

**Documentation of statistics for
Research Education 2025**

1 Introduction

The aim of the statistics on PhD-students is to show the volume of PhD-education. Furthermore it gives information on the progress of the education and the subjects of the project. Data are comparable since mid-eighties which is as long the PhD education has existed in Denmark.

2 Statistical presentation

The statistics gives information on numbers of PhD-students and numbers of PhD-graduates at institutions approved to offer PhD-educations in Denmark. The statistics gives information on the progress of the education, under here schemes and special arrangements, periods of leave, and study periods spent abroad. The statistics also gives information on the subjects of the project and on sources of financing. The statistics also covers doctorate granted after §15,2, according to this paragraph a doctorate can be granted based exclusively on a positive evaluation of a thesis without participation in an education.

2.1 Data description

The statistics gives information on numbers of PhD-students and numbers of PhD-graduates at institutions approved to offer PhD-educations in Denmark.

The statistics gives information on the progress of the education, including schemes and special arrangements, periods of leave, and study periods spent abroad.

The statistics also gives information on the subjects of the project and on sources of financing.

2.2 Classification system

The information of main field of study is primarily based on the students place in the University's institutional structure, i.e. based on information of Faculty supplemented with Institute.

There are the following six main fields:

1. Natural science
2. Engineering and Technology
3. Medical science
4. Agricultural science
5. Social science
6. Humanities, Theology

2.3 Sector coverage

The education sector.

2.4 Statistical concepts and definitions

PhD-student: A person enrolled at a university following a PhD-scheme

PhD-graduates: The student is awarded the PhD-degree by the university where the dissertation was assessed

2.5 Statistical unit

The statistical unit is persons. In this statistics the persons are PhD-students enrolled at a university.

2.6 Statistical population

The statistics gives information on PhD-educations taken at Danish institutions approved to offer PhD-educations. These following institutions are approved to offer PhD-educations:

Aalborg University

Aarhus University

Aarhus School of Architecture

Copenhagen Business School

IT University of Copenhagen

Kolding School of Design

Roskilde University

Technical University of Denmark

The Royal Danish Academy of Fine Arts

University of Copenhagen

University of Southern Denmark

Also people of foreign origin who are taking a PhD-education at a Danish institution are included, even if they do not have an address in Denmark. People of Danish origin who are taking a PhD-education abroad are not included. Foreigners staying in Denmark who have taken their doctorate abroad are not covered by the statistics either.

2.7 Reference area

Denmark with the exception of Greenland and Faroe Islands

2.8 Time coverage

These statistics cover the time period from 1996 and onwards.

2.9 Base period

Not relevant for these statistics.

2.10 Unit of measure

- Number of PhD students per institution
- Number of PhD graduates

2.11 Reference period

The reference period follows the calendar year, January 1st - December 31st

2.12 Frequency of dissemination

The statistics is published once a year.

2.13 Legal acts and other agreements

[Act on Statistics Denmark](#) Section 6 and Section 8(3).

[Regulation \(EC\) No 452/2008](#) of the European Parliament and of the Council of 23 April 2008 concerning the production and development of statistics on education and lifelong learning.

2.14 Cost and burden

Reporting burden is minimal, as the information is collected via local administrative registers at educational institutions.

2.15 Comment

Further information can be found at the [subject page](#) for these statistics, or by contacting Statistics Denmark directly.

3 Statistical processing

The statistics is based on reports from all Danish institutions approved to offer PhD-educations. The data collection covers the total population. The reported data from each respondent is examined carefully. The examination is concentrated on missing data for each respondent. It is also checked if consistent information are reported for each student. Data reported from a university is furthermore compared to data for previous time periods.

In case of missing data or unexpected trends the respondent is contacted for verification of the reported data.

3.1 Source data

The statistics is based on reports from all Danish institutions approved to offer PhD-educations. The data collection covers the total population.

3.2 Frequency of data collection

Data is collected yearly.

3.3 Data collection

Data is collected yearly from education institutions approved to offer PhD-educations via a system to system format.

3.4 Data validation

The reported data is examined carefully. The examination is concentrated on missing data for each respondent. It is also checked if consistent information are reported for each student. Data reported from a university is furthermore compared to data for previous time periods at the University and also compared to data for other universities in the same main field and in the current reference period. Furthermore, invalid civil registration numbers are corrected.

In case of missing data or unexpected trends the respondent is contacted for verification of the reported data.

A year late, the Ph.D. registry is also part of the Student registry and checked according to the standard processes there as well.

3.5 Data compilation

The reported data is examined carefully. The examination is concentrated on missing data for each respondent. It is also checked if the reported information are consistent for each student and if the required specification are met. Among other things, it is checked if the dates in the PhD-education are in the correct order, whether or not the informed scheme and the student's qualifications are in line with each other and whether industrial PhD students have an external supervisor assigned.

3.6 Adjustment

For people who have more than one PhD-education, the educations cannot overlap and it is corrected in case they do.

4 Relevance

These statistics are relevant for Ministries, Universities, Public service, Business organizations, Media and Researchers, for research and analyses. The statistical data are also used in other areas within Statistics Denmark as education statistics are relevant in many contexts.

4.1 User Needs

Typical users: Ministries, Universities, Public service, Business organizations, Media and Researchers.

4.2 User Satisfaction

1-2 times a year the [Ekspertudvalg for Uddannelsesstatistik](#) meet and here user-representatives from selected ministries, Labour market organizations, and NGOs in the Education and Research sector have the opportunity of commenting the statistics.

Furthermore there is a yearly seminar with the universities, where they gives Statistics Denmark feedback on data quality and publishing.

4.3 Data completeness rate

Not relevant for these statistics..

5 Accuracy and reliability

The statistics are based on a complete enumeration in which all universities and other institutions authorised to offer PhD programmes report data. The statistics cover PhD students and awarded PhD degrees at Danish institutions but do not include doctoral degrees obtained abroad. The core information on the number of PhD students and the number of awarded PhD degrees is based on extensive error checking and there are no significant missing reports. Information on the main field of study is based on institutional affiliation and may in some cases be affected by organisational changes at the universities.

5.1 Overall accuracy

All Universities and other Institutions approved to offer PhD-educations reports data. The statistics therefore provide an accurate picture of PhD students and awarded PhD degrees at Danish institutions. It should be noted, however, that older doctoral degrees (e.g. dr.med. and dr.phil.), which are not PhD programmes, are not included.

5.2 Sampling error

Not relevant for these statistics.

5.3 Non-sampling error

Coverage: Concerning number of PhD-students the statistics covers the target population. Concerning number of PhD-graduates please note that the statistics covers degrees taken at Danish Universities, while degrees taken at Universities abroad by people of Danish or foreign origin in most cases are not included.

**Measurement errors:* With regard to the core variables, the number of PhD students and the number of awarded PhD degrees, the quality is expected to be good and no significant measurement errors are considered to occur, as the error-checking procedures are very extensive. With regard to information on the main field of study, the quality is also assessed as good, but measurement errors may occur, as the information is based on the individual's institutional affiliation at the university. Changes in faculty structures and departmental organisation may therefore affect the precision of the information on the main field of study.

The students and the information on the main variables are checked very carefully, and on the whole only few cases of "missing data" does not.

5.4 Quality management

Statistics Denmark follows the recommendations on organisation and management of quality given in the Code of Practice for European Statistics (CoP) and the implementation guidelines given in the Quality Assurance Framework of the European Statistical System (QAF). A Working Group on Quality and a central quality assurance function have been established to continuously carry through control of products and processes.

5.5 Quality assurance

Statistics Denmark follows the principles in the Code of Practice for European Statistics (CoP) and uses the Quality Assurance Framework of the European Statistical System (QAF) for the implementation of the principles. This involves continuous decentralized and central control of products and processes based on documentation following international standards. The central quality assurance function reports to the Working Group on Quality. Reports include suggestions for improvement that are assessed, decided and subsequently implemented.

5.6 Quality assessment

Accuracy: In general the accuracy is very high. All universities and other Institutions approved to offer PhD-educations reports data.

Reliability: Concerning number of PhD-students the statistics covers the target population. Concerning number of PhD-graduates please note that the statistics covers degrees taken at Danish Universities, while degrees taken by people living in Denmark at Universities abroad in many cases are not included.

Concerning the central units: PhD-students and PhD-graduates the quality is considered as being very good as the corrections-procedures are very thoroughly. Concerning the information on Main field of the research project the quality is expected to be good, but the information is based on the individual's institutional affiliation at the university. Changes in faculty structures and departmental organisation may therefore affect the precision of the information on the main field of study.

The students and the information on the main variables are checked very carefully, and on the whole "missing data" does not occur.

Comparability: Comparability over time for the main variables is good. Though there has been institutional changes for the main fields, which create a minor data breach in 2012. This is due to changes in the Faculty and Institute structure, some of the big universities has carried out. Some recoding has been done to ensure that the variable main field are consistent up till 2011. From 2012 changes could not be avoided especially for Agriculture and Veterinary science.

Comparability to international statistics on number of PhD-students are considered to be very good. Concerning international comparability of the education level of the population, countries using surveys have the possibility of including persons, who have obtained the PhD-degree abroad. These group is only partly included in the Danish statistics on attained education used for international comparison. Since the statistics on PhD-degrees for this purpose is supplemented with information on education taken abroad for persons immigrated in the years up till 2006.

5.7 Data revision - policy

Statistics Denmark revises published figures in accordance with the [Revision Policy for Statistics Denmark](#). The common procedures and principles of the Revision Policy are for some statistics supplemented by a specific revision practice.

5.8 Data revision practice

It is possible for the universities to send supplementary information referring to former reference periods. The corrections concerning the previous year will be included in the next publication. Other corrections will be included at the next big data revision.

6 Timeliness and punctuality

The statistics are published approximately five months after the end of the reference period. In some cases, the release date may be adjusted if reports are received late or if additional data validation and processing are required. The statistics are thereafter published on time in accordance with the announced release date in the release calendar.

6.1 Timeliness and time lag - final results

The statistics is published about 5 month after the time of reference, but delay can happens if the data is not reported on time.

The institutions can report corrections for previous years. It is mostly for the latest year in case it happens.

6.2 Punctuality

The statistics is published during the spring after the reference year. The precise data have varied in previous years, therefore the date is announced separately each year. These statistics are published without delay, with reference to the announced time of publication in the release calendar.

7 Comparability

The statistics are comparable over time for the core variables relating to PhD students and awarded PhD degrees, as the population and main definitions have been consistent since 1996. Information on main fields of study may in some years be affected by changes in the organisational structure of universities; such changes have been addressed through recoding to preserve the time series. The statistics are comparable with international statistics on PhD programmes but differ from statistics on the educational attainment of the population in countries where individuals with PhD degrees obtained abroad are included.

7.1 Comparability - geographical

Comparability with international statistics on PhD students is assessed to be good, as the compilation follows international standards for the delineation and definition of PhD programmes. Differences between countries may, however, occur due to the use of different data sources, as some countries base their statistics on sample surveys, while the Danish statistics are register-based.

In countries with sample-based compilations, persons who have obtained a PhD degree abroad may to a greater extent be included in the statistics. This group is not fully covered in the Danish PhD statistics unless the degree is formally recognised in Denmark.

7.2 Comparability over time

There is comparable data series from 1996. The definition of the population, number of PhD students and PhD graduates has been consistent over the years. Comparability on main areas is on a whole good but are influent by the changes in the institutional structure . this is due to the changes in faculty structure made by some of the big universities as well as fusions by some of the institutions. In these period of change recoding has been made so that the original structure is showed by the statistics.

The statistics also contains information on education schemes, research topics, financing, stays abroad and employment. the content of these variables has changed over the years, but have been consistent since 2009.

7.3 Coherence - cross domain

[Universities Denmark](#) publish yearly data on number of PhD-students , new entrants and number of obtained PhD-degrees. The comparability is very good. The small discrepancies are due to the fact that the data collections takes place at different times, and the data is updated in different degrees.

7.4 Coherence - internal

Not relevant for these statistics.

8 Accessibility and clarity

In the StatBank, these statistics can be found under the subject [PhD programmes](#). For further information, go to the [subject page](#). Tailor-made statistics is available via [DST Consulting](#). Micro-data is accessible via Statistics Denmark's [Research Services](#)

8.1 Release calendar

The publication date appears in the release calendar. The date is confirmed in the weeks before.

8.3 User access

Statistics are always published at 8:00 a.m. at the day announced in the release calendar. No one outside of Statistics Denmark can access the statistics before they are published.

8.2 Release calendar access

The Release Calender can be accessed on our English website: [Release Calender](#).

8.4 News release

Not relevant for these statistics.

8.5 Publications

The yearbook [Forskning, udvikling og innovation](#) shows the trend in enrollment of PhD-students and in the subjects of the PhD-projects. Furthermore tables show the employment of the PhD-graduates, i.e. by sector and industries.

8.6 On-line database

The statistics are published in the StatBank under the subject [PhD programmes](#) in the following tables:

- [PHD1](#): Entrants, doctorate students by main areas, sex and time
- [PHD2](#): Graduate, doctorate students by main areas, sex and time
- [PHD3](#): Stock of doctorate students by main areas and sex

8.7 Micro-data access

Micro-data is available for Researchers etc. via the Division of Research Services in Statistics Denmark. For further information, see: [Research Services in Statistics Denmark](#).

8.8 Other

The Customers Center in Statistics Denmark has access to micro-data and offer detailed tables and tables combining PhD-data with other data in Statistics Denmark. For further information: [Customers Center in Statistics Denmark](#).

8.9 Confidentiality - policy

[Confidentiality policy in Statistics Denmark](#) is applied.

8.10 Confidentiality - data treatment

The politics of confidentiality for Statistics Denmark is followed.

8.11 Documentation on methodology

Documentation on methodology is only available in Danish.

8.12 Quality documentation

Results from the quality evaluation of products and selected processes are available in detail for each statistics and in summary reports for the Working Group on Quality.

9 Contact

The administrative placement of these statistics is in the division of Population and Education, Social Statistics. The contact person is Lene Riberholdt, tel.: + 45 2360 6218, and e-mail: LRI@dst.dk.