STATISTICS DENMARK

Documentation of statistics for Implicit index of average earnings 2024

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1 Introduction

These statistics show the development in average earnings, calculated on the basis of an arithmetic average of salaries of all employees within the same sector and economic industry. In relation to the publication of the new Standardised index of average earnings, these indices were renamed to Implicit index of average earnings. In the new index changes in the workforce is taken into account when calculating the development in earnings.

The Implicit index of average earnings goes back to first quarter of 2005 for the private sector and first quarter of 2007 for the public sector.

2 Statistical presentation

The Implicit index of average earnings is a quarterly statistic of the development in wages for all employees in Denmark, including students and young persons under 18. The indices are available by sector and economic industries and follow the classifications Dansk Branchekode (DB07) and sector (SBR).

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2.1 Data description

The Implicit index of average earnings show the development in total wages per hour in private and public companies with at least 10 employees, as well as the entire public sector. The index is available by sector and economic industry.

The Implicit index of average earnings is a so-called unit value index, where wage trends are estimated on the basis of a simple salary average of all employees in the same sector and industry, regardless of the individual characteristics of the employees.

Thus, changes in staff composition within a given combination of sector and industry may have an impact on the measured wage development.

Employment conditions in the wage statistics are defined relatively narrowly, as a new employment relationship must be generated if, for example, there are changes in work function, job status, normal hours per week or form of employment.

The following employees with special ways of remuneration are not included in the index:

- Employees receiving supplemental remuneration from other institutions or due to rehabilitation or similar are not compensated in the same way as the other employees in the enterprise (e.g. interns or those in flexijobs).
- Employees working from home and where there are no registration of working hours, e.g. people getting remuneration for foster care.
- Board members and similar people that are not employees. This includes resigned employees who receive termination pay or similar.
- Employees who are taxed after specific rules (e.g. employees working abroad, employees working at sea or in flights).
- Employees who are participating in specific programs aimed at the young and unemployed.
- Employees where the remuneration only consists of fees.
- Protected positions that has to do with rehabilitation.
- Particular groups of employees, such as conscripted employees, city council members, election officials etc.

The development of the average earnings per hour is calculated by dividing *total earnings* by *hours worked*.

Total earnings is earnings including both the employers and the employees payments to pension schemes, and is excluding irregular payments such as bonuses and payments for holiday leave.

Hours worked are hours paid provided that hours of absence are unchanged. Normally hours worked are excluding hours of absence due to sickness, vacation, etc. But it is considered inexpedient that the results of the index are affected by e.g. an influenza pandemic. The hours worked are therefore not reduced in the case of absence due to sickness. Hours of vacation are also not subtracted, as the index should not be affected by shifts in holiday patterns that can change depending on the calendar. The index should instead only reflect changes that are of a statutory nature, such as the introduction of an extra week of vacation (e.g. the sixth week of vacation introduced for the whole public sector).

2.2 Classification system

The Implicit index of average earnings is disseminated divided by industry which follows the 10-, 19 -, and 36-standard groups in Dansk Branchekode (DB07).

Dansk Branchekode (DB07) is the National version of EU's nomenklatur (NACE). The first four digits refer to NACE rev. 2, while the last two represent the Danish subdivision.

The definition of sectors follows the Classification by sector in the Statistical Business Register (SBR).

2.3 Sector coverage

Prior to 2013, the sector classification was determined by whether the reported data was collected via the reporting system for the private wage statistics, via reports to the state wage statistics or via reports on the wage statistics for municipalities and regions.

As of first quarter 2013, the sector definition follows the Classification by sector in the Statistical Business Register (SBR), which complies with ESA2010.

The *Private sector* includes the private companies, the public companies, private non-profit organizations and international organizations and sector not stated.

The *Public sector* includes (in the SBR) the non-market part of the public sector, ie. state administration and service, regional administration and service, municipal administration and service, and social funds and foundations.

2.4 Statistical concepts and definitions

Labour costs: Expenditure borne by employers in order to employ workers. A concept which has been adopted in the Community framework and complies broadly with the international definition of the International Conference of Labour Statisticians. Labour costs include compensation of employees, with wages and salaries in cash and in kind, employers' social contributions, vocational training costs, other expenditures, taxes relating to employment regarded as labour costs, less any subsidies received (Commission Regulation (EC) No 1726/1999 of 27 July 1999).

2.5 Statistical unit

Individual employment conditions for employees.

2.6 Statistical population

All employment relationships in Denmark.

2.7 Reference area

Employees in the economic territory of Denmark, excluding the Faroe Islands and Greenland.

2.8 Time coverage

These statistics cover the time period from the first quarter of 2005 and onwards.

2.9 Base period

First quarter of 2005=100.

2.10 Unit of measure

Index values and change compared to the same quarter last year (percent).

2.11 Reference period

The quarterly calculations are based on a pay period in the middle month of each quarter, i.e. February, May, August and November.

2.12 Frequency of dissemination

Quarterly.

2.13 Legal acts and other agreements

The legal authority to collect data is provided by the Act on Statistics Denmark section 6 and section 8, as subsequently amended (most recently by Act no. 610 of may 30th, 2018).

There are no regulations or guidelines directly related to the Implicit index of average earnings.

However, there is a regulation on Labor Cost Index (LCI) which is compiled based on the same data. The deliveries to Eurostat for LCI meet the requirements set by the Council Regulation (EC) No 450/2003 of 27 February 2003 on the labor cost index.

2.14 Cost and burden

The total response burden, including data collection for both the quarterly wage statistics and annual structure of earnings statistics, is according to the AMVAB-survey calculated to be 6.3 million DKK. in the latest figures from 2019

2.15 Comment

Please see the subject page on Earnings.

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3 Statistical processing

Data is collected from a sample of companies and organisations as well as the entire public sector, covering the middle month of the quarter.

Data is validated by using fixed boundaries, both at individual and company level. Manual corrections are also made if required. Only companies that are present in both quarters are included in the calculations.

In the calculation of the most detailed sub-indices, data for the private sector are weighted to the target population and the individual employment types are weighted with the hours worked.

3.1 Source data

For the sector enterprises and organisations the data is collected quarterly, partly on the basis of a sample of approximately 5000 enterprises from the private sector with 10 employees or more, partly on information from all public undertakings not included in general government. Statistics Denmark collects the information for the private enterprises in collaboration with the Danish EmployersConfederation, the Danish EmployersAssociation for the Financial Sector and the Danish Pharmaceutical Association.

For the public undertakings, Statistics Denmark collects data from the Agency for Economics, DSB (Danish state railways) and KRL (payroll data from local and regional authorities). The sample of private enterprises is stratified and drawn from ESR (the statistical business register) by size groups 10-19, 20-49, 50-99, and 100+ full-time employees. All enterprises with 100+ employees are included in the sample.

The following applies for the sector general government: First and foremost, data stem from the major public payroll transfer systems (such as SLS (the governments payroll system) and KRL) supplemented by a small number of private payroll processing services. E.g., payroll information from the Lutheran Church of Denmark is reported via a private payroll processing service.

3.2 Frequency of data collection

For the *Private sector* data is collected quarterly, for the middle month in the quarter.

For the *Public sector* data is collected monthly, although only the data for the middle month of the quarter are used to calculate the wage index.

3.3 Data collection

For the sector enterprises and organisations, the following applies: The collected data consists only of sampling from the IT systems of reporting enterprises and organisations for payroll administration of their employees on an individual level. For the main part, this takes place as system-to-system reporting, where the e.g. the payroll systems report data for their customers (enterprises and organisations) via extensive bulk submission directly to Statistics Denmark. Enterprises and organisations with proprietary payroll systems report their data either by uploading it via a web application or by submitting an encrypted file via e-mail to a separate e-mail address. The Danish Employers Confederation and the Danish Employers Association for the Financial Sector collect data from their own members and report it to Statistics Denmark via a special system-to-system solution. As provided by the Act on Statistics Denmark, reporting of this information is mandatory, and failure to do so will be reported to the police and is punishable by a fine.

The following applies for the sector general government: Statistics Denmark receives the main part of the data material as extracts from the major public payroll transfer systems via system-to-system solutions. For government employees, Statistics Denmark receives data from the Agency for Modernisation, Danish Defence, and Silkeborg Data. For local and regional authority employees, data is provided mainly by KRL. In addition, data is reported from some relatively small private payroll processing services, also via system-to-system solutions.

3.4 Data validation

There are two main validation processes in the production of the Implicit index of average earnings.

The first process is performed on the individual records, and is identical across sectors. Data is validated in relation to a lower and upper limit of the earnings per hour. The limits are revised in the first quarter each year by extrapolating the limits from last year with the increase in the average earnings per hour from the same period. Records outside the limits are removed from the data. This first validation process is necessary as it removes extreme observations that otherwise would potentially distort the results.

The next validation process is performed on the level of enterprises. And here the process is different depending on data belongs to *enterprises and organizations* or *public administration and service*.

For the sector *enterprises and organizations* the following applies: First places of work that are not present in both the last and the current quarter are removed. Then enterprises with a change in the average earnings per hour outside the acceptance interval -10 and 10 percent are removed. The same applies for enterprises where the change in the number of employees is outside the acceptance interval of -25 and 25 percent. Large enterprises that fall outside these limits, are investigated more thoroughly, i.e. by contacting the enterprises and asking them to retransmit.

For the sector *public administration and service* the following applies: Organizations or enterprises with a change in the average earnings per hour outside the acceptance interval of -5 and 5 percent are either removed or investigated more thoroughly.

In addition to the two validation processes above, the following applies to all sectors: If large enterprises or organizations are removed from the data, it is investigated what the removal means for the results of especially the economic industry in which the enterprise belongs. Small economic industries, or industries with one or a few very large enterprises, are often more sensitive to removal of enterprises. In these cases, the enterprises are often contacted in order to receive new and correct data, or a method to correct the current data.

3.5 Data compilation

Calculation of elementary aggregates (EA) Elementary aggregates in the implicit index of average earnings also constitute the most detailed level of publication, which is the 36-groupings according to Dansk branchekode (DB07). The elementary aggregates are calculated as the change in the average earnings per hours worked for all employees in the same sector and economic industry from the previous to the current quarter. The wages in the middle month of a quarter is used as a proxy for the quarter.

Data regarding *enterprises and organizations* are based on sample survey and is therefore weighted. The weighting is performed by splitting the data into several strata based on economic industries and the following size grous: 10-19, 20-49, 50-99 and 100+. The weights are taken from the most current Business Register and constitute the number of full time employees in each strata.

For the sector *public administration and service* no weighting is performed, as the data here is based on a census. The elementary aggregates (which are the same as the most detailed level of publication) are then calculated as the change in the average earnings per hours worked from the previous to the current quarter.

For all sectors index values are calculated by chaining the change from the previous to the current quarter onto the index value of the previous quarter.

Calculation of aggregated indices that are published Sub-indices refer to the aggregated indices, that are normally published. In the implicit index of average earnings the most detailed sub-indices are also the same as the elementary aggregates (4 sectors and 36 economic industries). There are no total index across all sectors, so the most aggregate level are the sector totals.

For the sector *enterprises and organizations* the following applies: The sub-indices and total indices are calculated by weighting the elementary aggregates with the number of full-time employees from the Business Register from the previous year. These weights are updated with the calculation of the first quarter of the year.

For the sector *public administration and service* the sub-indices are calculated by summarizing the earnings and hours from each elementary aggregate, and then calculating the change in the average earnings per hour in each sub-index from the previous to the current quarter, which means that the sub- and total-indices are basically calculated in the same way as the elementary aggregates.

3.6 Adjustment

No corrections are made besides what is described under data validation and data treatment.

4 Relevance

The Implicit index of average earnings is a so-called unit value index, where wage trends are estimated on the basis of a simple salary average of all employees in the same industry. This means that wages partly reflect changes in staff composition in a given industry.

Private enterprises as well as ministries etc are the central users. The index is used especially in connection with various contract regulations, as well as the regulatory scheme in the public wageagreements.

The Implicit index of average earnings is the wage index that comes closest to being comparable to the European LCI.

4.1 User Needs

Multiple types of external users follow and use the two earnings indices, the standardised index of average earnings and the implicit index of average earnings. The biggest and most important users are organisations, ministries and government agencies, which use the indices to analyse trends, pressures on pay rates, international comparisons etc. In addition, the earnings indices are used for various contractual adjustments, including the escalator clause used for adjusting salaries in the public services. Other important users of the statistics are private enterprises, which use the earnings indices for contractual adjustments in particular. Furthermore, journalists also constitute and important user group.

4.2 User Satisfaction

Statistics Denmark continuously surveys the satisfaction of the main users in connection with the semi-annual contact committee meetings for earnings and absence statistics. Agenda, summary and documents from these meetings are available here. As of yet, there are no actual user satisfaction surveys for the standardised index of average earnings.

4.3 Data completeness rate

There are no specific EU regulations or other guidelines for compilation of the implicit index of average earnings. However, the statistics rest on the same data basis as that collected and used for the quarterly labour cost index, which is delivered to Eurostat each quarter. This implies that e.g. data is not collected from enterprises with less than 10 persons in employment, nor from the industry agriculture, forestry and fishing. In the same way as for the implicit index of average earnings, a few industries ±especially in the grouping into 36 industries ±are not published in Statbank Denmark for reasons of confidentiality. .

5 Accuracy and reliability

For the public sector the statistics are based on data for virtually all employees. For the private sector, there are two factors that can affect accuracy, namely uncertainty in the sample statistics and that there may be problems with the completeness of the reported data from the company.

This index is an where the sum of wages and hours worked is counted in each group (etc. activity sector). Thus, changes in personnel in a given industry will have an impact on the measured wage development.

The figures do not undergo revision; the published figures are usually final.

5.1 Overall accuracy

The sample for enterprises and organisations has been drawn in a way that ensures that a high share of the employees in the target population is in fact included in the total sample of enterprises and organisations with at least 10 persons in employment. For example, the statistics include all enterprises with more than 100 persons in employment. This means that the accuracy in industries with a high share of large enterprises is estimated to be close to the true value. For industries with a high share of small enterprises, the uncertainty is higher. However, there is no way of knowing in which direction this uncertainty affects the accuracy. For private enterprises, the completeness of the submitted data is also a source of uncertainty, which can typically be attributed to set-up errors in the enterprises payroll systems, which ultimately generate data for the earnings indices. It may be that e.g. a decomposition is missing in the individual salary components of payroll data, which may affect a calculated development of earnings, and that these flaws cannot necessarily be detected during the diagnostic process. Under-reporting of the extent of irregular payments, for example, may result in an overestimation of the measured development of earnings, since these should actually be included in the applied earnings concept. In general, however, the diagnostic process ensures that the total measured development of earnings and the development of earnings for the largest industry groups show robust results. For the sector general government, which includes the government as well as local and regional authorities, the accuracy is extremely high, since these are complete extracts from the public payroll transfer systems, where errors are extremely rare. The indices for public employees are consequently based on data for more or less everyone in the target population.

In the 2nd quarter of 2020 more enterprises than usual have been removed in the economic industries *Culture and leisure activities* and *Hotels and Restaurants*. This is done as many enterprises in these industries have submitted data for a much less number of employees paid by the hour due to the Covid-19 situation. If these enterprises were not removed, the wage development would be overestimated in these industries, as the share of employees paid by the month would rise substantially. These employees generally have a higher wage per hour and this would therefore result in a higher increase in wages for both these industries. None of the two industries are large enough to have an impact on the precision for the total concerning the whole sector of private industries.

5.2 Sampling error

For the sector enterprises and organisations, data is collected on the basis of a sample. However, the sample uncertainty has not been calculated at this point, but will be affected by the ratio of smaller enterprises, since all large enterprises (with 100 or more persons in employment) are included in the sample, however, and the quality of their reporting is normally good, the uncertainty mainly applies to small and medium-sized enterprises. In this way, industries with a large share of small enterprises will be more exposed to this uncertainty.

The sector general government is not based on a sample, but contains information for more or less everyone in the total population. As a result, these statistics are not associated with any sampling error.

5.3 Non-sampling error

For the sector enterprises and organisations: For private enterprises, under-reporting may occur of certain partial components for the employees' total earnings. This may be e.g. irregular payments, e.g. bonuses and subsequent adjustments, which are not reported correctly in the data from the enterprises' payroll systems and in this way, unintentionally influence the calculated development of earnings. It is the assumption that the under-reporting is not intentional, but rather an error caused by an incorrect set-up of the enterprises' payroll systems, which can be quite difficult to identify with the enterprises themselves. At the same time, it is not necessarily possible to detect data errors in the diagnostic process in connection with the production of statistics, since it is not in the cards that payments of this nature will take place in the relevant pay period. For the sector general government: Minor uncertainty may be associated with the delimitation of the individual earnings and hour concepts in the reporting of data. In connection with the transition of local authorities/institutions to new payroll systems, a number of transitional issues have occurred in the form of errors in the reporting. We discuss these issues with the providers of the reporting public payroll transfer systems on a current basis. A certain level of uncertainty is associated with placing public employees in the correct industry and sector, which is obtained in principle by linking the payroll reporting with Statistics Denmark's Statistical Business Register (ESR). This is partly due to quality issues with the reported production unit numbers in the payroll reporting, partly the fact that a number of employees with local and regional authorities are classified in terms of industry as local and regional government staff despite the fact that these groups of staff are not in fact working in administrative functions. Statistics Denmark is continuously trying to remedy these uncertainties to the extent possible by using the directly available system administrative information in the payroll reporting in the form of e.g. user numbers, work function codes etc. For all sectors, some uncertainty is associated with the information about the employee's work function code. This information can be difficult to verify, as it concerns detailed information about the tasks of the individual employee. However, the variable has several levels of detail, and as the standardised index of average earnings only uses the 3-digit level (there are 6 digits altogether), the uncertainty is reduced. It is not possible to indicate a figure for the total uncertainty.

5.4 Quality management

Statistics Denmark follows the recommendations on organisation and management of quality given in the Code of Practice for European Statistics (CoP) and the implementation guidelines given in the Quality Assurance Framework of the European Statistical System (QAF). A Working Group on Quality and a central quality assurance function have been established to continuously carry through control of products and processes.

5.5 Quality assurance

Statistics Denmark follows the principles in the Code of Practice for European Statistics (CoP) and uses the Quality Assurance Framework of the European Statistical System (QAF) for the implementation of the principles. This involves continuous decentralized and central control of products and processes based on documentation following international standards. The central quality assurance function reports to the Working Group on Quality. Reports include suggestions for improvement that are assessed, decided and subsequently implemented.

5.6 Quality assessment

The combined accuracy and reliability is influenced by two factors in particular. First, a sample survey is applied for the sector enterprises and organisations, and consequently, some uncertainty is associated with the earnings index. Second, the completeness of the enterprises' reported data is also a source of uncertainty, which can typically be attributed to set-up errors in the enterprises' payroll systems, which ultimately generate data for the earnings indices. Both of these factors may affect the accuracy and reliability of the statistics. Nevertheless, complete troubleshooting of data is performed on a quarterly basis, which ultimately ensures the reliability of the published figures.

5.7 Data revision - policy

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

5.8 Data revision practice

Only final figures are disseminated. Revisions of the seasonal adjusted figures might occur, as longer time series might change the parameters that are used for the seasonal adjustment. This also relates to figures dating back in time. It is therefore recommended, that in the case of contract regulation and similar only figures that are not seasonally adjusted are used, as these are generally not up for revision.

6 Timeliness and punctuality

The implicit index of average earnings are published approx. 60 days after the end of the reference quarter, at the same time as the standardised index of average earnings is published. These statistics are published without delay.

6.1 Timeliness and time lag - final results

These statistics are published approx. 60 days after the end of the reference quarter, and is the case with both the seasonally adjusted and the non-seasonally adjusted figures. Potential revisions of the seasonally adjusted figures mainly occurs in the forthcoming publication of new figures.

6.2 Punctuality

These statistics are mainly published without delay.

The publication of the third quarter of 2018 was exceptionally delayed due to the first publication of the standardized index of average earnings.

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7 Comparability

The standardised index of average earnings is comparable since first quarter 2005 but for some sectors, comparable wage indices also exist further back in time. The implicit index of average earnings is based on the same data as the standardised index of average earning, but there are significant differences in methodology that allow the two wage indices to be used only partially for comparison.

Internationally, the implicit index of average earnings can be compared to the labor cost index collected and published by Eurostat for all EU countries.

7.1 Comparability - geographical

The implicit index of average earnings is best comparable with the labour cost index, which is an index that measures the development in labour costs, and which is collected and published by Eurostat for all the EU countries. The main difference is that the implicit index of average earnings do not cover other labour costs such as contributions to social funds, education costs, etc. In addition the labour cost index also includes irregular payments, such as bonuses and payments for vacations.

7.2 Comparability over time

To explain the comparability over time, it is necessary to split the description into two parts, one for the sector *enterprises and organizations* and one for *public administration and service*.

Enterprises and organizations The implicit index of average earnings for the sector *enterprises and organizations* has since the 1st quarter of 2013 replaced the index of average earnings for the private sector which was published for the last time in the 4th quarter of 2013. The difference has to do with the classification of sectors, which was changed in 2013 (see the section on Sectors). This means that there is a small difference regarding which enterprises and organizations that are included in the sector *enterprises and organizations* in the implicit index of average earnings and the index of average earnings for the private sector which was finished in 2013. Other than that the two index series are fully comparable. In the two Statbank tables ILON12 and ILON15, these two index series are chained, so that there despite a break in 2013 exists a longer time series going back to 2005.

In addition to the change in sector classification, the largest break in the index relates to a changes in the classification of economic industries. For the sub-industries the series are not fully comparable between the two classifications. Despite this the total (for the whole sector) is fully comparable. This means that the industry total in the Statbank tabel ILON12 and ILON15 are comparable with the industry total in ILON2X and ILON3X that are available all the way back to 1994.

For ILON12 and ILON15 there was a break in the series in the 3rd quarter of 2008, where a new classification of economic industry was introduced. The classification hence changed from Dansk Branchekode 2003 (DB03) to Dansk Branchekode 2007 (DB07).

The index of average earnings in the private sector was first made in the 1st quarter of 1994 and can be found in the Statbank tables ILON2X and ILON3X. Until the 1st quarter of 1996 figures for nine economic industries were published. From the 1st quarter of 1996 the index was expanded to 27 economic industries. The index was at that point published according to the classification of economic industries in DB93 where the most detailed level of publication was the 27-groupings in that classification. The index was based on all employees, including both white- and blue-collar

workers, as well as apprentices and young people under the age 18, that were emplyed in enterprises with at least 10 employees.

From the 2nd quarter of 1998 the effect of special holidays (feriefridage) and children holidays (børnefridage) is ad hoc taken account of in the calculations of the index.

The most detailed description of the old index series are found in the earlier *Statistiske Efterretninger*. These are unfortunately not available in English.

The index of average earnings for the private sector replaced the hourly earnings index for industrial workers and the monthly earnings index for the white collar workers in the industry. These indices were discontinued in 1997 (ILON1 and ILON6). Since then there has been radical changes in methodology, data collection methods and population, which makes these early indices incomparable with the later indices.

Public administration and service The implicit index of average earnings for the sector *public administration and service* (ILON22, ILON25, ILON32, ILON35, ILON42 and ILON52) supersede the index of average earnings for the public sector (ILON4, ILON5, ILON6, ILON7 and ILON8), which were discontinued in the 4th quarter of 2013. There are large consistencies between the two series of indices. as the difference mainly refers to the change in sector classification (explained in more detail in the section *Sector*). The main change is that public enterprises (such as DSB and some municipal owned utilities) now belongs to the sector *enterprises and organizations*.

Figures following this new classification of sectors have been revised back to 2013, which means that there is a (small) break in the index series. The index development beyond 2013 is therefore identical across the two index series.

In addition to the change in sector classification, the largest breaks are caused by revisions in the classification of economic industry. At the level of sub-industries the series are thus not fully comparable. Despite this the industry total (for the whole sector) is fully comparable between the indices. Furthermore, the reference year has been changed every few years.

The index of average earnings for the public sector was introduced in 1998 and showed the development going back to the 1st quarter of 1995. The first Statbank tables for the period 1996-2008 are the following ILON4X, ILON5X, ILON7X and ILON8X. The quality of the indices have continuously been improved. From 1999 the effect of the sixth week of vacation, or the special holidays (de særlige feriedage) has been taken into account in the calculations.

The most detailed description of the old index series are found in the earlier *Statistiske Efterretninger*. These are unfortunately not available in English.

7.3 Coherence - cross domain

There is a fairly high degree of coherence between the standardised index of average earnings and the implicit index of average earnings, but as for method and delimitation of population, there are still major differences between the two indices. The implicit index of average earnings is a so-called index of average values, where the development of earnings is generated based on a summary earnings average for all employees in the same industry, independently of the individual characteristics of employees. Consequently, changes in the composition of staff in a given industry can affect the measured development of earnings. The standardised index of average earnings is designed as a price index, where employees are divided into groups according to work function and age, and where the development of earnings in the separate groups is weighted together with fixed weights. In this way, the measured development of earnings cannot be influenced to the same extent by changes in the composition of the labour market. Further, there is a difference of population between the two indices, as adolescents (persons under the age of 18) and apprentices are included in the implicit index of average earnings but not in the standardised index of average earnings. The differences are described in more detail in the method report for the standardised index of average earnings. The coherence has to do with the fact that both of the indices use the same data basis (with population differences, however) and the fact that the same earnings and hour concept is used for calculation of the development of earnings.

7.4 Coherence - internal

There is internal coherence between content, names and definitions of variables across sectors in the compilation of the implicit index of average earnings. Even though the reported information is relatively coherent across the sectors, certain differences exist. Some components are reported on a more detailed level in one sector compared to the others.

8 Accessibility and clarity

The implicit index of average earnings is published in Statistics Denmark's newsletter on [https://www.dst.dk/da/statistik/nyheder-analyser-publ/nyt?psi=1931), together with the standardized index of average earnings. In Statbank Denmark, indices and annual increases are published under the implicit index of average earnings . More information can be found on the subject page on Income and earnings.

8.1 Release calendar

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

8.3 User access

Statistics are always published at 8:00 a.m. at the day announced in the release calendar. No one outside of Statistics Denmark can access the statistics before they are published.

8.2 Release calendar access

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

8.4 News release

8.5 Publications

The implicit index of average earnings is included in the statistical ten-year-review and until 2017 in the statistical yearbook. Both books are made by Statistics Denmark.

8.6 On-line database

These statistics are published in the StatBank under Implicit index of average earnings in the following tables:

Private sector

- ILON12: Implicit index of average earnings in Corporations and Organizations by industry and seasonal adjustment
- ILON15: Annual pct. change of average earnings in Corporations and Organizations by industry

Public sector

- ILON22: Implicit index of average earnings in the public sector, central government by industry (DB07)
- ILON25: Annual pct change of average earnings in the public sector, central government by industry (DB07)
- ILON32: Implicit index of average earnings in the public sector, local government by industry (DB07)
- ILON35: Annual pct. change of average earnings in the public sector, local government by industry (DB07)
- ILON42: Implicit index and annual pct change of average earnings by unit and industry (DB07)
- ILON52: Implicit index and annual pct change of average earnings by unit and industry (DB07)

8.7 Micro-data access

Micro-data used to calculate the implicit index of average earnings is not made available for research.

However, Micro-data to calculate the standardized index of average earnings is since 1st quarter of 2016 available for scientists, and can be applied by contacting The Division of Research Service.

8.8 Other

The data is also used in the compilation of the Standardised index of average earnings, with the exception of young persons under 18 as well as students and apprentices. Part of the data is also used in the compilation of the labor cost part of Statistics Denmark's quarterly Construction cost index for residential buildings. In addition, the data is used in the calculation of the Danish Labor Cost Index (LCI).

8.9 Confidentiality - policy

Data Confidentiality Policy for Statistics Denmark is followed.

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8.10 Confidentiality - data treatment

There are industries that are not published due to discretion or because the specific activity does not occur in Denmark. This applies, for example, to the industry groups B raw material extraction and E water supply and renovation.

8.11 Documentation on methodology

For more information on the methodology, see the publication on indexes Indeksberegninger i Danmarks Statistik. However, the publication in unfortunately only available in Danish.

8.12 Quality documentation

Results from the quality evaluation of products and selected processes are available in detail for each statistics and in summary reports for the Working Group on Quality.

9 Contact

The administrative placement of these statistics are in the division of Labour and Income. The person responsible is Eva Borg, tel. +45 3917 3841, e-mail: evb@dst.dk.

9.1 Contact organisation

Statistics Denmark

9.2 Contact organisation unit

Labour and Income, Social Statistics.

9.3 Contact name

Eva Borg

9.4 Contact person function

Responsible for the statistics

9.5 Contact mail address

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