



# Economic and Social Council

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## Economic Commission for Europe

Conference of European Statisticians

### Group of Experts on Population and Housing Censuses

Twenty-first Meeting

Geneva, 18–20 September 2019

## Report of the meeting

### Note by the Secretariat

#### I. Attendance

1. The meeting of the joint UNECE/Eurostat Group of Experts on Population and Housing Censuses was held on 18–20 September 2019 in Geneva, Switzerland, at the Palais des Nations, back-to-back with the UNECE Workshop on Population and Housing Censuses for countries of Eastern Europe, the Caucasus and Central Asia (16–17 September).

2. The meeting was attended by participants from Armenia, Austria, Azerbaijan, Belarus, Bosnia and Herzegovina, Canada, Croatia, Czechia, Estonia, Finland, France, Georgia, Germany, Greece, Hungary, Indonesia, Ireland, Israel, Italy, Japan, Kazakhstan, Kyrgyzstan, Latvia, Mongolia, Montenegro, Netherlands, North Macedonia, Norway, Poland, Portugal, Republic of Korea, Republic of Moldova, Romania, Russian Federation, Serbia, Slovakia, Slovenia, Spain, Switzerland, Tajikistan, Turkey, Turkmenistan, Ukraine, United Kingdom, United States of America and Uzbekistan. The European Union was represented by participants from Eurostat. The United Nations Statistics Division (UNSD), the Food and Agriculture Organization of the United Nations (FAO), the United Nations Population Fund (UNFPA), United Nations Mission in Kosovo (UNMIK), the Interstate Statistical Committee of the Commonwealth of Independent States (CIS-STAT), Institut National d'Études Démographiques (INED), IPUMS International (Census Dissemination Partnership) and University of Southampton were also represented. An independent consultant from IntCensus and an independent census expert attended at the invitation of the Secretariat.

3. The attendance of a number of participants was supported financially by UNFPA and the European Free Trade Association (EFTA).

#### II. Organization of the meeting

4. Mr Marc Hamel of Canada was elected as Chair of the meeting.
5. The following substantive topics were discussed at the meeting:



- (a) Results of tests with regard to methodology, technology, participation, and other aspects;
  - (b) Leaving no one behind – Dealing with hard-to-count and vulnerable population groups in the census;
  - (c) Measurement of the quality of administrative sources for use in censuses;
  - (d) Research on the use of administrative data for censuses;
  - (e) Geospatial information and censuses;
  - (f) Dissemination;
  - (g) Emerging issues and international initiatives in gender statistics;
  - (h) Future censuses beyond 2020.
6. The discussion at the meeting was based on papers that are available on the UNECE website.<sup>1</sup>

### III. Recommendations for future work

7. Participants supported the proposed work plan and timeline for completion of the Task Force on Measuring the Quality of Administrative Data Sources for Censuses.
8. Meeting participants requested the Steering Group to finalize the draft paper on ‘Future Censuses Beyond 2020’ with a view to presenting it to be endorsed by the Conference of European Statisticians (CES) in June 2020 and its subsequent publication. Participants agreed that it should take a central role in informing discussions about the next *Recommendations for Censuses of Population and Housing*.
9. The Secretariat was requested to coordinate a round of updates of the country information contained on the UNECE Census wiki, and to present a summary of the updated material in the next meeting.
10. Participants recommended that the next meeting of the Group of Experts on Population and Housing Censuses should take place in 2020. Participants took note that a meeting room and interpretation for this are reserved at the Palais des Nations in Geneva, Switzerland, for 30 September–2 October 2020 (to be preceded by a workshop for countries of Eastern Europe, the Caucasus and Central Asia on 28–29 September). Countries were invited to consider the possibility of hosting the 2020 meeting in their own country, in view of planned renovation works in the Palais des Nations in 2020, and to contact the Secretariat if they wish to discuss such a possibility.
11. The following topics were suggested for discussion in the 2020 Expert Group Meeting:
- (a) First results and lessons learned from censuses of the 2020 round;
  - (b) Dealing with hard-to-count and vulnerable population groups;
  - (c) The role of censuses in supporting and monitoring progress towards the SDGs;
  - (d) Dissemination and communication before, during and after censuses;
  - (e) New perspectives on data quality in censuses;
  - (f) Research on the use of administrative data for censuses;
  - (g) Harnessing new technologies and new data sources;
  - (h) Geospatial information and censuses;
  - (i) International cooperation for sharing experience in censuses;

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<sup>1</sup> <http://bit.ly/censusweek2019>

(j) The future of censuses and the need for revision in the next *CES Recommendations for Censuses of Population and Housing*.

#### **IV. Adoption of the report of the meeting**

12. The meeting adopted parts I–III of this report before adjourning. A summary of the discussion in the substantive sessions of the meeting will be presented in an annex to this report, which will be prepared by the Secretariat after the meeting.

## Annex

### Summary of the main issues discussed at the substantive sessions

#### A. Overall observations and conclusions

1. Key observations and conclusions which recurred throughout the Expert Group Meeting, and which were noted in the closing comments, included the following:

(a) The methodology and sources for census-taking continue to evolve and are likely to continue to undergo profound changes after the present census round is completed;

(b) Underlying concepts, such as that of usual residence, will need to be reassessed and possibly adjusted to take account of evolving needs;

(c) Inclusion of a geospatial dimension in census operations and in collected data is increasingly important for censuses to be efficient and valuable;

(d) Public perceptions are crucial for the success of censuses, making communication important at all stages.

#### B. Results of tests with regard to methodology, technology, participation, and other aspects

2. Presentations were given by Switzerland, France, North Macedonia, Italy (two papers), Poland, Israel and the Russian Federation.

3. The session showcased a wide range of ongoing tests, including, among others, the move to online questionnaires (Switzerland), the use of algorithms based on first names to measure same-sex couples (France), and the use of small area estimation to make corrections to population registers (Israel).

4. Discussion considered the different likelihood of respondents giving an online response or ordering paper questionnaires, depending on their age. While other characteristics have been examined, Switzerland's experience is that age is the most important variable, and other countries have made similar observations.

5. Participants discussed the challenges encountered in imputing same-sex couples in the absence of a direct question asking respondents if they are in such a partnership. It was noted that such a direct question would be difficult to add to France's census questionnaire, both because of the potential impact on responses and due to competition for space on forms. It was observed that some countries are paying increasing attention to the measurement of sex and gender and to counting same-sex partnerships in censuses.

6. Participants considered the challenges entailed in operating multiple collection modes simultaneously, as is done in Poland. They also discussed ways to ensure confidentiality in data warehousing, reflecting on the experiences of Italy.

7. Some lessons learned from pilot censuses were discussed, drawing on the experiences of North Macedonia and the Russian Federation. These included the importance of creating a climate of trust and cooperation among the public, media and business partners such as mobile operators; and aiming for a longer period during which internet responses can be given, since this channel reduces costs and raises quality compared to other channels.

### **C. Leaving no one behind – Dealing with hard-to-count and vulnerable population groups in the census**

8. Presentations were given by Slovenia and Estonia.
9. The vulnerable and hard-to-count groups discussed in the two presentations were older people living in institutions, and homeless people. Discussion focused on the challenges both in defining and in reaching members of these population groups.
10. The usual residence definition is challenging to apply correctly to older people in institutions, since intended length of stay is hard to determine and a large proportion of people pass away within a short time after entering institutions. The own housekeeping concept is taken by Slovenia to be mutually exclusive with living in an institution.
11. There was discussion among participants about whether administrative sources can ever adequately cover homeless people. In the case of Estonia, where multiple registers are linked and a unique person identifier is required for access to all services, people experiencing primary homelessness are covered by such sources, with only a few exceptions. The secondarily homeless are recorded in municipal registers when they access services. Discussion suggested that such near-complete coverage would be much harder in countries without the unique person identifiers and multiple linked registers. The assumption that all primary homeless people have some contact with service providers was also questioned, and this may differ across countries.

### **D. Measurement of the quality of administrative sources for use in censuses**

12. A presentation was given by the United Kingdom on behalf of a UNECE Task Force.
13. As countries in the region move towards increased use of registers and administrative data in conducting censuses (whether for benchmarking, address list construction, or replacing traditional direct questioning), the measurement of the quality of such sources has become a topic of primary importance. Earlier work under the CES identified this as an important gap. The Task Force was established to develop guidance to fill this gap.
14. The Task Force described work conducted so far and outlined its work plan and timetable. Key areas that will be considered in the report are: existing quality frameworks; quality measurement related to data linkage; comparisons and assessment of integrated sources; the relationships between initial assessment and ongoing quality monitoring; and actions that may be recommended to address areas of quality concern.
15. The draft report will be presented to the 2020 UNECE-Eurostat Expert Meeting on Population and Housing Censuses, submitted for country consultation in early 2021, and presented to the CES to be endorsed in June 2021.
16. Participants were invited to offer case studies via the Secretariat or the Task Force chair.

### **E. Research on the use of administrative data for censuses**

17. Presentations were given by the United Kingdom (two papers), Canada (two papers), Slovakia, Poland, Estonia and Latvia.
18. The session made evident that there are many different uses for administrative sources in censuses: deciding which modes to assign to respondents to maximize online response rates; identifying empty dwellings from utility usage records; cleaning emigrants and deceased persons from registers; partially prefilling electronic questionnaires; editing and imputation processes, etc. Using administrative data as a replacement for direct collection from respondents is thus only one among a wide range of possibilities.
19. The range of country presentations made clear that the challenges posed by using administrative sources are not identical across countries, since each country has a different

situation with respect to the availability of unique person identifiers, the existence and quality of population registers, and access to data sources protected by sufficient legislation. Participants also discussed the legislative context with respect to what NSOs are allowed to do with administrative data once obtained. In some countries there are restrictions on using administrative sources for creating new statistical units ('filling holes' in data) and they may be used only for imputation or quality checking.

20. Much discussion focused on difficulties and techniques for record linkage and dealing with gaps and overlaps in administrative sources. For example, different transcription of foreign names may cause duplicate entry and overcounting in migration records, especially in areas with large migration flows. In Canada, record linkage based on several variables (first and last name, date of birth and postcode) ensures complete identification.

21. Participants discussed the interplay between the various dimensions of quality, and it was noted that as censuses move to greater use of administrative sources, the nature of trade-offs between these quality dimensions may change.

22. Alongside the quality issues posed by using administrative sources come public messaging challenges—there was discussion of the need to forewarn the public when delays are expected and to opt for delayed releases rather than publication of estimates which are subsequently revised, since the latter can reduce user confidence in data quality.

## **F. Geospatial information and censuses**

23. A keynote speech was delivered by Andy Tatem of the University of Southampton followed by a presentation given by Israel.

24. The keynote speech discussed the potential of using geospatial information in a variety of ways to improve, complement or facilitate the collection of census data. In some settings where census data are missing or inadequate, data obtained from new methods may be used to fill gaps. In other cases, data with a geospatial dimension can be used to better produce intercensal estimates and updates. Techniques using geospatial information can also help to reduce costs and increase efficiency in developing frames and in managing enumeration.

25. When all collected information is geocoded, the resulting data offer much richer opportunities for policy-relevant analysis and better correspond to the requirements set out by global and regional recommendations. Geocoded data enable analysts to group the data in any way they like, rather than being constrained by existing geographic units such as administrative boundaries. This can reveal trends that are masked when data are aggregated by towns, villages or electoral districts.

26. Examples given in the speech included how mobile phone location data can complement census data to provide information on daily, weekly and seasonal migration patterns. Discussion touched on how such patterns may prompt new understandings of population and of usual residence, as temporary residence, daytime population distribution, weekend residence, commuting patterns and seasonal changes may hold more policy relevance in some cases.

27. Questions concerned the availability, cost and stability over time of satellite and mobile phone user datasets and the time and regulatory backing necessary to retrieve them. Some participants remarked that caution must be exercised as big data sources such as mobile phone data, for instance, can be both biased and unstable. Participants agreed that such sources can be complementary to censuses but will not replace them.

28. A presentation by Israel prompted discussion about difficulties arising when including mobile population groups, such as nomadic people and foreign migrant workers, in censuses. Provocative questions were posed about the role of censuses and what information they are intended to provide. Decisions about demand for services may be better based on area-based than people-based information. The population concept that is needed in a particular instance (e.g. resident population, service population) is not always the same and will not necessarily remain static over time. It may become necessary to consider duration of exposure (e.g. person-years of tourism).

29. It was noted that moving to new concepts is especially challenging in the case of censuses, because they are often politically charged and any change will involve winners and losers. Census managers and NSOs cannot continue to claim that censuses are ‘like gold’ when the public can see that policy-relevant decisions can be made based on data obtained in quicker, less costly ways such as those shown in the keynote speech. This should prompt census-takers into introspection to better defend their products.

## **G. Dissemination**

30. A presentation was given by IPUMS.

31. Use of census microdata from UNECE countries via the IPUMS interface shows that use is dominated by users identifying with the disciplines of economics, demography and sociology. Key topics of interest as evidenced by published research using the data include ageing, migration, fertility and SDGs.

32. The harmonization and simple download facilities provided by IPUMS result in simplified processes for analyzing large datasets and for comparisons across time and space. In discussion with participants it was emphasized that the composite coding system (wherein each digit of a variable code gives progressively more detail about the variable, indicating convergence or divergence from similar variables in other datasets), along with the comprehensive documentation, constitute a source of added value as compared with other online databases of international census data. It was noted during discussion that it is important for users that they find consistent data whether they access them via IPUMS or Eurostat.

33. Discussion touched on the links between research and policy, and more broadly on how in general it might be possible to assess the impacts of academic research on real-world outcomes. This is becoming an increasing priority for NSOs as they have to make the business case for conducting the census.

34. Discussion also covered the range of measures employed to assure confidentiality and security of census microdata made available via IPUMS.

35. It was noted that the dissemination of census microdata to researchers via external platforms such as IPUMS goes some way towards NSOs fulfilling their mandate to disseminate data that meet users’ needs.

## **H. Emerging issues and international initiatives in gender statistics**

36. Presentations were given by UNSD and FAO.

37. UNSD has launched a [repository](#) of census topics, questions and questionnaires, including electronic questionnaires. Participants welcomed this and suggested that for future development of the repository, links to actual software for electronic questionnaires would be more useful than pdfs.

38. An overview of the current status of the world agricultural census programme from FAO led to discussion about the links between agricultural censuses and population and housing censuses. Linking the two makes more sense in settings where most agriculture is performed by the household sector. Some countries use a screening question about whether someone in the household has conducted any own-account agricultural activity in the previous year, as a means of producing a frame for a subsequent agricultural census. For this reason, as well as a general possibility of combining efforts (e.g. in mapping, IT infrastructure, training etc.) the recommendation is for the agricultural census to follow the population and housing census.

## **I. Future censuses beyond 2020**

39. Presentations were given by Canada on behalf of the Steering Group, Germany, Eurostat and the United Kingdom.

40. The Steering Group on Population and Housing Censuses presented a draft of a paper examining the possible scenarios for censuses beyond the 2020 rounds, including a consideration of what will be the greatest challenges and what new needs are likely to develop. Comments on the draft included the need to better define some terms related to migration; consideration of alternative population bases, including taking into account secondary residence; and the use of big data as a validation tool, such as using mobile phone data to validate residential addresses. The need for changes to be supported by legislation was emphasized in discussion. The changing relationship between census data, registers and other official statistics was stressed and it was suggested that this evolving interaction should be considered in the Steering Group's paper.

41. Plans presented by Germany to begin conducting a fully register-based census after 2021, based on a purpose-built register, led to discussion about the ways in which trade-offs are weighed (such as cost efficiencies versus coverage errors), and about the likelihood of requiring a survey or some method of direct contact with some respondents. The rationale behind creating a full register of buildings and dwellings was the subject of debate—not all participants agreed that such a register is an end in itself.

42. A paper by Eurostat prompted discussion about the variation in current practices among countries for defining their population base—including disparities in what is labelled by countries as 'usual residence' (which does not always correspond perfectly with the standard definition). Further discussion considered the changing needs of users and whether the usual residence concept will continue to be the most policy-relevant population base in the future.

43. Prompted by a presentation from the United Kingdom about putting administrative data at the centre of population statistics, participants discussed the general trend towards developing statistics from an issue-based rather than source/survey-based perspective. It was noted that even many advanced users neither understand nor are interested in methodology—their main interest is in the continued availability of the variables of interest to them, irrespective of the source.

44. The relationship between evolving methodologies and public relations was an important topic of discussion. Users must be convinced of the need for change if they are to support it, especially when the change is something as fundamental as switching from a traditional census to one based on administrative data. The importance of explaining new methods and research outputs cannot be understated.

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