

RISIS



RESEARCH INFRASTRUCTURE FOR SCIENCE
AND INNOVATION POLICY STUDIES

DOCUMENTATION OF RISIS DATASETS *ProFile*

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1 Introductory Remark

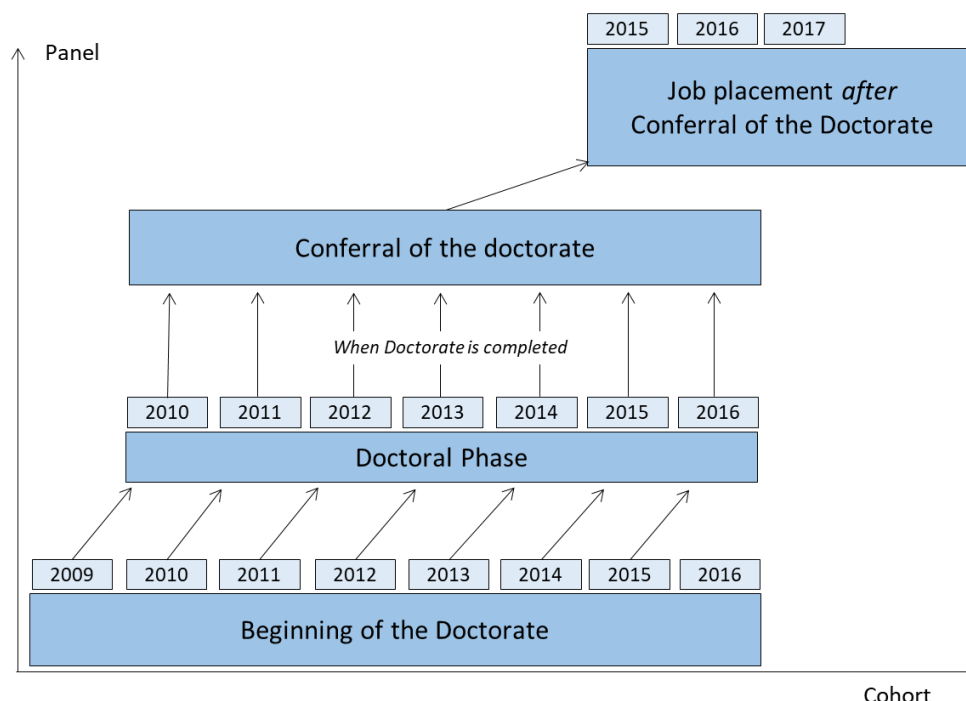
This documentation is an updated version of Lange et al. (2017).

2 Basic Characteristics

The German Doctoral Candidates and Doctorate Holders Study ProFile is a longitudinal study focussing on the situation of doctoral candidates and their postdoctoral professional careers in- and outside of academia. ProFile aims at identifying determinants of postdoctoral career development and providing information on conditions of doctoral education in a comparative perspective via a monitoring approach. Special attention is paid to the effects of structured doctoral programs (Graduate Schools) on doctoral education, which have emerged increasingly during the past years. ProFile contains a number of explanatory elements, which can be connected to career theories of decision making in order to explain career outcomes. The study was carried out from 2009 until 2017.

The study followed a panel design in the sense that it ideally surveyed a doctoral candidate at the beginning of his or her doctoral candidacy, at least one time during the doctoral candidacy, at the conferral of the doctorate and once after the conferral of the PhD as illustrated in Figure 1. From 2009-2016, a new cohort of doctoral candidates was added to the survey every year.

Figure 1: ProFile Longitudinal Design



The study foresaw three surveys, which were conducted by the DZHW as online surveys: the Initial Survey, the Evaluation Survey and the Follow-Up Survey. Participants are invited through a personalized link to the online questionnaire via a bilingual email with English and German being the available survey languages.

The Initial Survey targeted doctoral candidates who participated in ProFile for the first time. Even though the Initial Survey targeted doctoral candidates at the beginning of their doctoral candidacy, due to the lacking necessity of prompt registration at universities, not all persons delivered were doctoral candidates. Instead, the data also contained persons who recently completed their doctorate or persons who had stopped working on their doctorate already (drop outs). About 5 % of the respondents in the Initial Survey were doctorate holders and less than 1 % reported that they had stopped working on their PhD. The yearly Evaluation Survey focused on persons, who already participated in ProFile and stated that they are still doctoral candidates in the previous Evaluation or Initial Survey or those who completed their doctoral training in the meantime. The Follow-Up Survey targeted doctorate holders who participated in ProFile at least once and completed their doctoral candidacy.

ProFile was initiated by the Institute for Research Information and Quality Assurance (Institut für Forschungsinformation und Qualitätssicherung, iFQ) which is now part of the DZHW (German Centre for Higher Education Research and Science Studies).¹ Since 2017, ProFile continues in the successor project National Academics Panel Study (nacaps).² The development and implementation of the panel study between 2006 and 2017 was funded by basic institutional funding of the iFQ and received supplementary funding by the German Federal Ministry of Education and Research (BMBF) between 2007 and 2009. Funding for the preparation of the Scientific Use File was provided by RISIS Research Infrastructure for Research and Innovation Policy Studies, a EU FP7 Research Program Project grant agreement no: 313082.

3 Database content

ProFile contains substantial information on doctoral candidates and their post-doctoral careers.

3.1 Definition and description of observations

ProFile aims at studying the supervision situation of doctoral candidates and careers of doctoral holders. Thus, doctoral candidates and doctorate holders are the units of analysis. Doctoral degrees are defined as advanced study ISCED-8³ equivalent research degrees. The data covers doctoral students from all subjects with the exception of Medicine.⁴

Altogether 20,283 respondents participated at least once in an Initial Survey from 2009 to 2016. 18,622 of those were doctoral candidates and 133 reported they had stopped working on their doctorate in the Initial Survey. Nearly half of the doctoral candidates in the Initial Survey could be surveyed in an Evaluation Survey afterwards, from which 3,271 were questioned about their conferral of the doctorate. In total, ProFile contains information of 5,468 doctorate holders. In total, 2,159 individuals were surveyed at all stages of their doctoral project (see Table 1). As mentioned above, a few respondents, 1,528 in numbers, are already doctorate holders in the

¹ As of January 2016 the iFQ is part of the German Centre for Higher Education Research and Science Studies (DZHW). Here, it continues its work as Research Area 2 Research System and Science Dynamics.

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² <https://www.nacaps.de/>

³ International Standard Classification of Education 2011 (ISCED),

<http://www.uis.unesco.org/Library/Documents/2011-international-standard-classification-education-isced-2012-en.pdf>

⁴ This is because an unknowingly large share of doctoral degrees in Medicine may not be ISCED-8 equivalent degrees because degrees are partially obtained before referral of the ISCED-7 degree.

Initial Survey and receive a specific questionnaire, which surveys the beginning of the doctorate in retrospect. They are questioned in the Follow-Up Survey, too.

Table 1: Number of Respondents in Surveys (2009 - 2017)⁵

INITIAL SURVEY		EVALUATION SURVEY		FOLLOW-UP SURVEY	
Doctoral Candidates (PI)	Doctorate Holders (PII)	Doctoral Candidates (PE)	Doctorate Holders (PIE)	Doctorate Holders (FQ) <i>from EVALUATION SURVEY</i>	Doctorate Holders (FQ) <i>from INITIAL SURVEY</i>
18,622	1,528	5,444	3,940	2,159	725

Source: ProFile data, own calculations 2019.

3.2 Data acquisition and processing (e.g. data cleaning)

Since no sampling frame was available, individual data owners were involved. Several universities, graduate schools and scholarship providers were contacted before the ProFile survey started in 2009 in order to get access to registers of doctoral candidates. The selection of participating institutions was primarily driven by the intention to reflect heterogeneity in contextual factors, respectively settings, in which a doctorate might be pursued and obtained and to yield sufficient sizes of subsamples for comparative analysis. Table 2 shows the participating institutions. ProFile cannot claim statistical representativity for doctoral candidates in Germany for these years as no nation-wide sampling frame was available during the time the study was carried out.

Table 2: Participating Institutions and Years with Data Delivery

TYPE OF INSTITUTION	PARTICIPATING INSTITUTION
UNIVERSITIES	Humboldt-Universität zu Berlin (2009-2016), University of Kassel (2010, 2014-2016), Heidelberg University (2009-2016), Freie Universität Berlin (2009-2016), Friedrich Schiller University in Jena (2009-2016), Leibniz Universität Hannover (2009-2016), University of Osnabrück (2009-2016), Otto von Guericke University of Magdeburg (2011-2016), Goethe Graduate Academy at Goethe University Frankfurt (2012, 2014-2016)
GRADUATE SCHOOLS	Hartmut Hoffmann-Berling International Graduate School of Molecular and Cellular Biology (2009-2016), International Graduate Centre for the Study of Culture (2009-2010), Graduate School for Advanced Manufacturing Engineering (2009-2010), Erlangen Graduate School in Advanced Optical Technologies (2009-2010), International Graduate School of Science and Engineering (2009-2010)
SCHOLARSHIP PROVIDERS	German National Academic Foundation (Studienstiftung des Deutschen Volkes, 2009-2016), Heinrich Bull Foundation (2012-2016), German Academic Exchange Service (Deutscher Akademischer Austauschdienst, DAAD, 2012-2016)*
RESEARCH FUNDING ORGANIZATION	German Research Foundation (Deutsche Forschungsgemeinschaft, DFG): Research Training Groups and Collaborative Research Centres (2009-2011)

⁵ Respondents are persons who either completed the questionnaire or dropped out of it but answered the status question at least.

**Stipends in cooperating programs, individually funded stipends intending to obtain a doctorate at a German University as well as stipends funded in the program IPID (International Promovieren in Deutschland). Source: Lange et al. 2017, p. 3, updated by the Author*

The participating institutions annually submitted contact data of their doctoral candidates (encompassing email address, name, year of birth, gender and discipline). Even though the participating institutions were not sampled randomly, the selection of participating institutions in ProFile basically follows the logic of a cluster sampling where ProFile attempts full coverage at the level of the participating institutions the primary sampling units.

3.3 Information on all variables/indicators

Since the status of the respondent was unknown prior to the invitation to the Initial and Evaluation Surveys, event triggered questionnaires were implemented. Depending on the actual status of their doctoral project, which was assessed in the beginning of the Initial and Evaluation Survey, respondents are directed to varying questionnaires as depicted in Table 3. Thus, the status of the doctoral project serves as key variable for routing the participant to the correct questionnaire. The questionnaires of all surveys including all variables can be downloaded here:

- For Initial and Evaluation Surveys between 2009-2012, click [here](#) (recommended for first overview of questionnaire contents for doctoral candidates)
- For Initial Surveys between 2013-2016 click [here](#)
- For Evaluation Surveys between 2013-2016, click [here](#)
- For Follow-Up Surveys 2015-2017, click [here](#) (job-placement after conferral of the doctorate)

Table 3: Overview of ProFile Questionnaires implemented in the ProFile Surveys

	INITIAL SURVEY	EVALUATION SURVEY	FOLLOW-UP SURVEY
DOCTORAL CANDIDATE	Initial Questionnaire for Doctoral Candidates (PI)	Evaluation Questionnaire for Doctoral Candidates (PE)	
DOCTORATE HOLDER	Initial Questionnaire for Doctorate Holders (PtI)	Evaluation Questionnaire for Doctorate Holders (PtE)	Follow-Up Questionnaire (FQ)
DROP OUT		Questionnaire for Drop Outs (A)	

Source: Lange et al. 2017, p. 6

The shaded cells in Table 3 display the questionnaires a ProFile participant ideally answers: The Initial Questionnaire for Doctoral Candidates (PI) focuses on information on the educational background, motives for a candidature, the supervision situation, the quality of courses offered, resources and questions about how doctoral candidates finance themselves during their doctoral candidacy. If the respondents status of the doctoral project does not change during the next year he or she receives the Evaluation Questionnaire for Doctoral Candidates (PE), which aims at generating more information about the (possibly changing) conditions of their doctoral training.

Conceptualized as a short questionnaire between the beginning and the conferral of the doctorate, it primarily considers changes in individual funding and supervision. If respondents indicate to have completed their degree, they receive the Evaluation Questionnaire for Doctorate Holders (PtE), which determines the successful conferral of the doctorate as well as job-related aims and perspectives. After the doctorate is finished, the Follow-Up Questionnaire (FQ) focuses on job placement in and outside of academia as well as career trajectories after the conferral of the doctorate. It also aims at gaining more insight into job satisfaction, possible job strains and adequate occupation within or outside of academia.

The questionnaire has remained rather unchanged over the years 2009-2012. In 2013, revisions were made and additional blocks were incorporated into the questionnaire. In 2014, changes to the educational biography were introduced.

3.4 Sectorial, temporal and geographical coverage

Classification of research fields / subject areas

The most important classification in ProFile is the classification of research fields as substantial parts of variance can be explained through them. Research fields were determined via an open-ends answer in the survey. Different classifications based on the open ended question can be provided upon request. ProFile mainly relied on the classification scheme of the German Statistical Office (DESTATIS Studienbereiche) and the Subject Classification of DFG (DFG Subject Areas). The categories of the different classifications are available in the Appendix.

Temporal coverage

Data collection in ProFile started in 2009. The persons surveyed in the first survey have started the work on their dissertation partially way before 2009. Starting from the second year of partnership with the university or funding organisation the partner provided only the contact data of the new doctoral candidates for the specific year. ProFile therefore looked every year at the cohort of newly beginning doctoral candidates. All doctoral candidates were invited to the annual Evaluation Survey until they indicate having obtained their doctoral degree or until they indicate having terminated their doctoral candidacy without obtaining the degree (dropping out from doctoral training).

Geographical coverage

Geographical coverage is limited to doctoral candidates with supervisors at German universities regardless of their place of residence. The sample can be reduced to persons who aim to obtain their doctorate from a German university. ProFile does not include any information on the place of residence, neither of doctoral candidates nor of doctoral holders. The Follow-Up survey assesses the place of work by state in Germany and country (if outside of Germany). About one third of the respondents are educational migrants, having obtained their university entrance qualification and at least one degree of study outside of Germany.

For more information on the classifications used, please consult the questionnaires.

3.5 Quality and accuracy of data

Data quality was ensured by means of data monitoring and error correction at different stages. At the stage of data delivery, the whole contact data delivered by the participating institutions was checked and corrected for duplicates.⁶ During field phase three reminders were sent and bounced email addresses were researched manually and invited again, to increase response rates.⁷ In addition, respondents were provided with results from the survey in order to show its value and increase panel commitment. The response rates varied between 20 % and 40 % for Initial Surveys, 30 % and 50 % for Evaluation Surveys and over 50 % for Follow-Up Surveys.⁸ After data collection, data editing included anonymization, plausibility checking, coding of missing values and editing of central variables.

Furthermore, external validation was conducted on the level of the participating institutions and on the level of the whole sample. On the level of participating institutions the distributions of the data provided (gender, year of birth and discipline) and the data collected in the Initial Surveys were compared. On the level of the whole sample the *uni sample* of the Initial Survey 2015 can be compared with up-to-date official results of the Federal Statistical Office (Hähnel/Schmiedel 2016), which estimated the number of doctoral candidates at German universities by means of a two stage random sample where professors (as supervisors) and then doctoral candidates were asked to participate. The study concluded that there were about 196,200 doctoral students in Germany in winter semester 2014/2015. Although the clusters in ProFile were not selected randomly, comparing the ProFile *uni sample* with results of the Federal Statistical Office reveals only minor deviations from the overall population with regard to gender and discipline (see Table 4).⁹

Table 4: Doctoral Candidates in Official Estimation and in ProFile by Discipline and Gender

	DOCTORAL CANDIDATES Winter Semester 2014/2015 Estimation of Federal Statistical Office in %			DOCTORAL CANDIDATES ProFile Participants in Initial Survey 2015 in %		
	WOMAN	MEN	TOTAL	WOMAN	MEN	TOTAL
Linguistics and Cultural Studies	61.0	39.0	18.0	59.9	40.1	25.0
Law, Economic and Social Sciences	43.0	57.0	17.0	48.9	51.1	14.6
Sports	/	/	/	60.0	40.0	0.3
Mathematics, Natural Sciences	41.0	59.0	30.0	47.3	52.7	43.6
Medicine/Health Sciences	58.0	42.0	10.0	64.7	35.3	1.1
Veterinary Medicine	/	/	/	72.7	27.3	2.9
Agricultural, Forestry and Nutritional Sciences	58.0	42.0	2.0	62.8	37.2	2.8

⁶ Since it is theoretically possible that one and the same doctoral candidate is reported by two different participating institutions, duplicates are identified by a routine based on names, email addresses, discipline and year of birth.

⁷ Response rate is the quotient of the respondents and the net subpopulation (gross subpopulation adjusted for persons without valid/undeliverable email-addresses) multiplied by 100.

⁸ The participating institutions differ in terms how data is transmitted to ProFile. The opt-in data procedure requires that doctoral candidates at the participating institutions give consent that their data is delivered to the DZHW. Partners with complete data submission transfer contact data of all their candidates to the DZHW without prior consent. The data collection procedure has consequences for the response rates: The opt-in procedure produces higher response rates.

⁹ Comparisons with results of an earlier estimation of the Federal Statistical Office of doctoral candidates in Germany in Winter semester 2010/2011 by Wolters/Schmiedel (2012) with ProFile data also displayed only small differences concerning the distribution of candidates by gender and discipline (Hauss et al. 2012: 53).

Engineering Sciences	21.0	79.0	19.0	23.6	76.4	7.0
Fine Arts, Art History	64.0	36.0	2.0	73.7	26.3	2.5
Other Discipline	/	/	/	0.0	100.0	0.1
TOTAL	44.0	56.0	100.0	51.1	48.9	100.0

Note: Values for Sports, Veterinary Medicine and Other Disciplines were not reported in H4hnel and Schmiedel 2016. Source for table: Lange et al. 2016, p. 359. Sources for table content: H4hnel/Schmiedel 2016: 25ff, ProFile data, own calculations 2016.

Documentation of missing values

The following Table 5 provides information on types of missing values contained in the data.

Table 5: Meaning of the single missing labels

Missing value	Meaning	Example
.	Unspecified missing	
.a	System error, meaning the page was not recognised by the system	
.b	Question was not asked for the reason that it was not planned for the survey	The question was not asked in the survey (e.g. specific questions in the evaluation survey (AUS6) or 2nd wave)
.f	Filtered question was not asked	Questioned person was not asked the question due to filter settings
.k	No response given	Person saw the question, but did not give an answer (original value: 999999)
.p	Implausible answer	Indication is not plausible and is coded as missing
.r	Revised answer	Multi choice question for multiple answers was deactivated again (original value= 2)
.u	Question was not seen, since the questionnaire had been interrupted before	Asked person interrupted the questionnaire before
.w	Dont know or is not applicable	The sixth option in a scale (original value: 99)

Missing values in string variables (only initial survey 2009-2012)

999999	Question was seen, but no answer was given
	Question was not seen

4 Technical Specifications

4.1 Information on the data base system

The database is in a longitudinal Stata data-file. It can be transferred to a different format (SPSS, R, etc.) upon request for a specific research project.

4.2 Technical variable definition

All individuals are marked with a unique id variable in the data. Labels are available in German, and partially in English. The variables contain different data types depending on the information they hold. The data also contain longer string variables which can be accessed upon request as well.

4.3 Interfaces for access and to other infrastructures

The ProFile data can also be linked with information from the European Tertiary Education Register (ETER) or the Leiden Ranking facilitating more in-depth analysis.¹⁰ However, the detail of information provided needs to be so general that anonymity of the university cannot be breached. To achieve this, indicators will be aggregated and grouped where necessary.

5 Scientific use cases and main references

Using the ProFile data, different topics concerning doctoral candidates and doctorate holders were explored during recent years. An extensive overview of results based on the diverse topics covered by the ProFile Study can be found in Hauss et al. (2012). A typology of doctoral candidates status groups has been developed and related to characteristics of the doctoral candidacy (Ambrasat/Tesch 2017). Furthermore, the ProFile data were used to investigate the role and identity cultures of doctoral candidates in Germany (Kaulisch/Hauss 2012), the quality of doctoral candidacy (Hornbostel/Tesch 2014), the financing and employment situations of doctoral candidates (FrdЯdorf/Kaulisch/Hornbostel 2012), the intention to enter an academic career (Hauss/ Kaulisch/Tesch 2015), the specific situation of the doctoral candidacy in law (Tesch 2015) and the potentials of an empirical foundation of counselling services for future doctoral candidates (FrdЯdorf/Hornbostel 2012). With a view to structured doctoral programs inherent expectations (Hauss/Zinnbauer 2011), the supervision situation (Hauss/Kaulisch 2012, Briedis et al. 2013) and the promotion of equal opportunities (Kaulisch 2011) were analyzed. Linking ProFile to Leiden Ranking a first attempt to study research environment on careers has been published (Tesch 2017).

References

¹⁰ The purpose of ETER is to build a register of Higher Education Institutions (HEIs) in Europe, providing data on the number of students, graduates, international doctorates, staff, fields of education, income and expenditure as well as descriptive information on their characteristics. Currently, aggregated information are available for 2254 HEIs (<http://risis.eu/data/eter-dataset/>). The Leiden Ranking offers insights into the performance and scientific collaboration of 800 major universities worldwide based on bibliometric information and indicators (<http://www.leidenranking.com/>).

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Annex1: Classification of Research Fields

Destatis Studienbereiche

The following tables contains the allocation of areas of study (Studienbereiche) to subject groups as it is included in the subject classification of the German Statistical Office, version 2011/2012. Subsequent tables show conversion of this classification to other classifications. The subject classification of study fields of the German Statistical Office (destatis) distinguishes subject groups (Fächergruppen, the highest level of aggregation), areas of study (Studienbereiche) and study fields (Studienfächer, the lowest level of aggregation). All translations from German to English were carried out by DZHW.

The fields were coded based on the open answer to the variable P3/PN3 respectively. This answer was coded to the areas of study from the destatis subject classification. Areas of study are the basis of all subsequent research field recodings and are referred to as research fields or subject fields interchangeably. For conversion to Fields of Science (FOS), research fields used by the German Research Foundation (DFG) and the knowledge fields from Web of Science (used by the Leiden Ranking) the areas of study were always the basis.

The procedure for recoding open answers was as follows: open answers were allocated to the areas of study. Even though some answers were more detailed, corresponding to the level of study fields in the destatis terminology they, too, were allocated to areas of study. If allocation was unclear university websites were consulted in order to match to the institutional set up of the corresponding faculty to the areas of study. If the source variables were missing it was replaced by the information from the partnering university/funding organization.

DESTATIS Description- Fächergruppen (subject groups)	DESTATIS Studienbereiche (Areas of Study)
Linguistics and Cultural Studies	Linguistics and Cultural Studies in general
	Protestant Theology
	Roman Catholic Theology
	Philosophy
	History
	Library and Information Science, Documentation Studies
	General and Comparative Literary Studies and Linguistics
	Classical Philology, Modern Greek
	German Philology (German, Germanic languages excluding Anglistics)
	English and American Studies
	Romance Studies
	Slavic, Baltic and Finno-Ugrian Studies
	Non-European Linguistics and Cultural Studies
	Cultural Studies in the proper sense
	Psychology
	Educational Sciences
	Special Education Studies
Sports Science	Sports Science
Law, Economic and Social Sciences	Regional Sciences
	Political Sciences
	Social Sciences
	Law
	Administrative Sciences
	Economics
Mathematics, Natural Sciences	Industrial Engineering with focus on Economics
	Mathematics, Natural Sciences in general



	Mathematics
	Computer Science
	Physics, Astronomy
	Chemistry
	Pharmacy
	Biology
	Earth Sciences (excluding Geography)
	Geography
Medicine/Health Sciences	Health Sciences in general
	Human Medicine (without Dentistry)
	Dentistry
Veterinary Medicine	Veterinary Medicine
Agricultural, Forestry and Nutritional Sciences	Landscape Conservation, Environmental Design
	Agricultural Sciences, Food and Beverage Technology
	Forestry Science and Industry
	Nutritional and Domestic Sciences
Engineering Sciences	Engineering in general
	Mining, Metallurgy
	Mechanical and Process Engineering
	Electrical Engineering
	Traffic Engineering, Nautics
	Architecture, Interior Design
	Spatial Planning
	Civil Engineering
	Surveying
	Industrial Engineering with focus on Engineering
Fine Arts, Art History	Fine Arts, Art History in general
	Visual Arts
	Design
	Performing Arts, Movie and Television, Theatre Studies
	Music, Musicology
Outside the structure of the fields of study	Outside the structure of the fields of study

Systematik der Fächer der Deutschen Forschungsgemeinschaft (DFG)

Wissenschaftsbereiche / Research Areas

<i>Wissenschaftsbereiche / Research Areas (DFG 4)</i>	<i>DESTATIS Studienbereiche / Areas of Study (Subject Groups)</i>
Social Sciences and Humanities	(Linguistics and Cultural Studies)*
	Linguistics and Cultural Studies in general
	Protestant Theology
	Roman Catholic Theology
	Philosophy
	History
	General and Comparative Literacy Studies and Linguistics
	Classical Philology, Modern Greek
	German Philology (German, Germanic languages excluding Anglistics)
	English and American Studies
	Romance Studies
	Slavic, Baltic and Finno-Ugrian Studies
	Non-European Linguistics and Cultural Studies
	Regional Sciences
	Cultural Studies in the proper sense
	Psychology
	Educational Sciences
	Special Education Studies
	Fine Arts, Art History
	Fine Arts, Art History in general
	Visual Arts
	Design
	Performing Arts, Movie and Television, Theatre Studies
	Music, Musicology
	Law, Economic and Social Sciences
	Library and Information Science, Documentation Studies
	Political Sciences
	Social Sciences
	Social Services
	Law
	Administrative Sciences
	Economics
	Industrial Engineering with focus on Economics
	Sports Science
	Sports Science
Life Sciences	(Mathematics, Natural Sciences)*
	Biology
	Pharmacy
	Medicine/Health Sciences
	Health Sciences in general
	Human Medicine (without Dentistry)
	Dentistry
	Veterinary Medicine
	Veterinary Medicine
	Agricultural, Forestry and Nutritional Sciences
	Landscape Conservation, Environmental Design
	Agricultural Sciences, Food and Beverage Technology
	Forestry Science and Industry
	Nutritional and Domestic Sciences
Natural Sciences	(Mathematics, Natural Sciences)*
	Mathematics, Natural Sciences in general
	Mathematics
	Computer Science

Engineering	Physics, Astronomy
	Chemistry
	Earth Sciences (excluding Geography)
	Geography
	Engineering Sciences
	Engineering in general
	Mining, Metallurgy
	Mechanical and Process Engineering
	Electrical Engineering
	Traffic Engineering, Nautics
	Architecture, Interior Design
	Spatial Planning
	Civil Engineering
	Surveying
Not assigned	Industrial Engineering with focus on Engineering
	Outside the structure of the fields of study

* Parenthesis indicate that areas of study were not allocated completely to other subject classification but on the SFB2-level.

<i>Fachgebiete (DFG 14) research areas</i>	<i>DESTATIS Studienbereiche / Areas of Study (Subject Groups)</i>
Humanities	(Linguistics and Cultural Studies)*
	Linguistics and Cultural Studies in general
	Protestant Theology
	Roman Catholic Theology
	Philosophy
	History
	General and Comparative Literacy Studies and Linguistics
	Classical Philology, Modern Greek
	German Philology (German, Germanic languages excluding Anglistics)
	English and American Studies
	Romance Studies
	Slavic, Baltic and Finno-Ugrian Studies
	Non-European Linguistics and Cultural Studies
	Regional Sciences
	Cultural Studies in the proper sense
	Fine Arts, Art History
	Fine Arts, Art History in general
	Visual Arts
	Design
	Performing Arts, Movie and Television, Theatre Studies
	Music, Musicology
Social and Behavioral Sciences	(Linguistics and Cultural Studies)*
	Psychology
	Educational Sciences
	Special Education Studies
	Law, Economic and Social Sciences
	Library and Information Science, Documentation Studies
	Political Sciences
	Social Sciences
	Social Services
	Law
	Administrative Sciences
	Economics
	Industrial Engineering with focus on Economics
	Sports Science
	Sports Science
Biology	(Mathematics, Natural Sciences)*
	Biology
	Nutritional and Domestic Sciences

Medicine	(Mathematics, Natural Sciences)*
	Pharmacy
	Medicine/Health Sciences
	Health Sciences in general
	Human Medicine (without Dentistry)
Agriculture, Forestry, Horticulture and Veterinary Medicine	Dentistry
	Veterinary Medicine
	Veterinary Medicine
	Agricultural, Forestry and Nutritional Sciences
	Landscape Conservation, Environmental Design
Chemistry	Agricultural Sciences, Food and Beverage Technology
	Forestry Science and Industry
	(Mathematics, Natural Sciences)*
	Chemistry
	(Mathematics, Natural Sciences)*
Physics	Physics, Astronomy
	(Mathematics, Natural Sciences)*
	Mathematics, Natural Sciences in general
	Mathematics
	(Mathematics, Natural Sciences)*
Earth Sciences (including geography)	Earth Sciences (excluding Geography)
	Geography
	Engineering Sciences
	Engineering in general
Engineering (summarized)	Consisting of
	Thermal Engineering / Process Engineering 42
	Mechanical and Process Engineering
	Materials Science and Materials Engineering 43
	Mining, Metallurgy
Electrical Engineering, Computer Science and Systems Engineering	Traffic Engineering, Nautics
	Industrial Engineering with focus on Engineering
	Engineering Sciences
	Electrical Engineering
	(Mathematics, Natural Sciences)*
Civil Engineering and Architecture	Computer Science
	Engineering Sciences
	Architecture, Interior Design
	Spatial Planning
	Civil Engineering
Not assigned	Surveying
	Outside the structure of the fields of study

* Parenthesis indicate that areas of study were not allocated completely to other subject classification but on the SFB2-level.

Eurostat Fields of Science (FOS)

1-digit Fields of Science

FOS Description(2013) (1-Steller)	DESTATIS Studienbereiche / Areas of Study (Subject Groups)
Natural Sciences	Mathematics, Natural Sciences
	Mathematics, Natural Sciences in general
	Mathematics
	Computer Science
	Physics, Astronomy
	Chemistry
	Pharmacy
	Biology
	Earth Sciences (excluding Geography)
	Geography
Engineering and Technology	Engineering Sciences
	Engineering in general
	Mining, Metallurgy
	Mechanical and Process Engineering
	Electrical Engineering
	Traffic Engineering, Nautics
	Architecture, Interior Design
	Spatial Planning
	Civil Engineering
	Surveying
	Industrial Engineering with focus on Engineering
Medical and Health Sciences	Medicine/ Health Sciences
	Health Sciences in general
	Human Medicine (without Dentistry)
	Dentistry
	Sports Science
	Veterinary Medicine
Agricultural Sciences	Agricultural, Forestry and Nutritional Sciences
	Landscape Conservation, Environmental Design
	Agricultural Sciences, Food and Beverage Technology
	Forestry Science and Industry
	Nutritional and Domestic Sciences
Social Sciences	Law, Economic and Social Sciences
	Regional Sciences
	Political Sciences
	Social Sciences
	Social Services
	Law
	Administrative Sciences
	Economics
	Industrial Engineering with focus on Economics
Humanities	Linguistics and Cultural Studies
	Linguistics and Cultural Studies in general
	Protestant Theology
	Roman Catholic Theology
	Philosophy
	History
	Library and Information Science, Documentation Studies
	General and Comparative Literary Studies and Linguistics
	Classical Philology, Modern Greek
	German Philology (German, Germanic languages excluding Anglistics)
	English and American Studies
	Romance Studies
	Slavic, Baltic and Finno-Ugrian Studies
	Non-European Linguistics and Cultural Studies
	Cultural Studies in the proper sense
	Psychology
	Educational Sciences

	Special Education Studies
	Fine Arts, Art History
	Fine Arts, Art History in general
	Visual Arts
	Design
	Performing Arts, Movie and Television, Theatre Studies
	Music, Musicology
Not assigned	Outside the structure of the fields of study

FOS 3-digit

<i>FOS Description(2013)- 3 digits</i>	DESTATIS Studienbereiche / Areas of Study (Subject Groups)
1. Natural Sciences	Mathematics, Natural Sciences in general
1.1 Mathematics	Mathematics
1.2 Computer and information sciences	Computer Science
1.3 Physical sciences	Physics, Astronomy
1.4 Chemical sciences	Chemistry
1.5 Earth and related environmental sciences	Earth Sciences (excluding Geography); Geography
1.6 Biological sciences	Biology
1.7 Other natural sciences	Mathematics, Natural Sciences in general; Pharmacy
2. Engineering and Technology	Engineering Sciences
2.1 Civil engineering	Civil Engineering
2.2 Electrical engineering, electronic engineering, information engineering	Electrical Engineering
2.3 Mechanical engineering	Mechanical and Process Engineering
2.4 Chemical engineering	
2.5 Materials engineering	
2.6 Medical engineering	
2.7 Environmental engineering	
2.8 Environmental biotechnology	
2.9 Industrial Biotechnology	
2.10 Nano-technology	
2.11 Other engineering and technologies	Engineering in general; Mining, Metallurgy; Traffic Engineering, Nautics; Architecture, Interior Design; Spatial Planning, Surveying; Industrial Engineering with focus on Engineering; others
3. Medical and Health Sciences	Medicine/Health Sciences
3.1 Basic medicine	Human Medicine; Dentistry
3.2 Clinical medicine	
3.3 Health sciences	Health Sciences in general
3.4 Health biotechnology	
3.5 Other medical sciences	
4. Agricultural Sciences	Agricultural, Forestry and Nutritional Sciences

4.1 Agriculture, forestry, and fisheries	Agricultural Sciences, Food and Beverage Technology; Forestry Science and Industry
4.2 Animal and dairy science	
4.3 Veterinary science	Veterinary medicine
4.4 Agricultural biotechnology	
4.5 Other agricultural sciences	Landscape Conservation, Environmental Design; Nutritional and Domestic Sciences
5. Social Sciences	Law, Economic and Social Sciences
5.1 Psychology	Psychology
5.2 Economics and business	Economics; Industrial Engineering with focus on Economics
5.3 Educational sciences	Educational Sciences; Special Education Studies
5.3 Sociology	Social Sciences;
5.5 Law	Law
5.6 Political Science	Political Sciences
5.7 Social and economic geography	
5.8 Media and communications	
5.7 Other social sciences	Social Services; Law, Economic and Social Sciences in general; Regional Sciences; Administrative Sciences
6. Humanities	Linguistics and Cultural Studies
6.1 History and archaeology	History
6.2 Languages and literature	General and Comparative Literary Studies and Linguistics; Classical Philology, Modern Greek; German Philology (German, Germanic languages excluding Anglistics); English and American Studies Romance Studies; Slavic, Baltic and Finno-Ugrian Studies; Non-European Linguistics and Cultural Studies;
6.3 Philosophy, ethics and religion	Protestant Theology; Roman Catholic Theology; Philosophy
6.4 Art (arts, history of arts, performing arts, music)	Fine Arts, Art History in general; Visual Arts; Design; Performing arts, Movie and Television, Theatre Studies; Music, Musicology
6.5 Other humanities	Linguistics and Cultural Studies in general; Library and Information Science, Documentation Studies; Cultural Studies in the proper sense
Not assigned	Sports Science; Outside the structure of the fields of study

Leiden Ranking Typology of Knowledge Fields

<i>Main Fields of Science (Leiden)</i>	<i>DESTATIS Studienbereiche / Areas of Study</i>
Social Sciences and Humanities	Linguistics and Cultural Studies in general
	Protestant Theology
	Roman Catholic Theology
	Philosophy
	History
	Library and Information Science, Documentation Studies
	General and Comparative Literacy Studies and Linguistics
	Classical Philology, Modern Greek
	German Philology (German, Germanic languages excluding Anglistics)
	English and American Studies
	Romance Studies
	Slavic, Baltic and Finno-Ugrian Studies
	Non-European Linguistics and Cultural Studies
	Cultural Studies in the proper sense
	Psychology
	Educational Sciences
	Special Education Studies
	Economics and cultural studies, general
	Regional Sciences
	Political Sciences
	Social Sciences
	Law
	Administrative Sciences
	Economics
	Industrial Engineering with focus on Economics
	Fine Arts, Art History in general
	Visual Arts
	Design
	Performing Arts, Movie and Television, Theatre Studies
	Music, Musicology
Physical Sciences and Engineering	Physics, Astronomy
	Chemics
	Engineering in general
	Mining, Metallurgy
	Mechanical and Process Engineering
	Electrical Engineering
	Traffic Engineering, Nautics
	Architecture, Interior Design
	Spatial Planning
	Civil Engineering
	Surveying
	Industrial Engineering with focus on Engineering
Mathematics and Computer Science	Mathematics
	Computer Science
Life and Earth Sciences	Biology
	Earth Sciences (excluding Geography)
	Geography
	Landscape Conservation, Environmental Design
	Agricultural Sciences, Food and Beverage Technology



Biomedical and Health Sciences	Forestry Science and Industry
	Nutritional and Domestic Sciences
	Health Sciences in general
	Human Medicine (without Dentistry)
	Dentistry
	Veterinary Medicine
	Sports Science
Not assigned	Pharmacy
	Outside the structure of the fields of study