

# Quality information about register variables possible to link to PIAAC

## Introduction

One of the main objectives of the Nordic-Baltic PIAAC network is to facilitate the use of PIAAC data alone or linked to register data for research purposes. The availability of annual individual-level register data for several decades from statistical offices in Denmark, Estonia, Finland, Norway, and Sweden, makes it possible to use PIAAC data from cycle one and cycle two linked with register data for research purposes. One exception is that it is not possible to link register data to PIAAC cycle one in Norway. In Latvia, register data are not available.

To facilitate analyses based on linked PIAAC and register data, the Nordic-Baltic PIAAC network has selected examples of register variables that can be fruitful to combine with PIAAC data. Further, the network has created metadata for these variables. The selected registry variables include:

- Education variables
- Labour market variables
- Income variables

When working with register data from different countries, it is important to note that data may not be fully comparable between countries. Differences may be due to different legislation, definitions, categories, reference periods, actuality, and quality issues related to specific variables.

The metadata for the selected variables provides an overview of the major differences that may affect country comparisons. The metadata information makes it easier for researchers to make decisions on which register variables to use and to adjust the analyses according to the availability and comparability of information from different countries and over time. The metadata contains information about availability and definitions of the variables, data source including target population, categories, reference periods, actuality, and a brief overview of quality issues.

The metadata information gives an overview of the current situation regarding register data in the Nordic and Baltic countries including information about changes in definitions over time. The registers at the Statistical offices in the Nordic and Baltic countries are evolving over time, which can change the availability and definitions of the register variables described in this document over a five-year period. Therefore, links to further information about the register variables are included in this document and will always contain up-to-date information.

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# 1. Education variables

## 1.1. Highest level of education – Nord24\_EDLVL

The highest level of formal education obtained is classified according to the international education classification ISCED 2011. ISCED is the internationally agreed reference classification for organising education programmes and related qualifications by education levels and fields, to enable comparison of results between countries regarding education statistics. ISCED 2011 presents a revision of the earlier international classification system, ISCED 1997. More information about the ISCED classifications can be found at [International Standard Classification of Education \(ISCED\) | UNESCO UIS](#). The education levels in ISCED 2011 are classified on a three-digit level. The Nordic Baltic variable, Nord24\_EDLVL, is based on education level of ISCED 2011 using a one-digit level according to the categories below.

	Categories
Primary education or less ISCED 0 and 1	01
Lower secondary education ISCED 2	02
Upper secondary education ISCED 3	03
Post-secondary non-tertiary education ISCED 4	04
Short-cycle tertiary education ISCED 5	05
Bachelor's or equivalent level ISCED 6	06
Master's or equivalent level ISCED 7	07
Doctoral or equivalent level ISCED 8	08
Not available	99

### **Denmark**

Annual individual information on highest completed education exists for the population resident in Denmark. The information is available from 1980 onwards.

Statistics on the highest level of education is based on four-digit education codes that uniquely identify the individual's education. The variable name is HFAUDD; it is aligned with the Nordic-Baltic variable as a key exists to transform HFAUDD to the international classification system ISCED2011.

The source of the variable is the register of the population's education (Registret over Befolkningens Uddannelse, BU). The reference point for BU is 1 October and completed education is measured for the population resident in Denmark on 31 December the same year. The information is available during spring in the following year.

The main source for BU is information from educational institutions in Denmark, but there are also other sources. For example, for the oldest groups in the population, the main source is a population census from 1970. Educational data for people born before 1921 is limited, as information about this group is not available from the 1970 population census. Educational information for immigrants, who have not been enrolled in an education in Denmark, is derived from several different sources. For instance, for some of these immigrants, the source for BU is a questionnaire, while for others the educational information is imputed. Thus, the quality of the education data for the oldest generation and for immigrants is relatively low. The variable HF\_KILDE describes the source of the educational information and its quality.

For further information about HFAUDD, please visit:

<https://www.dst.dk/da/TilSalg/Forskningsservice/Dokumentation/hoejkvalitetsvariable/hojestfuldfoerte-uddannelse> (only in Danish).

### **Estonia**

Annual individual information on the highest completed education is available in Estonia for the population aged 15 and older. This information has been recorded since 1990.

The source is the Population Statistical Register (RSR) at Statistics Estonia, and the variable name in the metadata documentation is Haridustase. As of 1 January, population statistics are computed annually for all individuals aged 15 and older, reflecting their current highest level of education. Various registers are utilised, with EHIS (Estonian Education Information System) being of the highest priority. The variable is aligned with the Nordic-Baltic variable, as a key exists to transform Haridustase to the international classification system ISCED2011.

Information on the highest completed education for the Estonian population at the end of 2023 became available in February 2024.

EHIS stores data entered since 2004; older data is not included. Therefore, much information for Estonia regarding educational variables is missing.

For additional details about Estonian Education statistics, please refer to the "Haridusstatistika Käsiraamat 2021" - (Educational Statistics Manual 2021) published by Statistics Estonia and the Ministry of Education and Research.

Please go to: [https://www.hm.ee/sites/default/files/documents/2022-10/haridusstatistika\\_kasiraamat\\_2021.pdf](https://www.hm.ee/sites/default/files/documents/2022-10/haridusstatistika_kasiraamat_2021.pdf) (only in Estonian).

### **Finland**

Variable name: Educational level of highest qualification/degree

Variable identifier: ututku\_aste

In statistics on the [educational structure of the population](#), transition from school to further education and work, and progress of studies, attainers of qualifications or degrees refers to completers of matriculation examination, international matriculation examinations (IB, Reifeprüfung or Gymnasieexamen examination), and attainers of vocational qualifications, university of applied sciences degrees, higher university of applied sciences degrees or

university degrees by the end of the statistical reference year. These statistics also include attainers of qualifications or degrees in the armed services, frontier guard service or abroad. One qualification or degree per person is included in the statistics: vocational qualification includes the highest level of education/most recently attained.

The data are obtained from Statistics Finland's Register of Completed Education and Degrees. Data can only be entered into the register for persons who have a Finnish personal ID number. For this reason, data on the qualifications or degrees of persons without a personal ID number, e.g., many foreign persons, are missing from the register.

The educational level of the highest qualification/degree (level 1). Based on the education code, according to Statistics Finland's latest education classification, which is comparable over time. Level 1 of educational level is the same as in the ISCED 2011 Classification.

Educational level, level 1

3 = Upper secondary level

4 = Post-secondary non-tertiary education

5 = Short-cycle tertiary education

6 = bachelor's or equivalent level

7 = master's or equivalent level

8 = Doctoral or equivalent level

9 = Not elsewhere classified

Data up until (last year of data set -1).

## **Norway**

Annual individual information on highest completed education exists in Norway for the population aged 16 years or older. The information exists from 1970 onwards.

The source of the variable "befolkningens utdanningsnivå" is the database for education (NUDB) and is coded according to the Norwegian Standard Classification of Education (NUS2000). The NUS2000-code is a six-digit code, that specifies both the level and the field of education. NUS2000 corresponds to ISCED2011 but gives more detailed information.

The reference period for the national variable on highest level of education completed is 1 October each year. The results are available from the Education Register in June the year after.

NUDB contains information from most of the Norwegian educational system, from lower secondary school to higher education. The educational institutions are responsible for reporting the data to Statistics Norway. Educational information for some immigrants, who have not participated in education in Norway, can be missing.

For further information about the Education Register at Statistics Norway, please visit: <https://www.ssb.no/data-til-forskning/utlan-av-data-til-forskere/variabellister/utdanning/nasjonalt-utdanningsdatabase> (only in Norwegian)

## **Sweden**

Annual individual information on highest completed education exists for the Swedish population aged 16 to 74 years from 1990, and for the entire population from 2009.

The source of the variable is the Education Register at Statistics Sweden. The name in the national metadata documentation is “Utbildningsnivå”, and it is on a more detailed level than the Nordic-Baltic variable. Original data are coded according to the Swedish Classification of Education (SUN2020). The definitions are aligned with the Nordic-Baltic variable as a key exists for transforming SUN2020 to ISCED 2011.

The reference period for the national variable on highest level of education is the end of spring term each year, with the results available from the Education Register in April the following year, e.g. data on the highest completed education for the Swedish population at the end of the spring term 2022 were available in April 2023. The Education Register at Statistics Sweden contains information from most of the Swedish educational system, from lower secondary school to higher education. The educational institutions are responsible for reporting the data to Statistics Sweden.

Information on education is, to a significant extent, missing for immigrants who have not participated in education in Sweden. An annual survey of newly immigrated foreign-born persons is sent out to collect information on their highest education. The response rates for this questionnaire have been 33 – 35 percent in recent years.

For further information about the Education Register at Statistics Sweden, please visit:

[Mikrodata för Registret över befolkningens utbildning \(scb.se\)](#) and [Befolkningens utbildning \(scb.se\)](#) (only in Swedish)

## 1.2. Field of education – Nord24\_EDFLD

The field of the highest formal education obtained is classified into the international education classification system ISCED-F 2013. The education fields in ISCED-F 2013 are classified on four-digit level. The Nordic Baltic variable, Nord24\_EDFLD, is based on education field of ISCED-F 2013 on two-digit level according to the categories below.

More information about the ISCED classifications are available on [International Standard Classification of Education \(ISCED\) | UNESCO UIS](#)

	Categories
Generic programmes and qualifications, Field 00	00
Education, Field 01	01
Arts and Humanities, Field 02	02
Social sciences, journalism and information, Field 03	03
Business, administration and law, Field 04	04
Natural sciences, mathematics and statistics, Field 05	05
Information and Communication Technologies, Field 06	06
Engineering, manufacturing and construction, Field 07	07
Agriculture, forestry, fisheries and veterinary, Field 08	08
Health and Welfare, Field 09	09
Services, Field 10	10
Not available	99

### **Denmark**

Annual individual information on field of highest completed education exists for the population resident in Denmark. The information is available from 1980 onwards.

The source of the variable is the register of the population's education (Registret over Befolkningens Uddannelse, BU). Statistics on the field of education are based on four-digit codes that uniquely identify the individual's education. The variable name is HFAUDD; is aligned with the Nordic-Baltic variable as a key exists to transform HFAUDD to the international classification system ISCED 2011.

The reference point for BU is 1 October and the field of completed education is measured for the population resident in Denmark on 31 December the same year. The information is available during spring of the following year.

For remarks regarding the quality of the data, see section 1.1 about the level of education.

or further information about HFAUDD, please visit:

<https://www.dst.dk/da/TilSalg/Forskningsservice/Dokumentation/hoejkvalitetsvariable/hoejstfuldfoerte-uddannelse> (only in Danish)

## **Estonia**

Annual individual information on the field of the highest completed education is available in Estonia for the population aged 15 and older.

The source of the variable is the Population Statistical Register (RSR). As of January 1, population statistics are computed annually for all individuals aged 15 and older, reflecting the field of their highest level of education currently attained. Various registers are utilized, with EHIS (Estonian Education Information System) given the highest priority. The variable is aligned with the Nordic-Baltic variable since the field of education in EHIS corresponds to the international classification ISCED-F 2013.

Estonian Education Information System (EHIS) stores data entered from 2004 onwards; older data are not included. Therefore, there is much missing information for Estonia when it comes to educational variables; see 1.1 for further information.

For additional details about the Estonian Education statistics, please refer to the "Haridusstatistika Käsiraamat 2021" (Educational Statistics Manual 2021) published by Statistics Estonia and the Ministry of Education and Research. Please go to: [https://www.hm.ee/sites/default/files/documents/2022-10/haridusstatistika\\_kasiraamat\\_2021.pdf](https://www.hm.ee/sites/default/files/documents/2022-10/haridusstatistika_kasiraamat_2021.pdf) (only in Estonian).

## **Finland**

Variable name: Educational field of highest qualification/degree

Variable identifier: ututku\_ala

The data are obtained from Statistics Finland's Register of Completed Education and Degrees. Data can only be entered into the register for persons who have a Finnish personal ID number. For this reason, data on the field of the qualifications or degrees of persons without a personal ID number, e.g., many foreign persons, are missing from the register.

The educational field of the highest qualification/degree is level 1. And is based on the education code, according to Statistics Finland's latest education classification, which is comparable over time. Level 1 of the educational field is the same as in the ISCED-F 2013 Classification.

Data up until (last year of data set -1).



## **Norway**

Annual individual information on field of highest completed education exists in Norway for the population aged 16 years or older. The information exists from 1970 onwards.

The source of the variable is the database for education (NUDB), and it is coded according to the Norwegian Standard Classification of Education (NUS2000). The NUS2000-code is a six-digit code, which specifies both the level and the field of education and corresponds to ISCED 2011.

NUDB contains information from most of the Norwegian educational system, from lower secondary school to higher education. The education institutions are responsible for reporting the data to Statistics Norway. The reference period for the national variable on field of highest level of education is completed education by 1 October each year. The results are available from the Education Register in June the year after. Educational information for some immigrants who have not participated in education in Norway can be missing.

## **Sweden**

Annual individual information on field of highest completed education exists in Sweden for the Swedish population aged 16 to 74 years from 1990, and for the entire population from 2009.

The source of the variable is the Education Register of Statistics Sweden. The name in the national metadata documentation is “Utbildningsinriktning”. Original data are coded according to the Swedish Classification of Education (SUN2020inr). A key exists for transforming SUN2020 to ISCED-F 2013. It is possible to link the categories in the Swedish variable to the categories in the Nordic-Baltic variable as a key exists between SUN2020 and ISCED-F 2013.

The reference period for the national variable on field of highest completed education is the end of spring term each year. The results are available from the Education Register in April the year after.

Information on field of education is, to a significant extent, missing for immigrants who have not participated in education in Sweden. A survey for newly immigrated foreign-born people is sent out to collect information on their highest education.

For further information about the Education Register of Statistics Sweden, please visit: [Mikrodata för Registret över befolkningens utbildning \(scb.se\)](#) and [Befolkningens utbildning \(scb.se\)](#) (only in Swedish)

### 1.3. Year of completion of education –Nord24\_YEARCOMPEDUC

This variable refers to the year when the respondent obtained his/her highest level of education according to ISCED. The variable is on a four-digit level according to 9999. For example, if the individual received a qualification in 2022 for their highest completed education, the year of 2022 is stated in the register information.

#### **Denmark**

Annual individual information on the date of completion of the highest attained education exists for the population resident in Denmark. The information is available from 1980 onwards.

The variable describing the date of completion of the highest education is HF\_VFRA. The date is given in the following format: 31jun2004:00:00:00

The source of the variable is the register of the population's education (Registret over Befolkningens Uddannelse, BU). The reference point for BU is 1 October and educational information is measured for the population resident in Denmark on 31 December the same year. This implies that the highest completed education is measured on 1 October. The information is available during spring of the following year.

For remarks regarding the quality of the data, see section 1.1 about the level of education.

For further information about HF\_VFRA, please visit:

<https://www.dst.dk/da/Statistik/dokumentation/statistikdokumentation/hojest-fuldfoert-uddannelse/indhold> (only in Danish).

#### **Estonia**

Annual individual information on the date of completion of the highest attained education is available in Estonia for the population aged 15 and older.

The source of the variable is the Population Statistical Register (RSR). As of 1 January, population statistics are computed annually for all individuals aged 15 and older, reflecting the date of their current highest level of education attained. Various registers are utilised, with EHIS (Estonian Education Information System) given the highest priority.

Estonian Education Information System (EHIS) stores data entered from the year 2004 onwards; older data are not included. Therefore, there is much missing information for Estonia when it comes to educational variables.

EHIS contains information about the date of completion of the highest education with the date given in the following format: dd.mm.yyyy; see 1.1 about level of education for further information about the register.

For additional details about the Estonian Education statistics, please refer to the "Haridusstatistika Käsiraamat 2021" (Educational Statistics Manual 2021) published by Statistics Estonia and the Ministry of Education and Research. Please go to:

[https://www.hm.ee/sites/default/files/documents/2022-10/haridusstatistika\\_kasiraamat\\_2021.pdf](https://www.hm.ee/sites/default/files/documents/2022-10/haridusstatistika_kasiraamat_2021.pdf) (only in Estonian).

### **Finland**

Variable name: Year when the highest qualification/degree was attained

Variable identifier: suorv

The year when the highest qualification/degree was attained.

The data are obtained from [Statistics Finland's Register of Completed Education and Degrees](#). Data can only be entered into the register for persons who have a Finnish personal ID number. For this reason, data on the qualifications or degrees of persons without a personal ID number, e.g., many foreign persons, are missing from the register.

Data up until (last year of data set -1). For further information, see section 1.1.

### **Norway**

Annual individual information on the date of attainment of the highest completed education exists in Norway for the population aged 16 years and older. The information exists from 1970 onwards.

The source of the variable is the database for education (NUDB) is named BU\_REGDATO.

The reference period for the national variable on the date of completion of the highest attained level of education is completed education by 1 October each year. The results are available from the Education Register in June the year after. Educational information for some immigrants, who have not participated in education in Norway, is missing.

For further information about the Education Register at Statistics Norway, please visit:

<https://www.ssb.no/data-til-forskning/utlan-av-data-til-forskere/variabellister/utdanning/nasjonalt-utdanningsdatabase>

## Sweden

Annual individual information about the year of completion of the highest education exists in Sweden for the Swedish population aged 16 to 74 years from 1990, and for the entire population from 2009. The format of the variable is YYYY.

The source of the variable is the Education Register at Statistics Sweden. The name in the national metadata documentation is “KallAr or ExamAr”, and it is aligned with the Nordic-Baltic variable.

The reference period for the national variable on year of completion of the highest education is end of spring term each year. Information on education is, to a significant extent, missing for immigrants who have not participated in education in Sweden. An annual survey to newly immigrated foreign-born persons is sent out to collect information on their highest education. The response rates to this questionnaire have been 33 – 35 percent in recent years. Information on year of completion of the highest education is, to a significant extent, missing in the Education Register compared to information about level and field of highest completed education, since the educational institutions in Sweden only report this if individuals have requested graduation certificates.

For further information about the Education register at Statistics Sweden, please visit: [Mikrodata för Registret över befolkningens utbildning \(scb.se\)](https://www.scb.se/mikrodata-for-registret-over-befolkningens-utbildning) and [Befolkningens utbildning \(scb.se\)](https://www.scb.se/befolkningens-utbildning) (only in Swedish)

## 1.4. Current education, level –Nord24\_CURREDLVL

Level of current formal education is classified according to ISCED 2011 (International Standard Classification of Education), at a one-digit level; see 1.1 for further information about ISCED.

	Categories
Primary education or less ISCED 0 and 1	01
Lower secondary education ISCED 2	02
Upper secondary education ISCED 3	03
Post-secondary non-tertiary education ISCED 4	04
Short-cycle tertiary education ISCED 5	05
Bachelor's or equivalent level ISCED 6	06
Master's or equivalent level ISCED 7	07
Doctoral or equivalent level ISCED 8	08
Not applicable (not currently studying)	96
Not available	99

### **Denmark**

Annual individual information on current education exists for the population resident in Denmark. The information is available from 1980 onwards.

Statistics on current education are based on four-digit education codes that uniquely identify the individual's current education. The variable name is UDD, and it is aligned with the Nordic-Baltic variable as a key exists to transform UDD to the international classification system ISCED2011.

The source of the variable is the register of the population's education (Registret over Befolkningens Uddannelse, BU). The main source for current education in BU is information from educational institutions in Denmark. The reference point for BU is 1 October and current education is measured for the population resident in Denmark on 31 December the same year. The information is available during spring of the following year.

For further information about UDD, please visit:

<https://www.dst.dk/da/Statistik/dokumentation/Times/Uddannelseregister/UDD> (in Danish only).

Note: an alternative to BU is the student register (elevregisteret KOTRE). KOTRE contains panel data and is organised in such a way that you can follow the education programs that an individual person has been enrolled in during his or her educational career.

For further information, please visit:

[TIMES delopgave - Elevregistret - Danmarks Statistik \(dst.dk\)](#) (only in Danish)

## **Estonia**

Annual individual information on participation in formal education exists for the Estonian population aged 15 and older. The information exists from 2005 onwards. The source of the information is the Estonian Education Information System (EHIS).

The definition of participation in formal education in the Nordic-Baltic variable is aligned with the definition in the Estonian variable. The education levels in EHIS correspond to the international ISCED2011. Statistics based on the register are published annually, each autumn term. The information on registered students each autumn term is published in January, i.e., Information on students registered in the autumn term 2023 is available in January 2024.

For additional details about the Estonian Education statistics, please refer to the "Haridusstatistika Käsiraamat 2021" (Educational Statistics Manual 2021) published by Statistics Estonia and the Ministry of Education and Research. Please go to: [https://www.hm.ee/sites/default/files/documents/2022-10/haridusstatistika\\_kasiraamat\\_2021.pdf](https://www.hm.ee/sites/default/files/documents/2022-10/haridusstatistika_kasiraamat_2021.pdf) (only in Estonian)

## **Finland**

Variable name: Educational level of current education

Variable identifier: iscle2011

Students refers to those in education, including basic education, leading to a degree or qualification on 20 September of the statistical year. The data for vocational education are for a calendar year from 2013 onwards, and for apprenticeship training and preparatory education for a skills examination from 2004 onwards.

The statistics on students and qualifications are based on individual's data (statistics on pre-primary and basic education on data by educational institution up to the 2019 statistical year) on students, qualifications, and degrees that Statistics Finland has collected from educational institutions through organisers of education, directly from educational institutions, from the KOSKI data resource, the VIRTIA higher education achievement register and the matriculation examination register. The data on students in general upper secondary education and on students and qualifications in vocational education (from the 2019 statistical year onwards), and data on pre-primary and basic education (from the 2020 statistical year onwards) are based on the data reported by organisers of education/educational institutions to the KOSKI data resource of the Finnish National Agency for Education. In addition, data collections supplementing the KOSKI data resource have been used. The data represent total data.

The comparability between years is affected by changes in the education system, classifications, and the compilation of statistics. Data on students have been produced to a varying degree, depending on the sector of education. The collection of comprehensive individual-based student data covering all education sectors after basic level was launched in 1999. The basic education data are individual based on the 2020 statistical year onwards. Data on qualifications and degrees are available from the Register of Completed Education and Degrees from 1971 onwards.

The data are obtained from Statistics Finland's Register of Completed Education and Degrees. Data can only be entered into the Register for persons who have a Finnish personal ID number.

Therefore, data on the qualifications or degrees of persons without a personal ID number, e.g., many foreign persons, are missing from the register.

The current educational level is based on the education code, according to Statistics Finland's latest education classification, which is comparable over time. Level 1 of educational level is the same as in the ISCED 2011 classification.

Educational level, level 1

3 = Upper secondary level

4 = Post-secondary non-tertiary education

5 = Short-cycle tertiary education

6 = bachelor's or equivalent level

7 = master's or equivalent level

8 = Doctoral or equivalent level

9 = Not elsewhere classified

Data up until (last year of data set -1).

### **Norway**

Annual individual information on participation in education exists in Norway for the population aged 16 years or older.

The source of the variable is the database for education (NUDB) and is coded according to the Norwegian Standard Classification of Education (NUS2000). The NUS2000-code is a six-digit code, which specifies both the level and the field of education. NUS2000 corresponds to ISCED 2011 but gives more detailed information.

The reference period for the national variable on current level of education is enrolment in education by 1 October each year. The results are available from the Education Register in spring the year after.

NUDB contains information from most of the Norwegian educational system, from lower secondary school to higher education. The educational institutions are responsible for reporting the data to Statistics Norway. Educational information for some immigrants who have not participated in education in Norway, can be missing.

For further information about the Education Register at Statistics Norway, please visit:

[https://www.ssb.no/data-til-forskning/utlan-av-data-til-forskere/variabellister/utdanning/nasjonalt-utdanningsdatabase.](https://www.ssb.no/data-til-forskning/utlan-av-data-til-forskere/variabellister/utdanning/nasjonalt-utdanningsdatabase)

### **Sweden**

Annual individual information on participation in formal education each calendar year, autumn term and spring term exists for the Swedish population aged 16 to 74 years. The information exists from 1992 onwards.

The source of the information is the register of participation in Education. The name in the metadata documentation is “Studiedeltagande helår, Studiedeltagande höstterminen” and “Studiedeltagande vårterminen”.

The definition of participation in formal education in the Nordic-Baltic variable is aligned with the definition in the Swedish variable. The level of current formal education on one- digit level does not exist in the Swedish register of persons in education, but it is included in the register’s sources. The provider of the education (primary school, upper secondary school, municipal adult education, university etc.) exists in the register, and on an aggregated level (i.e., lower secondary education and shorter, upper secondary education and post-secondary education) the information on provider could be, to some extent, dependent on the provider, transformed to level of current education in three categories. These three categories are ISCED 0, 1 and 2; ISCED 3; and ISCED 4-8. In Education Register, the level of current education can be derived but will require some processing work at Statistics Sweden.

The reference periods for participation in formal education are based on information about registered students during the spring term and/or autumn term for a specific year. Statistics based on the register are published annually for each autumn term, and available in December the year after, i.e., information on registered students in the autumn term 2022 is available in December 2023.

The register contains information about students studying abroad if they have study allowances or study loans for this. Otherwise, information about studies abroad is missing from the register.

For further information about the register of participation in Education, please visit: [Mikrodata för Registret över befolkningens utbildning \(scb.se\)](#) and [Dokumentation av mikrodata - www.scb.se](#) (only in Swedish)



## 1.5. Current education, field – Nord24\_CURREDFLD

A broad field of current education and training is classified according to the ISCED 2013-F (ISCED Fields of Education Classification and Training). For further information about ISCED classification fields, see 1.2.

	Categories
Generic programmes and qualifications Field 00	00
Education, Field 01	01
Arts and Humanities, Field 02	02
Social sciences, journalism and information, Field 03	03
Business, administration and law, Field 04	04
Natural sciences, mathematics and statistics, Field 05	05
Information and Communication Technologies, Field 06	06
Engineering, manufacturing and construction, Field 07	07
Agriculture, forestry, fisheries and veterinary, Field 08	08
Health and Welfare, Field 09	09
Services, Field 10	10
Not applicable (not currently studying)	96
Not available	99

### **Denmark**

Annual individual information on the field of current education exists for the population resident in Denmark. The information is available from 1980 onwards.

Statistics on current education is based on four-digit education codes that uniquely identify the individual's education. The variable name is UDD, and it is aligned with the Nordic-Baltic variable as a key exists to transform UDD to the international classification system ISCED-F 2013.

The source of the variable is the register of the population's education (Registret over Befolkningens Uddannelse, BU). The main source for current education in BU is information from educational institutions in Denmark.

The reference point for BU is 1 October and current education is measured for the population resident in Denmark on 31 December the same year. The information is available during spring the following year.

For further information about UDD, please visit:

<https://www.dst.dk/da/Statistik/dokumentation/Times/Uddannelseregister/UDD> (in Danish only).

## **Estonia**

Annual individual information on participation in formal education exists for the Estonian population aged of 15 and older. The information exists from 2005. The source of the information is the Estonian Education Information System (EHIS).

Estonian Education Information System (EHIS) stores data entered from 2004 onwards; older data are not included. Therefore, much information for educational variables in Estonia is missing. The field of education in EHIS corresponds to the international ISCED-F 2013.

Statistics based on the register for each autumn term, are published annually in January, i.e., information on registered students for the autumn term 2023 is available in January 2024.

For additional details about the Estonian Education statistics, please refer to the "Haridusstatistika Käsiraamat 2021" (Educational Statistics Manual 2021) published by Statistics Estonia and the Ministry of Education and Research. Please go to:

[https://www.hm.ee/sites/default/files/documents/2022-10/haridusstatistika\\_kasiraamat\\_2021.pdf](https://www.hm.ee/sites/default/files/documents/2022-10/haridusstatistika_kasiraamat_2021.pdf) (only in Estonian)

## **Finland**

Variable name: Educational field of current education

Variable identifier: iscfibroad2013

Students refer to those in education, including basic education, leading to a degree or qualification on 20 September of the statistical year. The data for vocational education are for a calendar year from 2013 onwards, and for apprenticeship training and preparatory education for a skills examination, from 2004 onwards.

The statistics on students and qualifications are based on individual's data (statistics on pre-primary and basic education on data by educational institution up to the 2019 statistical year) on students, qualifications, and degrees that Statistics Finland has collected from educational institutions through organisers of education, directly from educational institutions, from the KOSKI data resource, the VIRTIA higher education achievement register and the matriculation examination register. The data on students in general upper secondary education and on students and qualifications in vocational education (from the 2019 statistical year onwards), and data on pre-primary and basic education (from the 2020 statistical year onwards) are based on the data reported by organisers of education/educational institutions to the KOSKI data resource of the Finnish National Agency for Education. In addition, data collections supplementing the KOSKI data resource have been used. The data represent total data.

Data contained in the statistics on students and qualifications are published annually for a calendar year. A calendar year or the cross-sectional point (20 September) is used as the reference period.

The statistics contain the data on pupils and students in pre-primary and basic education and post-comprehensive education leading to a qualification or degree in Finland. The data contained in the statistics are total data and give the data on all organisers of education.

The comparability between years is affected by changes in the education system, classifications, and compilation of statistics. Data on students have been produced to a varying

degree, depending on the sector of education. The collection of comprehensive individual-based student data covering all education sectors after basic level was launched in 1999. The basic education data are individual based on the 2020 statistical year onwards. Data on qualifications and degrees are available from the Register of Completed Education and Degrees from 1971 onwards.

Based on the education code, according to Statistics Finland's latest education classification, which is comparable over time, level 1 of the educational field is the same as in the ISCED-F 2013 classification.

The data are obtained from Statistics Finland's Register of Completed Education and Degrees. Data can only be entered into the Register for persons who have a Finnish personal ID number. Therefore, data on the qualifications or degrees of persons without a personal ID number, e.g., many foreign persons, are missing from the Register.

### **Norway**

Annual individual information on participation in education exists in Norway for the population aged 16 years or older.

The source of variable is the database for education (NUDB) and is coded according to the Norwegian Standard Classification of Education (NUS2000). The NUS2000 code is a six-digit code, which specifies both the level and the field of education. NUS2000 corresponds to ISCED 2013-F but gives more detailed information.

The reference period for the national variable on current level of education is enrolment in education by 1 October each year. The results are available from the Education Register in spring the year after. [NUDB contains](#) information from most of the Norwegian education system, from lower secondary school to higher education. The education institutions are responsible for reporting the data to Statistics Norway. Education information for some immigrants who have not participated in education in Norway, can be missing.

For mor information about the Education Register at Statistics Norway, please visit: <https://www.ssb.no/data-til-forskning/utlan-av-data-til-forskere/variabellister/utdanning/nasjonl-utdanningsdatabase>.

### **Sweden**

Annual individual information on participation in formal education each calendar year, autumn term and spring term exists for the Swedish population aged 16 to 74 years. The information exists since 1992 onwards.

The source of the variable is the register of persons in education and the name in the metadata documentation is "Studiedeltagande helår, Studiedeltagande höstterminen" and "Studiedeltagande vårterminen".

The definition of participation in formal education in the Nordic-Baltic variable is aligned with the definition in the Swedish variable, although the field of current formal education on a two-digit level does not exist in the Swedish Educational Register.

In the sources of register of persons in education, the field of current education according to ISCED-F 2013 can, in most cases, be derived but it will require some processing work at Statistics Sweden.

The reference periods for participation in formal education are based on information about registered students during the spring term and/or autumn term in a specific year. Statistics based on the registered students for each autumn term are published annually in December the year after, i.e., information on registered students in the autumn term 2022 is available in December 2023.

The register contains information about students studying abroad if they have study allowances or study loans for this. Otherwise, information about studies abroad is lacking in the register.

For further information about the register of persons in education, please visit: [Befolkningens studiedeltagande \(scb.se\)](https://www.scb.se/befolkningens-studiedeltagande) and [Dokumentation av mikrodata - www.scb.se](https://www.scb.se/dokumentation-av-mikrodata) (only in Swedish)

## 2. Labour market variables

### 2.1. Labour force status – Nord24\_LABSTAT

A person is defined as employed and at work (definition from the International Labour Organisation ILO) if a person above a specific age during the reference week performed at least one hour of work as a paid worker, self-employed, or as an unpaid helper in companies belonging to a family member in the same household. Also, a person who is normally employed as defined above, but temporarily absent from work during the reference week (whether the absence is paid or not) is regarded as employed. (National differences in definitions regarding how to treat people on sick leave, maternity leave, and army conscripts are described in the metadata).

The unemployed comprise all persons of working age who were without work during the reference week, i.e., were not in paid employment or self-employment but were currently available for work, (i.e., were available for paid employment or self-employment during the reference week) and were seeking work, (i.e., had taken specific steps during the reference week to seek paid employment or self-employment).

The sum of the employed and the unemployed population measured for a short reference period is equivalent to the labour force. This means that those outside of the labour force comprise the population in a specific age interval or others who do not belong to the labour force according to the definitions above. More information about the definitions is available at [Labour Force Statistics \(LFS, STLFS, RURBAN databases\) - ILOSTAT](#).

Category	Code	Definition
Employed	01	Employed
Unemployed	02	Not gainfully employed, but in the labour force
Outside the labour force	03	Not gainfully employed, outside the labour force
Not available	99	

#### **Denmark**

Information on labour force status exists in Denmark from 1980 onwards for all people resident in Denmark, irrespective of age. This information can be obtained from different variables that cover different periods since 1980. Information about labour force status from 2008 onwards is available from the variable SOC\_STATUS\_KODE.

In general, the determination of the population's primary attachment to the labour market is based on international guidelines from ILO. This information, which is updated once a year, is available for the population, resident in Denmark on 1 January. The reference point is typically the last working day in November the year before. Individuals might have more than one observation per year. To identify observations relating to the last working day of November, the variables I\_BEFOLKNINGEN\_KODE and PRIMAER\_STATUS\_KODE should both be set equal to 1.

By use of SOC\_STATUS\_KODE, the population can be divided into the categories "employed", "unemployed", "outside the labour force" in the following way:

“Employed” persons (code 110, 120, 131-136). Employed persons are persons who are working for pay at least one hour during the reference week and persons who have a permanent attachment to an employer, but are temporarily absent from work due to sickness, childcare or maternity leave. Employed persons include self-employed (110), assisting spouses (120) and wage earners (131-136)

“Unemployed” (code 200). Unemployed persons with a wage subsidy job are considered as employed.

“Outside the labour force” (code 311-517). Persons outside the labour force consist of a large number of different groups most of which receive some sort of public benefits. The largest subgroups are persons receiving either disability pension, passive (meaning not available to the labour market) cash benefit, or early retirement benefits.

The source of the variable SOC\_STATUS\_KODE is the Register-Based Labour Force Statistics (den registerbaserede arbejdsstyrkestatistik, RAS). For further information about RAS, please visit: [Documentation of statistics: Register-Based Labour Force Statistics - Statistics Denmark \(dst.dk\)](https://www.dst.dk/da/Statistik/dokumentation/Times/moduldata-for-arbejdsmarked/soc-status-kode). The variable SOC\_STATUS\_KODE is available from RAS about 16 months after the reference point. That is, information about labour force status on the last working day of November 2022 for the population as of 1 January 2023, is available in March 2024.

For further information about SOC\_STATUS\_KODE, please visit: <https://www.dst.dk/da/Statistik/dokumentation/Times/moduldata-for-arbejdsmarked/soc-status-kode> (only in Danish)

## **Estonia**

In Estonia, the variable “Labour force status” is not directly available in any single administrative source. Instead, it is calculated exclusively from administrative sources, with data present at Statistics Estonia. These sources include:

- Business Register (ARIREG)
- Estonian Education Information System (EHIS)
- Estonian Unemployment Information System (EMPIS)
- Entrepreneur account data from the Estonian Tax and Customs Board (EVKONTO)
- Prisoners’ Register (KIR)
- Health Insurance Database (KIRST)
- Mandatory Funded Pension Register (KOPIS)
- National Defence Obligation Register (KVKR)
- Register of taxable persons (MKR):
  - \* Declarations of income and social tax, unemployment insurance premiums, and contributions to mandatory funded pension (TSD), including payments made to resident (TSD Annex 1A) and non-resident natural persons (TSD Annex 2A)
  - \* Disclosure of recipients of dividends and equity payments (INF1)
  - \* Business income declarations of a resident natural person (FIDEK form E)
  - \* Income tax declarations for a resident natural person (FIDEK form A)
- State Personnel and Payroll Database (SAP)
- Business Register for Statistical Purposes (SPI)
- Social Security Information System (SKAIS)
- Social Services and Benefits Registry (STAR)

- Employment register (TÖR)

The definition of “Labour force status” aligns with the International Labour Organisation (ILO) standards. All the aforementioned data have been available since 2015, with some sources also available for previous years.

Labour force is comprised of the employed (01) and the unemployed (02). Those outside the labour force (03) include individuals under 15 years of age, pensioners, capital income recipients, and students.

**Employed (01)** includes all persons at least 15 years of age who:

- Worked for at least one day for a fee
- Operated as an entrepreneur or as self-employed during the calendar year of the reference period, or
- Were temporarily absent from a workplace where they had already worked and with which they maintained an official employment relationship.

**Unemployed (02)** includes all persons of at least 15 years of age who were not employed, in prison, or in military service, or who were registered unemployed.

**Outside the labour force (03)** includes those who were not employed nor unemployed during the reference week, i.e., all children under the age of 15, pensioners, recipients of capital income, students, and other persons who do not belong to another group.

The reference period is seven days from 12 December 2022 to 18 December 2022, or, more generally, the last full working week preceding Christmas. The variable is calculated in August, following the year of the reference period. The target population includes permanent residents as of 1 January of the year following the reference period.

## **Finland**

Variable name: Main type of activity (TVM)

Variable identifier: ptoim1

The concept of main type of activity describes the nature of a person's economic activity. The population is divided into people in the labour force and those outside the labour force. These categories can further be divided into subgroups. The classification is based on data on a person's main type of activity during the last week of the year.

The following classification is used:

Labour force

11 = employed labour force

12 = unemployed

Persons outside the labour force

21 = 0-14-year-olds

22 = students, pupils

24 = pensioners

25 = conscripts, conscientious objectors

29 = on unemployment pension

99 = others outside the labour force.

Information on the main type of activity is based on data obtained from various registers. Where the data conflict as to whether a person is in the labour force or outside it, priority is given to the former. If, within the labour force, the data conflict as to whether a person is unemployed or employed, priority is given to the former.

The group “others outside the labour force” consists of persons who are not in the labour force and do not belong to the following groups: 0-14-year-olds, students, conscripts, conscientious objectors, or pensioners.

Data up until (last year of data set -1). The deduction of employed people is based on the payment period data of the Income Register since the statistical year 2019.

### **Norway**

Information on the labour force status is available for the population living in Norway aged 15 years and above. The definitions used for the variable “arb\_arbmark\_status” are the same as in the ILO-definition. Data are based on the register A-ordningen and on the reporting of self-employed persons. Similar data are available from 2008 but there is a break in time series in 2015, when the new data source A-ordningen was introduced.

The reference period is the third week in November each year, and data are made available for research in February the next year.

See below for an assessment of the quality of the information:

- **Employed:** can be approximated by data on registered employees, which constitutes about 94 percent of employed people
- **Unemployed:** data on registered job seekers only, which only partially covers the definition
- **Outside the labour force:** this category will likely be overestimated since the other categories are underestimated, while the total population figure is relatively accurate

For further information, please visit: [variable and code overview](#). You can also find further information here: <https://www.ssb.no/data-til-forskning/utlan-av-data-til-forskere/variabellister/a-ordningen>



## Sweden

Information on the labour force status is available for all people resident in Sweden at the end of each calendar year irrespective of age. Between 2020 and 2022 the information is available monthly and yearly from the register of the labour market status in the population (BAS). Between 1985 and 2019, the information is available on a yearly basis from the register of labour market statistics (RAMS). The longitudinal integrated database for health insurance and labour market studies (LISA) include variables from RAMS and BAS; see [Longitudinal integrated database for health insurance and labour market studies \(LISA\) \(scb.se\)](#)

The register BAS for the years 2020-2022 contains information about detailed and aggregated labour market status for the month of November each calendar year. Labour market status is based on the source of main income, and the classification into the categories is hierarchical in its structure. This means that employed is prioritised first and thereafter according to the following order of priority; unemployed, student, retired and sick. The detailed categories of labour force status follow below. The name of the variable in the [national Metadata documentation](#) is “Arbetsmarknadsstatus”. The definitions of the Swedish variable are aligned with the ILO definitions, but differences can exist since the main income forms the base for the categories and not labour force activities.

1. Register based employed
2. Register based unemployed
3. Register based student
4. Register based retired
5. Register based sick
8. Children 0 – 14 years
9. Other

The aggregated categories of labour force status in BAS follows the definitions of the Nordic-Baltic variable and are according to the following. The name of the variable in the national Metadata documentation is “Arbetsmarknadsstatus – grov nivå”.

### 1. Register based employed

To be classified as employed a person will have received a salary from employment during a certain month, in this case November, or be self-employed. A person who is temporary on parental leave, or sick but has earnings from employment the months before or after November is classified as employed.

### 2. Register based unemployed

To be classified as unemployed the person is not categorised as employed and in the age 16 to 65 years at the end of a certain month, in this case November. The person should be registered as unemployed or as searching for job in programmes with activity benefits at the Swedish public employment service sometime during a certain month, in this case November, each year.

### 7. Not in the labour force

To be classified as not in the labour force the person should not be categorised as employed or unemployed. Includes the categories 3, 4, 5 and 9 in the detailed categories of labour force status above.

### 8. Children 0 – 14 years

The register of labour market statistics (RAMS) for the years 1985 to 2019 contains labour force status for the month of November each year according to two categories. To be classified as

employed the person should have received a labour market income for at least 99 Swedish crowns during November or be self-employed and reported economic activities in own enterprise to the taxation authority. The categories in RAMS follow below. The name of the variable in the national Metadata documentation is “Syssetsättningsstatus i november”.

1. Employed persons 16 to 74 years
2. Not employed persons (all persons 0-14 years are regarded as not employed)

It is possible to perform additional processing of register-based statistics in RAMS and LISA to receive an approximate distinction of not employed persons into unemployed and not in the labour force between the years 1990 and 2019. This information will, however, not be completely comparable with information from BAS for the years 2020-2022.

Preliminary statistics regarding labour market status each month are published from BAS two months after the reference month, which means that preliminary statistics for September 2023 are published at the end of November 2023. Final statistics regarding labour market status from BAS monthly and yearly are published one year after the reference period, which means that annual statistics about labour market status in November 2022 is published at the end of November 2023. More information about BAS is available at [Population by Labour market status \(scb.se\)](https://www.scb.se/en/press-releases/2023/11/population-by-labour-market-status)

The register RAMS is replaced by the register BAS from 2022 onwards. More information about RAMS is available at [Labour statistics based on administrative sources \(scb.se\)](https://www.scb.se/en/press-releases/2023/11/labour-statistics-based-on-administrative-sources)

More information about LISA is available at [Longitudinal integrated database for health insurance and labour market studies \(LISA\) \(scb.se\)](https://www.scb.se/en/press-releases/2023/11/longitudinal-integrated-database-for-health-insurance-and-labour-market-studies-lisa)

The reliability of the final statistics regarding labour market status is judged to be relatively high and there are no significant quality issues. However, the reliability in the preliminary monthly statistics concerning labour market status is not as good, there are more sources of error caused by delayed reporting of data from some administrative sources.

Comparisons have been made of the categories employed and unemployed between BAS and the European Union Labour Force Survey in Sweden (AKU). The percentage of employed persons according to BAS are somewhat lower, compared to the corresponding estimate from AKU; employed persons in BAS comprise roughly 95 percent of employed persons in AKU for all months during 2021. The reference periods are different between BAS and AKU; one month in BAS compared to one week in AKU. The differences between estimates of percentage of employed persons between BAS and AKU are largest for the age groups 15-24 years and 65-74 which also probably have the weakest connection to the labour market. The unemployment rates tend to be underestimated in BAS compared to AKU, which can likely be explained by differences in definitions and reference periods. The unemployment rates in BAS comprise roughly 50 percent of the unemployment rates in AKU and a large proportion of those are young persons who probably do not register themselves as unemployed at the employment agency.

## 2.2. NEET – Nord24\_NEET

The variable contains information about whether an individual is classified as NEET (person not in employment, training, or education) or is employed and/or a student. The European Commission statistical office, EUROSTAT, regularly publishes statistics on young people who are neither in employment nor involved in education and training. For further information see [Glossary: Young people neither in employment nor in education and training \(NEET\) - Statistics Explained \(europa.eu\)](#). The definitions of NEET in the statistics from Eurostat are according to the following:

- Persons who are not employed (i.e., unemployed or inactive according to the International Labour Organisation definition)
- Persons who have not received any formal or non-formal education or training in the four weeks preceding the survey

Category	Code	Definition
Not NEET	01	Employed or student
NEET	02	Not in employment, training, or education
Not available	99	

### **Norway**

Information on the labour force status is available for the population living in Norway aged 15 years and older. The definitions used for the variable “arb\_arbmark\_status” are the same as in the ILO-definition. Data are based on the register A-ordningen and on the reporting of self-employed persons. Similar data are available since 2008 but there is a break in time series in 2015, when the new data source A-ordningen was introduced.

The reference period is the third week in November each year and data are made available for research in February the next year.

See below for an assessment of the quality of the information:

- **Employed:** can be approximated by data on registered employees, which constitutes about 94 percent of employed people
- **Unemployed:** data on registered job seekers only, which only partially covers the definition
- **Outside the labour force:** this category will likely be overestimated since the other categories are underestimated, while the total population figure is relatively accurate

See [variable and code overview](#) for more information. You can also find more information here: <https://www.ssb.no/data-til-forskning/utlan-av-data-til-forskere/variabellister/a-ordningen>

## Sweden

The variable NEET is not directly available from Swedish registers but can be constructed from information in the register of the labour market status in the population BAS (between 2020 and 2022), the register-based labour market statistics RAMS (between 1992 and 2019) and the register of persons in education (between 1992 and 2022).

Between the years 2020 and 2022, a person is classified in the category 01, “a person employed and/or a student” if the person is register based employed in November, category 1, in the variable “Arbetsmarknadsstatus” in BAS for the specific reference year and/or if the person is participating in education during the autumn term for the specific reference year according to the variable “Studiedeltagande höstterminen” in the register of persons in education. If the person is neither employed nor participating in education the specific reference year according to the variables “Arbetsmarknadsstatus” and “Studiedeltagande höstterminen”, the person is classified as category 02 in the NEET status.

Between the years 1992 and 2019, a person is classified as category 01, “a person employed and/or a student”, if the person is employed in November, category 1, in the variable “Sysselsättningsstatus i november” in RAMS for the specific reference year and/or if the person is participating in education during the autumn term for the specific reference year according to the variable “Studiedeltagande höstterminen” in the register of persons in education. If the person is neither employed nor participating in education the specific reference year according to the variables “Sysselsättningsstatus i november” and “Studiedeltagande höstterminen”, the person is classified as category 02 in the NEET status.

Note that persons participating in education through labour market programmes are defined as students and therefore not considered as inactive.

For further information see section 1.4, link [Befolkningens studiedeltagande \(scb.se\)](#) and section 2.1 links [Population by Labour market status \(scb.se\)](#) and [Labour statistics based on administrative sources \(scb.se\)](#).

## 2.3. Industry/economic activity – Nord24\_ECACT

The variable contains information on the primary activity of the workplace where the individual is registered (referring to employment in November). If the individual is working at more than one workplace, the economic activity of the main job of the individual is collected.

The economic activities at the workplaces are classified according to the Statistical classification of economic activities, NACE rev. 2/ISIC Rev 4. on aggregated level, identified by letter A-U or one digit. For further information about the international classification of economic activities, please see: [https://unstats.un.org/unsd/publication/seriesm/seriesm\\_4rev4e.pdf](https://unstats.un.org/unsd/publication/seriesm/seriesm_4rev4e.pdf)

<b>Industry/economic activity</b>	NN
Not applicable	996
Not available	999

### **Denmark**

Information about industry/economic activity exists in Denmark from 1980 onwards for all employed persons resident in Denmark. This information can be obtained from different variables that cover different periods since 1980. Information about industry/economic activity from 2000 onwards is available from the variable ARB\_HOVED\_BRA\_DB07.

The variable ARB\_HOVED\_BRA\_DB07 gives the industry code for the individual's geographically delimited workplace. The statistic follows the Danish Industrial Classification of all Economic Activities 2007 DB07 corresponding to NACE rev. 2. The reference point for measuring the industry code is typically the last working day in November. This information is available for employed persons who are resident in Denmark on 1 January the year after (see also the description for Denmark in Section 2.1).

The source of the variable ARB\_HOVED\_BRA\_DB07 is the Register-Based Labour Force Statistics (den registerbaserede arbejdsstyrkestatistik, RAS). For further information about RAS, please see: [Documentation of statistics: Register-Based Labour Force Statistics - Statistics Denmark \(dst.dk\)](#). The variable ARB\_HOVED\_BRA\_DB07 is available from RAS about 16 months after the reference point, i.e., information about industry code on the last working day of November 2022 for the population as of 1 January 2023 is available in March 2024.

For further information about ARB\_HOVED\_BRA\_DB07, please visit: <https://www.dst.dk/da/TilSalg/Forskningsservice/Dokumentation/hoekvalitetsvariable/beskaeftigede-personer--ras-/arb-hoved-bra-db07> (in Danish only).

### **Estonia**

In Estonia, the "Industry/economic activity – Nord24\_ECACT" variable is obtained from the main economic activity of each legal entity or registered self-employed individual. This activity is classified according to the Estonian Classification of Economic Activities 2008 (EMTAK 2008). EMTAK 2008 aligns with the Statistical Classification of Economic Activities in the European Community (NACE Rev.2), with the first four levels of EMTAK mirroring those of NACE Rev.2. The fifth level offers a more detailed description of economic activities, reflecting specific national nuances.

The economic activity variable for legal entities is accessible through the Business Register for Statistical Purposes (SPI), which has been maintained by Statistics Estonia since 2002, with data being continuously updated. While information on the economic activity of subdivisions is not currently directly available, ongoing efforts are focused on modelling this information based on the address of the subdivision and the occupation of employees.

Concurrently with the calculation of “2.1 Labour Force Status – Nord24\_LABSTAT”, an employee’s primary job is identified based on the highest income received and greatest workload, utilising the following subset of administrative sources:

- Business Register (ARIREG)
- Entrepreneur account data from the Estonian Tax and Customs Board (EVKONTO)
- Register of Taxable Persons (MKR), which includes:
  - \* Declarations of income and social tax, unemployment insurance premiums, and contributions to mandatory funded pension (TSD), encompassing payments made to both resident (TSD Annex 1A) and non-resident natural persons (TSD Annex 2A)
  - \* Disclosure of recipients of dividends and equity payments (INF1)
  - \* Business income declarations of a resident natural person (FIDEK form E)
  - \* Income tax declarations for a resident natural person (FIDEK form A)
- State Personnel and Payroll Database (SAP)
- Employment Register (TÖR)

The reference period, target population, and additional relevant parameters adhere to the methodology employed for “Nord24\_LABSTAT” calculations.

## **Finland**

Variable name: Industry (TVM)

Variable identifier: toimiala

The industry in accordance with the person’s TVM employment relationship, i.e., the industry of the main employment relationship for persons that were employed at the end of the year. The classification of industries has changed over the years (1993, 2001 and 2007).

The industrial classification divides units into industry classes based on their main economic activity. The main economic activity is the one that produces most of the unit’s added value. The classification used is the Finnish national classification (TOL) derived from the statistical classification of economic activities in the European Community (NACE).

Employment statistics, produced annually, provide data by region on the population’s economic activity and employment. The population for the statistics is the permanently resident population in the country on the last day of the year. The data are mainly derived from administrative registers and statistical data files.

Preliminary [employment statistics data on main type of activity](#) and status in occupation are completed approximately 12 months after the reference period. Of final data, main type of activity and status in occupation are completed approximately 14 months, workplace data 21 months and occupation and socio-economic group around 22 months after the reference period.

In total, data from over 30 different registers or data sets are used in the production of employment statistics. The most important of these are:

- Population Information System (Digital and Population Data Services Agency)
- Incomes Register
- Register of job seekers of the Ministry of Economic Affairs and Employment
- Pension Registers of the Social Insurance Institution of Finland and the Finnish Centre for Pensions
- Various student registers
- Conscripts Register of the General Staff of the Armed Forces.
- Statistics Finland's Register of Enterprises and Establishments and the Register of Public Corporations.
- Statistics Finland's Register of Completed Education and Degrees

### **Norway**

Information about the economic activity of the workplace is available in Norway for all people who are employees.

Data on employers and jobs are reported using the Norwegian [standard industrial classification](#).

This classification corresponds to the international classification NACE2008/ISIC Rev.4 and is directly comparable.

The reference period is the third week in November each year and data are made available for research in February the next year.

Definition is given in [variable and code overview](#) and is applied.

The name of the national variable is FRTK\_NACE1\_SN07; it describes the main economic activity of the enterprise where an employee works. Information about the economic activity is based on Statistics Norway's Enterprise Register (VOF).

The linking of data can be considered relatively accurate, though with some misclassification errors.

See [variable and code overview](#) for more information. You can also find more information here: <https://www.ssb.no/data-til-forskning/utlan-av-data-til-forskere/variabellister/a-ordningen> (in Norwegian only).



## Sweden

Information on the economic activity of the workplace is available for all people resident in Sweden at the end of each calendar year for persons aged 16 and older from 1990 onwards. Information on persons aged 15 and older is available since 2010.

The main data source for the information is the [Longitudinal integrated database for health insurance and labour market studies \(LISA\) \(scb.se\)](https://www.scb.se). The database contains information from several other registers at Statistics Sweden, for example the register of labour market statistics (RAMS) and the register of the labour market status in the population (BAS); see 2.1. The database LISA is updated annually and available for research 14-16 months after the end of the reference year. This means that the database for 2022 will be available in May 2024.

The variable shows the industry of the workplace, from where persons have registered earnings from the employer to the taxation authority or income from business activities per month during the calendar year. Workplace variables such as economic activity, are available both for persons classified as employed in November and for persons not classified as employed in November. The variable economic activity exists in LISA for more than one job per individual if the person had earnings from several workplaces during the calendar year. The economic activities are included per individual for the main job during November each calendar year from 1990 onwards, the job with the highest earnings during the calendar year from 2019 onwards, the job with the second highest earnings during the calendar year from 2019 onwards and the job with the third highest earnings during the calendar year from 2019 onwards. The main job is defined as employment at the workplace during November each calendar year from where the individual received the highest earnings or income from business activity for the month of November.

The coding of economic activity of the main workplaces follows the standards for Swedish classification of industry (SNI 2007) between 2007 and 2021, which is classified in the variable AstSNI2007. The economic activities for the jobs with highest, second highest and third highest earnings are available in the variables AGI1AstSNI2007, AGI2AstSNI2007 and AGI3AstSNI2007. SNI 2007 is coordinated with the EU statistical classification of economic activities NACE; the latest version is called NACE Rev.2, which is aligned with ISIC rev 4 on four-digit level. There have been several revisions of the Swedish classification of industry during the years since 1990, which were coordinated with the revisions of the EU statistical classification of economic activities NACE. Between 2002 and 2010, the economic activity was coded according to SNI 2002, which corresponds to NACE rev 1.1. Between 1993 and 2001 economic activities of workplaces were classified according to SNI92, which corresponds to NACE rev 1. Between 1990 and 1992 economic activities were classified according to SNI69. The name of the variable in the documentation of Metadata at Statistics Sweden is “Näringsgren för statistiken, huvudsaklig”.

There are keys available between earlier versions of classification systems and the current classification system both for SNI and NACE; see <https://www.scb.se/en/documentation/classifications-and-standards/swedish-standard-industrial-classification-sni/>.

There are no specific quality issues in the variables. The changes in classifications and production of the register over the years can possibly affect conclusions from trend analyses.



## 2.4. Occupation – Nord24-OCCUP

Occupations are classified according to the international classification of occupations at a one-digit level, ISCO 2008. More information about the international classification of occupations is available at [International Standard Classification of Occupations \(ISCO\) - ILOSTAT](#).

Armed forces occupations	00	level 0
Managers	01	level 1
Professionals	02	level 2
Technicians and associate professionals	03	level 3
Clerical support workers	04	level 4
Service and sales workers	05	level 5
Skilled agricultural, forestry and fishery workers	06	level 6
Craft and related trades workers	07	level 7
Plant and machine operators, and assemblers	08	level 8
Elementary occupations	09	level 9
Not applicable (not employed)	96	
Not available	99	

### **Denmark**

Information about occupation exists in Denmark from 1994 onwards for employee's resident in Denmark. This information can be obtained from different variables that covers different periods since 1994. Information about occupation from 2008 onwards is available from the variable DISCO\_KODE.

The variable DISCO\_KODE is a six-digit classification for classifying and aggregating information about job functions. DISCO\_KODE is based on DISCO-08, which is the official Danish version of the international professional classification, International Standard Classification of Occupations (ISCO-08). While ISCO-08 consists of four levels, DISCO-08 is extended to five levels. The first four digits of DISCO-08 are almost identical to ISCO-08.

The source of the variable DISCO\_KODE is the Wage Register for the private, governmental, and municipal sector (Lønstatistik for den private, statslige og kommunale sektor, LON), which consists of individual level information collected among private companies, organisations, and public sector institutions. Not all private companies and organisations are pledged to report the occupation of their employees. For instance, small private companies do not have this obligation. Further, information about occupation is not available for certain groups of employees such as conscripts and Ph.D.-students. If information on occupation is missing, DISCO\_KODE is imputed. This imputation is based on information about unemployment insurance fund or education and industry.

The variable DISCO\_KODE can be obtained from the Register-Based Labour Force Statistics (den registerbaserede arbejdsstyrkestatistik, RAS). For further information about RAS, please see: [Documentation of statistics: Register-Based Labour Force Statistics - Statistics Denmark \(dst.dk\)](https://www.dst.dk/en/Statistik/dokumentation/Times/moduldata-for-arbejdsmarked). When using RAS, the reference point is typically the last working day in November. Information about DISCO\_KODE for employee's resident in Denmark as of 1 January is available the year after (see also the description for Denmark in Section 2.1). The variable DISCO\_KODE is available from RAS about 16 months after the reference point, i.e., information about occupation on the last working day of November 2022 for the population as of 1 January 2023 is available in March 2024.

For further information on DISCO\_KODE, please visit:

<https://www.dst.dk/da/Statistik/dokumentation/Times/moduldata-for-arbejdsmarked/disco-kode> and <https://www.dst.dk/da/Statistik/dokumentation/Times/moduldata-for-arbejdsmarked/disco-ras-kode> (in Danish only).

### **Estonia**

The type of work is classified according to the basic tasks and objectives within the workplace, following the International Standard Classification of Occupations (ISCO-08).

The occupation is identified for the main job, which is defined as previously described for “Nord24\_ECACT” and is calculated concurrently with “Nord24\_LABSTAT”. Consequently, the data sources, reference period, target population, and timing of calculations for the occupation are the same as those outlined for “Nord24\_ECACT”.

All necessary administrative source data for the calculation of the main job has been available since 2015.

Data regarding the occupation for the main job are obtained from the Employment Register (TÖR), where the ISCO-08 code of occupation has been recorded since 2019.

### **Finland**

Variable name: Code of occupation

Variable identifier: ammattikoodi

Code of occupation at three-digit level. Data for 1990, 1993, 1995, 2000, and from 2004 annually (the last available information year -1). The data on a person's occupation concern 18–74-year-old wage or salary earners (the economically active population). The data are mainly based on codes and titles of occupations, posts, and tasks derived from different administrative data (data on employment relationships) and from Statistics Finland's statistics on wages. In addition, a separate data collection on occupations is conducted annually. A person's code of occupation is primarily formed using the occupational status of employment relationship during the last week of the year. In addition to the occupational title, data on industry and sector of the enterprise the person is working in, and the person's education are used for determining occupation. Production of data on occupations is guided by the hierarchical classification system known as International Standard Classification of Occupations (ISCO), which was created by the International Labour Organization, ILO.

Employment statistics are annual statistics providing data by region on the population's economic activity and employment. The population for the statistics is those permanently resident in the country on the last day of the year. The data are mainly derived from administrative registers and statistical data files.

Preliminary employment statistics data on main type of activity and occupation status are completed approximately 12 months after the reference period. Of final data, the main type of activity and occupation status are completed approximately 14 months, workplace data 21 months and occupation and socio-economic group around 22 months after the reference period.

In total, data from over 30 different registers or data sets are used in the production of [employment statistics](#). The most important of these are:

- Population Information System (Digital and Population Data Services Agency)
- Incomes Register
- Register of job seekers of the Ministry of Economic Affairs and Employment
- Pension Registers of the Social Insurance Institution of Finland and the Finnish Centre for Pensions
- Various student registers
- Conscripts Register of the General Staff of the Armed Forces.
- Statistics Finland's Register of Enterprises and Establishments and the Register of Public Corporations.
- Statistics Finland's Register of Completed Education and Degrees

## **Norway**

Information about occupation is available in Norway for all people who are employees.

Data on employers and jobs are reported using the Norwegian [standard occupation \(STYRK08\)](#), which is available from 2015 onwards.

This classification corresponds to the international classification ISCO08 and is directly comparable.

The reference period is the third week in November each year and data are made available for research in February the next year.

The name of the national variable is ARB\_YRKE\_STYRK08 and it is based on information reported by the employer. Data on occupation for most employees are reported regularly together with wage- and tax data. For this reason, linking between people, jobs, companies, and reference dates is considered relatively accurate.

The data have some degree of misclassification errors, probably more so than economic activity.

There are no available register data on occupation for other jobs, such as self-employed.

See [variable and code overview](#) for more information.

You can also find more information here: <https://www.ssb.no/data-til-forskning/utlan-av-data-til-forskere/variabellister/a-ordningen> (in Norwegian only).

## Sweden

Information on the occupation of the individual is available during November for all employed persons aged 16 to 64 years, who are resident in Sweden at the end of each calendar year, from 2001 onwards. Information on derived occupation is available from 2010 onwards for the self-employed who have registered business activity to the taxation authority. The main data source for the information is the [Longitudinal integrated database for health insurance and labour market studies \(LISA\) \(scb.se\)](#). The database contains information from several other registers at Statistics Sweden for example the register of occupations in the Swedish population (YREG) [The Swedish Occupational Register with statistics \(scb.se\)](#). The database LISA is updated annually and available for research 14-16 months after the end of the reference year, i.e., the database for 2022 will be available in May 2024.

The reference period for the information about occupations depends on the data source and, for about 70 percent of employed persons, reflect the occupation situation during the reference year. For about 3 percent of employed persons, the information about occupation reflects the situation one year after the reference year and for about 21 percent the information about occupation reflects the situation one to five years before the reference year. For about 6 percent of employed persons, the information about occupation is missing. Enterprises with one employed person and the self-employed are covered to a limited extent and therefore a significant proportion of those persons have missing or old information regarding occupation. For self-employed, the occupation code has been imputed through information about economic activity, education, license, authorisation or occupational certificate and occupation codes for earlier reference years.

Occupation is classified according to the Swedish classification of occupations 2012 (SSYK 2012), based on the international occupational classification, ISCO08. This classification has been used from 2014 onwards. The classification of occupation in the occupational register at Statistics Sweden is on a more detailed level than the Nordic-Baltic occupation variable. Before 2014 occupation was classified according to the Swedish classification of occupations 96 (SSYK 96), which is not comparable with ISCO 08. The variables for occupation in LISA are named Ssyk3\_2012\_J16 and Ssyk4\_2012\_J16 between 2014 and 2021 and named SSYK3 and SSYK4 between 2001 and 2013.

There are time series breaks in the statistics due to changes in the processing of the register, classification of occupation or implementing new data sources, meaning that comparisons of statistics regarding occupation between 2014 and earlier years and between 2019 and earlier years should not be done.

## 2.5. Occupational status – Nord24\_OCCUPSTAT

The main occupational status of employed persons is based on main activity, salary income, or income from active business. The categories in the Nordic-Baltic variable follow below.

Self-employed	01
Employee	02
Not applicable (not employed)	96
Not available	99

### **Denmark**

Annual information about occupational status exists in Denmark from 1991 onwards for all people resident in Denmark irrespective of age. This information can be obtained from the variable SOCIO13 that divides the population according to the most important socioeconomic group during the year. For this purpose, information about the most important income source and employment is used.

Using SOCIO13, the population can be divided into the categories “self-employed”, “employees”, “not applicable” and “not available” in the following way:

- “Self-employed” (110-114, 120): The main source of income is from one’s business. This category includes assisting spouses.
- “Employee” (131 -139): The main source of income is from earnings (wages).
- “Not applicable” (not employed) consists of a large number of groups:

Unemployed (210): Persons registered as unemployed in a job centre for more than half of the year.

Recipient of sickness benefit, leave benefit, etc. (220).

Student (310): Those who have been enrolled in education for at least three months during the year or who are enrolled in education as of 1 October. In cases where a student has been paid for at least 950 hours of work, s/he is categorised as employee.

Recipient of disability pension (321)

Recipient of old age pension (322)

Recipient of early retirement benefits (223)

Recipient of cash benefits (and not registered as unemployed) (330)

Others (410): Persons in this category have only minor or no connection to the labour market (earned income below DKK 58,600 in 2016 prices), have only minor or no income from unemployment and cash benefits (in 2016 prices below DKK 58,600), and are not enrolled in education.

Children younger than 15 years old (420)

“Not available”: Not in the register (0).

The source of the variable SOCIO13 is the Employment Classification Module (Arbejdsklassifikationsmodulet, AKM). For information about AKM, see: [Personers tilknytning til arbejdsmarkedet set over hele året \(AKM\) - Danmarks Statistik \(dst.dk\)](#) (in Danish only). The variable SOCIO13 is available from AKM about one year after the year in question.

For further information about SOCIO13, please visit:

<https://www.dst.dk/da/TilSalg/Forskningservice/Dokumentation/hoejkvalitetsvariable/personers-tilknytning-til-arbejdsmarkedet-set-over-hele-aaret--akm-/socio13> (in Danish only).

Note: information about occupational status at a specific point in time can be obtained from the variable SOC\_STATUS\_KODE. Thus, for the population as of 1 January, occupational status can be measured on the last working day in November the year before (see further description of this variable in Section 2.1).

### **Estonia**

This classification categorises individuals based on their primary source of income during the year. The employed population is divided into the following employment status categories:

1. **Employee:** a person employed full-time or part-time by an institution, company, or other employer, receiving payment for their work.
2. **Entrepreneur with Employees:** an individual who owns a share in a company that employs at least two people or is registered self-employed (FIE) with employees.
3. **Sole Entrepreneur:** a person owning a share in a company without paid employees; operates as a self-employed individual (FIE) without employees, or their business account indicates entrepreneurship activity.
4. **Other Employed:** individuals not fitting into the above categories, such as unpaid worker in a family business or farm.

The reference period and target population align with those defined for “Nord24\_LABSTAT”. The data sources include:

- Business Register (ARIREG)
- Entrepreneur account data from the Estonian Tax and Customs Board (EVKONTO)
- Register of Taxable Persons (MKR), which includes:
  - \* Declarations of income and social tax, unemployment insurance premiums, and contributions to mandatory funded pension (TSD), encompassing payments made to both resident (TSD Annex 1A) and non-resident natural persons (TSD Annex 2A)
  - \* Disclosure of recipients of dividends and equity payments (INF1)
  - \* Business income declarations of a resident natural person (FIDEK form E)
  - \* Income tax declarations for a resident natural person (FIDEK form A)
- Employment Register (TÖR)

Data are available by August of the year following the reference period.

## **Finland**

Variable name: Occupational status (TVM)

Variable identifier: amas1

Occupational status based on main employment relationship (TVM=employment relationship during the last week of the year). The data on status in employment are based on the person's pension insurance amounts of wage and salary, and entrepreneurial income.

1 = wage and salary earner

2 = self-employed

Data up until (last year of data set -1).

Employment statistics are annual statistics providing data by region on the population's economic activity and employment. The population for the statistics is the permanently resident population in the country on the last day of the year. The data are mainly derived from administrative registers and statistical data files.

Preliminary employment statistics data on the main type of activity and occupation status are completed approximately 12 months after the reference period. Of the final data, the main type of activity and occupation status are completed approximately 14 months, workplace data 21 months, and occupation and socio-economic group around 22 months after the reference period.

In total, data from over 30 different registers or data sets are used in the production of employment statistics. The most important of these are:

- Population Information System (Digital and Population Data Services Agency)
- Incomes Register
- Register of job seekers of the Ministry of Economic Affairs and Employment
- Pension Registers of the Social Insurance Institution of Finland and the Finnish Centre for Pensions
- Various student registers
- Conscripts Register of the General Staff of the Armed Forces.
- Statistics Finland's Register of Enterprises and Establishments and the Register of Public Corporations.
- Statistics Finland's Register of Completed Education and Degrees

## Norway

Information about the occupational status is available for all residents in Norway who are in employment. The categories of the variable “arb\_arbmark\_status” are aligned with the variable Nord24\_OCCUPSTAT.

Information about whether a person is employed or self-employed is gathered once a year, with the third week in November each year as the reference week. Information is available at the end of February the year after. The variable is based on information provided by the employer and reported in the register A-ordningen, as well as on information from self-employed persons.

To provide regional statistics and micro-data, a classification of this kind has been approximated by combining various register data. However, this type of data is computed only once a year, and regard only for a short period (third week in November). Furthermore, it suffers from considerable misclassification, both random and systematic.

See [variable and code overview](#) for more information.

You can also find more information here: <https://www.ssb.no/data-til-forskning/utlan-av-data-til-forskere/variabellister/a-ordningen>

## Sweden

Information on the occupational status of the individual is available for all employed persons during November in the age of 16 to 64 years, who are resident in Sweden at the end of each calendar year, between 1990 and 2022. The main data source for the information is the [Longitudinal integrated database for health insurance and labour market studies \(LISA\) \(scb.se\)](#). The database contains information from several other registers at Statistics Sweden for example the register of labour market statistics (RAMS 1990 - 2019) and the register of the labour market status in the population (BAS 2020 - 2022); see 2.1. The database LISA is updated annually and available for research 16 months after the end of the reference year, i.e., the database for 2022 will be available in May 2024. From BAS it is possible to receive both monthly and annual information.

The name of the variable in the data sources and in the metadata information at Statistics Sweden is “Yrkesställning”. It is on a more detailed level than the Nordic-Baltic variable but the categories in the Nordic-Baltic variable can be constructed from the more detailed categories in the Swedish variable. The categories in the variable “yrkesställning” in BAS follow below.

- 0. Employed other months than November
- 200. Employee (no active business and one employment)
- 201. Employee (no active business and several employments)
- 211. Employee (employee and self-employed)
- 221. Employee (employee and entrepreneur in limited company)
- 241. Employee (employee, entrepreneur and self-employed)
- 400. Self-employed (not employee and one business activity)
- 401. Self-employed (not employee and several business activities)



- 411. Self-employed (employee and self-employed)
- 431. Self-employed (self-employed and entrepreneur)
- 441. Self-employed (employee, self-employed and entrepreneur)
- 500. Entrepreneur (not employee and one limited company)
- 501. Entrepreneur (not employee and several limited companies)
- 521. Entrepreneur (employee and entrepreneur)
- 531. Entrepreneur (entrepreneur and self-employed)
- 541. Entrepreneur (employee, self-employed and entrepreneur)

Self-employed, category 01, is defined as the categories 400-541 in “Yrkesställning” while employee category 02 is defined as the categories 200-241.

The variable occupational status divides employed persons into employees, self-employed and entrepreneurs based on whether the main source of income derives from salaries/earnings from an employer, or income from one’s business activities, or income from a limited company. In the Nordic-Baltic context, entrepreneurs are regarded as self-employed.

The information is based partly on the income data submitted to the tax authority for all persons receiving salary or other remunerations from an employer, and partly on the declared income from active business.

The choice of establishment in turn depends on which of the two types of income was highest during the calendar year. However, the entrepreneurial income is weighted by a factor of 1.6. This is because the declared business income is, on average, lower than earnings from employment – in proportion to the time spent at work (factor is estimated based on data of income in registers at Statistics Sweden).

For further information about the variable “Yrkesställning” please visit:  
[Dokumentation av mikrodata - www.scb.se](http://www.scb.se) (in Swedish only).

## 2.6. Economic sector – Nord24\_SECTOR

The Nordic-Baltic variable economic sector is defined according to the definitions used in PIAAC, which are classified by ownership of the enterprise, company, or organisation, and if the organisation is a non-profit organisation. The classification by sector used in the European system of accounts (ESA 2010) could also be used for distinguishing the business/private sector from the governmental sector and voluntary organisations, see [European system of accounts. ESA 2010 \(europa.eu\)](#).

Business	01	The private sector includes all companies and organisations that are not in public ownership. Private companies in which the government is minority shareholder should be classified as belonging to the private sector.
Government	02	The public sector includes all parts of the public administration at the national, regional, or local levels; public services provided by the state or from state funds (including publicly run schools, hospitals, universities, etc.); and publicly owned companies.
Non-Governmental Organisations (NGO) or voluntary organisations	03	The non-profit sector includes all organisations that are not publicly funded but whose principal aim is not to generate a profit and would include charities, many NGOs working with aid, etc.
Not applicable (not employed)	96	
Not available	99	

### Denmark

Information about economic sector exists from 2008 onwards for all employed persons resident in Denmark. This information is available from the variable ARB\_SEKTORKODE.

The variable ARB\_SEKTORKODE can be used to distribute employed persons by sector as defined in the manual European System of Accounts (ESA2010, v1: 2014). Hence, using ARB\_SEKTORKODE, employed persons can be divided into the sectors “government”, “business”, “NGO” or voluntary organisation” and “not available” in the following way:

- Government: Codes 11-16,21,27,31,37,41,47,51,57,61, 71-72, 74-75, 76-77, 79.
- Business: Codes 18, 19 ,28 ,29 ,32 ,33 ,38 ,39 ,42 ,43 ,48 ,49 ,52 ,53 ,58 ,59 ,62 ,63 ,81 ,91.
- NGO or voluntary organisation: Code 89.
- Not available: Codes 95, 99

The reference point for ARB\_SEKTORKODE is typically the last working day in November. The information is available for employed persons resident in Denmark on 1 January the year after; (see also the description for Denmark in Section 2.1).

The source of the variable ARB\_SEKTORKODE is the Register-Based Labour Force Statistics (den registerbaserede arbejdsstyrkestatistik, RAS). For further information about RAS, please see: [Documentation of statistics: Register-Based Labour Force Statistics - Statistics Denmark \(dst.dk\)](#). The variable ARB\_SEKTORKODE is available from RAS about 16 months after the reference point, i.e., information about economic sector on the last working day of November in 2022 for the population as 1 January 2023 is available in March 2024.

For further information about ARB\_SEKTORKODE, please visit: <https://www.dst.dk/da/Statistik/dokumentation/Times/moduldata-for-arbejdsmarked/arb-sektorkode> (in Danish only).

### **Estonia**

The economic sector, as defined in the Manual of Classification of Institutional Sectors (ESA\_S 2010), is determined for the main job (per Nord24\_ECACT) and is continuously updated in the Business Register for Statistical Purposes (SPI), which has been maintained by Statistics Estonia since 2002.

The reference period and target population are the same as for Nord24\_LABSTAT, due to reliance on determination of the main job.

### **Finland**

Variable name: Sector (TVM)

Variable identifier: tsekt1

The employer sector of the enterprise in which the person worked at year end (TVM). Data available from 1989 onwards. In 1989-1994 and 1995-1998, there are already significant differences on the two-digit level, but the classifications on the level of the first digit are the same:

- 1 = Enterprises
- 2 = Financial and insurance corporations
- 3 = Public corporation
- 4 = Non-profit institutions
- 5 = Households
- 6 = Rest of the world

The first digit of the 1999-2012 classification and the classification starting from 2013:

- 1 = Total economy (domestic sectors)
- 2 = Rest of the world

For these classifications, the main sectors are on two-digit level:

- 11 = Enterprises
- 12 = Financial and insurance corporations
- 13 = Public corporation
- 14 = Households

15 = Non-profit institutions serving households

21 = Member States and Institutions and Bodies of the European Union

22 = Non-member countries and international organisations non-resident of the EU

Employment statistics are annual statistics providing data by region on the population's economic activity and employment. The population for the statistics is the permanently resident population in the country on the last day of the year. The data are mainly derived from administrative registers and statistical data files.

Preliminary employment statistics data on main type of activity and occupation status are completed approximately 12 months after the reference period. Of the final data, the main type of activity and occupation status are completed approximately 14 months, workplace data 21 months, and occupation and socio-economic group around 22 months after the reference period.

In total, data from over 30 different registers or data sets are used in the production of [employment statistics](#). The most important of these are:

- Population Information System (Digital and Population Data Services Agency)
- Incomes Register
- Register of job seekers of the Ministry of Economic Affairs and Employment
- Pension Registers of the Social Insurance Institution of Finland and the Finnish Centre for Pensions
- Various student registers
- Conscripts Register of the General Staff of the Armed Forces.
- Statistics Finland's Register of Enterprises and Establishments and the Register of Public Corporations.
- Statistics Finland's Register of Completed Education and Degrees

## **Norway**

Information about the economic sector is available in Norway for all people who are employees.

Information is based on information provided by the employer and reported in the register A-ordningen and is reported using the [institutional sector classification](#) (valid from 2012). The categories in the national variable "FRTK\_SEKTOR\_2014" are more detailed than those in Nord24\_SECTOR. However, the categories can be constructed quite accurately using a suitable combination of the national categories. Enterprises and other entities are registered and classified in a central register and data can be linked by a universal identification code.

The reference period for the national variable is the third week in November each year and data are available at the end of February the year after.

See [variable and code overview](#) for more information.

You can also find more information here: <https://www.ssb.no/data-til-forskning/utlan-av-data-til-forskere/variabellister/a-ordningen>

## Sweden

The variable shows the sector of the enterprise or organisation for those who are employed. It should be used in combination with Nord24\_LABSTAT to ascertain employed persons. The sector code refers to the enterprise or organisation for the main job, defined as employment at the workplace during November each calendar year from where the individual received the highest earnings or income from business activity.

The main data source for the information is the [Longitudinal integrated database for health insurance and labour market studies \(LISA\) \(scb.se\)](https://www.scb.se). The database contains information from several other registers at Statistics Sweden, for example the register of labour market statistics (RAMS) and the register of labour market status in the population (BAS); see 2.1. The database LISA is updated annually and available for research 14-16 months after the end of the reference year, i.e., the database for 2022 will be available in May 2024.

The database LISA also contains the sector codes of the enterprises and/or organisations from where the individuals have received the highest earnings or income from business activity, the second highest earnings/income and the third highest earnings/income during the calendar year. The sector code for the main job have been available in the database since 1990, and the name of the variable in the Metadata and in LISA is "Sektorkod". The sector codes for the jobs with highest, second highest and third highest earnings during the calendar year have been available since 2019 in LISA.

The code is generated from the company's institutional sector code which is obtained from the Register of Enterprises (FDB). The classification used in FDB is on a more detailed level than the Nordic-Baltic variable and the Nordic-Baltic variable could be created from the Swedish variable in the following way.

- 11 = Government institutions/authorities – classified to government 02
- 12 = State business entities – classified to government 02
- 13 = Municipal administration – classified to government 02
- 14 = County Council – classified to government 02
- 15 = Other public institutions – classified to government 02
- 21 = Stock companies/enterprises, not publicly owned – classified to business 01
- 22 = Other companies/enterprises, not publicly owned – classified to business 01
- 23 = Government-owned companies and organisations – classified as government 02
- 24 = Companies and organisations owned by municipalities – classified as government 02
- 25 = Other organisations – classified as NGO or voluntary organisations 03

There are no specific quality issues in the variables. The changes in classifications and production of the register over the years can possibly affect conclusions from trend analyses, which can be checked in the documentation. The documentation of the variable "Sektorkod" is available at [Dokumentation av mikrodata - www.scb.se](https://www.scb.se)

## 3. Income variables

### 3.1. Total earnings – Nord24\_TOTEARN

Total earnings include gross salary and/or gross salary for self-employed. The earnings are expressed in national currency (unless otherwise is stated).

#### **Denmark**

Information about total earnings exists for all person's resident in Denmark or otherwise liable to pay taxes in Denmark in the year in question. The information is available from 1980 onwards from the variable ERHVERVSINDK\_13.

ERHVERVSINDK\_13 consists of the three components: salary, profit from self-employment and certain fees and is expressed in DKK (the national currency).

The salary is taxable salary including fringe benefits, tax-free salary, anniversary, and severance pay, value of stock options and employer-paid sick pay. Contributions to employer-administered pension schemes are not included.

Net profit from self-employment is profit from self-employment including foreign company, net income as a working spouse, as well as (from 1987) interest expenses and capital income, which originates from one's own company. Note that for the self-employed, the variable can assume negative values as a result of deficits in the company.

Fees are remuneration for lectures and consulting services for persons without independent business.

The source of the variable ERHVERVSINDK\_13 is Personal Income (Personindkomst, IND), which is a part of Income Statistics. The primary source for Income Statistics is information from Danish tax authorities. The reference period is calendar year. A description of the Income Statistics is available here:

<https://www.dst.dk/en/Statistik/dokumentation/documentationofstatistics/income-statistics>

The variable ERHVERVSINDK\_13 is available from about 11 months after the reference year, i.e., information about total earnings in 2023 is available from the beginning of December 2024.

For further information about ERHVERVSINDK\_13, please visit: [TIMES variabel - ERHVERVSINDK\\_13 - Danmarks Statistik \(dst.dk\)](#).

For more information about IND, see:

<https://www.dst.dk/da/Statistik/dokumentation/Times/personindkomst> (both in Danish only).

#### **Estonia**

Total earnings include gross salary, gross salary for self-employed individuals (FIDEK form E and EVKONTO) is not considered as salary and is therefore excluded here. Gross salary is the total salary before deductions for income tax, employee's unemployment insurance premium, and funded pension contributions. However, it excludes the social tax (33% of the gross salary) and the employer's portion of unemployment insurance tax (0.8% of the gross salary), which are already deducted.

The components of gross salary include the following taxable payments:

- Salary income
- Fee paid for work under a law or other legal act
- Other payments to employees and officials, taxed solely with social tax
- Income from contractual work, mandate, or other civil law contract
- Fee paid by an individual for work or services under a civil law contract
- Fee for members of the management or supervisory bodies of legal entities
- Employer-paid sickness benefit

If an individual works for more than one employer, the salaries from all employers are aggregated. Gross salaries are calculated on a calendar year basis, and the currency used for reporting is the Euro (EUR).

Data source is the Register of taxable persons (MKR), which involves:

- Declarations of income and social tax, unemployment insurance premiums, and contributions to mandatory funded pension (TSD), including payments made to both resident (TSD Annex 1A) and non-resident natural persons (TSD Annex 2A)
- Income tax declarations for a resident natural person (FIDEK form A)

When an income declaration (FIDEK form A) is available, it is given preference. If not available, data from the TSD are used instead. These data have been accessible since 2015. TSD data becomes available one month after the payment calendar month. The FIDEK form A is accessible by August of the year following the income year.

## **Finland**

Variable name: Earned income

Variable identifiers: tyotu, palk, yrtu

### *Statistical population:*

All wage and salary earners who work in industries B to S (TOL 2008) in enterprises with more than five employees.

### *Data source:*

Earnings and employment data are compiled from a variety of sources. [The structure of earnings statistics](#) combine Statistics Finland's other statistics on wages and salaries into single statistics. These statistics are private sector monthly salaries; private sector hourly wages; local government sector wages and salaries; and central government salaries. In addition, the wages and salaries data collected by the Tax Administration are used as additional data in the structural statistics on wages and salaries.

The main data source of the statistics on monthly wages in the private sector is the data provided by the Confederation of Finnish Industries. In addition, the statistics are supplemented by data provided by the following organisations: Employers' Federation of Road Transport (ALT); Finnish Central Organisation for Motor Trades and Repairs (AKL); Avaintyönantajat AVAINTA, Kirkon työmarkkinalaitos (KISV); and Theatre Info Finland TINFO. In addition to these data, the statistics are supplemented by data on non-organised enterprises collected by Statistics Finland by means of an inquiry. As a rule, the inquiry applies to all employees who are employed

by the enterprises included in the sample. Data on wage and salary earners paid monthly are collected monthly.

The main source of data for the statistics on hourly wages in the private sector is the data of the Confederation of Finnish Industries. The statistics are supplemented by data collected from the above-mentioned organisations and by data on non-organised enterprises collected by Statistics Finland.

The local government data are obtained by data collection conducted by Statistics Finland. The central government data are obtained from the TAHTI register.

In addition, the data of the structure on earnings statistics are supplemented by data from the following sources:

- Business Register
- Employment statistics
- Education Register
- Population Register

Earned income is the sum of earned and entrepreneurial income received by income recipients during the year.

The earned income concept of the income distribution statistics includes income items taxed both as earned and capital income. From the statistical year 1999 onwards, the concept of earnings has been used for earned income in the income distribution statistics. The content of the concept has not changed.

The TYOTU variable contains data up to 2018. Due to changes in the taxpayers' source material and statistics, this variable is no longer maintained. Data on a person's earned income after 2018 are available in the variable PALK.

Income variables PALK (earned income) and YRTU (entrepreneurial income) have been added to the data.

## **Norway**

Information about the total earnings is available for all persons aged 13 years or older residing in Norway and who are taxable within Norway during the fiscal year in question. Data are available from 1993.

Income data are received by linking different administrative registers and statistical data sources for the whole population as of 31 December of the income year, such as data from tax returns (wages and salaries, self-employment income, pensions etc.), the Tax Register (taxes), a-ordning (unemployment benefit, various tax-free transfers), Norwegian Labour and Welfare Administration (family allowances, basic and additional amounts, cash benefit etc.), \*KOSTRA (social assistance), the State Educational Loan Fund – Lånekassen (loans to students, scholarships), Gjeldsregisteret AS (unsecured debt).

Employee income (WYRKINNT) is the sum of cash wages and salaries, taxable payments in-kind and sickness and maternity benefits received during the calendar year. Sickness and maternity benefits can be extracted to enable comparison. Net self-employment income is the sum of self-employment income in agriculture, forestry and fishing and self-employment income from other industries received during the calendar year, less any losses. It also includes sickness benefits paid to the self-employed.



The reference period for the national variable is a specific year ( $t$ ), and results are available in December of the next year ( $t+1$ ).

See [national statistic's webpage](#) for more information.

## Sweden

Total earnings (Forvlnk) are the sum of an individual's gross salary and/or income from business activities according to the control statement (KU) or employer declaration (AGI) and active business activities to the taxation authority. Self-employment income refers to active business activity that has resulted in a surplus. Data are available from 1990 and for all individuals aged 15 years and older (until 2009, aged 16 years and older) who were registered in the population register on 31 December of the reference year.

For this variable, no distinction can be made between 'not applicable' and 'not available'; in Swedish data, both cases are represented by a zero (0).

As of reference year 2019, there are monthly employer declarations at individual level (AGI), which replace the annual monitoring statements (KU).

The main data source for the information is the [Longitudinal integrated database for health insurance and labour market studies \(LISA\) \(scb.se\)](#).

The database contains information from several other registers at Statistics Sweden, and several variables in LISA are suitable to combine with PIAAC; see for example section 2.1. The database LISA is updated annually and available for research 14-16 months after the end of the reference year, i.e., the database for 2022 will be available in May 2024. The variables cash gross earnings, income from active self-employment and income from active business activity are included in Forvlnk but are also available in the [Income and Tax Register \(IoT\)](#). IoT is produced annually, a preliminary version (September) and a final version (December) and is available for research 9 – 12 months after the end of the reference year, i.e., the 2023 database will have the preliminary version available in September 2024, and the final version in December 2024. For this reason, the IoT data source is better suited if PIAAC data are to be combined with more income variables with faster production than LISA can offer.

Total income is given in hundreds of SEK.

Forvlnk is the sum of cash gross earnings, income from active business activity and benefits (e.g., parental benefits, sickness benefits, rehabilitation benefits). Employment income and work-related benefits are only recognised when gross cash earnings or income from business activities (equivalent) is greater than zero.

Cash gross earnings are the sum of salary, taxable benefits, sickness benefits, travel benefits, car benefits, holiday pay, social security, and unemployment benefits, etc.

Income from active self-employment/ business activities refers to individuals who submit a declaration of business activities to the Swedish Tax Agency. The business is active if the entrepreneur has devoted at least one third of their time considered full-time to employment.

## 3.2. Disposable income – Nord24\_DISPINC

Disposable income contains the sum of all income plus subsidies minus final tax. The disposable income is expressed in national currency (unless otherwise stated).

### **Denmark**

Information about disposable income exists for all person's resident in Denmark or otherwise liable to pay taxes in Denmark in the year in question. The information is available from 1980 onwards from the variable DISPON\_13.

Information about disposable income from DISPON\_13 includes salary, profit from own business, pensions and other transfers, interests, and dividends from securities etc. To make a fair comparison of the disposable income of homeowners and tenants, a calculated rental value is added to the individual's total income. Taxes, interest expenses, paid alimony etc. are deducted from this income.

Not all types of income are included in DISPON\_13. Among other things, the following types of income, which are either taxed in another way or are tax-free, are not included: employer-administered pension contributions (both the employee's and the employer's share); capital pensions withdrawn; other pensions withdrawn prematurely; lottery winnings etc.; health allowance for pensioners ;and various tax-free subsidies for medicine etc.

The source of the variable DISPON\_13 is Personal Income (Personindkomst, IND), which is a part of the Income Statistics. The primary source for the Income Statistics is information from Danish tax authorities. The reference period is calendar year. A description of the Income Statistics is available here:

<https://www.dst.dk/en/Statistik/dokumentation/documentationofstatistics/income-statistics>

The variable DISPON\_13 is available from about 11 months after the reference year, i.e., information about disposable income in 2023 is available from the beginning of December 2024.

For further information about DISPON\_13, please visit:

<https://www.dst.dk/da/Statistik/dokumentation/Times/personindkomst/dispon-13>.

For further information about IND, please visit:

<https://www.dst.dk/da/Statistik/dokumentation/Times/personindkomst> (both in Danish only).

## **Estonia**

Disposable (net) income represents the total income remaining after taxes and other deductions are subtracted. It comprises earnings from wage labour, self-employment, property income, social transfers, and tax adjustments. Wealth taxes and repayments for tax adjustments are then subtracted from this sum.

Covered income sources include for example:

- Wage labour
- Self-employed income in Estonia and abroad
- Pensions, including old-age, disability, and survivor's pensions
- Foreign pensions
- Various family and child benefits, including birth grants and single parent allowances
- Sickness and care allowance
- Unemployment insurance
- Support for low-wage earners
- Payments from third pillar and accumulation pension plans
- Doctoral student allowance
- Business startup grant
- Employer insolvency benefit
- Inflation relief support from the Unemployment Insurance Fund and the Social Insurance Board (SKA)
- Dividends and profits from capital investments
- Interest income
- Energy compensation
- Severance and redundancy-related pay
- Home support for large families from KREDEX
- Housing support from KREDEX
- Fees for creative activities and other benefits

Deducted expenditures:

- Land tax
- Adjustments in income tax (refunds or additional payments)
- Income tax on profits from capital investments

The data is sourced from a range of administrative records provided by:

- Health Insurance Fund
- Unemployment Insurance Fund
- Social Insurance Board
- Tax and Customs Board
- Statistics Estonia
- Estonian Credit and Export Guarantee Fund (KREDEX)
- Pension Centre

Generally, data from 2015 onwards is available. Incomes and expenditures are aggregated over the calendar year.

## Finland

Variable name: Disposable money income

Variable identifier: kturaha

Disposable money income consists of gross income (sum of earned income, entrepreneurial income, property income, and current transfers received) after taxes and other levies. Data exist from 1995 onwards.

The target population of the total data is Finland's dwelling population at the end of the statistical reference year (31 December). The household-dwelling population is formed of all persons living permanently in dwellings. Around two percent of the entire population are excluded from the statistics. They include persons registered as permanently resident at institutions (e.g., long-term residents of old people's homes, care institutions, prisons, or hospitals), homeless persons, persons residing abroad, and persons registered as unknown.

The total data are compiled by combining administrative and register data sources to persons based on personal identity codes. The income of a household-dwelling unit is formed by adding up the income of persons belonging to the same household-dwelling unit.

The total data of the [income distribution statistics](#) are statistical data covering the entire household-dwelling population, compiled on the individual level from several administrative files and registers. Thus, the statistics contain detailed data on the income of all household-dwelling units and persons belonging to them.

The following administrative and statistical registers have been used in the compilation of the total data:

- The Population Information System of the Digital and Population Data Services Agency and Statistics Finland's population and dwelling data resource the Tax Administration's tax database
- The Social Insurance Institution of Finland's pension and benefit database (health insurance compensation and rehabilitation register, registers of child maintenance allowances, financial aid for students and housing allowances)
- Data on preventive and supplementary income support collected by the National Institute for Health and Welfare (THL) from municipalities.
- The register of pension contingency of the Finnish Centre for Pensions
- Statistics Finland's Register of Completed Education and Degrees
- The State Treasury's database on the military injuries indemnity system
- The Financial Supervisory Authority's data (earnings-related unemployment allowances)
- Statistics Finland's Business Register
- The Employment Fund's (formerly the Education Fund) data

## Norway

Information about total earnings is available for all persons aged 13 years or older residing in Norway and who are taxable within Norway during the fiscal year in question. Data are available from 1993.

After-tax income (WIES) is calculated as the sum of wages and salaries, income from self-employment, property income and transfers received, minus total assessed taxes and negative transfers.

### *Income account*

The income account comprises the following elements:

Income from work

+ Wages and salaries

+ Net income from self-employment

+ Property income

+ Interest received

+ Share dividend received

+ Realised capital gains

- Realised capital losses

+ Other capital income

+ Transfers

+ Taxable transfers

+ Social security benefits

+ Service pensions

+ Unemployment benefits

+ Tax-free transfers

+ Child allowance

+ Dwelling support

+ Student grants

+ Social assistance

+ Basic and attendance benefits

+ Cash for care

+ Maternity grant (Lump sum)

+ Other transfers

= Total income

- Assessed taxes and negative transfers

= After-tax income

### *Wages and salaries*

Includes wages and salaries, sickness benefits, maternity and adoption grants, enumerations etc and benefits in kind. Surplus from expense allowances, other work income and taxable sickness benefits are also included (sickness benefits can be extracted and added to taxable transfers to enable comparison). Wages and salaries earned by children younger than 13 years are included in wages and salaries. Unemployment benefit is a separate item within taxable transfers.

### *Net income from self-employment*

Includes income from agriculture, forestry, fishing and hunting, income from other entrepreneurial activities and sickness benefits for self-employed. Deficits and depreciation are deducted.

Net income from self-employment is not comparable with previous years due to increased net registering for self-employed, e.g., agricultural deductions are deducted from net income from self-employment before it is registered in the tax return.

*Gross interest received*

Includes interests on deposits in Norwegian banks. The item also includes interest on Norwegian bearer bonds and, other bonds.

*Share dividends received*

Includes share dividends received from Norwegian and foreign companies. Share dividends received is a gross amount.

*Realised capital gains*

Includes taxable gains from sales of housing, sites, and other real estate, in addition to gains from sales of Norwegian and foreign stocks.

*Realised capital losses*

Includes losses from sales of housing, sites, and other real estate, in addition to losses from sales of Norwegian and foreign stocks.

*Other property income*

Includes net income from renting real estate, dividends on a life insurance savings part, income from abroad (not including share dividends received, gains on sales of stocks and work income)

*Pensions*

Pensions from the National Insurance Scheme includes taxable pensions, old age pensions, disability benefits, benefits for surviving spouse or children etc.

Service pensions etc. Includes pensions and annuities from rights related to previous work. It also includes payments from private pension insurance.

*Unemployment benefits*

Includes daily allowance for employed and self-employed during unemployment.

*Received alimonies etc.*

Includes alimonies received (only what is administered by the National Insurance Administration) and annuities unrelated to employment. Pensions received by children younger than 17 years are added to pensions from the National Insurance Scheme.

*Child allowance*

Family allowance is a tax-exempt allowance paid by the National Insurance Scheme to families with children younger than 18 years. As of 1999, the data on this is collected from the National Insurance Scheme. Child allowance is usually registered as income for the child's mother.

*Dwelling support*

Dwelling support is paid to households with low income and high dwelling expenses. Dwelling support is registered as an income.

*Student grants*

Student grants comprise grants from Norwegian State Educational Loan Fund (NSELF). NSELF loans are not included.

*Social assistance*

Social assistance comprises income support and social loans.

#### *Basic and attendance benefits*

Basic benefits cover certain necessary and lasting expenses due to illness not covered by other public benefits. Attendance benefits cover expenses for individuals with a special need for nursing at home.

#### *Maternity grant*

A lump sum received by mothers who have not been employed prior to giving birth, and who are therefore not eligible to the monthly maternity payments received by working mothers. It is included in income as of 1994.

#### *Cash for care*

Benefit given to parents of one-year old children as of 1 August 1998, extended to two-year-old children from 1 January 1999, and restricted to one-year-old children again in 2012. To receive cash for care, the child cannot be enrolled full time in a state financed kindergarten. Cash for care is tax-free.

#### *Assessed taxes*

Taxes and social security contribution net of tax deductions.

#### *Negative transfers*

Consist of contributions to private and public pension schemes within employment and mandatory child support paid administered by the National Welfare Service.

### **Sweden**

Disposable income of an individual (Displnk or Displnk04) is available for all persons aged 16 years or older residing in Sweden who are taxable during the fiscal year in question. Data are available from 1990 but the variables was slightly adjusted in 2004, including the reducing of “paid maintenance” and “General deduction for premiums referring to pension insurance”.

The main data source for the information is the [Income and tax statistics \(scb.se\)](https://www.scb.se) (Swedish only). IoT is produced annually, with a preliminary version in September, and a final version in December with the reference time for each income year, i.e., the data for 2023 will be available in September 2024 (preliminary) and December 2024 (final).

The variables are also available in LISA; more information see section 2.1. The database LISA is updated annually and available for research 16 months after the end of the reference year, i.e., the database for 2022 will be available in May 2024.

Disposable income is the sum of all income and positive transfers (e.g., child, social and housing benefits) minus final taxes. To calculate the disposable income of a consumption unit, the disposable income is divided by the consumption weight of the household.

For further information about income statistics in Sweden, please visit: [Income and tax statistics \(scb.se\)](https://www.scb.se).

### 3.3. Disposable income of household – Nord24\_DISPINCH

Disposable income for the household is defined as disposable income for households, families or persons living in the same apartment and sharing household expenses. The disposable income is expressed in national currency (unless otherwise stated).

#### **Denmark**

Information about disposable income of households exists for all family's resident in Denmark by the end of the year in question. The information is available from 1987 onwards from the variable FAMAЕКVIVADISP\_13.

FAMAЕКVIVADISP\_13 measures equivalent disposable family income. This variable uses information on the total amount of income for all persons belonging to the family per at 31 December in the income year, including children under the age of 25 living at home.

Disposable income includes salary, profit from own business, pensions and other transfers, interests, and dividends from securities etc. To make a fair comparison of the disposable income of homeowners and tenants, a calculated rental value is added to the family's total income. Taxes, interest expenses, paid alimony etc. are deducted from this income.

Not all types of income are included in disposable income. Among other things, the following types of income, which are either taxed in another way or are tax-free, are not included: employer-administered pension contributions (both the employee's and the employer's share); capital pensions withdrawn; other pensions withdrawn prematurely; lottery winnings etc.; health allowance for pensioners; and various tax-free subsidies for medicine etc.

The family concept used is Statistics Denmark's E-family. Here a family consists of one or more persons living at the same address, who have certain mutual relationships.

Families can be divided into three main types: couples, singles, and children not living at home. For 'couple families' and 'singles', the family may consist of one or more children living at home in addition to the couple or the single person. 'Children' are defined as persons below the age of 25 that are unmarried, without children and not a part of a cohabiting couple. If a child has a parental reference to at least one adult in the household, the child is considered as living at home and is counted as part of the adult's family. Otherwise, the child is considered as not living at home and forms its own family.

To calculate equivalent income, the modified OECD equivalence scale is used. Here each member of the household is first given an equivalence value: 1.0 to the first adult; 0.5 to the second and each subsequent person aged 14 and over; 0.3 to each child aged under 14.

The source of the variable FAMAЕКVIVADISP\_13 is Family Income (Familieindkomst, FAIK), which is a part of the Income Statistics. The primary source for the Income Statistics is information from Danish tax authorities. The reference period is calendar year.

A description of the Income Statistics is available here:

<https://www.dst.dk/en/Statistik/dokumentation/documentationofstatistics/income-statistics>

The variable FAMAЕКVIVADISP\_13 is available from about 11 months after the reference year, i.e., information about disposable income of households in 2023 is available from the beginning of December 2024.



For further information about FAMA EK VIVADISP\_13, please visit:

<https://www.dst.dk/da/Statistik/dokumentation/Times/familieindkomst/famaekvivadisp-13>.

For further information about FAIK, please visit:

<https://www.dst.dk/da/TilSalg/Forskningsservice/Dokumentation/hoekvalitetsvariable/familieindkomst> (both in Danish only).

### **Estonia**

The variable is not available for Nordic -Baltic PIAAC database.

Disposable income (Nord24\_DISPINC) from administrative sources is available for all individuals recorded in income or expenditure data. Registry-based household compositions for all permanent residents are also accessible; however, the quality is not yet adequate. Household compositions are calculated based on residential addresses, but the reliability of address data is not sufficient.

### **Finland**

Before the statistical reference year 2011, the income distribution statistics primarily used the concept of disposable income. In the income distribution statistics and in the Household Budget Survey, households' disposable income included all salaries and wages, entrepreneurial income, and property income (including imputed rent from owner-occupied dwellings and taxable sales profits from property), benefits in kind and current transfers received from which current transfers paid were deducted.

The formation of disposable income can be described as follows:

+ Wages and salaries  
+ Entrepreneurial income  
+ Property income (including imputed rent from owner-occupied dwellings and sales profits)

-----  
= Factor income

+ Current transfers received (including imputed rent from a rental dwelling from another household)

-----  
= Gross income

- Current transfers paid

-----  
= Disposable income

When social current transfers in kind are added to income, adjusted disposable income is obtained. This concept is not formed in the income distribution statistics.

The imputed rent of owner-occupiers was regarded as factor income (property income) and imputed rent for a dwelling rented from another household as current transfers received in the income distribution statistics. Imputed rent is still formed in the income distribution statistics but from the statistical reference year 2011, is treated as a separate income item (see "Imputed rent"). Similarly, taxable realised capital gains or sales profits are treated as a memorandum item according to international recommendations.

Wages and salaries include income paid for households as pay – either in money or benefit in kind. Income from incentive stock options is included in the income concept in benefits in kind and thus in wages and salaries.

Entrepreneurial income includes income from agriculture and forestry, business activity and business group and copyright fees. Entrepreneurial income in agriculture also contains various subsidies and compensations such as agricultural subsidies, European Union agricultural aid, and compensation for harvest losses.

Property income is rental, interest and dividend income received by households, imputed net rent from an owner-occupied dwelling, taxable capital gain, and pensions based on private insurance, and other income.

Current transfers received comprise earnings-related pensions and national pensions and other social security benefits, social assistance, and other current transfers received.

Current transfers paid comprise direct taxes and social security contributions. In addition, current transfers paid comprise compulsory pension and unemployment insurance premiums and in the income distribution statistics child maintenance support paid.

The key income distribution statistics concept, disposable income, is arrived at when current transfers paid are deducted from gross income. The concept of disposable income in the Household Budget Survey is based on register data and does not, in contrast to the income distribution statistics include wages and salaries subject to withholding tax and tax-free interest income and current transfers between several households (e.g., child maintenance support).

The target population of the total data is Finland's dwelling population at the end of the statistical reference year (31 December). The household-dwelling population is formed by all persons living permanently in dwellings. Good two per cent of the entire population are excluded from the statistics. They include persons registered as permanently resident at institutions (e.g., long-term residents of old people's homes, care institutions, prisons, or hospitals), homeless persons, persons residing abroad, and persons registered as unknown.

The total data are compiled by combining administrative and register data sources to persons, based on personal identity codes. The income of a household-dwelling unit is formed by adding up the income of persons belonging to the same household-dwelling unit.

The total data of the [income distribution statistics](#) are statistical data covering the entire household-dwelling population, which are compiled on the individual level from several administrative files and registers. Thus, the statistics contain detailed data on the income of all household-dwelling units and persons belonging to them.

The following administrative and statistical registers have been used in the compilation of the total data:

- The Population Information System of the Digital and Population Data Services Agency and Statistics Finland's population and dwelling data resource the Tax Administration's tax database
- The Social Insurance Institution of Finland's pension and benefit database (health insurance compensation and rehabilitation register, registers of child maintenance allowances, financial aid for students and housing allowances)
- Data on preventive and supplementary income support collected by the National Institute for Health and Welfare (THL) from municipalities
- The register of pension contingency of the Finnish Centre for Pensions

- Statistics Finland’s Register of Completed Education and Degrees
- The State Treasury’s database on the military injuries indemnity system
- The Financial Supervisory Authority’s data (earnings-related unemployment allowances)

### **Norway**

Disposable household income (H\_WIES) is the sum of all income as defined in 3.2 above, but for all people living in private households. Since 2004 data on all private households in the country are available from a household register. From 2013, residents studying abroad are excluded from the households. Data are expressed in national currency (unless otherwise stated).

The reference period for the national variable is a specific year ( $t$ ), and results are available in December next year ( $t+1$ ).

See [national statistic’s webpage](#) for more information.

### **Sweden**

Disposable household income (DisplnkFAM or DisplnkFam04) is available for all persons aged 16 years or older residing in Sweden and who are taxable during the fiscal year in question. Data are available from 1990 but the variables were slightly adjusted in 2004, including the reducing of “paid maintenance” and “General deduction for premiums referring to pension insurance”.

The main data source for the information is the [Income and tax statistics \(scb.se\)](#) (Swedish only). IoT is produced annually, a preliminary version in September and a final version in December with the reference time for each income year, i.e., the data for 2023 will be available in September 2024 (preliminary) and December 2024 (final). The variables are also available in LISA; for more information see section 2.1. The database LISA is updated annually and available for research 16 months after the end of the reference year, i.e., the database for 2022 will be available in May 2024.

The variable is expressed in hundreds SEK.

Disposable income is the sum of all income and positive transfers (e.g., child, social and housing benefits) minus final taxes for all members in the household. The members in the household consist of all persons registered by the taxation authority in the same apartment, residence, or house.

It should be noted that the family concept used here is different from the actual household, the main difference being that cohabiting adults without children are not (cannot be) identified as cohabiting but instead are reported as singles.

For further information about income and tax statistics in Sweden, please visit: [Income and tax statistics \(scb.se\)](#).