

Documentation of statistics for Quarterly Labour Force 2019



# **1** Introduction

The purpose of KAS is to to provide a description of the Danish population's affiliation to the labour market. KAS is an averaging of the populations affiliation to the labour market per quarter and is published annually. KAS covers the hole population from 2017 and on, while it covers the employed part of the population 1st. - 4th. quarter from 2008 to 2017.

# **2 Statistical presentation**

KAS is an annually individual-based averaging which is calculating the Danish population's affiliation to the labour market quarter. The statistic is among other things also distributed on information about demography and information about the work place for employees. The statistic is published in StatBank Denmark.

# 2.1 Data description

KAS is published annually with an averaging of the populations main attachment to the labour market per quarter in the year.

In KAS the population can be divided into three main groups:

- Employed persons
- Unemployed persons
- Persons outside the labour force

The statistic is published with background information that are attached to either the person or the work place where the person is employed. Information about the person are:

- demographic information (gender, age, ancestry)
- educational information (status of education)

The information about the work place are among others: - industry - sector - workplace address

## 2.2 Classification system

KAS is based on the Labour Market Account (LMA). LMA is a longitudinal register which contains information about the populations primary attachment to the labour market on every day of the year. LMA classifies the populations primary attachment to the labour market according to international guidelines from ILO (International Labour Market Organization). The classification is called ICSE (International Classification of Status in Employment). The ILO guidelines is focuses on survey based statistics. The guidelines are therefore operationalized to use for KAS since it is a register-based statistics. The ILO guidelines consist of e.g. a set of rules for prioritizing the main connection to the labour market. The guidelines prescribes that employment has higher priority than unemployment and other activities outside of the labour force. On the basis of these guidelines the key variable in KAS socioeconomic status is thus formed.

### Socioeconomic status

Overall the population are divided into three groups:

- Employed persons
- Unemployed persons
- Persons outside the labour force

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**Employed persons** are people who are working at least one hour in the week of reference. The employed are either employees, self-employed or assisting spouses.

Employees consists first of all of persons with a job. That means people who in the reference period are doing paid work for at least an hour. Second of all the group of employees includes persons who are temporarily absent from a job. That means persons who in the reference period are absent (temporarily absent less than 45 days or absent due to sickness, childcare or maternity leave), but have a permanent attachment to an employer. The socioeconomic status for employees follows a level of ability that is based on the classification of occupation DISCO-08. Employees are thus divided into the groups:

- Employees managers
- Employees upper level
- Employees medium level
- Employees basic level
- Other employees
- Employees, not specified

The level of ability can be obtained by formal education as well as by training and practice. Information about level of ability for persons employed in central, regional or municipal government are gathered from the wage statistics for respectively the central and municipal sector. Information about private employees are either from the wage statistics for the private sector, or formed by imputation based on among others the highest completed education and the industry where the person is employed.

Self-employed and assisting spouses also consist of persons working at least one hour with pay in the reference period. Besides the group consists of self-employed and assisting spouses who are temporarily absent from the job. Self-employed are persons who owns a personally owned business, which is typically a one man-company or a partnership. Assisting spouses are persons who are getting surplus from the company transferred from the spouse. Assisting spouses with wage agreement are included as employees.

Activated persons who are in supported employment and receive payment (A-income) are also calculated as employed. That is e.g. persons in wage subsidies, flex jobs, sheltered jobs or rehabilitation. Persons, who are working as trainees, are not receiving wages and are therefore not calculated as employed.

Employed persons represents together with unemployed persons the economically active population - the labour force.

**Unemployed persons** include persons who in the reference period are:

- without a job
- available to the labour market
- seeking employment.

Similar to the official unemployment statistics unemployed persons in KAS are calculated as gross unemployed. Gross unemployed consists of activated recipients of unemployment benefits or social assistance, who are considered available for work, and net employed, who are unemployed recipients of unemployment benefits or social assistance considered available for work.

Gross unemployed who are activated in a paid job are calculated as employed in KAS.

**Persons outside the labour force** consists of various sub groups. A great share of this category is people support supported by social benefits. The larges sub groups are:



- persons receiving disability pension
- · persons receiving passive cash benefit passive meaning not available to the labour market
- persons receiving early retirement pay

If a person is receiving various types of social benefits the type with the most weekly hours are chosen as the primary attachment to the labour market. Besides from these groups persons outside the labour force also includes old-age pensioners; persons enrolled in education; children and youth; and the group "others outside the labour force".

"Others outside the labour force" is a residual group of people that can not be places in a socioeconomic category based on the information available in the registers in Statistics Denmark. Others outside the labour force can e.g. be: stay-at-home woman and men; young people financially supported by their parents; persons who at the time of reference are living of undeclared work; dishearten unemployed who have given up on seeking employment and are not registered as unemployed.

Conditions outside the labour force are prioritized based on the certainty about the underlying information, and on the degree of potential attachment to the labour market. The prioritized order is thus:

- 1. Persons receiving social benefits (persons in subsidized employment without salary; guidance and activities upgrading skills; rehabilitation; unemployment benefits; maternity or sickness absence from unemployment; parental leave; cash benefit; cash benefit for foreigners; partly unemployment; early retirement pay and flex benefit)
- 2. Persons enrolled in education
- 3. Children and youth
- 4. Persons receiving old-age pensions or other pensions
- 5. Others outside the labour force.

### **Industrial Classification DB07**

The statistic follows the Danish Industrial Classification of all Economic Activities 2007 DB07 (NACE rev. 2/ISIC rev. 4). A description of the classification is available in Danish <u>here</u>.

A conversion into DB07 codes has been made back to 2000.

- In the period Nov. 2003-Nov. 2007 the statistic follows the Danish Industrial Classification of All Economic Activities 2003 (NACE rev. 1.1./ISIC rev. 3.1.)
- In the period Nov. 1992-Nov. 2002 the statistic follows the Danish Industrial Classification of All Economic Activities 1993 (NACE rev. 1/ISIC rev. 3).
- In the period Nov. 1980-Nov. 1992 the statistic follows the Danish Industrial Classification of All Economic Activities DSE77 (ISIC rev. 3).

#### Sector

KAS can be distributed on sectors according to ESA (November 1994-November 2012) and ESA2010 (November 2008-November 2014).

### Municipalities

KAS is published at municipality level in StatBank Danmark.



# 2.3 Sector coverage

The statistic covers all sectors.

# 2.4 Statistical concepts and definitions

Employed persons: The calculation of employed persons in the quarter is an average calculation of the number of employed persons per day in the quarter. A person is therefore included in the calculation with the precise number of days in employment.

Employment rate: The proportion of employed in a given population group.

Economic activity rate: The proportion of employed and unemployed (the labour force) in a given population group.

# 2.5 Statistical unit

Averaging of the number of persons in the population.

## 2.6 Statistical population

The population is persons in the population.

### 2.7 Reference area

Denmark, by Regions, Provinces and Municipalities.

## 2.8 Time coverage

2008 - 2017

## 2.9 Base period

Not relevant.

## 2.10 Unit of measure

Persons.

## 2.11 Reference period

KAS is an annual statistic which provides an average of the population's primary attachment to the labour market for all quarters in the year - i.e. 1.-4. quarter 2008-2016.



# 2.12 Frequency of dissemination

The statistic is published annually.

# 2.13 Legal acts and other agreements

§ 6 in Law about Statistics Denmark.

## 2.14 Cost and burden

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

### 2.15 Comment

More information about KAS on employment

# **3 Statistical processing**

The quarterly labour force statistic is based on the Labour Market Account (LMA) which is a longitudinal register. LMA contains information about the populations primary attachment to the labour market on every day of the year. KAS is an averaging of the population's primary attachment to the labour market divided on quarters.

## 3.1 Source data

KAS is based on the Labour Market Account (LMA). The data sources in LMA are various internal and external registers, e.g.:

- eIncome register
- The central business register
- The register with information about persons receiving public benefits
- The educational register
- The employment classification module
- The income register
- The population register
- · The register for persons receiving maternity or sickness benefit

### 3.2 Frequency of data collection

The statistic is annually.

### 3.3 Data collection

The data collection is done by separate processing of each source register. After that a transverse data processing is done (also called treatment of overlaps) where information in the various registers are compared, and corrected when needed. Finally data are linked to other registers to add background information and form the population.



# 3.4 Data validation

The data foundation for KAS is The Labour Market Account (LMA). LMA is produced both with and without an hourly standardization. The non-hourly standardized longitudinal register (LMA-UN) is the data foundation for RAS, and therefore the data validation takes place in LMA-UN.

In connection to the production of LMA a comprehensive validation of each input data is done. The most important ones are:

- 1. The data source for wage earner jobs are the eIncome register. The wage earner jobs contains information about which workplace the job is at. The workplace is the foundation for the information about industry, sector and geography. In some cases the reporting from the employer are incorrect. In that case a correction of the errors are conducted. The eIncome register contains information about work function (DISCO-08) for persons employed at workplaces covered by the wage statistic. If the workplace is not covered by the wage statistic the information about work function comes from the work classification module when it's available here. In addition other errors are corrected by the eIncome register.
- 2. The data source for information about self-employed is the business register, the income statistic, the eIncome register and the unemployment statistic. These sources are individually validated at the formation of information about self-employed.
- 3. The data source for information about absence due to sickness and maternity leave is the statistic of maternity leave and sickness benefits. Data is processed a great deal compared to e.g. a temporary determination of whether the absence is from employment or unemployment.

### Transverse data treatment/data validation

The purpose of the transverse treatment/validation of data is to erase, correct or create labour market conditions in cases where the various data sources do not coincide. This is done by a so called treatment of overlaps. The rules used for the treatment are complex. Here some of the most important areas are mentioned:

- Selection of jobs for self-employed on basis of a series of criteria
- Determination of whether the absence due to sickness or maternity leave is from employment or unemployment
- Harmonizing information about subsidized employment

After that data is connected to other registers etc.



### 3.5 Data compilation

The data compilation in LMA takes place in several steps. The first step in the data processing is to identify and correct errors in data from various sources, and put data in one joint and homogenous source data base. From different statistics data on public benefits, wage earners, self-employed, assisting spouses, persons in education, maternity leave and sickness benefits are joint. An imputation of the paid hours for self-employed and assisting spouses are also done. Afterwards 'illegal overlaps' between conditions are being corrected, and connections between various conditions are made.

After the processing of overlaps a classification of the population's attachment to the labour market are made on the basis of the international guidelines from ILO, which is further described in item 2.2 Classification system. The guidelines consist among others of a set of rules for prioritizing the primary attachment to the labour market. The guidelines dictates that employment is prioritized higher than unemployment, while unemployment is prioritized higher than conditions outside the labour force. Data is also linked the business register to get background information (industry, sector, address for the work place) concerning the work places where the employed persons work. Linking to the population register is also made with the aim of deciding whether the person is resident in Denmark at the time of reference.

From this processing of data the so called LMA-UN is made, and this non-hourly standardized longitudinal register with information about the populations connection to the labour market is the data foundation for KAS.

#### An average calculation

Information about the population's primary attachment to the labour market is the mains variable in KAS, and the statistic is an average of the primary attachment to the labour market over the year divided into quarters. That means that the average of the quarter is calculated bases on information about the primary labour market attachment on every day of the given quarter. Since LMA contains information about the population on every day of the year, it is therefore possible to calculate an average that includes all of the activities a person would have in the specific quarter. This method is chosen to present the most precise image of the population's attachment to the labour market, by including every person and their labour market attachment in the calculation to the exact extent the activity is relevant.

*Background information* Besides from the primary attachment to the labour market KAS also contains information about the person, such as education, age and residence, and about the workplace, such as industry, sector and workplace municipality. These information are also included in the average calculation with the exact number of days in the specific condition. That means that a person who for example changes municipality of residence during the quarter are included in both municipalities with the precise number of days. By including changes during the quarter it is possible to present a more precise image of the population and the population's attachment to the labour market.

An exception of the above is the information about the populations highest completed education. This information are included in KAS, but is in contrast to the rest of the information not gathered directly from LMA. The information about education is gathered from Statistic Denmarks register of education. This register is like LMA a longitudinal register with information about the populations highest completed education on every day in the year. The educational level which is applicable for the person on the first day if the quarter, represents the level in the entire quarter. For the average calculation of the primary labour market attachment for the year the level of education per September the 30. is applicable for the hole period. That is because it's the same reference time as is used for the status in the register of education and in RAS.



# 3.6 Adjustment

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

# 4 Relevance

The quarterly labour force statistic (KAS) is primarily used to structural analysis of the labour market, because the statistic has a very detailed level of information. The statistic is therefore relevant to external as well as internal users and as foundation for analyzing the populations employment over the year.

# 4.1 User Needs

KAS is first published in 2018 and has been requested especially by users of RAS. RAS is an annually status at the end of November on the populations primary attachment to the labour market. There are therefore users of RAS who wish to be able to clarify the populations attachment to the labour market broader during the year than on a specific day in the year. The statistic is furthermore relevant to municipalities with wide seasonal fluctuations in the employment over the year due to for example tourism. Other than that there is a general internal and external wish to clarify the populations attachment to the labour market in the best possible way, and with KAS as supplement to the existing and long series in RAS we can provide an even better foundation for clarifying the labour market attachment.

### 4.2 User Satisfaction

KAS is first published in 2018 with information about the populations employment 2008-2016. From 2019 and on the rest of the population are also included. The user satisfaction has therefore not been evaluated. The user's committee for labour market statistics is involved in the development of KAS.

### 4.3 Data completeness rate

There is no regulation in the field. KAS is, in the extent possible with register-based data, following the international guidelines from ILO (International Labour Organization). ILO is an UN organization that among other things determines the international guidelines on how to specify the population main connection to the labour market. The ILO guidelines are primarily pointed towards survey-based inquiries (Labour Force Survey), where the person itself provides the information about the connection to the labour market. Since RAS is based on register-data the requirements from ILO is adjusted to use for RAS. The ILO guidelines consist among other things of a set of rules for prioritizing the main connection to the labour market. The guidelines dictate that employment has a higher priority than unemployment, while unemployment has higher priority than activities outside the labour force.



# 5 Accuracy and reliability

KAS is a register based average calculation of the populations primary attachment to the labour market, and the statistic uses the Labour Market Account (LMA) as data source. That first of all means that KAS doesn't contain the same uncertainties as statistics based on surveys. Second of all the data foundation for KAS provides a better opportunity to illuminate the labour market than before. KAS consists of a series of data sources which are integrated, corrected, and harmonized, and can therefore illuminate the populations attachment to the labour market significantly better than the single statistics can.

## 5.1 Overall accuracy

KAS is a register-based averaging of the primary attachment to the labour market for people resident in Denmark. The accuracy with the statistic is high. Regarding sources of uncertainties it's mainly the following:

- 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 is though decreased from 14 pct. in 2008 to barely 4 pct. in 2013. The imputation can in some cases mean that the wrong job is pointed out as the primary.
- *Number of self-employed and assisting spouses:* The period of jobs for self-employed and assisting spouses is more uncertain than for employees. A series of information is used to validate whether the person actually is active in a job as self-employed/assisting spouse. There will however be a more significant uncertainty about the number of self-employed and assisting spouses than with employees.
- *Employed distributed by industry:* There are some uncertainties concerning which workplace the specific employee job is situated, because a number of 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 on industries in the public sector, and particularly on the municipal area. 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 combined with uncertainties.

# 5.2 Sampling error

Not relevant.



# 5.3 Non-sampling error

Inadequate or conflicting reports are corrected. Among others the information about working hours is imputed for persons with no information reported.

A selection of self-employed and assisting spouses is done on basis of a series of information about the person and the job.

If a person has more than one job at the time of reference, the primary job is determined as the job with the highest assumed number of working hours.

## 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

KAS is an average calculation of the employed people resident in Denmark and the data foundation is the Labour Market Account (LMA). In LMA various data sources are integrated, corrected and harmonized in one joined system. With RAS there are thus improved possibilities for studying the labour market compared to the solitary statistics. Since RAS is a total count of the population there is not the same uncertainties as with statistics based on surveys. There are however other uncertainties connected to the 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 is though decreased from 14 pct. in 2008 to barely 4 pct. in 2013. The imputation can in some cases mean that the wrong job is pointed out as the primary.
- *Number of self-employed and assisting spouses:* The period of jobs for self-employed and assisting spouses is more uncertain than for employees. A series of information is used to validate whether the person actually is active in a job as self-employed/assisting spouse. There will however be a more significant uncertainty about the number of self-employed and assisting spouses than with employees.
- *Employed distributed by industry:* There are some uncertainties concerning which workplace the specific employee job is situated, because a number of 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 on industries in the public sector, and particularly on the municipal area. 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 combined with uncertainties.

The division of employees into level of skills (managers, employees at upper levels, employees at medium levels, employees at basic levels, other employees and employees not further specified) is done by means of information about work function, which is reported to the wage statistic or otherwise imputed. That happens when the employees work in smaller firms in the private sector (less than 10 full-time employed), which are not obliged to rapport to Statistic Denmark's wage statistic. In these cases the quality of information about the skill level is of lower quality.

The selection of self-employed and assisting spouses is done by means of defined demands and on the background of a series of information about the person and the job.

KAS is similar to RAS which has been published since 1981, and since 2015 has LMA as data foundation. KAS differs from RAS on the calculation method. RAS is a status on the populations primary attachment to the labour market taken on the last working day of November. KAS on the other hand is an average calculation on the populations primary attachment to the labour market divided in quarters and calculated based on information about employment on every day. KAS can thus contribute to clarifying the populations labour market attachment over all four quarters instead of a single day in the year.



# 5.7 Data revision - policy

Statistics Denmark revises published figures in accordance with the <u>Revision Policy for Statistics</u> <u>Denmark</u>. The common procedures and principles of the Revision Policy are for some statistics supplemented by a specific revision practice.

# 5.8 Data revision practice

When RAS is published data is considered final. However data can be revised as a result of changes in methods or new information available.

# 6 Timeliness and punctuality

The statistic is published approximately 16 months after the reference point in time. RAS is typically published at the scheduled date without delay, and is planned more than a year ahead.

## 6.1 Timeliness and time lag - final results

The statistic is published about 14 months after time of reference.

## 6.2 Punctuality

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

# 7 Comparability

The statistic is first published in 2018 with data on 1.-4. quarter 2008-2016. Expect from data break in the classification of occupation in 2010 the statistic is comparable in the hole period 2008-2016. From 2019 and on the data foundation is slightly revised, and therefore there is a smaller data break regarding the employed population. Since 2019 the statistic besides from employed persons also includes the rest of the population in Denmark with information about their primary labour market attachment in the 1st.-4.th. quarter 2017. KAS is based on administrative registers with national character which makes it difficult to compare the statistic internationally.

## 7.1 Comparability - geographical

KAS follows the international guidelines from the International Labour Organization (ILO) for estimating the population main attachment to the labour market. The ILO guidelines are however pointed towards survey-based statistics (the Labour Force Surveys), where the person itself provides the information about the connection to the labour market. Since KAS on the other hand is based on register data, the ILO guidelines are adjusted for use for RAS. It is therefore recommended that the Labour Force Surveys (LFS) are used for international comparisons, while KAS is mainly used to illustrate national structures.



### 7.2 Comparability over time

Expect from data break in the classification of occupation in 2010 the statistic is comparable for the employed part of the population in the hole period 2008-2016. Due to a necessary change in the data foundation the rest of the population (unemployed and persons outside the labour force) are first included in the statistic from the publication of data for 1st.-4th. quarter of 2017. The change in the data foundation also means that there is a smaller data break between 2016 and 2017 for employed persons.

#### Changes in classification of occupation

The level of skills for employees are determined by DISCO-08, which is reported to the wage statistic. From 2010 the classification is changed, which means that the level for 2008-2009 are based on DISCO-88, while it from 2010 is based on DISCO-08. The changes are due to changes in the international classification behind: <u>ISCO</u>. The change causes the number of employees on highest level to increase with about 200,000 persons, while the number of employees on the middle level dropped proportional. The change had impact on among other large groups of employees all pedagogic work, some nursing work and some from the financial sector.

*Changes in the data foundation LMA* From 2019 and on unemployed and persons outside the labour force are also included in the statistic. Those are not included in the years 2008-2016 because a change in the data foundation LMA had to be done, before the populations primary attachment to the labour market could be calculated for every quarter of the year. This adjustment is done in connection to the publication in 2019, and therefore the statistic from 2019 and on contains information about the hole population with information about their primary attachment to the labour market 2017. These small adjustments does not give rise to a revision of LMA 2008-2016, and therefore data on the hole population is only available from 2019 with information about the populations primary labour market attachment 1st.-4th. quarter 2017. The revision also means that there is a smaller data break between 2016 and 2017 in the series on employed persons 1st.-4th. quarter 2008-2017.

## 7.3 Coherence - cross domain

The number of people employed and unemployed in KAS deviates from other statistics. You can read more about the differences bellow:

### Registerbased labour force statistic (RAS)

RAS is a status over the populations primary attachment to the labour market on the last work day of November, and has since 2015 used LMA as data foundation. LMA is also the data foundation of KAS and contains the same background information about persons (e.g. age, sex and ancestry) and workplace (e.g. industry, sector and municipality of work place). The difference between RAS and KAS is thus the calculation method and population. With LMA it is possible to determine the population's attachment to the labour market on every day of the year, and therefore possible to describe employment broader over the year instead of on a specific day like RAS. KAS is in contrast to RAS therefore an average calculation of the populations primary attachment to the labour market on every day in the quarter.

The opportunity of analyzing employment broader over the year has been sought especially by users of RAS. E.g. municipalities with significant employment in the tourism industry, and industries with seasonal fluctuations especially for self-employed. The purpose of KAS is therefore to provide a supplement for RAS that makes it possible to present the labour market attachment broader over the year.

Employment in Businesses (EiB)

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The EiB and KAS have a common definition of the stock of employees at the end of November, but there are some jobs that are included in RAS and not in EiB and vice versa. First of all the person's primary connection to the labour market is calculated in KAS, while EiB includes both a person's most important job as well as other jobs the person may have at the end of November. Secondly persons, who are absent from employment (because of childcare leave, maternity leave or sickness benefit) at the end of November are considered to be employed in KAS, but not in EiB. Thirdly EiB only includes self-employed, who are liable to pay VAT or payroll tax or are employers, while RAS also includes employed who have the largest income during the year from self-employment. In the fourth place EiB only includes jobs in businesses with a certain minimum activity. Businesses with activities under a defined threshold are not included in the EiB.

#### Labour Force Survey (LFS)

LFS is an interview study. LFS uses the same by ILO internationally defined concept of employment as KAS. Since the ILO guidelines is pointed at survey-based statistics as LFS, the guidelines is adjusted to use for KAS. For that reason there are considerable deviations between LFS and KAS. If the socioeconomic status of employed persons is considered, there are relatively more self-employed and assisting spouses in LFS. The reason for this is among other things that people, who are shareor stockholders in the company where they are employed, are classified as an employee in KAS, while they often will describe themselves as self-employed when asked in the LFS. The same goes for assisting spouses with wage agreement, who in KAS are classified as employees. The distribution of the employees by skills also differs significantly between the two statistics.

#### Public Employment Statistic (PES)

The PES calculates the average number of jobs and the number of full-time employed persons each quarter within the public sector. The number of jobs includes all the jobs that the person has in the public sector at a given time. This means that the number of jobs is substantially higher than the number of persons employed in KAS.

### Employment Statistic for Employees (ESE)

The ESE calculates the full-time employment and the number of employees on a quarterly basis. The calculation of full-time employment means that the level of employment in ESE will be lower than the level of employment in KAS. On the other side the number of employees is higher than in KAS. The reason is that some of the employees are classified as self-employed in RAS. That is the case when a person has a job as employee and at the same time is self-employed and the person works the most hours as self-employed.

*Unemployment statistic* The average full-time unemployment in the unemployment statistic is generally higher than the unemployment in RAS. There are two reasons for this; firstly unemployment is calculated in full-time equivalents in the unemployment statistic. Secondly, a portion of the gross unemployed are calculated as employed in RAS. The reason for this is that they are activated in a measure, where they are receiving wages. In such cases, they are classified as employed according to the international guidelines for employment statistics. In addition, a portion of the gross unemployed are calculated as employed in RAS. The reason for this is that they are activated in a measure, where they are receiving wages. In such cases, they are classified as employed according to the international guidelines for employment statistics. In addition, a portion of the gross unemployed are calculated as employed in RAS. The reason for this is that they are activated in a measure, where they are receiving wages. In such cases, they are classified as employed according to the international guidelines for employment statistics.

#### Labour Market Account (LMA)

LMA is the data foundation of KAS.

The Working Time Account (WTA)

The estimation of employment in WTA is based on LMA. In WTA the employment is calculated



# 7.4 Coherence - internal

KAS is based on the Labour Market Account (LMA) which is compiled on a number of different sources. KAS is the result of an average calculation of the population's primary labour market attachment in every day in the quarter in LMA. Minor differences is however possible between the newest current version of LMA and KAS. That is because LMA is a more "lively" register where different improvements are done after the production of KAS.

# 8 Accessibility and clarity

The statistics are published in the StatBank under **Quarterly Labor force Statistics**, employment.

### 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: <u>Release Calender</u>.

### 8.4 News release

There is no specific publication for this statistic.

### 8.5 Publications

No publications planned.

### 8.6 On-line database

The statistics are published in the StatBank under <u>Quarterly Labor force Statistics, employment</u>.

### 8.7 Micro-data access

KAS is an average calculated on LMA which is available through Statistics Denmark's researcher arrangement (Forskningsservice) under consideration of the <u>general rules of anonymity in Statistics</u> <u>Denmark</u>.



## 8.8 Other

LMA is annually being delivered to Statistics Denmark's Customer Centre and Statistics Denmark's researcher arrangement (Forskningsservice).

# 8.9 Confidentiality - policy

Data Confidentiality Policy at Statistics Denmark.

## 8.10 Confidentiality - data treatment

Since KAS is an average calculation no discretion has been done on data published in the Statbank.

### 8.11 Documentation on methodology

Documentation on methodology only in Danish.

### 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 the statistic is in the Labour and Income division. The responsible person is Pernille Stender, tel. +45 39 17 34 04, e-mail: psd@dst.dk.

### 9.1 Contact organisation

Statistics Denmark

## 9.2 Contact organisation unit

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### 9.3 Contact name

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Responsible for the statistics

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