

## **Documentation of statistics for Parental leave benefits 2024**

## 1 Introduction

The statistics Parental leave benefits in connection with childbirth shed light on the use of the Maternity Act, including equality between mothers and fathers. The statistics have been compiled since 1995, but in 2017 changed data source. Since 2017, data from ATP / Udbetaling Danmark's IT system for the administration of payment of parental benefits in connection with birth, adoption, child illness etc.

## 2 Statistical presentation

Childbirth allowance annually calculate a parent's year's use of the rights the Maternity Act gives them, and the distribution of parental leave between the father and mother, as well as the number of persons, and days on benefits. Furthermore, the statistics provide the data basis for calculating amounts paid out in connection with childbirth.

### 2.1 Data description

The statistics include absence due maternity leave where there is a payment from the government. This means that persons who are not entitled to receive benefits are not included in the statistics.

In order to be able to provide an overview of the use of the maternity leave for an entire year (birth year parents), the statistics have been extended with an extract from the Statistics Denmark's population register consisting of, year by year, the parents who gave birth to the child in the specified year.

**Parental leave benefits entitled by the law** According to the law, an employee is entitled to maternity benefits if he/she has been continuously attached to the labour market for the last 13 weeks before the beginning of the period of absence and has been employed for at least 120 hours during this period, or if he/she would be entitled to unemployment benefits.

**Parental leave benefit eligible in these statistics** For the purposes of the statistics, a person is considered to be entitled to maternity benefits if he or she is either in receipt of unemployment benefits as a result of pregnancy or maternity or, in the calendar year in which the child is born, earns enough money to qualify for unemployment benefits of at least 80 pct. of the maximum unemployment benefit, or if other circumstances prior to the birth would qualify him or her to receive unemployment benefits at an equivalent level.

### 2.2 Classification system

The statistics use the following groupings:

- Role in relation to the child (father or mother)
- Entitled to parental benefits (yes or no)
- Cohabitant (yes or no)
- Parents highest completed education at the time of birth
- [Province](#) at the time of birth
- The father's industry ([Dansk Branchekode 2007](#)) at the time of birth
- The mother's industry ([Dansk Branchekode 2007](#)) at the time of birth
- Sector for parents' workplace at the time of birth (public or private)
- [Socio Economic Classification](#)

## 2.3 Sector coverage

Payment of allowances due to maternity 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 Force Statistics](#).

## 2.4 Statistical concepts and definitions

Parental leave: Leave with parental benefits taken in connection with childbirth or adoption.

Earmarked maternity leave: Leave related to childbirth or adoption, where the entitlement to weeks with parental benefits is, as a general rule, non-transferable to the other parent.

Cohabiting parents: Parents of a common child and living at the same address

Parent volume: A parent volume for a given year consists of the parents who have a common child born in the year, and where the child is either born in Denmark or immigrated to Denmark within 14 weeks of birth. A parent couple can consist of a man and a woman, two women, two men or a single person, if the mother, for example, has had a child through an anonymous donor, or one of the parents has died.

## 2.5 Statistical unit

The statistics are observed at the units:

**Parent couple\*** A parent couple will often be the child's biological parents, but may also consist of persons of the same sex, and in cases where there is no registration of the father or of the mother, of a single person. A parent couple who have twins only counts once. A parent couple does not have to be cohabiting.

### Persons

If the property that defines the count (e.g. industry) is person-related and not a property of the parents as a couple, father and mother are counted independently.

### Parental benefit

The central unit of counting is the amount paid. Amounts paid to the citizen or to an employer as compensation for wages paid are converted into hours of absence using information on monthly earnings, working hours and the applicable maximum value for unemployment benefits. Reported hours are used, if available, to check that the conversion from kroner to hours is correct. Only in the case of a refusal to pay unemployment benefits, the reported hours are included as hours of absence.

## **2.6 Statistical population**

For tables that are to illustrate the current costs of operating the Maternity Benefit Act, the population is the citizens who themselves or whose employer has received benefits under the Maternity Act.

For tables that are to illustrate the population's use of the rights granted to them by the Maternity Benefit Act the population is a parent year group, which for a given year consists of the parents who have a joint child born in the year, and where the child was either born in Denmark or immigrated to Denmark no later than 14 weeks after birth. A parent couple can consist of a man and a woman, two women, two men or a single person, if the mother, for example, has had a child through an anonymous donor, or one of the parents has died.

## **2.7 Reference area**

Denmark

## **2.8 Time coverage**

The statistics cover the years from 2015 onwards. However, the year 2015 is somewhat under updated for the 1st quarter of 2015 and partly also the 2nd quarter of 2015.

## **2.9 Base period**

Not relevant for these statistics.

## 2.10 Unit of measure

The statistics are published on the units:

### **Parent couple**

A parent couple will often be the child's biological parents, but may also consist of persons of the same sex, and in cases where there is no registration of the father or of the mother, of a single person. A parent couple who have twins only counts once. A parent couple does not have to be cohabiting.

### **Persons**

If the property that defines the count (e.g. industry) is person-related and not a property of the parents as a couple, father and mother are counted independently.

### **Days of leave**

An attempt has been made to define a day of maternity leave in a way that fits the popular perception of being on maternity leave. For example, a part-time mum who has been away from work for 40 weeks on maternity leave counts 280 days. The same is true for a full-time working mum who has been on maternity leave for the same amount of time, i.e. 40 weeks. A full-time mother who has partially resumed work will, all other things being equal, count less than 40 weeks.

### **Full-time days**

In other contexts (e.g. the statistics Public benefits), absence due to maternity leave is presented as the number of working days lost, and then days is the number of days of 7.4 hours. A part-time (e.g. half-time) mother who has been absent from work for, say, 40 weeks due to maternity leave counts 140 days.

## 2.11 Reference period

1. The calendar year in which the child is born. However, all leave taken in the child's first year of life is counted, regardless of whether the leave period spans a year-end or not.
2. The calendar year in which the right to the money is obtained.

## 2.12 Frequency of dissemination

Data are published annually.

## 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 subject page for [Maternity benefits](#).

### 3 Statistical processing

The data basis of the statistics is based on a total extraction from 13 central tables in the database for ATP/Udbetaling Danmark's administrative IT system, UDK-Barsel, and a delta extraction from a 14th table, which is very large. Selected variables from the 14 tables are merged into a single table that constitutes a longitudinal register, the Barselsdagpenge Register, with a well-defined record structure. The Barselsstatistik Register is formed by combining the Barselsdagpenge Register with an extract from the Population Register and other Danish Statistics registers.

#### 3.1 Source data

The data basis of the statistics is based on an extraction of cases in the period May 2014 to date from the ATP/ Udbetaling Danmark's administrative IT system, UDK-Barsel (Utilised in spring 2017). The UDK-Barsel system is used by Udbetaling Danmark to administer the payment of parental benefits.

The cases from the period May 2014 to May 2017 have been converted from the former administrative system Opus Barsel.

In connection with the publication, maternity benefits data are correlated with background information from the following of Statistics Denmark's registers:

- Population register
- Highest completed education
- A-kasseregister (unemployment payout organizations)
- Persons receiving public benefits
- Register-based workforce statistics (RAS)
- Employment for Employees (BFL)
- Income Register

#### 3.2 Frequency of data collection

Data is collected quarterly.

#### 3.3 Data collection

Electronic transfer of administrative data.

#### 3.4 Data validation

##### Data inspection

- Check that all fields have a value corresponding to the interface description (data provider's description of the data delivery).
- It is checked that the logical connection between different record types in the data delivery is complied with.
- It is checked that the number of full-time persons on maternity leave per quarter, especially the most recent quarter, is of an expected magnitude.

#### 3.5 Data compilation

If the data delivery can be approved, data is loaded into:

**Recipient register**, which consists of 14 individual registers linked together by associations (dependencies).

Based on the 14 registers that make up the Recipient Register the Parental allowance register are formed.

**The Parental allowance register** consist of records where each record represents a period of no more than one month, indicating the number of hours of absence, the amount granted and the legal basis for the amount granted, etc.

The Parental Benefit Register provides data for other statistics. During the formation of the Parental Benefit Register, a number of key variables for the statistics are calculated:

- Period start date.
- Period end date.
- Number of days on leave (within the period).
- The degree of absence, which is calculated day by day as the number of hours for which unemployment benefits have been paid divided by 7.4, and then converted to a figure valid for the entire period
- The degree of leave, which is the degree of absence multiplied, so that part-time employees will count a full day for each day on maternity leave, even if they do not work 7.4 hours on that day.
- The employment rate, which is the number of hours worked on the day in question, divided by 7.4, and then converted to a number valid for the whole period.

These variables are used in the counting of days.

Counting leave days "Number of leave days within the period" times "The degree of leave for the period", summed over periods.

Counting of Full time days "Number of leave days within the period" times "Absence rate for the period", summed over periods.

The parental benefit register cannot be used for gender equality statistics because the register is a payment register containing only those citizens who have actually taken maternity leave on daily benefits. In order to include persons who, for whatever reason, have had a child without themselves or their employer having received unemployment benefits, the Parental Statistics Register is formed.

**The Parental Statistics Register**, consists of the parental benefit register combined with extracts from:

- Population register
- Highest completed education
- Unemployment insurance register
- Persons receiving public benefits
- Register-based labor force statistics (RAS)
- Employment for Employees (BFL)
- Income register

This forms the population of a parent cohort. The central variable for the counts of the Maternity Statistics Register is the variable **entitlement**, which is calculated as follows;

The entitlement is set to 'yes' if one of the criteria below is met.

1. If, in the year of the child's birth or in the year following the child's birth, the person actually

received parental allowance.

2. The total number of hours worked in the three months preceding the birth of the child exceeds 120 hours, while the income after any labour market contribution entitles the recipient to a daily benefit of at least 80 pct. of the daily benefit maximum.
3. The income in the year of birth after any labour market contribution entitles the person concerned to daily benefits of at least 80 pct. of the maximum daily benefit.
4. A vocational qualification has been completed no later than 365 days before the birth of the child and the person is a member of an unemployment insurance fund.
5. Daily benefits (unemployment, sickness, maternity) have been paid during the year of the child's birth at a level corresponding to at least 80 pct. of the daily benefit maximum.

otherwise the entitlement is set to "no".

Persons who, according to the algorithm for calculating daily benefit entitlement, are set to a "yes" for daily benefit entitlement but who have not been on parental leave on daily benefit, even though they belong to the parent cohort, are included in the calculations relating to gender equality with a zero for the number of days on parental leave.

Another key variable that is calculated is **cohabiting**, which is set to "yes" if both parents have the same address, and to "no" otherwise. The idea is that it may not be as natural to take maternity leave if you do not live with the child or if, for example, the biological father is a sperm donor.

### 3.6 Adjustment

Amounts granted are considered to have such high credibility that the amount is used to correct the number of hours if the hourly statement does not match the amount. In addition, no correction is made.

## 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 agreements. The statistics are included as an important data element concerning analyzes of the productivity of the Danish workforce (economic model calculations), the labor market accounts, the statistics statistics on Public dependents and the 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. To meet user requests, it is calculated

- Maternity leave per. parent couple per. children at regional level. - Maternity leave per. parent couple per. children at municipality level. - Maternity leave per. individual father or mother by industry.

Statistics are still under development and there are plans for tables illustrating public expenditure, and there is demand for figures showing how many take 1, 2, 3, 4, . . . 50, 51, 52 weeks of maternity leave. For example, in the form of a graph.



## **4.2 User Satisfaction**

The latest user-oriented initiatives have been to make the Parental Benefits Register (quarterly updates) and the Parental Benefits Statistics Register (annual updates) available to Statistics Denmark's users with associated documentation in the metadata bank. In addition, three statistics bank tables, Barlov1, Barlov2 and Barlov3, have been developed specifically for the evaluation of the parental benefit reform, which entered into force on 2 August 2022.

## **4.3 Data completeness rate**

Not relevant for these statistics.

## **5 Accuracy and reliability**

The statistics summarize the reports of birth or adoption that have triggered the payment of due to maternity leave. The expectation is that all cases are reported. 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. In order to get a picture of a parent's year's use of the maternity law, it has been necessary to link several registers and set up an algorithm for calculating the parents' entitlement. There is a risk of programming errors here, just as the algorithm rules are a choice.

### **5.1 Overall accuracy**

The statistics are based on records of cash disbursements. Administrative data involving the disbursement of money will usually be reliable and those parts of the data base must therefore be considered as very solid.

Regarding parental leave, it should be noted that some men do not take parental leave even if they could. A parental leave of zero days does not trigger unemployment benefits and is not reported to the register, but from an equality point of view such zero parental leaves should be included in the inventories. For those tables where zero childbirth overlaps are included, this is an algorithmic calculation based on other data sources. The rules of the algorithm will affect the results of the statistics. No calculations have been made on how much a change in the algorithm rules would affect, for example, the average number of days on maternity leave.

Furthermore, experience shows that the number of full-time persons in the register for the last year is about 1 percent too low the first time a year is published.

### **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.

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.

Such errors are counteracted by volume control over time.

### 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

As the statistics can be compared with older statements from previous administrative systems, there is some control that the overall results look "correct". The quality of the statistics at the overall level must therefore be considered good

### 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 reporting absences on daily benefits due to childbirth. For this reason, the annual statistics are published in March-April, so that Statistics Denmark can include some of the delayed reports in the annual run. The latest year is recalculated one year after the first publication, after which the figures are considered final. In case of table changes, the tables are recalculated for all years.

## **6 Timeliness and punctuality**

These statistics are published annually three months after the reference year in March-April. March-April 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 are published annually in the month of March-April the year after the reference year. March-April 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. The figures are final for the year after the reference year was first published.

### **6.2 Punctuality**

It is expected that the statistics can be published without delay compared to the announced date.

## **7 Comparability**

The statistics are influenced by local Danish legislation, which makes comparison with similar statistics from other countries difficult. In addition, maternity leave can be calculated in 18 different ways, which is why it requires a good knowledge of the documentation for countries' calculation methods before comparing their figures. At the moment, the statistics cover data for the years 2015-2023, where no data breach has been detected, with the exception that the 1st quarter of 2015 is under-updated, which gives a minor data breach for total counts.

## 7.1 Comparability - geographical

The statistics are very much influenced by local Danish legislation, which makes comparison with similar statistics from other countries difficult. In Denmark, for example, parents on cash assistance are not entitled to parental allowance, but are exempted from being available for the labor market for a period corresponding to the allowance period, which is why cash assistance becomes a kind of maternity allowance, which is not included in the Danish figures. In addition, the algorithm calculation that determines whether parents are eligible to take maternity leave on daily benefits, and should therefore be included in the counts with zero days if they are eligible and there is no registration, does not exist in a similar way in other countries.

However, the dissemination presents the pedagogical challenge that the very central figures, the average number of days on maternity leave held by the mother or father, respectively, can be calculated in six different ways, which individually, depending on the problem, can be claimed to be the "right". The six ways are 1. Directly from the administrative data to count persons who in a given year have received maternity benefit, as well as the associated days. 2. Directly from the administrative data to count fathers, mothers and days with maternity benefits children born in a given year, where the child appears in the administrative data. 3. Count fathers, mothers and days with maternity benefits for children born in a given year in which the child appears in Statistics Denmark's population register. 4. Count fathers, mothers and days with maternity benefits for children born in a given year in which the child appears in Statistics Denmark's population register, but only for persons who, according to Statistics Denmark's labor market register, are entitled to receive maternity benefit. 5. Same as 4), but we add the condition that the parents must be cohabiting. 6. Same as 5), but we add the condition that the other parent must also be entitled.

Furthermore, the counting unit, number of days, can be calculated in at least three different ways: number of calendar days, number of working days converted to calendar days and number of full-time working days converted to calendar days.

The number of combinations thus becomes theoretical and partly also in practice: 18. One must therefore be careful when comparing figures for parental leave from different countries.

## 7.2 Comparability over time

- Year 2000: Earmarked paternity leave for men in weeks 26-27.
- Year 2002: Total maternity and paternity leave up from 26 weeks to 46 weeks. Earmarked paternity leave for men in weeks 26-27 abolished.
- Year 2007: Data source switches to KMD-Maternity
- Year 2012: Data source switches to KMD-Opus Maternity
- Year 2017: Data source switches to UDK-Maternity
- Year 2022: Earmarked paternity leave for men is increased from 2 to 11 weeks. Earmarked maternity leave for women is reduced from 14 to 11 weeks. Each parent gets 13 weeks of parental leave, which they can freely transfer to each other. The total number of weeks remains unchanged. The legislative change applies to parents of children born on or after August 2, 2022.

### 7.3 Coherence - cross domain

Data from 'Parental leave benefits' is published quarterly in connection with the the statistic 'Persons on public benefits'. In these statistics, however, days on maternity benefit are prioritized in cases where there is conflicting information, which is why the figures will rarely be the same as in the primary statistics. Maternity allowance days are also included in a larger context in the statistics Labor market accounts and Absence Statistics.

### 7.4 Coherence - internal

All register variables in the Barsels Statistics Register, which are taken from other registers in Statistics Denmark, such as highest completed education, employment rate, monthly salary, etc. are set to the value immediately up to the child's birth, and thus provide a consistent snapshot of the parents in question. The meaning of "immediately up to" depends on the data source, but is in many cases clarified in the register by the addition of a reference date.

## 8 Accessibility and clarity

These statistics are published yearly 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 [Parental leave benefits](#). 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.

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

### 8.4 News release

These statistics are published yearly in a Danish press release.

### 8.5 Publications

As part of the release of the statistics for the 2023 cohort of parents, Statistics Denmark will publish an analysis focusing on fathers' use of parental leave before and after the introduction of earmarked leave in August 2022.

## 8.6 On-line database

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

- [BARSELO4](#): Parents leave before birth and during the child's first year of life by unit, entitlement, mothers education, fathers education, region and time
- [BARSELO5](#): Cohabiting parents leave before birth and in the child's first year of life by unit, entitlement, mothers education, fathers education, region and time
- [BARSELO6](#): Non-cohabiting parents leave before birth and in the child's first year of life by unit, benefit rights, existence, educational combination, region and time
- [BARSEL11](#): Days with parental leave (parent years) by unit, entitlement, sector, social status, industry and time
- [BARSEL14](#): Days with parental leave (parent years) by unit, entitlement, industry and time
- [BARSEL24](#): Parents leave in child's first two years (46 weeks of leave or more) by unit, entitlement, mothers education, fathers education, region and time
- [BARSEL25](#): Cohabiting parents leave in child's first two years (46 weeks of leave or more) by unit, entitlement, mothers education, fathers education, region and time
- [BARLOV1](#): Cohabiting parents leave before birth and in the child's first year of life by unit, entitlement, mothers education, fathers education, region and time
- [BARLOV2](#): Cohabiting parents on leave (children born August-December) by unit, entitlement, mothers education, fathers education and week
- [BARLOV3](#): Cohabiting parents on leave (children born August-December) by unit, entitlement, area and week
- [\[LIGEFB1\]\(https://www.statbank.dk/LIGEFB1\)](#): Parents by family relationship of the child, the parent's entitlement to benefits, the highest education completed by the mother, the highest education completed by the father and region
- [LIGEF1](#): Gender equality indicator of days of parental leave benefits to parents by the highest education completed by the mother, the highest education completed by the father, the parents' level of education and region

## 8.7 Micro-data access

There are two registers; - Barselsdagpengeregisteret - Barselsstatistikregistret

Barselsdagpengeregisteret is updated four times a year, and contains at individual level all periods of maternity benefit.

Barselsstatistikregistret is updated once a year, and contains information for each year at the individual level for the persons who have had a child during the year.

Both the Barselsdagpengeregisteret and the Barselsstatistikregistret are made available to researchers and other analysts who, if they are from authorized research institutions, can access the statistics' Micro-data through Statistics Denmark [Research Services](#)

## 8.8 Other

Figures for maternity leave appear as part of the statistics, Persons on public benefits, and can be retrieved via the statistical bank tables of these statistics.

## **8.9 Confidentiality - policy**

[Data Confidentiality Policy](#) for Statistics Denmark is applied. Cells with fewer than five observations are not displayed.

## **8.10 Confidentiality - data treatment**

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

## **8.11 Documentation on methodology**

There are no separate method documents for these statistics, but there is documentation of the underlying programs and registers. However, it is documentation that is largely confidential.

## **8.12 Quality documentation**

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

## **9 Contact**

The administrative placement of these statistics is in the division of Labour Market, Social Statistics. The contact person is Anna Skovbæk Mortensen, tel.: + 45 2177 6754, and e-mail: AOM@dst.dk.