

Documentation of statistics for Primary and lower secondary education 2019



1 Introduction

The purpose of the statistics on the Danish primary and lower secondary education is to present the number of pupils and the scale of pupils per class in the Danish school system. The statistics describe the intake and graduation from the basic school system, which in Denmark are the primary and lower secondary schools. In the present form, the statistics are comparable from 2007, from 2009 for number of pupils per class and from 2012 for special needs education.

2 Statistical presentation

The primary and lower secondary educational statistics are a yearly analysis of the populations' enrollment and completion in the basic school system from grade 0 to 10/11th grade. The statistics also cover the participation in special needs classes and number of pupils per class. The statistics are broken down by grades and types of schools, age, gender, heritage and geography. The school statistics are part of The Student Register, which is a longitudinal register allowing one to follow the educational career of each student throughout all the educational programs constituting the student's educational career.

2.1 Data description

The statistics are an analysis of the populations' enrollment in the basic school system, which consists of grade 0 up to grade 11. The basic school statistics are part of The Students Register, which is a longitudinal register allowing one to follow the educational career of each student throughout the entire educational programs constituting of the student's educational career.

The statistics are updated annually by reported data from the educational institutions (schools). The reports concern continuing students from the previous year, as well as intake and exit during the year under review. Regarding exit, information on achieved qualification (= graduation) is retained. The register is updated annually by reported data from the Danish schools. The reported data concerns intake and exit from the previous school year, as well as the ongoing school year. Information about grade completion or early drop-out for each pupil is retained. In 9th grade, the school year ends with an final exam. Most intake of pupils takes place in the beginning of August, but later entrance can be seen due to school fusions and pupils change of school. In the primary and lower secondary schools, completion is only accomplished in June. The only exceptions are delayed exams due to illness or 10th grade, which can be completed after half a year at vocational schools. Pupils exiting their school before June are classified as early drop-out, eve though they continue their education at another school. Please note that adult or continuing education, as well as education taken outside Denmark, are not included in the register.

Besides the information needed for The Student Register information collected about class type, class name, level, if Danish is not the native language or participation in an integration class for migrants. During spring semester data is collected about special need education.

For further description of the individual variables see documentation in TIMES.



2.2 Classification system

The statistics on the Danish primary and lower secondary education are based on <u>DISCED</u>, which is the Danish version of the international classification system ISCED.

The statistical data is collected from public and private schools, youth schools and youth boarding schools, special support schools, day treatment centers and treatment homes and other schools.

The statistics are broken down by grades, age, gender and heritage. The statistics are presented geographically after municipalities and regions.<u>regioner og kommuner</u>.

2.3 Sector coverage

The educational sector

2.4 Statistical concepts and definitions

Bestand: Elevregistret benyttes til at opgøre tilgang til, bestand og afgang fra det ordinære uddannelsessystem. I forbindelse med offentliggørelser i statistikbanken benyttes følgende definition: Bestand er defineret som personer der er igang på en uddannelse i perioden 30. september åååå.

Fuldført: Elevregistret benyttes til at opgøre tilgang til, bestand og afgang fra det ordinære uddannelsessystem. I forbindelse med offentliggørelser i statistikbanken benyttes følgende definition: Fuldført er defineret som personer der fuldføre en uddannelse i perioden 1. oktober åååå-1 - 30. september åååå.

Tilgang: Elevregistret benyttes til at opgøre tilgang til, bestand og afgang fra det ordinære uddannelsessystem. I forbindelse med offentliggørelser i statistikbanken benyttes følgende definition: Tilgang er defineret som personer der påbegynder en uddannelse i perioden 1. oktober åååå-1 - 30. september åååå.

2.5 Statistical unit

The statistical unit is people and the number of pupils per class.

2.6 Statistical population

The population consists of people who have been enrolled in a primary or lower secondary school in Denmark, publicly recognized by the Ministry of Education. Since 2007, all grades from grade 0 to grade 11 are covered in the statistics. Until 2006, the statistics only included pupils from 8th grade and upwardly.

2.7 Reference area

Denmark with the exception of Greenland and the Faroe Islands



2.8 Time coverage

In its present form, the statistics cover the time span since 2007, the number of pupils per class since 2009, and for the special needs education since 2012.

2.9 Base period

Not relevant for this statistic.

2.10 Unit of measure

The unit of measure is the number of people and number of pupils per class.

2.11 Reference period

The reference date is September 30 of the current year.

2.12 Frequency of dissemination

The statistics are published yearly.

2.13 Legal acts and other agreements

The Act on Statistics Denmark §6 and §8. EU-regulation number 452/2008.

2.14 Cost and burden

The respondent burden is minimal, as data is collected from the administrative systems of the local schools or directly through the system suppliers. A few institutions report by web questionnaires.

2.15 Comment

Further information can be found on the homepage of Statistics Denmark: Fulltime education.

3 Statistical processing

The dataset of the Danish primary and lower secondary education statistics is based on annual reports from administrative systems of the schools that is collected annually for The Student Register. The majority of data is collected by system to system reporting. However, there are a few educational institutions that report through web-based questionnaires. Following the data collection phase, Statistics Denmark carries out an extensive validation of the collected data.

Further information about special needs education is collected once a year. Data from public schools is collected via the administrative systems, where as the private school data is collected via the Ministry of Education.



3.1 Source data

The sources of the Danish primary and lower secondary education statistics are collected through administrative systems of the schools. Statistics Denmark has in collaboration with the system suppliers of the administrative systems established requirements for reporting formats, validation and error searches. A thorough validation of data is carried out by Statistics Denmark prior to linking of the primary and lower secondary education school data with rest of the education data, resulting in the formation of The Student Register.

3.2 Frequency of data collection

The statistics are 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. When data is received by Statistics Denmark, it is subjected to several error checks.

One of the main types of error checking and quality insurance procedures is the macro error check that searches for unlikely fluctuations. The counts are compared with the figures from last year. If there are larger and relatively improbable fluctuations, the school in question must make a new report of its student data. It happens that some schools do not update all their students. In these cases, if it relates to a larger number of students, the institutions are asked to make a new report of data, before the error search is continued.

Micro data trouble shooting checks are carried out in line with the more general checks. The focus of the micro checks are the discrepancies of the individual records. This could be invalid educational codes for individual students in different schools or a relational check: e.g. whether the starting date is set to after the time of departure date. Furthermore, Statistics Denmark conducts checks with regard to inconsistencies between variables, such as age at commencement time in relation to education. Time series on intake and completion on each education level are controlled.

A duplication check is also conducted due to occasional lacks of consistency between the dates when pupils change schools, resulting in duplications. Statistics Denmark changes the dates, as pupils can not be enrolled in several educations simultaneously. The primary and lower secondary education statistics are checked for unlikely changes in the educational levels (grades), e.g. if a pupil goes from grade 0 to grade 10. Likewise, an error search for the grades in different types of schools, for example youth schools, is also carried out. Normally, 6th grade is the lowest grade in the youth schools, unless it concerns special classes for immigrants. Immigrants, and especially refugees, are often placed in classes that do not necessarily fit their age. Statistics Denmark does not change the educational levels of these pupils.



3.5 Data compilation

When data is entered into the statistics from different schools, there are in some cases duplications due to a pupils' change from one school to another during the school year. These overlaps are removed from the data set by changing the dates. Unlikely changes of level may be corrected, as well as unlikely grades at e.g. municipality youth schools. Special schools for children and schools for maladjusted children can find it difficult to report the educational level of their pupils, as it can vary from pupil to pupil in the same class. For this reason, the educational level and UDD code are stated as the normal grade according to the age of the pupils.

3.6 Adjustment

No further corrections are carried out besides those described in 3.4 and 3.5.

4 Relevance

The statistics are relevant for public administrators, scientists and other analysts, journalists and citizens etc. as basis for prognoses, analyses and planning purposes. The basic data of the statistics is used as background data for most of the personal statistics of Statistics Denmark and it is the basis for the Statbank tables concerning education.

The statistics document the intake and departure from the primary and lower secondary educational system, as well as how the students move from one class or education to another within the Danish educational system and the statistics form the basis for many of the education tables in Statistics Denmark's databank.

4.1 User Needs

Users are multiple and varied. The statistics form the basis of many of the education tables in Statistics Denmark database and are often used in connection with external service tasks ordered by government bodies, municipalities, research institutions, NGOs, private companies, individuals and not least to inquiries from the press.

The basic data is used in more than 2000 research projects every year, where scientist and researchers gain access to the data via the Research Services department of Statistics Denmark.

The Ministry of Education and the Ministry of Higher Education and Science receive the basic data and the Student Register that are used for planning purposes, analyses, prognoses and moreover.

4.2 User Satisfaction

In working with the education statistics, the users are involved as much as possible. Some users can be instrumental in ensuring that the data from the schools has a high quality. Other users can provide inspiration for new statistics and analyses. Finally, through user involvement we find inspiration for the development of methods and models that contribute to the continued improvement of statistics.



4.3 Data completeness rate

The statistics fulfill the demands by EU regulation number 452/2008 regarding the enrollment of students, graduates, exams, foreign language and class size. The Department of Economical Statistics is responsible for the statistics regarding cost. The statistics regarding staff is collected by the Ministry of Education and is not published presently.

5 Accuracy and reliability

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

5.1 Overall accuracy

The reliability of the educational information is considered to be high. The information in the statistics is obtained from the schools' administrative registers and goes through comprehensive error check procedures in connection with the annual data collections. The update of The Student Register further requires that the active students are rediscovered each year. Thus, there must be continuity in the reporting over the years. It rarely happens that the basic schools need to correct their data. The uncertainty is particularly true over the last year.

The census of children in the primary and lower secondary school system covers all pupils in all schools approved by the Ministry of Education and the statistics cover practically all children in Denmark. Few records are deleted, if the civil registration number can not be established. The small amount of children, who are not enrolled in a school because they receive home education, is not part of the basic school statistics. For this reason, the number of children receiving education in Denmark is slightly underestimated.

5.2 Sampling error

Not relevant for this statistic.

5.3 Non-sampling error

The statistics on the Danish primary and lower secondary education cover almost every child in Denmark. The lack of complete coverage can be caused by an error in a school's data report, but also because children, who for varies reasons are not enrolled in a school, are not covered in the statistics. However, children, who do not have a civil registration number, but is attending classes in a Danish school, are covered by the statistics. Children, who recently immigrated to Denmark, are in that category - e.g. children seeking asylum or children of expats. Moreover, children living in another country, but attending a school in Denmark (eg. the Danish minority in Germany or children of diplomats) are also covered by the statistics. By comparison with the Civil registry, the number of children in this statistics is higher.



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 is considered to be high. The information in The Student Register is obtained from the administrative registers of the institutions and goes through a comprehensive error check in connection with the annual data collections. The update of The Student Registry further requires that the active students are rediscovered each year. Otherwise, the reason for the lack of continuity must be found and alleviated. Thus, there must be continuity in reporting over the years. Minor uncertainties arise from the fact that the institutions through the annual reports have the opportunity to correct and report data backwards in time. These uncertainties are approximately 0-3 pct.

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 may be considered provisional because of the possibility of updating backwards in time when the institution is reporting. When updating Statbank Denmark with the present year, the previous year is also updated.

6 Timeliness and punctuality

The statistics are published 3 to 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 regarding the number of pupils in the basic schools are published at the same time as the Student Register approximately 4 months after the end of the reference time. The statistics on special needs education are published approximately 3 months after the end of the reference time. The statistics cover the ongoing school year.

6.2 Punctuality

The statistics are normally published without delay.

7 Comparability

Statistics Denmark has produced statistics about the number of pupils in the Danish primary and lower secondary education school system since the 19th century. In its present form, the statistics are comparable since 2007. Before 2007, grades 0 to 6 were not compiled. From 2007, all grades from grade 0 to 10/11 are compiled. The number of pupils per class has been calculated since 2009. Information regarding special needs education has been gathered since 2011.

The statistics are produced according to the common European guidelines and are comparable to statistics from other countries published by OECD.

7.1 Comparability - geographical

The statistics form the basis for data in the publication "Education at a Glance" with international comparisons of intake and graduations from the educational system.

The statistics are produced according to the common European guidelines and are comparable to statistics from other countries published by Eurostat.

7.2 Comparability over time

The possibility for comparisons over time is good. When an education changes level, it is allocated with a new UDD and AUDD code, but both the old and the new codes will be classified on the new level in the Education classification. For basic schools, it is only the pre-school class, which use to be voluntarily, but has been changed into a mandatory class 0 in 2011.

The statistics and The Student register were extended to include data on pre-school through 7th grade from school year 2006-2007.

In 2011, the collection of data about special need education was initiated. STUK under the Ministry of Education collects the data from private schools and boarding schools. They changed the practice in 2017, as the schools no longer have to report the number of hours the pupils receive special needs education.

The method to produce The Basic School Register was changed in 2017 in order to make it more comparable to the Student register. It is now based on the Student Register data collection. Before, it was produced based on the data collection for the special needs education.



7.3 Coherence - cross domain

The method to produce The Basic School Register was changed in 2017. It is now based on the Student Register. Before, it was produced based on the data collection for the special needs education.

There are no other comparable statistics in Denmark.

7.4 Coherence - internal

All data sources use the same format and same units, which make the data consistent.

8 Accessibility and clarity

These statistics are published in the StatBank under <u>Primary and lower secondary education</u> and in a Danish press release. For further information go to the <u>subject page</u> for these statistics.

8.1 Release calendar

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

8.2 Release calendar access

The Release Calender can be accessed on our English website: Release Calender.

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.

8.4 News release

These statistics are published in a statistical bulletin published on the website of Statistics Denmark.

8.5 Publications

Publications only in Danish.

8.6 On-line database

These statistics are released through several tables in the StatBank under <u>Primary and lower</u> <u>secondary education</u>.

8.7 Micro-data access

Researchers and other analysts from authorized research institutions can be granted access to the underlying micro data by contacting <u>Research Services</u>.



8.8 Other

The Student Register is the basis of the Danish contribution to <u>Education at a Glance</u> with international comparisons of intake and graduations from the education system.

8.9 Confidentiality - policy

Data Confidentiality Policy for Statistics Denmark is applied.

8.10 Confidentiality - data treatment

In connection with publications Statistics Denmark's data privacy policy is followed. Datafortrolighedspolitik i Danmarks Statistik.

In statbank table UDDAKT20, the statistics are divided into public and private schools, boarding schools, youth schools, special needs schools and schools for maladjusted children, as well as other schools. Other schools cover 6 different types of schools consisting of maximum 20 institutions with a small amount of pupils. The schools are presented as one group in order to ensure discretion for both schools and pupils.

8.11 Documentation on methodology

For further information on methods, registers, nomenclature etc.: Manualen og Fuldtidsuddannelser.

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 location of the statistics is in the division Education and Population. The person responsible is Lene Riberholdt, tlf. +45 39 17 31 85, e-mail: lri@dst.dk

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