



---

**Economic Commission for Europe****Conference of European Statisticians****Group of Experts on Population and Housing Censuses****Twenty-fourth meeting**

Geneva, 21–23 September 2022

**Report of the meeting****I. Attendance**

1. The meeting of the Group of Experts on Population and Housing Censuses was held from 21 to 23 September 2022 in Geneva, Switzerland, at the Palais des Nations, back-to-back with the UNECE Workshop on Population and Housing Censuses (19 and 20 September).
2. The meeting was attended by participants from Armenia, Austria, Azerbaijan, Belarus, Canada, Croatia, Czechia, Estonia, France, Georgia, Greece, Hungary, Iceland, Ireland, Israel, Italy, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Luxembourg, Malta, Mexico, Netherlands, North Macedonia, Norway, Poland, Portugal, Republic of Moldova, Serbia, Slovakia, Slovenia, Switzerland, Tajikistan, Turkmenistan, United Kingdom, United States of America, and Uzbekistan. The European Union was represented by Eurostat and the delegation to Bosnia and Herzegovina. The United Nations Statistics Division, the Food and Agriculture Organization of the United Nations, the United Nations Population Fund (UNFPA), the United Nations High Commissioner for Refugees, the United Nations Children's Fund, the United Nations Mission in Kosovo, the Interstate Statistical Committee of the Commonwealth of Independent States, IPUMS International (Census Dissemination Partnership) and Environics Analytics were represented, as well as an independent census expert at the invitation of the Secretariat.
3. The attendance of many participants was supported financially by UNFPA.

**II. Organization of the meeting**

4. Mr Eric Schulte Nordholt of the Netherlands chaired the meeting.
5. The following substantive topics were discussed at the meeting:
  - (a) Delaying a census due to external crises: impacts and lessons for the future;
  - (b) Lessons learned from censuses of the 2020 round;
  - (c) Upcoming censuses in the UNECE region;
  - (d) Transitions in census methodology: plans, experiences and innovations;
  - (e) The long-term future: censuses of the 2030 round and beyond;



(f) Revising the Conference of European Statisticians Recommendations for Population and Housing Censuses for the 2030 round.

6. Discussions were prepared and led by Ana Santos, Portugal; Liina Osila, Estonia; Eric Schulte Nordholt, Netherlands; Valentina Istrati, Republic of Moldova; Shorena Tsiklauri, Georgia; Cal Ghee and Ed Dunn, United Kingdom.

7. Documents and slides presented at the meeting are available on [the web page of the meeting](#).

### **III. Recommendations for future work**

8. Participants renewed their commitment to updating the [UNECE Census wiki](#) with information on their countries' censuses of the 2020 round.

9. Participants recommended that the next meeting of the Group of Experts on Population and Housing Censuses should take place in person in 2023, and took note that a meeting room and interpretation for this are reserved at the Palais des Nations from 20 to 22 September 2023 (to be preceded by a workshop on 18 and 19 September).

10. The 2023 meeting of the Group of Experts should reflect on the lessons learned from the censuses conducted in the 2020 round, with a focus on censuses held in 2022 and 2023; and should review and discuss the progress of the task forces that are developing the Conference of European Statisticians Recommendations for Population and Housing Censuses for the 2030 round. For the 2023 meeting, each task force listed below is requested to submit a document on their progress:

- (a) Emergency preparedness and contingency planning;
- (b) Quality assessment and quality management;
- (c) Enumeration methods;
- (d) Technology;
- (e) Population concepts and related definitions;
- (f) Economic characteristics;
- (g) Migration and mobility (national and international);
- (h) Household and family characteristics;
- (i) Sex and gender;
- (j) Housing topics;
- (k) Geospatial information and small area statistics for censuses;
- (l) Dissemination of disaggregated census data;
- (m) Communication and outreach.

In preparing the meeting, the Steering Group will consider the inclusion of possible other topics.

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

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

## Annex

### Summary of substantive sessions

#### I. Overall observations and conclusions

1. Key observations and conclusions which recurred throughout the meeting included the following:

(a) Conducting the bulk of a census round *at the height of a pandemic* posed many challenges, but to a great extent countries have surmounted these challenges, coming away from the experience with valuable lessons learned for future censuses;

(b) *Transitions towards register-based censuses*, as well as increased use of administrative data in combined censuses or to support traditional censuses, continue to be the dominant trends in the region;

(c) Among countries using a traditional or combined approach, fast-paced changes in technology offer potential not only for improved efficiency and quality, but for increased *flexibility and resilience*;

(d) *Quality assessment* is increasingly viewed as a crucial aspect of census operations at every stage;

(e) *Public trust* in those conducting censuses and in the resulting census data is essential, and requires dedicated effort to obtain and maintain.

#### II. Invited talks

##### A. The 'Time Capsule' in the Irish census 2022

2. Eileen Murphy from the Central Statistics Office of Ireland delivered a presentation on the 'time capsule' feature included in the 2022 census.

3. The presentation described the origins, implementation, and public response to the time capsule feature of the Irish 2022 census, which provided respondents with *a space to record a message of their choosing to be sealed for 100 years*. Born from an effort to decide what to do with an area of unused space when designing the census form, the feature provided a new way of engaging with the public around the census. Presented as a rare opportunity for respondents to decide for themselves what they wanted to record on their census form or a chance to tell future generations about life in 2022, the time capsule captured the attention of the media and the public and helped raise awareness of the census. Many respondents shared time capsule entries on social media, which ranged from heartfelt to humorous. The time capsule reminded participants about the personal and historical dimensions of a census and served as a unique and effective tool for publicity and public engagement.

4. Participants expressed enthusiasm for the time capsule feature and several countries indicated they would consider including something similar in future censuses. The time capsule was discussed as a way to address issues around social cohesion as it allows responses in any language and facilitates engagement across society. There was agreement that such an approach was useful for engaging the public, particularly the traditionally hard to reach groups such as university students, given the concentration of time capsule-related activity in social media. Discussion brought up questions relating to safeguarding against abuse and the storage and archiving of paper questionnaires.

## B. The census as a framework for business analytics

5. John Nelligan from Environics Analytics, Canada delivered an invited talk on *how census data can be used to inform business decisions*.

6. The talk showcased the use of Canadian census data to underpin dozens of business analytics tools for the private sector. Integrating geographic and demographic information from the census with other data sources, the company estimates neighbourhood characteristics at the postal-code level to help business users answer questions about customers, and to develop marketing strategies and logistics systems. The value of the census for calibrating sample surveys and other non-representative data sources for business purposes was emphasized. The presentation highlighted the value of the census for informing decision-making beyond traditional governmental uses.

7. Discussion centred on cooperation between the private analytics company and the National Statistical Office, and the relationships and distinctions between the work done by these two entities. They work closely together, but each organization has a unique mandate and serves different audiences with complementary products and services. The discussion also highlighted the value of stable postal-code systems for small-area analyses. Participants considered how similar small-area estimation techniques might be employed for optimizing response to the census by locating and targeting likely non-respondents.

## III. Delaying a census due to external crises: impacts and lessons for the future

8. Presentations were given by Ireland and France, with discussion led by Portugal.

9. Both presentations described the implications of *delaying the census due to the Covid-19 pandemic*. Face-to-face enumeration was planned for some (France) or all (Ireland) of the population in both countries, and the decision was taken to delay the census from 2021 to 2022 in both cases due to the risks to the quality of the census; concerns for the safety of the public and field staff; and concerns surrounding public image. While data on demographic and household characteristics could wait, both countries required population estimates for 2021. The two countries took different approaches to producing population estimates based on available data sources. In Ireland, data from 17 administrative data sources were used to produce national population estimates by low-level geography. In France, the 2021 population estimates were produced by adapting the rolling census methodology which already relied on interpolation and extrapolation.

10. Participants discussed the vulnerability of censuses that rely on face-to-face enumeration. In Ireland, the pandemic helped to highlight the *risks associated with paper questionnaires* and has bolstered advocacy efforts to be allowed to provide an online option in the next census. The experience in France has made the development of smartphone-friendly questionnaires a priority.

11. Participants also discussed the challenges around *hiring and training staff* during the pandemic and dealing with work-from-home mandates. There was agreement that while there are many positive elements to online training, some key elements of training are best conducted in person.

12. The presentations prompted discussion about *estimation techniques* for data on individual characteristics that are generally stable over time, and about the importance of frequent data collection for other characteristics that are impacted during a crisis such as employment status, migration and mobility. Participants discussed the use of estimation methods and other new approaches such as those used in France and Ireland for future censuses, considering the many trade-offs between traditional and new methods. New methods may improve cost-effectiveness and provide more timely and frequent data but not necessarily without impacts on the detail and coverage of data.

#### IV. Lessons learned from censuses of the 2020 round

13. In the first part of the session, presentations were given by Mexico, Croatia, Poland, North Macedonia, the United Kingdom, Malta, and the United States of America, with discussion led by Estonia.

14. In the second part of the session there were presentations by the United Kingdom and the United States of America, with discussion led by the Netherlands.

15. Many of the lessons learned from censuses of the 2020 round were directly related to the *challenges posed by the Covid pandemic*, as explored in the previous session. Adapting training, enumeration and follow-up protocols to comply with health-related restrictions led to delays and/or cost increases, while lessons were also learned about mitigating impacts on data quality.

16. The session revealed wide variation in cultural acceptance of the *response burden* entailed by a traditional census, as well as in willingness to self-enumerate online. In some countries, such as Croatia, a majority of the population is eager to be enumerated in person, while in others more outreach must be done to engage and remind the population. With online methods, cross-country variation reflects not only willingness but capacity, since some countries have limited internet penetration and/or internet literacy within their populations. Those countries with greater acceptance of online methods found that they could more readily adapt in the face of unexpected challenges.

17. Many countries reported that the curve of responses for internet *self-enumeration* is U-shaped, with many connections and responses on the first and last few days and fewer in the middle. There was discussion around the possibility therefore that lengthening the response window may have rather limited impact on overall response rate, since few responses are received during the central part of the window, no matter its length.

18. The presentations and discussion also revealed wide variation in *non-response* as well as in approaches both to estimating and to tackling it. Post-enumeration surveys are by no means universal and some had to be cancelled in light of the pandemic.

19. The increasing role of *technology* in all stages of census operations was evident from the session—not only for enumeration but for planning, monitoring and processing. Several countries reported that they had developed bespoke software in-house, rather than using commercial software or outsourcing these activities. This has the advantage that it develops capacity within the national statistical office, but there remains further scope for international cooperation to facilitate cross-country learning and thereby reduce the start-up costs of such activities for individual countries.

20. *Quality* was a recurring theme both in presentations and in discussion. Quality assessment is necessary with respect both to sources and to outputs, and is equally important no matter what methodology is employed for the census. Some countries reported significant and in some cases increasing undercoverage of younger people. Real-time coverage assessment offers possibilities for adjusting and targeting resources, thereby potentially improving coverage instead of only assessing it post-hoc. In discussing quality assessment, participants stressed that it is not only a technical tool for monitoring and evaluating the work, but is a communications tool allowing the NSO to demonstrate transparency and hence foster people's trust in the census.

21. A specific aspect of data quality and coverage which provoked discussion was that of collecting information from *people living in institutional households* (known in some countries as group quarters or communal establishments). Reference was made to the [Conference of European Statisticians Recommendations](#) on this topic. The challenges related to enumerating older people in institutions were in some cases exacerbated during the pandemic, while the continued diversification in living arrangements of older persons adds to the lack of clarity surrounding definitions and classifications.

22. Participants discussed the delicate balance between providing detailed and accurate data for informing important decisions, and the requirement to protect *confidentiality*.

23. In concluding the session, it was observed that the purpose of a census is to enable measurement of things that are important to society. Hence censuses will need to keep evolving and adapting to changing societies and new data needs, and *the lessons learned from censuses of the 2020 round should be actively studied and applied when preparing future censuses*. The trend towards increasing use of administrative sources and diversification of sources is likely to continue. Where direct enumeration continues, there will need to be further efforts to engage the interest of respondents as well as to reduce response burden.

## V. Upcoming censuses in the United Nations Economic Commission for Europe region

24. A presentation was given by Serbia.

25. The census of Serbia will be conducted in October 2022 using a traditional approach with door-to-door interviews, but for the first time using laptops for data collection instead of paper questionnaires. A post-enumeration survey will also take place. The presentation and ensuing discussion revealed challenges in the recruitment of enumerators, especially in the capital.

## VI. Transitions in census methodology; plans, experiences and innovations

26. In the first part of this session, presentations were given by Slovakia, Greece, Italy, Switzerland and the Netherlands. Discussion was led by the Republic of Moldova.

27. The second part of the session included presentations from Canada (two presentations), Latvia, Israel, the United Kingdom and the United States of America. A delegate from Georgia led the discussion.

28. The country presentations showcased a number of new methodologies in use across the region for *data collection, processing, and dissemination*, including online self-enumeration and efforts towards the development of statistical registers (Greece), the annual production of census information (Italy), a harmonized approach to disclosure control of census tables (Netherlands), machine-learning for the imputation of missing data (Switzerland), and the integration of fieldwork and administrative data sources for the development of a comprehensive list of statistical address points for the census (Slovakia).

29. Most of the new methods presented make use of *register or administrative data*, and much of the discussion concerned various aspects of integrating these data sources into census activities. The use of new health data generated during the pandemic was discussed, as well as the use of administrative data to verify data collected in field operations.

30. Participants discussed *cooperation with administrative data holders* and the role of *statistical legislation* in facilitating and legitimizing statistical use of administrative data. In Greece, where the census collected personal identification numbers for the first time, the census law was crucial.

31. Challenges around the identification of household and family type in administrative data were acknowledged. Questions from participants around linking keys and updating registers suggested an interest in the *technical aspects of working with administrative and register data*. Participants also considered the use of statistical registers for other purposes.

32. Participants discussed *communication with the public generally and with data users*. Strategies for improving public trust in statistics, such as school-based programmes, were discussed. The challenges around communicating imputation and disclosure control techniques to data users were also discussed. Participants considered how to demonstrate the utility of treated data to users and the need to modulate messaging according to audience.

33. Participants discussed the value of *geocoded data* for both fieldwork and data dissemination and analysis. Geographical coordinates facilitate the measurement of access to

services such as hospitals and schools, for example, with clear relevance for monitoring progress towards the Sustainable Development Goals.

34. Reflecting on the session, the discussant noted that harnessing innovations can be a particular challenge for countries whose censuses take place more frequently than every ten years. For all countries, no matter the frequency or the method used, *continuous and specifically-dedicated effort* is needed to capture the potential of ongoing transitions that offer increased quality and efficiency. As ever more countries adopt combined or register-based approaches for their censuses, innovations are needed not only in technical matters but in *institutional aspects*, such as cooperation agreements with data holders.

## VII. The long-term future: censuses of the 2030 round and beyond

35. In this session, presentations and interventions were made by IPUMS, UNFPA and UNSD. Reflections to lead the discussion were given by the United Kingdom.

36. The global and long-term perspectives offered in this session made clear that, in contrast to the picture among CES countries, worldwide the vast majority of countries will continue to conduct field-based operations using direct enumeration for the foreseeable future. At the global level, most advances will be made by employing modern technologies and hybrid methodologies, rather than by significant transformations in approach. Transitioning to a register-based approach is likely to take many years for most countries, including those within the UNECE region which have not adopted this approach. Such a transition requires attention to the *costs of refurbishing and maintaining administrative data systems* to suit census purposes, which can be very significant.

37. In general, and reiterating discussion from previous sessions, it was noted that the need to face and address concerns about the *accuracy, relevance and coverage* of census data will remain of central importance. This includes the need to address new challenges in capturing *changing types of living arrangements and patterns of mobility*, as well as traditional challenges such as systematic under-enumeration of some population groups.

38. It was observed that those countries which are now conducting the first census in a long time have the possibility to ‘leapfrog’, or benefit from advances undertaken more gradually by others. The value of international cooperation in fostering this was recognized.

## VIII. Revising the Conference of European Statisticians Recommendations for Population and Housing Censuses for the 2030 round

39. The chair of the CES Steering Group on Population and Housing Censuses presented the main elements of the [work plan](#) for developing the CES recommendations on population and housing censuses for the 2030 round (ECE/CES/BUR/2021/FEB/6). The secretariat gave information about the 13 task forces established within this work plan. The [terms of reference of these task forces](#), approved by the CES bureau, can be found in ECE/CES/BUR/2021/OCT/5.

40. Participants were informed that *task forces can still welcome new members* if offices wish to make further nominations. This should be done as soon as possible by sending to the secretariat the names and contact details of those wishing to join.

41. The task forces and the steering group will spend the first part of 2023 developing a comprehensive questionnaire on practices used for censuses of the 2020 round, to be sent to all countries in the middle of 2023. The task forces will report on initial findings and progress in the 2023 meeting of the Group of Experts.

42. The need for *careful coordination with related initiatives*, such as UNSD questionnaires on census practices, was noted. UNSD and ECE will work closely to minimize burden on NSOs and avoid duplication. The outcomes of the 2023 International Conference of Labour Statisticians will also be followed closely and taken into account for this work.

43. Participants reiterated the importance of *concepts and definitions* in the Recommendations, stressing that they need to be fit for purpose, both to cover the evolving policy issues for which censuses are meant to provide data, and to be practically applicable for countries using a variety of approaches and data sources.

44. While a single set of Recommendations needs to be relevant to all CES member countries no matter what census methodology is employed, some participants suggested that the 2030 Recommendations could benefit from inclusion of elements specifically designed to guide those using each of the main methodological approaches.

45. Participants emphasized the importance of developing recommendations which it will be feasible for all member countries to implement; as well as making them *future-proof*, so that they will remain valid by the time the 2030 round takes place, rather than being tied to specific circumstances or technologies which may change.

---