total number of doctoral researchers within the DRS programs. For example, 95 researchers pursue their doctorates as BSRT members at Charité, Freie Universität, Humboldt-Universität, Technische Universität and Universität Potsdam. Within BerGSAS, 115 doctoral researchers pursue their doctorates at Freie Universität and Humboldt-Universität.

#### RECRUITMENT AND ADMISSION

Calls for application of member programs are advertised internationally: on online researcher recruitment platforms, at research career fairs and through the liaison offices of Freie Universität, who advertise directly in the different regions. The liaison offices also provide information and advice on higher education systems and institutions and, as regional contact points, they advise and screen potential applicants.

Another instrument for international recruitment is the platform "Doctoral Programs in Berlin", a cooperation with the other Berlin universities and Universität Potsdam funded by the Einstein Foundation. It provides easily accessible information on research in Berlin, funding opportunities and some 100 doctoral programs allowing searches across disciplines and institutions.



Figure 4 Liaison offices of Freie Universität Berlin

<sup>1</sup> https://www.doctoral-programs.de/welcome

Figure 5 Website "Doctoral Programs in Berlin"



## Application and admission

The visibility and attractiveness of DRS doctoral programs continues to be high: programs with application data available, reported 2024 applications<sup>2</sup> in 2019. Within these, over 90% of applicants and 58% of successful researchers were international.

Few differences can be perceived between disciplines regarding gender balance: 46% of successful applicants in the Humanities and Social Sciences are women compared to 50% in the Natural and Life Sciences. A different picture presents itself regarding internationalization: in the Natural and Life Sciences 63% of admitted researchers are international compared to 52% in the Humanities and Social Sciences.

Figure 6 Applications & admissions, by origin and gender

|                                | Tot   | al Numb | per | Admission by Origin |      |               |      | Admission by Gender |      |      |      |
|--------------------------------|-------|---------|-----|---------------------|------|---------------|------|---------------------|------|------|------|
|                                |       |         |     | German I            |      | International |      | Female              |      | Male |      |
|                                | Арр.  | Adm.    | %   | No.                 | %    | No.           | %    | No.                 | %    | No.  | %    |
| Humanities and Social Sciences | 884   | 67      | 7.6 | 32                  | 47.8 | 35            | 52.2 | 31                  | 46.3 | 36   | 54.7 |
| Natural and Life<br>Sciences   | 1,140 | 89      | 7.8 | 32                  | 37.2 | 54            | 62.8 | 42                  | 50   | 42   | 50   |
| Total                          | 2,024 | 156     | 7.7 | 64                  | 41.8 | 89            | 58.2 | 73                  | 48.3 | 78   | 51.7 |

<sup>2</sup> Data based on total numbers across all partner universities.

The regional spread of both applications and admissions is wider in Natural and Life Sciences than in Humanities and Social Sciences. However, for both subject groups, about 60% of successful researchers come from Germany and other European countries.

Figure 7 Applications in Humanities and Social Sciences, by origin, in %



Figure 8 Admissions in Humanities and Social Sciences, by origin, in %

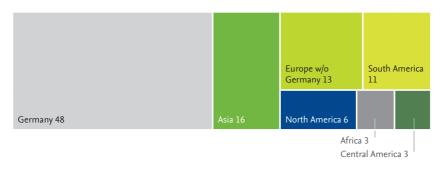
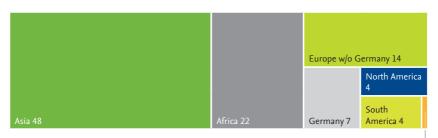


Figure 9 Applications in Natural and Life Sciences, by origin, in %



Australia & New Zealand 0,5

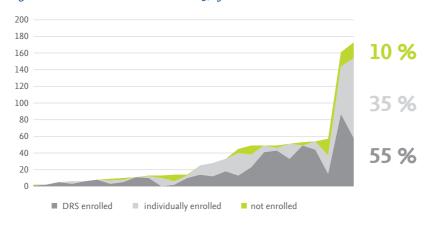
Figure 10 Admissions in Natural and Life Sciences, by origin, in %



#### DOCTORAL CANDIDATES AT DAHLEM RESEARCH SCHOOL

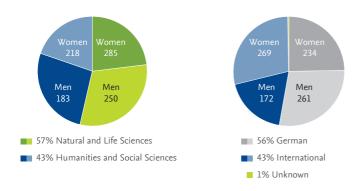
Comparing the data collected from DRS programs with the enrollment statistics, it transpires that about 10% of DRS doctoral researchers are not enrolled at all, and 35% are enrolled incorrectly as individual doctoral researchers. In the following, we refer to the data collected from DRS programs unless stated otherwise.

Figure 11 DRS – doctoral researchers 2019, by enrollment status



On December 1, 2019, a total of 940 doctoral researchers pursues their doctoral research in one of the DRS member programs.

Figure 12 DRS – doctoral researchers 2019, by origin, gender, and discipline



Regarding gender balance, the number of female doctoral researchers has remained at a stable 53%, same as it was in 2018.

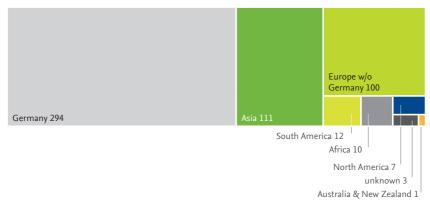
Dahlem Research School and its member programs are internationally oriented: most programs include research collaborations with international partners and almost all are exclusively or partially taught in English. Consequently, 43% of DRS doctoral researchers are international. Compared to previous counts, this number has decreased from 51% in 2018, however, compared to the university overall with 35% international doctoral researchers, this is still a respectable outcome.

Overall, the percentage of international doctoral researchers from Asia is the highest followed closely by Europe and after some gap then by the Americas. China remains (unsurprisingly) the single nation with most researchers followed by Italy and India.

Figure 13 DRS – doctoral researchers 2019, by discipline and region a) Humanities and Social Sciences



## b) Natural and Life Sciences



## **Doctoral degrees**

Between 2009 and 2019, 1348 doctoral researchers completed their doctoral degree in DRS programs. 38% of the graduates are international researchers and 48% are women.

57% completed within 8 semesters, 43% took longer. 8% of graduates from the Natural and Life Sciences and 1% of each, the Humanities and the Social Sciences, were never enrolled and we do not know the duration of their degrees.

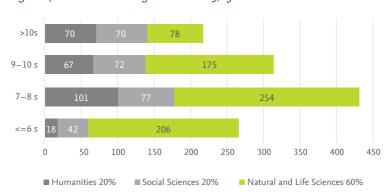


Figure 14 DRS – doctoral degrees since 2009, by duration in semesters

Out of all researchers who ever started their doctorate in a DRS program, between 2009 and 2019, according to the enrollment statistics, 300 doctoral researchers were exmatriculated for different reasons. This represents a share of 11% of all DRS doctoral researchers.

A closer look reveals that 106 (4%) are still completing their studies, at Freie Universität or a different university. Only 56 (2%) declared that they dropped out altogether. The remaining 5% were exmatriculated for unknown reasons and will hopefully re-appear.

Figure 15 DRS – all doctoral researchers 2009–2019, with exmatriculations and causes

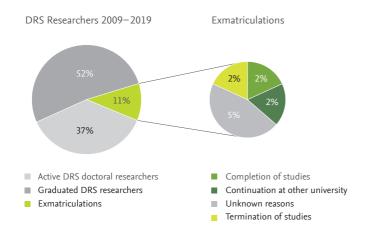
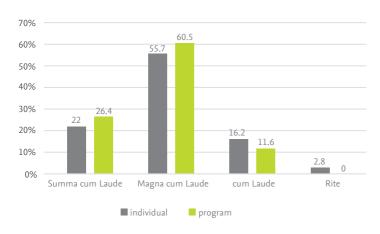


Figure 16 DRS & Freie Universität – doctoral degrees 2019, by grade



According to the enrollment statistics, DRS doctoral programs do seem to have the edge when it comes to grades achieved. These may be explained by the competitive selection carried out by the programs and the high level of support during the research phase.

## **Career Tracking**

In 2019, with support from the Doctoral Programs, Dahlem Research School undertook a research exercise into the careers pursued by DRS graduates. 78% of graduates were tracked down so far.

Of these, 57% of humanities and social sciences graduates and 64% of natural and life sciences graduates work in a research position. Gender does not play a big role at this stage: 61% of female graduates and 63% of male graduates continued with their research career.

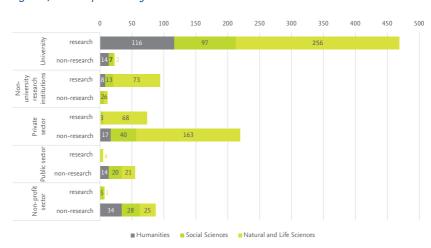
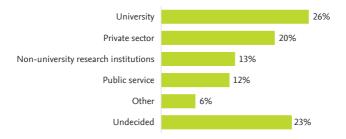


Figure 17 DRS - positions by sector



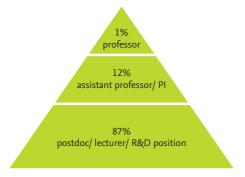


In comparison, if it can be concluded from the results of the National Academic Panel Study (Nacaps)<sup>3</sup> on career intentions of Freie Universität's doctoral researchers that, those who are undecided prefer to stay at the university, most sector expectations seem to have been fulfilled. More on Nacaps on p. 20ff.

26% of graduates went abroad and 74% stayed in Germany.

The vast majority of graduates who followed a research career, so far achieved a postdoc position. 4 full professorships, 1 deputy and one honorary professorship are reported. The career ambitions stated by doctoral researchers at Freie Universität in the Nacaps Survey have not quite been met: 34.6% intend to achieve a professorship, 37.1% are undecided and 28.3% clearly state not to be aiming for a professorship. However, given that all graduates received their doctorate within the last 10 years and many only recently, there will be more movement up the pyramid in the future.





Professorships are quite evenly distributed among the genders: 30 women and 28 men have achieved a full or assistant professorship. A vast difference shows between the disciplines: 50% of professorships were achieved in the Social Sciences, 26% in the Natural and Life Sciences, and 24% in the Humanities.

<sup>3</sup> https://www.nacaps.de/, https://nacaps-datenportal.de

Figure 20 DRS – positions by gender and discipline

|  |                 | women              |                               | men             |                    |                               |  |  |  |
|--|-----------------|--------------------|-------------------------------|-----------------|--------------------|-------------------------------|--|--|--|
|  | Humani-<br>ties | Social<br>Sciences | Natural<br>& Life<br>Sciences | Humani-<br>ties | Social<br>Sciences | Natural<br>& Life<br>Sciences |  |  |  |
| Assistant professor (international)        | 6               | 8                  | 4                             | 3               | 8                  | 5                             |  |  |  |
| Junior professor                           | 3               | 4                  | 2                             | 2               | 6                  | 1                             |  |  |  |
| Full professor                             | -               | -                  | 2                             | -               | 2                  | -                             |  |  |  |
| Deputy professor<br>(Vertretungsprofessur) | -               | 1                  | -                             | -               | -                  | -                             |  |  |  |
| Honorary professor                         | -               | -                  | -                             | -               | -                  | 1                             |  |  |  |
| Total                                      | 9               | 13                 | 8                             | 5               | 16                 | 7                             |  |  |  |

## Quality assurance

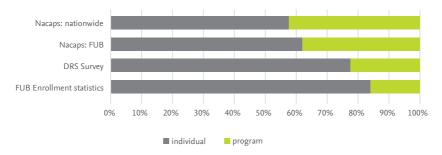
Freie Universität has been participating in the longitudinal study of junior academics, the National Academic Panel Study (Nacaps) of the German Center for Research on Higher Education and Science (DZHW), since 2018. Nacaps systematically collects data on the career paths of doctoral and postdoctoral researchers in Germany. More than 20,000 doctoral researchers from 53 universities, including about 1300 doctoral researchers from Freie Universität, participated in the first survey in 2019.

Figure 21 Participation in Nacaps survey



A comparison of the results shows the proportions of international doctoral researchers at Freie Universität at 11%, of female doctoral researchers at 10%, and of doctoral researchers in the humanities and social sciences at 20% above the national average.

Figure 22 Share of doctoral researchers in structured programs



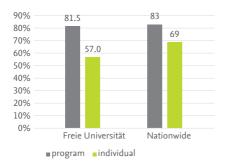
According to the Nacaps results, 42% of respondents nationwide and 38% of Freie Universität's respondents are members of a structured doctoral program. Deviating from this, the Federal Statistical Office calculates a share of 19%, but has noted considerable data gaps during the implementation of the national doctoral statistics and still suspects some degree of under-reporting by the universities. In 2016, the Federal Statistical Office surveyed a 23% share of structured doctoral researchers nationwide. It can therefore be assumed that the Nacaps results include a systematic bias towards structured doctorates.

In winter semester 2018/19, according to the enrollment database of Freie Universität Berlin, only 16% of doctoral researchers are enrolled in a program. In contrast, Dahlem Research School's own data collection for the same period reveals a share of 23% structured doctoral researchers. This proportion appears to be more realistic due to the nationwide survey from 2016 with the same result. The discrepancy with the enrollment database may be explained by the fact that some doctoral researchers are enrolled incorrectly or not enrolled at all (see Figure 11, p.14). In the following, we present some of the results of the Nacaps study.

<sup>4</sup> Statistisches Bundesamt (2020): Statistik der Promovierenden 2019, Wiesbaden and Statistisches Bundesamt (2020): Qualitätsbericht: Promovierende an Hochschulen, Wiesbaden

<sup>5</sup> BuWin (2017). Bundesbericht Wissenschaftler Nachwuchs. BuWin Konsortium.

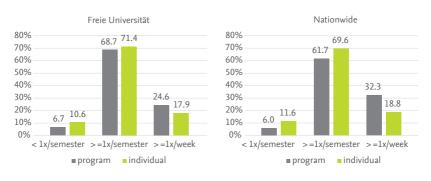
Figure 23 Nacaps: Supervision agreements



At Freie Universität, 81.5% of researchers in doctoral programs and even 57% of individual doctoral researchers have signed a supervision agreement. This is topped however by individual researchers nationwide, of whom 69% state that they have a supervision agreement.

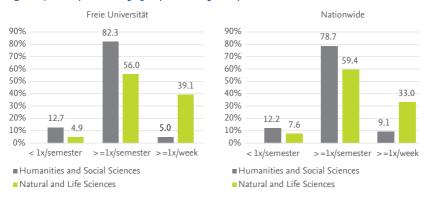
75% of researchers in doctoral programs and 50% of individual doctoral researchers at Freie Universität report a team of two or more supervisors. The nationwide results are very similar: 69% of program members and 53% of individual researchers have more than one supervisor.

Figure 24 Nacaps: Intensity of supervision



24% of doctoral researchers in programs and 17.9% of individual researchers at Freie Universität meet with their supervisor(s) at least once a week. 6.7% of program members and 10.5% of individual doctoral researchers meet much less frequently, fewer times than once per semester. It seems that doctoral researchers in programs see their supervisor(s) more often than individual doctoral researchers. This is mirrored in the nationwide results.

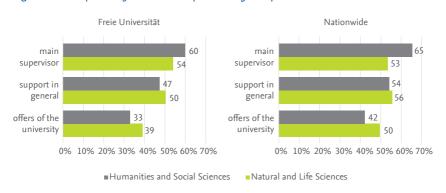
Figure 25 Nacaps: Intensity of supervision by discipline



Differences are more pronounced between the disciplines: 39.1% of doctoral researchers in the natural and life sciences meet their supervisor once or more a week, while this is the case for only 5% of doctoral researchers in the humanities and social sciences. On the other hand, 12.7% of doctoral researchers in the humanities and social sciences see their supervisor less frequently than once per semester while only 4.9% of natural and life sciences researchers report such a low meeting frequency.

Nevertheless, 60% of the humanities and social sciences doctoral researchers at Freie Universität are satisfied with their main supervisor, compared to 54% among the natural and life sciences. Nationwide, the differences between the disciplines are even more noticable.

Figure 26 Nacaps: Satisfaction with supervision by discipline



Overall, doctoral researchers of the humanities and social sciences are somewhat more satisfied with their main supervisor while their colleagues of the natural and life sciences are more satisfied with the support in general and the offers of the university.

When comparing individual with structured doctorates in this respect, the percentage of those satisfied with their main supervisor among doctoral researchers in structured programs is marginally higher than among individual researchers, both at Freie Universität and nationwide. Regarding support in general, structured doctorates at Freie Universität score 5% and nationwide even 6.8% higher, while strikingly, satisfaction with the university's offers among program members at Freie Universität is 24.5%, nationwide 19.4% higher than among individual doctoral researchers, indicating a clear difference. This might be explained by the fact that those who are members of a program usually have tighter bonds to the university than those who follow the traditional individual path.

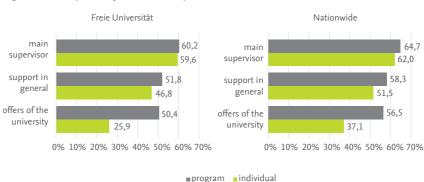
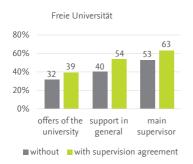
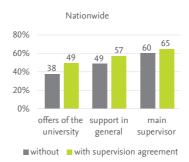


Figure 27 Nacaps: Satisfaction with supervision

More clear differences may be observed when taking a closer look across all disciplines and all doctoral researchers. Those who have signed a supervision agreement at Freie Universität are on average 10% more satisfied with all areas of supervision, with a very similar picture emerging nationwide.

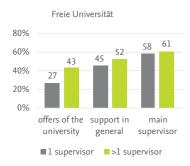
Figure 28 Nacaps: Supervision agreement and satisfaction with supervision





Doctoral researchers at Freie Universität and nationwide who have a supervision team of two or more supervisors seem to be generally more satisfied with all areas of supervision compared to those with one supervisor.

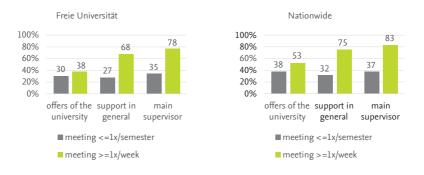
Figure 29 Nacaps: Supervision teams and satisfaction with supervision





In addition, those researchers who meet their supervisor more often are considerably more satisfied with their supervision and support compared to those who meet less often. Again, his is the case both at Freie Universität and nationwide.

Figure 30 Nacaps: Intensity of and satisfaction with supervision



These results show that some elements of the structured doctorate, such as supervision agreements and team supervision, are also becoming more prevalent in the individual doctorate and that they seem to have a positive effect on the satisfaction of doctoral researchers.

Another argument in this direction is the survey result that 57% of the respondents at Freie Universität are aware of the general qualification offers for doctoral researchers. Among structured doctoral researchers, the share is 75%.

The following diagram shows the results specifically for research integrity:

Figure 31 Nacaps: Research integrity awareness



The satisfaction with and also knowledge of qualification and support offers is higher among structured doctoral researchers. On the one hand, this could be related to additional offers in the doctoral programs and, on the other hand, to better communication of these offers in the doctoral programs.

An obvious step to overcome this imbalance would be to make support and qualification offers more visible and accessible to all doctoral researchers at Freie Universität Berlin.

#### DREAM MENTORING

In the top ranks of science and business, women are still underrepresented. Tackling this problem, DREAM (Dahlem Research Mentoring) provides strategic support for career planning, skills training, and network building to female doctoral researchers of all disciplines with both academic and non-academic career goals.

A mentor and a mentee jointly explore and build the mentee's abilities and discuss career-related issues. This one-to-one mentoring partnership is supplemented by specific workshops, coaching and networking events.

The mentors – many of whom alumni of Freie Universität – work in an honorary capacity and have diverse professional backgrounds.

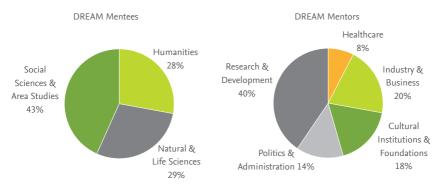


Figure 32 DREAM mentees & mentors since 2011, by discipline and field

Since the start of the program in 2011, 104 female researchers have successfully completed the one-year program. In 2019, DREAM did not take on any new mentees. However, the feedback from mentees and mentors is extremely positive and a continuation of the program is planned.

## A few examples:

- It was particularly useful to gain insights into the set-up and funding of nonacademic research institutions.
- The program enabled me to position myself more broadly in the professional field of science management in- and outside of academia.
- My mentor gave me valuable feedback and support, especially regarding job applications and making career step decisions.
- I take away many empowering moments from the program, a supportive network of mentees, and the confidence to be able to master the transition from dissertation to career despite structural difficulties.
- The program was enormously helpful in career planning, self-evaluation after the doctorate, professional profile analysis and the establishment of a professional network.
- I was able to learn a lot from my mentee, e.g. I gained insight into the way young researchers think.
- Methodologically, I learned a lot for my mentoring.
- I appreciated to be able to cooperate across universities.

#### **ELSA NEUMANN SCHOLARSHIPS**

The state of Berlin awards Elsa Neumann Scholarships to excellent doctoral researchers at Berlin's state-funded universities. The program is named in honor of the physicist Elsa Neumann, the first woman to receive a doctorate from Friedrich-Wilhelms-Universität zu Berlin in 1899.

Applications from all disciplines are accepted. The scholarships are awarded by an interdisciplinary and inter-university commission appointed by the Senate of Berlin and administered by Dahlem Research School.

| Figure 33 | Elsa | Neumann | Schola | ırships at | Freie | Universität 2019, | by gender |
|-----------|------|---------|--------|------------|-------|-------------------|-----------|
|-----------|------|---------|--------|------------|-------|-------------------|-----------|

| Subject                         | <b>Application</b> s | Fe  | male | Male  |    | Admissions Fem |       | male Male |     | 1ale |
|---------------------------------|----------------------|-----|------|-------|----|----------------|-------|-----------|-----|------|
|                                 | Total                | No. | %    | No. % |    | Total          | No. % |           | No. | %    |
| Humanities &<br>Social Sciences | 57                   | 41  | 72   | 16    | 28 | 17             | 13    | 76        | 4   | 23   |
| Natural & Life<br>Sciences      | 21                   | 13  | 62   | 8     | 38 | 10             | 6     | 60        | 4   | 40   |
| Total                           | 78                   | 54  | 69   | 24    | 31 | 27             | 19    | 70        | 8   | 30   |

Figure 34 Elsa Neumann Scholarship applications at Freie Universität 2019, by region in %



Figure 35 Elsa Neumann Scholarships at Freie Universität 2019, by region in %



#### **FUBRIGHT FOR INTERNATIONAL DOCS**

From 2015 to 2019, Dahlem Research School ran the FUBright project, supporting international doctoral researchers at Freie Universität by providing information and advice, training, and mobility allowances for conferences and research stays, to prepare for work and research in a different culture.

FUBright for International Doctoral Researchers was promoted by the German Academic Exchange Service (DAAD) and funded by Germany's Federal Ministry of Education and Research (BMBF).

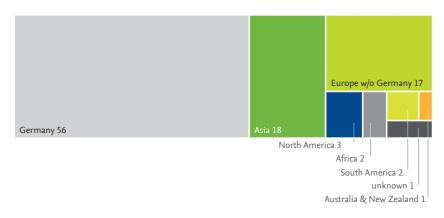
Figure 36 FUBright program areas

| FUBright for International Docs |                        |                         |                   |  |  |  |  |  |  |  |  |  |
|---------------------------------|------------------------|-------------------------|-------------------|--|--|--|--|--|--|--|--|--|
| FUBright Welcome                | FUBright Qualification | FUBright Career         | FUBright Mobility |  |  |  |  |  |  |  |  |  |
| Pre-Arrival Support             | Half Time Reflection   | Career Transition Days  | Conference Trips  |  |  |  |  |  |  |  |  |  |
| Welcome Events & Services       | Final Spurt Days       | Group Mentoring         | Research Stays    |  |  |  |  |  |  |  |  |  |
| Buddy Programs                  |                        | Business Administration |                   |  |  |  |  |  |  |  |  |  |
| German Language<br>Courses      |                        |                         |                   |  |  |  |  |  |  |  |  |  |
| Peer Mentoring                  |                        |                         |                   |  |  |  |  |  |  |  |  |  |

Figure 37 FUBright participation 2015–2019

|       | FUBright for International Docs |                  |        |  |        |                  |                   |                   |  |  |  |  |
|-------|---------------------------------|------------------|--------|--|--------|------------------|-------------------|-------------------|--|--|--|--|
|       | FUBri                           | ight Welcome     |        | FUBright FUBright Caree<br>Qualification |        |                  | FUBright Mobility |                   |  |  |  |  |
|       | Events                          | Atten-<br>dences | Events | Atten-<br>dences                         | Events | Atten-<br>dences | Atten-<br>dences  | Research<br>Stays |  |  |  |  |
| 2015  | 16                              | 188              | 8      | 40                                       | 3      | 38               | -                 | -                 |  |  |  |  |
| 2016  | 19                              | 266              | 19     | 163                                      | 8      | 93               | 13                | 8                 |  |  |  |  |
| 2017  | 20                              | 310              | 23     | 200                                      | 10     | 110              | 6                 | 12                |  |  |  |  |
| 2018  | 4                               | 85               | 19     | 163                                      | 5      | 39               | 17                | 10                |  |  |  |  |
| 2019  | 1                               | 8                | 7      | 63                                       | 1      | 15               | 7                 | 6                 |  |  |  |  |
| Total | 59                              | 849              | 69     | 566                                      | 26     | 280              | 36                | 30                |  |  |  |  |

Figure 38 Freie Universität – international doctoral researchers 2019, by region



After the project's completion in June 2019, Dahlem Research School incorporated best practice from FUBright in its general information and qualification offers to ensure optimal inclusion of international researchers.

## **DRS POSTDOC FELLOWSHIPS**

The postdoctoral phase is a critical time in which researchers decide for or against a career in academia. Until 2019, the DRS Postdoc Program of the Dahlem Research School supported postdoctoral researchers by providing salaried positions plus research budget for 24-month-long projects in the internationally advertised

COFUND (2011–2015), POINT<sup>6</sup> (2013–2018) and DAHLEM POSTDOC (2017–2019) Fellowship programs, and 12-month-long scholarships in the HONORS Fellowship (2011–2019) for recent graduates of DRS member programs. Since 2011, 150 DRS Postdoc Fellows from over 30 countries completed their own research project at Freie Universität Berlin.

Figure 39 DRS POSTDOC Fellowship appointments 2011–2019, by region



North America 4

## Competitive selection

Dahlem Research School employed a highly competitive selection procedure: peer review, structured interviews, final ranking and approval by the university's Executive Board.

Figure 40 DRS COFUND, POINT & DAHLEM POSTDOC Fellowship success rates 2011–2017



<sup>6</sup> Freie Universität Berlin was the first German university to succeed in 2011 in establishing fellowships for international postdocs with the help of the European Commission's COFUND program. With a second successful co-financing in 2013, the project scope increased from less than 2 Million to more than 8 Million Euros.

Figure 41 DRS HONORS Fellowship success rates 2011-2018



In both types of programs, those involving salaries, mobility and open international calls (COFUND, POINT, DPF), and those involving scholarships, no mobility and calls exclusively open to recent graduates of DRS member programs (HONORS) fewer women applied but achieved a slightly higher success rate.

## Integration into the research environment and the institution

DRS Postdoc Fellows proposed their own research topics, based on the foci of research within projects that later would become their hosts. As host projects qualified Freie Universität's Focus Areas, Excellence Projects and DRS doctoral programs, which were networks for interdisciplinary collaborative research and provided a unique research environment.

## Early independence

Within the host projects, the DRS Fellows received support from senior researchers who acted as scientific advisors and provided mentorship. At the same time, having their own research budget for the first time, DRS Postdoc Fellows experienced a flexibility that strengthened their independence as researchers – this is something on which former fellows all agree. In addition, DRS courses on leadership, team and project management prepared the independent researchers of tomorrow for their future tasks and responsibilities.

#### Added value

DRS Postdoc alumni have raised over 7 Million Euro in third party funding for Freie Universität Berlin. Of course, there are also non-monetary benefits: DRS Postdoc interdisciplinary projects have strengthened the research profiles of the Berlin Clusters of Excellence and enabled new collaborations. Host institutions have benefited from new perspectives, knowledge, expertise, and stronger international networks.

However, the main output of the DRS Postdoc Fellowships are independent and successful researchers. More than 90 percent of the 150 DRS Postdoc Fellows found successful follow-up positions.

Figure 42 DRS Postdoc Fellows - follow-up positions



## Fellow feedback

- In my own case, DRS Point fellowship has already proved to be an important step in the process of establishing my career in academia.
- DRS has provided support in all the relevant issues that I have encountered during my postdoctoral research.
- The Dahlem Research School offered me an extraordinary opportunity at many levels to carry out successfully my research project and develop suitable skills for obtaining a long term position in my research field.
- The DRS is a fantastic program, which helped me tremendously in my career. I am extremely grateful to the team that works at the DRS.

# POSTDOCTORAL RESEARCHERS INTERNATIONAL MOBILITY EXPERIENCE (P.R.I.M.E.)

With funding from the Federal Ministry of Education and Research (BMBF) and the European Union (FP7/Marie Curie Actions/COFUND), the German Academic Exchange Service (DAAD) initiated the funding program "Postdoctoral Researchers International Mobility Experience" (P.R.I.M.E.)<sup>7</sup> in 2014 and has since supported international mobility in the postdoctoral phase through temporary positions at German universities. The funding includes a 12-month phase abroad and a six-

 $<sup>\</sup>label{prop:continuous} 7 \quad www.daad.de/en/study-and-research-in-germany/scholarships/postdoctoral-researchers-international-mobility-experience/$ 

month integration phase at a German university, where the grantees are employed as postdocs for the entire funding period.

In 2019, three applicants from Freie Universität were selected in a competitive process. The average funding rate for the selections so far is about 12-13 %. With a total of eleven P.R.I.M.E. Fellowships, Freie Universität has acted as host institution for the most P.R.I.M.E. Fellows compared to all other universities. 134 fellowships have been awarded and hosted by 51 universities nationwide.

Five female and six male researchers from Brazil, Germany, Italy and Poland have carried out their research projects at Freie Universität and UNC Chapel Hill, University of California, Columbia University New York, University of New York, University of Wisconsin-Madison, and Princeton University in the USA, Mohammed VI University, Rabat in Morocco, Katholieke Universiteit Leuven in Belgium, Università degli studi Roma Tre in Italy and Universidad de Madrid in Spain.

Four of the P.R.I.M.E. Fellows have been hosted by the Department of History and Cultural Studies, two by the Department of Philosophy and Humanities, two by the John F. Kennedy Institute for North American Studies and one each by the Departments of Biology, Chemistry, Pharmacy; of Earth Sciences and of Mathematics and Computer Science.

The annual call for applications starts in April/May, with an August deadline and the earliest funding start date in May of the following year.

## **QUALIFICATION**

2019 has been a transition year for Dahlem Research School's qualification program.

External funding from the German Academic Exchange Service (for Project FUBright, see p.29f) and the Excellence Initiative ended in June and October respectively. All previous program lines are now combined under the label DRS "Workshops and Courses".

With the grant approval of the Berlin University Alliance, Dahlem Research School and its sister institutions are currently developing a joint Berlin Graduate Studies Support program across all partner universities. As a first step, workshops and courses at each institution have been opened for doctoral candidates from all partners free of charge.

DRS "Workshops and Courses" complement the disciplinary education provided within the departments and member programs. They allow doctoral and early postdoctoral researchers to develop a broad set of professional skills and tools necessary to enhance their academic performance and achieve their professional goals:

- · to succeed in their research project,
- · to enhance their competencies and maximize their potential, and
- to prepare for a career in industry, academia or the public sector.

Research integrity continues to be a special focus. In cooperation with Humboldt Graduate School and Potsdam Graduate School, Dahlem Research School offers a wide range of courses on research integrity, open to all doctoral researchers of the Berlin University Alliance and the University of Potsdam. Additionally, in collaboration with GRADE, the Goethe Research Academy for Early Career Researchers at Universität Frankfurt, Dahlem Research School offers doctoral researchers the option to participate in the eLearning course "Good Academic Practice".

Open Door Talks on various topics, from general information for researchers interested in doctoral research to funding opportunities for early postdoctoral researchers, and a number of special formats and events, complete Dahlem Research School's "workshop and courses" portfolio.

Two special formats offered by Dahlem Research School, Pro Business and Pro Transfer, bridge the gap between research, business and industry.

Pro Transfer links Dahlem Research School to the Digital Entrepreneurship Hub of Freie Universität and Pro Transfer offers a blended learning format with the Network p2i – an international initiative to support and strengthen the innovation mindset of postdoctoral researchers.

Finally, the annual "Career Day" with panelists from various fields, planned and organized by doctoral researchers, will be the first joint event of Dahlem Research School, Humboldt Graduate School, the TU-DOC Office and Charité – Universitätsmedizin Berlin hosted under the auspices of the Berlin University Alliance.

Figure 43 DRS – course participation 2019

| Term                      |             | Tot   | al Numb | ers |              | Gender           |             |                  |      |                        |     |
|---------------------------|-------------|-------|---------|-----|--------------|------------------|-------------|------------------|------|------------------------|-----|
|                           | Attendances |       |         |     |              |                  | Female Male |                  |      | Prefer not to disclose |     |
|                           | Courses     | Total | PDP     | RDP | FU<br>Bright | Atten-<br>dances | %           | Atten-<br>dances | %    | Atten-<br>dances       | %   |
| Winter<br>Term<br>2018/19 | 62          | 432   | 266     | 80  | 86           | 244              | 56.5        | 166              | 38.4 | 22                     | 5.1 |
| Summer<br>Term<br>2019    | 45          | 261   | 225     | 36  | -            | 167              | 64.0        | 87               | 33.3 | 7                      | 2.7 |
| All courses               | 107         | 693   | 491     | 116 | 86           | 411              | 59.3        | 253              | 36.5 | 29                     | 4.2 |

PDP: Professional Development Program of DRS | RDP: Researcher Development Program of DRS

#### Evaluation and course satisfaction

Participants evaluate all qualification courses immediately after the end of each workshop and overall satisfaction has been consistently high. In fall 2018, Dahlem Research School conducted a survey on course quality and usefulness among course participants of the previous twelve months and received over 150 responses.

All course groups received overall good marks with teaching, research integrity and career orientation rated as (mostly) excellent.

The picture is different for long term usefulness: courses on career orientation, teaching and presenting seem to provide clearly recognizable and directly applicable benefits and skills. On the other hand, courses on skills that will only be applicable sometime in the future do not score high on the usefulness index. Especially the courses on third-party funding/grant proposal writing, which are in high demand, are judged less useful in the long term perspective. The reason for this might be that courses may have been taken without a specific project in mind and a long time before the participants were eligible to apply.

In 2019 in-depth interviews with doctoral and postdoctoral researchers provided an additional perspective on the expectations and professional challenges for early stage researchers, the latter described by one respondent as the need "to find a way to position myself [...] to form a certain field that belongs to me or in which I can be considered [an] important discussant".

Figure 44 DRS online survey – "What do you associate with Dahlem Research School?"



Seen as a provider of high quality workshops and events supporting researchers in their academic career, the expectations towards Dahlem Research School are clear-cut. At earlier stages of their career, researchers expect to acquire "a basic set of competencies for the doctoral work". Satisfaction with the offers of Dahlem Research School in this field is generally high (see Figure 44) and especially the use of courses related to doctoral work was stressed by respondents: "the writing courses … helped me understand the whole process. I've got the feeling that I'm on the right track"; "I used these (writing) techniques many times".

Towards the end of a doctorate, expectations start to differ and questions of career orientation become more prominent. As one respondent points out: "I am starting to think whether I should look for a postdoctoral position or whether I should take my skills and go to the industries".

Given the low percentage of permanent position in academia, the prominence of this topic is not surprising and generates the need for information on the specific requirements of different labor markets: "There are skills that employers are looking for so it is important that you have these skills".

Regarding the academic job market, it becomes clear that especially doctoral candidates from abroad have difficulties: "In order to apply for a job in German academia as an international, you need a better understanding of the underlying mechanisms and unwritten rules".

Matching course objectives and individual needs therefore remains the crucial challenge for the redevelopment of the workshop program at Dahlem Research School and the planned joint formats of the Berlin University Alliance for early stage researchers.

#### **FUTURE DEVELOPMENTS**

Similar to "Facts and Figures 2018", the new edition of the statistical report of the DRS still addresses a period of transition and transformation, which ended with the approval of the Berlin University Alliance (BUA) and the beginning of the first funding period in November 2019. Whereas most or all data reported here refers to the last month of the Excellence Initiative until the end of October 2019, the new horizon of intensified cooperation in the Berlin research area already allowed for a critical reassessment of measures and observed effects.

- The structured doctorate established by programs proved to be beneficial
  for doctoral researchers with regard to indicators such as satisfaction with
  supervision, drop-out rates or grades achieved. The Berlin University Alliance
  hence will build on this role model and extend certain characteristics of doctoral
  programs to all doctoral researchers of the Alliance.
- 2. Research integrity and good scientific practice remain an issue. Only few doctoral researchers are aware of specialized training opportunities, even fewer ever participated actively in a course. The Berlin University Alliance therefore puts a focus on research quality and the partners will accentuate the topic in their joint qualification program.
- 3. Overall, as data collected by the National Academic Panel Study shows, doctoral researchers, to a great extent are not satisfied with the support offered to them by the universities. Although it may be concluded from the data that this might partially be due to a lack of information rather than a lack of supporting structures, the DRS and its sister institutions of the BUA will make every effort to adjust these offers better to the needs of the doctoral researchers and to communicate them more effectively.

With the integrated research environment to be realized by the Berlin University Alliance and intensified exchange between the partner institutions, refined sets of indicators and reliable data will become crucial for the promotion of junior researchers and its further development. Thus, facts & figures will always and best be seen as work in progress.

The team of Dahlem Research School thank all contributors.



