Documentation of statistics for
ICT Usage in Households and by Individuals 2019

1 Introduction

The purpose of the study is to analyse the access to and use of the Internet, and to follow the development. Survey questions have been deleted and added from time to time, in order to reflect new aspects and developments. The survey is based on international cooperation, a common Eurostat questionnaire and methodological guidelines.

2 Statistical presentation

This survey is based on a European model questionnaire coordinated by Eurostat. The survey covers among other subjects - access to and use of the Internet and computers at home and at work, - type of internet connection used, - type of device used for internet access - e-commerce - motives and obstacles to Internet usage - use of advanced internet-services, - use of mobile internet - Internet security Result are calculated both for the population as a hole and for subgroups divided by sex, age, occupation, type of family etc. A number of questions concerning access are directed at households instead of the individual.

2.1 Data description

The purpose of the study is to analyse the access to and use of the Internet, and to follow the development. Survey questions have been deleted and added from time to time, in order to reflect new aspects and developments. The survey is based on international cooperation, a common Eurostat questionnaire and methodological guidelines.

2.2 Classification system

The results of the survey are published on basis of following back ground variables, age, gender, geographical breakdown, education and income.

Age:

- 16-24 years
- 25-34 years
- 35-44 years
- 45-54 years
- 55-64 years
- 65-74 years
- 75-89 years

Gender:

- Male
- Female

Geographical breakdown:

- Region Hovedstaden
- Region Sjælland
- Region Syddanmark
- Region Midtjylland
- Region Nordjylland

Education:

- Primary education
- Secondary education
- Higher education

Income:

- 50.000 kr.
- 50.000-100.000 kr.
- 100.000-200.000 kr.
- 200.000-300.000 kr.
- 300.000 kr. -

2.3 Sector coverage

Not applicable for this survey.

2.4 Statistical concepts and definitions

Cloud computing: Cloud services are either services that offer the possibility to store files on a server accessible over the Internet or software applications run over the Internet.

Household: The concept of households consist of one or more persons, who live in the same home and who are in family with each other (among these also cohabiting partners), but there can only be one married couple in the family.

Individual: Individuals resident in Denmark (excl. Greenland and the Faeroe Islands) in the age of 16-89 years, according to The Central Register of Persons (CPR). People without registered address in the CPR are not included in the survey.

Population: Population; individuals aged 16-89 years.

Streaming: To stream means to watch movies or listen to music online, where no files are saved as a copy locally on the device (e.g. computer, tablet, Smartphone).

2.5 Statistical unit
- Individuals
- Households

2.6 Statistical population

The covers individuals between 16 and 89 years resident in Denmark (excl. Greenland and the Faeroe Islands), according to The Central Register of Persons (Det Centrale Personregister, CPR).

2.7 Reference area

Denmark.

2.8 Time coverage

2001- The statistics is updated annually.

2.9 Base period

Not applicable for this survey.

2.10 Unit of measure

Per cent of the population aged 16-89 years. But the indicators can also be published as percentage of Internet users, users of mobile phones or percentage of those that have bought or ordered goods or services online.

2.11 Reference period

The survey is carried out by web forms and telephone interviews. Until 2006, the interviews were carried out every month in the period January-April with reference period in the last month and in the last year. From 2007 and onwards all interviews are conducted in March to May with reference period 'within the last three months' and 'in the last year'.

2.12 Frequency of dissemination

The statistic is published annually.

2.13 Legal acts and other agreements

Participation in the survey is voluntary.

Regulation (EC) No 808/2004 of the European Parliament and of the Council of 21 April 2004 concerning Community statistics on the Information Society.

2.14 Cost and burden

Not applicable for this survey.

2.15 Comment

The purpose of the survey is to illustrate the IT-habits in Denmark based on a number of indicators, such as e-commerce, use of cell phones and smartphones and on use of computers and internet. The survey has been developed in cooperation with Danish Agency for Digitization and DaneAge Association.

3 Statistical processing

The results of the survey are grossed-up to ensure their representativeness. After collecting the data, the sample is grouped by a number of background variables, such as age and gender. Each answer gets a 'weight' that correct possible biases. The calculations are done by a regression estimator.

3.1 Source data

The survey is based on a questionnaire.

3.2 Frequency of data collection

The data is collected annually.

3.3 Data collection

Web form and telephone interviews.

3.4 Data validation

The data is compared to last years results.

3.5 Data compilation

The data is compared to last years results are filter checks are made.

3.6 Adjustment

No further corrections are undertaken than those already described under validation and treatment.

4 Relevance

None.

4.1 User Needs

The survey is used by counties and ministries. Furthermore it is object of considerable attention from the media, researchers and students. The survey can be used to cover developments in Internet usage. Finally, the survey is used in both Nordic and European collaboration.

4.2 User Satisfaction

None.

4.3 Data completeness rate

Requirements in regulation and guidelines are met.

5 Accuracy and reliability

The survey is based upon simple random selection samples, and the results are therefore subject to statistical uncertainty. For the entire populations access to Internet the uncertainty is limited, since the degree of coverage is high. Uncertainty reflects variations in the collected data in comparison to the size of the sample. If all persons/families were identical with respect to access to and use of the Internet, then a sample size of 1 would in principle be adequate. The larger differences there are, the larger a sample is necessary to attain limited statistical uncertainty on the figures.

5.1 Overall accuracy

Coverage: Up to the 2006 survey results were based upon approximately 1,000 interviews each month. The coverage of the sample is therefore acceptable and very high for the annual publications 2001-2003 where interviews were held in several months. From 2007 and onwards, the survey is based upon approximately 4,300 completed interviews (16-74 years). Data collection takes place in April every year.

Sample/section: The sample is made by simple random selection from CPR. Up until the 2006 survey, a new sample was drawn every month among a representative section of the Danish population between 16-74 years. 1,000 interviews were carried out each month, from a sample of approximately 1,460 persons. Types of unit non-response are no telephone number for the dwelling unit, refusal and non-contact. In 2007 approximately 3,000 interviews were held in April, from a sample of approximately 4,500 persons. Types of unit non-response are the same as before. The 2009 survey is based on 4.303 completed interviews. The number of completed interviews was 4.600 in 2010, when coverage was extended from 16-74 years to 16-89 years. In 2013 the survey is based un 5.696 interviews (16-89 years).

Collection/measuring: Information is collected by telephone interviews. From 2008 it is possible for respondents to choose to supply information via a web-based questionnaire. Background information about the respondents is collected from register information form CPR.

Calculation method: After collecting the data the sample is grouped after for instance sex, age, civil status, family status and gross income. Within each group individual results are multiplied with an individual weight. The weight of person is equal to the number of persons in the CPR and the number of persons in the group. This weight is afterwards further adjusted up and/or down depending on the composition in the enumeration population with a regression estimate. The use of this method adjusts for an uneven loss in the sample.

There are calculations of sampling error for chosen questions and chosen groups.

5.2 Sampling error

Sampling error 2014 (Standard error)

- Proportion of households having access to the Internet at home: 0,95
- Proportion of households using a broadband connection: 1,25
- Proportion of individuals regularly using the Internet: 0,82
- Proportion of individuals having downloaded official forms in the last 12 months: 1,54
- Proportion of individuals having ordered goods or services for private use over the internet in the last 12 months: 1,21

The statistical uncertainty of the shares of individuals with access to the Internet at home and/or at work is calculated to ±0,95 per cent in 2014 with an interval of confidence of 95 per cent. Uncertainty increases when the access to the Internet is estimated by background variables, e.g. type of occupation, since these shares are based on a smaller number of interviews. The uncertainty was for instance estimated to ±1,27 per cent for 2014 for the students.

5.3 Non-sampling error

There aren't any questionnaires with errors, due to built-in filters that help the respondents. E.g. a respondent that has answered 'no' to Internet use, will not get questions on Internet activities.

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 of the survey in general is appraised to be high.

In 2018 the survey result are based on responses from 5793 respondents aged 15-89 years.

The survey is based on simple random samples and therefore the results are subject to a sampling error.

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

Only final indicators are published.

6 Timeliness and punctuality

The survey is published annually and The results are usually published without delay in relation to the scheduled date.

6.1 Timeliness and time lag - final results

ICT usage in households and by individuals is published annually in News from Statistics Denmark and in two annual publications. The time of publication, that is the time between the end of the reference period (middle of May) and the date of publication is approximately 50 days.

6.2 Punctuality

The results of the survey are usually published without delay in relation to the scheduled date.

7 Comparability

The survey is harmonized with the EU model questionnaire, which is used in most member states.

7.1 Comparability - geographical

The survey is harmonized with the EU model questionnaire, which is used in most member states.

7.2 Comparability over time

The survey has been carried out since January 2001. A large part of the indicators have been replaced with others to be able to measure the newest trends in ICT. Key figures are comparable over time. The survey replaces the survey Personal computers and access to the Internet (Pc'ere og adgang til internet), carried out from May 1997 to the end of 2000.

7.3 Coherence - cross domain

Similar surveys are carried out in other EU member states based on the same Eurostat model questionnaire. Results from all EU countries are available on Eurostats homepage.

7.4 Coherence - internal

A number of checks and validation mechanisms as well as reporting aides for the respondent's understanding of the questionnaire are built into the digital form. This includes among other things filter and routing mechanisms.

8 Accessibility and clarity
- News from Statistics Denmark
- Statistical Yearbook
- Key Figures on Information Society Denmark and Information Society Denmark
- Eurostat database and publications.
- Statistics Denmark's StatBank (http://www.statbank.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 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
- NYT
- NYT - tillæg

8.5 Publications
- Publication with annual results
- Publication with annual results across EU

8.6 On-line database

The statistics are published in the StatBank under the subjects in the following tables:

- BEBRIT07: Purchase via internet - per cent of the population (16-74 years) by type, latest purchase and time
- BEBRIT02: Latest use of internet - per cent of the population (16-74 years) by type, latest use and time
- BEBRIT08: E-commerce during the past year by type, product and time
- FABRIT01: Access to computer and internet in by household type - (2008) by type, access and time
- BEBRIT09: Use of internet for private purposes - per cent of the population(16-74 years) by type, internet activity and time
- BEBRIT11: E-commerce by type of sellers by type, sellers and time
- BEBRIT18: Use of cloud computing - per cent of the population (16-74 years) by type and time
- BEBRIT19: It-security problems within the last year - per cent of internet users (16-74) by type and activity

8.7 Micro-data access

The basic material is stored electronically.

8.8 Other

Data is sent to Eurostat in a data transmission.

8.9 Confidentiality - policy

Not relevant for these statistics.

8.10 Confidentiality - data treatment

Not applicable.

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Sejrøgade 11
DK 2100 København Ø

8.11 Documentation on methodology

The method and content are also described in the annual publication.

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 Business Development.

9.1 Contact organisation

Statistics Denmark

9.2 Contact organisation unit

Science, technology and culture

9.3 Contact name

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