Population and Migration Statistics (PAMS) Committee Scotland Minutes

15th November 2023

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1. Welcome and Introductions

Ryan Scott welcomed everyone to the meeting.

The minutes of the previous meeting on 16 May 2023 were approved without comment.

2. Summary of Actions

• **Action Point 2023.1**: Ryan Scott to circulate the slides relating to Scotland's 2022 Census to PAMS Members.

• **Action Point 2023.2:** Jonathon Wroth-Smith to consider a blog article containing further explanation of how non-response in the census is handled in the statistical outputs.

• **Action Point 2023.3:** Esther Roughsedge to send Mike Atkinson additional information on population estimates for Highland Council if available.

• **Action Point 2023.4:** James Robards to share the new international migration data and rebased population data with the group.

• **Action Point 2023.5:** Emma Fitzpatrick to email PAMS Members to gauge interest in a webinar on Statistical Disclosure Control.

• **Action Point 2023.6:** Ryan Scott to consider arranging a webinar on statistical disclosure control (SDC) and the Flexible Table Builder (FTB) on the NRS website.

• **Action Point 2023.7:** Esther Roughsedge to enquire about when the sub-local authority population projections will next be released.

• **Action Point 2023.8:** Heather Smith to consult further with her colleagues on whether there was a preference for rebased small area population estimates based on the 2011 or 2022 data zone boundaries, and let Esther Roughsedge know what they say.

3. Census Update

Ryan Scott reported that the main update on the 2022 Census since the last meeting was the publication of the first release of population and household estimates on 14 September. There had been extensive coverage of this release by the media, picking up on key points such as the increase in Scotland's population as well as the ageing population. Ryan noted that it was key to ensure that there was confidence in the census estimates through accreditation as National Statistics, with sound statistical methods and coherence with other published statistics. Additionally, there was a key focus on the practical implications of the inherent uncertainty in census estimates for users of the statistics.

Ryan asked whether providing this context to the data was helpful, and if it should be replicated in future releases. Emma Fitzpatrick asked if the census update slides could be circulated to PAMS members to help with further explanation within local authorities. Ryan agreed to do this after the meeting.

James Arnott asked how response rates in different areas were calculated, and whether lower response rates had occurred in more deprived areas. Esta Clark responded by saying that some information on response rates was published by local authority broken down by age and sex. It tended to be younger males that are non-responders. The estimation process works to give 100% coverage, so you can be confident that everyone in the area is covered in the final estimates. Jonathon Wroth-Smith added that we would provide a blog to cover this topics and give further information on small area estimates. He also encouraged users to give feedback so that the process could be improved in future.

Mike Atkinson noted that for Highland the 2022 census population estimate was very similar to the 2020 mid-year estimate, therefore there was little feedback for him to provide or pass on. Esther Roughsedge said that she can look at the mid-year estimates to see if there could be further information that could be provided. Ryan Scott said that the team are working on the data required to produce census population estimates for lower level geographies.

Esther Roughsedge explained that the census data will be used to rebase the mid-year estimates. The overall figure for Scotland showed a 1.1% difference between census and rolled forward mid-year estimates (MYE). Differences in the age structure appeared to be down to migration. She believed that the international migration figures included in the mid-year estimates over the last 10 years appear to have been a little too high. The biggest differences between rounded 2022 Census and rounded rolled forward MYE were generally in the cities. It is planned to release a reconciliation report which goes into more detail about the differences, and reasons for them.

Esther noted that ONS have been working to make their estimates of international migration more accurate, using administrative based data such as Home Office data on visas. Migration within the UK is mostly picked up through changes in GP registrations. However, there can be delays to people informing their GP when they have moved – particularly for young adults such as students. This is why the biggest differences were found in the cities, which have large student populations. To improve the figures around students, Esther plans to get data from the Higher Education Statistics Agency.

Esta Clark added that NRS and ONS used different administrative sources to produce their own population estimates. James Robards noted that data from Home Office exit checks on visas have been incorporated in the most recent releases by ONS on migration. New international migration data and rebased population data are both being planned for release and will be shared with the group.

Ryan Scott outlined the census outputs release schedule, starting with the more detailed population estimates in spring/summer 2024. Topic releases with single variable tables by age and sex, where appropriate, will follow with the aim being to

bring out some of the key messages in accompanying reports. There will be data on trans people and armed forces veterans for the first time. Multivariate data will be available later in 2024 to support intersectional analysis. The topic releases will use the same engine as the Flexible Table Builder (FTB). But the initial topic tables will not be fully flexible or interactive.

Ryan noted that the next stage of work on census outputs is to finalise the census dataset. This will involve quality assurance, completing the relationships between individuals in households and recasting output area geographies to ensure they contain broadly consistent numbers of households. Lynsey Bunnefeld added that the output areas will in turn be used to define a new set of data zones. The 2011 data zones and information shared by councils will be used to do quality assurance of the estimates. No further input will be required from the councils at this time. The next stage of quality assurance of census data will involve panels including topic experts from the Scottish government.

Ryan advised that future census outputs will be made available down to the smallest geography levels possible that are in keeping with statistical disclosure control (SDC) considerations. He said the overall aim of the SDC strategy is to minimise the risk of disclosure to an acceptable level while publishing data of the greatest detail possible. SDC is needed as NRS has a legal responsibility is to ensure that respondent's information is kept confidential. It also helps to build trust with users that the census data is secure and of high quality. The key approaches for this process are household record swapping, cell key perturbation and table builder rules. Similar approaches are used across the UK and internationally. SDC will be apparent to users as sub-totals may not add to totals in some tables.

Ryan asked if PAMS members would be interested in a webinar on SDC, with a focus on the FTB. Emma Fitzpatrick replied that she would find this useful and would email others to gauge demand. Jonathon Wroth-Smith suggested it may be useful to see an example of a table where the totals do not add up. Ryan said that it may be possible to come up with a mock example for this using the FTB tool.

Ryan noted that it was planned to integrate maps into census output publications to help tell specific stories. Ryan asked if PAMS members or their colleagues or stakeholders use mapping tools just now. Emma Fitzpatrick responded that a mapping tool would be well received by members and also by their colleagues and other stakeholders.

James Arnott asked if there would be a household deprivation analysis using census data for Scotland, similar to the one ONS had provided for England and Wales. Ryan replied that this was not in the plan just now but that no final decision had been taken on this. Jonathon Wroth-Smith commented that he had been involved in this work when at ONS. He said that analysis had not been particularly well received by users due to the small number of indicator variables involved, and there were also questions raised over how well the variables were associated to deprivation.

4. Demography updates

4.1 Statistics Engagement and Promotion – Joe Adams (PAMS (23) 07)

Joe flagged up that Scotland's Population 2022 report had been published recently. It included three key points: links between poorer health outcomes and deprivation; changes to the most common causes of death as more people are dying from Alzheimer's disease and dementia; and that there are bow more people aged over 65 than under 15. Emma Fitzpatrick commented that there was an interest in more trend information to compare local authorities to each other and that the publication is well used.

The data access team continue to provide secure extracts of census data for data linkage research projects. These allow public benefit to be derived from census data while maintaining the confidentiality of personal data. Additionally, the team continue to provide commissioned census tables where customers have requested information not covered by existing tables.

4.2 Population and Migration – Esther Roughsedge (PAMS (23) 08)

Esther summarised the provisional publication timetable for her branch. Once the census figures are released, these will be used to produce new mid-year population estimates and then revise the figures from the last decade. The mid-year population estimates for 2022 based on data from the 2022 Census and the migration statistics will hopefully be available in February 2024. Small area population estimates based on the 2022 Census data are planned for Summer 2024. The population by country of birth and national publication are planned for late 2024.

Esther noted that interim 2022-based national population projections are due to being published at the end of January 2024. These will not incorporate new census data for Scotland – the main change will be updated figures on international migration. There will be a full set of national projections planned for release in October/November 2024. The sub-national population projections will be released some time in Spring 2025.

Emma Fitzpatrick asked if sub-local authority populations projections would be available in the future. Esther replied that she will contact the Improvement Service to check if they plan to do this again.

Mike Atkinson commented that there is a pressure to release household projections for local authorities as the most recent data is from 2018-based projections. Sandy Taylor confirmed that he is aware of this issue and has advised colleagues in the CHMA in Scottish Government so that they are aware of the latest publication timescales for the next population and household projections.

Esther expanded on the work involved in rebasing small area population estimates. The new 2022 census data will initially be published based on 2011 data zone boundaries. Once it is published, the Scottish Government will consult on boundaries for new data zones based on the 2022 census populations. These boundaries should hopefully be finalised and released by the end of 2024.

After the new data zone boundaries become available, Esther's team will produce small area population estimates for mid-2022, based on these boundaries. Esther asked whether there was a preference for rebased small area population estimates based on the 2011 or 2022 data zone boundaries. Heather Smith noted that she would need to consult further with her colleagues to know which what would be best for them. Emma Fitzpatrick stated that most people would likely prefer to move to the new boundaries as soon as possible. However, the old boundaries would be needed during the transition for comparison. She also asked when the consultation with local authorities over the proposed 2022 data zone boundaries would take place. Esther replied that is likely to be next summer, and it will be led by the Scottish Government.

Esther noted that a Scottish Government report had been published on island regions. A new interactive dashboard was also available that illustrates there are big differences between the island regions in terms of population change.

4.3 Household Statistics - Sandy Taylor (PAMS (23) 09)

Sandy noted that the latest (for 2022) statistics on household and dwelling estimates were published in June, with data zone level estimates also released on the same day. Household and dwelling estimates for Scottish Island Regions had since been released and included in an interactive data visualisation app (along with population estimates), Estimates for National Park areas are currently being finalised ready for uploading to the NRS website in the next few weeks. Sandy added that data sharing agreements covering the collection of data from local authorities and Scottish Assessors are nearing sign off.

In terms of development work, Sandy noted that the branch are reviewing options for the methodology to be used for the next set of household projections and also carrying out some exploratory analysis of pilot unique property reference number level data. Additionally, an overall strategy document to guide work on household statistics over the next few years is currently being refreshed. Updates on these pieces of work will be shared with PAMS and also the Household Analysis Review Group for information and comment.

On other areas of work Sandy noted that the annual request for electoral roll data as at the start of December was due to be issued shortly to Electoral Registration Offices. The content of webpages on household statistics on the NRS website is also being reviewd - Sandy welcomed any suggestions or feedback on these webpages, eg on useful links to include.

Finally, after the first release of the 2022 Census, further releases of census outputs including topic reports are expected to be available from spring 2024.

4.4 Vital Events – Beth Watson (PAMS (23) 10)

Beth outlined the various publication since the last PAMS meeting including various cause of death publications for 2022, vital events reference tables for 2022, historical baby names, winter mortality statistics, and quarterly statistics on births, deaths and other vitals events (Q1 and Q2 for 2023). In September, the provisional life expectancy figures for 2020 to 2022 were published. The latest figures and back series for these will be revised once the mid-year 2022 population estimates and rebased population estimates based on the census data are available. Additionally, the healthy life expectancy publication has been delayed until the rebased population estimates are available.

Beth noted various upcoming publications, including avoidable mortality, homeless deaths, quarterly births, deaths and other vital events as well as the regular weekly and monthly data releases on births and deaths.

5. AOB and date of next meeting

Ryan Scott said the aim is to hold the next meeting in May 2024. He thanked everyone for joining the meeting and for the useful feedback provided.

6. Completed Action Points

Action Point 2022.5:

Chris McCrum to provide an update to PAMS on plans for revising data zone boundaries.

Action Taken:

The following update was released to PAMS members:

Data zones are the building block of statistical geographical information in Scotland. They aggregate into higher geographies and are designed to nest within council area boundaries at the time of the census.

The Data Zones geography will be updated using data taken from the 2022 Census. The 2022 Data Zones will be created by aggregating 2022 Census Output Areas to the 2011 Data Zone boundaries, based on the locations of the Output Area Population Weighted Centroids (a method referred to as 'best-fit').

The populations will be re-balanced by merging under-threshold Data Zones and splitting over-threshold Data Zones. In addition, any non-contiguous Data Zones which have been created (and are not caused by islands/water) will be merged.

There will be a formal consultation on the re-balanced Data Zones. This will take place after the final Census 2022 Output Areas have been published by NRS. The consultation on the boundaries is likely to take place in summer/autumn 2024, after which the final boundaries will be released. The timings for publication of updated Data Zones and Intermediate Zones are still to be confirmed.

Action Point 2022.6:

Ryan Scott to consider including an item on the use of data in creating 'place making' profiles on the agenda for a future meeting.

Action Taken:

Published as part of the webinar materials in June/July and there is a link from the last meeting which was sent to PAMS Members

7. List of Attendees

Name	Organisation
Andrew Ballingall	Fife Council
Beth Watson	NRS
Christopher McCrum	NRS
Clare Leadbetter	NRS
Emma Fitzpatrick	East Dunbartonshire Council
Esta Clark	NRS
Esther Roughsedge	NRS
Heather Smith	Highland and Islands Enterprise
Heidi Goodship	Scottish Borders Council
James Arnott	Glasgow City Council
James Robards	ONS
Jessica McAleese	NRS
Joe Adams	NRS
Jonathon Wroth-Smith	NRS
Joseph Scott	Clydeplan-sdpa
Julie Ramsay	NRS
Kara Heron	East Ayrshire Council
Karen McCreadie	Inverclyde Council
Kathleen Shirkie	Comhairle nan Eilean Siar
Kerry Gadstone	ONS
Lara Olszenka	NRS
Liz Mann	NRS
Lynsey Bunnefeld	NRS
Martin Miller	NRS
Michael Edie	NRS
Mike Atkinson	Highland Council
Phillipa Haxton	NRS
Ryan Scott	NRS
Sam Hunter	NRS
Sandy Taylor	NRS
Sarah Nodwell	Scottish Water
Semirah Lawal Abubakar	Aberdeen City Council
Stephania Sechi	NRS
Susie Rose	NRS