

Household Analysis Review Group: Progress Report On Communal Establishments

Purpose

1. This paper informs HARG members about the progress done in putting together a source of data on Communal Establishments (CE) that could be used as an alternative to the Census for household projections. It presents an updated summary of the sources contacted to cover each type of CE in Table 1 and some preliminary comparisons between the 2001 Census figures and the data provided by alternative sources in Tables 2, 3 and 4.
2. HARG members are invited to comment on:
 - a) any aspect of the progress done so far (alternative sources, problems identified, remaining gaps, initial comparisons with 2001 Census)
 - b) **whether they would be happy, in principle, for GROS to use these alternative sources to produce numbers of residents in CE for the next set of household projections or they consider that further investigation is required.** A summary of the differences is shown in the **first two columns of Tables 3 and 4.**
 - c) **which period of time should be taken as reference for residents in Adult Care Homes to be considered residents in a Communal Establishment (6 weeks or 6 months).**

Background

3. As explained in HARG 2005(5), a better source of data on CEs would help improve the quality of household projections and mid-year population estimates and it would also aid the identification of Communal Establishments for enumeration in the 2011 Census.
4. GROS presented at the last HARG meeting a summary description of the data provided by each of the alternative sources together with some preliminary comparisons between those data and 2001 Census, which showed discrepancies that had to be further investigated. At the date of the last HARG meeting, the main gaps were in Education establishments and hotels and hostels, for which no source had been identified.
5. HARG members agreed that GROS should continue to work towards the completion of this alternative source of data on CE. In particular, it was agreed that GROS would contact the Scottish Funding Council to discuss sources for Education Establishments. Additionally, it was agreed that GROS should continue to investigate the whole set of data provided by alternative sources and to complete the comparisons with 2001 Census.

Progress on completing the alternative set of data on CE

6. Table 1 provides an update of the data obtained from the different alternative sources for each type of CE and the problems identified so far. The main changes since the last HARG meeting are:

- **Hospitals:** ISD were contacted to check whether it was possible that the figures provided by them for Psychiatric and Geriatric Hospitals may contain some people counted twice and also whether those figures may contain some people who were also counted under the data on Adult Care Homes (nursing, residential and other care homes in the Census) provided by the SE Community Care Statistics. It was confirmed that no duplication is included in the figures for Hospitals, but that there was likely to be duplication between the figures for Other Hospitals (geriatric) and the figures for Adult Care Homes. Duplication between the figures for Psychiatric hospitals and the ones for Adult Care Homes is still under investigation.

- **Education Establishments:**
 - Data from the Student Awards Agency for Scotland (SAAS) have been requested, which contain term-time address information for those students who received support (which are thought to be mainly full-time Scottish undergraduates in higher education). The potential of these data is under investigation. This covers around half of full-time students in Scotland – the main exceptions are postgraduate and Further Education students.
 - Data from Higher Education Statistics Agency (HESA) on accommodation type for all students in Scotland have been requested, but this will just include aggregate data – HESA does not currently collect data on students' term-time addresses.
 - Data from a GROS data collection on number of bed spaces controlled by Scottish Universities and Colleges and some controlled by private companies are available. Comparisons to 2001 Census have not yet been done.
 - Additionally, GROS is planning to carry out a pilot exercise with 2-3 higher and further education establishments which collect information on sex, age and term-time address of full-time students.

- **Defence:** so far, no comprehensive source of data on Armed Forces population living in CE is available. There are data coming from different sources (defence establishments, DASA, Census) that do not exactly match and further analysis is required. Due to lack of resources, this analysis is not likely to be done until next year.

- **Adult Care Homes (nursing, residential and other homes):** at the last HARG meeting, data on the total number of residents for the period 2001-2004 had been received. Later in the year, 2005 data for this type of establishment were received. Additionally, data were requested on long stay residents in these Care Homes according to two different definitions:
 - those who had been living in the Care Home for 6 months or more at the Scottish Care Home Census night (for comparison purposes with 2001 Census)
 - the standard definition of long stay resident in the Scottish Care Home Census, which uses a threshold of 6 weeks instead of 6 months¹.

¹ According to the Scottish Care Home Census, long stay residents are those whose intention, at admission, was to stay as permanent residents for 6 weeks or more, whether or not they actually stayed for a shorter period. Also residents whose intention, at admission, was to stay for less than 6 weeks, for whom the predominant

An age/gender split is available for both definitions.

- **Prisons:** data from the SE Prison Statistics branch as of 29 April 2001 (Census night) on prisoners by sentence length were used to compare with 2001 Census data. A report has been produced on the results of the comparisons.

Additionally, a document with detailed metadata on each of the data received from alternative sources has been produced.

Progress on comparisons between alternative sources and 2001 Census

7. Table 2 shows 2001 Census number of CEs in comparison with the corresponding number coming from alternative sources. Table 3 presents 2001 Census population living in CEs in comparison with the one calculated from alternative sources, with long stay residents in Adult Care Homes defined according to a 6 month period. Table 4 presents the same information as Table 3 but with long stay residents in Adult Care Homes defined according to a 6 week period.

8. Initial identified sources of discrepancies:

- a) **General:** Census data in these Tables include not only residents in CEs but also staff and relatives of staff. The split staff/residents is thought to be inaccurate in 2001 Census², so it is not accurate to compare just the residents figures of 2001 Census with the alternative sources. It is preferable to compare Census figures on “residents plus staff” with the alternative sources, allowing for the Census to be slightly higher because of this reason. Additionally, the total calculated as a sum of the alternative data sources might contain some people counted twice (once under Hospitals and once under Adult Care Homes), which might be inflating the alternative sources total.
- b) **Prisons:** a detailed analysis concluded that SE Prison Statistics seem to be a more reliable source than 2001 Census because they are updated regularly, they are consistent across Scotland and they do not depend on different people’s interpretation of a resident in a CE. The number of establishments in both sources matches well and the number of prisoners at Scotland level is similar (SE Prison Statistics 8.4% lower), but at Local Authority level some relevant discrepancies were identified, which were thought to be likely explained by definitional or interpretation issues.
- c) **Hospitals:** No further detailed comparisons have been carried out since the last meeting, apart from confirming that adding up “Psychiatric” and “Other Hospital” columns do not produce duplication issues. Hence, the same outlining preliminary results as in HARG 2005(9) are repeated below.

reason for admission was not respite care, but who, at the time of the census, or at discharge, had been resident for more than 6 weeks.

² An analysis of the number of staff in Communal Establishments by age group according to 2001 Census shows that 23.6% of them were aged 75 and over, while in 1991 Census the corresponding percentage was 0.3%. The problem is thought to have been caused by a question in the individual form that asked about the position of the individual in the establishment (staff, resident, relative of staff). The way the question was designed may have induced staff who were completing the form on behalf of a resident to tick the box corresponding to “staff” instead of the one for “resident”.

- To account for possible differences in definitions of the different types of hospitals, a column is included in the Tables which shows the total number of hospitals.
 - The overall number of hospitals differs slightly (with a significant difference seen in Highland, Aberdeenshire, Dumfries & Galloway and Edinburgh), with more significant differences in the number of residents, which could be explained by different definitions of residents.
 - Psychiatric hospitals: the data received from ISD contain some Nursing homes (these might have been included under the category “Nursing home” in the Census). Additionally, some establishments in the ISD list might have been considered to be a single establishment in the Census (different parts of the same hospital). Also, there is a slight time difference between Census (April 2001) and ISD data (June 2001) which may affect the comparison (especially in terms of number of residents)
 - Other Hospital: ISD geriatric hospital list is compared to Census “Other Hospital” category, which might have included more types of hospitals.
 - Particularly big differences in the number of residents which are not explained by a difference in the number of establishments are found in Falkirk and South Lanarkshire. This requires further investigation.
- d) **Children’s homes:** Substantial differences were identified in the number of homes and residents. Care Commission figures on the number of registered places are compared to the 2001 Census number of actual residents, which might explain some of the differences in Table 3. Additionally, the Care Commission figures include information on boarding schools (which may not yet be complete), but boarding schools were included under “Education Establishments” in 2001 Census. The biggest differences are in Aberdeen, Edinburgh, Glasgow, and Perth & Kinross. SE Children’s Statistics on residential accommodation, which have been added to Table 3, will be used to carry out further comparisons. Also, an analysis of which establishments were considered as “Children’s homes” in the Census and which are included in the Care Commission figures will be carried out.
- e) **Adult Care Homes:** the **number of establishments** under this category shows a significant difference in 2001, with the Census registering almost 100 fewer establishments. The total difference is smaller for the rest of the years, especially for 2003, but some discrepancies can still be identified at Local Authority level. Regarding the **number of residents**, long stay residents in Adult Care Homes from alternative sources are only available for 2003-2005. As explained above, **two definitions** have been used to produce these long stay resident figures, one covering a time period of **6 months** and the other covering a time period of **6 weeks (footnote 1)**:
- The definition that in principle matches the Census definition³ of a resident in a CE more closely would be the first one (6 months), however, using this definition, the difference for the whole of Scotland between the number of residents in the 2001 Census and the number of residents in SE Community Care Statistics for 2003 would be of approximately 6,400 residents, while the difference in the

³ According to 2001 Census, a person is a resident in a CE if he/she usually lives there or has no other usual address. Where clarification is needed, he/she is considered to be a resident in a CE if he/she has been living, or intends to live, in the establishment for 6 months or more.

number of establishments is only 12. It only gives number of people who had been resident in the CE for 6 months or more, but not those who intended to live for 6 months or more.

- If the second definition is used (footnote 1), the difference in the number of residents (using 2003 SE Community Care figures) would be of 491 residents across Scotland. Although this difference is much smaller, discrepancies higher than 10%⁴ can still be identified at Local Authority level (e.g. North Ayrshire, Stirling...). This definition of long stay residents is including not only those who actually lived in the CE for 6 weeks or more but also those who at admission intended to live for 6 weeks or more but then did not.
- No further analysis has been done yet to deep into this differences but **HARG members are asked to express their opinion about whether they can recommend at this stage the use of one of the two above definitions as a preferable option.** The definition of a resident that includes a 6 week period produces a figure that is closer to that shown in the 2001 Census (although the definition is different), but the 6 month definition will be more consistent with the other sources of data being considered.

f) **Total:** the first two columns of Tables 2, 3 and 4 present the total number of CE (Table 2) and residents (Tables 3 and 4) according to the 2001 Census and according to alternative sources. The total for alternative sources has been calculated using 2001 Census values for those types of CE for which no alternative source is still available, and the closest (in time) available set of data to 2001 for the rest. Columns 3 and 4 contain the totals for 2001 Census and alternative sources excluding those CE types for which no alternative source has been identified yet. The differences between the totals according to the Census and the totals according to alternative sources are the result of the issues that affect each type of CE and the ones stated under “General” and, in particular, in the case of number of residents, they are very much affected by the use of Adult Care Homes data according to the 6 months or to the 6 weeks period definition.

- Using the first definition (6 months), the total number of residents in CE in Scotland according to alternative sources would be 7.6% lower than the Census and 15 Local Authorities would show a percentage difference higher than 10%.
- Using the second definition (6 weeks), the total number of residents in CE in Scotland according to alternative sources would be 0.6% lower than the Census and 4 Local Authorities would show a percentage difference higher than 10%.

Regarding the number of CE, the alternative sources would result in a total of 186 more establishments than the Census (3.7%). The majority of the Local Authorities would show a percentage difference lower than 10%.

HARG members are asked their opinion about whether they can recommend at this stage the use of these alternative sources to produce the next set of household projections (2004-based) or whether further analysis is required.

⁴ Percentage differences were calculated as (Alternative source - Census)/Census.

Next steps

GROS will continue investigating the potential of the data for Education Establishments coming from the different sources explained in this document. Additionally, further analysis will be carry out to try to understand the differences found in Hospitals, Children's Homes and Adult Care Homes with 2001 Census data. The use of this set of alternative sources in the next set of household projections depends on the discussion at this HARG meeting.

GROS: Household estimates branch
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Table 1: Summary on alternative sources to collect data on the types of Communal Establishments recorded in 2001 Census

Establishment type	Source	Available data	Problems / Gaps	Establishments (2001 Census)	Residents (2001 Census)
(a) Medical and care establishments					
Psychiatric hospital/home	ISD	Psychiatric long stay hospital residents (6 months or more) June 2001 (postcode, age and sex available)	Some residents here may have also been counted under "Adult Care Homes" (under investigation with ISD)	65	3,846
Other hospital	ISD	Geriatric long stay hospital residents (6 months or more) and 2001-2004 (postcode, age and sex available)	Figures may be incomplete in sites where data is collected on PAMS (NHS Forth Valley, NHS Fife, NHS Lanarkshire, NHS Glasgow). Some residents here are likely to have been counted also under "Adult Care Homes"	183	4,829
Children's home (including secure units)	Care Commission	-Number of places registered in Children's homes, secure accommodation, boarding schools registered with the Care Commission 2005 (includes postcode for most of the cases) (SE Children's statistics were contacted; 2003-2004 data from the residential accommodation survey, with number of residents and age gender split were available but the collection of this data has stopped)	No number of actual residents; no short/long stay split, no age and gender split School care accommodation is new, might be not complete Occasionally, trouble splitting homes into children/older people Initial comparisons with Census	114	855
Nursing home		-Number of places and number of total residents for March 2001-2005, 2001 and 2002 data from two different surveys (nursing homes and residential homes), 2003-2005 data from all care homes for adults registered with the Care Commission (postcode and address available for most of the data), -Long stay residents for 2003-2005 (some address details are missing for 2003). Two definitions of long stay: 6 weeks and 6 months (imputation needed for the 6 months definition). Age/gender split is estimated based on a 75% sample.	Some estimates must be done to provide an age-gender split For 2001 and 2002, different source (two different surveys, one for nursing homes and one for residential homes). Comparison issues, no short/long stay split available, no age-gender split available. - Possibility of double counting (with numbers included under Hospitals)	501	21,249
Residential care home	SE Community Care statistics			913	15,378
Other medical or care home				149	1,863
Total				1,925	48,020
(b) Other establishments					
Defence establishments (including ships)	GROS Demography Branch	- Armed Forces population estimates by age and gender at datezone level up to 2003 produced by GROS - These are ESTIMATES (produced internally for SAPS) - So far, no source of comprehensive data on Armed Forces population living in CE. Different data coming from different sources available but they do not match and further analysis is required.	These are ESTIMATES produced to feed into small area population estimates (SAPSE). The Armed Forces returns do not have an age-sex split and this is estimated to prepare SAPSEs. For 2002 onwards, there are no addresses (inconvenient for 2011 Census)	39	4,934
Prisons and young offenders' institutions	SE: Prison statistics	Number of long term resident prisoners by age, sex and sentence length for mid year 2001-2004 and 29 April 2001 (Census night) coming from an administrative system run by the Scottish Prison Service (postcode available)	Report with comparisons to 2001 Census: some relevant discrepancies at Local Authority level. These are thought to be likely explained by definitional or interpretation issues.	17	4,106
Education establishment (including halls of residence)	- SE FE/HE statistics - Student Awards Agency for Scotland - GROS Demography Branch	- Student Awards Agency for Scotland data: includes term-time address information for students who received support. Under investigation. - GROS collection of bed spaces in "halls of residence" style accommodation controlled by Scottish Universities and Colleges and also some controlled by private companies. - Plans for a GROS pilot exercise with 2-3 higher and further education institutions that collect information on sex, age and term-time address of full-time students	Still under investigation	224	21,453
Hotel, boarding house, guest house	No source identified (SE Homelessness statistics and Tourism statistics were contacted)		Homelessness: figures at LA level but with no information on length of stay Tourism: partial, incomplete data, confidentiality issues Residents in hotels in guest houses may be treated as private households in 2011 Census instead of as CEs	1,011	2,758
Hostel (including youth hostels and hostels for the homeless)	SE Community Care or Care Commission Statistics		Maybe included in figures from Community Care Statistics or Care Commission	178	2,427
Civilian ship, boat or barge	No source identified		Only two residents were recorded in the 2001 Census: propose to ignore this category	1	2
Other (includes religious establishments)	No source identified		No information on the type of establishment included here is available and the option could be to project forward the Census figures	1,695	2,306
Total				3,165	37,986
Total for all communal establishments				5,090	86,006