

**Documentation of statistics for  
Registered unemployment 2015**

## 1 Introduction

The purpose is to produce statistics monitoring the structure and trends in the unemployed population and the causes of unemployment. The statistics are compiled on the basis of registers. The data sources of the statistics are: The Register for LabourMarket (RAM) and direct data reports from the municipalities/STAR concerning the match/visitation category and the scope of activation of recipients claiming social assistance. The statistics on the registered number of net unemployed have been compiled by Statistics Denmark since 1979. To avoid a great number of discontinuities of the data series, the statistics have roughly speaking remained unchanged since 1979. However, the unemployment statistics have been adjusted as from the publication of unemployment figures for January 2008. The underlying primary data have been edited and changes have been made to the concept of unemployment, which imply that the Danish concept of net unemployment is now closer to the definition of unemployment applied by the International Labour Office, ILO, see item 3.1. All changes have been made back to the year 2000. As from the publication of unemployment statistics for January 2010, attention is now also focused on the gross unemployed population, defined as the sum of the registered (net-) unemployed population and persons in activation programmes and who are, at the same time, considered to be available for work. The figures on gross unemployment are calculated from January 2007 and onwards.

## 2 Statistical presentation

The register based unemployment statistics (gross- and net-unemployed) provide data on the unemployed population registered with the unemployment insurance funds and with the public job centres. The statistics comprise all unemployed persons insured against unemployment and non-insured persons included in the visitation category 1 and 3 (= available for work), who are claiming cash benefits under the Danish Social Assistance Act and who fulfill the international definition of unemployment (see section 3.1). As from January 2010, gross registered unemployment figures are also published, defined as the sum of the registered (net-) unemployed population and persons in activation programmes and who are, at the same time, considered to be available for work. The statistics cover both the actual number of unemployed and the seasonally adjusted number of unemployed full-time persons as well as the unemployment rates in relation to the labour force aged 16-64 and in relation to the number of insured unemployed persons registered with the unemployment insurance funds. The statistics are analysed by region, sex, age group insurance category (full-time, part-time or non-insured), unemployment insurance funds and cause of unemployment.

## 2.1 Data description

The register based unemployment statistics (gross- and net-unemployed) provide data on the unemployed population registered with the unemployment insurance funds and with the public job centres. The statistics comprise all unemployed persons insured against unemployment and non-insured persons included in the visitation category 1 and 3 (= available for work), who are claiming cash benefits under the Danish Social Assistance Act and who fulfill the international definition of unemployment (see section 3.1). As from January 2010, gross registered unemployment figures are also published, defined as the sum of the registered (net-) unemployed population and persons in activation programmes and who are, at the same time, considered to be available for work. The statistics cover both the actual number of unemployed and the seasonally adjusted number of unemployed full-time persons as well as the unemployment rates in relation to the labour force aged 16-64 and in relation to the number of insured unemployed persons registered with the unemployment insurance funds. The statistics are analysed by region, sex, age group insurance category (full-time, part-time or non-insured), unemployment insurance funds and cause of unemployment.

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## 2.2 Classification system

The register based unemployment statistics is published by 'province'/'landsdele' which is a special Statistics Denmark classification, see [Province](#).

## 2.3 Sector coverage

The statistics covers all sectors.

## 2.4 Statistical concepts and definitions

**Full-time unemployed:** The concept 'Full-time unemployed' is calculated as the sum of all the hours/parts the unemployed persons are registered as unemployed.

## **2.5 Statistical unit**

The register based unemployment statistics is mainly published in the unit 'Full-time unemployed', see the description under the item 'Concepts and definitions'.

## **2.6 Statistical population**

The gross unemployment statistics is register based which means that the sources of the statistics includes all registered unemployed persons in Denmark. This population consists of all unemployment benefit recipients together with those recipients of cash benefit who are considered to be available for work.

## **2.7 Reference area**

This statistics covers all registered unemployed persons in Denmark.

## **2.8 Time coverage**

The monthly gross unemployment is published from January 2007 and onwards. The detailed monthly net unemployment is published from May 2000. The overall yearly net unemployment is published from 1979.

## **2.9 Base period**

Not relevant for these statistics.

## **2.10 Unit of measure**

The unit of measurement for this statistics is 'Full-time recipients'. This unit of measurement is calculated as the sum of each individual persons hours/volume-parts in where they are receiving public benefits.

## **2.11 Reference period**

The statistics are compiled monthly, quarterly and annually. The monthly updating of the register complies with the period in which the person has received unemployment benefits, which usually ends the last Sunday but one in the calendar month and begins correspondingly earlier. The personal data refers to the last day in the above period, whereas unemployment data refers to each individual week; the monthly period in which the person has received unemployment benefits may comprise 4 or 5 weeks.

## **2.12 Frequency of dissemination**

The statistics are published monthly with a delay of roughly 30 days. Furthermore, the quarterly statistics on unemployment are published concurrently with the corresponding quarterly statistics on persons receiving public benefits, with a delay of roughly 80 days. Finally, annual statistics are published in the middle of April the following year.

### **2.13 Legal acts and other agreements**

The Act on Statistics Denmark, section 6, as amended by Act no 15 of January, 12, 1972, by Act no 386 of June, 13, 1990 by Act no. 1025 of December, 19, 1992, by Act no. 599 of 22 June 2000 and most recently by Act no 431 of 6 June 2005).

The register based unemployment statistics is not covered by any EU regulation.

### **2.14 Cost and burden**

No response burden (caused by Statistics Denmark), because the statistics is based on administrative registers.

### **2.15 Comment**

Supplementary documentation is available on [Documentation of the unemployment statistics from Statistics Denmark](#).

## **3 Statistical processing**

All the data is collected from administrative registers. After receiving the data we make a data validation and a harmonization before entering the data into our PSD-database for further data processing, including an elimination of illegal 'overlapping' data.

### **3.1 Source data**

The unemployment statistics are compiled on the basis of the files of the Historical register of Insurance fund members (HAMR) maintained by the National Labour Market Authority, (STAR) and the Register for LabourMarket (RAM) also maintained by STAR and direct data reports from the municipalities/STAR concerning the match/visitation-category and the scope of activation of recipients claiming social assistance. Information about unemployment benefit claimants is reported by the unemployment insurance funds, while information about persons receiving cash benefits under the Danish Social Assistance Act, is transmitted by the job centers.

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

The data is collected on a monthly basis.

### **3.3 Data collection**

All the data is collected from administrative registers.

### **3.4 Data validation**

In the first place we check that the data files have the expected dates, format and size. After loading the data into the database we check the level and dynamic towards the corresponding data from the last months and the same months last year.

### **3.5 Data compilation**

All the data is collected from administrative registers. After receiving the data we make a data validation and a harmonization before entering the data into our PSD-database for further data processing, including an elimination of illegal 'overlapping' data.

### **3.6 Adjustment**

The actual reported unemployment figures are enumerated each month before the seasonal adjustment of the figures. The enumeration is calculated in the light of the actual observed lack of observations over the past.

## **4 Relevance**

- Users: Municipalities, regions, ministries, job centers, organizations, international organizations, the media, private business enterprises, and private individuals.
- Fields of application: Public and private structural analyses and trade cycle surveys, educational purposes and public debate.

There has not been any actual 'satisfaction-examination' carried out, but the general use of the statistics, for instance by the media, has always been considerable.

### **4.1 User Needs**

- Users: Municipalities, regions, ministries, job centers, organizations, international organizations, the media, private business enterprises, and private individuals.
- Fields of application: Public and private structural analyses and trade cycle surveys, educational purposes and public debate.

### **4.2 User Satisfaction**

There has not been any actual 'satisfaction-examination' carried out, but the general use of the statistics, for instance by the media, has always been considerable.

### **4.3 Data completeness rate**

When the statistics is register based it is in the principle a complete data collection from the first release. In practice the current statistics is underestimated by 2-3 per cent for the last months data. The statistics is not attached to any regulations/guidelines on completeness.

## 5 Accuracy and reliability

The statistics comprise all unemployed persons aged 16-64. Only persons registered as recipients of unemployment benefits or social assistance/initial assistance are covered by the statistics. Persons who do not receive social assistance or unemployment benefits are thus excluded from the statistics on unemployment, although they are registered with the public job centres. Furthermore, the unemployed hours for which unemployment benefits cannot be claimed are (due to the rules for minimum payment of unemployment benefits) only included in the statistics provided that they appear from the reported data. Persons participating in an activation programme, etc. are only included in the statistics with the number of excess hours of pure (net-) unemployment. Instead, the hours a person participates in an activation programme, etc. are included in the registered gross unemployment, if the person has the match category 1 (available for work). Furthermore, reference can also be made to the quarterly statistics on people receiving public benefits, 16-64 year-olds. The statistics cover all persons aged 16-64, receiving public benefits. The right of unemployed persons to vacation and the special rules governing the right to claim supplementary unemployment benefits while on vacation, see the Danish Holidays with Pay Act, affects the statistics in two ways. Firstly, the right of unemployed persons to vacation of up to 5 weeks on the basis of holiday pay earned through employment with a previous employer implies that for these persons the registered length of the unemployment periods is shortened. Secondly, the actual unemployment figures are generally influenced by the right of employees to claim supplementary benefits while on vacation, provided that they have not yet gained the right to 30 days' holiday allowance or holiday pay. This circumstance has an upward effect on the number of registered unemployed persons, particularly during the summer months and around Christmas. This is one of the reasons why Statistics Denmark does not compile the number of long-term unemployed persons in relation to the length of uninterrupted unemployment periods, but as the number of persons whose unemployment period accounted for more than 80 pct. of the latest annual period of unemployment. In the monthly statistics published in News from Statistics Denmark, which are compiled on the basis on register-based data; persons receiving holiday pay are no longer included in the general unemployment figures as from 2008, but are included as an independent time series.

It is impossible to give a single figure on the statistical accuracy, but apart from the circumstance that a person must receive unemployment benefits or social assistance in order to be registered as unemployed, the accuracy of the statistics is relatively high.

### 5.1 Overall accuracy

It is not possible to give an exact number of 'the uncertainty'. The data quality in the HAMR, RAM and CPR registers is generally very high. The statistics on the registered number of unemployed persons are also, to the greatest possible extent, compiled in accordance with the guidelines laid down by UN's International Labour Office (ILO). According to these guidelines a person has to meet 3 requirements to be defined as unemployed: 1) out of work, 2) available for work and 3) actively in search of work.

The concepts of unemployment in register based unemployment statistics do not strictly meet ILO's guidelines. The most important differences are:

1. That unemployed students or pensioners are not registered as unemployed, due to the circumstance that they do not receive unemployment benefits or cash benefits.
2. That the registered unemployment is calculated as the unemployed population's total unemployment volume (converted into full-time unemployed persons), i.e. including unemployment for part-time persons during the week, whereas ILO's guidelines prescribe that the statistics are to be compiled on the basis of fully unemployed persons

## **5.2 Sampling error**

Not relevant for these statistics.

## **5.3 Non-sampling error**

As the statistics is register based there is no uncertainty connected to the sample. In return the monthly statistics is known to be underestimated with roughly 3 per cent. To be considered as registered unemployed you have to be recipient of either unemployment benefit or cash benefit or a similar benefit. Beside this delimitation the register based unemployment is very much in line with the international ILO-definition of unemployment.

## **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 is register based. To be considered as registered unemployed you have to be recipient of either unemployment benefit or cash benefit or a similar benefit. Beside this delimitation the register based unemployment is very much in line with the international ILO-definition of unemployment.

## **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**

Every time new actual monthly figures for full-time unemployment are published the seasonally adjusted figures are adjusted backwards in time. The most recently adjusted seasonal figures are always available from StatBank Denmark. This also implies that the seasonally adjusted figures appearing in the publications will always be preliminary figures. The overall adjustment from "preliminary" to final seasonal figures is generally less than 1,000 unemployed full-time persons, or about 1 pct. The largest adjustments are seen for the latest 2-3 months and for the corresponding months of the previous year. Before the seasonal adjustments take place, the actual monthly figures are adjusted upwards as the result of deficiencies due to the late submission of unemployment benefit cards. The upward adjustment corresponds to about 3 pct. for the latest month, and is conducted in order to achieve greater consistency between the average of the 12 seasonally adjusted monthly figures and the actual updated annual average. Adjustments are made in accordance with the expected percentage for the last 6 months until the annual percentage can be finally compiled. The final updating of the actual monthly figures is conducted after 6 months, and subsequently they are regarded as final and are available from the database StatBank Denmark. As from January 2011, the grossed-up actual unemployment figures are also available from StatBank Denmark. The definition of this time series is that the final actual unemployment figures are combined (they are all at least 6 months old) with the grossed-up provisional actual unemployment figures for the most recent months.

## **6 Timeliness and punctuality**

The monthly statistics is published roughly 30 days after the end of the reference month and the yearly statistics is published roughly 105 days after the end of the reference year. These official release dates are always published a year ahead.

### **6.1 Timeliness and time lag - final results**

The statistics appear monthly in 'Nyt fra Danmarks Statistik' (News from Statistics Denmark), typically the last Thursday of the subsequent calendar, corresponding to a "delay" of about 1 month in relation to the reference month. The monthly unemployment figures are available from the database StatBank Denmark at 9:00 a.m. on the same day as News from Statistics Denmark is published. Quarterly and annual figures on unemployment are also available from StatBank Denmark. The quarterly statistics is published roughly 75 days after the end of the reference quarter and the yearly statistics is published roughly 75 days after the end of the reference year.

### **6.2 Punctuality**

An annual schedule is prepared (at the latest) in October for the next year's publications of unemployment statistics. The scheduled publication dates are usually observed, but in the event of technical difficulties delays in the publication of the statistics may occur.

## **7 Comparability**

The statistics on the registered number of net unemployed have been compiled by Statistics Denmark since 1979. To avoid a great number of discontinuities of the data series, the statistics have roughly speaking remained unchanged since 1979. However, the unemployment statistics have been adjusted as from the publication of unemployment figures for January 2008. The underlying primary data have been edited and changes have been made to the concept of unemployment, which imply that the Danish concept of net unemployment is now closer to the definition of unemployment applied by the International Labour Office, ILO, see item 3.1. All changes have been made back to April 2000. As from the publication of unemployment statistics for January 2010, attention is now also focused on the gross unemployed population, defined as the sum of the registered (net-) unemployed population and persons in activation programmes and who are, at the same time, considered to be available for work. The figures on gross unemployment are calculated from January 2007 and onwards. When the register based unemployment statistics depends on a number of national administrative registers it is not a good statistics for international comparisons. For international comparisons of unemployment you ought to use the unemployment figures from the labour force surveys in the different countries instead.

### **7.1 Comparability - geographical**

When the register based unemployment statistics depends on a number of national administrative registers it is not a good statistics for international comparisons. For international comparisons of unemployment you ought to use the unemployment figures from the labour force surveys in the different countries instead.

### **7.2 Comparability over time**

A few main series go back to 1910, see the publication Labour Market 1996:28 (Statistical News). However, there have been several discontinuities of the data series, e.g. the statistics until 1973 only covered the population insured against unemployment, but since then the statistics now cover all persons who are unemployed.

From 1979 up to and including 2007, the statistics are strictly comparable. However, changes to the unemployment insurance funds have an effect on the data series at the level of unemployment insurance funds. To this is added that since 1 September 2002, all unemployment insurance funds have been able to decide whether they want to be interdisciplinary or professionally defined.

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### 7.3 Coherence - cross domain

Statistics Denmark's Labour Force Survey conducted on the basis of samples and interviews contains quarterly unemployment figures, which are compiled in accordance with common EU rules laid down by the ILO. The above surveys are conducted by each EU member state in accordance with EU regulations and enable comparisons of unemployment figures among the member states. In Denmark, the sample survey consists of about 22,000 persons each quarter. The reference period in the labour force surveys is the interview-week implying that the surveys are restricted to cover only those persons who were fully unemployed during the interview-week (unlike the register-based unemployment statistics). Furthermore, the Labour Force Surveys set out precise criteria/questions to which the persons must provide an affirmative reply in order to be categorized as unemployed in accordance with the ILO definition. The Labour Force Surveys also cover a group of unemployed persons, who are excluded from the register-based unemployment statistics, as they do not receive social assistance benefits, initial assistance, unemployment benefits or a similar benefit. The difference between the two unemployment concepts has previously (in 1990's) implied that the number of unemployed persons in the Labour Force Survey has been lower than the corresponding level in the register-based unemployment statistics. However after the year 2000 the level for unemployment in each of the two statistics has been closer to each other, which must partly be attributed to the tightenings made among the respondents for the register based unemployment statistics, with respect to when the recipients of cash benefits can be regarded as unemployed in accordance with the ILO definition. As from 2007, the sample for the Labour Force Surveys has been doubled, which has implied that the level of unemployment according to the Labour Force Surveys is above the level in the register-based unemployment statistics, while developments, i.e. falls and increases from 2007 to 2014, are largely identical. Monthly harmonized unemployment rates for Denmark are also estimated by the Labour Force Survey in Statistics Denmark and send to Statistical Office of the European Communities (EUROSTAT).

### 7.4 Coherence - internal

Not relevant for these statistics.

## 8 Accessibility and clarity

- Monthly publications: *Nyt fra Danmarks Statistik* (News from Statistics Denmark) and *Statistikbanken* (Stat bank Denmark).
- Quarterly publications: *Statistikbanken* (Stat bank Denmark).
- Annual publications: *Statistisk Årbog* (Statistical Yearbook), *Statistisk Tiårsoversigt* (Statistical Ten-Year Review), *Arbejdsmarked* (Labour market) appearing in the series *Statistiske Efterretninger* (Statistical News), *Nyt fra Danmarks Statistik* (News from Statistics Denmark) and *Statistikbanken* (Stat bank Denmark).

You find more information on: [Unemployment](#).

### 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**

You find more information on: [Unemployment](#).

### **8.5 Publications**

[Documentation/publication of unemployment statistics](#)

### **8.6 On-line database**

[Stat bank tables on register based unemployment statistics](#), and then 'Labour, earnings and income', 'Unemployment' and 'Registered unemployment'.

### **8.7 Micro-data access**

Annual statistics at the level of CPR are stored electronically as from 1985. The corresponding monthly statistics are available from 1996. For the existing statistics, the new unemployment statistics are compiled backwards to April 2000. With the adjustment of the statistics (at the beginning of 2008), it is now easier to conduct longitudinal analyses at the level of individuals, e.g. analyses of the impact of each individual activation measure. These longitudinal data consists of the following variables: Personal identification, type of unemployment, start- and end date, hours in unemployment per week and a 0/1-variable indicating if the person is considered to be gross unemployed or not. These data is available from January 2007 and onwards.

### **8.8 Other**

The total amount of data laying behind the register based unemployment statistics is a splendid readiness for a lot of custom-made services. These services are typically delivered by custom-made tables and settled with an amount of money corresponding to the time spend on providing the demand figures/tables.

### **8.9 Confidentiality - policy**

When the register based unemployment statistics is calculated as a number of fulltime-unemployed there is not a lot of problems concerning discretion matters. See also Statistics Denmark's general rules of discretion on [general politic](#).

### **8.10 Confidentiality - data treatment**

When the register based unemployment statistics is calculated as a number of fulltime-unemployed there is not a lot of problems concerning discretion matters. See also Statistics Denmark's general rules of discretion on [general politic](#).

### **8.11 Documentation on methodology**

The primary data and contents of the statistics are described in the present declaration of contents. For further information see [Unemployment](#).

### **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 Labour market. The person responsible is Mikkel Zimmermann, tel. + 45 39 17 30 43, e-mail: [mzi@dst.dk](mailto:mzi@dst.dk)

### **9.1 Contact organisation**

Statistics Denmark

### **9.2 Contact organisation unit**

Labour market office, Social Statistics

### **9.3 Contact name**

Mikkel Zimmermann

### **9.4 Contact person function**

Responsible for the statistics

### **9.5 Contact mail address**

Sejrøgade 11, 2100 Copenhagen

### **9.6 Contact email address**

[mzi@dst.dk](mailto:mzi@dst.dk)

### **9.7 Contact phone number**

+45 39 17 30 43

### **9.8 Contact fax number**

+45 39 17 39 99

