

**Documentation of statistics for
Labour Costs for Corporations and Organizations 2016**

1 Introduction

The purpose of the statistics of total labour costs for corporations and organizations is to monitor trends and the level of the total labour costs broken down by industry, occupation and main components. The statistics on total labour costs are published once every year and are used to compare the total labour costs across industries and occupations.

2 Statistical presentation

The labour costs for the private sector is published for 10 of the main class of industries in addition to 10 different types of occupation. Data on earnings are obtained from the annual structure of earnings survey for the private sector, which is based on a full-scale survey comprising business enterprises with more than 10 full-time employees, while other labour costs are based on a special sample survey for enterprises with 10 or more employees, also including apprentices and employees under the age 18. The labour costs comprise each employee's total earnings in connection with his/her job and other labour costs that are not considered to be an income for an employee.

2.1 Data description

The labour costs for corporations and organizations are published for 10 main class of industry and 10 occupations. Other labour costs are based on a special sample survey of enterprises with 10 or more employees, also including apprentices and young employees under the age 18. However, employees in business enterprises within agriculture and fisheries are excluded from the sample. The main concept is total labour costs related to the number of hours worked. Total labour costs include total earnings and other labour costs, total, both items are related to the number of hours worked. Hours of work are understood to mean the number of hours actually performed. Hours of absenteeism due to sickness and holidays are excluded. The data on hours of work are obtained from the structure of earnings. Other labour costs are costs that are not considered to be an income for an employee. Other labour costs are broken down by the following items: contributions to public funds, other compulsory costs, contributions according to agreement, education costs and other staff costs.

2.2 Classification system

The class of industry used for the statistics are based on the Danish Industrial Classification of All Economic Activities 2007 (DB07), while group of occupation follow the DISCO-o8 classification.

- Industry: Information on the industry of the business enterprise is obtained from the Central Business Register. Employees are classified according to the Danish Industrial Classification of All Economic Activities 2007, which is based on the common European nomenclature of industries NACE rev.2. Before 2008 the Danish Industrial Classification of All Economic Activities 2003 was used, which was based on the common European nomenclature of industries NACE rev.1.1.
- Occupation: The information on occupation is obtained from the structure of earnings. On the basis of the DISCO-o8 then employees are distributed by occupation. The occupation of an employee is indicative of the clearly defined tasks and duties involved in an employee's job. The classification of occupations is based on DISCO-o8 as from the year 2010, which is the official Danish version of the international classification of occupations called "The International Standard Classification of Occupation, ISCO o8, which is prepared by the International Organisation, ILO. The classification is also applied in the context of the EU. DISCO-o8 is a revised version of the previously used classification DISCO-earnings. DISCO-o8 is used for the first in the structural statistics on earnings in 2010. For further information about the classification and the specific changes incorporated into the revised version of the classification can be seen at: <https://www.dst.dk/disco>. There is no homogeneous conversion key between DISCO-earnings and DISCO-o8. Consequently, total labour costs distributed by occupations are not comparable backwards in time. It is possible to access new total labour costs statistics compiled on the basis of the codes in the new DISCO-o8 from Statistics Denmark's database www.statistikbanken.dk/SAO32, while statistics compiled on the basis of previously used codes in DISCO-earnings are accessible from <http://www.Statbank.dk/SAO31>.

2.3 Sector coverage

The statistics cover corporations and organizations, but not employees in the economic activities *agriculture or fisheries*.

2.4 Statistical concepts and definitions

Contributions according to agreement: Contributions according to agreement comprise employers' contributions to various funds and group life assurance.

Other compulsory costs: Other compulsory costs consist of employers' compulsory contributions to work-related injury insurance, occupational disease insurance (AES) and contributions to maternity fund. Other items included here are reimbursement of unemployment benefits in connection with lay-offs and redundancies, etc. Data on the latter type of costs are collected via the survey of structural earnings.

Other staff costs: Other staff costs include, e.g. contributions to professional indemnity insurance, contributions to other voluntary employee-related insurances, contributions to the business enterprise's pension fund, recruitment costs, anniversary bonus and redundancy payments. Data on the two last-mentioned types of cost are collected via the survey of earnings. Furthermore, other staff costs include all other labour costs in connection with the business enterprise's staff that cannot be referred to costs belonging to the compulsory information on earnings or other costs falling under other labour costs.

Examples of costs in the latter category are: Private job-training, work clothes and laundering, staff conferences, first aid equipment and other safety equipment, expenses on personal care, fringe

benefits that are not liable to tax, canteen, etc. Among staff costs, the latter category accounts for the greatest expenses per hour.

Contributions to public funds: Contributions to public funds include contributions to Employers' Refunds for Apprentices (AER), contributions to sickness benefits, finance contributions and tax on payroll as well as contributions to the public flexjob scheme and the public parental fund. The latter is paid by industries that are not subject to VAT-payments and represent mainly the financial and insurance industries. The following industries real estate, health care and culture are only partially registered for the payroll fee.

Total earnings per hour worked: $\text{Total earnings per hour worked} = \text{Total earnings} / \text{Total number of hours worked}$

Earnings comprise each employee's total earnings in connection with his/her job, including employees' or employers' share of any pension contributions and other income in the form of fringe benefits to the extent that these are liable to tax.

Hours of work are understood to mean the number of hours actually performed. Hours of absenteeism due to sickness and holidays are excluded. The data on hours of work are obtained from the structure of earnings.

Total earnings per hour worked tells how much the employee receives as earnings or wage in relation to an hour worked. At the same time, the concept tells something about how much it costs the employer to have an employee working for him/her in terms of wage for an hour. Furthermore, it can not be recommended to use total earnings per hour as an indicator of wage in an occupation or industry, as it also takes into account e.g. payments due to absence.

Sickness payments per hour worked: Employers payment in case of absence due to sickness, child sickness, maternity, accident and other sorts of absence of the employee. In other words, only payments that are covered by the employer. This also includes payments where the employer receives refund from the public at a later stage.

Payments for work outside normal hours (not overtime) per hour worked: Payments for work outside normal hours e.g. night work and work on Sundays (not overtime) per hour worked.

Overtime pay per hour: Overtime pay relates to work performed outside the normal working hours.

Payments for pension schemes per hour worked: Employers and employees contribution to the pension schemes, excluding pension schemes not administered by the employer.

Employee benefits per hour worked: Employee benefits only include benefits that are subject to taxes, such as a free use of car, diet, accommodation and multimedia.

Refunds from public funds: Refunds from public funds include refunds from the AER, wage subsidies, refunds in connection with education and refunds for payroll costs in connection, e.g. sickness.

Total labour costs: Total labour costs are all costs of a business enterprise that are involved in employing one person, for each hour the person is on his/her job. Total labour costs include total earnings and other labour costs, total, both items are related to the number of hours worked.

Education costs: Education costs cover costs on external education, in-house education and remuneration of external teachers.

Irregular payments per hour worked: Irregular payments per hour worked include e.g. bonuses, allowances and late regulations of earnings.

Other labour costs: Other labour costs are costs that are not considered to be an income for an employee. Other labour costs are broken down by the following items: contributions to public funds, other compulsory costs, contributions according to agreement, education costs and other staff costs.

2.5 Statistical unit

The statistical unit is the individual job, which is defined as a person employed with a specific employer and engaged in a specific occupation.

2.6 Statistical population

The statistical population is all persons employed in companies or organisations with ten or more employees, but not within the economic activities *agriculture* or *fisheries*. Labour costs for the private sector are based on the annual structure of earnings statistics and the survey of other labour costs of the private sector, which is also annual. For more information on the annual structure of earnings statistics see its [documentation of statistics](#).

The survey on other labour costs for enterprises in the private sector is based on a special sample of enterprises with 10 or more employees, and the sample is drawn with the use of the Danish Business Register. The sample is stratified to cover enterprises in different size groups (number of employees) and class of industry.

2.7 Reference area

The reference area is Denmark.

2.8 Time coverage

The time coverage of the statistics is the year 2016. The statistics can be traced back to 1997, but in between there has been several breach in the data. Read more about this under Comparability - over time.

2.9 Base period

Not relevant for these statistics.

2.10 Unit of measure

The counting unit is kr. (Danish kroner) per hour worked.

2.11 Reference period

01-01-2016 - 31-12-2016

2.12 Frequency of dissemination

The statistics are published annually.

2.13 Legal acts and other agreements

Information is collected in accordance with the Act on Statistics Denmark §8.

Council Regulation (EC) No. 530/1999 Statistics on Wages and Labour Cost Structures forms the legal basis for the survey. To this is added that annual updates of the survey are submitted in accordance with the so-called gentlemen's agreement.

2.14 Cost and burden

Data on other labour costs are reported via questionnaires, which are submitted and collected through one of the above organisations. In order to reduce the response burden, data on other labour costs are collected from a sample. Please see the documentation of statistics "Structure of earnings" with respect to the survey of earnings.

2.15 Comment

Other information is available at the subject page on (Labour costs)
[<https://www.dst.dk/da/Statistik/emner/loen-og-arbejdsomkostninger/arbejdsomkostninger.aspx>]
and [Statistics on Earnings and Labour costs](#).

3 Statistical processing

Data concerning the employees' earnings and wage are collected for each individual employee, while data on the other costs of the enterprise is collected at the level of the enterprise. Other labour costs are distributed on to the employees on the basis of a distribution formed by regulation and logical reasoning. The total labour costs per employee is calculated as the sum of all wages and the sum of other labour costs divided by the number of employees.

3.1 Source data

Total labour costs are compiled on the basis of the labour cost survey, which comprises two sub-surveys, the annual structure of earnings survey and the survey of other labour costs for the private sector. The structure of earnings survey is described in the quality declaration entitled "Structure of earnings". The survey of other labour costs of business enterprises is based on a sample (see section 3.2). The primary data for the total labour costs are collected in collaboration with the Danish Employers' Confederation and the Danish Employers' Association of the Financial Sector, which collect information from their affiliate business enterprises and the information, is then made available to Statistics Denmark. Statistics Denmark collects information from non-affiliate business enterprises and organisations.

3.2 Frequency of data collection

Data is collected annually.

3.3 Data collection

The labour costs are transmitted online from the enterprises in the sample.

3.4 Data validation

For information on validation of wages and earnings see the structure of earnings statistics [quality declaration](#).

When it comes to other labour costs, all received data are validated. In general, a company or organisation's other labour costs are compared against the same costs of other companies or organisations in the same class of economic activity. If an enterprise has other labour costs that differ to a great extent from those of others, the data delivered by the respective enterprise are looked into more thoroughly.

3.5 Data compilation

Total labour costs is based on data transmissions from business enterprises covering 61 percent of the target population. Due to the stratification of the sample, there are large differences between the degrees of coverage within the groups of stratification. Consequently, the number of jobs in the statistics has been raised. This is conducted by classifying the business enterprises by industry and number of employees. Subsequently, the degree of coverage is ascertained for each industry group, which forms the basis for calculating the raising factor allocated to each enterprise in the group in question.

3.6 Adjustment

There are made no correction of data apart from that described under Data validation and Data compilation.

4 Relevance

The labour costs are used by enterprises to compare costs associated with having people employed, with the costs of other enterprises with similar type of employees. The comparison is often done within a certain branch of economic activity or for a certain type of work. In addition, the statistics can be used to compare labour costs across EU-member countries. There has not been performed any evaluation of user satisfaction.

4.1 User Needs

The statistics on labours costs have many users, ranging from national and international organisations to public administration, private enterprises and individuals.

The labour costs are used by enterprises to compare costs associated with having people employed, with the costs of other enterprises with the same type of employees. The comparison is often done within a certain industrial classification code or for a certain type of work according to DISCO-08. In addition, the statistics can be used to compare labour costs across EU-member countries.

4.2 User Satisfaction

There has not been performed any evaluation/survey of user satisfaction.

4.3 Data completeness rate

Employees in business enterprises within agriculture and fisheries are excluded.

5 Accuracy and reliability

There are no estimation of accuracy available at the moment. But in general the statistics on labour costs are considered as both very accurate and reliable.

5.1 Overall accuracy

The component relating to earnings and wages accounts for about 96 pct. of total labour costs. Consequently, overall accuracy depends primarily on the accuracy of this component. Overall accuracy is described in the [quality declaration](#) regarding structure of earnings. The overall accuracy of other labour costs is considered to be reasonably high. The high accuracy of other labour costs stems from the fact that many of the costs involved are forced by law and often relate to the branch of economic activity or size group of the enterprise. This means that there is a great possibility to control the transmitted data. This strengthens the accuracy of the data. Furthermore, it is also the impression that the accuracy of the transmitted data is increasingly improved as enterprises are becoming familiar with the content of the survey,

5.2 Sampling error

The sample survey is a source of uncertainty. The sample survey used for other labour costs is created on the basis of extracts from the Central Business Register of business enterprises with more than nine employees working full-time. The sample is stratified in accordance with the size of the enterprises and economic activity. In 2016 the sample consisted of 3448 enterprises. 1710 of these received a questionnaire from Statistics Denmark, which corresponds to about 49 pct of the sample. 47 pct. of the questionnaires were mailed by the Danish Employers' Confederation, while the remaining 4 pct. were mailed by the Danish Employers' Association of the Financial Sector. About 100 pct. of the mailed questionnaires were incorporated in the production of statistics. The questionnaires that were not used in compiling the statistics were omitted for different reasons, e.g. the business enterprises discontinued their activities during 2016, or the number of employees decreased to less than ten during the year.

There exists no overall assessment of the uncertainty caused by sampling errors.

5.3 Non-sampling error

Other uncertainty has not been estimated or assessed yet.

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 quality of the statistics is considered to be high. Some of the fundamental information in other costs rest upon voluntary agreements, and as a consequence are therefore somewhat difficult to assess the validity of. Still, the impact these information have on the total labour costs are minimal, and the uncertainty caused by these is considered to be limited. A potential source of error is the lack of response from the business enterprises. However, the response rate for other labour costs is close to 100 per cent.

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 published.

6 Timeliness and punctuality

Total labour costs for corporations and organizations cover data for a whole year. The statistics are published once every year around October. There are normally no delays in publishing the statistics.

6.1 Timeliness and time lag - final results

The statistics of total labour costs are published annually and before the end of the year following the reference year.

6.2 Punctuality

The statistics for labour costs are under normal circumstances published at the announced date.

7 Comparability

Due to changes in the compilation method, comparisons with statistics prior to 2014 are not possible. Owing to the fact that labour costs since 2002 are distributed per employee and not per enterprise as previously done, comparisons with statistics compiled before 2002 is not possible. Also, the statistics on labour costs for 1997-2001 are only to a limited extent comparable to those before 1997, which has to do with the application of a new method starting from 1997.

7.1 Comparability - geographical

Data is submitted every fourth year by all EU countries to Eurostat, which are then used for publishing the [Labour Cost Surveys](#). Consistency in concepts and methods has been created between each national statistical institute in the EU, which implies that figures on labour costs are comparable among countries.

7.2 Comparability over time

Due to changes in the compilation method, comparisons with statistics prior to 2014 are not possible. Owing to changes in the compilation method, comparisons with statistics compiled before 2002 is not possible. Owing to changes in the compilation method, comparisons of statistics from 1998-2001 with statistics compiled before 1997 are only possible to a limited extent.

Specific changes:: - *From 2014 to 2015*: Companies and organizations do no longer receive bonuses for having trainees, which has led to a lower level of refunds from public funds in comparison with 2014. - *From 2013 to 2014*: Modified by sector in 2014: This publication presents the salary structure for the first time in accordance with the new European national accounting manual ESA2010 . The definition of sectors has been changed so that the private sector is now defined as companies and organizations. In addition to the name change, some substantive changes of the division delimitation have been made i.e. DSB is now referred to as a private enterprise and is therefore no longer in the public sector. From 2014 the data now includes contributions and refunds regarding the public flex job scheme and parental fund.

- *From 2011 to 2012*: Information of contribution to maternity fund and refunds from the maternity fund is collected from ATP, who manage the schemes. - *From 2010 to 2011*: Information of contribution to Employers' Refunds for Apprentices (AER), the financial contribution, occupational disease insurance (AES) and refunds from AER is collected from ATP, who manage the schemes. - *From 2009 to 2010*: New classification of occupations. Classification of employees by occupations is conducted on the basis the nomenclature DISCO-o8, which is the Danish version of the ILO's official nomenclature for occupations ISCO-o8. DISCO-o8 is a revised version of the previously used nomenclature DISCO-earnings. Subsequently, DISCO-o8 is used for the first time in the structural statistics on earnings. For further details see <https://www.dst.dk/disco>. There is no homogeneous conversion key between DISCO-earnings and DISCO-o8. Consequently, earnings distributed by occupations are not comparable backwards in time. New earnings components. New wage concepts. The structure of earnings survey has changed salary components. Hence new tables containing the new definitions has been made. The tables contains figures for the year 2010 and will be updated yearly. The previously tables has been updated for the last time for the year 2010. - *From 2007 to 2008*: New classification. Employees are classified according to the Danish Industrial Classification of All Economic Activities 2007, which is based on the common European nomenclature of industries NACE rev.2 - *From 2006 to 2007*: In 2006, contributions to the maternity leave funds are made compulsory in accordance with Danish legislation. From 2006, contributions to and reimbursements from maternity leave funds are included, both under legal costs and costs subject to agreements. 2007 is the first year for which contributions to and reimbursements from maternity leave funds are exclusively included under legal costs. - *From 2004 to 2005*: There is an increase in contributions subject to agreements in relation to 2004. This is due to the circumstance that the maternity leave fund maintained by the Danish Employers' Confederation came into force as of 1 July 2005. All affiliated employers of the Danish Employers' Confederation are obliged to pay a contribution of DKK 786 annually to the maternity leave fund for each employee - *From 2002 to 2003*: There are a number of changes from 2002 to 2003. The most important change is an expansion of the sample by 670 business enterprises, which has resulted in an improvement of the general data quality. Furthermore, some specific legal amendments have given rise to some changes in other labour costs. In 2003, the ATP contribution was combined with the contributions to the Employees' Guarantee Fund (LG), and they are now called financial contributions. The contributions to public funds increased in 2003, due to the circumstance that the

new financial contributions are larger than the ATP contributions, as well as the contributions to the LG. Furthermore, the working environment tax was abolished from 2003, and this has, subsequently, caused a decrease in other compulsory costs. - *From 2001 to 2002*: Information on other labour costs is collected at enterprise level unlike information on earnings, which is collected at the level of individuals. Consequently, the published statistical data on total labour costs have until now been restricted to specific distributions by enterprise. To enhance flexibility for this part of the statistical system, other labour costs for 2002 are distributed by individuals. The reason why it is possible to undertake distributions of data at the level of individuals is that a majority of the labour costs of enterprises are either related to the industry, related to the total payroll costs, or related to the employment volume of the employee. It is possible to obtain information on each employee's industrial classification, total payroll costs, employment, etc. from the above-mentioned statistics on earnings. Through a linkage of the two surveys, other labour costs of enterprises can be distributed to the individual employee of the enterprise on the basis of the specific characteristics of each individual. Due to the above mentioned method it is not possible to specify changes between 2001 and 2002. It should however be mentioned that actual legal changes has caused an increase in other labour costs. The financial contribution to wage earners' supplementary pension and the contribution to wage earners' guarantee fund has increased and make up 129 dkr per full time employee in 2002, which means a relatively higher contribution to public funds. Moreover a relatively large increase in the contribution to occupational disease insurance which means an increase in other compulsory costs. - *From 2000 to 2001*: There was an increase in other labour costs. The change is primarily due to increases in the business enterprises' contributions to the AER and reduction of the ATP compensation indicated by an increase in the net contributions to public funds. Moreover, work environment tax was introduced in 2001, which has been instrumental in a further increase of other labour costs. The increase is indicated by a larger amount paid to other compulsory costs. - *From 1999 - 2000*: There was an increase in other labour. The change is primarily due to relatively large increases in the business enterprises' staff costs, which are costs that are not compulsory. However, it must be mentioned that the business enterprises' costs on redundancy payments and anniversary bonus in 2000 are for the first time included in the statistics under other staff costs. Taking all industries as a whole there was a decrease in the refunds from public funds. This is primarily attributable to a reduction of the employers' ATP compensation. However, the decrease in refunds was counterbalanced by a fall in the contributions to the public funds, which was mainly due to the abolition of employers' labour market contributions.

7.3 Coherence - cross domain

Confederation of Danish Employers (DA) and Danish Employers' Confederation and the Danish Employers' Association of the Financial Sector (FA) publish statistics on "other labour costs" for their members. Together with the data from the rest of the enterprises in the sample collected by Statistics Denmark, these form the basis for the production of the total labour costs.

7.4 Coherence - internal

Not relevant for these statistics.

8 Accessibility and clarity

The newest figures are published in *Nyt fra Danmarks Statistik* (<https://www.dst.dk/nyt/25382>). Figures are also published in the Annual publication: Statistical Yearbook and at [Statbank](#). The statistical data are updated and published once every year. The most detailed figures are available from Statbank Denmark, where all figures are available. If a greater level of detail or tabular cross-tabulations is required, they can be produced on request.

8.1 Release calendar

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

8.2 Release calendar access

The Release Calendar can be accessed on our English website: [Release Calendar](#).

8.3 User access

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

8.4 News release

The newest figures are published once every year in Statistics Denmark news release [NYT](#).

8.5 Publications

Total labour costs are published in [Statistical Yearbook](#).

8.6 On-line database

The statistics are published in the StatBank under the subject [Labour costs](#) in the following tables:

- [SAO01](#): Total labour costs for corporations and organizations per worked hour by industry (DB07), components, group of employees, sex and time
- [SAO02](#): Other labour costs for corporations and organizations per worked hour by industry (DB07), components, group of employees and time
- [SAO03](#): Total labour costs for corporations and organizations per worked hour by occupation, components, group of employees, sex and time
- [SAO04](#): Other labour costs for corporations and organizations per worked hour by occupation, components, group of employees and time

8.7 Micro-data access

The data are available at the level of individuals and may be used in connection with compiling more detailed statistics or in coupling data from other statistics. The data are not available via the arrangement for researchers.

8.8 Other

There are no other available data.

8.9 Confidentiality - policy

The statistics on labour costs for corporations and organizations follow Statistics Denmark's [Data Confidentiality Policy](#).

8.10 Confidentiality - data treatment

The statistics on labour costs for corporations and organizations follow Statistics Denmark's [Data Confidentiality Policy](#).

8.11 Documentation on methodology

No other explanation of the labour costs are available.

8.12 Quality documentation

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

9 Contact

The administrative placement of this statistic is in the division of Personal Finances and Welfare. The person responsible is Carina Elm, tel. +45 39 17 33 85, e-mail: cme@dst.dk

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