**STATISTICS DENMARK**

# Documentation of statistics for
# Benefits During Sickness or in Connection with Childbirth 2019

# 1 Introduction

The purpose of Benefits in connection with sickness and childbirth is to illustrate the use of the law on sickness respectively maternity law. The statistics have been compiled since 1995, but in its present form comparable from 2003. From the year 2017, the statistics contain only information about sickness benefits because Udbetaling Danmark has taken a new administrative IT system for maternity allowance in use. Maternity benefits will be an independent statistics from 2020.

# 2 Statistical presentation

The sickness and maternity allowance is an annual statement of the number of persons, days and amounts paid in connection with illness or childbirth. From the year 2017 only information for unemployment benefit paid in connection with illness. The calculations are distributed according to the legal basis for the payment of unemployment benefits, age, sex and geography. In addition, figures from the daily allowance for sickness and birth are included in the statistics, Publicly Provided, where the extent of absence due to illness or maternity leave is included in a larger context.

## 2.1 Data description

The statistics include absence due to sickness or maternity leave where there is a payment from the government. This means that persons who are not entitled to receive sickness benefits, for example, because of the employer's obligation to pay the first 30 days of absence (the employer period) are not included in the statistics, unless the absence is longer than 30 days, or the employer has insurance or other agreement with the government, which allows payment of benefits from the first day of absence. The statistics showdown year on year growth in the number of people over the years have received unemployment benefits because of illness, respectively, has been on maternity leave with payment of benefits. Furthermore showdown statistics, the annual cost of sickness benefits in current prices and for how many days in total have been paid benefits, as well as the legal basis for the payment. For maternity calculated additionally the number of weeks of maternity leave after the birth, respectively the father and mother.

## 2.2 Classification system

The statistics use the following groupings

Sex Age: The five-year intervals Unemployment benefits Type: Grouping on the basis of legal provisions Duration: Weeks

Socio-economic status: Grouping by social criteria follows Statistics Denmark Socioeconomic classification. Socio-economic status is documented (in danish) in Statistics Evidence based labor force statistics

Industry: Grouping by industry follows the Danish sector nomenclature DB07. A description (in danish) can be found at Danish Industrial Classifications

## 2.3 Sector coverage

Payment of allowances due to illness or maternity normally has as condition that the person has association with the labor market. Which allowed except for the graduates and the unemployed, requires hiring as an employee or self-employment. The statistics can be calculated for all the sectors appearing in [The Register-based Labour Market Statistics](#).

## 2.4 Statistical concepts and definitions

Employer period: The first 30 days of absence due to sickness the law force the employer to pay either normal salary or sickness benefits. After 30 days the local authority takes over the payment of sickness benefits.

Leave due to childbirth: Leave due to childbirth

Entitled to benefits in connection with childbirth: Pursuant to the law a wage earner is entitled to receive benefits in connection with childbirth from the local authorities if the person concerned has been employed for at least 3 months and at least 120 hours just before childbirth or would have been entitled to receive unemployment benefits.

The statistics put a person to be eligible for maternity benefits if the person is either receiving benefits as a result of pregnancy or childbirth, or in the calendar year of the child's birth earn so much money that the amount would justify a daily allowance of at least 80 per cent. of the maximal amount of benefits. Self set to be entitled to unemployment benefits if the income prior to the birth year of the child would be eligible to receive unemployment benefits of at least 80 per cent. of the maximal amount of benefits.

Marital status: Information whether the person is single, married or living together.

Unifying: The process of removing part of or entire reports if two or more reports have time periods in common.

Business income: A self-employed persons income from his business as it appears from the annual accounts.

Parental leave: 14 weeks after the birth of the child the parents have the right to share a leave lasting up to 32 weeks - Also called common leave.

Full-time persons: The sum of whole, halves and one fourth of a day spend on sickness leave or childbirth leave within a given period of time divided by the length of the period.

Common leave: 14 weeks after the birth of the child the parents have the right to share a leave lasting up to 32 weeks - Also called parental leave.

Pregnancy leave: The mother is entitled to a leave the last four weeks before the due date.

Report: Set of values for the variables making up the register.

Overlap treatment: The combined process of unifying and compounding.

Case (total country): A unique combination of the variables civil registration number, employer number, kind of case, kind of case termination and date of first absence. This definition has however proved less suitable as the statistical unit, because the same sick leave can be terminated and restarted several times, resulting in more cases of the same sick leave and hence difficulties in expounding counts of number and duration. Statistics Denmark is working to develop concepts of absence which are independent of administrative rules and practices.

Case (municipality): A unique combination of the variables civil registration number, municipality, employer number, kind of case, kind of case termination and date of first absence. This definition has however proved less suitable as the statistical unit, because the same sick leave can be terminated and restarted several times, resulting in more cases of the same sick leave and hence difficulties in expounding counts of number and duration. Statistics Denmark is working to develop concepts of absence which are independent of administrative rules and practices.

Sagsart: A number identifying the legal authority for the payment of money to the citizen.

Compounding: The process of combining two reports if the last day of the first is the day before the first day of the second.

Sick courses of the year of a duration longer than 30 days: A sick course of the year is counted to be over 30 days, if the first day of absence lies in the time interval 2 December last year to 1 December that year, and there either is an employer period, while the number of sick days is greater than zero, or there is no employer period, but the sum of sick days for the same absence course is greater than 30.

## 2.5 Statistical unit

The statistics are published on the units number of people (affected), amounts in thousands of DK kr., weeks and cases in which a case is an administrative concept that is under replacement. One can think of a case as a start to a reported sickness absence process where the same sick leave cycle would be reported several times, in case there are several employers.

## 2.6 Statistical population

All individuals who have received benefits as compensation for lost income due to sickness or childbirth during a calendar year

## 2.7 Reference area

Individuals who are entitled to receive benefits according to Danish law or The EU-treaty.

## 2.8 Time coverage

The statistics cover the period from 1995 until the current year. Due to data break in practice only the period 2003 - until current.

## 2.9 Base period

Not relevant for these statistics.

## 2.10 Unit of measure

Units of measurement are amount in million Danish kroner, days or weeks in thousands, number of persons and number of events.

## 2.11 Reference period

The calendar year in which the payments are effected or the days of leave are taken.

## 2.12 Frequency of dissemination

Annual. However, data from 'Benefits in connection with sickness and childbirth etc.' is published quarterly in connection with the the statistic 'Persons receiving public benefits'.

## 2.13 Legal acts and other agreements

The Act on Statistics Denmark §6 (Lov om Danmarks Statistik § 6, LBK nr. 610 May the 30th 2018).

## 2.14 Cost and burden

Only the It-suppliers of the responsible authorities have a burden because the data is collected from administrative registers.

## 2.15 Comment

More information is available at the following two links:

- Sickness benefits
- Maternity benefits

# 3 Statistical processing

Data comes from the two administrative registers The Administrative Joint-municipal Register for Sickness Benefits and the National Administrative Register for Childbirth Benefits (ended May 2017). When received there are some mechanical monitoring and doublets are removed. When estimating the duration of a case not having a finale date the final date is set to the last day of the year if the case is about sickness benefits. If the case is about childbirth benefits the final date is estimated as the starting date plus the average length measured in days of similar cases having a finale date.

## 3.1 Source data

Data comes from the two administrative registers mentioned below:

- Sickness benefits: The Administrative Joint-municipal Register for Sickness Benefits of the Data Centre KMD.
- Parental leave benefits: The National Administrative Register for Childbirth Benefits of the Data Centre KMD until May 2017.

The published data of benefits is combined with data from the following registers:

- The register-based labour force statistics (RAS), Statistics Denmark.
- The register of employees (BFL), Statistics Denmark.

## 3.2 Frequency of data collection

Data is collected quarterly. In addition the month of January and the first two weeks of February are collected with the purpose to include delayed reports from the previous year. The statistics are published yearly but the quarterly data is used by other statistics.

## 3.3 Data collection

Electronic transfer of administrative data.

## 3.4 Data validation

### Data inspection

- Data is checked for anomalous volume.
- It is checked, that all municipalities are represented.

### Deletion

Reports are deleted in occurrences of:

- Invalid civil registration number or contains other errors like. that it is the child's civil registration number number instead of their parents.
- Authorities have used the child's civil registration number instead of the parents civil registration number.
- Invalid code for the case or the closure
- Missing starting and ending dates.

Reports are audited when:

- There is a contradiction between the length of the period of time and the legality.
- There is a contradiction between the legality and the order of two or more cases.
- A date is missing and this date can be estimated.
- The civil registration number of a child is missing and can be found from the civil registration numbers of the parents as a key.

## 3.5 Data compilation

Some reports relate to absence which has taken place in another calendar year than the year of payment. In such cases the days are counted under the natural calendar year, and the money in the year of reporting.

## 3.6 Adjustment

Cases are audited when:

- There is a contradiction between the length of the case and the legality.
- There is a contradiction between the legality and the order of two or more cases.
- A date is missing and this date can be estimated.
- The civil registration number of a child is missing and can be found from the civil registration numbers of the parents as a key.

## 4 Relevance

The maternity and paternity leave part of the statistic is used by ministries for reasons of gender equality policy and of the unions and the employers' organizations in connection with collective bargaining. The sickness benefit part of the statistic is together with the maternity and paternity leave part section mostly used as an important data element of Analyses of the Danish workforce productivity (economic modeling), Statistics Labour Market Accounts, Statistics Persons receiving public benefits and general absence statistics.

### 4.1 User Needs

The statistics are used for planning, research and political discussions for example the split of parental leave into the fathers leave and the mothers leave from an equality point of view. Some users would like to have parental leave published at a local level. Furthermore there is a demand of revealing why people do not take parental leave as they are supposed to do.

### 4.2 User Satisfaction

The statistics are used in the political debate and at collective bargaining. At times the statistics have caused headlines. There has not been any criticism on account of that. The dissatisfaction there might be is more of the type that the statistics should be able to present information not actually presented. Concerning sickness leave the increase of the period of absence due to sickness paid by the employer from 15 day to 30 days has reduced the ability of the register to be used for analyses of total sickness in Denmark.

### 4.3 Data completeness rate

Not relevant for these statistics.

## 5 Accuracy and reliability

The statistics summarize the reports of illness, birth or adoption that have triggered the payment of unemployment benefit. The expectation is that all sickness benefit issues with payment will be reported. Similarly, the expectation is that all cases of payment due to maternity leave, maternity leave or leave due to adoption are reported. Therefore, the statistics can be expected to be reliable. However, there are a number of cases that will only be reported long after the end of the year to which the case relates, why the last year is not fully updated.

### 5.1 Overall accuracy

There are no sampling errors as the statistics are a census of administrative records. There may rarely occur malfunction in the sense that not all the alerts on the data delivery time is in the supplying IT system is actually sent to Statistics Denmark. It is not always possible to detect such errors. The magnitude of such errors can not be quantified. In addition, at the time of calculation there are always some unfinished process, whose contribution to the total number of per diem days depends on how the end time is calculated by the count. For disease it is about 3-4 per cent and for maternity 15-18 per cent of all reports.

## 5.2 Sampling error

Not relevant for these statistics.

## 5.3 Non-sampling error

A statistic that has an administrative data source is dependent on

1. The practice that has arisen in connection with the building of the administrative organization and culture together with the attached IT system.
2. The programs and the business logic the data supplier provides.

Examples of uncertainties related to 1). - Reports come in very late compared to the time period the reports cover. - The meaning of negative amounts. In the case of reverse entries, a negative number is always a corresponding positive number, or is it for reimbursement of benefits paid in error?

- The number of reports of pregnancy sickness is low compared with the number of reports of brief periods of pregnancy leave early pregnancy.
- The frequency with which different fields of responsibility occur is changed in connection with administrative changes.

Examples of uncertainties related to 2). - One year to date data delivery can be wrong initiated, so it still is not all reports that are delivered to Statistics Denmark.

But how much such uncertain called means for the overall results is difficult to quantify.

## 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 statistics adds up the reports on sickness, childbirth or adoption which have released deposits of benefits. There can not be paid any benefits without there being a record in either the municipal public administrative system or a record in Payment Denmark's maternity system. The coverage is in this sense 100 per cent. When the individual annual statements can still be tainted with a bit of uncertainty, it is because not all reports for the year has come into the administrative systems when the statistics are published in March. From a user perspective it is probably more crucial to be aware that if the statistics are used to show the extent of disease, respectively, maternity, especially for maternity case, to clarify the division between men and women, then there is information that is not reported. For disease is, unless the citizen is chronically ill or working at an insured employer, the employer's obligation to pay the first 30 days of sick leave. Progress of disease shorter than 30 days never reaches the register that is the basis of sickness statistics. One can not exclude that some illness with a relatively small excess of the limit of 30 days does not reach the register either. If an employer do not wants the trouble in a busy day having to apply for a refund for a few days in view of that he may already have paid full salary for a sick employee in a month. When it comes to maternity leave 20 percent of new mothers do not keep leave on maternity leave benefits. Either because these women do not want to take the leave or more likely because they are not entitled to maternity leave benefits. The corresponding figure for men is 35 per cent. The difference of 15 percentage points between men and women may be because the men are less entitled to leave on benefits or just do not want to take parental leave. But the bottom line is that the statistics utility is adversely affected by the fact that most illness in under 30 days are not reported, and the leave plan at zero days (e.g. The father could have kept maternity leave, but did not do) is not reported.

## 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

There are some delays in the reporting of absence because of birth or illness. For this reason, published annual statistics early March so that Statistics Denmark can manage to get some of the backlog of reports covering a yearly mileage. The past year is recalculated half a year after the first publication and again one year after the first publication, after which the figures are considered final.

## 6 Timeliness and punctuality

The statistics are published annually in the month of March the year after the reference year. March is chosen as the compromise of current interest and waiting for the last reports of the year to appear. At publishing time the newest data will be less than three months old.

## 6.1 Timeliness and time lag - final results

The statistics is published annually in the month of March. March is chosen as the compromise of current interest and waiting for the last reports of the year to appear. At the same time the last year is recalculated.

### 6.2 Punctuality

The statistics are usually published without delay in relation to the scheduled date.

## 7 Comparability

The statistics is influenced by local Danish law. The law of parental leave is unchanged since 2002 and it is possible to compare the figures back to 2003. Concerning sick leave there has been several adjustment making it more difficult to compare over time.

### 7.1 Comparability - geographical

The statistics are influenced by local Danish law and because of that, it is difficult to compare with statistics from other countries.

### 7.2 Comparability over time

Summary of major changes

- Year 2000: Public employees are included
- Year 2000: Paternity leave is increased with two weeks
- Year 2002: Total maternity and paternity leave from 26 weeks to 46 weeks
- Year 2007: 2nd of April: Employers period increased form 14 to 15 days, which means fewer days of sickness benefit.
- Year 2008: 2nd of June: Employers period increased form 15 to 21 days, which means fewer days of sickness benefit.
- Year 2012: 2nd of January: Employers period increased form 21 to 30 days, which means fewer days of sickness benefit.
- Year 2014: A new sickness benefit reform will enter into force in the summer of 2014. The processing of especially long-term sick leave changes.

# - Year 2015, 1 May: Unemployed receive unemployment benefits during the first 2 weeks of sickness instead of sickness benefits.

### 7.3 Coherence - cross domain

The Ministry of Employment publishes on Jobindsats on a monthly basis the number of beneficiaries of sickness benefits. The ministry's method of calculation, however, does not coincide with Statistics Denmark. In addition, both sickness and maternity benefits days are included in a larger context in the statistics Persons receiving public benefits. In these statistics, however, days on sickness benefits or maternity benefits are down-prioritized in cases where there is conflicting information, so the numbers will rarely be the same as in the primary statistics.

## 7.4 Coherence - internal

Data is consistent.

# 8 Accessibility and clarity

In Statistics Bank Denmark the statistics are published s in the tables under the subject Sickness benefits and Maternity benefits In addition, the statistics include the Statistical Ten Year Overview.

## 8.1 Release calendar

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

## 8.3 User access

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

## 8.2 Release calendar access

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

## 8.4 News release

No "Nyt" is published for these Statistics

## 8.5 Publications

There are no publications in English.

## 8.6 On-line database

The statistics are published in StatBank Denmark under the subject Living conditions - Persons receiving public benefits - Sickness benefits and Living conditions - Persons receiving public benefits - Maternity benefits in the following tables:

- SOCDAG00: Sickness and maternity benefits, all cases by region, movement, sex, age, type of benefit and time
- SOCDAG1: Sickness and maternity benefits by type of benefit, movement, age, sex and time.

Illness only: - SOCDAG2: Share of employed with longer time illness by industry, socioeconomic status, employment, sex and time.

Maternity leave only: - SOCDAG10: Total leave after birth - all parents by parental leave weeks, average amount of days per child and time. - BARSEL01: Parental leave after birth by unit, benefit rights, leave, educational combination, region and time. - BARSEL02: Parental leave, cohabitants, after birth by unit, benefit rights, leave, educational combination, region and time. - BARSEL03: Parental leave, non cohabitants, after birth by unit, benefit rights, existence, educational combination, region and time.

### 8.7 Micro-data access

Researchers and other analysts from authorized research institutions can access statistics Micro-data through Statistics Denmark Research Services

### 8.8 Other

The register for sickness and childbirth benefits provides data for The Statistics People Receiving Public Benefits, The Law Model, Absence and The Labour Market Account. In addition the register is used for custom-made analyses at ad hoc basis.

### 8.9 Confidentiality - policy

The statistics respect Statistics Denmark's general policy for protection of personal data.

### 8.10 Confidentiality - data treatment

Statistics Denmark policy of confidence is respected. By publishing cells containing fewer persons than three are omitted.

### 8.11 Documentation on methodology

The basis and content for the statistics is described in this statistical documentation.

### 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 Labour Market. The person responsible is Torben Lundsvig, tel. +45 39 17 34 21, e-mail: tlu@dst.dk

### 9.1 Contact organisation

Statistics Denmark

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