

## Minutes of the 2nd Small Area Population Estimates Working Group Meeting

Monday 27<sup>th</sup> January 2003, 2.00 p.m. - 4.30 p.m.

### Present

|                                      |                                     |
|--------------------------------------|-------------------------------------|
| Garnett Compton                      | GROS (Chair)                        |
| Claire Boag                          | GROS (Project Manager)              |
| Simon Coote                          | GROS (Secretary)                    |
| Ian Máté                             | GROS                                |
| Bryan Cunningham                     | GROS                                |
| Celia MacIntyre                      | Scottish Executive                  |
| Jack Vize (in place of Peter Knight) | Scottish Executive                  |
| Chris Povey                          | Information and Statistics Division |
| Jan Freeke                           | Glasgow City Council                |
| Richard Belding                      | Aberdeenshire Council               |
| Jenny Boag                           | Falkirk Council                     |

### Apologies

|                    |                        |
|--------------------|------------------------|
| Muriel Douglas     | GROS                   |
| Jonathan Ashbridge | GROS                   |
| Elsbeth Graham     | St. Andrews University |

### 1.0 Introduction

- 1.1 Garnett Compton welcomed the working group members to the meeting and thanked them for attending. He apologised for the delay in getting the second meeting organised.

### 2.0 Minutes of the 1<sup>st</sup> SAPEs Working Group Meeting - 18 April 2002 (SAPE 03 (02))

- 2.1 The minutes of the 18 April 2002 working group were accepted as an accurate record, and members were updated on the action points as follows:
  - 2.1.1 *Action 1:* On-going. Claire Boag informed the group she had written to Forth Valley Health Board asking them how they are making ward level population estimates using their own CHI data and had received no response. Jenny Boag said she was in receipt of this information and would send it to Claire. Since the meeting, Susanne Mclennan, a statistician at Forth Valley Health Board, has expressed an interest in the project, and will be invited to attend future meetings.

***Action: Jenny Boag to send relevant information to Claire Boag***

- 2.1.2 *Actions 2 – 6:* Completed

- 2.1.3 *Action 7:* Completed. Garnett Compton explained to the group that for a meeting to be held in the COSLA building a member of staff from that organisation must sit on the working group. Richard Belding announced that he was a member of COSLA and the working group agreed to try to hold the next meeting at the more convenient COSLA site.

***Action: Simon to try to arrange for the next meeting to be at the COSLA site.***

### **3.0 Migration Methodology, July 1 2000 – June 30 2001 (SAPE 02 (08))**

- 3.1 Claire introduced the paper and expressed her thanks to Jenny and Richard for their comments on the paper. Claire summarised the main changes to the council-level migration methodology between 2000 and 2001 and recommended to the group that the same method be used for 2002.
- 3.2 The discrepancies between the CHI and NHSCR for certain flows to and from Forth Valley and Fife were briefly discussed, and differences in the recording of students were suggested as a possible cause. Claire asked the group to agree that because of the observed differences, for 2002, council level migration to and from outside Scotland should not be split into 'rest of UK' and 'international' flows and that one 'rest of the world' flow would be created. The group agreed.

***Action: Simon Coote to contact universities regarding policy on GP registration of new students***

- 3.3 Claire proposed a method used by ONS for controlling 'within HB' CHI moves. This requires the assumption that the scaling required for moves within HBs is the same as that required for moves between HBs. The assumption can be tested using migration data from the Census, and the group asked that we validate the assumption before implementing the method.
- 3.4 Jan Freeke thought the table on page 4 of the report useful, particularly the breakdown of migration flows into 'within Scotland' and 'cross border/international' flows. It was explained that the cross border/international flow can only be split into its 'rest of UK' and 'overseas' components at health board level, because of the way the CHI data is controlled.
- 3.5 Claire asked the group to agree that 'transfers in' without an 'old area' code should be included as valid migration moves, as half of these are into Grampian, and potentially useful information would be lost without them. It was explained that the reason some records are missing this 'old area' code is because the CHI field is optional, not mandatory. The group agreed that such records should be included. In his previous comments on the migration paper, Richard Belding asked whether it would be possible to feed back information to the CHI administrators, to improve the data at source.
- 3.6 In a later discussion on CHI data quality, Chris Povey advised the group that CHI quality is likely to improve over the next few years. In particular, changes will be made to records with missing or invalid postcodes. Garnett asked that we be kept informed of any changes and be given a chance to comment, because changes made to the CHI data might impact on its usefulness for statistical purposes.

***Action: Simon Coote to liaise with Muriel Douglas/ISD re improvements to CHI data***

***Action: Chris Povey to supply notification of improvements/changes made to CHI to GROS***

- 3.7 Garnett proposed that Claire summarise the migration methodology and proposed output in a paper for PAMS, which would include recommendations for improving the quality of the CHI data. The paper will be circulated to the working group for comment before being submitted to PAMS for discussion at the next meeting in early April.

***Action: Claire Boag to draft migration proposals and circulate to working group by mid March 2003.***

### **4.0 A Comparison of the 1999 and 2000 GROS SAPE (SAPE 03 (03))**

- 4.1 Simon Coote introduced the paper, which comprised part of the evaluation of existing SAPE methodology. The paper compares the GROS 1999 and 2000 ward and postcode sector estimates, in order to check the consistency of the results.
- 4.2 During a discussion on geography of postcode sectors, Celia MacIntyre suggested that freezing the geographies as proposed by Neighbourhood Statistics would be beneficial in forming time series. Garnett mentioned that all the Neighbourhood Statistics data will be based on output areas, mapped to current geographies.
- 4.3 Jan Freeke and Jenny Boag suggested a few changes to the paper:
  - 4.3.1 To avoid confusion, change the title in the table in section 4 from 'Change in Household Count' to 'Change in Dwelling Count';
  - 4.3.2 Postcode G21 1 has seen an influx of asylum seekers into the Sighthill area of Glasgow;
  - 4.3.3 Postcode G4 0 and G40 4 are typical student areas.
  - 4.3.4 Mention should be made of a timing difference where people are evacuated over a period of time but significantly before demolitions actually commence. Ward 20 in Inverclyde was given as an example.

***Action: Simon Coote to update the paper to reflect the changes discussed above***

#### **5.0 Comparison of GROS SAPEs with LA Estimates, at Ward Level (SAPE 02 (09))**

- 5.1 Simon Coote introduced the paper, which reviews the different methodologies used by a number of councils to prepare SAPEs and then compares these with the results achieved by GROS.
- 5.2 Garnett Compton said he felt the paper was reassuring and explained that some of the issues raised in the report were examined in more detail in the next paper (SAPE 03 (04)). He thanked Jenny Boag for her comments on the paper and felt they might be of use to all working group members.

***Action: Simon Coote to circulate Jenny Boag's comments with minutes to working group members***

- 5.3 With regard to Kelvingrove ward, Jan Freeke commented that students in university accommodation did tend to be counted on the Electoral Register and highlighted that students in private accommodation were more likely to be the ones who were not on the register. Chris Povey agreed with this and said he had noticed that in the Craiglockhart ward of Edinburgh the Census count was higher than the CHI, and suggested that GROS could use student lists, available from Universities, to update our records. A short discussion followed about the re-registering of students with GPs.
- 5.4 Jan suggested that the text on page 5 and 12 should mention asylum seekers, 1500 in total, in the Royston (part of Sighthill) area of Glasgow.

***Action: Simon Coote to update the paper to reflect these changes***

- 5.5 Jenny Boag informed the group of the importance of updating the Communal Establishment lists. Chris Povey also added the importance of institutional codes. He suggested the Census could be used to get numbers of students and Garnett added that HESA data might also be used. These points should be covered in future work as part of developing the new methodology.

## **6.0 A Comparison of Pre-Publication Census Data with April 2001 CHI Population (SAPE 03 (04))**

- 6.1 Claire Boag introduced the paper, which compares the April 2001 CHI population with pre-publication 2001 Census data, in order to evaluate the quality of both the CHI data and the methodology used to produce the 1999 and 2000 SAPEs.
- 6.2 Specific comments were made about list inflation/deflation in certain areas:
- 6.2.1 Jenny Boag highlighted that Bridge of Allan is situated next to the University of Stirling and has a large student population, which is likely to be a cause of the ward's high relative list inflation.
  - 6.2.2 Jan Freeke commented that of the wards with no obvious explanation for their high list inflation, Pollockshaws East is the only non-deprived ward, but it does have a high proportion of ethnic minorities.
  - 6.2.3 Richard Belding highlighted an example he thought showed the Census undercounting armed forces, saying that the Figure for Boddam & Inverugie in Grampian Health Board should be larger than the quoted figure of 14! Claire explained that the reason for the discrepancy could be due to the postcode being imputed. In fact, this is the case. The postcode of Buchan Station was imputed as AB42 3AP, when it should have been AB42 3FA (a difference of 500 metres). The number of Census Armed Forces recorded at this postcode is in fact 182.
  - 6.2.4 Jan highlighted the considerable relative list deflation found in Garrowhill. Jenny suggested that it may be due to new builds and people moving short distances into the area, while staying with their old GP.
  - 6.2.5 Jack Vize asked about the high list inflation for the Western Isles compared to the other Scottish Islands Health Boards. Some suggestions were high out-migration and people going elsewhere for hospital treatment. The group felt this should be investigated outwith the meeting and Claire said it would be investigated.

**Action: Claire Boag to examine the reasons for the high relative LI in the Western Isles**

- 6.3 Regarding the reasons for list inflation, Jenny suggested that an examination of the relationship between deprivation and list inflation for all wards might be useful. The group felt that more investigation into this could help improve the level of accuracy.

**Action: Claire Boag/Simon Coote to investigate further**

- 6.4 The group discussed whether higher list inflation in males than females could be caused by the existence of screening targets for females. Such screening targets provide an incentive for doctors to clean their lists, while it is thought that no similar schemes exist for males.
- 6.5 Claire proposed a method for reducing list inflation in males by using Census sex ratios. We would assume that the female figures are correct, and adjust the male populations by ward and age group sex ratios. Celia and Jenny suggested that care should be taken when deciding upon the ratios used, and that perhaps additional data could be used in order to smooth any excessively large or small ratios.
- 6.6 Jenny Boag said she thought that making adjustments for communal establishments was a good idea and mentioned again the importance of keeping in touch with the opening/closing of establishments.
- 6.7 The group briefly discussed the level of accuracy required by the SAPEs. Jenny pointed out this is dependent on the accuracy of the Census. The figure of 5% accuracy for ward totals was discussed, with no objections. Celia pointed out that local variations in data quality will

mean that a target of 5% would be easily achieved in some areas, but could be impossible to attain in others.

- 6.8 Garnett asked the working group to consider the suggestions for adjustments to certain populations to smooth and reduce CHI list inflation.

**Action: Working Group members to send comments by 11 February 03**

- 6.9 The group agreed the conclusions in the paper that the results were encouraging and that so far there were no indications that using the CHI would not be possible, but also recognised that improvements could be made.

## **7.0 Intended end use of SAPEs – requirements for low level geography and detail**

- 7.1 Garnett asked the working group to consider the level of detail required, suggesting that Output Areas might be appropriate, to enable flexible groupings at higher levels and also to be consistent with Neighbourhood Statistics. There was a discussion on age requirements, where school age, pre-school age and working age groups were all mentioned as possible requirements.
- 7.2 Richard Belding raised the issue of confidentiality, where CHI data is used at OA level. A discussion followed, during which imputation and the controlling process were both put forward as forms of disclosure control, as they entered a certain amount of noise to the data. There was some consensus that output area level estimates would not be disclosive. It was agreed that there were two issues here, one about obtaining significant quality at the lowest level and a separate issue about disclosure.
- 7.3 Jenny or Cecelia asked the group to consider who the estimates were aimed at and how their requirements were being collected. The group was acting as representatives for users in their area but it was thought that it would be helpful to gain an understanding of the wider requirements. It was also accepted that the starting point should be the lowest level detail and area detail that the quality will support. There was some further agreement that Output Area level would be suitable, if possible.
- 7.4 Garnett Compton asked for comments on geography and level of detail from the group by 7<sup>th</sup> February.

**Action 11: Working Group members to send comments by 11 February 03**

## **8.0 Further Work**

- 8.1 Claire proposed that two options should be investigated for producing 2002 SAPEs:
- 8.1.1 **Option 1: Cohort Component Methodology.** The method used to produce the council level Mid Year Estimates would be replicated at ward (or similar) level, ie. roll forward from the Census, add births, subtract deaths, and adjust for migration. The resulting ward estimates would then have to be apportioned down to Output Areas. Both the births and deaths data are known to be of very high quality, so the migration component is the only one for which the quality is uncertain. Ward level migration data quality will be tested using migration data from the Census.
- 8.1.2 **Option 2: 'Enhanced' Apportionment Method.** This is an improved version of the existing method – using the CHI to estimate population stock, but using additional data sources to adjust for list inflation and populations excluded from the CHI.

## **9.0 Any Other Business**

- 9.1 A paper entitled 'Analysis of Postcode Data on the September 2001 CHI Extract – SAPE 03(05)' was circulated to members.

***Action: Working Group members to provide comments by 11 February 03***

- 9.2 Jan Freeke suggests approaching the issue of communal establishments for GRO's mid-year estimates in a similar way to that discussed for SAPEs, ie. take them out, then control to household estimates.

- 9.3 Chris Povey highlighted to the group that future CHI data would be of better quality and explained that (i) CHI would get rid of blanks and insert valid postcodes and (ii) rid the system of invalid postcodes. He also mentioned that he'd found some addresses not on GRO's index. Jenny suggested these could be new housing which had not been given a postcode yet. Garnett recommended that Chris could speak to someone in geography at GRO.

- 9.4 The next SAPE meeting is expected to be held in early April 2003. Members are asked to indicate their preference for:

Monday 31 March

Tuesday 1 April

Thursday 3 April

Friday 4 April

Monday 7 April

***Action: Working group members to indicate availability by end February 03***

**Draft**

| Action Point | Description   | Responsibility          | Progress |
|--------------|---|-------------------------|----------|
| 1            | Provide information on Forth Valley HB's use of the CHI to produce population estimates for wards           | Jenny Boag              |          |
| 2            | Simon to try to arrange for next meeting to be at the COSLA site  | Simon Coote             |          |
| 3            | Contact universities regarding policy on GP registration of new students                                    | Simon Coote             |          |
| 4            | Liaise with Muriel Douglas/ISD re improvements to CHI data  | Simon Coote             |          |
| 5            | ISD to supply notification of improvements/changes made to CHI to GROS                                      | Chris Povey             |          |
| 6            | Draft migration proposals and circulate to working group by mid March 2003.                                 | Claire Boag             |          |
| 7            | Revise paper SAPE 03 (03) to reflect the comments received during meeting                                   | Simon Coote             |          |
| 8            | Circulate Jenny Boag's comments on paper SAPE 02 (09) with minutes to working group members                 | Simon Coote             |          |
| 9            | Update paper SAPE 02 (09) to include comments by working group  | Simon Coote             |          |
| 10           | Examine the reasons for the high relative LI in the Western Isles   | Claire Boag             |          |
| 11           | Investigate the relationship between list inflation and deprivation   | Claire Boag/Simon Coote |          |
| 12           | Provide comments on suggested methods for reducing list inflation by 7 February 03                          | members                 |          |
| 13           | Provide any additional information regarding requirements for geography and age/sex detail by 7 February 03 | members                 |          |
| 14           | Provide comments on the paper SAPE 03(05) by 7 February 03  | members                 |          |
| 15           | Indicate availability for next meeting by end February 03   | members                 |          |