

# Documentation of statistics for Home Appliances 2016



# 1 Introduction

The purpose of the survey is to monitor households' possession of home appliances.

In 2011 the survey changed the name from Consumer Durables to Home appliances, because this name better describe the real content covered by the survey. The surveys were conducted in October from 1974 to 2000. In the first years the surveys were partially financed by EU funds. From 2001 the questions are included in the Omnibus Survey in April. The type of home appliances, which are included in the surveys, have changed over the years, as attention is focused on new home appliances especially as a result of the technological development - whereas home appliances, which are generally owned by almost all households, are excluded.



### 2 Statistical presentation

The statistics show the number and the percentage of households possessing home appliances.

For the year 2012, the following home appliances are included:

- Dryer
- · Washing machine
- Dishwasher
- Microwave oven
- Robot Vacuum Cleaner
- Digital Video Camera
- Digital Camera
- CD player
- DVD player without hard disk
- BluRav
- · Mobile telephone

### Of this smart phones

Telephone not mobile:

- 3D TV
- Smart-TV
- Hard disk recorder

Of this can show a delayed broadcast:

- MP3-player or the like
- DAB-radio
- GPS-navigation
- GPS-watch
- Stationary computer
- Portable computer

Of this tablet PC or other mini-computers:

- Play station
- · E-book-reader

In addition to the actual survey variables, information relating to a number of background variables about the household composition, socio-economic status, income and main geographic regions is collected. These variables can, of course, be combined with the survey variables.



### 2.1 Data description

The statistics show the number and the percentage of households possessing home appliances.

For the year 2012, the following home appliances are included:

- Dryer
- Washing machine
- Dishwasher
- Microwave oven
- Robot Vacuum Cleaner
- Digital Video Camera
- Digital Camera
- CD player
- DVD player without hard disk
- BluRay
- Mobile telephone

Of this smart phones

Telephone not mobile:

- 3D TV
- Smart-TV
- Hard disk recorder

Of this can show a delayed broadcast:

- MP3-player or the like
- DAB-radio
- · GPS-navigation
- GPS-watch
- Stationary computer
- Portable computer

Of this tablet PC or other mini-computers:

- Play station
- E-book-reader

In addition to the actual survey variables, information relating to a number of background variables about the household composition, socio-economic status, income and main geographic regions is collected. These variables can, of course, be combined with the survey variables.

### 2.2 Classification system

Not relevant for these statistics.

# 2.3 Sector coverage

Households.



### 2.4 Statistical concepts and definitions

Family Weight: The questions on home appliances do not concern the individual person, but the family he/she is living with. For that reason the answers are given a family weight, which ensures that the families with different numbers of persons aged 16 years or over are represented in the sample with varying probability. A family is defined as one or several persons between 16 and 74 years who live in the same accommodation and are related (includes also cohabiting couples) and their children, though there can only be one married or cohabiting couple in the family. The sum of the family weight for all completed interviews, gives the number of families in Denmark that have persons aged between 16 and 74.

Type of consumption: Durable consumer goods included in the study are replaced so that new goods which, especially as a result of technological development become interesting, are added, while conversely, goods that have become common property in almost all households (e.g. color TV's) are removed.

#### 2.5 Statistical unit

The statistics show the number and the percentage of the selected households possessing home appliances in the month of April of the respective year.

### 2.6 Statistical population

At present an omnibus survey consists of a sample of about 1,500 persons, drawn from a population of person in age group from 16-74 years residing in Denmark

#### 2.7 Reference area

Denmark.

#### 2.8 Time coverage

One year.

### 2.9 Base period

Not relevant for these statistics.

### 2.10 Unit of measure

The statistics show the number and the percentage of households possessing home appliances.

# 2.11 Reference period

The reference period is the month of April of the year in question.



### 2.12 Frequency of dissemination

Yearly.

### 2.13 Legal acts and other agreements

The Act on Statistics Denmark.

No EU regulation.

#### 2.14 Cost and burden

A sample of 1,500 persons is questioned over the telephone in April every year.

#### 2.15 Comment

Additional information can be obtained by Statistics Denmark.

### 3 Statistical processing

For the time being the sample of an omnibus survey consists of 1,500 persons, drawn from a population of persons aged 16-74 residing in Denmark.

As it is not possible to interview all 1,500 persons, each completed interview is given a personal weight, which corrects the effects of non-sampling and non-response (including no telephone) and ensures that the results cover the whole population in the sample.

However, the questions on home appliances do not concern the individual person, but the family he/she is living with. For that reason the answers are given a family weight, which ensures that the families with different numbers of persons aged 16 years or over are represented in the sample with varying probability. A family is defined as one or several persons between 16 and 74 years who live in the same accommodation and are related (includes also cohabiting couples) and their children, though there can only be one married or cohabiting couple in the family. The sum of the family weight for all completed interviews, gives the number of families in Denmark that have persons aged between 16 and 74 years.

In the frame of data validation the check of the data correctness is conducted by checking the consistency of the responses by every single respondent, comparison of the results with the results of the previous year, as well as comparison of the non-response rate are also undertaken.

### 3.1 Source data

The data is collected through Statistics Denmark's Omnibus Surveys. These surveys are sample surveys, where a representative sample of persons 16 years or over is interviewed about different topics that alone would be too small to be carried out as an independent survey. Since 1974, one of these subjects has been the possession of home appliances. The results are adjusted on the basis of a post stratification by age, sex, geography and marital status, and thus cover the whole population in the relevant age groups. The sample size is approx. 1.500 persons.



### 3.2 Frequency of data collection

Yearly.

#### 3.3 Data collection

Omnibus survey.

### 3.4 Data validation

In the frame of data validation the check of the data correctness is conducted by checking the consistency of the responses by every single respondent, comparison of the results with the results of the previous year, as well as comparison of the non-response rate are also undertaken.

### 3.5 Data compilation

The information is collected through the so-called omnibus surveys. For the time being the sample of an omnibus survey consists of 1,500 persons, drawn from a population of persons aged 16-74 residing in Denmark.

As it is not possible to interview all 1,500 persons, each completed interview is given a personal weight, which corrects the effects of non-sampling and non-response (including no telephone) and ensures that the results cover the whole population in the sample.

However, the questions on home appliances do not concern the individual person, but the family he/she is living with. For that reason the answers are given a family weight, which ensures that the families with different numbers of persons aged 16 years or over are represented in the sample with varying probability. A family is defined as one or several persons between 16 and 74 years who live in the same accommodation and are related (includes also cohabiting couples) and their children, though there can only be one married or cohabiting couple in the family. The sum of the family weight for all completed interviews, gives the number of families in Denmark that have persons aged between 16 and 74 years.

### 3.6 Adjustment

No furtherer adjustments are undertaken, beyond those that have already been described under Data validation and Data compilation.

#### 4 Relevance

Today it is especially the press, which is using the information to inform about developments in home appliances.

#### 4.1 User Needs

Today it is especially the press, which is using the information to inform about developments in home appliances.



#### 4.2 User Satisfaction

Relatively large press coverage.

## 4.3 Data completeness rate

All needed statistics are available.

### 5 Accuracy and reliability

As the results are based on a sample survey, they are subject to a certain degree of statistical uncertainty. This depends on both the size of the sample and the number of completed interviews, which vary from survey to survey. With a sample of approximately 1,500 persons and a response rate of about 65%, which has normally been achieved in the last few years, the statistical uncertainty is in 95% of the cases estimated to range between +/- 3 percentage points.

### 5.1 Overall accuracy

As the results are based on a sample survey, they are subject to a certain degree of statistical uncertainty. This depends on both the size of the sample and the number of completed interviews, which vary from survey to survey. With a sample of approximately 1,500 persons and a response rate of about 65%, which has normally been achieved in the last few years, the statistical uncertainty is in 95% of the cases estimated to range between +/- 3 percentage points.

### 5.2 Sampling error

As the results are based on a sample survey, they are subject to a certain degree of statistical uncertainty. This depends on both the size of the sample and the number of completed interviews, which vary from survey to survey. With a sample of approximately 1,500 persons and a response rate of about 65%, which has normally been achieved in the last few years, the statistical uncertainty is in 95% of the cases estimated to range between +/- 3 percentage points.

### 5.3 Non-sampling error

Not available information.

### 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

For the time being the sample of an omnibus survey consists of 1,500 persons, drawn from a population of persons aged 16-74 residing in Denmark.

As it is not possible to interview all 1,500 persons, each completed interview is given a personal weight, which corrects the effects of non-sampling and non-response (including no telephone) and ensures that the results cover the whole population in the sample.

However, the questions on home appliances do not concern the individual person, but the family he/she is living with. For that reason the answers are given a family weight, which ensures that the families with different numbers of persons aged 16 years or over are represented in the sample with varying probability. A family is defined as one or several persons between 16 and 74 years who live in the same accommodation and are related (includes also cohabiting couples) and their children, though there can only be one married or cohabiting couple in the family. The sum of the family weight for all completed interviews, gives the number of families in Denmark that have persons aged between 16 and 74 years.

### 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

Provisional figures are not estimated.

### 6 Timeliness and punctuality

There is no difference between planned and actual release time.

### 6.1 Timeliness and time lag - final results

Home appliances for a given year is published at the beginning of May and about 2 weeks after completing the collection of data, which takes place in the first two weeks of April.



### 6.2 Punctuality

The results are published in News from Statistics Denmark in May. The reference period is the survey year, when the data collection takes place in the first two weeks of April. There is no difference between planned and actual release time.

# 7 Comparability

Not applicable.

### 7.1 Comparability - geographical

Not applicable.

# 7.2 Comparability over time

The number and type of home appliances included in the surveys have changed over the years, as attention is focused on new consumer durables especially as a result of the technological development - whereas home appliances, which are generally owned by almost all families, are excluded. Therefore comparison over longer periods some times are impossible.

#### 7.3 Coherence - cross domain

It is not possible to make direct comparisons with other statistics.

### 7.4 Coherence - internal

Not relevant for these statistics.

### 8 Accessibility and clarity

The results are published in:

- Nyt fra Danmarks Statistik (News from Danmarks Statistik).
- Yearly publications: Statistical Yearbook and Statistics Ten-Year Review.
- Statistikbanken

The access to the more detailed data and micro data can be granted through Statistics Denmark's agreement for researchers.

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



#### 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

**Danmarks Statistik** 

#### 8.5 Publications

Not relevant for these statistics.

#### 8.6 On-line database

**Danmarks Statistik** 

### 8.7 Micro-data access

The access to the more detailed data and micro data can be granted through Statistics Denmark's agreement for researchers. Micro data is subject to the rule of anonymisation in order to protect personal information.

### 8.8 Other

Not relevant for these statistics.

### 8.9 Confidentiality - policy

Statistics Denmark Confidentiality policy is described under: Danmarks Statistik.

# 8.10 Confidentiality - data treatment

Statistics Denmark Confidentiality policy is described under: Statistics Denmark.

### 8.11 Documentation on methodology

Various programs and papers are 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 this statistics is in the division of Prices and Consumption. The person responsible is Zdravka Bosanac, tel. +45 3917 3446, e-mail: zbo@dst.dk

# 9.1 Contact organisation

**Statistics Denmark** 

# 9.2 Contact organisation unit

**Prices and Consumption** 

### 9.3 Contact name

Zdravka Bosanac

# 9.4 Contact person function

Responsible for the statistics

### 9.5 Contact mail address

Sejrøgade 11, 2100 Copenhagen

# 9.6 Contact email address

zbo@dst.dk

# 9.7 Contact phone number

+45 3917 3446

### 9.8 Contact fax number

+45 39 17 39 99