

Det årlige Arbejdstidsregnskab før 2012-revision

0 Administrative Information about the Statistical Product	Latest update January 06 2015
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0.4 Purpose and History The purpose of establishing the Working Time Account (WTA) is to compile time series on hours. Furthermore, it is also intended to compile data on earnings and employment for the national accounts statistics, adopting the definitions of work, earnings and employment as applied in the national accounts. At the moment, the statistics include data on sex, industry, public/private and socio-economic status (self-employed, assisting spouse or employee).	
<p>The system for the Working Time Account is the result of a 3-year project established in Statistics Denmark in 1995 with grants by The European Social Fund. The purpose of the project was to improve the current statistical description of the Danish labour market. The background to the WTA is that there has been a considerable expansion in the number of statistics covering the labour market and the fact that the figures from different statistics are not immediately comparable. The project work has been centred on developing statistical systems integrating already existing labour market statistics. In December 1998 the project ended with the publication of a report: "Integrated Labour Market Statistics - the Labour Market Account and the Working Time Account 1995-97" ("Integreret arbejdsmarkedsstatistik - Arbejdsmarkedsregnskab og Arbejdstidsregnskab 1995-97") in which 2 new statistical systems were presented. In 1999, the WTA were presented by Statistics Denmark with the inclusion of annual as well as quarterly statistics.</p>	
<p>The time serie 1995-2010* were published on September 16.th in News from Statistics Denmark 432. Annual data as from 1995 onwards are available in the Statbank at ATR1, ATR2, ATR11, ATR22</p>	
<p>A description of the special conditions in relation to publishing data on September 2011, and a more thorough description of the method behind the Working Time Account, can be seen in the document attached to section 6 in this declaration of content.</p>	
0.5 Users and Application Among users are politicians, officials, researchers and others interested in the development of the Danish labour market. The areas of application are mainly the national accounts, economic models, economic government departments and labour market organizations.	

0.6 Sources

In deciding which data sources to apply in compiling the Working Time Accounts (WTA), attention is centred on the major advantages of the individual statistics. For example, register-based data are used to ensure complete coverage in the calculation of employment and the number of jobs. Information from the wage and salary system of the business enterprises is used to obtain more specific data on the distribution of hours between the individual jobs. Personal interviews are used to obtain hourly data for those groups not covered by the data reported by the business enterprises to the Statistics on Earnings.

The 3 main sources used in the annual WTA are:

- 1) The Yearly Statistics on Earnings (Earnings statistics for the private sector, www.dst.dk/declarations/861, and Earnings statistics for central and local government employees, www.dst.dk/declarations/862).
- 2) The Register of Employment Statistics. This register forms the basis for the Register-Based Labour Force Statistics (www.dst.dk/declarations/848) and the Establishment-related Employment Statistics (www.dst.dk/declarations/1029).
- 3) The quarterly Working Time Account (www.dst.dk/declarations/70784).

The WTA use the Register of Employment Statistics for obtaining data on the total number of active jobs over the year, on the number of persons employed at end-November, and on the number of primary and secondary jobs end-November. The Register of Employment Statistics contains information on A-income for all employees, and thus constitutes the main source for calculating compensation of employees in the WTA. In the Register of Employment Statistics a comprehensive integration of data on individuals from other statistical registers has been conducted. The Register of Employment Statistics also supplies the following data which are used in the WTA: persons in employment who are on labour market leave or maternity leave, reimbursements of sickness and maternity benefits, the statistics on the Danish Labour Market Supplementary Pension Scheme (ATP) and pensions that are continuously paid out.

The WTA use the Statistics on Earnings in calculating hourly data for each individual job per year. In this context, hours of work performed are of great importance, as these indicate the time worked by an employee in the process of production. On the basis of the Statistics on Earnings, figures on the average annual hours of work performed per job are calculated. In this connection, the number of jobs in the statistical data on earnings is aggregated in the WTA, so that the definition of jobs is similar to that used in the Register of Employment Statistics. From 2000, the hourly data in the Statistics on Earnings are integrated with the data on level of jobs in the Register of Employment Statistics.

The quarterly system will be currently used for calculating annual values. Average employment (and average number of jobs) over the year is estimated as an average figure of average employment during the 4 quarters of the year (respectively average number of jobs of 4 quarters). It is thus the quarterly system, which forms the basis for calculation of average employment and average number of jobs in the annual WTA. The basis for the calculation of average employment and average number of jobs in the WTA is information on the number of persons employed in the Register-based Labour Force Statistics (RAS) and number of primary and secondary jobs in the Establishment-related Employment Statistics (ERE) at the end of November. The development over the year is estimated quarterly by combining structural statistics at the end of November for employees and monthly data reports of A-income (MIA) for employees. For self-employed persons and assisting spouses, the development in jobs is exclusively estimated as an even development from one structural statistic to the next (persons employed in the RAS and number of jobs in the ERE). However, rolling annual statistics from the Labour Force Survey are applied for projection during the period after the latest structural statistics (i.e. as from 1.st quarter 2008).

For a detailed description of the methodology and MIA see the attached dokument to section 6, annex 2 and 4 (Calculation of average employment and average number of jobs in the WTA).

The Working Time Accounts are exclusively based on existing data sources, which are subsequently converted to the concepts used in the WTA. The WTA is flexible in its choice of primary sources, which can be replaced by other sources, if these have proved to be more accurate. The choice of primary source decides the amount of data editing necessary. When it comes to integrating all the sources, however, all the concepts are consistent in conforming to international standards and every variable fulfils the requirement of the system for the WTA.

0.7 Legal Authority to Collect Data

Not relevant for the working time account.

0.8 Response burden

No response burden. New systems for reporting data have not been established. All data requirements are fulfilled by existing statistics.

0.9 EU Regulation

No EU Regulation.

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1 Contents

1.1 Description of Contents

Consistent time series on employment, jobs, hours worked and compensation of employees. The data basis is made up of a number of primary statistical data, which are adapted and adjusted to achieve agreement between the concepts and definitions used.

1.2 Statistical Concepts

Concerning self-employed, assisting spouses and employees respectively, there is an accounting, definitional relations between hours worked, jobs, compensation of employees and number of employed:

The average number of employed consist of the average number of persons above the age of 14 who every day during the year have been paid either as self-employed, assisting spouse or as employee. Persons who are temporarily absent due to leave, but who are connected to a workplace in the form of having a job to return to, are counted as being employed.

1. Employment = number of primary jobs + persons on leave + persons on maternity

The average numbers of jobs are calculated as the sum of primary and secondary jobs. Similarly as to employment the average number of jobs is calculated for every day of the year. Employees who are temporarily absent from the labour market are not included in the estimation of jobs. There is the following relationship between the number of jobs and the number of employees:

2. Number of jobs = number of primary jobs + number of secondary jobs

The number of hours of worked is defined as hours paid by employers, including paid overtime and excluding paid hours of absence. Paid meal breaks are regarded as hours of availability and are included in hours worked. Paid hours of overtime are defined as the number of paid hours that are worked in excess of normal paid hours (i.e. contractual hours) and include extra hours of work for part-time employed without additional overtime pay. It is not possible to obtain detailed data on unpaid overtime hours and undeclared work. Unpaid overtime hours and undeclared work are therefore excluded from the calculation of hours of work performed in the WTA. Unpaid hours have explicitly been excluded, when quarterly statistics from the Labour Force Survey are used in estimating the

provisional data on hours for the period, following the most recent structural statistics.

Hours worked include hours paid by employers, which have been carried out by persons aged over 14, including the hours in jobs that are not part of either the persons main employment or the persons largest secondary job.

3. Actual hours worked = average actual hours worked per job × number of jobs

The number of jobs refers to the total number of active jobs over a year (This concept differs from the published annual average number of jobs in the WTA).

Compensation of employees is calculated in accordance with the definitions in the National Accounts (SNA). Compensation of employees includes total wages and salaries in cash or in kind which the employer pays to an employee for work performed in an accounting period. Compensation of employees also includes employers' actual or calculated social contributions including contribution to pensions.

The compensation of the self-employed and assisting spouses is not included in the WTA. Furthermore, the hourly concept for the self-employed and assisting spouses differs from the hourly concept used for employees, as only hours in the primary job and most important secondary job are included for the self-employed and assisting spouses, and it is also impossible to distinguish between paid, unpaid and undeclared hours of work for these groups. The other variables are calculated in full accordance with the relational accounting equations that have been set up for employees.

An essential feature of these simple relational equations is that they can be used to link the various sources for different variables in the statistics. In this way, hours of worked performed are, e.g. extracted from the Statistics of Earnings, whereas the number of jobs are extracted from the Establishment-related Employment Statistics (ERE statistics). These identities open up to, in addition to quality checks by comparing primary sources, the fact that the relational accounting equations lead to new variables supplementing the present statistical resources.

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2 Time

2.1 Reference Period

Numbers of employed and number of jobs are annual or quarterly averages. Number of hours worked and compensation of employees are added up using the year or the quarter as the reference period.

2.2 Date of Publication

The Working Time Accounts are published once a year with annual figures and four times a year with quarterly figures.

The first release of annual data covering the period 1995-98* was on November 30th 1999.

Next publication is planned to December 2012, stating a new time serie based on the new source elIncome, containing data as from 2008.

The annual Working Time Account normally publishes provisional figures about 9 months after the reference year and final figures about 33 months after the reference year.

2.3 Punctuality

The Working Time Accounts are usually published without delay in relation to the scheduled date.

However, the publication of the working time account in 2009 has been leased at a later time than usually due to an amendment of the Danish VAT Act.

2.4 Frequency

Quarterly and yearly publications.

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3 Accuracy

3.1 Overall accuracy

There are no figures on the size of revisions, etc. which have been undertaken.

3.2 Sources of inaccuracy

The margins of statistical uncertainty associated with the working time statistics are related to the statistical uncertainty of the individual primary statistical sources that are used. The conceptual consistency and the uniform adaptation of sources over time contribute to a reduction of the margins of statistical uncertainty in the Working Time Account. Especially, the juxtaposition of information from the primary sources in a joint system will reveal, if any, errors, and subsequently errors can be taken into account in the WTA. These errors and inconsistencies are reported back to the primary sources. The work on integrating statistical systems will thus be instrumental in enhancing the general data quality of the primary statistical data.

For a description of the statistical uncertainties of the primary sources see the respective declarations of contents:

Indicators for aggregate payroll costs, based on labour market contributions for employees, (www.dst.dk/declarations/847).

Register-based Labour Force Statistics (www.dst.dk/declarations/848)

Statistics on Employment in Businesses (www.dst.dk/declarations/1029)

The Labour Force Surveys (LFS) (www.dst.dk/declarations/857)

Monthly data reports of A-income (MIA) (see section 6, attached document annex 2)

ATP-employment Statistics (based on the Danish Labour Market Supplementary Pension Scheme (www.dst.dk/declarations/845))

Annual Working Time Account (WTA, www.dst.dk/declarations/46613)

Earnings Statistics for the private sector (www.dst.dk/declarations/861)

Earnings Statistics on central and local government employees (www.dst.dk/declarations/862)

There is a statistical uncertainty associated with MIA representing the seasonal pattern of employment and not only the seasonal pattern of jobs. MIA represents the number of gross jobs, consequently, if the seasonal pattern in the primary employment differs from the seasonal pattern of the secondary employment the seasonal pattern of employment will be associated with some uncertainty. Furthermore, there may be differences in the seasonal patterns for average employment and average number of jobs compared to the seasonal patterns found in the primary data sources, if there are major differences in the development in the short-term statistics (MIA) over the year and the levels that apply in the 4th quarter of the year from the Register-based Labour Force Statistics and the Statistics on Employment in Businesses. There is also a statistical uncertainty associated with the fact that the structural statistics from the Register-based Labour Force Statistics and the Statistics on Employment in Businesses, which are status observations at the end of November of the year, represent the 4th quarter of the year.

A description of the special conditions in relation to publishing data on September 2011 can be found in the document attached to section 6 in this declaration of content.

3.3 Measures on accuracy

There are no calculations of the measures of accuracy.

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4 Comparability

4.1 Comparability over Time

The compilation of Working Time Accounts is based on the idea that the figures are comparable over time to the highest possible degree. The sources will continuously be improved and replaced by other sources if these have proved to be more accurate. New sources will always be adapted to the concepts of the Working Time Accounts System. This implies that adjustments of existing sources cannot immediately be seen as changes of variables and concepts in the Working Time Accounts Statistics, although adjustments of the level of the specific variable may be made according to the new and improved information.

4.2 Comparability with other Statistics

The lack of data comparability between sources is attributable to differences in:

- Compilation methods
- Populations
- Definitions
- Margins of statistical errors
- Time of publication.

A fundamental principle of the Working Time Accounts is to document the coherence between statistics applied in the Working Time Accounts and to document coherence between existing statistics and the Working Time Accounts.

At the international level there is also a high degree of comparability as the Danish Working Time Accounts are worked out according to international guidelines, cf. EUROSTAT 1996: European System of Accounts (ESA 1995) and International Labour Organisation 1988: Current International Recommendations on Labour Statistics.

The Working Time Account publish figures on the old industrial classification (DB03/NACE rev.1.1) as well as on the new industrial classification (DB07/NACE rev.2).

Transitional tables between the WTA and the Register-based Labour Force Statistics (employment) and the Establishment-related Employment Statistics (jobs and compensation of employees) can be seen in section 6, attached document annex 6.

A description of the transition between the WTA and the National Accounts can be seen in the publications of the National Accounts.

4.3 Coherence between provisional and final statistics

A provisional year is calculated on the basis of quarterly statistics based alone on extrapolations of the latest structural data for 4th Quarter 2007. When the National Accounts have their series declared final the series for the Working Time Accounts will also be declared final. This implies that the latest to years in the Annual Working Time Accounts will be provisional figures.

The Working Time Accounts are undergoing a continuous development. In keeping with the current improvements of the sources and methods used in the Working Time Accounts, the annual figures will be revised.

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5 Accessibility

5.1 Forms of dissemination

The statistics are published in News from Statistics Denmark (Nyt fra Danmarks Statistik), in the series Statistical News ("Statistiske Efterretninger") and in Statbank Denmark ("Danmarks Statistikbank").

5.2 Basic material: Storage and usability

The basic material consists only of existing statistics. The basic material for the compilation of quarterly working time accounts is widely stored, but detailed non-published information is not made available.

5.3 Documentation

A report: "Integrated labour market statistics - the Labour Market Accounts and the Working Time Accounts 1995-97" ("Integreret arbejdsmarkedsstatistik - Arbejdsmarkedsregnskab og Arbejdstidsregnskab 1995-97") was published in December 1998. In this report, the Working Time Accounts were presented, including a far more detailed description of the applied primary sources and conceptual differences between these (The report is available at www.dst.dk/boghandel)

The Working Time Accounts will currently be published in the series Labour Marked (Statistical News), together with the release of the main results in News from Statistics Denmark.

5.4 Other Information

No other information is available.

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