# Educational personnel at upper secondary and tertiary level

- Registration entry for subjects
- Contents
- Time
- Reliability and security
- Comparison
- Access to information

# **0. Registration entry for subjects**

#### **0.1** Name

Educational personnel at upper secondary and tertiary level

## 0.2 Subject Area

Education

## 0.3 Responsible authority, office, person, etc.

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## **0.4 Purpose and history**

Statistics Iceland has since 1998 collected statistical information on personnel at the upper secondary and tertiary levels. The data collection takes place each winter and the reference period is November. For public schools, raw data are retrieved from the State Accounting Office, which were previously sent to the relevant schools for examination and vetting. The schools were also asked to add information that could not be obtained from the State Accounting Office, e.g. about licenced teachers. In 2012, the data collection was changed and the information from the State Accounting Office was no longer sent to the schools for examination. In addition the definitions of a few of the variables were changed, see below. Data on private schools are received directly from the relevant schools and they complete all information about their staff.

The purpose of these reports is to gather data on the staff of upper secondary and tertiary educational institutions, especially the educational personnel, their number, professional education, teaching licence and full time equivalence (FTE). In addition, the amount of teaching and research carried out where applicable. These data are used for the production of statistics, both for domestic and international use.

#### 0.5 Users and application

Data on the educational personnel of upper secondary and tertiary educational institutions are used to supply information to international institutions as well as for all publications of Statistics Iceland regarding educational matters. The results are used by the Ministry of Education, Science and Culture, scholars, directors and the personnel of educational institutions, for both policymaking and research.

#### 0.6 Sources

The principal sources of data for public schools are reports from the State Accounting Office. The principal data source for private schools are the individual schools themselves. Data are collected in the winter with November as the reference month. Information is collected about individual employees of each school (including ID number), their job titles, education, full time equivalents (FTE), proportion of teaching, proportion of research when applicable and teaching licence, where appropriate.

## 0.7 Legal basis for official statistics

Act on Statistics Iceland No. 163/2007. Act on upper secondary schools No. 92/2008 and Act on universities No. 63/2006. A clause in special agreements between the Ministry of Education, Science and Culture and schools about delivering data to Statistics Iceland. A clause in laws about the delivery of information for statistical purposes.

#### 0.8 Response burden

For public schools, the response burden is minimal. The response burden is higher for private schools since information about them cannot be retrieved from the State Accounting Office.

#### 0.9 EEA and EU obligations

The data collection on personnel of upper secondary and tertiary level institutions is in accordance with European standards and in collaboration with Eurostat. Data are delivered to Eurostat and other international organisations.

## 1 Contents

#### 1.1 Description of contents

The reporting covers the following points, which pertain to personnel at the upper secondary and tertiary levels:

<u>Employee</u>: Employees who have received salary from a school in the month of November each year. The number of employees is determined from the ID number, received either from the State Accounting Office or directly from each school. Information regarding gender and domicile of each employee is collected by a linkup to the National Population Register in December.

Job title: Job title is coded according to the ÍSTARF 95 classification system, which is based on the international classification system ISCO-88. Private schools are asked to classify and label each employee with an ÍSTARF code according to his or her employment contract. For public schools the ÍSTARF code is obtained from the State Accounting Office, starting with the new time series for upper secondary schools for 2011-2012, published on December 9, 2019. In older data, the public schools classified their employees in the same way as the private schools do.

<u>Education</u>: Information is requested on the highest education that an employee has obtained. This education is classified according to the international classification system ISCED97 but schools can also use the ÍSMENNT2011 classification system starting with the data collection for November 2016. Type of college or university degree is listed, e.g. Ph.D., Diploma, B.Sc. or any additional education. Starting in 2012 the information on education in public schools is obtained from the State Accounting Office, while the private schools complete this information for their staff. When information is not available from the schools, other sources are used, e.g. Statistics Iceland's Statistical Educational Attainment Register.

<u>Teaching license</u>: Information on teaching licenses is gathered where applicable, which is only for teachers at the upper secondary level. Starting in 2012 the information on teaching licence in public schools is obtained from other sources, e.g. on persons who have a teaching licence. Private schools complete this information for their staff.

Full time equivalents (FTE): FTE is calculated by the State Accounting Office for each employee of public schools that has received a salary in November each year. FTE is based on information from the office's manyear database. FTE can be higher than 1.0 when the total number of working hours of an employee, including overtime, has been counted. FTE of substitute or part time teachers or other personnel on hourly contracts is calculated thus: Number of paid hours/number of hours for 100% employment. FTE for private schools is based on the same premises as

stated above but is calculated by the individual schools themselves but not The State Accounting Office.

<u>Teaching ratio</u>: The calculated ratio of teaching hours to the total of FTE. For upper secondary school teachers the amount of teaching is reported per week and 24 teaching hours per week is seen as an FTE of 1.0. In this way a teacher with an FTE of 1.3 who teaches 31.2 hours per week has a 100% amount of teaching according to the calculation (31.2/24) = 1.3. For tertiary level teachers the reference is the teaching obligation ratio according to the individual employment contract and job title. A professor will normally have a teaching obligation of 48% for each FTE but an associate professor will have 65%.

<u>Research ratio</u>: The research ratio only applies to the tertiary level and then only to those employees who have some contractual research obligations. Just as with the teaching ratio, the research ratio is based on employment contract and job title. Professors usually have a 40% research obligation but associate professors only 30%. If other rules apply to the research ratios then the individual schools will fill in this information, proof and correct the data.

#### 1.2 Statistical concepts

<u>School/educational institution</u>: A school is defined here as a separate entity or place where education is carried out. A school does not necessarily have to be confined to a building or a particular place. Most often, however, a school has the traditional meaning of an educational institution, which is confined to a particular building or a place.

*Employee*: An individual who has received a salary from any given school during the reference month.

<u>Teaching employee</u>: An employee who has received salary from any given school during the reference month who has the occupation of a teacher or manager related to teaching. In the older time series on staff in upper secondary schools (under Earlier tables), all employees who undertook any teaching during the reference month were counted as teachers even though some of them had another occupation as their principal employment.

<u>Employee turnover</u>: Ratio of employees who have worked at an upper secondary or tertiary level institution for one year and do not appear on the employee list a year later but have not died during the year. Also known as dropout rate from work.

# 2 Time

#### 2.1 Reference period

Reports are requested from the schools once a year, with November as the reference month. The personnel comprises all employees of the school who received salary in the month of November. The data collections before 2004 had different reference months, see item 4.1.

## 2.2 Processing time

Work on data on personnel in upper secondary and tertiary education is under revision. This item will be updated when more information is available on the processing of these data.

## 2.3 Punctuality

Data for publication are placed on Statistics Iceland's advance release calendar at least 10 days before the data will be published on the website.

#### 2.4 Frequency of releases

The plan is to publish the results of the data collection annually but these data are not on the work plan for the next months.

# 3 Reliability and security

## 3.1 Accuracy and reliability

Statistics Iceland requests data from the upper secondary schools and universities covered by this data collection as well as data from the State Accounting Office. The data collection covers upper secondary schools, special schools and universities that have received recognition from the Ministry of Education, Science and Culture. The response rate so far has been 100%.

#### 3.2 Sources of errors

The goal is to keep errors to an absolute minimum. This is achieved through comparison to reports from previous years, queries to individual institutions and linkups to other databases of Statistics Iceland, such as the National Population Register and data sets from previous data collections. Databases and registers searched include, amongst others, old employee records, the Register of Graduations of Statistics Iceland and the Statistical Educational Attainment Register. Errors can usually be traced to inaccurate entries of original data within the schools. Information is primarily lacking on education and/or teaching licenses. In addition, the reliability of the schools' classification of employees and assignment of ÍSTARF 95 code is somewhat variable. Some schools have the tendency to classify employees according to education, respect or salary rather than actual job description (e.g. job title 'physician' rather than 'lecturer'). Schools sometimes have limited

information about their part time teachers and can therefore sometimes not include information regarding their education.

The number of employees in November is thought to reflect the number of employees for the entire school year. The number of employees in the spring semester is not necessarily the same as in the autumn semester, which can cause errors when conclusions are drawn from the autumn numbers alone. In addition, employees who only work for a short time during the school year are not always included in the data collection. The statistics on staff are sometimes compared to statistics on students, which are collected with October 15<sup>th</sup> as a reference date. The statistics on students and staff are more comparable since they are collected in the same semester.

## 3.3 Measures on confidence limits/accuracy

During the data collection on employees of upper secondary and tertiary level, data are collected from all institutions that fall under the coverage of this data collection. Since the data are population statistics, rather than sampling statistics, measures on confidence limits or accuracy are not relevant and therefore not done.

# **4 Comparison**

## 4.1 Comparison between periods

This data collection has been uninterrupted since 1998 but has not been carried out in the same fashion for the entire time, or with the same reference time. In 1998, statistics on personnel were collected in February but the ID number for each employee was not collected. Since 1999 employee data have been collected for each individual based on his or hers ID number. February was the reference month until 2001 when the data collection was moved to March since it turned out that overtime hours for the December exam period were sometimes being compiled in February. In the autumn of 2004 the data collection was again moved and now to the month of November to improve comparability to student records. In 2012, the data collection was changed so that data from the State Accounting Office were no longer sent to public schools for confirmation. In addition, the definition of teachers was changed and occupation was used instead of using the schools' information on who had taught during the reference month. Also, the source for licenced teachers was changed. The data are therefore not fully comparable from year to year. In December 2019 data on staff in upper secondary schools, which had been collected and processed using the older methods were placed in a folder called Earlier tables under Upper secondary education.

#### 4.2 Comparability with other statistics

Figures on the employees of upper secondary and tertiary schools are published on a per-school basis so that each school is said to be at one educational level even if it offers courses on both upper secondary and tertiary levels. Usually a school is said to be at the same level as the majority of its pupils. Results from these reports are compared to other sources and statistical figures as appropriate, such as the National Population Register, student records and graduation records as well as figures from other countries, e.g. in international publications. The coverage of the data on personnel is not as extensive as the coverage of the Student Register because employees of music schools are not included in the data collection, with the exception of The Reykjavík Music School, and The Reykjavík Academy of Singing and Vocal Arts. Additionally staff in many small specialised educational institutions outside the conventional school system are not included.

#### 4.3 Coherence between preliminary and final statistics

No preliminary or provisional statistics are published.

# **5** Access to information

#### 5.1 Forms of dissemination

News, released on Statistics Iceland's website
Statistics, categorised statistical web tables
Statistical Series, *Hagtíðindi*Statistical Yearbook of Iceland, *Landshagir* (latest version in 2015)
Data from the Statistics Iceland database on employees of upper secondary and tertiary level educational institutions is published by international organizations, such as in 'Key data on Education in Europe' (published by Eurydice), 'Education at a Glance' (annual publication by OECD) and 'Global Education Digest' (annual publication by UNESCO).

## 5.2 Basic data; storage and usability

The data are preserved in a computerized format by Statistics Iceland. All data, which concern individuals, are treated as confidential. Access to individual data is restricted and normally not allowed. When responding to enquiries data cannot be traced to individuals. Scientists can apply for access to individual data if they meet certain requirements.

#### 5.3 Reports

#### 5.4 Other information

More information can be obtained from the individual responsible for the data on personnel in upper secondary and tertiary education and from other staff in the Department of Wages, Income and Education.

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