

# Use of alternative and complementary data sources

Economic And Social Commission For Western Asia



UNITED NATIONS

الاسكوا

ESCWA

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*Equitable prosperity, dignified lives*

# What are official statistics?

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Official statistics are statistics published by government agencies or other public bodies such as international organizations as a public good.

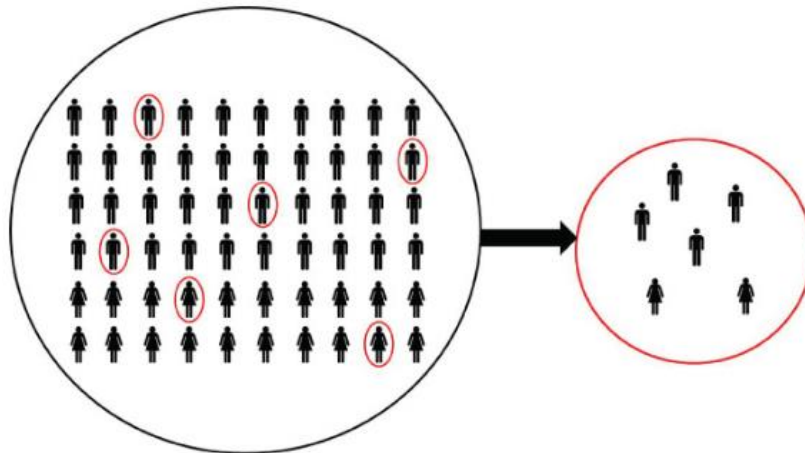
They provide quantitative or qualitative information on all major areas of citizens' lives, such as economic and social development, living conditions, health, education, and the environment.

# What are the attributes of official statistics?

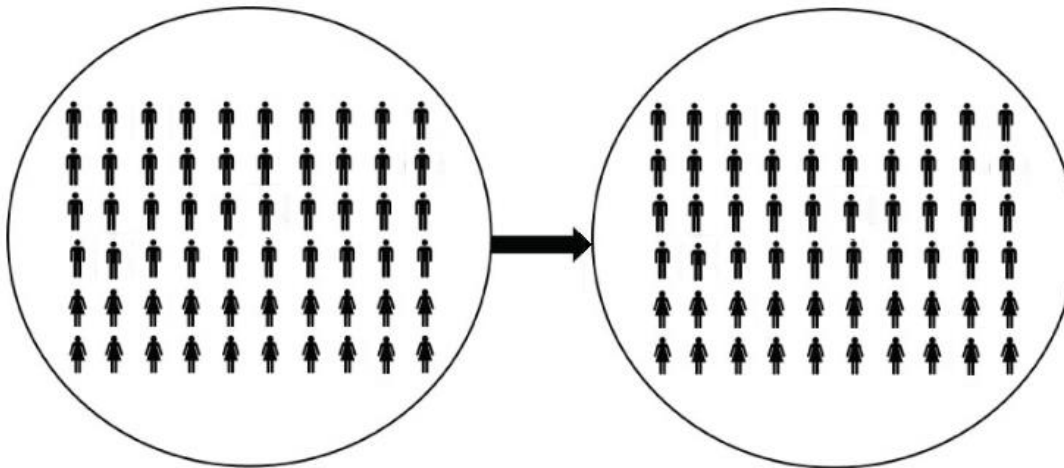
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- *Relevant*
  - *Reliable*
  - *Impartial*
  - *Based on scientific principles*
  - *Public good*
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- **ISI Declaration on Professional Ethics**  
(1985, 2010)
  - **Fundamental Principles of Official Statistics**  
(1992 - ECE, 1994 - UNSC, 2014 - A/RES/68/261)

# Traditional data sources of official statistics

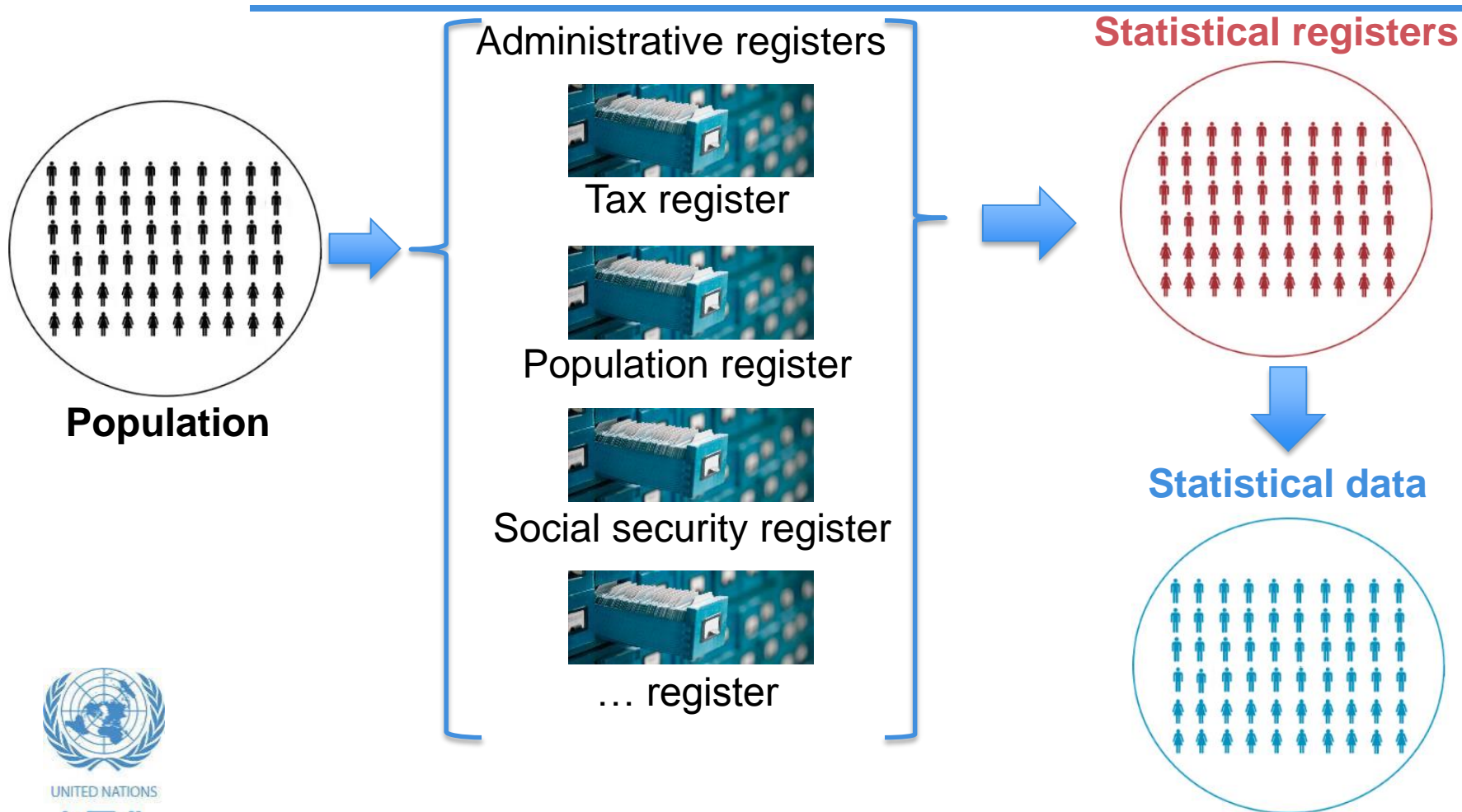


Sample survey



Census

# Administrative data sources of official stats.



# Traditional data sources of official statistics

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- **Census**
- **Survey**
- **Administrative registers and records**

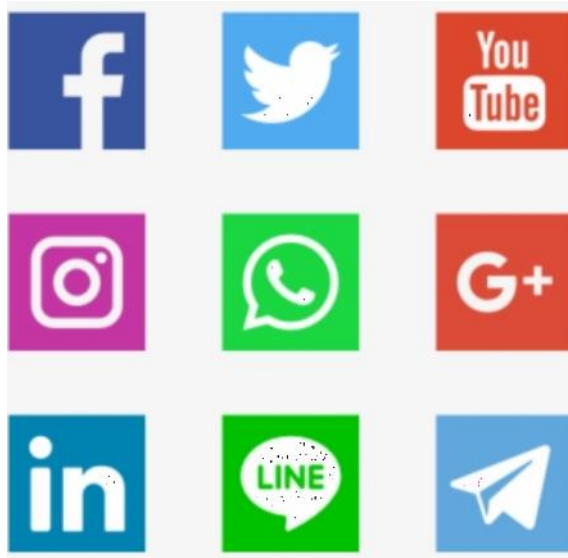
# Alternative data sources of official statistics

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# Social networks

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## Text analysis of postings:

- Taxonomy
- Frequency
- Location
- Time

- What is the bias?
- Representativeness of the sample
- Access to social networks data



# Mobile phones

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- Location
  - Mobility
  - Concentration
  - Registration address of SIM
- 
- Cooperation of telecom operators
  - What is the bias?

# Remote sensing – satellite imagery



- **Known location**
- **Identifiable objects:**
  - Persons
  - Vehicles
  - Buildings
  - Land use
  - Networks – roads, railways, rivers,...
- **Statistical areas**
  - Mobility and migration
  - Statistics of illicit drugs
  - Transport
  - Environment statistics

- **Acquisition of images**
- **Timing, frequency**
- **Images resolution**

# Surveillance cameras



- Specific locations
  - Events (e.g. accidents)
  - Situation (e.g. fluidity of traffic)
  - Computer assisted analysis of images
  - Cheaper than satellite images
- 
- **Primarily serving security purposes**
  - **Privacy and confidentiality concerns**

## Counters, radars, tolls, taxi rides,...



# Legislative and legal issues

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- **Statistical law**
- **Release of information for statistical purposes**
- **Access to data of private businesses**

# Ethics issues

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- **Data collected for statistical purposes are confidential**
- **Choice of sources bases on professional considerations**
- **Release of data – as public good**

# Thank you for your attention



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