

**Documentation of statistics for  
Absence 2019**

## 1 Introduction

The purpose of the statistics of absence is to describe the amount of work that is lost due to absence. Absence is divided into "Own sickness", "Children's sickness", "Occupational injury" and "Maternity and adoption leave". The statistics are published on a yearly basis and are used for estimating and comparing the level of absence within different groups of employees.

## 2 Statistical presentation

The statistics of absence are published yearly for the governmental sector, the local governmental sector and the private sector. Statistics according to the new sector definition from 2013 are also published for the labour market as a whole. The absence is grouped by the variables occupation, education, industry, region, age and sex. From 2013 own sickness is published by lengths of period. In the governmental and municipal sector all employees are included while the private sector is described by a representative sample of enterprises with 10 or more employees.

### 2.1 Data description

The statistics on absence describe the amount of work that is lost due to absence in both absolute and relative measures. The statistics are published for the governmental sector, the local governmental sector and the private sector. Statistics according to the new sector definition from 2013 are also published for the labour market as a whole. The statistics cover in principal all employees in the governmental sector and the local governmental sector while the private sector is described by a representative sample of enterprises with 10 or more employees. Absence is divided into "Own sickness", "Children's sickness", "Occupational injury" and "Maternity and adoption leave" and is grouped by the variables occupation, education, industry, region, age and sex. "Own sickness" is further more grouped by lengths of period. The absolute and relative measures that are published are:

- Absence rate
- Number of absence days (in full day equivalents)
- Number of periods of absence
- Average no. of absence days per full-time employed
- Average no. of absence periods per full-year employed
- Average no. of calendar days per absence period
- Number of full-time employed
- Number of full-year employed

## 2.2 Classification system

Grouping variables:

- Occupation - Up to and including 2009 the grouping by occupation is based on the variable DISCO-løn. From 2010 the new variable, DISCO-o8, is used instead. DISCO-o8 is a revised version of DISCO-løn and is the Danish version of the international classification ISCO-o8. The DISCO variable is independent of the formal title and the education of the employed, it is only dependent upon the qualifications that are necessary in the job and the type of work that is done. This definition makes it possible to compare persons that have the same occupation.
- Industry - Until 2007 the grouping by industry follows the Danish nomenclature for industry from 2003 (DB03) which is an extended version of EU's nomenclature NACE rev. 1.1 from 2003. From 2007 the grouping by industry follows the new nomenclature for industry, DB07. DB03 and DB07 are in principle classifications of economic activities. It is used as a classification of firms describing their main activities.
- Education - The persons are classified by their highest level of education completed. The information comes from Statistics Denmark's register of the population's education. This register is updated on a yearly basis with information from the educational institutions. In 2015 the Denmark Statistics' education statistics started using a new classification of education called DISCED-15, which replaced the previous, DUN and Forspalte1. For more information see under <https://www.dst.dk/da/Statistik/dokumentation/Nomenklaturer/ny-uddannelsesklassifikation-DISCED-15>
- Area - The grouping is by the region or municipality where the workplace is located.
- Age - Grouping by five years intervals (-19 years (up to and including 19 years), 20-24, 25-29,.....,60+ (including 60 years and on)).
- Sex.
- Sector - Absence is grouped by All sectors, General government, Government including social security funds, Municipal and regional government total, Regional government, Municipal government, Corporations and organizations.
- Lengths of period - number of periods and days of absence concerning own sickness is divided by lengths of period measured by calendar days.

## 2.3 Sector coverage

The statistics of absence cover the public sector and the private sector except agriculture, forestry and fishing.

## 2.4 Statistical concepts and definitions

**Number of Absence Days:** Measures the number of days in full day equivalents that fall within the year. Defined as 7.4 hours a day. An absence period of three hours and a absence period of 4.4 hours amount to a whole day.

**Number of Periods of Absence:** Measures the number of absence periods that ends in the year.

**Number of Full-Time Employed:** A full-time employed is defined as a person who is employed 37 hours per week all year. A person who is employed for 20 hours a week all year and another person who is employed 17 hours a week all year amounts to one full-time employed when combined.

**Number of Full-Year Employed:** A full-year employed is defined as a person who is employed all year. A person who is employed for three months and another person who is employed for 9 months amounts to one full-year employed when combined.

**Average no. of Absence Days per Full-time Employed:** Measures the number of absence days (in full day equivalents) that falls within the year per full-time employed.

**Absence Rate:** Measures the days of absence in percent of the possible days of work - both measured in full day equivalents. The possible days of work are defined as the number of days at work a person could have worked if the person had not been absent and are the sum of the actual days of work and then days of absence. Vacation etc. are excluded from the possible days of work. Full day equivalents are defined as 7.4 hours.

**Average no. of Absence Periods per Full-Year Employed:** Measures the number of absence periods that ends in the year per full-year employed.

**Average no. of Calendar Days per Absence Period:** Measures the number of calendar days per absence period that ends in the year.

## 2.5 Statistical unit

The units of the statistics of absence are enterprises and public organizations, each enterprise being a legal unit. In the Statistical Business Register of Statistics Denmark a legal unit is identified by its CVR-number from the Central Business Register. Periods of absence are collected for all employees employed at the units. For the statistics of absence a period of absence for an employed person is the statistical unit.

## 2.6 Statistical population

In the governmental and municipal sector all the employed are included while the private sector is described by a representative sample of about 2600 firms. The sample is selected from a population of enterprises with 10 or more employees. Chronically sick persons and persons in flexible or light jobs are not included.

In the case of all three sectors a number of jobs are excluded from the statistics of absence. This is the case for persons who have only worked for a very short period of time, persons who have only worked very few hours a week or persons for whom the number of hours worked are not known.

## **2.7 Reference area**

The statistics cover Denmark. Greenland and The Faroe Island are not included.

## **2.8 Time coverage**

Statistics according to the changed sector definition are published for 2013 and forward. From 2013 the statistics are also published for the labour market as a whole.

- The statistics for the governmental sector cover the period from 2003 and forward.
- From 2005 and forward results for the municipality sector and the regional sector were published together. From 2010 results for the two sectors were published separately.
- The statistics for the private sector cover the period from 2007 and forward.

## **2.9 Base period**

Not relevant for these statistics.

## 2.10 Unit of measure

The statistical measures that are included in then statistics are:

- Absence rate - Measures the days of absence in percent of the possible days of work - both measured in full day equivalents.
- Number of absence days (in full day equivalents) - Measures the number of days that fall within the year.
- Number of periods of absence - Measures the number of absence periods that ends in the year.
- Average no. of absence days per full-time employed - Measures the number of absence days (in full day equivalents) that falls within the year per full-time employed.
- Average no. of absence periods per full-year employed - Measures the number of absence periods that ends in the year per full-year employed.
- Average no. of calendar days per absence period - Measures the number of calendar days per absence period that ends in the year.
- Number of full-time employed - A full-time employed is defined as a person who is employed 37 hours per week all year. A person who is employed for 20 hours a week all year and another person who is employed 17 hours a week all year amounts to one full-time employed when combined. A full-time employed is calculated on basis of the hours worked reported to the earnings statistics. The number of employees in the statistics of absence can not be used as statistics of employment.
- Number of full-year employed - A full-year employed is defined as a person who is employed all year. A person who is employed for three months and another person who is employed for 9 months amounts to one full-year employed when combined.

For the public sector the number if full-time employees and full-year employees are calculated on basis of the number of jobs that are included in the statistics of absence. For the private sector the number of full-time employees and full-year employees are calculated on basis of the number of jobs that are included in the population to which the sample is enumerated. That is all enterprises with 10 employees or more.

A full day equivalent is defined as 7.4 hours. Possible days of work are defined as the number of working days (in full day equivalents) that a person could have had, had he not been absent. In other words, it is the sum of the actual days of work and the days of absence. Holidays etc. are excluded from the possible days of work.

## 2.11 Reference period

01-01-2019 - 31-12-2019

## 2.12 Frequency of dissemination

The statistics are published on a yearly basis.

## 2.13 Legal acts and other agreements

The information is collected in accordance with the Act on Statistics Denmark § 6 and § 8. The statistics is not based on EU regulation.

## 2.14 Cost and burden

The response burden is minimized by using already collected data material whenever possible. Furthermore, almost all data are collected electronically. Some enterprises already register information on absence. For these enterprises the statistics on absence will not be a considerably extra burden.

There is on respondent burden estimate for these statistics.

## 2.15 Comment

Further information can be found at the [Subject Page](#) for these statistics, or by contacting Statistics Denmark directly.

## 3 Statistical processing

On a yearly bases information on absence is collected from all of the public sector and from a sample 2600 private enterprises with 10 or more employees. After validating the absence data the periods of absence are connected to the job from which the person was absent. The information about the extent of the employment is found in the earnings statistics. The information on absence from the private sector is enumerated to the total population of enterprises with 10 employees or more.

### 3.1 Source data

#### *Absence data*

The data for the governmental sector are collected by Moderniseringsstyrelsen (The Agency for the Modernisation of Public Administration) on a quarterly basis from the whole governmental sector. The information from the local government sector are collected in association with KRL; an actor in the local government sector. The data for the private sectors are collected as a sample of 2600 enterprises in collaboration with the employer unions, Danish Employers' Confederation and Danish Employers' Association of the Financial Sector. The information are registered in the enterprises own earnings and absence systems or a spread sheet.

#### *Earnings data*

The absence periods are matched with the job from which the person has been absent. The data from the earnings statistics are used to create the jobs. For the governmental sector data are collected from the governmental earnings systems. Data are reported monthly for all individual employee. Earnings data for the local government sector are collected in association with KRL. The data for the private sectors are also collected in collaboration with the employer unions, Danish Employers' Confederation and Danish Employers' Association of the Financial Sector. The information are registered in the enterprises own earnings systems.

#### *Other*

The register of People receiving public benefits is used to exclude persons in flexible jobs or light jobs. The register of benefits during sickness or in connection with childbirth is used to exclude chronically sick persons, to create the periods of maternity leave in the central government sector and to validate the periods of absence. .

### **3.2 Frequency of data collection**

Data is collected on a yearly basis.

### **3.3 Data collection**

The data for the governmental sector are collected by Moderniseringsstyrelsen (The Agency for the Modernisation of Public Administration) on a quarterly basis. The information from the local government sector are collected in association with KRL; an actor in the local government sector. The data for the private sectors are collected as a sample of 2600 enterprises in collaboration with the employer unions, Danish Employers' Confederation and Danish Employers' Association of the Financial Sector. The information are registered in the enterprises own earnings and absence system or a spread sheet.

The sample of private enterprises has the following structure:

- All enterprises with 250 or more full-time employee must register information on absence.
- No enterprises with less than 10 full-time employee will be requested to register information on absence.
- For enterprises between 10 and 250 full-time employee the likelihood of being chosen to be in the sample depends on the size (measured in number of full-time employee) and industry.



### **3.4 Data validation**

The submitted data undergoes an error control. In some cases enterprises are contacted in order to clear up questions to the data or to get data resubmitted. The validation causes that some data must be left out in cases where it is not possible to correct the errors.

Typical errors would be that the same absence period is reported twice or several times or that two or more periods overlap. It is especially the longer periods that have these problems. In these cases absence periods are left out so that no overlapping periods occur.

For the private sector a number of absence periods are not correctly reported. The starting date and the ending date of the absence period might be registered wrongly. The absence hours might be reported at one day regardless of how long the period has been. The absence hours might be reported summarized for a month, a quarter or a hole year. The enterprises do in some cases use systems to register absence data that are intended for other purposes than collecting absence data for Statistics Denmark. This causes data with systematic errors. The reported data are if possible corrected but in some cases data from entire enterprises have to be left out. The errors are corrected by for instance deleting the starting date or the ending date of the absence period by recalculating the date using the number of absence hours. In other cases the absence hours are deleted and recalculated according to the length of the period or in cases of errors caused by systems the absence hours are recalculated depending on the errors.

For most of the private enterprises, from an increasing part of the local government sector and from the central government sector where the period of absence is less than one whole day, we receive the actual number of hours of absence. For all other absence periods people are assumed to work 5 days a week. This is a necessary assumption in cases where we only receive registration of absence periods and not hours of absence.

To minimize the burden of registering we reuse the data from the earnings statistics to derive the number of working hours that a person could have been working had he not been absent. These hours of work are called possible hours of work. The possible hours of work are used when the absence rate is calculated. To be able to reuse the earnings data each absence period must be attached to its belonging job. The mach will not be possible if the person who has been absent does not exist in the earnings data or if the absence period does not lie within the duration of the job. Due to this some absence periods has to be excluded.

For the municipality sector the identification variables that are used to attach the absence periods to their belonging job are validated. This is especially necessary in case of changes of organization as for instance the reform of municipalities in 2007 and in cases of changes of systems to register absence data - especially if it happens in the middle of the year.

For the private enterprises it is evaluated whether each enterprise has reported absence for the entire enterprise and for all groups of employees. It is further more evaluated whether the number of jobs that are reported to the statistics of earnings correspond with the number of employees that are reported to the statistics of absence.

### 3.5 Data compilation

The data for the governmental sector are collected by Moderniseringsstyrelsen (The Agency for the Modernisation of Public Administration) and they send the information to Statistics Denmark. The information from the local government sector are collected in association with KRL; (an actor in the local government sector) primarily via the two big registration systems KMD and Silkeborg Data..

The private sector is described by a representative sample of about 2600 firms. The sample is selected from a population of enterprises with 10 or more employees. The sample is drawn proportionally which means that the probability of being a part of the sample rises the bigger the enterprise. The sample of private enterprises has the following structure:

- All firms with 250 or more full-time employee must register information on absence.
- No firms with less than 10 full-time employee will be requested to register information on absence.
- For firms between 10 and 250 full-time employee the likelihood of being chosen to be in the sample depends on the size (measured in number of full-time employee) and industry.

The data in the private sectors are collected in collaboration with the employer unions, Danish Employers' Confederation and Danish Employers' Association of the Financial Sector. The information are registered in the firm's own earnings and absence systems or a spread sheet made by Statistics Denmark.

To minimize the burden of registering we reuse the data form the earnings statistics to derive the number of working hours that a person could have been working had he not been absent. These hours of work are called possible hours of work. The possible hours of work are used to calculate the absence rate and number of absence days per full-time employee. To be able to reuse the earnings data each absence period must be attached to its belonging job. The mach will not be possible if the person who has been absent does not exist in the earnings data or if the absence period does not lie within the duration of the job. Due to this some absence periods has to be dropped.

Holidays, special holidays and care are excluded from the possible days of work. Special holidays and care are reported directly to the statistics of absence. Holidays are calculated on the basis of the duration of the employment. This does not necessarily correspond to the actual vacation taken. The result is that the measures of absence are overestimated for persons who are new on the labour market or who does not take all the vacation that they are entitled to.

When the periods of absence are attached to the belonging job, hours of absence are calculated for the periods where the hours of absence are not reported. The hours of absence are calculated by using the start date and end date of the absence period and by assuming a five days week. The hours of absence are calculated on basis on the degree of employment from the Statistics of earnings.

The absence for the private enterprises is enumerated in two steps. In the first step is enumerated to the population of enterprises that report to the statistics of earnings. For this enumeration a number of background variables for the enterprises and their employees are used. The background variables are gender, region, education, occupation, industry and type of salary-earners which are all variables that have an influence on the level of absence. In the second step the absence is enumerated to the total population of private enterprises with 10 employees and more. The enumeration is based on information on number of full-time employees and industry from the Central Business Register.

### **3.6 Adjustment**

No adjustments are made other than what is already described under 3.4 Data validation and 3.5 Data compilation.

## **4 Relevance**

Absence has both personal and economic consequences that have an impact on both employees, employers and the community. The statistics are of interest for the central government, municipalities and regions, private business enterprises, non-governmental organizations, researchers and news media. The statistics are tools used in estimating and comparing the level of absence within different groups of employees, and can be a foundation on which economic and political decisions are made.

### **4.1 User Needs**

Absence has both personal and economic consequences that have an impact on both employees, employers and the community. The statistics are of interest for the central government, municipalities and regions, private business enterprises, non-governmental organizations, researchers and news media. The statistics are tools used in estimating and comparing the level of absence within different groups of employees, and can be a foundation on which economic and political decisions are made. The statistics of absence can for instance be used for comparing absence within sectors, industries, occupation etc., for monitoring the development of absence and for benchmarking an enterprise in relation to others in the same industry.

The statistics of Absence is published by sectors. In connection with publishing the statistics 2013 according to the new sector definition, the statistics of absence is published for the labour market as a whole. In connection with publishing the statistics 2014 own sickness is published by lengths of period for 2013 and forward.

### **4.2 User Satisfaction**

No survey on user satisfaction is conducted.

### **4.3 Data completeness rate**

Agriculture, forestry and fishing is not included in the statistics of absence for the private sector. Some information are not published due to confidentiality or quality issues.

The statistics is not covered by EU regulations.

## **5 Accuracy and reliability**

The governmental and local government sector in principle include all employed persons. For these sectors there is immeasurable inaccuracy mainly caused by measuring errors.

The private sector is based on a representative sample of about 2600 enterprises. The inaccuracy can be divided into sampling inaccuracy and the immeasurable inaccuracy that derives from measuring errors. The total absence rate for own sickness is determined with a 95 percent confidence interval to vary around +/- 0.05 percent. Sampling errors for divisions on e.g. gender or industry are considerably higher.

### **5.1 Overall accuracy**

The accuracy of the level of detail at which data are published is assessed to be good for the public sector. However, the earliest years, the statistical system and data quality have been improved.

In the private sector the data on absence is calculated on basis of a sample of enterprises of ten or more employees. Especially during the first years we do not expect to receive data on absence from a great number of enterprises. A lot of enterprises have not established a system for registering the periods of absence in time and several have not registered the data correctly. Furthermore registering the data is time-consuming and not necessarily a task of interest for the enterprise itself. Consequently the registration of the periods of absence is not always complete. The first data for the private sector referred to 2006 but due to poor quality the previously published data for 2006 was removed from Statbank Denmark.

Periods of maternity leave in the central government sector are based on data from the register of benefits during sickness or in connection with childbirth, as a great number of the respondents have not reported any periods of maternity leave. Periods created on the basis of payment of benefits are longer but not as numerous. consequently, comparisons between sectors should only be made with caution.

Due to the reform of municipalities in 2007 the connection between the absence period and the corresponding job has caused great problems in 2006, 2007 and 2008. Consequently, comparisons between years should only be made with caution.

Change of systems to register absence data - especially if it happens in the middle of the year - might cause problems with the quality of the reported periods of absence and consequently the results of the units concerned might be uncertain. This has been the case for parts of the local government sector from 2010 and forward.

### **5.2 Sampling error**

The surveys of the governmental and local government sector are supposed to be universal which means that all employees are in principle included. Consequently there is no sampling error.

The private sector is based on a representative sample of about 2600 enterprises. The total absence rate for own sickness is determined with a 95 percent confidence interval to vary around +/- 0.05 percent. Sampling errors for divisions on e.g. gender or industry are considerably higher.

### **5.3 Non-sampling error**

The results of the Statistics of Absence are especially dependent on the fact that both absence and wages are reported for all employees in the enterprises, governmental and municipal institutions etc. Especially concerning the Statistics of Absence it is difficult to establish whether absence is reported for all employees. In order to calculate the different measures of absence the absence periods are matched with the belonging job from the statistics of earnings. It is important that the information on the persons are reported to both statistics and that the identification variables are the same in both statistics.

In cases where the actual hours of absence are not reported people are assumed to work 5 days a week and to be absent the whole day. The hours of absence are calculated on basis on the degree of employment from the Statistics of earnings. The actual hours of absence are not reported for the governmental sector when it comes to periods that last a whole day. Up till 2017 hours of absence are not reported for certain municipalities and regions and for the private sector this is the case for defective periods of absence.

### **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 accuracy of the level of detail at which data are published is assessed to be good for the public sector. However, the earliest years, the statistical system and data quality have been improved.

In the private sector the data on absence is calculated on basis of a sample of enterprises. Especially during the first years we do not expect to receive data on absence from a great number of enterprises. A lot of enterprises have not established a system for registering the periods of absence in time and several have not registered the data correctly. Furthermore registering the data is time-consuming and not necessarily a task of interest for the enterprise itself. Consequently the registration of the periods of absence is not always complete. The first data for the private sector referred to 2006 but due to poor quality the previously published data for 2006 was removed from the Statbank Denmark.

Periods of maternity leave in the central government sector are based on data from the register of benefits during sickness or in connection with childbirth, as a great number of the respondents have not reported any periods of maternity leave. Periods created on the basis of payment of benefits are longer but not as numerous. consequently, comparisons between sectors should only be made with caution.

Due to the reform of municipalities in 2007 the connection between the absence period and the corresponding job has caused great problems in 2006, 2007 and 2008. Consequently, comparisons between years should only be made with caution.

Change of systems to register absence data - especially if it happens in the middle of the year - might cause problems with the quality of the reported periods of absence and consequently the results of the units concerned might be uncertain. This has been the case for parts of the local government sector from 2010 and forward.

## 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

The statistics of absence refers to the whole year to which the absence periods belongs The statistics is published on a yearly basis at the end of October following the reference period. The information is published without delay compared to schedule.

### 6.1 Timeliness and time lag - final results

The statistics on absence is published on a yearly basis at the end of October following the reference period. Only final figures are published.

## 6.2 Punctuality

These statistics are published without delay, with reference to the announced time of publication in the release calendar.

## 7 Comparability

The statistics of absence for the central governmental sector covers the year 2003 and forward, while the first data for the local governmental sector was published for the year 2005. The statistics for the private sector covers the period from 2007 and forward. From 2010 the municipality sector and the regional sector are published separately. Before 2010 the two sectors were only published together.

The method and quality of data have continuously been improved especially the first years of the statistics. Comparisons between sectors and years (especially the earliest published data) should only be made with reservations.

### 7.1 Comparability - geographical

No comparable results from other countries are available. Though, some countries have statistics on absence which are based on other sources. This could be information from The Labour force survey or information on sickness benefits.

### 7.2 Comparability over time

The statistics on absence reflects the structure of absence which means that the statistics reflects the level of absence for different groups of employees at a certain period of time - in this case on a yearly basis. The statistics doesn't take structural changes into account - changes that might have happened within groups of employees between two years. New enterprises are established, old enterprises close down while some enterprises change their primary activity. Furthermore, within the enterprises some significant changes of the staff might have taken place, for instance dismissals or changes in the characteristics of the employees. These so called structural changes between two years are some of the terms of structural statistics in general and specific of the statistics of absence. Comparisons between years should fundamentally only be made with reservations.

Furthermore the quality of the data from enterprises, municipalities, governmental institutions etc. are expected to improve over time. An increase in absence from one year to another might to some extent be caused by improved registrations of absence. Comparisons between years concerning the earliest years should in general be made with caution.

*Reallocations of occupation codes:* In general, larger or smaller displacements within occupation groups may occur when enterprises and public institutions change the occupation of their employees in the registration.

*Defective registrations from The National Church:* The first of January 2018 The National Church changed earnings system and system for registering absence. This has had the impact that the registrations of absence for 2017 have been defective. Consequently, only a smaller part of The National Church is included in the statistics of 2017. This will have an impact on the industries and occupations of which the employees of The National Church are a part. This concerns the governmental sector and especially the industry 'Activities of membership organizations' and the occupation '2636 Religious professionals'. In 2018 registrations are gradually improved which is reflected in the industries and occupations of which the employees are a part.

*Changes in maternity leave in the general government sector:* Periods of maternity and adoption leave in the general government sector are based on data from the register of benefits during sickness or in connection with childbirth, as a number of the respondents have not reported any periods of maternity leave. In 2017 the system for administrating the benefits in connection with childbirth was changed. Final data were not received before the publication of the statistics of absence 2017, which means that the published data concerning maternity and adoption leave for 2017 are uncertain. It is for instance uncertain whether the definition of maternity and adoption leave is comparable to previous years.

The new data includes a variable that states the extent of the absence compared to 37 hours. This makes it possible to calculate the number of hours of absence more precisely and has the impact that it is now possible to include part time maternity and adoption leave. The use of the new data has especially for men caused an increase in paternity and adoption leave. In 2018 the system for delivering the data is not yet completed which means that the published data are still uncertain.

*Changes in the classification of education:* Between 2016 and 2017 there have been changes in the education nomenclature. These changes mainly concern the sector Government including social security funds. The main change is associated with one specific education group which was previously placed in Medium-cycle higher education. In 2017 this education group is instead placed in Short-cycle higher education.

*Automatic data validation and feedback to corporations and organizations:* In 2017 automatic and manual feedback concerning the statistics of earnings has contributed to an increase in the number of fulltime employees in the sector corporations and organizations. This has the impact that more enterprises can be included in the statistics of absence.

*Reallocation of certain local units between sectors:* In 2017 further privatization of some parts of the sector general government has led to reallocations with regards to some occupation groups and industries. This means that some units that previously belonged to the sector general government now belongs to the sector corporations and organizations.

*Reallocations of certain occupation codes:* Automatic and manual feedback has entailed an improved quality with regards to occupation codes, which has brought about a few changes within some occupation codes in the sector corporations and organizations in 2017.

During 2016 the sector of enterprises and institutions has been evaluated thoroughly. This has caused a change in some enterprises and institutions sector compared to previous years.

The municipality of Copenhagen has in 2016 changed their pay roll system and system for registering absence which means that comparisons between 2016 and previous year should be made with caution. When systems are changed, periods of absence might be registered twice or with different dates in the two systems. These periods have been deleted when possible. Furthermore, in the old system half of the periods of absence were registered without the actual hours of absence and the hours were calculated assuming that a full-time employee works five days a week and 7,4 hours a day. In the new system only a small part of the periods of absence are registered without hours of absence. In the data for 2016 a part of the periods of absence have more than 7,4 hours of absence a day. The calculate hours of absence for the previous years might consequently be underestimated.

*New classification of education:* In 2015 the Denmark Statistics' education statistics started using a new classification of education called DISCED-15, which replaced the previous, DUN and Forspalte1. This causes a break in the time series, thus the series FRA021 is discontinued. The new series for earning by highest level of education is called FRA021A, from where tables for 2015 and beyond may be extracted. DISCED-15 is the Danish version of the ISCED 2011 classification, which was developed by UNESCO in consultation with relevant international organizations and partners, such as Eurostat and the Organisation for Economic Cooperation and Development (OECD). The



ISCED-classification is meant to contribute to the production of even more reliable and comparable international statistics on education, reflecting the ongoing evolution of education systems worldwide. For more information see <https://www.dst.dk/da/Statistik/dokumentation/Nomenklaturer/ny-uddannelsesklassifikation-DISCED-15>

*Displacements of certain occupation groups:* In 2014 the wage and salary administrations for the municipal- and regional sector were able to report occupation codes for their employees. Previously the wage specification of employee was used to decide the occupation codes. This has caused displacements within a few occupation groups in the municipal- and regional sector from 2014. These displacements still occur in 2018. This is also an issue for the governmental sector where displacements within some occupation groups have occurred in recent years.

*Changed sector definition from 2013:* This publication presents the Statistics of Absence for the first time according to the new European national accounting manual ESA2010. The naming of sectors has changed from Private sector to Corporations and organizations, from governmental-, the municipality- and the regional sector to Government including social security funds. In addition to the changed naming the substantial definitions of the sectors are changed. (See News from Statistics Denmark 2014 no. 270[[www.dst.dk/nytudg/18045](http://www.dst.dk/nytudg/18045)] and News from Statistics Denmark 2014 nr. 321[[www.dst.dk/pukora/epub/Nyt/2014/NR321.pdf](http://www.dst.dk/pukora/epub/Nyt/2014/NR321.pdf)]. Publications according to the new sector definition are not comparable to previous publications according to the old sector definition.

*Changes in the education nomenclature* Between 2013 and 2014, there are many changes in education nomenclature. This gives some differences between some education groups in 2014. The changes concern all sectors.

*Central government sector 2013* Periods of maternity and adoption leave in the central government sector are based on data from the register of benefits during sickness or in connection with childbirth, as a number of the respondents have not reported any periods of maternity leave. In connection with moving the administration of benefits concerning childbirth from the municipalities in December 2012 some registrations concerning childbirth have not been correct. The published maternity leave for the central government sector for 2013 is consequently based on data where some of the periods have not been correct. The published maternity leave for 2013 is estimated to be underestimated. This is probably especially the case for the women's maternity leave.

*Municipalities 2013:* Due to the lockout of certain groups of teachers in spring 2013, the quality of the monthly earnings data is not satisfactory for these groups. Statistics Denmark has tried to identify the jobs that have been affected by the lockout. The weeks that the lockout occurred are excluded from data for the identified jobs.

*Changes in the DISCO-nomenclature, 2010:* Up to and including 2009 the grouping by occupation is based on the variable DISCO-løn. From 2010 the new variable, DISCO-o8, is used instead. DISCO-o8 is a revised version of DISCO-løn. There is no unique translation between DISCO-løn and DISCO-o8. For this reason earnings by occupation is not comparable between 2010 and previous years.

Since 2005 data for the central government sector include absence of less than whole days, unlike the previous years. Consequently, the real change from 2004 to 2005 is considerably lower than the numbers indicate.

Data on absence in The City of Copenhagen municipality in 2005 are not as reliable, as it has been difficult to match reports on absence with employment data.

From 2006 the method of linking periods of absence has been improved concerning holidays. This has an influence on the number and length of the periods of absence.

In connection with the reform of municipalities upper secondary schools were in 2007 transferred from the municipal sector to the governmental sector. Furthermore, due to the reform of the municipalities the match between the absence periods and their belonging job has caused great problems. Consequently, comparisons between years should only be made with caution. In 2008 it has been especially difficult to attach absence periods to its belonging jobs in the health sector.

Change of systems to register absence data - especially if it happens in the middle of the year - might cause problems with the quality of the reported periods of absence and consequently the results of the units concerned might be uncertain. This has been the case for parts of the local government sector from 2010 and forward.

Due to a strike within some municipal areas in the spring of 2008, the quality of the monthly data reports on earnings is not satisfactory for some groups of employees. This might have an impact on the number of absence periods that it has been possible to connect to the belonging job.

### **7.3 Coherence - cross domain**

KRL, an actor in the municipal sector, publishes a statistic on absence for the municipality and the regional sector based on the same data that the statistics from Statistics Denmark is based on. However, the methods and definitions differs and consequently the results of the two statistics are not comparable.

Moderniseringsstyrelsen (The Agency for the Modernisation of Public Administration) publishes statistics on absence for the central government sector based on the same data. Due to differences in methods, results of the two statistics are not comparable.

Danish Employers' Confederation (DA) and Danish Employers' Association of the Financial Sector (FA) publish statistics on absence for their members. The data submitted to these two organizations are the basis for the statistics of absence together with the absence data submitted to Statistics Denmark.

### **7.4 Coherence - internal**

Different systems are used for registering absence. This is the case between the different sectors but also within individual sectors. In the private sectors enterprises have for instance the possibility to use a wide variety of systems. This means that the absence is not necessarily registered consistently. There are, however, prepared similar guidelines for registration of absence for all sectors in order to ensure a consistent registration as possible.

## **8 Accessibility and clarity**

The latest results are published once a year in a Danish press release, at the same time as tables are updated in the StatBank. In the StatBank, these statistics can be found under the subject [Absence](#) Selected tables were published in [Statistical Yearbook] (<https://www.dst.dk/en/Statistik/Publikationer.aspx>) which has not been published since 2017. It is possible to buy more detailed results and to get access to micro-data through Statistics Denmark's Research services. for further information, go to the [subject page](#).

### **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**

These statistics are published once a year in a Danish press release.

## **8.5 Publications**

Selected tables were published in [Statistical Yearbook](#) which has not been published since 2017.

## 8.6 On-line database

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

- [FRA020](#): Absence by sector, sex, cause of absence, occupation, indicator of absence and time
- [FRA021A](#): Absence by sector, sex, cause of absence, education, indicator of absence and time
- [FRA022](#): Absence by sector, sex, cause of absence, industry, indicator of absence and time
- [FRA023](#): Absence by sector, sex, cause of absence, region, indicator of absence and time
- [FRA024](#): Absence by sector, sex, cause of absence, age, indicator of absence and time
- [FRA025](#): Absence in governmental sector by region, sex, cause of absence, industry (DB07), indicator of absence and time
- [FRA026](#): Absence in the governmental sector by region, sex, cause of absence, occupation, indicator of absence and time
- [FRA027](#): Absence in the municipality sector by region, sex, cause of absence, occupation, indicator of absence and time
- [FRA028](#): Absence in the regional sector by region, sex, cause of absence, occupation, indicator of absence and time
- [FRA029](#): Absence in the private sector by industry (DB07), occupation, sex, size class, indicator of absence, cause of absence and time
- [FRA030](#): Absence in the private sector by occupation, sex, indicator of absence, cause of absence and time
- [FRA031](#): Absence due to own sickness by sector, sex, indicator of absence, Lengths of period and time

The following tables are published in the StatBank under the subject [Gender equality](#):

- [LIGEF18](#): Gender equality indicator on absence days at childrens sickness (average) by indicator, sector, income and time
- [LIGEF19](#): Gender equality indicator on absence days at childrens sickness (average) by indicator, sector, industry and time
- [LIGEH18](#): Gender equality indicator on absence days at own sickness (average) by indicator, sector, occupation, age and time
- [LIGEH19](#): Gender equality indicator on absence days at own sickness (average) by indicator, sector, occupation, family type and time

## 8.7 Micro-data access

Researchers and other analysts from authorized research institutions can be granted access to the underlying micro-data by contacting [Research Services](#). The information is stored on the single absence period together with information on the employees jobs. Identification number of the employees and the enterprises are anonymized.

## 8.8 Other

Not relevant for these statistics.

## 8.9 Confidentiality - policy

The [Data Confidentiality Policy](#) at Statistics Denmark.

## **8.10 Confidentiality - data treatment**

In the compilation of the statistics of absence the confidentiality policy of Statistics Denmark is followed. Further more results that cover less than 50 employees are not published as the results are considered to be less accurate. For the private sector results that cover less than 50 employees either before or after enumeration are not published. Where the level of detail is high many results will be left out due to confidentiality or quality issues.

## **8.11 Documentation on methodology**

No further information are available for these statistics.

## **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 statistics is in the division of Personal Finances and Welfare. The persons responsible are:

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