

Manual for Measuring ICT Access and Use by Households and Individuals, 2020 edition

5th International Seminar on Big Data for Official Statistics, Measuring the Digital Economy

29-31 May 2024



Establishing a common framework (I)



Coordination across international organizations

Partnership on Measuring ICT for Development

Global initiative to improve availability and quality of internationally comparable ICT statistics – launched in 2004

Main mechanism for the coordination of ICT statistics internationally

Members: 14 international and regional agencies involved in official ICT statistics

Steering Committee (2023-2025): ITU, UNCTAD, and UN DESA

Guidance for policy makers

Other coordination mechanisms

UN Sustainable Development Goals metadata and reporting

UN Committee for the Coordination of Statistical Activities (UN-CCSA)

Eurostat

UN Committee of Experts on Big Data and Data Science for Official Statistics (UN-CEBD)

Establishing a common framework (II)



ITU expert groups

Expert Group on ICT Household Indicators (EGH)

Reviews existing and develops new indicators on household ICT access and individual ICT use

Decides on demand-side ICT indicators to be collected through the ITU statistical questionnaires on access and use by households and individuals.

Expert Group on Telecommunications Indicators (EGTI)

Reviews existing and develops new telecommunication/ICT supply-side indicators

Decides on supply-side ICT indicators to be collected through the ITU statistical questionnaires on telecommunications/ICT

Working together on issues related to indicators and topics common to both groups

Manual for measuring ICT access and use by households and individuals (2020 edition)

Guide to methodologies for conducting ICT surveys for households and individuals including core list of indicators and model questionnaires

Complements other manuals/handbooks

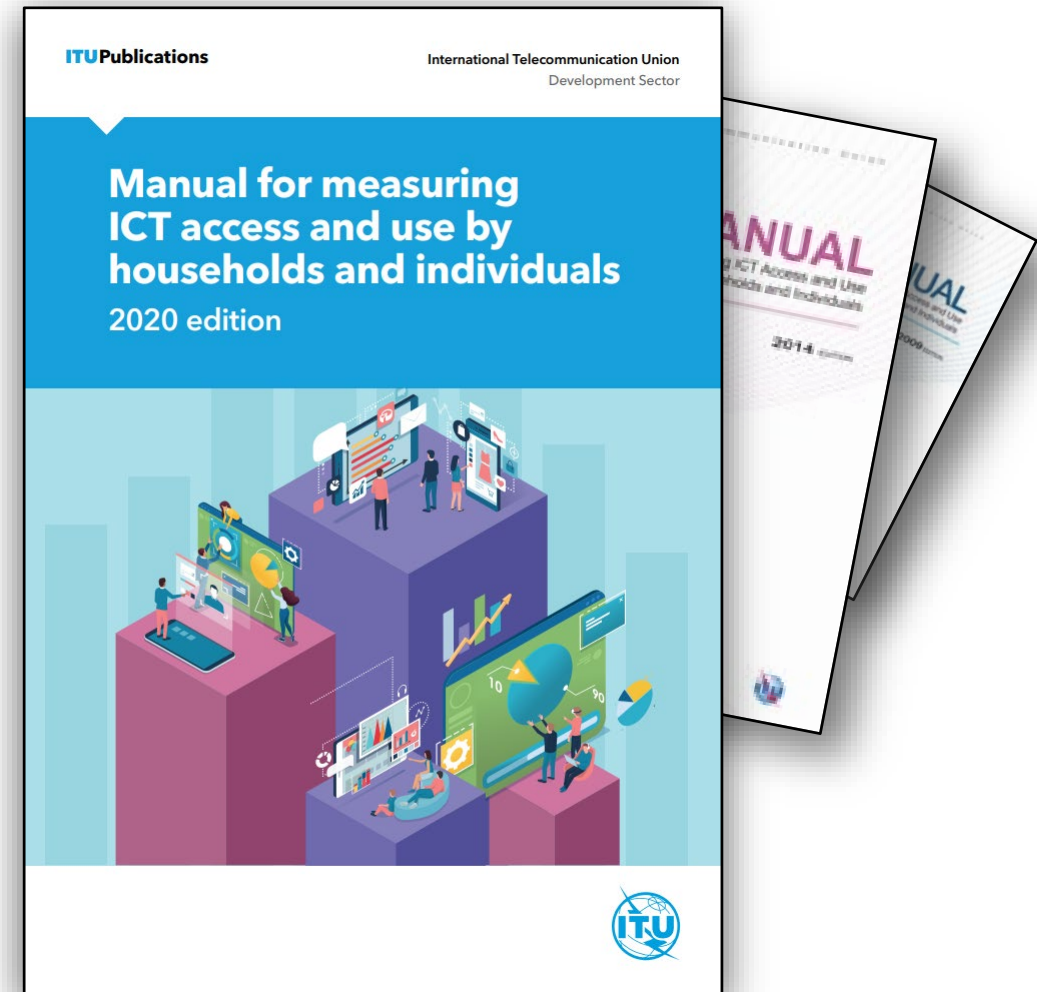
- UNCTAD Manual on the Production of Statistics on the Information Economy
Covering ICT statistics collected through business surveys
- Handbook for the collection of administrative data on telecommunications/ICT
- Definitions of ICT Service price baskets
- Methodological guide on the use of mobile phone data

Freely available in 6 languages

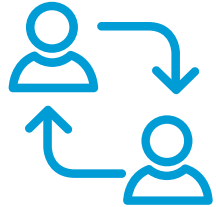


History of *Manual*

- 2003** ● ITU expands its statistical work to household statistics - collecting data on from national statistical offices.
- 2009** ● First edition of *Manual* - introduces data collection standards includes definition of core ICT indicators
- 2014** ● Second edition - revises core list of indicators and definitions following EGH recommendations. Includes additional and updated guidance on data collection and country examples
- 2020** ● Current edition - further revisions to list and definition of indicators based on EGH recommendations.
- 202x** ● Next edition



Content of *Manual (I)*



Coordination among national stakeholders in ICT measurement

Roles of data producers, users and providers in national context

Presents models and mechanisms for coordination



Planning and preparation for ICT household surveys

Describes range of preparatory activities using sample surveys



Statistical standards and measurement topics for ICT household statistics

Introduces core ICT household indicators and classificatory variables

Considers other topics beyond core indicators

Addresses time-related issues (survey frequency, reference periods and value of time series)

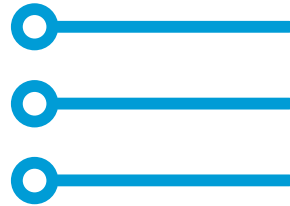
Content of *Manual* (II)



Data sources and collection techniques for ICT household statistics

Information on types of surveys and other collection techniques

Use of Big Data is explored, but no specific recommendations (yet!)



Question and questionnaire design for ICT household surveys

Principles of good question and questionnaire design

Presents model questions and a logical structure

Relevant for stand-alone ICT questionnaire or ICT module inserted in a broader household survey



Sampling for ICT household surveys

Survey scope and coverage, target populations and survey frames

Statistical units to be used

Sample design and selection

Content of *Manual* (III)



Data processing for ICT household statistics

Conduct of surveys and processing of survey data

Includes issues of data entry, editing, imputation and weighting

Specific attention to calculation of core ICT household indicators



Data quality and evaluation for ICT household statistics

Assessing data quality through calculation of sampling and non-sampling error

Setting up data quality assurance frameworks, reporting and evaluation

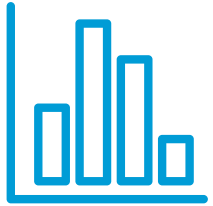


Dissemination of ICT household data and metadata

Presents basic tabulation plans for ICT household data and metadata

Describes data collection and dissemination efforts of ITU

Core list of ICT indicators



Developed by Partnership on Measuring ICT for Development

Endorsed by United Nations Statistical Commission in 2007 and updated periodically (2012, 2016, 2022)

Full list includes core indicators on:

- ICT infrastructure and access
- Use of ICT by enterprises
- ICT sector and trade in ICT goods
- ICT in education
- E-government
- **Access to, and use of, ICT by households and individuals**

Core list of ICT indicators on access to, and use of, ICT by households and individuals

| | |
|------|---|
| HH1 | Households with a radio |
| HH2 | Households with a TV |
| HH3 | Households with telephone |
| HH4 | Households with a computer |
| HH5 | Individuals using a computer |
| HH6 | Households with Internet |
| HH7 | Individuals using the Internet * |
| HH8 | Individuals using the Internet, by location |
| HH9 | Individuals using the Internet, by type of activity |
| HH10 | Individuals using a mobile cellular telephone |
| HH11 | Households with Internet, by type of service |
| HH12 | Individuals using the Internet, by frequency |

| | |
|------|--|
| HH13 | Households with multichannel television, by type |
| HH14 | Barriers to household Internet access |
| HH15 | Individuals with ICT skills, by type of skills * |
| HH16 | Household expenditure on ICT |
| HH17 | Individuals using the Internet, by type of portable device and network used to access the Internet |
| HH18 | Individuals who own a mobile phone |
| HH19 | Individuals not using the Internet, by type of reason |
| HH20 | Individuals who purchased goods or services online, by type of good and service purchased |
| HH21 | Individuals who purchased goods or services online, by type of payment channel |
| HH22 | Individuals who purchased goods or services online, by method of delivery |
| HH23 | Individuals who did not purchase goods or services online, by type of reason |

* **Sustainable Development Goals**

Revised regularly by Expert Group on ICT Household Indicators (EGH)

Training course on ICT household statistics



ITU Academy

- Capacity building in a digital setting
- Offer a didactic approach to the ICT household indicators defined and collected by ITU
 - Follows content of *Manual*
- Easy access:
 - Free of charge;
 - self-paced (takes around 2 days – dedicate at least half a day)

ITU Academy
Empowering minds

Measuring digital development: ICT access and use by households and individuals

FREE

English

Online self-paced
18 May - 31 Dec 2023

Open to all

<http://itu.int/go/B1PD>

Certification



- Evaluation through multiple choice questions, quizzes, computational problems
- Complete a module → badge
- 5 badges → Certificate of course completion



Resources

Expert groups (registration required)

- [EGH Forum](#)
- [EGTI Forum](#)

ITU methodological publications

- [Handbook for the Collection of Administrative Data on Telecommunications/ICT](#)
- [Manual for Measuring ICT Access and Use by Households and Individuals](#)
- [Methodological guide on the use of mobile phone data](#)

Data dissemination

- [ITU DataHub](#)
- [ITU Stats website](#)
- [Measuring digital development: Facts and Figures](#)

ITU Academy training courses

- [Measuring digital development: Telecommunications/ICT indicators](#)
- [Measuring digital development: ICT access and use by households and individuals](#)
- [Mobile Phone Data - Awareness Course](#)

Other ITU resources

- [ITU data collection schedule](#)
- [ITU Big Data project](#)

Statistical principles

- [Fundamental Principles of Official Statistics](#)
- [Principles Governing International Statistical Activities](#)

