

# **Documentation of statistics for Upper-Secondary Education 2022**



#### 1 Introduction

These statistics cover the activity in upper secondary education in Denmark. Upper secondary education is defined from Statistics Denmark's education classification DISCED-15 as all education classified on level 20 or 35. Upper secondary educations are typically 2-3 years in duration. Upper secondary education statistics are in their current form comparable since 2005 and are part of the overall Student Register, which contains information about all students in ordinary education in Denmark.

## 2 Statistical presentation

These statistics contain figures about the enrollment and completion in upper-secondary education in Denmark. This includes the number of entrants, the number of completed and the number of active students. The statistics are divided by education and the students' age, sex, ancestry and national origin.

## 2.1 Data description

These statistics cover several aspects of activity in upper secondary education in Denmark. The statistics are a part of the Student Register and are published annually as a part of this register. In StatBank Denmark, the statistics show the number of entrants, active and completed students distributed by educational fields, age, ancestry, national origin and sex.

#### 2.2 Classification system

The statistics are based on <u>DISCED-15</u>, which is the Danish version of the international classification system ISCED.

The statistics provides information regarding the activity in:

- Category 20 in DISCED-15: Upper secondary education, STX, 2-year STX, HF, HTX, HHX, and international upper secondary education, Pre-IB, IB, DFB, EB and DIAP.
- Category 35 in DISCED-15: Qualifying educational programmes.

#### 2.3 Sector coverage

Not relevant for these statistics.

## 2.4 Statistical concepts and definitions

Qualifying educational programmes: Shorter educations that are typically 1-1½ years in duration. They are aimed at people with vocational upper-secondary education or fugitives and gives qualification for entry to higher education.

Higher General Examination (STX): Higher General Examination is a 3 year programme and is a general upper-secondary education. The purpose is to grant qualification for entry to higher education. It is possible to choose from a variety of study programmes with subjects from humanities, science or social science.

Year: In the education statistics a year is defined as the period from 1 October the previous year to 30 September the mentioned year. As an example, 2017 is defined as 1 October 2016 to 30 September 2017.

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Danish-French Bacalaurétte (DFB): Danish-French Bacalaurétte is a 3 year programme and is an international secondary-upper education. The teaching is mainly done in French and the education gives qualification for entry to higher education. The education takes place at Lycée Français Prins Henrik in Copenhagen.

Danish-German Examination (DIAP): Danish-German Examination is a 3 year programme and is an international secondary upper-education. The teaching is mainly conducted in German and the education gives qualification for entry to higher education. The education takes place at Sankt Petri Schule in Copenhagen.

Students per 1 October: Persons enrolled on an education 1 October in the given year, for example 2017.

Completed: Persons completing their education in the period between October 1st and September 30th the following year.

Ancestry: A person's national affiliation or origin

Higher Preparatory Examination (HF): Higher Preparatory Examination is a 2 year programme and is a general upper-secondary education. The purpose is to grant qualification for entry to higher education at either a business academy or a university college. It is possible to choose an extended cluster of courses and get qualification for entry to an education at a university.

Higher Commercial Examination (HHX): Higher Commercial Examination is a 3 year programme and is a commercial upper-secondary education. The purpose is to grant qualification for entry to higher education. The education has more focus on businesses and economics than a Higher General Examination. Until 2005 it was possible to attend the HHX as a 1-year programme.

Higher Technical Examination (HTX): Higher Technical Examination is a 3 year programme and is a technical upper-secondary education. The purpose is to grant qualification for entry to higher education. The education has more focus on science and technics than a Higher General Examination.

International Baccalaureate (IB): International Baccalaureate is a 2 year programme and is an international secondary-upper education. The teaching is mainly conducted in English and the education gives qualification for entry to higher education.

National Origin: A person from Denmark is a person – regardless place of birth – where at least one parent is a Danish citizen and also born in Denmark. The Western countries are: All 28 EU countries and Andorra, Iceland, Liechtenstein, Monaco, Norway, San Marino, Switzerland, Vatican State, Canada, USA, Australia and New Zealand. The non-western countries are all other countries.

Pre-International Baccalaureate (Pre-IB): Pre-International Baccalaureate is a 1 year programme and is an international secondary-upper education. The teaching is mainly conducted in English and the education gives qualification for entry to International Baccalaureate.

Studenterkursus (2-årig STX eller HHX): Student Courses is a 2 year programme and is a general or business adult upper-secondary education. The purpose is to grant qualification for entry to higher education. The education is a compressed version of the Higher General Examination.

Entrants: Persons beginning their education in the period between 1 October the year before to 30 September in the given year, for example 1 October 2016 to 30 September 2017



#### 2.5 Statistical unit

Persons.

## 2.6 Statistical population

Persons enrolled in publicly regulated upper secondary education institutions in Denmark. The population also contains persons enrolled in private upper secondary education institutions giving access to public grants.

#### 2.7 Reference area

Denmark.

## 2.8 Time coverage

The current time series in StatBank Denmark covers the time period from 2005 and onwards.

#### 2.9 Base period

Not relevant for this statistics.

#### 2.10 Unit of measure

Number.

## 2.11 Reference period

The newest data collection was for the period of 1 October 2021-30 September 2022.

#### 2.12 Frequency of dissemination

Yearly.

## 2.13 Legal acts and other agreements

Law 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 is collected by The Ministry of Children and Education for their data warehouse. Statistics Denmark receives the error corrected data from The Ministry of Children and Education.



#### 2.15 Comment

Further information can be found on the subject page for <u>Upper-secondary education</u> or by contacting Statistics Denmark directly.

## 3 Statistical processing

The data for these statistics are received yearly in November/December from The Ministry of Children and Education. This means that the data received by Statistics Denmark have already been corrected for errors. In addition, a thorough error searching and validation of data are done by Statistics Denmark, where data is controlled for fluctuations across time and irregularities at the individual level. The Ministry of Children and Education are involved in cases of substantial corrections.

#### 3.1 Source data

The source is the data warehouse of The Ministry of Children and Education. From this data warehouse Statistics Denmark collects information regarding entrants as well as completed and active students in upper secondary education in Denmark.

## 3.2 Frequency of data collection

The statistics are based on information collected once a year by The Ministry of Children and Education.

#### 3.3 Data collection

The majority of data is collected by The Ministry of Children and Education as system to-system reporting through administrative systems. Some institutions report manually through spreadsheets or a webpage to The Ministry of Children and Education.

#### 3.4 Data validation

The data validation mainly consists of two types of error searching: macro error searching and micro error searching.

Macro error searching focuses on searching for fluctuations on four parameters: population (the number of students per 1 October), entrants, completions, and discontinuations. The numbers for each parameter are compared with the numbers from the previous year for every upper secondary education at the institutional level. If significant and unlikely fluctuations are found, the institution have to either correct the numbers or inform Statistics Denmark that the numbers are correct and show the factual development.

Micro error searching focuses on errors in the data received by Statistics Denmark about specific persons. Examples of micro errors could be an invalid education code or the student's start date being after the end date. A check for overlaps is also made, since there is not always consistency between the dates provided for students changing from one institution to another. Statistics Denmark corrects the dates to avoid the issue of students appearing to be active at multiple institutions simultaneously.



#### 3.5 Data compilation

The Ministry of Children and Education aggregate data from the institutions as a total dataset. Statistics Denmark process the data only slightly, since the data is assessed to be of high quality.

## 3.6 Adjustment

No corrections of data are made except what has already been described under Datavalidering and Databehandling.

## 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 in the educational field, but also for example in the labour market field and the integration field. The data of the statistics are used as background data for most of the personal statistics at Statistics Denmark, and are the basis for several tables in StatBank Denmark about education.

#### 4.1 User Needs

The users are many and varied. The statistics are often used for external tasks ordered at Statistics Denmark by ministries, municipalities, research institutions, non-governmental organizations, private companies, individuals and the press. The basic data is used in more than 2000 research projects every year where scientists and researchers gain access to the data via Research Services at Statistics Denmark.

The Ministry of Education and the Ministry of Higher Education and Science receives the basic data, which is used for planning purposes, analyses and prognoses etc.

#### 4.2 User Satisfaction

The users are involved as much as possible. Some users can help by securing data from the educational institutions of a high quality is reported to Statistics Denmark on time and other users can give inspiration for new statistics and analyses.

Through user involvement, Statistics Denmark get inspiration to the development of methods and models that can contribute to the continued development and improvement of the statistics. Statistics Denmark also has a contact group for education statistics which meet once a year.

#### 4.3 Data completeness rate

The statistics fulfill the demands of the regulation as put forward by the EU.



## 5 Accuracy and reliability

The administrative systems that are the basis for the statistics are used by the institutions for their own daily administration of the students as well as for the payment of various financial grants. Correct registers are therefore necessary for the economy of the institutions and contributes to an expected high quality of the data source. The Ministry of Children and Education conduct error detection of data and the quality of the received data is high. Errors do occur but they are in most cases corrected the following year.

## 5.1 Overall accuracy

The precision of the statistics is high, because The Ministry of Children and Education collects data directly from the administrative systems of the educational institutions. Uncertainty arises when the institutions register certain students or educations wrongly. When this is discovered, the error will be corrected before next year's publication of data. At the level of specific upper secondary educations or groups, the uncertainty will be greater.

#### 5.2 Sampling error

Not relevant for these statistics.

#### 5.3 Non-sampling error

Coverage errors can occur because of students enrolled in upper secondary education not registered in these statistics. Missing records can occur because of errors in the registration of students. When start and/or end dates of form levels overlap, the student will be registered as having completed the previous level at the same date they begin the next level.

#### 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 strength of the statistics is that data are collected from the institutions' administrative registers, which the institutions use for the administration of their students. Errors in the administrative registers are however unavoidable.

## 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 institutions have the possibility of retrospective revision when reporting data. When that happens, data from previous years are revised.

## 6 Timeliness and punctuality

The statistics are published approximately 4 months after the reference time, which is 1 October. 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 reference time which is 1 October.

## 6.2 Punctuality

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

## 7 Comparability

The current version of these statistics go back to 2005. However, statistics pertaining to upper secondary education in Denmark have been produced prior to 2005. The statistics are internationally comparable as upper secondary education is defined in similar ways internationally.

## 7.1 Comparability - geographical

The statistics are part of the basis of data in the OECD publication <u>Education at a Glance</u> with international comparisons of entrance to and graduations from the education system. When comparing across countries one should take into account that upper secondary education can be understood differently.



## 7.2 Comparability over time

The version these statistics go back to 2005. **Archived tables in the StatBank** The earliest data on short-cycle higher education in the StatBank are from 2001. The archived tables are not directly comparable with the active tables. The archived tables are based on the old educational classification, which is no longer used.

**Historical data** The term "Higher Examination", which is an upper secondary education, was used for the first time in a statistical yearbook in 1914.

#### 7.3 Coherence - cross domain

Since the statistics are publicized together with the statistics about other educational levels in the Student Register, it is possible to compare the upper secondary education statistics with statistics for other educational levels.

#### 7.4 Coherence - internal

These statistics are internally coherent.

## 8 Accessibility and clarity

Statistics are released yearly in a Danish press release, at the same time as the tables are updated in the StatBank. In the StatBank, these statistics can be found under the subject <u>Upper-secondary</u> education. For further information, see the homepage of the <u>statistics</u>.

#### 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

These statistics are published yearly in a Danish press release.

## 8.5 Publications

Publications only in Danish.



#### 8.6 On-line database

The statistics are published in the StatBank under <u>Upper-secondary education</u> in the table:

• <u>UDDAKT30</u>: Educational activity in upper secondary school

#### 8.7 Micro-data access

The different versions of The Student Register are stored in Statistics Denmark's Database, PSD. Researchers and other analysts from authorized research institutions can be granted access to the underlying micro-data by contacting Research Services.

#### 8.8 Other

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

#### 8.9 Confidentiality - policy

**Data Confidentiality Policy** for Statistics Denmark.

#### 8.10 Confidentiality - data treatment

In the tables in StatBank Denmark, the number of variables are limited, which eliminates the possibility of identifying individual persons.

## 8.11 Documentation on methodology

Documentation on methodology for these statistics 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 this statistic is in the Division of Population and Education. The person responsible is Asger Bromose Langgaard, tel. +45 3917 3033, e-mail: alg@dst.dk

#### 9.1 Contact organisation

Statistics Denmark

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