

**HOUSEHOLD ANALYSIS REVIEW GROUP:  
2001 HOUSEHOLD ESTIMATES: ISSUES****Introduction**

1. This paper sets out and discusses the main issues raised in earlier HARG meetings on making household and dwelling estimates for 2001, drawing on the results from the 2001 Census. Members are invited to comment.

**Background**

2. Table 1 shows the derivation of the June 1991 household estimates which formed part of the provisional 2002 household estimates circulated to councils in December. At the January HARG meeting a number of points were raised about additional adjustments which might be required to the 2001 Census count of 'Occupied Household Spaces' to give an estimate of the number of households in each local authority area at Census date.

**Basis of the household and dwelling estimates**

3. The underlying principle of the household and dwelling estimates by SE housing statistics branch is that they are based on the most recent population Census – in this case the 2001 Census. Conceptually, the relationship between dwellings and households is that the number of households is equal to the number of dwellings minus vacant and other non-effective dwellings plus an allowance for households sharing a dwelling. The key issue for the 2001 Census estimate of the number of households and dwellings is whether the measurements from Census tables of – total dwellings, vacant dwellings, other non-effective dwellings and sharing need to be further adjusted.

Census measurements

4. Annex A is a note by GRO(S) summarising how households and dwellings were identified in the 2001 Census and how this compares with 1991. Key points are:-

- a) From paragraph 7, in both 2001 and 1991 when delivering Census forms, Enumerators identified cases where there was more than one household sharing an address, and issued a separate Census form for each household.
- b) From paragraphs 13-15, in 2001 GRO(S) had to introduce manual inspection of forms to ensure that the Dwellings Algorithm – using address and household information to identify separate dwellings – operated correctly.
- c) From para 16, the reduction between 1991 and 2001 in the number of shared dwellings, from 1,716 in 1991 to 665 in 2001 while significant did not have a major impact on the household estimates.

5. From a) we can conclude that the 1991 and 2001 Census counts of households were on a consistent basis. From b), GRO(S) assure us that the manual correction was effective and that the Dwelling count is also consistent between the two Censuses.

## Need for further adjustments?

### Vacant and other non-effective (second homes etc)

6. The key issue for 2001 is whether information from the Post Census Survey of a sample of properties recorded as vacant in the Census (PCVS) gives information which should be used to adjust the Census estimate. Note that the PCVS was a survey of vacant properties only (i.e. did not cover properties identified as second or holiday homes in the Census). Also the primary purpose of the PCVS is to give estimates of numbers of vacant properties by tenure. A summary of the 2001 PCVS findings will be provided to the HARG meeting.

7. PCVS based estimates of vacant dwellings, totalling 98,456 for Scotland were incorporated in to the post 1991 Census household estimates. PCVS was used to correct for any possible tendency for the Census to mis-estimate the number of vacant dwellings

8. However, through the One Number Census procedures introduced for 2001 a sample of all Census addresses – including addresses recorded in the Census as vacant, second home or holiday home – were re-visited. Thus, through the One Number Census process any over or under-recording of vacant properties will have been accounted for in the Census tables. Further correction using PCVS information would potentially double correct and potentially introduce an upwards bias into the estimates. The 2001 Census based figure for 2001 (of 117,417<sup>th</sup> for Scotland as a whole) therefore should stand.

### Sharing allowance

9. One of the initially surprising features of the 2001 Census results was the very low measured sharing allowance (1,315 for Scotland as a whole) derived from the Census, compared with the much higher sharing allowance (around 22,000 for Scotland as a whole) being used in the household estimates from 1991 onwards. This is even more surprising when it transpires that the scale of sharing actually measured in the 1991 Census was much lower than the 22,000 figure we have been using.

10. The 22,000 sharing allowance figure used in the housing statistics household estimates from 1991 onwards was **not** based on sharing as measured in the 1991 Census. As noted in earlier papers to HARG (see HARG 2004(2)), housing statistics household estimates were adjusted upwards significantly (by about 20,000 compared to the Census) to compensate for the 1991 under-enumeration. Essentially, within the household estimates calculations the **sharing allowance from 1991 was a residual between the household estimates adjusted for 1991 Census under-enumeration and the 1991 Census based estimates of occupied and vacant dwellings**. It is now accepted that the 1991 Census adjustments were an over correction.

11. There is no equivalent justification in 2001 for moving from the Census based estimate of sharing. Thus the sharing allowance in the 2001 Census and mid year estimates should stand.

**Consistency of household and population estimates**

12. One test of the credibility of the household estimates from 1991 is the relationship between the initial household projections – before scaling to the household estimates and the estimates themselves. Table 2 shows the scaling factors between the projections for 2003 and the 2003 estimates.

13. For Scotland as a whole the household estimate for 2003 was some 1.2% higher than the projected number of households. Across councils, the relationship varies between 3.6% higher in Dundee, to 1.8% lower in North Ayrshire. The household estimate is lower than the unscaled household projection for 5 councils and higher for the remaining 27.

**Conclusion**

14. From the above, our initial view is that there should be no further adjustment of the 2001 Census based estimate of the number of households in each council area.

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