

**Advisory Group Paper (98) 01****EVALUATION OF THE MAIN OBJECTIVES OF THE 1997 GB CENSUS TEST**

The 1997 Test was held on 15th June in eight different local authority areas covering about 97,000 households. This paper presents the results of the evaluation of the Test's main objectives, which were the enumeration methodology, form style, and income and ethnicity questions.

Advisory Group members are asked to note:

- a. The results of the evaluation of the main objectives of the Test, particularly that:

the Census Offices have concluded that the results of the Test provide sufficient evidence that a postback method of collection, backed up by enumerator follow-up, is the best strategic option for the 2001 Census;

the Census Offices are of the opinion that the results of the test provide sufficient evidence that a postout method of delivering forms would carry high risk and that it will therefore not be generally pursued further;

the Census Offices have concluded that the Pages-per-Person is the most cost-effective style of form for the 2001 Census;

no decision has yet been taken on the form of any ethnicity question in the 2001 Census and that the results of subsequent small-scale trials will be considered alongside the assessment of user requirements for information on ethnic groups before final proposals are made in the White Paper to be published in the Autumn of 1998.

no decision has been made on whether or not an income question will be included in the 2001 Census and that final proposals will be made in the White Paper to be published in the Autumn of 1998;

- b. The response rates to individual questions (question completion rates) on the Census Test forms and the discrepancy rates between answers given on the 1997 Census Test forms and in the Census Test Evaluation Survey

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## EVALUATION OF THE MAIN OBJECTIVES OF THE 1997 CENSUS TEST

1. This paper describes the main 1997 Census Test objectives, gives an outline of the Statistical design and then summarises the results from the evaluation. The results are based on statistical analysis of the 1997 Census Test together with feedback from fieldstaff and HQ staff managing the operation of the Test. Further details on the sources of information used in evaluating the test are at Annex A.
2. The Test was carried out to enable the Census Offices to evaluate new collection and processing methods, an alternative style for the Census form and to test public reaction to possible new and revised questions, particularly ethnicity and income.

### 1997 TEST AREAS

3. The Test was held on 15 June 1997 in eight different local authority areas covering about 97,000 households in Great Britain. It was carried out in parts of Brent, Birmingham, Glasgow, Craven, Alton/Petersfield, Bridlington, Thame and South West Argyll. The areas were chosen to provide a varied cross-section of the population and types of housing.

### MAIN OBJECTIVES

4. The 1997 Test was driven by three primary objectives:
  - a) **collection procedure:** to test new and revised enumeration procedures with the aim of improving coverage, quality and cost effectiveness. These included testing postal methods of collection of census forms as well as the conventional method of delivery and collection by an enumerator. In South West Argyll, a postal method of form delivery was tested.
  - b) **form design:** to compare a conventional 'matrix' form, as used in the 1991 Census, with a 'pages-per-person' form. The two different types of form, with new and revised questions, were tested to gauge public reaction to the layout and question wording.
  - c) **form content:** this was primarily concerned with two factors:

comparing different versions of the ethnicity question - the two versions tested were known as Ethnic Group (Minimum Change) and Ancestry. Again the prime indicator of one version of the question being preferable to the other was response rate;

assessing the acceptability of including a question on income, primarily through comparing response rates for those census forms with and without a question on income.

This would allow the Census Offices to assess the impact of inclusion of income and the different ethnic questions on response rates.

### OTHER ACTIVITIES

5. In addition to these three primary objectives, ancillary prototyping also took place, including the use of automatic data capture and coding technology: scanning; optical mark reading; optical character recognition techniques and automatic and computer assisted coding of write-in responses. The Test also provided the Census Offices with information on the acceptability and formulation of the 2001 Census questions.

## STATISTICAL DESIGN

6. The objective of the statistical design of the 1997 Test was to allocate the four primary factors to areas in such a way as to allow comparisons between the factors:

*Postback vs Collection methodology;*

*Matrix (1991 Style) vs Pages-per-person forms;*

*Ethnic group (Minimum change) question vs Ancestry question; and,*

*Income vs No income question.*

7. Within GB, an enumerator delivery/postback methodology was tested in parts of Brent, Birmingham, Alton, Craven, Glasgow. A postout/postback methodology was tested in SW Argyll. Traditional enumerator delivery and collection methodology was tested in parts of Brent, Birmingham, Thame, Bridlington, Glasgow and SW Argyll.

8. The other factors were not tested everywhere. Within each of the main Test areas:

Brent and Birmingham tested the Income and Ethnicity questions - all forms were pages per person;

Alton, Bridlington, Craven, Glasgow and Thame tested Form Style and Income only - all forms had the minimum change ethnic group question;

In SW Argyll only the Income variant was tested - all forms were matrix style with the minimum change ethnic group question.

Within an Enumeration District only one type of form and one set of questions were used.

9. The effect of not testing all factors in all areas was that essentially three designs were adopted. One in English Inner City areas (Design I in Brent and Birmingham), one in so called 'Mixed' areas (Design II in Thame, Alton, Bridlington, Craven, and Glasgow) and one in SW Argyll (Design III).

10. In addition to this, for practical reasons, in each Census District only one method of delivery/collection was administered, **Table 1** shows the allocation.

**Table 1: List of areas and collection method tested.**

<b>Area Type</b>	<b>Census District with Standard Collection</b>	<b>Census District with Delivery/Postback</b>	<b>Design</b>
Inner City	Brent A	Brent B	I
Inner City	Birmingham A	Birmingham B	I
Mainstream	Thame	Alton	II
Rural	Bridlington	Craven	II
Inner City Scotland	Glasgow B	Glasgow A	II

11. As a consequence of applying only one collection method within each Census District it was not possible statistically to compare the collection methods within a particular Inner City Area. For example, in Brent we would only have two observations - the response rate for Standard Collection (in Brent A) and the response rates for Delivery/Post back (in Brent B). We cannot say whether any difference in response rates is related to

the different collection methods or is just something that would just happen in Brent because of other reasons. To make an inference about the effect of the collection method we need to repeat the methods used in Brent in another area, in this case Birmingham, and if the same effect is observed in the other area we might then be able to associate the effect with collection method.

12. Within the Census Districts it was possible to apply more than one of the other primary factors. For example, both variants of the Ethnic Group question were tested in Brent A. This means that there are more observations available for making comparisons between the Ethnic Group, Form Style and Income factors than for the Collection Method comparison.

13. It is therefore possible for observed differences in response rates for Form Style, Ethnic Group and Income factors to be statistically significant while larger differences between response rates for Collection Methods will not be significant.

## **STATISTICAL ANALYSIS**

14. The purpose of the 1997 Census Test was to assess the acceptability of the Census Forms and to compare the Collection Methods. These were indicated to a large extent by the response rates, although some forms were returned without key questions having been answered, for example the Income question if included. Thus the basic measure of acceptability was based on the number of satisfactory forms returned.

15. A satisfactory return was deemed to be a Census Test Form in which at least one person could be identified as having answered the first four demographic questions:

1. Surname and Forename
2. Date of Birth
3. Sex
4. Marital Status

16. Analysis of the percentage of satisfactory returned forms (compared with the number delivered) was carried out for the three designs outlined in paragraph 9 above. If the results of these analyses showed that certain factors were not related to the response rates it would be possible to carry out analysis for Collection Method and Income over all Test areas (excluding SW Argyll).

## **SUMMARY OF RESULTS**

17. The following sections describe the main results from the 1997 Census Test in Great Britain. These will be presented at an Open Day being arranged for June and also at an RSS Official Statistics Meeting on 24 June.

### **Collection Method I: Enumerator Delivery and Postback vs Enumerator Delivery and Collection:**

18. The objective was to identify and measure any differences in coverage, quality and operational practicalities between the Standard Collection Method and the Postback Method. The 1997 Test was designed to allow the response rate (the number of satisfactorily completed forms as a proportion of the number of forms delivered) in Postback areas to be compared with those where a Standard Collection Method was employed.

19. The Fieldwork for the Test was organised so that Enumerators in Postback areas had approximately double the number of forms to deliver compared with their colleagues in Collection areas to allow for the fact they would be posted back.

### Assessment of whether response rates differed by Collection Method:

20. **Table 2** displays response rates for areas by Collection Method. Overall, the response rate using Standard Collection methods was 7.6% higher than Postback, but there was a wide variation in the response rates from 28.4% to 77.7%. The Inner City Areas of Brent, Birmingham and Glasgow had the lowest rates. Statistical analysis of the response rates show that there was no overall significant difference between the Collection Methods.

**Table 2: Response Rates by Collection Method**

Standard Collection	Response Rate	Postback	Response Rate
Brent A	50.7%	Brent B	28.4%
Birmingham A	48.2%	Birmingham B	41.9%
Thame	77.7%	Alton	71.0%
Bridlington	66.7%	Craven	69.3%
Glasgow B	53.4%	Glasgow A	52.0%
Overall	60.5%		52.9%

### Assessment of whether the types of outcome differ by Collection Method:

21. *Posted forms*: In Postback areas overall, 80.7% of the Forms returned were actually posted back. Both Brent B and Birmingham B had a much lower proportion than this (65.9% and 62.9%).

22. *Refusals*: The overall refusal rate was 7.8%, 1.2% when enumerators delivered the form and 6.5% when the enumerators tried to collect the form. 4.5% more households refused to take part in the Test in Collection areas, but the Collection method has more potential for refusal because more contact is made with households.

23. *No Contact*: Postback areas had 5.1% more cases where there was no contact at all with Households. However, this difference is suspect because it relied on enumerators accurately recording the degree of no-contact and there is evidence from the enumerator records that they did not always do this.

### Assessment of whether Enumerator contact on delivery influences response rate and differs by Collection Method:

24. Enumerators made contact with householders when attempting to deliver a form on 4.4% more occasions in Collection areas (60.6%) than for Postback areas (55.6%) - this difference is most likely to be due to the Postback enumerators having to deliver twice as many forms.

25. The overall difference in response rates for all households contacted on delivery (64.2%) and those that were not (47.2%) is 17%. Contacting households at delivery appears to therefore make a difference to response, but it should be noted that this difference may be partly explained by the different characteristics of people who are at home more.

26. Of those households contacted at delivery in the Postback areas, 51.6% posted their forms back, which is 13.4% higher than the postage rate of those households who were not contacted on delivery in the Postback areas. Again, this may be due to the characteristics of households who are 'contactable'.

27. Contact at delivery made no difference in the standard of Form completion (see below).

### **Assessment of whether Collection Method influenced Form completion:**

28. *Form Completion rate* is defined as the total number of questions answered on the form as a proportion of the total number of answers required:

The average form completion rate of all the questions that related to the Household (such as Accommodation type, Number of rooms, Tenure etc.) was 1.3% higher on forms returned from Postback areas;

The average form completion rate of the questions asked for each person (such as Date of Birth, Religion, Employment etc.) was 2.0% higher on forms returned in Postback areas;

The English Inner Cities had considerably lower form completion rates for both the Household and Person Questions than all the other areas in the Test;

Forms that were returned via the post had higher form completion rates than those forms collected by enumerators for both Household and Person questions.

### **Assessment of whether Collection Method influences coverage:**

29. The Census Test Evaluation Survey (CES) found no evidence of differences in the coverage of people in households between the Collection methods.

30. An estimate of the number of persons not completing any questions was derived using test data. The estimate gave a figure of 3,675 (3%) persons: the estimate for forms returned in Collection areas was 3.5% and the corresponding Postback figure was 2.8% - 0.7% lower than collection. It must be emphasised that these figures are purely estimates based on the returned forms.

31. A comparison of the Age and Sex distributions of persons on the returned forms showed no evidence of any significant differences between the collection methods.

### **Assessment of whether there was a difference in the acceptability of the Enumerator's workload:**

32. Census Officers expressed concern early on that the time allowed for delivering the Test forms to all Households in Postback areas was unreasonable. It was suggested that Postback Enumerators did not have enough days over which to spread their tasks.

### **Assessment of whether collection method influences Data quality:**

33. There was no evidence from the CES or the Test data to suggest the collection method affects the quality of the responses to the questions on the forms.

### **Assessment of the arrangements for Postback with the Royal Mail:**

34. Forms posted back by the public were returned to a Post Office Box Number, sorted by Royal Mail into EDs and then collected by the relevant Census Officer who distributed them to Enumerators for recording receipt of the forms. The service provided by the Royal Mail was good with few sorting errors. The distribution of returned Forms was complicated by Enumerators being unavailable to receive the Forms and uncertainty over the volume of returns.

## **Conclusion:**

**35. *The Census Offices have concluded that the results of the Test provide sufficient evidence that a postback method of collection, backed up by enumerator follow-up is the best strategic option for the 2001 Census. Enumerators will deliver the forms and work in teams to follow-up non-response. This method provides the flexibility for local managers to direct enumerator resource where it is most needed.***

## **Collection Method II: Enumerator Deliver and Collection vs Postout and Postback:**

36. The post out and post back method was only tested in SW Argyll. Here the objective of the evaluation was to identify and measure any differences in coverage and quality between Postout/Postback and the Standard Collection methods. In this method forms were posted out and back. Missing returns were followed up by postcards and telephone calls. There was no routine door to door follow up to collect forms as was the case with the Delivery/Postback method tested elsewhere.

37. The results in this section refer only to SW Argyll. The area was chosen because it had few multi-occupied addresses and a good record of census compliance.

## **Assessment of ability to deliver forms:**

38. This method relies heavily on accurate address lists. A Follow-up Survey was carried out in the SW Argyll Postout area of addresses on the GROS address list. This identified 8 out of 96 non-respondents (8%) who when asked if they had received a Census Test form said they had not. After further examination it is believed that only 1 household genuinely did not receive a form, i.e. about 1% of householders. There is evidence from other questions in the Survey that people were untruthful about returning Census Test Forms.

39. The evidence therefore is that the Royal Mail achieved almost 100% delivery to appropriately addressed properties (rather than appropriate households) on the GROS address list. (NB Note that separate research has shown that the available address lists are not completely accurate). However, in the Royal Mail returns and the Follow-up Survey two further problems were found with postal delivery:

Households with imprecise addresses. For such addresses with more than one household it is often not possible to distinguish a responding household from a non responding household. Similarly for addresses with only house names where the name has changed it is often difficult to spot this.

Classification of non responding households. The Royal Mail offers reasons for non delivery where this occurs, but their reasons are too vague to distinguish vacant from demolished or from holiday homes. Where forms are delivered but not returned, we have no evidence to classify the reason for non response, in particular whether there should have been a response.

## **Assessment of whether response rates differed by method:**

40. The response rate was 55.5% in the Postout/Postback area and 81.6% in the Collection area. This is a notable difference. Not all of the difference will be due to the method of form delivery. The reliance on postal response rather than door to door collection will have been a factor.

## **Assessment of whether response outcomes differ by method:**

41. In the Follow-up survey, about 20% of non-respondents to the Census Test claimed that they had returned the Test form by post. This could be a serious problem.

#### **Assessment of whether the method influenced Form Completion:**

42. The average form completion rate of the questions that were asked of the whole Household (such as Type of Accommodation, Number of Cars/Vans, Lowest floor level etc.) was 3.1% higher on returned forms from the Collection area.

43. The average form completion rate of the questions for each person was 5.2% higher on the returned forms from the Collection area.

44. There was little evidence that there was any difference in public acceptability between methods.

#### **Assessment of whether the method influences Coverage:**

45. The GROS survey covering 81 respondent households did not detect systematic under-enumeration within households - it found 1 missed daughter and 2 extra sons (a soldier and a student on leave) and an extra daughter (on holiday).

#### **Assessment of whether method influences Data Quality:**

46. There was no evidence to suggest any differences in data quality of the responses on the returned forms between the two methods.

#### **Assessment of Royal Mail Arrangements:**

47. Forms were posted back to PO Box numbers one for each enumerator. Enumerators collected returned forms from local postal offices. The arrangements with the Royal Mail worked well.

#### **Conclusion:**

**48. *The Census Offices are of the opinion that the results of the Test provide sufficient evidence that a complete postout and postback method would carry high risk. It will therefore not be pursued further as a general method of delivering forms.***

#### **Form Design / Style:**

49. Two different types of form styles were tested: a conventional matrix form similar to that used in 1991 was compared with a 'page per person' style. The statistical design of the 1997 Test allowed comparison of the form styles to be made in order to assess which form:

reduces the burden on the public;

is more acceptable;

optimises data quality in terms of both item response and accuracy.



**Response Rates:**

50. **Table 3** displays the response rates for Form Style in those areas where both styles were trialled. Statistical analysis shows there is no evidence that Form Style influences the overall response rate.

**Table 3: Response Rates for Form Style**

<i>Census District</i>	<i>Enumeration Method</i>	<i>Response Rate Matrix</i>	<i>Response Rate Page per Person Income</i>
Thame	Collection	77.6%	77.7%
Alton	Postback	70.7%	71.4%
Bridlington	Collection	67.2%	66.2%
Craven	Postback	71.1%	67.4%
Glasgow B	Collection	54.6%	52.2%
Glasgow A	Postback	48.9%	55.1%
Overall		67.2%	67.4%

**Form Completion:**

51. The average form completion rate for household questions on the matrix style form was 89% whilst that for the pages per person was 6.3% higher at 95.3%. This is almost certainly due to the fact that the household questions were placed at the back of the matrix form. As this was the only place they could go on the matrix forms, this result should still carry weight.

52. 1.5% more Households omitted all the household questions on the matrix forms.

53. The average form completion rate for person questions in matrix areas was 78.1% whilst that for page per person forms was 2.7% higher at 80.8%.

**Data Quality:**

54. The CES found that, although there were no overall differences in discrepancy rates between the Form Styles, there were differences for three questions: pages per person showed fewer discrepancies for Q5 *Students* (12% Vs 17%); Q15 *Usual Address* (10% Vs 16%) and Q30a *Looking After Home* (20% Vs 29%).

**Coverage:**

55. Using the same criteria as described under the section on Collection Methodologies above, page per person forms had a 1.8% higher estimated undercount of people within households. Again it must be emphasised that this figure should be viewed with caution.

**Burden:**

56. Matrix forms had 0.7% more refusals than Pages per person forms.

57. Of the 354 non respondents to the Census Test interviewed by the CES, 12% said that the form itself put them off, it was too long or difficult to complete.

58. The CES also found that those households given a matrix style form seemed more likely to say they thought it was an invasion of privacy (19% or 21 people) or that they objected to the questions (15% or 16 people) than those given a page per person form (14% or 35 and 5% or 13 respectively). While the numbers are small this was expected given that answers would be more visible to other household members on the matrix form.

### Scanning / Data capture:

59. The Matrix form printing was of a poorer quality and did not meet the scanning specifications.

60. It was found that the scanner used in the Test could not cope well with the different sizes of paper used in the Matrix form. The images captured from the Matrix style had to be resized when imported into the recognition system which resulted in poorer recognition rates, especially for the relationship question.

61. The opinion of the Data Capture project is that the Pages per Person form is more suitable than the Matrix for the 2001 Census Processing systems.

### Cost:

62. Estimated costs for form printing in 2001 show that the matrix form would cost approximately 60% more than a Pages per person version of the same form.

### Conclusion:

**63. The Census Offices have concluded that the Pages-per-Person design of the form performed as well as the traditional Matrix style of form. From both a cost and operational perspective (scanning of forms), the former is more cost-effective and therefore the Pages-per-person style will be adopted for the 2001 Census.**

### Ethnicity question:

64. The 1997 Test was designed to allow for comparisons of two variants of the Ethnicity question. The first version was the 'Minimum Change' variant, which was similar to that used in the 1991 Census, with a 'Mixed Ethnic Group' tick box and write in box. The question asked 'To which one of these ethnic groups do you consider you belong?'. The second version was called the 'Ancestry' version, and it used the same categories as the first, but the question asked 'What do you consider your ancestral origin to be?'.

65. Variants of the ethnicity question were only tested in Brent and Birmingham. All forms in other areas contained the Ethnic Group (Minimum Change) question.

### Assessment of Response Rates:

66. **Table 4** displays the form response rates from households by type of Ethnicity Question. Overall, the response rate from households with the Ancestral Origin version was 1.1% higher than that for the Ethnic Group (Minimum Change) version. Analysis confirms that there is no evidence to suggest a statistically significant difference in response rates between forms containing the Ethnic Group (Minimum Change) Question and those containing the Ancestral Origin question.

**Table 4: Response Rates (proportion of forms returned) by type of Ethnicity Question**

Census District	Ethnic Group (Minimum Change)			Ancestral Origin		
	Response			Response		
	Response	Delivered	Rate	Response	Delivered	Rate
Brent A	1,877	3,553	52.8%	1,786	3,671	48.7%
Brent B	1,727	6,216	27.8%	1,503	5,171	29.1%
Birmingham A	1,779	3,933	45.2%	2,139	4,194	51.0%
Birmingham B	2,014	4,655	43.3%	1,934	4,766	40.6%
<b>Total:</b>	<b>7,397</b>	<b>18,357</b>	<b>40.3%</b>	<b>7,362</b>	<b>17,802</b>	<b>41.4%</b>

### **Assessment of Question and Form Completion rates:**

67. Of the Ancestral Origin forms returned, 87.6% of persons had completed the question whilst, of the Minimum Change forms returned, 88.5% had completed the question.

68. The average form completion rate of all questions on the forms with the Ancestry Question was 72.9% compared to 74.0% for the forms including the Minimum Change Question.

### **Acceptability of Question:**

69. Six percent of households refused on collection in areas receiving the Minimum Change Question, whereas 8.9% refused on collection in Ancestry Question areas.

### **Public Understanding of Question:**

70. The CES confirmed the findings from the 2001 Small Scale Testing. Respondents did not read the wording of the questions but rather responded to the categories, which, of course, were identical for both questions.

### **Quality of Response to the Ethnicity questions:**

71. The distribution of responses across the response categories was similar for both forms of question wording. The degree of use of the write-in boxes was also similar.

72. Special consideration has been given to the amount and type of information entered in the three write-in boxes. This analysis was based on a sample of 25,513 forms which were extracted for automatic data capture. These forms covered a range of Test areas and contained the minimum change question only. A total of 1,900 entries were recorded in the three text boxes; 644 in the 'Black Other' write-in, 470 in the 'Mixed' write-in and 721 in the final category 'Any Other Ethnic Group'. In addition there were 65 cases of multi-ticking, which were also examined.

73. Detailed examination of the comments recorded in each of the categories highlighted a number of common characteristics including the overall prevalence of the terms 'Asian' (158) and 'Black British' (75), which accounted for 36.2% of the 'Black Other' write-ins. With reference to those who opted for the 'Mixed' write-in, comments ranged from general descriptions such as 'mixed race' to detailed attributions including 'White Mother/Indian Father' and 'Jamaican/American Indian/English/Irish'. Despite the diversity of descriptions recorded in the box reserved for 'Any Other Ethnic Group', the two highest were 'Arab/Arabic' (130) and 'Irish/White-Irish' (133) which accounted for 36.5% of these write-ins.

74. The CES found that different versions of the Ethnicity question had no overall effect on discrepancy rates (that is, the discrepancy between the answer given on the Census Test form and that given in the CES interview).

### **Reasons for Non-response:**

75. The CES interviewed some 354 non-respondents to the Census Test. When asked the reason for non response 29 (8%) said they objected to a question. When probed further, 6 (21%) of these said they objected to the Ethnic Group (Minimum Change) question. No one who had a form with an Ancestral Origin question said they objected to it. These are extremely small numbers so no conclusions should be drawn.

### **Quality of Response to Other Questions:**

76. When considering the percentage of cases whose responses differed between the Test and the CES, the CES found there was no substantial difference between the forms with different versions of the Ethnic Group question. A small difference in the average number of discrepancies per form was identified: 0.9% for Minimum Change against 1.2% for Ancestral Origin.

77. There is no evidence to suggest the response to other questions is affected by either version of the Ethnicity question.

**Sealed Returns:**

78. There were no differences in the percentages of requests for a sealed envelope in which to return the form between those receiving either of the Ethnicity questions.

**Coverage:**

79. Using the same criteria as described under the section on Collection Methodologies, the estimated undercount of people in households who returned forms was 1.5% higher on Ancestral origin forms. Again it must be emphasised that these are purely estimates.

**Conclusion:**

***80. No decision has yet been taken on the form of any ethnicity question in the 2001 Census. A number of alternative questions have been tested in small-scale trials since the 1997 Census Test. The results of these trials will be considered alongside the assessment of requirements for information on ethnic groups before final proposals are made in the White Paper to be published in the Autumn of 1998.***

**Income question:**

81. The 1997 Test was statistically designed to allow comparison of response rates from those households which received Test Forms with a question on Income and those that received a form without a question on income. **The objective was to measure public acceptability of a question on income being included in the Census.**

**Response Rates:**

82. **Table 5** displays response rates to the Income Question by Census District. Overall, those forms which contained the Income Question had a 2.8% lower response rate than those forms without an Income Question. The structure of the Test meant that analysis was carried out in Brent and Birmingham separately from the other areas (SW Argyll was excluded from the analysis because it was not part of the design). Statistically, there is no evidence to suggest a significant difference in response rates between those forms with and without the income question in Thame, Alton, Bridlington, Craven and Glasgow.

**83. However, when the response rates in the Inner City areas of Brent and Birmingham are compared, the difference is significant at about the 10% level and when all areas are analysed together the difference is significant at the 5% level. This suggests that there is some evidence that inclusion of the Income Question lowers overall response rates.**

**Table 5 - Response Rates by Income Question**

Census District	No Income Question			Income Question		
	Response	Response Delivered	Rate	Response	Response Delivered	Rate
Brent A	1,948	3,629	53.7%	1,715	3,595	47.7%
Brent B	1,619	5,327	30.4%	1,611	6,060	26.6%
Birmingham A	2,047	4,043	50.6%	1,871	4,084	45.8%
Birmingham B	1,753	4,244	41.3%	2,195	5,177	42.4%
Thame	3,434	4,391	78.2%	3,492	4,526	77.7%
Alton	4,619	6,438	71.7%	4,505	6,407	70.3%
Bridlington	2,207	3,250	67.9%	2,204	3,361	65.6%
Craven	3,416	4,932	69.3%	3,293	4,752	69.3%
Glasgow B	931	1,688	55.2%	873	1,690	51.7%
Glasgow A	1,853	3,562	52.0%	1,845	3,554	51.9%
SW Argyll	2,023	3,610	56.0%	2,314	3,963	58.4%
<b>Total:</b>	<b>23,827</b>	<b>41,504</b>	<b>57.4%</b>	<b>23604</b>	<b>43206</b>	<b>54.6%</b>

**Public Acceptability:**

84. The CES found that overall, 15% (84/565) of people who had the Income Question on their form objected to it, whereas 29% (173/605) said they would have objected to it if they were asked. The main reasons given for their objections were that income is personal information and because they could not see why it was needed.

**Form Completion Rates:**

85. Forms with the income question had an average completion rate of 79.3% for all questions, whereas forms without the question had a average completion rate of 79.2%.

86. The Income question was positioned at the end of the person questions on the Test questionnaire. It was found to have the 18th highest response rate (78.5%) of the 37 questions (considering activity last week as separate questions).

87. Therefore, there is no evidence to suggest that the Income question influences the degree of form completion.

**Quality of Response:**

88. The responses to the income question were consistent with responses to questions on Hours Worked per Week and Number of Jobs. There was no differences in the level of multiple ticking between the income question and all other questions

**Non-Response to Income Question:**

89. The CES interviewed some 354 non-respondents to the Census Test. When asked the reason for their non response 29 (8%) said they objected to a question. When probed further, 18 (62%) of these said they objected to the income question.

90. 33% (24/73) of the people who did not answer the income question said that they had not seen the question, and 7% (5/73) had not answered because they objected to the question.

### Public Understanding of the Question:

91. Out of the people who omitted the income question (73), the CES identified 12 people who either did not know the answer or were unable to understand it.

### Quality of Response to Other Questions:

92. The inclusion of the income question had no effect on the average rate of differences between the Test and CES forms.

### Coverage:

93. The CEs identified 4.6% under-enumeration in respondent households to a form with the Income question and 4.1% in those without an Income question. There is no evidence to suggest that the Income question had an influence on coverage within responding households.

### Sealed Returns:

94. There were no differences in the usage of sealed returns between the income and non-income treatments.

### Conclusion:

95. ***No decision has been made on whether or not an income question will be included in the 2001 Census. The findings from the Test will be considered alongside the assessment of business cases for the question. Final proposals will be made in the White Paper to be published in the Autumn of 1998.***

### Completion Rates for all Questions:

96. The previous sections of this paper have summarised the evaluation of the primary aspects of the Test. In this section the observed response rates for the individual questions asked in the Test are given, and in order to distinguish from the form completion rates analysed previously, the term 'question completion rate' is used.

97. *Question Completion rates* are calculated as a percentage of the questions that are expected to be completed, that is any question filtering is taken into account. Only returned forms were used in the calculation of these rates.

98. **Table 6** shows the overall question completion rates for household questions, in the order that they appear on the form. The completion rates are over 92% except for the last two, where there is a fall of about 14%. This may indicate problems following the routing instructions.

**Table 6: Completion of Household Questions**

<b>Household Question</b>	<b>Overall Completion Rate</b>
Accommodation Type	94.6%
Self-contained	94.2%
Bath/Shower	95.5%
Rooms	94.5%
Lowest Floor Level	92.3%
Central Heating	93.9%
Garden/Yard	93.8%
Cars/Vans	93.1%
Tenure	92.3%
Landlord	78.3%
Furnished/Unfurnished	77.0%
<b>Overall Mean</b>	<b>90.9%</b>

99. **Table 7** (overleaf) shows the completion rates for the person questions. There is a general pattern of non-uniform decrease in completion as respondents work their way through the form.

100. There are three questions (or sets of questions) worth highlighting:

The low completion rate to the Term-time address question - this is a filter question and is key to the identification of whether this address is the students term time address or not.

The low completion rate to the 'care received question' - this question occurs after the filter in the Long term illness question.

The lower than average completion of the questions in the employment section, which perhaps indicate that the number of employment questions included on the Census Test form were a burden to form fillers

**Table 7: Completion of Person Questions**

<b>Person Question</b>	<b>Overall Completion Rate</b>
Name	95.1%
Sex	93.9%
Date of Birth	92.9%
Marital Status	92.5%
F/T Student	84.1%
Term-time Address	55.6%
Country of Birth	92.3%
Ethnic Group	92.2%
Religion	91.6%
Care Provision	88.9%
Health	91.0%
Long Term Illness	88.6%
Care Received	58.9%
Gaelic	91.3%
Qualifications	84.9%
Usual Address	85.9%
Under 16	85.0%
Work Last Week	83.2%
Number of Jobs	71.8%
Years Since last Job	84.4%
Occupation Title	71.4%
Occupation Description	67.2%
Supervisor/Manager	70.0%
Work Hours	66.9%
Company Name	65.7%
Industry Description	61.7%
Number of employees	63.8%
Workplace Address	71.9%
Travel to Work	75.5%
ALW 1: Looking after the home or family	67.9%
ALW 2: On a government training scheme	52.1%
ALW 3: Waiting to start a job	52.1%
ALW 4: Unemployed and looking for work	52.9%
ALW 5: A student or in other full time education	52.8%
ALW 6: Unable to work due to long term illness or disability	53.2%
ALW 7: Retired from paid work	59.1%
Income	78.0%
<b>Overall Mean</b>	<b>75.3%</b>

**Note:** This table treats the Activity Last Week question as 7 separate questions, since an average would not give any indications of problems with these questions.

101. It should be noted, however, that these are the completion rates to the questions as they appeared in the Test. Most questions have been subject to some further design changes through the small-scale testing programme.

#### **Discrepancy Rates for selected Questions:**

102. The 1997 Test was not specifically designed to measure the quality of the answers to census questions. Although the CEs asked the census test questions again, the results shown below in **Tables 8 and 9** are only discrepancy rates and cannot be interpreted as an indicator of quality since probing for the 'correct' answer did not take place.

103. Tables 8 and 9 are based on interviews with 1316 responders. The CES did not generate discrepancy rates for Sex, Date of birth, Religion, Ethnic group, Health, Occupation title, Occupation description, Company name, Industry description, Workplace address and Income.

104. **Table 8** gives the discrepancy rates for the Household questions, taking the filter question into account when calculating the rates. It shows that, as expected, the number of rooms question has the highest discrepancy rate.

**Table 8: Discrepancy rates of Household Questions**

<b>Household Question</b>	<b>Percentage of cases with a discrepancy</b>
Accommodation Type	7%
Self-contained	5%
Bath/Shower	2%
Rooms	22%
Lowest Floor Level	11%
Central Heating	5%
Garden/Yard	7%
Cars/Vans	9%
Tenure	10%
Landlord	15%
Furnished/Unfurnished	10%

105. **Table 9** shows the discrepancy rates for the Person questions, taking the filter questions into account.

106. We would expect the Number of Hours Worked and Years Since Last Job questions to have high discrepancy rates because they rely on a persons perception of time. Also, the Number of employees question has a known problem in that people perceive where they work as either the site of the whole organisation, and therefore answers can vary. Lastly, the high discrepancy rate for the Qualifications question may be due to the large number of tick boxes, and therefore more room for error.

107. However, there are three questions which should be highlighted:

The Care Received question had an extremely high discrepancy rate (33%);

The Supervisor or Manager question had a high discrepancy rate (22%) - this may have been because the respondents could not distinguish between the terms 'supervisor' and 'manager';



The first Activity Last Week section about looking after the home or family also had a high discrepancy rate (26%).

**Table 9: Discrepancy rates of Person Questions**

<b>Person Question</b>	<b>Percentage of cases with a discrepancy</b>
Marital Status	3%
F/T Student	15%
Term-time Address	14%
Country of Birth	10%
Care Provision	11%
Long Term Illness	12%
Care Received	33%
Gaelic	1%
Qualifications	36%
Usual Address	15%
Under 16	15%
Work Last Week	14%
Number of Jobs	11%
Years Since last Job	38%
Supervisor/Manager	26%
Work Hours	39%
Number of employees	37%
Travel to Work	12%
ALW 1: Looking after the home or family	26%
ALW 2: On a government training scheme	1%
ALW 3: Waiting to start a job	1%
ALW 4: Unemployed and looking for work	3%
ALW 5: A student or in other full time education	2%
ALW 6: Unable to work due to long term illness or disability	4%
ALW 7: Retired from paid work	13%

## **ANNEX A**

### **DATA SOURCES USED FOR EVALUATION:**

#### **GROS Key to Disk Database:**

GROS created a 'key to disk' database to be used for the evaluation of the 1997 Test. Data was captured from all test forms and other field materials using a keying system of the type used in the 1991 Census.

#### **Census Test Evaluation Survey (CES):**

Carried out by Social Survey Division of ONS, the CE was an interviewer based follow up survey. The Survey carried out 1,316 interviews with people who responded to the 1997 Test and 354 interviews with people who did not, in all Test areas except SW Argyll.

#### **Follow-up survey in SW Argyll:**

Carried out by GROS staff in SW Argyll.

#### **Qualitative feedback reports:**

Some of the fieldstaff attended debriefing sessions, and their suggestions and feedback were recorded for evaluation purposes. Furthermore, all enumerators completed a questionnaire asking about their opinions and experience. Public Enquiries were logged and categorised by the type of enquiry.