

# Documentation of statistics for The Student Registre 2020



### 1 Introduction

The Students Register, which was established in the early 1970's, is a longitudinal register that allow you to follow the educational careers of students in the mainline education system. The purpose of The Student Register is to analyze entrance to, enrolment in and graduation from the mainline education system as well as transmissions of student within the system.

### 2 Statistical presentation

The Student Register is a longitudinal register that allows you to track the educational careers of each student throughout all the educational programs comprising their educational career. The register covers educational careers starting from preschool to PhD. All publicly recognized educational programs are included. Data about PhDs is delayed by one year compared to other data in the register. Adult or continuing education, as well as education taken outside Denmark, are not included in the register.

### 2.1 Data description

The Student Register is a longitudinal register that allows you to follow the educational career of each student throughout all the educational programs constituting their educational career. The register is updated annually with reported data from the educational institutions. The reports cover continuing students from the previous year, as well as entrances and exits during the year under review. Regarding exits, information on achieved qualifications (i.e., graduation) is retained. The register covers educational careers starting from preschool to a PhD at the university level. Basic school includes only grades 8-10 up to the school year 2005/06. From 2007, preschool through 7th grade is included. All publicly recognized educational programs are included. 'Recognized programs' means that the Ministry of Children and Education or another ministry has regulated and approved the programs. Data about PhDs are delayed by one year compared to the other data in the register.

Please note that adult or continuing education, as well as education taken outside Denmark, is not included in the register.

There are two versions of The Student Register:

ELEV3: Each grade in the basic school and upper secondary school has a separate record. Vocational education is divided into the basic part and the main part. Additionally, it is possible to see institution shifts and breaks during an education. This version of The Student Register is the most detailed.

ELEV3 gaps-closed: In this version of the register, all gaps in education resulting from institutional shifts and breaks during training are removed if the gap is less than 13 months, and each record is merged into one record.

The variables in the register are described in Colectica.

### 2.2 Classification system

In connection with publications from The Student Register Statistics, Denmark's classification system "DISCED" is used. A description of it can be found at: <a href="DISCED">DISCED</a>



### 2.3 Sector coverage

Educational institutions providing publicly recognized education or education which give access to public grants.

### 2.4 Statistical concepts and definitions

Enrolled: The student register is used to measure entrance to, enrolled and graduations from the ordinary education system. In connection with dissemination of statistical data in Statistic Denmark's Statbank the following definitions are used: Enrolled is defined as: people who are enrolled 30. September yyyy.

Graduate: The student register is used to measure entrance to, enrolled and graduations from the ordinary education system. In connection with dissemination of statistical data in Statistic Denmark's Statbank the following definitions are used: Graduate is defined as: people who completed an education in the period 1. October yyyy-1 - 30. September yyyy.

Entrance: The student register is used to measure entrance to, enrolled and graduations from the ordinary education system. In connection with dissemination of statistical data in Statistic Denmark's Statbank the following definitions are used: Entrance is defined as: people who begin their education in the period 1. October yyyy-1 - 30. September yyyy.

Counting year: The counting is done each October and the figures for a given counting year cover the period from 1 October from the previous year to 30 September that year

### 2.5 Statistical unit

The statistical unit is people.

### 2.6 Statistical population

The population consist of people who have been enrolled in an ordinary education in Denmark, that are public recognized. Since 2007 private education that give access to public grants is also included. The register covers education from preschool (up to 2006 only from 8th grade) up to PhD level. When the students register is updated, the information concerning the PhD are one year behind.

### 2.7 Reference area

The population consists of people who have been enrolled in an ordinary education in Denmark.

### 2.8 Time coverage

The Students Register, which was established in the early 1970s, is a longitudinal register and is updated once a year.

### 2.9 Base period

Not relevant for this register.



### 2.10 Unit of measure

The unit of measure is the number of people.

### 2.11 Reference period

The Student Register's reference time is 30. september yyyy.

### 2.12 Frequency of dissemination

Statistics are published yearly.

### 2.13 Legal acts and other agreements

The Act on Statistics Denmark §6 and §8 stk. 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

The respondent burden is minimal. Data are collected from local school based administrative registers. Although a few institutions report by questionnaires.

### 2.15 Comment

Further information can be found on Statistics Denmark's homepage: Fulltime education.

### 3 Statistical processing

The Student Register is based on annual reports from the Danish educational institutions. The majority of data is collected by system to-system reporting. However, there are a few educational institutions which report through web-based questionnaires. In cooperation with system suppliers, Statistics Denmark has established requirements for reporting formats, validation and error searches. In addition, there is an extensive validation of data at Statistics Denmark.

#### 3.1 Source data

The Student Register is based on annual reports from the Danish educational institutions.

### 3.2 Frequency of data collection

The register is based on information, that is gathered once a year.



#### 3.3 Data collection

The majority of data is collected by system to-system reporting. However, there are a few educational institutions that report through web-based questionnaires.

#### 3.4 Data validation

In cooperation with system suppliers, Statistics Denmark has established requirements for reporting formats, validation, and error searches. Macro error searches are conducted at the institutions before the data is submitted. These searches involve counting predefined categories at individual institutions and comparing the counts with the figures from the previous year. If there are significant and relatively improbable fluctuations, the educational institution must investigate further. When data is received at Statistics Denmark, it undergoes additional error checks. One of the main types of error checking is related to macro errors, which involves searching for volatility that some institutions have been asked to consider.

Micro-data editing is performed alongside general checks, with a greater focus on discrepancies in the records. This includes checking for disabled education codes for individual students at different institutions and verifying related information, such as whether the starting date is after the departure date. A duplication check is also conducted since there may be inconsistencies in the dates when students change institutions. Statistics Denmark cross-checks the dates to ensure that students are not enrolled in multiple education programs simultaneously. In cases where institutions fail to update all their students, they are requested to submit a new data report.

When data is loaded into The Student Register, error checks are performed at the record level to identify invalid values for all variables. Additionally, checks are conducted to identify inconsistencies between variables, such as age at the time of enrollment in relation to the education level. Time series data on entrance, enrollment, and completion of education levels are also monitored for accuracy.

### 3.5 Data compilation

When data is entered into The Student Register from different sources, there are instances where program overlaps occur. These overlaps are eliminated from The Student Register. In some cases, certain courses are reported in multiple parts due to students changing institutions during their education. These fragmented education components are consolidated into a single course entry in The Student Register.

Based on The Student Register, a specialized version of the register is created, where education components related to the same program are merged into a single record if the time gap between them is less than or equal to 13 months. Therefore, in this particular version of The Student Register, breaks in education courses shorter than 13 months or institutional shifts during the education process cannot be observed.

### 3.6 Adjustment

There are no corrections of data beyond what has already been described under data validation and data processing.



#### 4 Relevance

The register illuminates entrances, departures, and student flows within the education system. It serves as the foundation for education tables in StatBank Denmark.

### 4.1 User Needs

Users are many and varied. The register forms the basis for many of the education tables in StatBank Denmark and is often used in connection with external service tasks ordered by the government, research institutions, NGOs, private companies, individuals, and not least to inquiries from the press.

### 4.2 User Satisfaction

Statistics Denmark actively involves users in education statistics to maximize their participation. Some users can be instrumental in ensuring high-quality data from schools. Others provide inspiration for new statistics and analysis. Additionally, Statistics Denmark seeks user input to enhance methods and models, driving ongoing improvement in statistics.

### 4.3 Data completeness rate

The register contains information about all ordinary full-time education in Denmark.

### 5 Accuracy and reliability

The information in The Student Register is obtained from the institutions' administrative register and goes through a comprehensive error check in connection with the annual data collections. The reliability of the educational information is considered to be high.

### 5.1 Overall accuracy

The reliability of the educational information in The Student Register is considered to be high. The data in the register is sourced from the administrative registers of the institutions and undergoes a thorough error check during the annual data collection process. Additionally, to ensure data accuracy, active students must be reconfirmed each year, maintaining reporting continuity over time.

However, it's worth noting that there is a certain level of uncertainty associated with the fact that institutions have the option to correct and report data retroactively through annual reports. This uncertainty is typically around 0-3 pct., with greater uncertainty observed for the most recent year.

### 5.2 Sampling error

Not relevant for this register.

### 5.3 Non-sampling error

Not relevant for this register.



### 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

The reliability of the educational information in The Student Register is considered to be high. The data in the register is sourced from the administrative registers of the institutions and undergoes a thorough error check during the annual data collection process. Additionally, to ensure data accuracy, active students must be reconfirmed each year, maintaining reporting continuity over time.

However, it's worth noting that there is a certain level of uncertainty associated with the fact that institutions have the option to correct and report data retroactively through annual reports. This uncertainty is typically around 0-3 pct., with greater uncertainty observed for the most recent year.

There is a memo on Statistic Denmark's homepage describing important aspects of this year's data collection to The Student Register <u>Paper on Education</u>

### 5.7 Data revision - policy

Statistics Denmark revises published figures in accordance with the <u>Revision Policy for Statistics</u> <u>Denmark</u>. The common procedures and principles of the Revision Policy are for some statistics supplemented by a specific revision practice.

### 5.8 Data revision practice

The figures from the latest year could be considered provisional because of the possibility of updating retroactively. When updating StatBank Denmark with the present year, the previous year is also updated.

### 6 Timeliness and punctuality

The statistics are published about 4 months after the end of the reference time. The statistics are usually published without delay in accordance with the scheduled date.



### 6.1 Timeliness and time lag - final results

The statistics are published approximately 4 months after the end of the reference time. There is a certain level of uncertainty associated with the fact that institutions have the option to correct and report data retroactively through annual reports. This uncertainty is typically around o-3 pct., with greater uncertainty observed for the most recent year.

### 6.2 Punctuality

The statistics are usually published without delay in accordance with the scheduled date.

### 7 Comparability

The information contained in The Student Register starts in 1973 and comparability over time is good. Basic school includes only grade 8-10. up to the school year 2005/06. From the school year 2006/2007 preschool through 7th grade is included.

### 7.1 Comparability - geographical

The Student Register forms the basis of data in the publication "Education at a Glance" with international comparisons of entrance to and graduations from the education system.

### 7.2 Comparability over time

The possibilities for comparisons over time are good in the Student Register. When an education program evolves and moves to a new level, it is assigned new UDD and AUDD codes, but both the old and new codes are placed at the new level in the DISCED education classification. This means that one does not need to search for, for example, the police officer education in different places in the education classification, even though the education for police officers has evolved and changed its level.

However, education reforms can bring about changes at the macro level. When an education program changes its group in the education classification, for example, from being a short tertiary education to being a medium tertiary education, the number of students in short tertiary educations can decrease while the number of students in medium tertiary educations can increase. This can affect comparability with previously published figures.

The Student Register was expanded with information about kindergarten through 7th grade from the 2006/2007 school year.

In 2017, Statistics Denmark began collecting information on which students complete their entire education in English. Students who complete the education in English are marked with education form (UFORM) 25 in the Student Register. Students who only complete parts of the education in English are not registered as English-speaking.

#### 7.3 Coherence - cross domain

There are no comparable statistics in Denmark.



#### 7.4 Coherence - internal

All data sources are considered to have the same high quality.

### 8 Accessibility and clarity

Statistics are published annually in "News from Statistics Denmark." Data is simultaneously released on the Education office homepage and in StatBank Denmark.

Information is also found in the annual publications: Statistical 10-Year Review.

#### 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

New releases of "News from Statistics Denmark" can be found on the: Homepage.

### 8.5 Publications

• Statistical 10-Year Review: Statistical 10-Year Review.

### 8.6 On-line database

Data are released in StatBank Denmark under the subject Education and Research, fulltime education programmes: <u>StatBank Denmark</u>.

### 8.7 Micro-data access

The different versions of The Student Register are stored in Statistics Denmark's Database, PSD.

### 8.8 Other

The Student Register forms the basis of data in the publication "Education at a Glance" with international comparisons of entrance to and graduations from the education system.



### 8.9 Confidentiality - policy

In connection with publication from the register, Statistics Denmark's data privacy policy is followed, see: <u>Data privacy policy</u>.

### 8.10 Confidentiality - data treatment

For reasons of discretion it is only possible to combine a limited number for variables in connection with publication from The Student Register in StatBank Denmark.

### 8.11 Documentation on methodology

For further information please contact:

Statistic Denmark, Population & Education, Alex Skøtt Nielsen, tel. +45 39 17 31 35, e-mail: axn@dst.dk

### 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 this statistic is in the Division of Population and Education. The person responsible is Alex Skøtt Nielsen, tel. +45 39 17 31 35, e-mail: axn@dst.dk

#### 9.1 Contact organisation

Statistics Denmark

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Population and Education, Social Statistics

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N/A