

Documentation of statistics for Business Demography 2023



1 Introduction

The purpose of the Business Demography is to provide information about the development of enterprise births and deaths as well as the survival of new enterprises over a period of five years. The statistics is comparable from 2019 onwards.

2 Statistical presentation

The statistics cover the annual number of enterprise births and deaths and provides information on turnover and employment. The results are broken down by industry, size class, enterprise form, and geographical location. The statistics are disseminated in Nyt from Statistics Denmark and in our statbank.

2.1 Data description

The statistics cover the number of enterprise births and deaths. Furthermore, the survival of new enterprises is followed over a period of 5 years. Information about the turnover and employment of the enterprises are published.

Enterprise Birth: A birth amounts to the creation of a combination of production factors with the restriction that no other enterprises are involved in the event. Births do not include entries into the population due to mergers, break-ups, split-off or restructuring of a set of enterprises. It does not include entries into a sub-population resulting only from a change of activity. A birth occurs when and enterprise starts from scratch and actually starts activity. An enterprise creation can be considered an enterprise birth if new production factors, in particular new jobs, are created. If a dormant unit is reactivated within two years, this event is not considered a birth.

Enterprise Death: A death amounts to the dissolution of a combination of production factors with the restriction that no other enterprises are involved in the event. Deaths do not include exits from the population due to mergers, take-overs, break-ups or restructuring of a set of enterprises. It does not include exits from a sub-population resulting only from a change of activity. An enterprise is included in the count of deaths only if it is not reactivated within two years. Equally, a reactivation within two years is not counted as a birth.

2.2 Classification system

In Denmark results are published by <u>sector</u>, with breakdowns by <u>Danish regions</u> and size classes based on employment. Results to Eurostat are delivered using the international activity classification, NACE Rev. 2.

2.3 Sector coverage

The statistics includes all NACE codes (sectors).



2.4 Statistical concepts and definitions

Active enterprise: In the statistics Business Demography, an enterprise is considered genuinely active if it meets at least one of several criteria for economic activity. Activity is determined based on turnover, purchases, foreign trade, full-time employees, value added or payroll turnover. Threshold values are set based on turnover in enterprises with 0.5-3 full-time equivalents and vary by industry.

Enterprise birth: An enterprise that becomes active for the first time, or becomes active again after minimum two years of inactivity.

Enterprise death: An enterprise that ceases to be active.

Survived enterprise: An enterprise that is continually active over a set period of years, after it has been characterised as an enterprise birth.

2.5 Statistical unit

The statistics is published at enterprise level.

2.6 Statistical population

Number of births and deaths as well as survival of enterprises up till 5 years old.

2.7 Reference area

The statistics covers all of Denmark.

2.8 Time coverage

The statistics covers the period 2019 onwards in our Statbank. Data from 2010 is available for tailor-made services.

2.9 Base period

Not applicable.

2.10 Unit of measure

Number of enterprises.

2.11 Reference period

01-01-2023 - 31-12-2023

2.12 Frequency of dissemination

The statistics are compiled annually.



2.13 Legal acts and other agreements

Business demography data submitted to EU in accordance with SBS regulation, 295/2008. (Annex IX).

2.14 Cost and burden

The statistics is based on administrative data. There is consequently no response burden associated with this.

2.15 Comment

Additional information is available on the statistics' web page or by contacting Statistics Denmark.

3 Statistical processing

Data is collected from the Statistical Business Register. Subsequently various processes are undertaken to determine whether or not an enterprise is new (enterprise birth), terminated (enterprise death), or surviving. The controls are done to validate if the new enterprises, which exists in the administrative reality, are in fact real new enterprises, which enters the economy, or if it is an activity that is continued after a takeover or e.g. a split of an existing enterprise.

3.1 Source data

The Central Business Register is the basis of the statistics.

Data elements are obtained from the **General enterprise statistics**.

3.2 Frequency of data collection

Annually.

3.3 Data collection

The statistics is based on register data.

3.4 Data validation

The statistics is based on validated data. The statistics is validated against earlier reference years on industry. Moreover, large new enterprises are manually validated regarding the status as a genuine enterprise birth or death. This is amongst other things done using address information and the employment information. What is validated is if the new enterprises which exists in the administrative reality, are in fact real new enterprises, which enters the economy, or if it is an activity that is continued after a takeover or e.g. a split of an existing enterprise.

In addition, an extra manual check of enterprises with more than 10 full-time employees or with a turnover of 20 m. DKK or more is performed. This might indicate that the enterprise is formed on basis of e.g. a split-off from a former enterprise, and thereby not being a genuine new enterprise.



3.5 Data compilation

Data is aggregated from Micro-data delivered by the Statistical Business Register to the level of publication.

3.6 Adjustment

No data correction is made, except what is already described under the section for data validation and statistical processing.

4 Relevance

The statistic is used by ministries and governmental agencies, regional and county authorities as well as private sector institutions and enterprises

The statistic is a central indicator for entrepreneurship and for sustainability in the economy, and there is a large demand for using the output in combination with other sources, and following the development of enterprises who survive.

4.1 User Needs

The statistics is used by ministries and governmental agencies, regional and county authorities as well as private sector institutions and enterprises. The statistics is also used for service tailor made statistics, where data are combined with different sources of data. Further, the statistics is used by researchers.

4.2 User Satisfaction

There is a large demand for this statistic as a central indicator for entrepreneurship. The national publication covers the entire economy, but many users get tailor-made subpopulations to shed light on different parts of the economy.

There is also a large demand to combine data about the new enterprises with all of our other business statistics, and follow the development for enterprises who survive.

4.3 Data completeness rate

Concerning data completeness the statistics lives up to requirements in regulations and guidelines.

The compilation method used in connection with submitting data to the EU differs from the present national compilation method, mainly on sector and ownership cut-off. The national dissemination covers all sectors and ownership structures, where method used for data transmitted to EU follows the definition by the OECD and Eurostat European Business Statistics Manual, 2021 edition.



5 Accuracy and reliability

The statistics is based on validated register data.

Uncertainty is related to relations between units and work places, which are primarily based on digital income reporting by enterprises, and lack of knowledge concerning the transfer of activities from one enterprise to another, including the separation of activities.

5.1 Overall accuracy

For a few single units, the lack of references may imply that economic and employment data are not correctly linked. Attempts are made to remedy this problem by subjecting, especially the largest enterprises to a manual check and data editing. In the case of enterprises with employees, the data on where the employees have been in employment during the course of a year are applied, as an overall shift of workplace for several employees may imply that an activity has been transferred to another enterprise.

The rate of coverage is almost 100 per cent for all enterprises which are obliged to register according to the Danish tax and customs legislation or the business legislation. Units, which might have been engaged in a major financial activity, but are not obliged to register according to the Danish VAT legislation and have no employees, are in a few single cases not recorded on the Central Business Register, and are consequently excluded from the Statistics on business demography.

5.2 Sampling error

Not relevant for this statistics.

5.3 Non-sampling error

The uncertainty associated with the statistics is related to the mechanical and manual processing of special employment information that attempts to eliminate companies that are not really new in the corporate structure, but have only arisen or ceased as a result of demographic events such as acquisitions or split-offs.

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 uncertainty associated with the Business Demographic statistics is associated with the references between the entities which mainly comes from T & S's Business System, and lack of knowledge of the transfer of activity from one company to another, including the separation of activity. Failure to do so can result in economic and employment data are not correctly linked to the individual units. The problem is being tackled by subjecting, especially the largest firms, to a manual control and error recovery. For businesses with employees, the knowledge on where the employees have been employed during the year. A large shift of employees can mean the transfer of activity to another unit.

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

The number of deaths is revised annually for the preceding period, when the number of reactivations are known.

6 Timeliness and punctuality

The statistics is published annually. The publication is usually available 18 months after the end of the reference year. The statistics is also published with preliminary data 12 months after the end of the reference year.

6.1 Timeliness and time lag - final results

The statistics are published annually. The statistics are published about 18 months after the end of the reference year. The relatively long time of publication is primarily due to the fact that the primary statistics included in the Statistics on business demography must be finally compiled, before the Statistics on business demography can be finally compiled. The real period when all basic registers are available until publication is approximately 3 months.

The statistics is also published with preliminary data 12 months after the end of the reference year.

6.2 Punctuality

The statistics is usually published without delay compared to the announced publication date.

7 Comparability

The national published Business Demography is a sub-population of the Danish published General enterprise statistics.

Covering private enterprises excluding agriculture, the Danish published Business demography can be compared to the Business Statistics published by Eurostat.



7.1 Comparability - geographical

The statistics can be compared with the <u>Business Demography</u> published annually by Eurostat.

There is a difference regarding coverage. While the Danish published Business Demography include all NACE codes and ownerships, the European published Business Demography only include NACE Rev. 2 B-N excluding K642, which is a coverage in sectors comparable to the coverage in the structural business statistics. On voluntary basis P-S excluding S94 are also published. Moreover, following legal forms are included: Sole proprietor, Limited liability company and Partnership and other legal forms.

For more information on the european statistics published by Eurostat, refer to <u>European Business Statistics Manual</u>, 2021 edition.

7.2 Comparability over time

The Business Demography statistics has been republished for the reference years 2019-2021. It is based on the new activity threshold (Economically Active), which defines active firms differently from the previously used activity threshold. It is therefore not directly comparable to the previous time series covering 2001-2021.

As a result of the change in the activity threshold, the new Business Demography contains fewer new enterprises than the previous version of the statistics. An enterprise is considered genuinely active if it exceeds at least one of several threshold values. These threshold values are calculated for turnover, purchases of goods, foreign trade transactions, full-time employees, value added or payroll turnover. For each industry, the threshold value is determined based on the turnover of enterprises with 0.5-3 full-time equivalents (FTEs). This has raised the threshold value for some industries and is the primary reason why there are fewer new enterprises in the new Business demography compared to the previous version.

The new activity threshold also includes criteria related to asset holdings and whether an enterprise is owned by another genuinely active enterprise. These criteria have been excluded to ensure that the Business Demography only includes genuinely new enterprises, measured based on the enterprise's own growth.

7.3 Coherence - cross domain

The Business Demography is a sub-population of the General Enterprise Statistics, which includes all active enterprises in Denmark.

Like the Business Demography, the General Enterprise Statistics has also transitioned to identifying (new) active enterprises based on the new activity threshold (Economically Active). However, in the General Enterprise Statistics, an enterprise is also considered genuinely active if it merely meets the criterion for asset holdings or if it controls another enterprise that is genuinely active.

Statistics Denmark also compiles an Entrepreneurship Database. A key difference between the Business Demography and the Entrepreneurship Database is that in the Entrepreneurship Database, an enterprise cannot be a restarted business. This is permitted in the Business Demography if the enterprise has been closed for at least two years.



7.4 Coherence - internal

The statistics are based mainly on one source, why the internal consistency is considered high.

8 Accessibility and clarity

Results are published in <u>Nyt fra Danmarks Statistik</u>. Results are also available in the StatBank under the topic <u>Business demography</u>.

8.1 Release calendar

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

8.3 User access

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

8.2 Release calendar access

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

8.4 News release

Results are published in Nyt fra Danmarks Statistik Erhvervsdemografi (in Danish only).

8.5 Publications

Results are published, among other places, in **Statistical Yearbook**.

8.6 On-line database

The statistics are published in the StatBank under the subject <u>Business demography</u> in the following tables:

- <u>DEMO11</u>: Business Demography by industry (DB07 127-grouping), status, unit and time
- DEMO13: Business Demography by industry (DB07 19 grouping), turnover and export and time
- DEMO14: Business Demography by region, industry (DB07 10-grouping), unit and time
- DEMO15: Business Demography by type of ownership, unit and time
- <u>DEMO16</u>: Business Demography by industry (DB07 10-grouping), unit, year of beginning and time
- DEMO18: Business Demography by enterprise size (full time equivalents), unit and time
- DEMO19: Business Demography by municipality, unit and time
- <u>FDEMO4</u>: Preliminary Business Demography by region, industry (DB07 10-grouping), unit and time

8.7 Micro-data access

Data is available on individual level. Researchers may be granted access to anonymized micro-data. Furthermore, specialized data sets and tables may be produced upon request.

8.8 Other

Anonymized data from the statistical register may be used for customized tables and analyses. See Customized solutions.

Inquiries may be directed to the person responsible for the Business Demography.

8.9 Confidentiality - policy

Statistics Denmark's policy on confidentiality.

8.10 Confidentiality - data treatment

In connection to publication and delivery of customized statistics, a so-called confidentiality test of data is made. The confidentiality test is made on the basis of two criteria:

- 1. The number criteria: If one data cell contains less than 3 observations (enterprises) employment and financial information can not be published
- 2. The dominance criteria: If one or two observations (enterprises) contained in one data cell, alone or together constitute a certain percentage of the total turnover of the cell, the turnover and other financial information for this group can not be published.

8.11 Documentation on methodology

See European Business Statistics Manual, 2021 edition.

8.12 Quality documentation

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

9 Contact

The administrative placement of these statistics is in the division of Business Dynamics, Business Statistics. The contact person is Asbjørn Hviid Mikkelsen, tel.: + 45 2942 6836, and e-mail: AHM@dst.dk.