

POPULATION AND MIGRATION STATISTICS COMMITTEE (SCOTLAND)

POPULATION PROJECTIONS – 2002 AND BEYOND

1. Introduction

1.1 This paper updates members on the 2002 based national and sub-national population projections. It also summarises the responses to the “Population Projections – Scoping Methodological Work” paper (PAMS (03) 15) sent to PAMS members on 1 September 2003, and recommends setting up a new PAMS working group to take this work forward. PAMS is asked to note the paper and other comments. Written comments by 30 November 2003 will also be welcome - to esta.clark@gro-scotland.gsi.gov.uk.

2. 2002 Population Projections

2.1 Background

2.1.1 As mentioned in the paper PAMS (03) 16 the national and sub-national population projections for Scotland will be published in December and January respectively, rather than October and November as originally planned. The reason for the delay is to take account of the ONS population revisions (www.statistics.gov.uk/pdfdir/popest0903.pdf).

2.2 National Projections

2.2.1 The Government Actuary’s Department (GAD) plan to publish on their website the national projection long-term assumptions for Scotland for fertility, mortality and migration on 13 November 2003. These have been agreed in consultation with GROS. The national projections themselves will be published on 18 December 2003.

2.3 Sub-national Projections

2.3.1 GROS aim to send proposed sub-national migration assumptions to Council Chief Executives, Local Authorities and interested parties in the Scottish Executive for their views on, or shortly after, 13 November. A copy of the migration assumptions will be circulated at the PAMS meeting on 19 November. The deadline for comments on the migration assumptions will be **5 December 2003** to allow time to prepare the sub-national projections for publication in January.

3. Population Projections – Scoping Methodological Work

3.1 Introduction

3.1.1 PAMS members were sent a paper on 1 September 2003 called “Population Projections – Scoping Methodological Work”, asking for comments by the 17 October 2003, on some aspects of the methodology used to produce the sub-national population projections. A brief summary follows. (A more detailed summary is contained in Annex A at the end of this paper.)

3.1.2 How far ahead should we project?

The majority of respondents were in favour of extending the sub-national projections to at least 20 years.

3.1.3 Migration Assumptions

Most respondents were in favour of exploring a 'propensity to migrate model'. However, one respondent thought that the current method should not be changed to allow consistency with previous projections. Two respondents suggested using a working group to conduct some preliminary investigative work.

3.1.4 Sub-national Projections for Small Areas

Most respondents did not see the need for small area population projections and some questioned how accurate projections for small areas would be. Some respondents thought that projections for other geographies would be useful e.g. settlements.

3.1.5 Variant Projections

Most respondents thought that variant projections would be useful for looking at various scenarios.

3.1.6 Local Scaling Factors

The majority of respondents thought that the local scaling factors should be looked at, especially the local mortality scaling factors. Some respondents were in favour of trying to group Council areas together to increase stability. Other respondents thought that agreeing on Council groupings would prove difficult.

3.2 New PAMS working group – "Projections Methodology Working Group"

3.2.1 PAMS members are invited to volunteer to be part of a new working group led by GROS called the "Projections Methodology Working Group". The remit of this group is likely to involve discussing and investigating the options which were outlined in the "scoping" paper and the comments received on them.

3.2.2 Due to time constraints and vacancies in the branch, the majority, if not all of this development work will be considered for the 2004 based and possibly later projections. It is thought that the first meeting of the new working group would be mid to late January 2004 with the majority of the work completed by (say) September 2005, in time for the 2004 based sub-national projections.

Annex A – Summary of responses to paper (03) 15

As discussed in the main text of the report this annex provides a summary of the responses that have been received from PAMS members and other interested parties. We received 12 responses.

(a) How far ahead should we project?

Some responses from Local Authorities (LAs) indicated that they used GROS projections in their own Structure Plan frameworks, others said that they used their own projections. Most supported the idea of introducing a longer time series.

Two LAs highlighted the importance of the need to project the sub-nationals beyond the 20-year figure. Both appreciated that there would be a decrease in accuracy the further ahead you project, but felt it was necessary for the needs of newer longer term Structure Plans.

(b) Migration assumptions

Most respondents were interested in the ‘propensity to migrate’ option, two of them for GROS to include assumptions on housing forecasts and two were interested in seeing some propriety work being carried out before making any decision. One respondent preferred the method of directly projecting the numbers of migrants based on flows in earlier years by age/sex.

Two respondents felt that it was important that GROS consulted with them on local migration assumptions if the ‘propensity to migrate’ option was to be used. Another respondent argued the case to keep the assumptions methodology the same to provide consistency with previous projections.

One respondent did not have faith in the GROS assumptions but used them because there was a lack of an alternative. They thought that there was a need for some sort of adaptability to be built into the methodology.

One respondent highlighted that any new methodology adopted should not adversely affect timescales for the delivery of projections.

(c) Sub-national projections for small areas

Four respondents said that they would welcome or be interested in small area population projections, although they had reservations about their accuracy. One respondent highlighted the importance of getting LAs more involved about requirements for the geography of each Council, if small area projections were to be produced. Two respondents felt the need for small area population projections at settlement level rather than electoral ward and postcode sector. Three respondents felt that, for future service planning use, age and sex information would be more useful.

One respondent had reservations but thought that projections for small areas at a sub local authority level would be useful, although they thought that the accuracy would be questionable.

Two respondents did not see a need for sub-national projections for small areas. One respondent said that they produce their own set of projections and highlighted that if GROS were to do this it is likely to confuse users about which set to use. Another respondent thought that a method of “exception reporting” would be useful if it was possible to identify small areas where the population was predicted to change e.g. through development.

(d) Variant projections

Six respondents thought that variant projections would be useful and two felt that they would be of some use to them. All had different views on the content required for their own use and this is summarised below:

Falkirk Council – They thought it would be useful to see the implications of the projections which are produced at a national level down to a local authority, at least in terms of totals and some broad age groups of interest for service delivery such as children and the elderly. Have some reservations if data was made generally available.

South Ayrshire Council - Interested in comparing this and the extent that variables, such as fertility, mortality and migration influence the projections. Suggest this be provided at Health Board level in the first instance.

Aberdeen City and Aberdeenshire Council – Would find a natural change and low fertility scenario useful.

Inverclyde Council – Interested in the production of high and low ranges down to local authority level. They thought it would be useful to look at the effects of different scenarios for the future.

Glasgow City Council – They thought this would be of some interest to them, but pointed out that their own software package was capable of looking at the effects of different assumptions for their area by running the POPGROUP model.

Stirling Council – Felt that this should be based on economic sensitivity analysis similar to that undertaken in England & Wales. They acknowledged the practical/resource difficulties with this.

Renfrewshire Council – Thought that this would be useful in terms of indicating the sensitivity of the outcome to the changes in assumptions. This would allow them to assess their policies with Community Planning partners to influence the factors affecting the population.

(e) Local Scaling Factors

The majority of respondents thought that local scaling factors should be looked at. Most had different views and these are summarised below:

Falkirk Council – Thought that at least a five-year average should be used in the calculations. They suggested that this average should be compared with an alternate projection run on past data using various methods to calculate scaling factors to see which comes up with the most accurate projections. Not in favour of grouping authorities together.

Aberdeen City and Aberdeenshire Council – Agree that stability needs to be retained.

South Ayrshire Council – Concerned about this, since population projections are a basis of household projections produced by the Scottish Executive. Any attempt to reduce local variation and variability between projections would be supported.

Inverclyde Council – Suggest adjusting mortality and fertility rates to a lower geography level. Feel grouping council areas together to create a statistical area is acceptable.

Glasgow City Council- Suggested that this methodology should be looked at, especially for mortality rates. The LA prepares their own population projections and one of the differences they have noticed between theirs and GROS figures is the projected fall in the elderly (age 85+). The council project a more or less stable position for this age group as they use an adjustment factor by age group approach. This has the effect of reducing the number of deaths among the elderly and of increasing number of deaths among the 50 – 65 age group.

Stirling Council – Suggested that local variations should reflect past trends and that a five-year average should be used. They do not support the classifications of councils into broader areas.

Renfrewshire Council – Improvements would be welcome and emphasis the importance to consult local authorities when classifying and grouping areas. They feel that GROS would benefit from research undertaken by LAs for their Structure Plans.

Scottish Executive Planning – Commented that if improvements in the accuracy of local scaling can be achieved, then this is worth considering since there is considerable local variation.

(f) Other suggestions

One LA highlighted that GROS projections were not used in their last two structure plans due, mainly, to timing differences. They suggested that future projections should be available on an annual basis with minimum updating done on alternate years. Another respondent was concerned that changes in the methodology, as outlined in the consultation paper, would delay the timescale for release of their own programme of work.