



CENSUS ADVISORY GROUPS

AG (06) 01

2005 Address checking Small Scale Test Evaluation Reports - Phase 1 and 2

Introduction

- 1 The attached paper is the Executive summary of a report evaluating the proposed address checking methodology for the 2011 census. The paper is provided for information, to give advisory groups an understanding of the proposed methodology for the 2011 census and the testing that we have been undertaking.
- 2 The full report will be made available on the NS website in due course

Action requested of advisory groups

The paper is for information only, but questions and comments will be welcome at the meeting

Background

- 3 Fundamental to post-out methodology and a successful Census is a complete and accurate address frame. However, the Census will enumerate at the household level and it is therefore important to recognise that the Census requires a complete and accurate *household* address frame.
- 4 Therefore the 2005 Small Scale Test (SST) was designed to investigate the feasibility of performing a pre-delivery household address check. The testing consisted of two phases. The main aims of Phase 1 were:
 - to assess the effectiveness of performing a pre-delivery household address check in terms of quantity and quality; and;
 - to gain an understanding of the operational practicalities associated with a pre-delivery household address checking operation.
- 5 The main aim of Phase 2 was to gather initial information on what happens to mail within the postal system that have addresses which are not on the delivery point address list.

- 6 The Phase 1 evaluation report presents a short background and introduction which is followed by a detailed outline of the methodology used. The evaluation of Phase 1 falls into two sections, the first contains the quantitative findings and the second presents the qualitative information. The final section provides full conclusions and recommendations and these should be taken into the 2007 Test. Phase 2 is a shorter report which has introduction, methodology, results and conclusion and recommendations sections.

Phase 1

- 7 Over a seven week period during June, July and August, over 50,000 households were checked by five field staff, who were recruited from an employment agency. Three methods of performing a pre-delivery household address check were piloted. Each method was tested in nine national ward types (using the ONS Area Classification), covering 14 wards in total within Hampshire.

Supergroup (number and title)	Name of Ward
1 – Industrial Hinterlands	Bedhampton
1 – Industrial Hinterlands	Portchester East
2 – Traditional Manufacturing	Warren Park
2 – Traditional Manufacturing	Leesland
3 – Built up	Town
4 – Prospering Metropolitan	St Judes
5 – Student Communities	Swaythling
6 – Multicultural Metropolitan	Bevois
7 – Suburbs and Small Towns	Burseldon & Old Netley
7 – Suburbs and Small Towns	Fareham North
8 – Coastal and Countryside	Emsworth
8 – Coastal and Countryside	Lee West
9 – Accessible Countryside	Compton & Otterbourne
9 – Accessible Countryside	Owlesbury & Curdrige

- 8 Thus there were approximately 2,000 addresses checked for each of the three methods in *most* of the nine area types.
- 9 All field staff attended a training session and were given a full set of instructions that differed according to the method they were using. Field staff were issued with maps displaying boundaries and Address-Listing books that contained known delivery point addresses sourced from the Postal Address File (PAF). Field staff updated this list according to their assigned method, the concept being to correct the list and provide an address for every household within their areas.
- 10 The three methods trialled were:
- Treatment 1 (T1) – Field staff contacted every address to confirm that the details were correct and to enquire about the presence of additional households. There were three attempts to contact the residents. Any unlisted addresses and households were added to the Address-Listing book.

- Treatment 2 (T2) – Field staff contacted every third address, confirmed the details were correct and enquired about additional households. They then asked the householder about the two neighbouring properties. Again, up to three attempts at contact were made and unlisted addresses and households added.
 - Treatment 3 (T3) – Field staff did not contact any householders, but carried out a visual check only. Any unlisted addresses were added to the Address List. A record was made of any addresses that appeared to have additional households present.
- 11 Several quality measures were put into place. For example, one measure used a controlled error rate within the Address-Listing books to check field staff's weekly work. Another quality measure which followed the field work involved Census volunteers going out checking the employed field staff's changes to the Address-Listing books.
- 12 As a very high level summary of the results, the following table shows the addresses added by each method.

Supergroup	Treatment type					
	T1 – Percent of new household addresses added* (actual number in brackets)		T2 - Percent of new household addresses added* (actual number in brackets)		T3 - Percent of new household addresses added* (actual number in brackets)	
1 - Industrial Hinterlands	0.81%	(6)	0.36%	(2)	0.81%	(47)
2 – Traditional Manufacturing	0.42%	(1)	0.08%	(1)	0.53%	(23)
3 - Built-up areas	0.14%	(1)			3.86%	(106)
4 - Prospering Metropolitan	14.63%	(109)	3.24%	(66)	2.66%	(126)
5 - Student Communities			3.57%	(36)	0.69%	(22)
6 - Multicultural Metropolitan	8.93%	(57)	1.41%	(13)	5.97%	(353)
7 - Suburbs and Small Towns			0.78%	(7)	1.98%	(104)
8 - Coastal and Countryside	0.14%	(1)	0.40%	(2)	0.78%	(52)
9 - Accessible Countryside	3.67%	(15)	2.76%	(11)	3.23%	(53)
Totals	4.53%	(190)	1.81%	(138)	2.16%	(870)

*Note: Does not include addresses that were subsequently found after being deleted as part of controlled error rate
 *Note: Percentage calculated as number of new household addresses divided by all household addresses.

Phase 2

- 13 Phase 2 of the SST used address information collected in Phase 1 to test a post-out enumeration scenario. This was designed to gather initial information on what happens to mail within the postal system which is not on the delivery point address list, this included sub-dwellings and socially defined households that could not be found on ONS's current version of the PAF.

- 14 Over 1,200 addresses were sent a sealed envelope which contained a pre-paid postcard for the recipient to return. If the postcard was returned the assumption was made that the postcard had been delivered to the correct address. A high response rate to the postcards was not anticipated and so a member of field staff was recruited to follow-up at addresses that had not returned their postcards. Information was also gained on how Royal Mail returned post that could not be delivered.

Conclusions and recommendations

- 15 Overall, the 2005 SST work has been a success, especially considering the limited resources and time available to the SST team. The team consisted of four office staff working part-time on this work who developed, trained, produced, piloted, managed, debriefed and evaluated the SST.
- 16 There are a number of conclusions and recommendations stemming from both phases of the SST. The main findings relate to the recommended methodology for pre-delivery household address checking and these are summarised below. The recommendations are separated according to the phase of SST work.

Phase 1

- 17 During the Phase 1 of the SST some areas showed large differences in the amount of new household addresses that were added according to different treatments that were used. For example, T1 found many more household addresses compared to T3. In other areas the differences were not as large. The areas where many addresses were found corresponded to areas where there were likely to be many definitional differences between the PAF and the household address list that Census requires. This led to the following recommendations:
- Two checking methods should be used in the 2007 Census Test. A contact intensive method in targeted areas (T1) where there are many definitional differences between the PAF and the Census required household address list and a contact by judgement method in the remaining majority of the country (variant of T3);
 - A categorisation should be developed to specify where T1 and the variant of T3 should be used. This should highlight areas where there are likely to be high levels of definitional differences and therefore reduce the risk of under-coverage on the household address frame; and
 - Three attempts at contact should be made and this will be reviewed after the 2007 Test.
- 18 The Census pre-delivery household address check is timetabled to start at least six months prior to the Census. There are concerns that some areas will change considerably in this period therefore increasing the risk of under-coverage. This led to the recommendation that:

- A pre-delivery household address check should be performed approximately six weeks before the date of the Census in areas that are likely to have changed dramatically since the first household address check. Again, a categorisation should be developed to specify where dramatic changes have or are likely to occur. This will reduce the risk of under-coverage on the household address frame.

19 There was low recognition of the controlled error rates during the SST which does call into question whether all new household addresses were found. Therefore it is recommended that:

- The implementation and use of controlled error rates are further investigated in the 2007 Test as a formal quality control method.

Phase 2

20 Phase 2 did not identify any major problems with Royal Mail failing to deliver to particular types of addresses. Two other recommendations did, however, arise during the work. During the construction of the of the address list it was clear that quality of new address information was variable, for example, sometimes the postcode was not recorded. Therefore it is recommended that:

- Improvements are required in the level of detail Address Checkers need to record on new household addresses, namely:
 - The field staff will need to record whether the address they are adding represents either a) new address, b) a sub-dwelling in an existing address or c) a socially defined household; and
 - Different types of new household addresses are added in a manner consistent across all field staff.

21 During Phase 2 ONS received a call from an irate member of public denying that their address which had been written to was a residential property. This was contrary to the Phase 1 field staff findings and the QA performed by an ONS volunteer. Therefore it is recommended that:

- Confidentiality concerns surrounding these issues should be considered and resolved.

22 The full conclusions and recommendations sections in the Phase 1 and Phase 2 reports provide additional detail about the findings above and other aspects of the work. This includes recommendations made for: area differences, workload sizes, contact times, field quality control and the practical operations such as recruitment, instructions, training, Address-Listing books, supplies, debriefing and management.

23 Further analysis following the 2007 Test will determine the approach for the 2009 Census Rehearsal and 2011 Census.

Rob Fry and Sarah Walker, ONS Census Test Design and Evaluation.