

**Documentation of statistics for
Purchase of Commodities and Services in the Construction
Industry 2014**

1 Introduction

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2 Statistical presentation

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2.1 Data description

The purpose of the statistics is to give detailed information about services and materials used in the Danish constructional production. The purchase of services are divided into 10 types of services and reported for 5 construction industries. The purchase of materials are divided into 44 material groups and reported for 5 construction industries. The statistic is based on a survey among construction companies. It is used, among other things, in construction the National account.

2.2 Classification system

The division of industries in the statistic is based on the Danish Industrial Classifications DBO7

The industry groups are:

- 41000 Construction of buildings
- 42000 Civil engineering
- 43001 Construction installation activities
- 43002 Building completion and finishing
- 43009 Bricklaying and other specialized construction activities and site preparation activities

Commodity codes are based on the Harmonized System for Commodity Description known as HS Nomenclature, elaborated under the auspices of the World Customs Organisation (WCO).

2.3 Sector coverage

The construction sector.

2.4 Statistical concepts and definitions

Traded goods: Commodities that are traded without being processed.

Commodities: Commodities are understood as all commodities/materials that are part of the final product or are processed and sold.

Services: Services include all billed expenditures for services bought externally.

2.5 Statistical unit

The units in the statistic are companies.

2.6 Statistical population

Populationen, som statistikken dækker, udgøres af virksomheder, som har hovedaktivitet inden for bygge- og anlægsbranchen.

2.7 Reference area

The statistic covers employment in Danish construction companies. Foreign companies, that do construction work in Denmark, are not included.

2.8 Time coverage

The statistic covers the period of 2012 and onward. Older time series are described in the section *Comparability over time*.

2.9 Base period

Not relevant for this statistics.

2.10 Unit of measure

Value in 1.000 DKK and pct.

2.11 Reference period

The reference time for the survey is the stated period. Companies report their purchases of material and services in the stated financial year. Certain companies have a shifted financial year. In the statistical year 2014, these companies would report their purchases for the accounting year that finishes in the period 1st of May 2014 to 30th April 2015.

2.12 Frequency of dissemination

Yearly.

2.13 Legal acts and other agreements

Subsection 1 of section 8 of the Act on Statistics Denmark. The Statistics is necessary because of estimations in the National Accounts.

2.14 Cost and burden

The burden for enterprises has estimated to 163.000 DKK.

2.15 Comment

Further information can be obtained by contacting Danish Statistics.

3 Statistical processing

The reported data is scaled to the total population of companies with main activity in construction. The population, to which we scale, include companies with less than 20 employees, even though these are not in the sample. For scaling a method called ratio estimation is used. The method uses turnover information from the Danish Business Register. No numbers are imputed.

The reported numbers are controlled for errors. they are compared to reported numbers from earlier periods. If the reported numbers are substantially different from what is expected, the company is contacted to confirm the numbers. It is likely that not all errors are discovered. Therefore the statistic has some uncertainty connected to wrong reports.

3.1 Source data

The statistic is based on a questionnaire among construction companies. The sample is approximately 290 companies. The companies are chosen with the aid of registry information. In the sample all companies with at least 80 registry employees have been chosen. The rest of the sample is based on random stratified sampling. There are 3 size groups, defined by the intervals 20-49 employees, 50-79 employees and more than 79 employees. The limit of 20 employees, under which no companies are selected, has been set to reduce the burden placed on small companies.

3.2 Frequency of data collection

Yearly.

3.3 Data collection

The numbers are gathered by online reporting from the companies in the sample. The survey is mandatory.

3.4 Data validation

The reported numbers are controlled for errors. they are compared to reported numbers from earlier periods. If the reported numbers are substantially different from what is expected, the company is contacted to confirm the numbers. It is likely that not all errors are discovered. Therefore the statistic has some uncertainty connected to wrong reports.

3.5 Data compilation

The reported data is scaled to the total population of companies with main activity in construction. The population, to which we scale, include companies with less than 20 employees, even though these are not in the sample. For scaling a method called ratio estimation is used. The method uses turnover information from the Danish Business Register. No numbers are imputed.

3.6 Adjustment

The statistic is yearly, so there is no seasonal adjustment.

4 Relevance

The statistic is used mainly by the national account for information on the linkages between construction and other sectors.

4.1 User Needs

In the national accounts the data is used to map the input-output structure in the economy which is used for the aggregated national accounts as well as for input-output tables. Furthermore the data is be used by business, trade associations and researchers to show the importance of construction for other sectors.

4.2 User Satisfaction

Not investigated.

4.3 Data completeness rate

The data covers all subsectors within construction. Purchase of commodities is aggregated on a 2-digit level within the HS-nomenclature while report from enterprises in general is on a 4-digit level. There are no requirements from the EU to the statistic.

5 Accuracy and reliability

It is estimated that the statistic has a reasonable quality at an aggregated level. At material-group level it is estimated that the quality is low. No quantitative measures of the total uncertainty of the statistic have been done. For the total purchase of materials the sample uncertainty is approximately 5 pct. For the total purchase of services the sample uncertainty is approximately 3.5 pct. The statistic has a number of measuring errors. These are estimated as being a greater source of uncertainty than the sample uncertainty. the statistic is reliable in the sense that published numbers are rarely revised.

5.1 Overall accuracy

No quantitative measures of total uncertainty have been estimated. For the total purchase of materials the sample uncertainty is approximately 5 pct. For the total purchase of materials the sample uncertainty is approximately 3.5 pct. The statistic has a number of sources of measuring error. These are assessed as being greater than the sample uncertainty and sets a limit on the quality of the numbers. There are no quantitative measures of the measuring error. The over coverage has not been estimated. The reply rate for the statistical year 2012 was 83 pct. The item-non response rate for the total purchase of services was under 0,5 pct. The item-non response rate for the total purchase of materials was under 4,1 pct.

5.2 Sampling error

Sample uncertainties for the scaled numbers have been calculated. For the total purchase of materials the sample uncertainty is approximately 5 pct. For the total purchase of materials the sample uncertainty is approximately 3.5 pct. For individual industries the sample uncertainty for the purchase of materials is under 30 pct and for the purchase of services, under 12 pct.

5.3 Non-sampling error

The statistic has a number of systematic errors. These are estimated as being a greater source of uncertainty than the sample uncertainty. The companies do not report their purchases in great enough detail and this sets a limit on the precision. There are no quantitative measures of this. The over-coverage-rate has not been estimated. The response rate was 83 pct. for the survey year 2012 at the time of publication. The item non-response rate is 0.4 for the total purchase of services and 4.1 for the total purchase of materials. Item non-response rate , total purchase of materials: 4,1 pct.

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

It is estimated that the statistic has a reasonable quality at an aggregated level. At material-group level it is estimated that the quality is low. No quantitative measures of the total uncertainty of the statistic have been done. For the total purchase of materials the sample uncertainty is approximately 5 pct. For the total purchase of materials the sample uncertainty is approximately 3.5 pct. The statistic has a number of measuring errors. These are estimated as being a greater source of uncertainty than the sample uncertainty. The companies do not report their purchases in great enough detail and this sets a limit on the precision. There are no quantitative measures of this. The over-coverage-rate has not been estimated. The response rate was 83 pct. for the survey year 2012 at the time of publication. The item non-response rate is 0.4 for the total purchase of services and 4.1 for the total purchase of materials.

Item non-response rate , total purchase of materials: 4,1 pct.

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 statistics include only final data.

6 Timeliness and punctuality

The statistic is published yearly, ultimo April.

6.1 Timeliness and time lag - final results

Only final numbers are published.

6.2 Punctuality

The statistic is normally published at the announced time.

7 Comparability

In the archive one can find statistics for the years 2006-2011 in the tables BYGT,BYGTX, BYGR and BYGRX. These statistics are not comparable to the new time series, since they are not scaled to the population. It is not possible to compare the data in the survey with other business surveys.

7.1 Comparability - geographical

No numbers are delivered to the EU.

7.2 Comparability over time

In the archive one can find the statistic for the years 2006-2011 in the tables BYGT,BYGTX, BYGR and BYGRX. These years are not comparable to the new time series, since they are not scaled to the population.

7.3 Coherence - cross domain

It is not possible to compare the data in the survey with other business surveys.

7.4 Coherence - internal

There is internal coherence in the data. All figures are scaled from the reporting by enterprises. The coherence between totals and purchase by commodity/service group are ensured when enterprises report.

8 Accessibility and clarity

Data is published in *Nyt fra Danmarks Statistik* (Statistical News). Data is available at Statbank Denmark (statbank.dk) or Statistikbanken (statistikbanken.dk).

8.1 Release calendar

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

8.2 Release calendar access

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

8.3 User access

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

8.4 News release

The newest numbers are published at [STATBANK](#).

8.5 Publications

No other publications.

8.6 On-line database

All numbers are published at: [Statbank](#).

8.7 Micro-data access

There is no access to micro-data.

8.8 Other

There is no other availability.

8.9 Confidentiality - policy

In the process of making the statistic *Employment in the construction industry*, The Danish Statistics data confidentiality policy is followed. In praxis this means that no numbers, based on fewer than 3 workplaces, are published.

8.10 Confidentiality - data treatment

In the process of making the statistic Employment in the construction industry, The Danish Statistics data confidentiality policy is followed. In praxis this means that no numbers, based on fewer than 3 workplaces, are published.

8.11 Documentation on methodology

There are no further information available.

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 are in the division of Short Term Statistics. The person responsible is Thomas Eisler, tlf. 39 17 32 49, e-mail: tme@dst.dk

9.1 Contact organisation

Statistics Denmark

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