TURKISH STATISTICAL INSTITUTE   Ƭⱳⱡⱡⱪ

In-depth review of diversification of population census methodology and sources

Statistics Finland & Turkish Statistical Institute

1

TURKISH STATISTICAL INSTITUTE   Ƭⱳⱡⱡⱪ

Preparations

✓ **Selection of the topic at February 2015 meeting**
✓ **Responsible NSOs:**
  ➢**Statistics Finland**
  ➢**Turkish Statistical Institute**
✓ **(+) Valuable contributions of UNECE**
✓ **Working method: Coordination by e-mail correspondences**

2

TURKISH STATISTICAL INSTITUTE   Ƭⱳⱡⱡⱪ

Content of the In-depth Review

I. Executive summary
II. Introduction
III. Scope/Definition of the Statistical Area Covered
  A. Traditional census
  B. Register-based census
  C. Combined census
  D. Rolling census

3

TURKISH STATISTICAL INSTITUTE   Ƭⱳⱡⱡⱪ

Content of the In-depth Review -*Cont.'d*

IV. Overview of international statistical activities in the area of population and housing censuses
  A. United Nations Statistics Division (UNSD)
  B. United Nations Economic Commission for Europe (UNECE)
  C. Eurostat

4

TURKISH STATISTICAL INSTITUTE   Ƭⱳⱡⱡⱪ

Content of the In-depth Review -*Cont.'d*

V. Issues and challenges
  A. Measurement issues
  B. Managerial issues
  C. Conceptual issues
  D. Methodological issues
  E. Technological issues
  F. Other issues
VI. Conclusions and recommendations
  Appendix: Country Practices

5

TURKISH STATISTICAL INSTITUTE   Ƭⱳⱡⱡⱪ

Alternative Census Methods:
A. Traditional Census

Full enumeration of individuals by enumerators or with self-enumeration

✓ Advantages: Concept is relatively simple
✓ Disadvantages:
  ➢ High cost (employing enumerators, supervisors, etc., printing, distributing, collecting census forms, entering the data, data processing)
  ➢ Managing a complex field operation
  ➢ Working with high volume of enumerators
  ➢ Respondent burden of the questionnaire
  ➢ Increasing reluctance to participate in the census

6

Alternative Census Methods:
A. Traditional Census -*Cont.'d*

✓ Disadvantages:
  ➤ Doubts about data privacy
  ➤ Long duration of data processing & publishing the results
  ➤ High mobility and multiple residences
  ➤ Providing information in 10 year intervals

7

Alternative Census Methods:
B. Register Based Census

An alternative to the traditional census

✓ Advantages: more timely, cheaper and frequent production of data

✓ Disadvantages:
  ➤ the development of a register-based system is a long process (legal infrastructure, initial investments, unique identification number, good cooperation between NSOs and other authorities)
  ➤ the data to be collected are limited in the registers
  ➤ the quality of the statistics depends on registers

8

Alternative Census Methods:
C. Combined Census

Combination of registers, full enumeration and ad-hoc sample surveys

✓ It is used to transition from a traditional to a fully register-based census
✓ The balance of the amount of data collected from different sources varies from country to country
✓ Advantages and disadvantages of this method depends on the operation and the country's circumstances

9

Alternative Census Methods:
D. Rolling Census

The data are collected by cumulative; and based on continuous data collection over a long time period compared to other census methods (used only in France since 2004)

✓ Advantages:
  ➤ more frequently data (every year) than every tenth year
  ➤ the cost of data collection and processing are spread over time

✓ Disadvantages:
  ➤ Very complex and hard to implement
  ➤ No simultaneous snapshot of the whole population
  ➤ over and under counting (because of the possibility of migration between regions)
  ➤ Complicated comparisons between areas

10

Practices of Countries by Methods in 2010 round

56 countries in the UNECE Region
  ✓ The Traditional Method : 33 countries
  ✓ The Register-based Method : 9 countries
  ✓ The Combined Method : 10 countries
  ✓ The Rolling Method : 1 country
  (3 countries had not conducted the census)

11

Issues and challenges

A. Measurement Issues :

The comparability of the results is the most important issue
  ✓ The measurement of the different dimensions of census quality (accuracy and coverage)
  ✓ Data content limited by the characteristics of the enumeration

12

Slide 13

Issues and challenges -*Cont.'d*

B. Managerial Issues :
- ✓ Cost of the census (large number of fieldwork staff)
- ✓ Recruiting and retaining skilled census staff
- ✓ Planning fieldwork staff

C. Conceptual Issues :
- ✓ Undercounting and overcounting of specific population groups
- ✓ Concept of usual residence and one year criterion
- ✓ Different concepts of population base in traditional and register-based censuses

13

Slide 14

Issues and challenges-*Cont.'d*

D. Methodological Issues :
- ✓ an increasing reluctance of the population to participate in the census
- ✓ divergency of the timeliness and frequency of updating census data between countries

QUESTION : How to adapt the international recommendations (after the 2020 round) so that they are relevant to the different census methodologies?

14

Slide 15

Issues and challenges-*Cont.'d*

E. Technological Issues :
- ✓ Technology directly affects and makes possible the use of different methodology and different data sources

- ✓ All stages of the census are conducted in parallel with available IT solutions and capacity of NSOs in means of IT staff anf infrastructure

15

Slide 16

Recommendations

To support countries in 2020 round, UNECE promotes:

- ✓ Regional training workshops in 2016-2017

- ✓ Study tours for experts of interested countries

- ✓ Preparation of guidelines on the use of registers for censuses covering the assessment of the quality of administrative sources
- ✓ (a small task force coordinated by UNECE)

16

Slide 17

Recommendations -*Cont.'d*

To find the reply to the question:

What extent the diversification of census methodology affects the comparability of census outputs between countries?

UNECE promotes:
- ✓ A study on the impact of census methodology on the comparability of census results across countries (covering general assessment of the different dimensions of census quality)
  (a small task force coordinated by UNECE)

17

Slide 18

Recommendations-*Cont.'d*

Other recommendations:
- ✓ Works related to integrate censuses with various statistical surveys and new data sources such as big data and mobile data

- ✓ A meeting or other activities for countries interested in developing their censuses to be able to use sample surveys in estimation of some census variables can be organized

- ✓ Some new guidelines about providing annual data with reduced numbers of indicators and reduced detail could be developed for the countries that cannot provide regularly annual census data
  (task force can be established)

18

TURKISH STATISTICAL INSTITUTE   ᴛᴜɪk

THANK YOU..

19