STATISTICS DENMARK

Documentation of statistics for Home to work commuting 2025

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1 Indledning

The statistics measure commuting between place of residence and workplace within Denmark, including the distances between commuters' homes and workplaces. Commuting statistics viewed as commuting between municipalities can be compiled from 1980 onwards. The distance between home and workplace was first calculated in 2006. The statistics are comparable in its current form from 2008 onwards. However, there is a minor methodological change in 2025 that has only a marginal impact on the commuting distance.

2 Indhold

The statistics provide an annual, individual-based account of employed persons' commuting between place of residence and workplace on the last working day of November. The distance between commuters' home and workplace is also calculated in kilometres (km). The commuting statistics are published the StatBank, where the data can be distributed on place of residence, workplace, commuting distance, gender, industry (DB07), and socio-economic status.

2.1 Indholdsbeskrivelse

The commuting statistics are published annually, providing information about commuters' place of residence, workplace, and the distance between them. The statistics are based on the Register-based Labour Force Statistics (RAS). RAS has information on the population's primary attachment to the labour market on the last working day of November. It includes, among other things, information on employed persons' residential and workplace addresses, which together form the basis for the commuting statistics.

In the StatBank, the commuting statistics can be distributed on place of residence, workplace, commuting distance, gender, industry (DB25), and socio-economic status. Since RAS includes a range of additional information such as age, origin, and education, various background characteristics can be linked to the commuting statistics as needed. Read more in the documentation of RAS.

2.2 Grupperinger og klassifikationer

The commuting statistic is made on the basis of the Register-Based Labour Force Statistic (RAS). In RAS a short reference period are used - the last week of November. This point of time is chosen partly because information about wage earner jobs historically has referred to the situation at the end of November, and partly because December is an atypical month from a employment related point of view. RAS is compiled according to the international guidelines from ILO (International Labour Organization) for classification of the population's affiliation to the labour market.

2.3 Sektordækning

The statistic covers all sectors.

2.4 Begreber og definitioner

Commuter: A person who is employed on a workplace address that is different from the residential address. In the statistic commuters is thereby defined as employed persons who has a commuting distance between workplace and residence that is different from zero. Employed persons whose workplace and residential address are the same will have a commuting distance that is zero and will therefore not be defined as commuters. Employed persons without commuting distance are included in tables in the Statbank with the value "no commuting".

Commuting distance: The shortest road distance from the employed persons residential address and workplace address. The return journey is not included in the commuting distance.

2.5 Enheder

The statistical unit is persons and distance in km.

2.6 Population

The population is residents who are defined as employed in the Register-based Labour Force Statistics (RAS) at the end of November.

2.7 Geografisk dækning

Denmark.

2.8 Tidsperiode

The statistics can be compiled from 1980, and data are available in the StatBank from 1993 onwards (i.e., at the end of November 1992). Commuting distances have been calculated from 2006 (i.e., at the end of November 2005).

2.9 Basisperiode

Not relevant for these statistics.

2.10 Måleenhed

Number of persons and distance in km.

2.11 Referencetid

RAS is counted on the last workday of November - i.e. the 28th. of November 2025.

2.12 Udgivelseshyppighed

The statistic is published annually.

2.13 Indsamlingshjemmel og EU-regulering

§6 in Law about Statistics Denmark. Statistik](https://www.dst.dk/da/OmDS/strategi-og-kvalitet/kvalitet-for-statistikproduktion/lovgivning).Statistik] (https://www.dst.dk/da/OmDS/strategi-og-kvalitet/kvalitet-for-statistikproduktion/lovgivning).

2.14 Indberetningsbyrde

RAS is exclusively compiled on the basis of administrative and statistical registers. Therefore there is no response burden.

2.15 Øvrige oplysninger

More information about commuting can be located on the subject page. More information about the data foundation on the subject page for employment.

3 Statistisk behandling

The commuting statistic is compiled on the register-based labour force statistic (RAS), which is based on the Labour Market Account (LMA) - a longitudinal register. A comprehensive data validation is done in the production of AMR. RAS is compiled taking a snapshot (on the populations primary attachment to the labour market) on the last working day in November based on LMA. Based on the information about the address of residence and workplace for employed persons the commuting distance is calculated.

3.1 Kilder

The commuting statistics are compiled based on RAS, which, from the publication on 28 April 2015, is based on the Labour Market Account (AMR). In this context, the commuting statistics have been revised back to November 2008. At the same time, the dating of the statistics was changed so that the statistics are now dated according to the reference point at the end of November.

For the commuting statistics, the information on employed persons' workplace and residential addresses in RAS is particularly relevant, as these data form the basis for calculating commuting distances.

3.2 Indsamlingshyppighed

The statistic is published yearly.

3.3 Indsamlingsmetode

Data for the statistics are collected through deliveries from the Register-based Labour Force Statistics (RAS).

3.4 Datavalidering

The non-hourly-based AMR (AMR-UN) forms the data basis for RAS and, consequently, the commuting statistics, with data validation carried out during the production of AMR-UN.

3.5 Databehandling

The commuting statistic is compiled on the register-based labour force statistic (RAS). RAS compiles the primary affiliation to the labour market at the end of November. Read more about the data production i RAS here.

Especially two variables from RAS are central for the commuting statistic - the address of residence and the workplace. Based on these information the distance between the persons residence and workplace is calculated. The calculation requires that all movements between residence and workplace is done by car; the shortest road distance is prioritized; and regimentations, turn restrictions and level crossings are taken into account. Approximately 93 pct. of all relations between residence and workplace can be calculated. The remaining 7 pct. can't be calculated due to inadequate information about address; the workplace is outside of Denmark or on a ship; or logic isolation. Logic isolation is e.g. a laboratory that has to be placed isolated and therefore is placed on an island without official ferry service.

In some cases the distance can be calculated even though the address is inadequate. If the address in RAS can't be retrieved from the address database a manual relocation to the nearest adjacent address in the database is done. Since this process is time consuming the relocation is only done for those addresses that have at least 100 persons employed or 20 persons resident. If the reason is logic isolation an address in the port, from where there is information about ship transfer to the island, is defined. From this address a sail route to the island is specified and the length of this imaginary sail route is added to the distance between the start address and the end address. All other non placeable addresses is gathered in municipal centers. The centers is calculated based on existing addresses of residence and workplace. On that basis the distance is calculated. A commuting distance can thus be calculated for all employed persons in RAS except for those working abroad or on ships.

The average commuting distance is based on the commuting distance for all commuters.

3.6 Korrektion

No corrections of data besides what is described under data validation and data compilation.

4 Relevans

The statistic is relevant for users interested in mobility on the labour market and the data foundation makes it possible to connect detailed information for analysis.

4.1 Brugerbehov

The commuting statistic is widely used by many external users who use data to analyze mobility on the labour market. Besides the data foundation makes it possible to connect detailed information for analysis.

4.2 Brugertilfredshed

There has not been conducted any analysis of the user satisfaction with the statistic. However, a number of users committees are set up by Statistics Denmark with the purpose to support the dialog with the users, and involve them in the development of the statistics. There is thus also a user's committee pointed out for labour market statistics, which is involved in the work with the commuting distance.

4.3 Fuldstændighed af data

There is no regulation in the field. RAS is, in the extent possible with register-based data, following the international guidelines from ILO (International Labour Organization).

5 Præcision og pålidelighed

The commuting statistics are based on the Register-Based Labour Force Statistics (RAS), which are used to describe the population's attachment to the labour market. RAS is compiled from a wide range of data sources that are integrated, error-checked, and harmonised within the labour market accounts. RAS is produced as a snapshot at the end of November based LMA. Therefore, RAS does not carry the same level of uncertainty as statistics based on sample surveys.

It is also important to be aware that the calculated commuting distance reflects an ideal situation where every person is believed to travel from residence to workplace by the shortest route and by car.

5.1 Samlet præcision

The register-based labour force statistic is the data foundation for the commuting statistic. I terms of sources of uncertainty it is especially the following that is relevant to the commuting statistic:

- *Determination of the primary attachment to the labour market for a person with more than one job at the end of November:* In these cases the primary job is determined by the number of hours worked. The job with the most hours is defined as the primary. For self-employed and assisting spouses the information about working hours is always imputed, and in some cases that goes for employees as well. For employees the imputed part has though decreased from 14 pct. in 2008 to barely 6 pct. in 2025. The imputation can in some cases mean that the wrong job is pointed out as the primary.

- *Employed distributed by industry:* There are some uncertainties concerning which workplace the specific employee job is situated, because some reports from the employers are insufficient. The insufficient reports causes a necessary search for and correction of errors regarding the workplaces, but even though the errors are corrected in the best possible way there will continuously be uncertainties about parts of the information about workplaces - especially on a detailed level. The uncertainties are especially linked to the detailed distributions of employment in the public sector and particularly on the municipality sector. In that area the distributions on industries within "residential care activities" (industry 87) and "social work activities without accommodation" (industry 88) are uncertain on a more detailed level, but also between the two industry. Detailed distributions on "Education" (industry 85) are also affected by uncertainties.

5.2 Stikprøveusikkerhed

Not relevant for this statistic.

5.3 Anden usikkerhed

Nothing further to note.

5.4 Quality management

Statistics Denmark follows the recommendations on the organisation and management of quality set out in the Code of Practice for European Statistics and the accompanying implementation model, the Quality Assurance Framework. Read more about these on the page Quality in official statistics.

Quality management is supported by common principles, guidelines and managerial responsibility for quality in statistical products and processes. The aim is to ensure a systematic and consistent approach to quality across the entire statistical production.

5.5 Quality assurance

Quality assurance at Statistics Denmark is integrated into the statistical production processes and is carried out in accordance with the principles of the Code of Practice for European Statistics. Read more on the page Quality in official statistics.

Quality assurance includes the continuous use of standardised procedures, documentation in line with international standards and internal controls related to data collection, data processing and dissemination. Experience gained from production is continuously used to identify needs for adjustments and improvements.

5.6 Kvalitetsvurdering

RAS - the data foundation of the commuting statistic - is a total count and the data foundation is the Labour Market Account (LMA). In LMA various data sources are integrated, corrected and harmonized in one joined system. Since RAS is a total count of the population there is not the same uncertainties as with statistics based on surveys. Read more about the quality assessment of RAS in the documentation.

Concerning the calculated commuting distance it is also substantially to be aware that it reflects an ideal situation where every employed person is assumed to be travelling from residence to workplace at the shortest possible route and by car. The distance is therefore a measure of how far a person must travel to get to work, and not an expression for the real traffic pattern. Accessibility, preferences and other habits are not taken into account. Neither is public transportation which will often follow another route than the shortest. And finally is also happens that the workplace address refers to a head office while the real workplace is placed differently.

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 Praksis for revisioner

When the commuting statistic is published data is considered final. However data can be revised as a result of changes in methods or new information available. Since the data foundation for RAS changes to the labour market account (LMA) following changes have been made:

1. At the publication of figures for the end of November 2013, where the labour market accounts were used as the data basis for RAS for the first time, the data for 2008-2012 was revised.
2. At the publication in April 2016 the data was again revised back to 2008. This revision had only a very limited impact on the employed population and thus on commuting statistics.

6 Aktualitet og punktlighed

Commuting statistics for commuting between municipalities are published approximately 11 months after the reference date. The commuting distance statistics are normally published 17 months after the reference period. For the November 2025 release, commuting distance statistics are published simultaneously with the municipality-to-municipality commuting statistics.

6.1 Udgivelsestid for foreløbige og endelige tal

Commuting statistics for commuting between municipalities are published approximately 11 months after the reference date. The commuting distance statistics are normally published 17 months after the reference period. For the November 2025 release, commuting distance statistics are published simultaneously with the municipality-to-municipality commuting statistics.

6.2 Publikationspunktlighed

The statistic is typically published at the scheduled date without delay.

7 Sammenlignelighed

The statistics can be compiled from 1980 and are comparable from 2008 onwards. Historically, there have been various data breaks in the RAS statistics, which are described in the statistical documentation for RAS.

7.1 International sammenlignelighed

There is no EU regulation for the statistics, and only a limited number of countries have a data foundation that allows for the compilation of a comparable commuting statistic.

7.2 Sammenlignelighed over tid

Over the years some changes have been done in the data foundation RAS, which have influence on the possibility to compare the statistic over time. The commuting statistic is like RAS comparable from 2008 and forward. Particularly the following data breaks in RAS is important to the commuting statistic.

Data break

In 2015, RAS switched to use the Labour Market Accounts as its data source, and RAS was revised back to 2008. A minor revision of the time series back to 2008 was subsequently carried out in the 2016 publication. In particular, the data break between 2007 and 2008 is significant for comparability. Isolated, this data break led to a decrease in employment of 35,000–50,000 persons. It is not possible to perform a double count for 2007 or 2008 because the previous data source ceased to exist (transition from the Central Information Sheet Register to eIncome). The Central Information Sheet Register, like eIncome, consisted of employer reports submitted to the tax authorities. Employers had the option to indicate that an employee had been employed for the entire year. If this was not the case, the employer was required to provide the start and end dates of the employment period. It is assessed that, in some cases, employers reported that the person had been employed for the entire year even when this was not the case, resulting in an overestimation of employment levels.

There is also a data break in 2003 (November 2002). Changes in the labor market created a need for adjustments in the statistics, and at the same time, improved data sources made the changes possible. The changes in the statistics resulted, among other things, in a change in the priority order for persons in more than one status. For example, the priority was changed for persons who were simultaneously receiving early retirement benefits and employed.

Changes in Danish Industrial Classifications

In 1993 the classification changes from DSE77 to DB93. In 2003 it changes to DB03, and in 2008 to DB07. In 2025 the classification changes to DB25.

Municipal reform

The commuting statistic is published on municipal level in the StatBank. From November 2006 the statistic is published on the new municipals after the structural reform. In the period November 1980-November 2006 the statistic is made up on the municipals before the structural reform. November 2016 is therefore published with data from both before and after the reform.

7.3 Sammenhæng med anden statistik

The commuting statistics are compiled for employed persons in RAS. A commuter is defined by being employed in RAS and besides of that have an address of residence which is different from the workplace address.

7.4 Sammenhæng – intern konsistens

Nothing to remark.

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8 Tilgængelighed

In the StatBank the statistics is published can be found under the subject Home to work commuting. 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 08:00 a.m. on the date announced in the release calendar. No one outside Statistics Denmark has access to the statistics prior to publication.

8.2 Release calendar access

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

8.4 NYT/Pressemeddelelse

Not relevant.

8.5 Publikationer

Not relevant.

8.6 Statistikbanken

The statistics are published in the StatBank under the subject Home to work commuting in the following tables:

- AFSTA3: Employed persons (end November) by area of workplace, socioeconomic status, sex, commuting distance and time
- AFSTB3: Employed persons (end November) by region, socioeconomic status, sex, commuting distance and time
- AFSTB4: Average commuting distance (end November) by region, socioeconomic status, sex and time
- AFSTA4: Average commuting distance (end November) by area of workplace, socioeconomic status, sex and time
- PEND100: Employed (end November) by municipality of residence, area of workplace, sex and time
- PEND102: Employed (end November) by region, industry (DB25), commuting, sex and time
- LABY44: Employed persons (end November) by municipality group of residence, sex and commuting distance

8.7 Adgang til mikrodata

Researchers and other analysts from authorized research institutions can be granted access to the underlying micro-data by contacting Denmark's Data Portal.

8.8 Anden tilgængelighed

Data is available for DST Consulting and Statistics Denmark's Division of Research Services. More detailed information can be delivered by contacting DST Consulting.

8.9 Diskretioneringspolitik

Data Confidentiality Policy for Statistics Denmark is applied.

8.10 Diskretionering og databehandling

Discretion is made according to Statistics Denmark's confidentiality policy. This means among other things that data cells with less than three observations are not published.

8.11 Reference til metodedokumenter

There are no separate documentation on methodology for the statistics.

8.12 Quality documentation

Documentation on quality management and quality assurance at Statistics Denmark is available in the form of common guidelines and manuals describing the principles and procedures for statistical production. These include descriptions of quality principles documentation requirements and standards for metadata. Relevant aspects are described in the other quality sections of this statistical documentation.

9 Administrative oplysninger

The administrative placement of these statistics is in the division of Labour Market, Social Statistics. The contact person is Pernille Stender, tel.: + 45 2492 1233 and e-mail: PSD@dst.dk.