

## Population And Migration Statistics (PAMS) Committee (Scotland)

### Population and Migration Statistics Update

#### 1. Introduction

This paper summarises the recent work on population and migration statistics. PAMS is asked to note the paper and offer any comments. We would also be very keen to hear back from PAMS members about how you use our statistics and what impact they have. Written comments on anything covered in this paper will also be very welcome to [esta.clark@nrscotland.gov.uk](mailto:esta.clark@nrscotland.gov.uk).

PAMS members are invited to provide feedback either at the meeting or in a subsequent e-mail on:-

- How are statistics are used and what impact they have;
- The publications and work we have planned;
- Our approach to dealing with the age distribution errors in the mid-year population estimates;
- Our plans for the sub-national population projections and sub-council area population and household projections;
- Our other projects and work.

#### 2. Staffing

There have been a number of changes within the team.

- Souraya Morrison left the National Records of Scotland (NRS) on 17 September.
- Darren Knox moved to Business, Enterprise & Digital Trade Statistics in the Scottish Government on 18 September.
- Michael Hunter moved to Business & Enterprise Statistics in the Scottish Government on 18 September.
- Paul Gona moved to Agriculture Statistics in the Scottish Government on 28 September.
- Dani Ene has joined us on a short-term secondment from Information Services Division (ISD) to work on producing 2014 Small Area Population Estimates (SAPE) for 2001 Data Zones, funded by Scottish Government (SG) Health.
- Sarah Mohammed joined us from ScotXed Education Statistics in the Scottish Government on 22 September.
- Three new people will be joining us in the next few weeks following the recent external recruitment exercise, Huw Landrock, William Howes and Maya Clayton.

### 3. Publications

Publications since the last PAMS meeting:-

- Migration tables for mid-2013 to mid-2014 (22 July 2015);
- National Life Tables 2012-2014 Scotland table published in August with our Registrar General's (RG)s Annual Report (20 August 2015);
- Three chapters for the Registrar General's Annual Report (20 August 2015);
- Small Area Population Estimates (SAPE) 2014 for new 2011 data zones, data for previous years 2011 to 2014 (27 August 2015);
- Country of Birth and Nationality population estimates 2014 including revised estimates for earlier years due to revisions to population estimates after the 2011 Census (27 August 2015);
- Centenarians, including population estimates for those aged 90+, 2004 to 2014 (30 September 2015);
- Life Expectancy for Scottish Areas 2012-2014 (13 October 2015);
- National Population Projections 2014-based (29 October 2015);

Future publications:-

- Office for National Statistics (ONS) publication: Quarterly Migration report – including International Migration for Scotland for calendar year 2013 (26 November 2015);
- Local Area Migration spread sheet update (26 November 2015);
- National Population Projections Scotland, additional variants (26 November 2015)
- Small Area Population Estimates for Mid-2014 for 2001 Data Zones (3 December 2015);
- 2012-based Sub-Council Area Population and Household Projections (end March 2016);
- 2015 Mid-year population estimates and revised 2014, 2013 and 2012 mid-year population estimates for Scotland, Councils and NHS Board areas (end April 2016);
- Sub-national Population Projections for Scottish Areas 2014-based (June 2016);
- Total Migration to and from an Area, 2015 update, including revised migration estimates for 2012, 2013 and 2014 (July 2016);
- Local Area Migration Spread sheet update for 2015 (July 2016);
- 2015 Small Area Population Estimates (SAPE) and revised 2012 to 2014 SAPE for new 2011 data zones (August 2016 To be confirmed (TBC));
- National Life Tables 2012-2014 Scotland table published in August with our RGs Annual Report (August 2016);
- Three chapters for the Registrar General's Annual Report (August 2016 TBC);
- Country of Birth and Nationality population estimates 2015 (August 2016);
- Centenarians, including population estimates for those aged 90+, 2005 to 2015 (September 2016);
- Life Expectancy for Scottish Areas 2013-2015 (October 2016);
- Small Area Population Estimates for 2011 Data Zones for 2001 to 2010 (December 2016 TBC)
- Settlement and Locality Population Estimates Mid-2014 or Mid-2015 (March 2017 TBC)

#### **4. Mid-Year Population Estimates**

We recently found errors affecting mainly the age distributions for the mid-year population estimates for 2002 to 2014. More information about the errors and the approach we are taking to deal with them can be found in papers PAMS (15) 17 and PAMS (15) 18 and in the [Population section](#) of the NRS website, which includes a frequently asked questions and answers document. We will be correcting the mid-year population estimates for Scotland, Councils and NHS Board areas for 2012, 2013 and 2014 when we publish the 2015 mid-year population estimates in April 2016. Corrections to 2011 Data Zone population estimates for 2012, 2013 and 2014 will follow in August 2016. We do not plan to correct the small area population estimates for 2001 Data Zones.

#### **5. 2014-based Population Projections Scotland**

Thank you to everyone who came along to the Scottish Experts meeting on 25 June in Edinburgh, your input was very helpful to us in informing the population projection assumptions for Scotland. The 2014-based National Population Projections for Scotland were published on 29 October on the NRS and ONS websites. Feedback on the publication is welcome.

#### **6. Review of 2014-based Sub-National Population Projection Method**

2014-based Sub-National Population Projections for Administrative areas within Scotland are planned for June 2016. Thank you to everyone who came to the Projections SubGroup (PSG) meeting on 19 August. The agenda, papers and minutes from the meeting can be found on the [NRS website](#). Since the meeting work has been progressing on the review of the sub-national projection methods. To date a new outputs phase has been coded into SAS, which automatically produces all the output tables and charts needed for the publication, and we have made a start to bring together other parts of the system. The new outputs will include more detail than in previous rounds, for example, projected migration by flow by area. More information on the progress of the project will be presented at the meeting.

For these projections we will carefully consider the best input data to use for the assumption setting process.

We will be writing to Council, NHS Board Chief Executives and PAMS Local Authority (LA) side members around the beginning of 2016 with proposals for the international migration assumptions for council areas in Scotland and also include more information on how cross border and within Scotland migration rate assumptions will be set. We are planning to hold the next meeting of the Projections Sub-Group in February 2016.

#### **7. Sub-council area population and household Projections**

Again, thank you to everyone who came to the Projections Sub Group (PSG) meeting on 19 August to talk about sub-council area projections. Since the meeting the method for the population projections has been finalised, the geographies have been finalised and work has started on producing the population projections and collecting the data needed for the household projections. We are hoping to share the running order for the production of the projections with councils in the next few weeks, as well as our plans for publishing them.

## 8. Centenarians and estimates for the population aged 90+

On 30 September alongside Centenarians and population estimates for those aged 90+ we published a new report with data being developed for single year of age population estimates for those aged over 90 for council areas in Scotland. The [report and data](#) are available on our website and we welcome comments on the methods and results.

## 9. Other research and improvement work

We are also continuing to improve our estimates through a range of work including:

- Internal Migration, including comparing address 12 months ago information from the 2011 Census with our migration estimates. This work was completed but will need to be updated to use the corrected population estimates. We will aim to publish the paper on our website in May/June 2016.
- Explore the Higher Education Statistics Agency (HESA) data and how it can improve our estimates of student migration and continue to pursue additional data sources to improve our estimates. This work is on hold just now whilst we correct our population estimates.
- Review the methodology and processes used to create population estimates of settlements and localities. This work is on hold whilst we correct our population estimates.

## 10. Demographic statistics user consultation

We ran an online consultation for the users of demographic statistics covering, population, migration, life expectancy, households and vital event statistics as well as the Registrar General's Annual Review and Marital Status Estimates. Thank you to everyone who submitted a response. The consultation closed on 22 April and we published [a report of the findings](#) from the consultation on our website.

## 11. Improving our dissemination: infographics and data visualisation

With other teams in NRS we have continued to develop new infographics and data visualisations for our releases, including a [new infographic supplement](#) for the national population projections.

We will be continuing to develop these visual summaries and interactive content as we go forward. We have also continued to make use of Twitter and have tweeted links to news releases, infographics and key messages on the days we release statistics.

Follow us on Twitter: [@NatRecordsScot](#)

## 12. UK Statistics Authority Assessment

The UK Statistics Authority have designated our Population Statistics as National Statistics subject to meeting the requirements by end of January 2016.

The full assessment report can be found on the [UK Statistics Authority website](#).

Our action plan to meet the requirements is available in Annex A to this paper.

NRS: Population and Migration Statistics branch  
30 October 2015

## Assessment Action Plan

### National Records of Scotland

#### [Assessment Report 311](#)

##### 1. Background

On 30 July 2015, the UK Statistics Authority published a report on the Assessment of compliance with the Code of Practice for Official Statistics for Population Estimates and Projections for Scotland ([Assessment report 311](#)). This report forms part of a broader assessment of population statistics across the UK that are produced by the Office for National Statistics (ONS); the Welsh Government; Northern Ireland Statistics and Research Agency (NISRA) and National Records of Scotland (NRS). The previous assessment of these sets of statistics was included in Assessment report 113.

The UK Statistics Authority confirms that the population statistics for Scotland are designated as National Statistics, subject to NRS implementing five specific requirements. This Action Plan outlines how and when NRS will address each of these Requirements. The UK Statistics Authority also made nine suggestions and this paper details how NRS will take on board these suggestions.

##### 2. UK Statistics Authority Requirements: NRS Actions

**Finding:** Many of the statistics team who produce these statistics are not on permanent contracts with NRS. NRS should:

**Requirement 1:** Review the resources allocated to the production of these statistics, and the impact of its reliance of staff on fixed term contracts, to ensure that resources are sufficient to meet the standards of the Code of Practice and the obligation within it to serve the public good and publish the outcome of its review (para 3.5).

##### **Deadline: 30 January 2016**

**Action:** Considerable improvements were made to the recent advertising and recruitment process for SG/NRS assistant statisticians resulting in all permanent post vacancies being filled. Government austerity measures mean that NRS cannot commit to all posts being filled by permanent staff; some posts are filled by fixed term appointees. The Scottish Government recently recruited permanent staff and now the team only has one member on a fixed term contract.

**Finding:** NRS has not updated its Statement of Administrative Sources (SoAS) since 2010. NRS should:

**Requirement 2.** Review its SoAS to ensure that all the administrative data sources used to produce its population estimates and projections statistics:

a) are clearly and accurately listed

b) include appropriate descriptions of the quality assurance processes

(para 3.6).

**Deadline: 30 January 2016**

**Action:** NRS will update the document and publish in on the NRS website by the deadline.

**Finding:** NRS carries out detailed quality assurance of the administrative data sources used to produce these statistics. However, it is not sufficiently referenced or signposted from the statistical reports or on the population and projections section of NRS's website. NRS should:

**Requirement 3.** Reference, or link to, relevant information about data assurance arrangements for administrative data from all population estimates and projections reports and the population statistics section of its website, taking into consideration the Authority's Administrative Data Quality Assurance Toolkit, including:

a) vital events documentation about the quality assurance of births and deaths data

b) quality assurance procedures between NRS and NHS Central Register

c) 2021 Census research documentation about the quality of the administrative data sources used in the production of the population estimates

(para 3.13).

**Deadline: Update publications as they are published, update website section by end January 2016.**

**Action:** on going, will be completed as publications are updated and the web sections will be updated by end of January 2016.

**Finding:** NRS publishes detailed quality information about all of its population reports except for Centenarians in Scotland. NRS should:

**Requirement 4.** Review and update quality documentation about Centenarians in Scotland, including information about:

a) quality assurance procedures that are made on the data

b) strengths and limitations of the data

(para 3.17).

**Deadline: 30 January 2016**

**Action:** Completed methodology and quality report published on 30 September 2015.

**Finding:** NRS, along with ONS, NISRA and the Welsh Government (WG), have not regularly updated the population comparison documents. NRS should:

**Requirement 5.**

a) ensure that the remaining comparison document on the population estimates and projections produced in all countries in the UK is updated and published as planned

**Deadline: 30 January 2016**

**Action:** Comparison papers for mid-year population estimates were published by ONS on 25 June 2015, alongside the England and Wales (E&W) and UK estimates. An updated comparison paper on the sub national population projections was published in July 2015. The data and methods for estimates of the older population are very similar across countries; hence a comparison paper was not previously published. ONS are taking the lead in creating a short paper to state this high level of similarity; this will be published shortly. A report on Small Area Population Estimates (SAPE) is likely to be released when all four countries have published their 2014 SAPE – NISRA are taking the lead on this with the aim to publish in November/December 2015. NRS contribute to each of these reports and any information relating to Scotland is cleared by NRS prior to publication. NRS will continue to work with colleagues in the WG, NISRA and ONS.

b) carry out, and publish, a review of the methodological and comparability differences and, based on knowledge of the uses of the statistics and expert input, evaluate whether the differences are justifiable

As part of meeting this Requirement, NRS should work together with ONS, the Welsh Government and NISRA.

(para 3.21).

**Deadline: 30 January 2016**

**Action:** NRS will work with colleagues in the WG, NISRA and ONS to ensure any differences in data sources or methods are reviewed routinely and continue to be justified. These issues will also be addressed in the comparison papers discussed under Requirement 5a.

**3. UK Statistics Authority Suggestions: NRS Actions**

1. Reference, or link to, information about the UK strategy groups on population statistics from its website (para 3.1).

**Action:** Will be complete by the end of January 2016.

2. Work closely with statistical producers in ONS, Welsh Government and NISRA to clarify data assurance arrangements for administrative data (para 3.14).

**Action:** NRS will continue to sit on the UK wide Population Working Groups and work with the relevant statistics organisations to clarify data assurance arrangements for administrative data and ensure that they are i) fit for purpose from a Population Estimates/Projections perspective and ii) communicated effectively to users.

3. Develop a process map to illustrate the supply of data used to produce the various population statistics that are included in this Assessment (para 3.14).

**Action:** Will be complete by the end of January 2016.

4. Produce the quality assurance tool for comparing different data sources of population estimates on a more regular basis (para 3.18).

**Action:** We will consider updating this for the next mid-year estimates release, resources and priorities permitting.

5. Add a link to the Scottish Government Revisions Policy from all the population estimates and projections statistical reports (para 3.24).

**Action:** Completed. Links have been and will continue to be added to all new releases as they are published.

6. Reference, or link to, the UK Population Revisions Policy from each 'About this publication' document and the population estimates and projections statistical reports (para 3.24).

**Action:** Completed. Links have been and will continue to be added to all new releases as they are published.

7. Consider the points detailed in annex 1 and annex 2 in order to enhance the statistical reports (para 3.25).

**Action:** These points will be considered and addressed as the reports are updated.

8. Publish maps for settlements and localities in more-accessible ways (para 3.27).

**Action:** Currently Shape files are provided on the NRS website along with a link to download free GIS software to allow users to look at the boundaries for these areas. It would not be practical to publish pdf documents with the boundaries for all these areas, given priorities for other outputs.

9. Review the Statement of Compliance with the National Statistics Code of Practice and Protocols and update where necessary (para 3.29)

**Action:** It will be updated by 30 January 2016.

#### 4. Further information

Further information on this Action Plan or on Population and Migration Statistics can be obtained from NRS Statistics Customer Services:

E-mail: [statisticscustomerservices@NRScotland.gov.uk](mailto:statisticscustomerservices@NRScotland.gov.uk)

30 October 2015