Documentation of statistics for Computer Services 2023

1 Introduction

The purpose of the statistics Computer Services is to provide information on turnover and types of services in enterprises with Computer services and main activity. The statistics is also used in the compilation of the national accounts and for revision of activity classifications in the Business Statistical Register. The Statistics is part of the EU's Structural Business Statistics (SBS). The statistics was first published for the reference year 1995. Prior to 2012 it was called Product Statistics for Computer Services. From 2023 the statistics has been changed to only cover enterprises with at least 20 employees.

2 Statistical presentation

The statistics provides information on the distribution of total turnover and export on products and services. Furthermore information is collected on the turnover broken down by clients and information on the export broken down by residence of client (resident or Non-resident intra-EU or Non-resident extra-EU).

2.1 Data description

The statistics provides information on the distribution of total turnover and export on products and services. Furthermore information is collected on the turnover broken down by clients and information on the export broken down by residence of client (resident or Non-resident intra-EU or Non-resident extra-EU).

2.2 Classification system

The industry codes follows the Danish industrial classifications, Dansk Branchekode 2007 (DB07), which is the national version of NACE rev 2.

2.3 Sector coverage

The statistics covers enterprises that are legally registered in Denmark and have the main activity in the sector for Computer Services. The activity codes in the statistics are:

- Publishing of computer games (DB07) 582100
- Other software publishing (DB07) 582900
- Computer programming services (DB07) 620100
- Hardware consultancy (DB07) 620200
- Computer facilities management services (DB07) 620300
- Other information technology and computer services (DB07) 620900
- Data processing, hosting and related services (DB07) 631100
- Web portal content (DB07) 631200.

Dansk Branchekode 2007 (DB07) is the National version of Nace Rev. 2 activity classification. A full description of the activities can be found on DB07.

2.4 Statistical concepts and definitions

Client: In the national publication the following clients are used:

- Public sector
- Households and non-profit institutions
- Enterprises

Residence of client: In the EU publication the resident of clients is used

- Resident
- Non-resident intra-EU
- Non-resident extra-EU

Services: Generally the questions in the questionnaire are based on Statistical Classification of Products by Activity CPA 2008, with adjustments to Danish conditions.

The following services are used:

- Computer programming services
- Hardware consultancy services
- Systems and software consulting services
- IT technical support services
- Network management services
- Computer systems management services
- Other information technology and computer services
- Data processing, hosting and related services
- Webportal services
- Publishing of computer games
- Systems software, packaged
- Application software, packaged
- Software downloads
- Online software
- Licensing services for the right to use computer software
- Maintenance and repair of office equipment
- Maintenance and repair of computing machinery
- Resale of software (retail and wholesale, not own developed)
- Resale of hardware (retail and wholesale, not own developed)
- Other resale
- Other additional products n.e.c

The firms in the sector for Computer Services provide information about their turnover and export (in 1000 kr. without VAT). Further more the total turnover and export are distributed on services (in 1000 kr. without VAT) and clients (in percent). Finally, the export is divided by residence of client (resident and Non-resident intra-EU or Non-resident extra-EU). Until 2008 information on ownership was collected i.e. if the ownership is Danish, intra-EU or extra-EU.

2.5 Statistical unit

The units in the statistics are enterprises in the sector for Computer Services. The enterprises are legal units and defined by their CVR-nr in the Business Register of Statistics Denmark.

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2.6 Statistical population

The statistic covers enterprises with at least 20 employees ultimo November in the reference year. In 2023 the population consisted of 803 enterprises.

2.7 Reference area

Denmark

2.8 Time coverage

The statistics covers the time period from 2023 and onwards.

2.9 Base period

Not relevant for these statistics.

2.10 Unit of measure

The distributions of turnover (and export) by services and clients are given in DKK 1,000.

2.11 Reference period

The statistics covers the financial year.

2.12 Frequency of dissemination

Frequency of the statistics is annual.

2.13 Legal acts and other agreements

The Act on Statistics Denmark (Lov om Danmarks Statistik), Section 8, cf. Order no. 610 of 30 May 2008.

From the reference year 2008: Regulation (EC) No. 295/2008 of the European Parliament and of the Council of 11 March 2008 concerning structural business statistics.

2.14 Cost and burden

The response burden has not been estimated for the reference year 2023.

2.15 Comment

The statistics has a subject page

3 Statistical processing

Data are collected by online questionnaire from a total count of enterprises in the sector Computer services. In the questionnaire the enterprises are asked to breakdown their turnover by a number of products, services and client categories. It also reported information about export. The reported data are checked by comparing the distribution of turnover among enterprises that are similar. Survey data is grossed up in part by including information turnover from the Accounts Statistics for Non-Agricultural Private Sector in the reference year for the entire population.

3.1 Source data

All enterprises that has atleast 20 employees ultimo november in the reference year, and is registered with the IT-service industry as described under sector coverage, is drawn from the business statistical register.

3.2 Frequency of data collection

Data are collected annually.

3.3 Data collection

Data are collected by online questionnaires. In the questionnaire the enterprises are asked to distribute their turnover and export in DK 1,000 by a number of products, services and client categories, as described in section 2.4.

3.4 Data validation

The submitted data are checked for errors, ex. data of the individual reporter are compared with prior periods and similar enterprises reporting in the current period. If the data are significantly different than expected, the enterprise will be contacted.

3.5 Data compilation

The data from the questionnaires received are grossed up to the provisional total turnover from the Accounts Statistics for Non-Agricultural Private Sector

3.6 Adjustment

Not relevant for these statistics.

4 Relevance

The statistics is used among enterprises when planning and provides an overview of the development taking place in the service sector. Furthermore the statistics is an input to national accounts in Statistics Denmark regarding the service sector. The statistics is also used of the European Statistic bureau, Eurostat, to create EU-statistics about Business Services.

4.1 User Needs

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4.2 User Satisfaction

Information about user satisfaction for the statistics does not exist.

4.3 Data completeness rate

The statistics covers a delivery to Eurostat in the SBS-domain (Structural Business Statistics) and fully live up to the requirements herein. Some turnover for some services are not published as there are some confidentiality regarding disclosure.

5 Accuracy and reliability

The statistics provides a reliable estimate of the turnover and its distributions on the the different services provided within the covered industry. This is due to the fact submission is mandatory for all enterprises within the population, and because the submitted turnover is adjusted with the turnover from the Accounts Statistics for Non-Agricultural Private Sector, which is based on a large sample, administrative sourced and digital annual reports (XBRL) from the Danish Business Authority. It is assumed that the distribution of the respective services in the enterprises that did not submit, ceased to exist or by fault was not included in the initial sample compilation, are equal to the average distribution within the industry.

5.1 Overall accuracy

For the reference year 2023 there are 803 enterprises in the statistics and a useful response rate of 92%, covering 97% of the total turnover of the population. The lapse are due to wrong industry code and closure of the enterprises and non-responded questionnaires.

The usable data from the enterprises grossed up to the total level (the target population) of the 6-digit industries within the sector for Computer Services by using preliminary turnover from the Accounts Statistics for Non-Agricultural Private Sector.

5.2 Sampling error

The sampling error is equal to zero, as it is a total count.

5.3 Non-sampling error

The population is defined by the industry concerned, the enterprises registered in the Business Register by themselves. Errors of classification of the industries will be expected. This means that there may be enterprises in the population that really should not be classified as an enterprise in the concerned industry, but also companies in the concerned industry can be classified with the wrong industry.

In the context of fault tracing and quality assurance of the statistics, a number of these errors continuously are found and corrected. Companies that are incorrectly classified within the concerned industry incorrectly increases the number of included enterprises.

On the other hand there will be less enterprises in the population if they are classified entirely outside the concerned industry, even though they should properly be classified within the concerned industry, which can be difficult difficult to detect, but can be found also. The significance of these coverage problems are generally small because the volume is estimated to be small.

Uncertainty due to lapse, incorrectly reported numbers and misunderstandings has sought to minimize by repeated reminders by non-reporting, as well as by substantial verification of the reported figures.

Generally the services in the questionnaire are based on Statistical Classification of Products by Activity CPA CPA 2008, with an adjustment to Danish conditions. It can be an uncertainty in the distribution of turnover and export by services when the services CPA 2008 are not quite commensurate with the classification of products of the firms.

There we're 741 useable questionnaires within the population of 803.

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 quality is estimated to be high as the statistics is based on a total count with a high response rate. Furthermore because because the statistics uses the turnover from the Accounts Statistics for Non-Agricultural Private Sector.

The figures are preliminary and will not revised in the national publishing. For delivery to EU the figures are calculated (revised) based on the turnover in the final version of the Accounts Statistics for Non-Agricultural Private Sector.

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

The published data will not be revised, since the statistics is published once a year.

6 Timeliness and punctuality

The statistics is published once a year and approximately 10 months after the reference year. The statistics is published usually without delay regarding to the announced date. To EU the data must be delivered within 18 months after the reference year.

6.1 Timeliness and time lag - final results

The statistics is published once a year and approximately 11 months after the reference year. The statistics is published usually without delay regarding to the announced date. To EU the data must be delivered within 18 months after the reference year.

6.2 Punctuality

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

7 Comparability

The statistics has been compiled since 1995. The questionnaire, sampling method and calculation has been adjusted a couple of times, in 2013 where data from 2012 was recalculated with a new method and from the reference year 2023, where the statistics only covers enterprises with at least 20 employees. The statistics is produced according to the guidelines in the European Business Statistics Manual, and it is thus comparable to the similar statistics in other EU countries.

7.1 Comparability - geographical

To Eurostat the data are provided only for enterprises with less 20 person employed (according to EU's regulation). In the Statistics Database of Eurostat the distributions of the turnover by services and residence of client are published on EUROSTAT's homepage. It is considered that there are good comparability across countries, because the statistics should be produced by common guidelines and principles.

7.2 Comparability over time

The statistics is comparable from 2023 and onwards, where it only covers enterprises with at least 20 employees. The questionnaire used for the current timeseries is directly comparable to the one used between 2012 and 2022. Betwees 1995 and 2012 there are several data discontinuities caused by changes to the questionnaire, changes in industry codes (from NACE rev.1 to NACE rev. 1.1 and to Nace rev. 2) and thus also the product classification by activity (CPA) on which the questionnaire is based. From the reference year 2013 the method is changed so the enumeration is based on a new data from the Central Business Register. Data are back calculated for 2012. Which means that the results before the year 2012 are not directly comparable to the results from 2012 to 2022.

In the Statbank data can be found back to 1995. Due to the differences in methods and units the data for the earlier years can't be expected to compare with the current timeseries beginning with year 2023. From 2023 onwards the statistics only includes enterprises with at least 20 employees.

7.3 Coherence - cross domain

At national level the data for the survey are grossed up to the provisional turnover from the Accounts Statistics for Non-Agricultural Private Sector. At European level the data for the statistics are grossed up to the level for the final version of the Danish Accounts Statistics for Non-Agricultural Private Sector.

7.4 Coherence - internal

Not relevant for these statistics.

8 Accessibility and clarity

These statistics are published in a collective Danish press release for services. The figures can be found in the StatBank under Computer services. For more information go to the subject page for the Service sector. International comparable figures are available through Eurostat's webpage under Business Services.

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.

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8.2 Release calendar access

The Release Calender can be accessed on our English website: [Release Calender](#).

8.4 News release

These statistics are published in a collective Danish press release for services. From the reference year 2013 there is no longer a separate press release for the sector for *Computer services*. Instead, there is an annual New article for the following industries within the Service Sector:

- Computer services
- Advertising services
- Temporary employment agencies and other human resources services
- Legal services
- Accounting and bookkeeping
- Business and management consultancy activities
- Architectural services
- Market research and public opinion polling
- Technical testing and analysis
- Consulting engineering.

8.5 Publications

Ikke relevant for denne statistik.

8.6 On-line database

The statistics are published in the StatBank in the following table:

- [SERV2501](#): Turnover in Computer Services by service

8.7 Micro-data access

Contact Statistics Denmarks Research Service regarding possibilities for access to microdata.

8.8 Other

These statistics are available through Eurostat's webpage under [Business Services](#).

8.9 Confidentiality - policy

[Data Confidentiality Policy](#) for Statistics Denmark.

8.10 Confidentiality - data treatment

The statistics follows Data Privacy Policy of Statistics Denmark, [Data Privacy Policy](#).

8.11 Documentation on methodology

There are no separate documentation on methodology for these statistics.

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. The contact person is Emil Tappe Bang-Mortensen, tel.: + 45 2467 8525, and e-mail: EBM@dst.dk.