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Joint UNECE/Eurostat Meeting on Population and Housing Censuses

Eleventh Meeting
Geneva, 13-15 May 2008

REPORT

Note by the Secretariat

I. INTRODUCTION

1. The joint UNECE/Eurostat Meeting on Population and Housing Censuses was held on 13-15 May 2008 in Geneva, at the Palais des Nations. It was attended by participants from Albania, Armenia, Austria, Belarus, Bosnia and Herzegovina, Brazil, Bulgaria, Canada, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Georgia, Germany, Greece, Iceland, Ireland, Israel, Italy, Kazakhstan, Republic of Korea, Kyrgyzstan, Latvia, Lithuania, Luxembourg, Moldova, Montenegro, Netherlands, Norway, Poland, Portugal, Russian Federation, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Tajikistan, The Former Yugoslav Republic of Macedonia, Turkey, Ukraine, United Kingdom, United States of America and Uzbekistan. The European Commission was represented by participants from Eurostat and the EC Delegation to Bosnia and Herzegovina. The United Nations Population Fund (UNFPA), the United Nations Mission in Kosovo (UNMIK), the United Nations High Commissioner for Refugees (UNHCR) and the World Health Organization (WHO) were also represented.

2. A number of participants could attend the Meeting thanks to the financial support provided by UNFPA and Swedish International Development Cooperation Agency (SIDA).

3. Ms. Rosemary Bender (Canada) was elected as Chairperson of the meeting.

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II. ORGANIZATION OF THE MEETING

4. The following substantive topics were discussed at the meeting:
 - Item 2. Census quality assurance and evaluation
 - Item 3. Difficult-to-measure census topics
 - Item 4. Data editing and validation
5. The following participants acted as Discussants:
 - Item 2. Gregor Kyi (Eurostat)
 - Item 3. Aidan Punch (Ireland)
 - Item 4. Eric Schulte Nordholt (Netherlands)
6. The discussion at the meeting was based on invited and supporting papers. The papers are available on the UNECE website at the following address:
<http://www.unece.org/stats/documents/2008.05.census.htm>

III. SUMMARY OF THE MAIN ITEMS DISCUSSED AT THE SUBSTANTIVE SESSIONS

Item 2 of the agenda: Census quality assurance and evaluation

7. Documentation: Invited papers by United Kingdom, United States, The Former Yugoslav Republic of Macedonia, Italy, Finland, Slovenia, Israel. Supporting papers by Austria, Turkey, UNECE.
8. No census can be perfect regardless of the methodology adopted. The results will always contain some errors in terms of coverage and content notwithstanding all efforts to limit them as much as possible. The Conference of European Statisticians (CES) Recommendations describe quality of data in terms of “fitness for use”, according to six criteria: relevance, accuracy, timeliness, accessibility, coherence and interpretability. The European Union Regulation on population censuses includes a reference to the following quality assessment dimensions: relevance, accuracy, timeliness, punctuality, accessibility, clarity, comparability and coherence. An assessment of the quality of census results allows for better understanding and use of the data including for comparisons across countries. For these reasons, quality assurance and evaluation should be an essential component of census programs.
9. Post Enumeration Surveys (PES) are a common instrument used to assess census coverage and content error for traditional censuses. Some methodological issues concerning PESs were discussed, including: the assumption of independence of the PES from the census; the opportunity to involve external experts (from outside the National Statistical Institutes) in the PES design; the use of PES to estimate both undercount and overcount; the possible interviewer effect (for instance when an interviewer is used for PES while a different interviewer or self-response was used for the census); or respondent effect (when information for the PES is

reported by a person different from the one who reported for the census).

10. Some organizational issues were discussed in connection with PES, including the legal basis to conduct the PES, the opportunity of conducting the PES in-house rather than outsourcing it, and balancing costs associated with expensive evaluation methods with investments to improve the quality of the census data collection (for instance by improving coverage of difficult-to-count population groups).

11. The meeting also discussed the use of census evaluation results. In some countries, all census results are adjusted to take into account coverage errors. Other countries only adjust the population estimates derived from the census adjusted for coverage, while others do not adjust the census results at all. Reasons include limitations set in the national legislation and lack of detailed coverage data.

12. The activity of the US Committee on National Statistics was discussed as an example of external scientific independent census evaluation. The Committee provided advice to the US Census Bureau on issues such as the proposed adjustment of the 2000 Census counts for differential under-coverage of specific population groups, and the implications of the use of handheld devices for non-response follow-up in the 2010 census.

13. The implications on quality of the adoption of long form/short form approach were also discussed, with reference to the plans by Italy for the 2011 census. Quality for this data could be expressed in terms of confidence intervals or coefficients of variation. This approach should help reducing the respondents' burden and allow focusing resources to improve coverage and reduce non-sampling errors. However, according to the experience of some countries, using long forms provide only limited savings as most of costs are associated with collection of forms, regardless of length.

14. Assessing the quality of register-based censuses poses different challenges than in the case of traditional censuses. Quality of the results may depend on the characteristics of the registers used, their coverage and quality, and data integration. The relative responsibilities of the statistical office and the ministries or other agencies maintaining the registers were also discussed. The statistical office must remain independent from these ministries to maintain the public trust. It is also the responsibility of the Statistical Institutes to use information from registers in such a way that the resulting statistics provide a relevant basis for both the target population and the specific topics of censuses.

15. Some countries using registers for the census also use alternative sources, like sample surveys, to produce census data on specific topics. In this case, as in the case of data collected with long form in traditional censuses, data are produced as estimates. Specific measures should be taken to make sure that the results, particularly at small area level, meet the minimum requirements in terms of statistical significance and preservation of data confidentiality.

16. The possible role of international organizations in this field was discussed. The meeting welcomed the proposal by UNECE to coordinate with United Nations Statistical Division (UNSD), Eurostat and possibly other international organizations, to prepare and disseminate methodological material on census quality evaluation for both traditional and register-based

censuses.

17. Concerning the development of standards, the meeting was informed of the work being conducted to identify quality criteria by the EU Task Force on Population and Housing Censuses, in the framework of the EU program for the 2011 censuses. Building on this work, the possibility of developing methodology and standards beyond the EU level could be considered in future, with the aim to improve the international comparability of census results.

Item 3 of the agenda: Difficult-to measure census topics

18. Documentation: Invited papers by United Kingdom, Norway, UNECE, United States, Russian Federation. Supporting papers by Netherlands, UNHCR. Presentations by Brazil, WHO.

19. The first part of the session focused on the different difficult-to-measure topics that can be identified respectively for traditional censuses with field operations, and for register-based-censuses.

20. The paper by the United Kingdom presented a detailed list of topics that are difficult to include in a large-scale operation such as a traditional census. The discussion focused on variables such as income, ethnicity, religion, sexual identity, civil partnership, disability, language, and citizenship. These topics are considered to be difficult for different reasons, as for example their sensitivity, difficulty to be understood, complexity, recall, subjectivity, suspicion by the respondent, or comparability from one census to the next. The discussion made clear that in the various countries, there can be a very different perception about the acceptability of the various topics by respondents and, therefore, what can be difficult-to-measure in one country, can be more easily accepted in other countries. Statistical offices considering including such topics in the next census should pay particular attention to wording of the questions and testing them in pilot phase.

21. The papers by Norway and the Netherlands focused on difficult topics in a register-based census. The primary challenge resides in the differences that may exist between the concepts of usual residence and legal residence: this can for example cause under-counting (exclusion of irregular migrants) or over-counting (inclusion of emigrants who did not de-register). Other difficult topics are due to events that occurred before the register was established, events occurred abroad, or topics not relevant for administrative purposes. Other difficulties can be associated with events that took place after the persons were registered, and that were not recorded in the registers. One particular case is represented by the identification of the country of birth of persons born in countries emerging from the break-up of former countries, as in the case of the former Yugoslavia. Problems were also discussed with regard to the topic "Year of arrival in the country".

22. The second part of the session focused on other difficult-to-measure topics which mostly apply to censuses with field operations. The following topics were presented and discussed:

23. Measurement of stateless persons: the UNHCR presentation explained the concept of statelessness. The census can collect information on the de jure stateless and census authorities

should make all efforts to collect, process, code and disseminate such data. This requires particular attention as in most countries, stateless are a very small population group whose enumeration can be properly made only through the population census.

24. Measurement of emigrants: a UNECE study was presented on the use of a census module to estimate emigration. The experience of four countries (Georgia, Moldova, Poland and Tunisia) that included questions on emigration at the last census round was presented. Data from these countries were compared with statistics produced by main countries of destination. This analysis indicates that emigration data from the census do not provide an accurate count of the total number of emigrants residing abroad. This is due mainly to the difficulty of capturing households where all members have left the country. However, it was emphasized that such approaches can be useful to collect information on particular groups of emigrants, such as persons who emigrated a few years before the census and/or have family or economic ties with the county of origin.

25. Enumeration of difficult-to-count population groups: the experience of the United States and the Russian Federation in reaching hard-to-count population groups was presented. In the US particular care is being taken to address the language barrier. Integrated communication and partnership programs have also been developed to reach and motivate the hard-to-count groups. In the Russian Federation, the most important difficult-to-count groups were irregular migrants, homeless and people living in remote areas. They plan to repeat their successful approach of the 2002 Census, where ad-hoc census stations were set up to enumerate irregular migrants making clear that no legal consequence would follow from participating in the census.

26. Measurement of disability: the presentation of Brazil focused on disability, for which there is a legal obligation to include a question since 1990. The main challenge is to identify a reduced number of questions that can effectively identify disabled persons. Given these constraints it was decided to focus on a selected number of domains. The next census will take into account the recommendations of the Washington Group, the UN City Group set up to improve disability statistics.

27. Measurement of water and sanitation facilities: presentation from WHO stressed the need to collect sufficiently detailed data on water and sanitation facilities in order to go beyond the mere distinction between improved/unimproved water and sanitation systems. The particular situation of a country should be taken into account when designing the questionnaire.

28. The general discussion stressed the importance of taking particular care in dealing with difficult-to-measure topics and population groups, taking into account the limitations of the census as a source of information on these subjects. The first and primary goal of a population census is to collect accurate information on the place of usual residence of respondents, which is key to providing an accurate count of the total resident population.

Item 4 of the agenda: Data editing and validation

29. Documentation: Invited papers by France and Italy.

30. The French census statistics are generated from a 5 year rolling census providing

population estimates simultaneously for all municipalities for a given year. Details on methodology for calculating these estimates were presented. All census information is progressively validated along the production process from the lowest to the highest level of centralization. The verifications include multiple counts of census questionnaires collected and double entry of captured data. The analysis of trends of estimates over time allows the detection of outliers for a given year providing opportunity to detect and correct errors.

31. The discussion focused on specific questions on the application of hot deck imputation for non-responses and the methods used to validate specific subgroups of the population, including immigrants. The implications of using data collected over several years were also discussed.

32. Italy presented its plans for editing and validation of data for the 2011 Census. Important innovations are being considered for the 2011 census to improve effectiveness and timeliness. These innovations include the use of long form in large municipalities, multi-mode collection, and the possible use of data from administrative registers. The techniques and software used for editing and imputation in the 2001 census are being adapted to the new census methodology and developed to improve their performance.

33. Methodological issues discussed include the implications of using personal identification code for individual record linkage, the possible influence of the order in which imputation methods are applied, the reduction in the number of donors determined by the use of long form and short form and management of multimodal data collection.

IV. FUTURE WORK

34. The meeting recommended the following plan for future work on Population and Housing Censuses.

35. The next meeting is proposed to be held in May 2009. The proposed topics include:

- a) Compliance with CES Recommendations regarding key topics/issues (i.e. usual residence, total population etc.):
 - i) practical issues,
 - ii) measures taken to address them;
- b) Census outputs to meet users' needs:
 - i) invite selected key users (from academia, journalists, NSI colleagues working in areas outside of Census),
 - ii) institutional population;
- c) Follow-up discussion on census quality and disclosure:
 - i) Discussion of work conducted at EU level (quality reports),
 - ii) Statistical disclosure control;
- d) Update on preparation of methodological material on census quality evaluation.

36. The subsequent meetings and activities were proposed:
2010: Last meeting before census-taking period

- 2011: No meetings (break for census-taking period)
- 2012: Meeting to start discussing lessons learnt
 - UNECE to conduct survey on national practices
- 2013: First meeting on preparation of new Recommendations for 2020 censuses

V. ADOPTION OF THE REPORT

39. The report of the meeting was adopted during the closing session.
