

Please find below relevant extracts taken from 8 internal documents.

'eCensus Usability Testing – Round 2 – May 2014'

Author: 2016 Census Data and Data Infrastructure)

Subject of questions

In some interviews, the addition of the new setup questions appeared to cause some confusion around who to list as "Person 1" when questions began. This did not seem to be due to the concepts of "persons present" and "persons away", as respondents appeared to understand what these mean when asked to explain their interpretation, as discussed above. Rather, the issue seemed to be caused by the flow of the instrument, the switching between the concepts of persons present and away, and the reliance on respondents to determine who each question loop is referring to.

The issue of respondents not knowing who the questions are about also appeared in other sections of the interview. Many respondents became confused at some point in the interview about who "the person" referred to in the question actually was. In some cases, this confusion led to minor usability issues that were easily resolved (e.g. as one respondent explained. "It's fine, I think it's just when it says 'the person', I have to think "oh, that's me"). However in other cases, it was evident that the lack of clarity in the questions could result in a significant reduction in data quality. For example, some respondents began answering questions for the wrong person at some point in the form, and took a substantial amount of time to identify this error. Other respondents doubted whether they were answering the form correctly when they reached the question asking for their own name, thinking they had already provided it earlier in the form.

To avoid these data quality issues, and to make the form easier for respondents to complete, it is recommended that the relevant person's name is inserted into the questions, rather than referring to the subject only as "the person". This will require establishing the names of all persons present and away at the beginning of the form.

Recommendations:

28. Establish names of people present and people away at the beginning of the form.
29. Insert the relevant person's names into all questions

Respondent Engagement in Multi-Modal Household Surveys – June 2014

Author: Statistical Services Branch

Personalisation of contacts has been shown to be an effective method of increasing response rates in mail and online surveys (Cook et al., 2000; Edwards et al., 2010).

Personalising by using the contact name provided by the respondent. The respondent is more likely to respond if their personal contribution is being directly sought than if the contact appears to be generic and mass-mailed (Dillman, et al., 2009).

'Respondent Burden' – Version current as at 15/10/2012

Author: ABS Methodology

a. Question Order

34. One strategy to minimise respondents' perceived burden is through the order in which questions are presented on a self administered questionnaire. Starting a form with an easy and broadly relevant question will give respondents a sense of self-efficacy (the belief that they can answer the questionnaire) and a feeling of topic salience.

35. The importance of placing the most salient questions first is reiterated through a study conducted by Mullner, Levy, Byre & Matthews (1982). These researchers conducted an experiment which employed two different questionnaire structures: the first version placed questions of greatest saliency at the beginning of the survey, whereas the the second version had these questions at the end. The form with the salient questions first obtained a significantly higher response rate than the other form, 71.72% vs 67.46%.

'Response Enhancing Techniques' - Version current as at 06/08/2012

Author: ABS Methodology

De Leeuw and Hox (1988) investigated the use of personalisation on the cover letter and tested whether or not personalisation had any positive effect on the response rate. They also found that the use of certified mail may have a positive effect. They found that personalisation combined with the certified mailing of the final reminder resulted in a statistically significant increase in response rate. Both of these experimental treatments were based on the Total Design Method developed by Dillman.

Similarly, on the issue of personalisation, Linsky's (1975) meta analysis found that out of sixteen studies dealing with personalisation, three reported higher response rates for the non-personalised letters, nine reported higher rates for the personalised letters, and three reported more or less the same responses for both letters. While this may suggest that personalisation leads to a higher response rate, the types of surveys used for analysis would need to be looked at carefully. This is due to the fact that while personalisation may lead the respondent to believe that more effort has gone into the survey implementation, they may also feel threatened by the fact that their anonymity is challenged (De Leeuw and Hox, 1988) which would have negative implications for surveys which are sensitive in nature.

Bibliography: The four extracts above reference the following:

Cook, C., Heath, F., & Thompson, R. L. (2000). A Meta-Analysis of Response Rates in Web- or Internet-Based Surveys. *Educational and Psychological Measurement*, 60(6), 821–836. doi:10.1177/00131640021970934.

Dillman, D. A., Smyth, J. D., Christian, L. M. (2009). *Internet, Mail and Mixed-Mode Surveys: The Tailored Design Method* (3rd ed.). New York: Wiley.

Edwards, P. J., Roberts, I., Clarke, M. J., DiGiuseppi, C., Wentz, R. & Kwan, I., et al. (2010). *Methods to increase response to postal and electronic questionnaires*. (P. J. Edwards, Ed.) onlinelibrary.wiley.com. Chichester, UK: John Wiley & Sons, Ltd.

De Leeuw, E.D. and Hox, J.J. (1988) The Effects of Response-Stimulating Factors on Response Rates and Data Quality in Mail Surveys; A Test of Dillman's Total Design Method, *Journal of Official Statistics*, Vol. 4, 241-249.

Linsky, A.S. (1975) Stimulating Responses to Mailed Questionnaires: A Review, *Public Opinion Quarterly*, 82-101.

Mullner, R.M., Levy, P.S., Byre, C.S. & Matthews, D. (1982). Effects of characteristics of the survey instrument on response rates to a mail survey of community hospitals. *Public Health Reports*, 97, 465-469.

P R I V A C Y

IMPLICATIONS OF THE RECOMMENDATIONS OF THE LAW REFORM COMMISSION FOR
DATA QUALITY

The stance behind the privacy issue is that persons object to the personal information they supply on their census schedules being available to collectors. Hence, by providing envelopes in which respondents' schedules can be secured, it stands to reason that the quality of the information obtained could be improved. Quality can be measured by two criteria - improved response, and greater accuracy.

Of the tests run to test the use of envelopes, however, this improved data quality has not been evidenced. The Sydney pre-test was the only one in which a control group was used, and hence measures of data quality can be compared. This pre-test used three sub-samples:

- A₀ - standard collection - full name required and collector checking.
- A₁ - full name required, but respondents provided with envelopes.
- A₂ - no name required, and respondents provided with envelopes.

The response rates for each question by each of these anonymity variables are displayed in Appendix A. These results indicate that as far as item response is concerned, the standard collection procedure (A₀) where the envelope is not provided is clearly better. Conclusions which can be drawn from these results are:-

- i The standard collection system (A₀) generally yields a higher response rate for questions than the other two collection systems. Collector checking would no doubt explain this. Of the analysis carried out, A₀ came up best in 17 of the cases (testing at the 95% level). Undoubtedly, better response rates are consistently obtained by collector checking.
- ii On the basis of question response rates, there is little to choose between named and anonymous collection procedures, if they are sealed in an envelope (.898 versus .896 total question response). Compared to the .925 total response for the standard collection procedure, it would seem that the envelope is the factor responsible for the drop in total response.
- iii It has been intuitively claimed that privacy becomes an issue when questions are more intrusive. Of all the census questions, income is regarded as being the most intrusive, however, the provision of an envelope did not increase response to this question - the highest response (.91) for this question came from the standard collection procedure (A₀). The difference in response for the income question between A₀, A₁ and A₂ is not sufficient to be significant, however it indicates that collector checking produces no worse response for this question.
- iv The overall result on question response of collector checking was to raise the average response level from 90% to 93%. It is interesting to note that where response is generally high, collector checking has little effect - it is only on those questions where response tends to be low that collector checking significantly increases the response rates.

The post-enumeration survey attempted to measure data accuracy by comparing census answers with answers obtained in an interview situation. The results of the PES showed that there was no significant difference in data accuracy between the three systems tested, and this was so even for the intrusive income question. Using the Gross Difference Rate as a measure of answer accuracy, the report on the Sydney pre-test claims:

"The anonymity of the collection system seems to have done little to improve (or indeed affect) the accuracy of census answers The fact that the Gross Difference Rates for income were not affected by collection systems is quite significant. Obviously people do not feel more inclined to give more truthful answers to contentious questions under the protection of an anonymous system."

CONCLUSION

The adoption of a mandatory envelope procedure is not advisable. Evidence has shown that where everyone is supplied with an envelope, excessive numbers of schedules are returned blank, group leader workloads become too burdensome, and response rates tend to decline. An optional envelope system, however, may be feasible, although the real results of such a system can not be tested because of the unknown factor - adverse media publicity. In the neutral atmosphere of the pretests, the optional envelope system has emerged as a possibility. However, bad media publicity, as experienced in some areas in the 1976 Census, can render the optional envelope system a defacto mandatory envelope system, with drastic results in terms of response. It is felt, therefore, that an optional envelope system can only be adopted in a Census situation, if it is carried out in conjunction with an extensive Bureau publicity campaign to counter any detrimental publicity which may develop. The following recommendations, therefore, are made under the assumption that such a campaign will be mounted throughout the country. If, for any reason, an extensive campaign of positive Census publicity can not be developed, the recommendations of this report are that a contingency plan must be developed for the Field system to attempt to counter the bad response. Such a plan would be extremely costly in terms of staff resources.

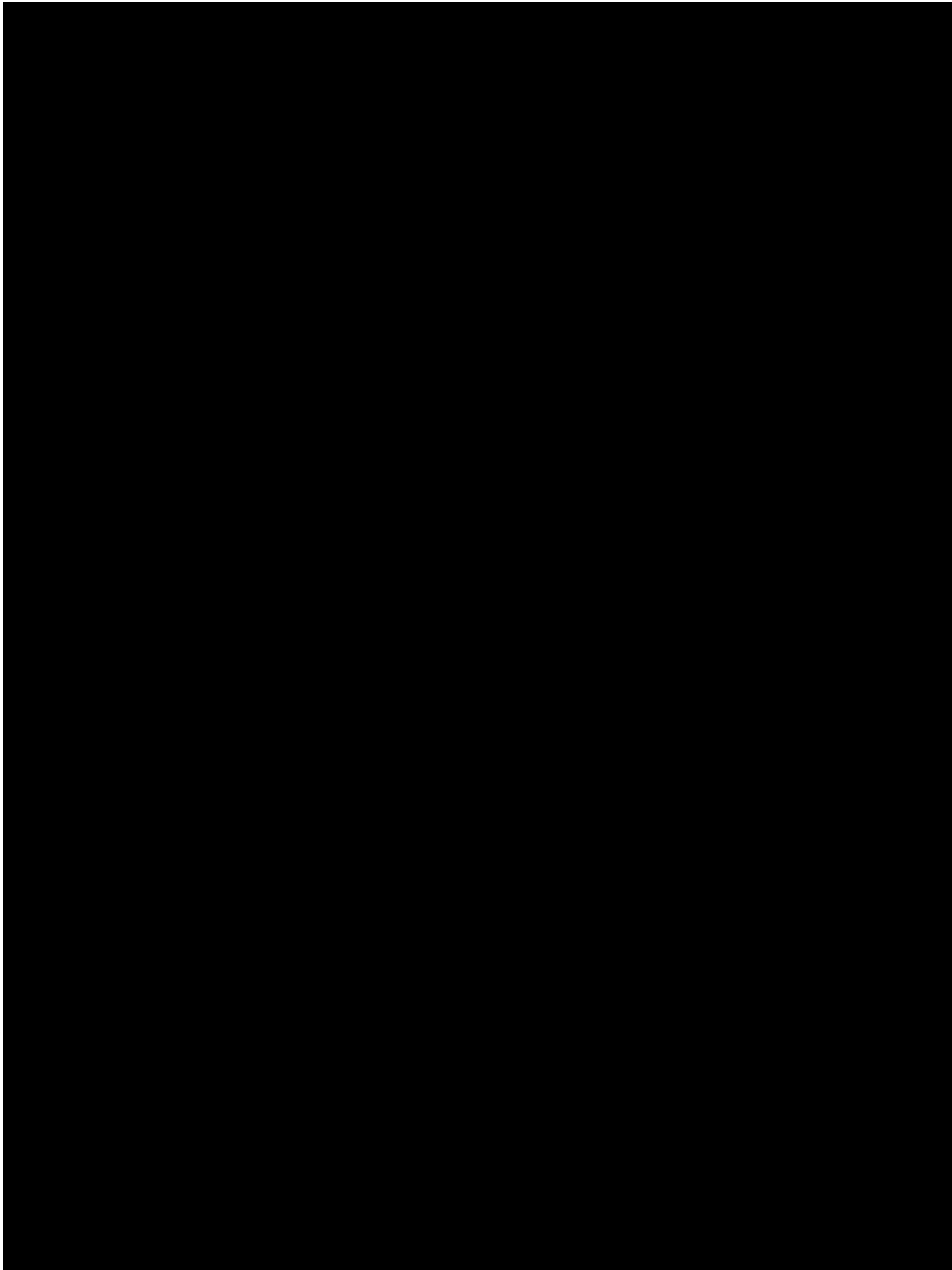
RECOMMENDATIONS

- 1 That since the Law Reform Commission find it in the interests of every individual's rights to privacy for envelopes to be provided for Census schedules, sufficient envelopes be printed and transported so that if every person were to request one, they would be available. (The cost of providing these envelopes is given in Appendix C).
- 2 That the fact that envelopes should be made available be written into the Census regulations.
- 3 That an envelope will be provided, upon request, to any household when the collector calls to pick up the completed schedule.
- 4 That respondents should be made aware of the availability of envelopes by means of it being written on the Census schedule. It is the responsibility of the ABS to ensure that all respondents are aware that they are entitled to use an envelope; and the responsibility of the respondent to request an envelope if they wish to avail themselves of it.

APPENDIX A: 1974 SYDNEY PRE-TEST RESPONSE RATES

TABLE 1: RESPONSE RATES FOR EACH QUESTION AND ANONYMITY FACTORS

	A ₀	A ₁	A ₂
Dwellings:			
Type of dwelling unit	.96	.96	.96
Material of outer walls	1.00	.98	.99
Source of water supply	.99	.98	.98
Rooms	1.00	.98	.99
Fuel - cooking	.97	.97	.98
- home heating	.92	.87	.89
- water heating	.94	.90	.91
- lighting	.97	.94	.95
Motor Vehicles	.98	.94	.96
Mortgages - (a) owned	.95	.92	.93
(b) mortgage	.95	.96	.94
(c) mortgage holder	1.00	1.00	1.00
- payments, 1st	.98	.99	.98
- payments, 2nd etc	1.00	1.00	1.00
Rent - yes/no	.91	.88	.87
Rural holdings	.99	.99	.99
Persons:			
Relationship to head	.97	.94	.96
Sex	.99	.98	.98
Age	.95	.94	.91
Present marital status	.95	.94	.94
Usual residence	.99	.99	.99
Usual residence 3/7/73	.98	.97	.97
Usual residence 3/7/69	.97	.95	.92
Holidays	.99	.97	.98
Country of birth	.99	.98	.98
Nationality	.98	.97	.98
Resident/visitor status	.98	.98	.97
Birthplace of father	.98	.96	.96
Birthplace of mother	.97	.95	.95
Language - at home	.98	.96	.96
Language - not at home	.92	.89	.88
Racial origin	.93	.91	.89
Religion	.95	.95	.95
Pre-school	.91	.90	.90
Child-minding	.89	.87	.89
Handicaps	.93	.88	.89
Life assurance	.73	.63	.66
Medical benefits	.92	.88	.89
Hospital benefits	.87	.81	.85
Educational institution	.82	.76	.78
Level of schooling	.89	.81	.83
Qualifications	.95	.91	.91
Retirement benefits scheme	.93	.91	.91
Social security benefits	.90	.87	.86
Licence - motor vehicle	.96	.92	1.00
- motor cycle/scooter	.53	.47	.47
Issue - ever married females	.94	.90	.90
- present marriage	.92	.88	.90
Duration of present marriage	.93	.91	.91
Income	.91	.89	.88
Do any work last week	.98	.98	.98
Have a job	.91	.86	.74
Looking for work	.89	.81	.83
Usual hours worked	.94	.94	.91
Occupational status	.95	.95	.93
Occupation	.96	.95	.95
Industry - trading name	.94	.94	.90
- address	.91	.86	.83
- kind of -	.87	.86	.83
Mode of travel to work	.96	.95	.95
TOTAL:	.925	.898	.896



iii AID TO RESPONDENT:

Where there is more than one person in a household, name acts as a reminder


to the respondent as to whom the details he is completing refer. This problem is increased as the number of persons in the household increases, and such confusion can result in great inaccuracies in the data.

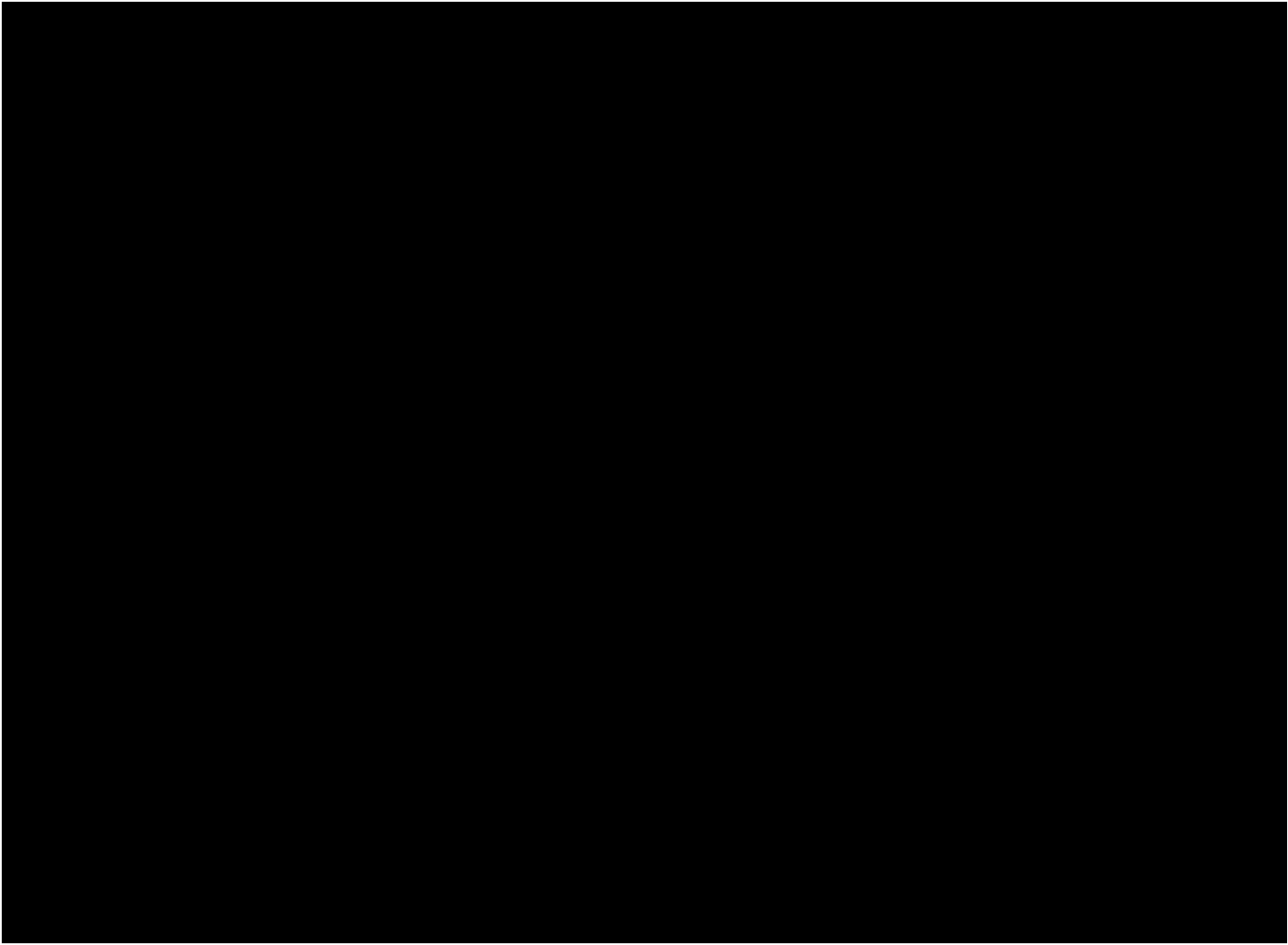
This problem is also likely to be more apparent in a landscape schedule format, where the respondent completes each question for the whole household before moving on to the next question.

Name also acts as a check for the respondent that all household members have been included.

2.5 PROBLEMS OF DATA QUALITY:

An anonymous census is likely to lead to a significant deterioration in data quality.

i Without a name on the schedule, respondents become aware that it becomes increasingly difficult for the Bureau to trace and prosecute them, and hence the temptation exists for them to give false answers, or not complete a schedule at all. This increasss the number of dummy schedules which must be completed in processing, and leads to inaccuracies in data output, especially of small area data. 



4 ANONYMITY RESULTS FROM THE PRE-TESTS:

(i) 1974 SYDNEY PRE-TEST

The stated aim of the Sydney pre-test was to answer two questions:

- 1 does collector checking significantly improve the level of response to individual questions, quality of answers etc.
- 2 does the use of the sealed envelope (whether anonymous or not) overcome public criticism of the census without jeopardising response levels; or alternatively, does it improve response levels by overcoming public apprehension towards confidentiality.

The test used 18 different schedule types, combining these anonymity factors:

- A₀ - standard collection - full name required and collector checking.
 A₁ - full name required, but respondents provided with envelopes.
 A₂ - no name required, and respondents provided with envelopes.

The response rates for each question by each of these anonymity variables were:-

TABLE 1: RESPONSE RATES FOR EACH QUESTION AND ANONYMITY FACTORS

	A ₀	A ₁	A ₂
Dwellings:			
Type of dwelling unit	.96	.96	.96
Material of outer walls	1.00	.98	.99
Source of water supply	.99	.98	.98
Rooms	1.00	.98	.99
Fuel - cooking	.97	.97	.98
- home heating	.92	.87	.89
- water heating	.94	.90	.91
- lighting	.97	.94	.95
Motor Vehicles	.98	.94	.96
Mortgages - (a) owned	.95	.92	.93
(b) mortgage	.95	.96	.94
(c) mortgage holder	1.00	1.00	1.00
- payments, 1st	.98	.99	.98
- payments, 2nd etc.	1.00	1.00	1.00
Rent - yes/no	.91	.88	.87
Rural holdings	.99	.99	.99
Persons:			
Relationship to head	.97	.94	.96
Sex	.99	.98	.98
Age	.95	.94	.91
Present marital status	.95	.94	.94
Usual residence	.99	.99	.99
Usual residence 3/7/73	.98	.97	.97
Usual residence 3/7/69	.97	.95	.92
Holidays	.99	.97	.98
Country of Birth	.99	.98	.98
Nationality	.98	.97	.98
Resident/visitor status	.98	.98	.97
Birthplace of father	.98	.96	.96
Birthplace of mother	.97	.95	.95
Language - at home	.98	.96	.96

TABLE 1 (Cont'd.)

	A ₀	A ₁	A ₂
Language - not at home	.92	.89	.88
Racial origin	.93	.91	.89
Religion	.95	.95	.95
Pre-school	.91	.90	.90
Child-minding	.89	.87	.89
Handicaps	.93	.88	.89
Life assurance	.73	.63	.66
Medical benefits	.92	.88	.89
Hospital benefits	.87	.81	.85
Educational institution	.82	.76	.78
Level of schooling	.89	.81	.83
Qualifications	.95	.91	.91
Retirement benefits scheme	.93	.91	.91
Social security benefits	.90	.87	.86
Licence - motor vehicle	.96	.92	1.00
- motor cycle/scooter	.53	.47	.47
Issue - ever married females	.94	.90	.90
- present marriage	.92	.88	.90
Duration of present marriage	.93	.91	.91
Income	.91	.89	.88
Do any work last week	.98	.98	.98
Have a job	.91	.86	.74
Looking for work	.89	.81	.83
Usual hours worked	.94	.94	.91
Occupational status	.95	.95	.93
Occupation	.96	.95	.95
Industry - trading name	.94	.94	.90
- address	.91	.86	.84
- kind of -	.87	.86	.83
Mode of travel to work	.96	.95	.95

In analysing the results of this pre-test, certain conclusions regarding the effect of the three anonymity factors on response rates are made:

- 1 The standard collection system (A₀) generally yields a higher response rate for questions than the other two collection systems. Collector checking would no doubt explain this. Of the analysis carried out, A₀ came up best in 17 of the cases (testing at the 95% level). Undoubtedly better response rates are consistently obtained by collector checking.
- 2 On the basis of question response rates, there is little to choose between standard or anonymous collection systems if they are sealed in an envelope.
- 3 The question on income is regarded as one of the more intrusive questions and thus it might be anticipated that response to this question would be better where name is not required. However, this was not the case, as the highest response for this question came from the standard collection procedure (A₀).

The difference in response for the income question between A₀ and A₁ and A₂ is not sufficient to be significant, however, it indicates that the standard collection system certainly produces no worse response rates for this question than anonymous systems.

This final point was supported by evidence from the analysis of gross difference rates (a comparison of census answers with answers obtained in the post enumeration survey):

"The anonymity of the collection system seems to have done little to improve (or indeed affect) the accuracy of census answers

The fact that Gross Difference Rate for income was not affected by collection systems is quite significant. Obviously people do not feel more inclined to give more truthful answers to contentious questions under the protection of an anonymous system."

The overall result on question response of collector checking was to raise the average response level from 90% ;to 93%. It is interesting to note that where response is generally high, collector checking has little effect - it is only on those questions where response tends to be low that collector checking significantly increases the response rates.

The above conclusions have been made with respect to individual question response. The provision of envelopes in system A₁ and A₂ however, have resulted in a problem for overall response, and that is the return of completely blank schedules:

"The two sealed envelope systems resulted in the return of too high a proportion of completely blank schedules. Whereas the number of overt refusals was slightly lower in these systems than in the standard collection method, the proportion of blank schedules was 3% and 3.8% compared with 1% .

These levels would be unacceptable in a census." The A2 system (no name) was thus even higher in terms of non-response, perhaps indicating that respondents have less fear of being traced when their name is not required on the schedule.

In summary then, from this pre-test the conclusions are:

- 1 the standard collection procedure is preferable in terms of better response rates (due to collector checking); and
- 2 there is little difference between a full name schedule and an anonymous schedule where an envelope is provided. The factor therefore which must be seen as responsible for the worsening response rates is the sealed envelope which precludes collector checking.

(ii) 1977 WANGARATTA PRE-TEST

The Wangaratta pre-test was designed to test field procedures rather than the effects of anonymity. Name was made optional on all schedules, and envelopes were made available to everyone upon request. Since there was no control group, it is not possible to make any steadfast conclusions about the use of optional name and its effect on final data from this pre-test; it is nevertheless interesting to look at some of the facts that emerged.

The Wangaratta pre-test used three schedule types which varied in terms of questions asked. Given that name was optional, the number of people who chose to give their full name is given below:

TABLE 2: OPTIONAL NAME - BREAKDOWN OF ALTERNATIVES

TYPE OF NAME	SCHEDULE TYPE			TOTAL
	A	B	C	
NO NAME	2752 35.8%	2499 32.5%	2440 31.7%	7691 44.3%
FULL NAME	2778 31.4%	3039 34.4%	3025 34.2%	8842 51.0%
INITIALS	14 -	5 -	6 -	25 -1%
SURNAME	89	112	83 -	284 1.6%
GIVEN NAME	90 -	78 -	73 -	241 1.4%

Table 2 indicates that initials only, surname only or given names only are not acceptable alternatives. People generally chose to give either full name or no name at all.

The high percentage that chose to give no name (44.3%) indicates that this option is taken up by more than just those who strongly resent giving name on their census schedule. Obviously many respondents who would have no qualms about giving their name, did not because it was not required. If such a policy (ie that of an optional name census schedule) was adopted for an actual census, the Bureau must be prepared to accept that as many as 50% of schedules will be returned anonymously, and hence this option must be treated as a no-name alternative. In an actual census situation, this percentage is in fact likely to be considerably higher, because civil liberties groups are likely to use the media to encourage respondents not to give their name.

A comparison of response rates between those who gave full name and those who gave no name, for selected questions, is below:

TABLE 3: RESPONSE RATES FOR SELECTED QUESTIONS:

QUESTION	NO NAME	FULL NAME	TOTAL
SEX	.96	.96	.96
MARITAL STATUS	.96	.96	.96
RELATIONSHIP	.97	.97	.97
ACTIVITY	.96	.96	.96
USUAL RESIDENCE	.95	.92	.93
BIRTHPLACE	.99	.99	.99
INCOME	.65	.66	.66

Table 3 indicates that there is no significant difference in response between those respondents who chose to give their full name and those who did not, even with the income questions.

Although in this pre-test envelopes were made available upon request, there was no publicity of this, and hence only ten envelopes were requested. This, however, is unlikely to be the situation in a national census, as was shown by the 1976 census.

In summary, the conclusions which can be drawn with respect to anonymity from this Wangaratta pre-test are:-

- 1 That if name is made optional, 50% and perhaps more will not give their name, and thus the problems that arise with a "no-name" schedule will have to be sorted out for at least 50% of the returned schedules; and
- 2 There is no significant difference in response rates for those who did not give their name, from those who did.

iii 1978 ORANGE/BATHURST PRE-TEST:

Three anonymity factors were tested in Bathurst/Orange:

C1 : Given names only

C2 : Full name

C3 : Optional name

These were distributed so that approximately $33\frac{1}{3}\%$ of the pre-test population received each, with the whole of each C.D. receiving the same C factor. An envelope was given to every household, whether it was requested or not.

Results of the Bathurst/Orange pre-test have not as yet become available, but some clerical checks have been done from which we can draw some initial conclusions. A clerical coding of non response for each of the anonymity variations is shown in table 4.

TABLE 4 : B/O NON-RESPONSE

DWELLING QUESTIONS:	C1	C2	C3
Type of Dwelling	241	348	418
No Dwelling Units	475	704	769
Material of Outer Walls	28	37	53
No Rooms	70	88	101
No Bedrooms	67	78	92
Bathroom	20	15	15
Kitchen	35	41	38
Water Supply	8	23	15
Sewerage	10	27	25
Cooking	86	86	103
Home Heating	313	286	383
Water Heating	416	352	441
Lighting	264	266	326
Date Built	253	260	254
Motor Vehicles	127	123	132
Rural Holdings	173	181	208
Owned/Purchased	251	213	242
Mortgage	161	131	148
1st Mortgage	9	17	13
2nd Mortgage	1	5	2
1st Mortgage Payment	49	46	43
2nd Mortgage Payment	13	8	11
Rent?	311	318	318
Rent paid to	40	40	34
Furnished?	58	33	36
Amt of Rent	36	34	22
TOTALS:	3,515	3,760	4,242

TABLE 4 : CONT'D B/O NON-RESPONSE

PERSON QUESTIONS:	C1	C2	C3
Relationship	377	408	378
Major Activity	205	182	169
Usual Resident	1,040	1,110	953
Moved into area since 1976	1,940	1,717	1,865
PER	218	182	232
Religion	641	631	551
Child Minding	70	57	55
Birthplace	464	321	328
Ed'l Institution	1,947	2,033	1,880
Age Left School	976	924	1,098
Quals	2,204	2,149	2,707
Income	1,569	1,525	2,088
Work last week?	1,548	1,453	1,528
Full/Part Time	779	737	1,014
Laid Off	1,087	1,035	1,347
Looking for Work?	798	820	806
Hours Worked	752	751	641
Job Status	695	674	616
Occupation	514	+ 467	495
Industry	550	482	516
Birthplace - Father	294	+ 344	712
Birthplace - Mother	339	+ 376	711
Citizenship	46	37	70
Resident/Visitor	68	45	176
Languages	391	* 417	613
Travel to work	200	195	180
Handicap	405	463	424
Benefits	537	+ 553	822
Total Issue	313	291	436
Duration of Marriage	89	80	256
Married issue	359	347	505
Car License	228	225	545
Bike License	485	442	453
TOTAL:	22,140	21,473	25,170

Exact denominators for each anonymity type will not be known until the schedules are read, but from the field count summary, the population which should have received each type is:

C1 - 18,153

C2 - 18,921

C3 - 17,794

These figures are by no means correct because of schedules which were dummied x refusals; but they are sufficient for calculations to estimate response rates for those questions that were asked of all respondents.

Estimations of response rates for selected questions by anonymity type are thus shown in table 5.

TABLE 5 : 1978 BATHURST ORANGE PRE-TEST - RESPONSE RATES TO SELECTED QUESTIONS

X ANONYMITY TYPE

QUESTIONS	C1	C2	C3
Relationship	.98	.98	.98
Activity	.99	.99	.99
Usual Resident	.94	.94	.95
Moved Since June '76	.89	.91	.90
Period of Residence	.99	.99	.99
Religion	.96	.97	.97
Income	.91	.92	.88

As indicated by table 5, there is virtually no difference in response between the three groups, except for in the income question, where it would appear that the C3 factor (optional name) scored the worst; x the C2 factor (full name) scored the best. However, little weight can be given to such a result, because the denominators are even less correct for ^{the question,} income which was not answered by persons under 15 years. It was included in this table only because it is regarded as an intrusive question.

Envelopes were supplied to every household, with the result that 76% of respondents returned the schedule sealed in an envelope, whilst 24% of respondents returned the schedule to the collector without the envelope. This result implies that at least 76% of schedules will be returned in a sealed envelope in a census situation, x hence not be made available for collector checking.

The number of schedules that were returned blank in the envelopes is not known as yet, but is anticipated by field staff to be high. From preliminary figures

obtained clerically for the Bathurst C.D.'s, of the 7,319 occupied dwellings, 211 schedules were returned blank or missing age, sex and marital status information. Thus 3% of schedules had to be followed up by Group Leaders in Bathurst. In a census situation where a follow-up is required on all omitted data, costs are likely to be extremely high. If publicity is bad, partially non-completed forms may become a real problem. If partial non-response is very high, it will not be possible for Group Leaders to follow-up all missing data, which will mean a very high percentage of not stated final data. Under present processing procedures, this data is not imputed, but coded as "not stated". If "not stateds" increase dramatically, it will have devastating consequences for final output data, and hence this procedure will have to be reviewed, and it is possible that all such data will have to be imputed. The costs of such a process could be enormous. (This situation was faced by Canada in her 1971 census, with the introduction of a mail-back system. The huge partial non-response on returns was considerably greater than their processing system could handle).

More accurate results on the Bathurst/Orange pre-test will be known when the schedules have been read in the next month or two.

5 CONCLUSIONS AND RECOMMENDATIONS:

The conclusions which can be drawn from this analysis of an anonymous census are:

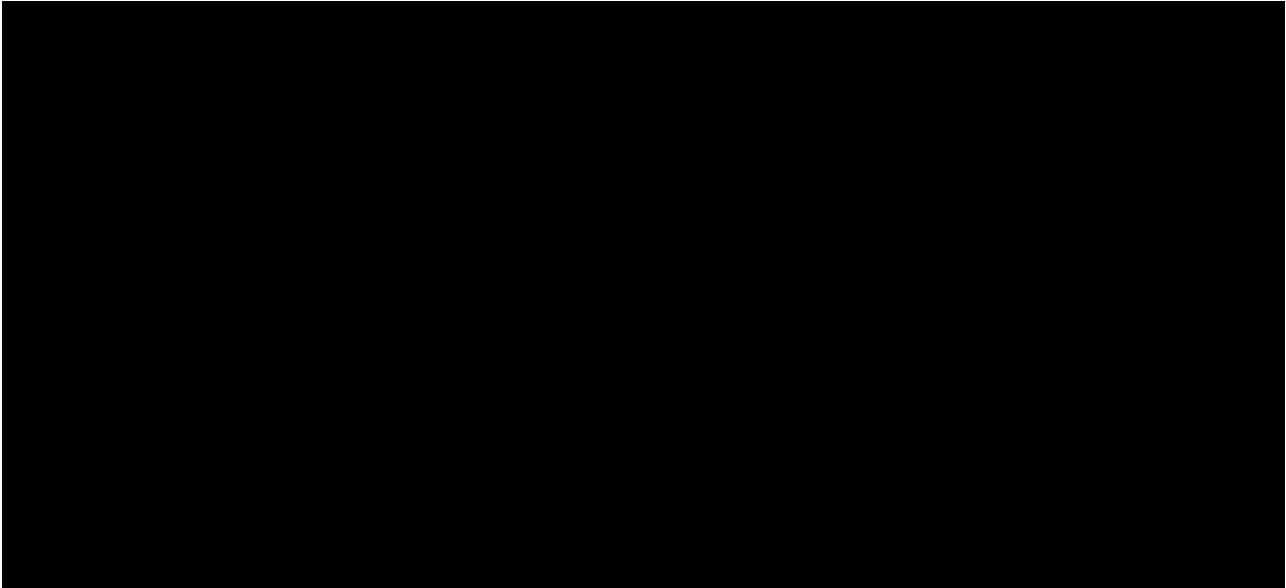
1. The best collection system in terms of the validity of the final output data, is the standard collection system requiring respondents to give their full name; and allowing collector checking. Any attempt at introducing an element of anonymity into the census will to some extent increase the non-response rates, and hence result in inferior final output data. This is evidenced in the 1974 Sydney test where the full name with collector checking system yielded a significantly higher response rate than the other systems tested (93% as opposed to 90% response rate). When an envelope was used, the effect of no-name was to increase the proportion of blank returned schedules by 0.8%. In Bathurst/Orange, response to the income question was considerably higher using compulsory name schedules as opposed to the anonymous schedule.

2. The worst situation in terms of the quality of response, is the provision of envelopes, thus eliminating collector checking (in Sydney 1974 the use of an envelope increased the number of blank returns from 1% to 3% and 3.8% respectively.) If a procedure of compulsory envelopes were to be adopted, the whole present field system would have to be reassessed: the role of the collector would have to be examined as the task of collector checking becomes redundant, and the workload of the Group Leader in opening envelopes, checking fill-in of schedules and doing follow-ups would be intolerable.

Using the figures provided by a Group Leader from the 1976 census, and the number of returns in envelopes from Bathurst/Orange, Group Leaders are going to be spending at least an extra 45 hours work carrying this load. The extra costs involved in using envelopes is a further dampening consideration -- see Appendix C.

3. If an anonymous census was adopted (ie. name not required on the census schedule), the question must be raised as to whether or not names can be taken down in the record book. If this is allowed, collectors will be faced with problems from respondents objecting to name being asked in a supposedly anonymous census. On the other hand, if names can not be listed in the record book, there is no way that a post-enumeration survey can take place, and hence the Bureau will not be able to adjust data to account for over or under enumeration. This is an important consideration, given that the results of the 1976 post-enumeration survey resulted in a major reallocation of Federal electorates.

4. Objections in the media to the census indicated that people were loathe to put their name and address on a schedule which asked such intrusive questions as income. Yet in all the experimentation of name and no-name schedules, there was no indication that respondents were more willing to answer the income question if they were not required to give name. Response to the income question (or any question for that matter) did not appear to differ significantly between these two alternatives. (In both Sydney '74, Wangaratta '77 and Bathurst/Orange '78, the response to the income question was higher where names were given than when names were not.) It would thus seem that such criticisms of the census in the media were unfounded.



Tests of an Anonymous Schedule

1. Investigations have been proceeding for some time into the question of deleting any reference to name and address on Census Schedules. A pilot test was held concurrently in Sydney and Bathurst/Orange in July 1974 to evaluate what effect anonymity would have on the quality of Census data.

2. Three systems were tested:

- (i) Standard — surname and address supplied, Census Collector to check for completeness except when householder chose to seal schedule in an envelope.
- (ii) Sealed Envelope — surname and address supplied but no Collector check as all schedules sealed in envelope.
- (iii) Anonymous — no surname or address on form and no collector check as all schedules sealed in envelope.

3. The standard (i) collection system generally yielded a higher response rate for questions than the other two collection systems. The test indicated that the overall non-response rate would be significantly and unacceptably higher if an anonymous Census was conducted. In addition, the accuracy of the data collected suggested that respondents gave more reliable answers when name and address were required and the Collector could check the form for completeness.

Future Developments

There have been a number of suggestions made to facilitate the taking of an anonymous Census, such as a 'tear-off' part at the top of the schedule which is given to the respondent by the collector at 'pick-up'. This detachable part would contain name and address. This type of system and others will probably be tested before the 1981 Census.

Overseas Practice

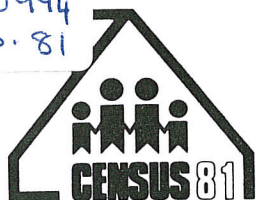
No other country has ever conducted an anonymous Census

Maintenance of Confidentiality

Unlike other governmental agencies (e.g. Taxation and Medibank) the Bureau does not retain any information on names and addresses. Once the statistical data has been successfully transferred to computer tapes all Census forms are destroyed. No details on names and addresses are transcribed to the data tapes and thus there are no means of linking the data back to individuals after this point.

Dep CS
312.0994
AUS. 81

1981 Working
Paper No P1

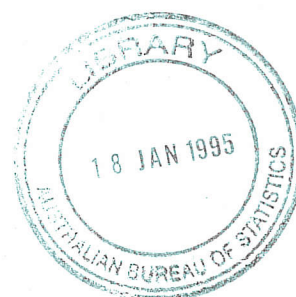


WORKING PAPER NO P1

1981 Census of Population and Housing

Development Programme - Procedural Issues

ANONYMITY



Development and Evaluation Subsection
Population Census Branch
AUSTRALIAN BUREAU OF STATISTICS
Canberra

3 EVALUATION

A THEORETICAL EVIDENCE

Some literature has been written on the desirability and practicability of using anonymous schedules in a social research situation. Although an anonymous census has never been attempted anywhere (to the writer's knowledge), some of the findings made in regard to research surveys and their use of anonymous schedules can be translated to a census situation.

Social researchers have in the main advocated the use of anonymous questionnaires, (where identifiers were not necessary for follow-up purposes) for two reasons. Firstly, they believe that response will be higher and candour greater where persons' names are not associated with the responses given. Only under an absolutely anonymous system can respondents remain convinced that no repercussions will result from their responses. Secondly, researchers believe there is a tendency for respondents to answer questions in a manner they perceive as being favourable to the researcher, especially if their name is required on the questionnaire. Thus data collected is biased towards the perceived socially acceptable, unless confidentiality can be guaranteed.

With these two aspects in mind, researchers have attempted to statistically verify the presence or absence of these anonymity effects. However, results have varied considerably, and as expressed by Pearlin :

"the results of these inquiries are inconclusive, but they suggest that anonymity does NOT appreciably influence the nature of responses.

They have shown that respondents tend to answer questionnaire items the same, identified or not." (P640).

Pearlin worked from the premise that anonymity would invite candour and participation by those holding critical opinions, and his research studied trainee nurses opinions' about the adequacy of their pay, promotional opportunities and the way in which things were run in the wards, as well as items touching on authority and influence in the hospital. His hypothesis was that those who felt positively about these conditions were more likely to sign the questionnaire than those holding negative opinions. This, however, was not the case. In conclusion Pearlin found that, "those who were positive in their answers were no more likely to sign than those who were negative", and proceeded to establish that the willingness to be identified with one's opinions was more likely to be influenced by one's personality (a self-worth syndrome), than by the nature of the opinions expressed.

Singer, on the other hand, maintained that confidentiality only became desirable when questions were intrusive. Using a range of twelve sensitive questions (ranging from income to smoking marijuana to masturbation), varying degrees of confidentiality were promised to the various subsamples.

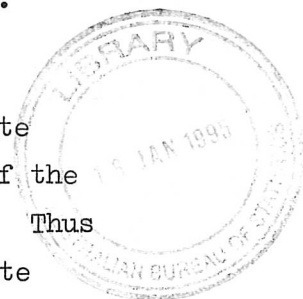
Results, however, were not conclusive. Even amongst the sub-sample where there was no promise of confidentiality, only two questions elicited a total non-response rate of 10% or more : the question about income (11% non-response), and the question on masturbation (10% non-response).

Degree of confidentiality did, however, have some effect, both on response rate and on the propensity of respondents to admit to deviant behaviour:

"the assurance of confidentiality does appear to affect the rate of non-response to individual questions. With one exception, respondents who were told that their answers would remain completely confidential had the lowest non-response rate...." (P151).

and:

"the condition in which the respondent is promised absolute confidentiality produced the highest estimates on three of the four most sensitive questions asked of the entire sample. Thus there is at least the suggestion that a promise of absolute confidentiality enhances the quality of response to sensitive questions, over and above its effect on item non-response." (P156)



This latter conclusion, however, has not been verified by all research into the effects of confidentiality; as the literature summary by Fuller states:

"While it has been generally assumed that respondents are less likely to report socially desirable answers when responding anonymously, previous research ... has revealed SMALL OR NO differences in the response given by subjects under anonymous and under identified conditions." (P292)

Indeed, in terms of the effects of confidentiality on item response, Fuller's study found the exact opposite to the predicted outcome. Administering questionnaires to both naval officers and enlisted men (half of which were required to give their name and half of which were not), he found that respondents who were required to identify their answers were MORE likely to respond and this tendency was more pronounced among the officer group than the enlisted men.

Such an unexpected result could have two interpretations - firstly, certain persons may feel that their opinions are important to a study only when they are identified as their individual opinions. Hence an unintended consequence of anonymity may be a reduction of this perceived value of specific individual's response. Secondly, it could be that officers feel some pressure to respond, and the anonymity instructions reduced this perceived pressure.

Fuller did, however, find a small but consistent social desirability bias between the anonymous and identified groups - the responses given by the identified group tended to be more positive than the responses from their anonymous counterparts.

Wildman, in his study of mid-western non-union teachers' attitudes towards unions and strikes, found that such a socially-desirable bias from identified as opposed to anonymous respondents, was very insignificant, if indeed it existed at all. He did find though, that some of the questionnaires were returned with the identification particulars destroyed. Obviously a few (not sufficient to significantly influence results) respondents find identification threatening and this lends support to Pearlin's idea that willingness to give one's name depends on the personality of the respondent, and not the information sought.

Another study designed to test the existence of a bias in terms of more socially acceptable responses from identified respondents was carried out by Ash & Abramson. By questioning "middle-class white respondents" on their attitudes to blacks, ethnocentrism and political economic conservatism, they sought to reveal that answers would be biased in the direction of admitting to more socially approved attitudes than would have been the case had the questionnaires been completed anonymously.

The results of their study showed that on the Negro prejudice scale, the anonymous group had a slightly higher (more prejudiced) mean score than the identified group. On the other two scales, however, this relationship was reversed, causing Ash & Abramson to conclude:

"... that verbally expressed attitudes ... as recorded on scales relating to ethnocentrism, political-economic conservatism, and anti-Negro prejudice, are not biased in either a more "pro" or more "anti" direction as a result of the requirement that they sign the scales, thus identifying themselves." (P723)

The results obtained in this study however, could be interpreted in a different manner. It could well be possible that the respondents chosen for this survey did not perceive ethnocentrism or political - economic conservatism as being socially unacceptable, in which case the requirement of identification would result in bias to the Negro prejudice scale only (as was evidenced in these results).

The literature, therefore, yields no clear theoretical stance in favour of or against the use of anonymous data collection. It would appear that where data is of a particularly intrusive nature, guaranteeing confidentiality could improve the quality of the answers. Absolute confidentiality, however, can only be achieved in a situation where returns can be made anonymously. This point is illustrated by Singer:

"It has become increasingly clear that although research organisations ... promise to protect the confidentiality of respondent replies, such guarantees ordinarily have no legal standing; the relation between researcher and respondent is not recognised as privileged. If records are subpoenaed, there is ultimately nothing, short of going to jail, that the researcher can do to redeem the promise of confidentiality made to respondents. If there is no need to identify respondents for administrative purposes or follow-up studies, the problem of confidentiality can sometimes be handled by destroying overtly identifying information ..." (P146)

Erdos & Morgan Inc, a survey research incorporation in America has found that a promise of absolute confidentiality is more likely to have meaning to respondents where an identification code is used on the questionnaire in preference to respondent's names.

Erdos & Reiger conducted a study using both keyed and unkeyed questionnaires, half the keyed questionnaires being accompanied by a letter explaining the presence of the code and the reason it was needed; and assuring complete confidentiality of the data contained therein. The results from their study are perhaps most appropriate for the present inquiry:

"The results of this test indicated that, first, it is possible to use visible keys and get a high response rate with a long (eight page), fairly difficult questionnaire, which includes personal and financial questions

Second, there was no difference in the response rate to visibly keyed versus unkeyed questionnaires

Third, the procedures considered helpful in improving response rates are also helpful when using visible keys. For example

THE PRESTIGE OF THE SPONSOR HELPS THE RESPONSE RATE." (P16)

This final point highlights the need for the ABS to establish a rapport within the community it serves. Abundant positive publicity (stressing the measures taken to ensure confidentiality of data) prior to census taking is likely to have a much more positive effect on response rates and item response, than an anonymous collection system, if the conditions portrayed in this brief review of the literature are applicable to a census situation.

B TEST EVIDENCE:

The ABS has run a series of pre-tests in which it has attempted to assess the feasibility of an anonymous census. The benefits of an anonymous census intuitively appear to be improved public attitudes to the census because of a greater belief in the confidentiality of the information supplied. This increased credibility in the eyes of the public should be reflected in higher response rates, higher item response (especially for intrusive questions), and a better quality response - ie more accurate answers.

As we have seen in the literature section, studies which have sought to identify these types of effects resulting from the use of anonymous collections have had inconsistent results, the majority finding that response patterns do not vary with anonymous as opposed to identified schedules. The only studies which did find slight response improvements by using no name, were those whose questions were exceedingly intrusive - to the extent that answers often provided incriminating evidence against the respondent. It is thus pertinent to analyse the results obtained in the Australian context from the three field tests in which anonymity has been tested, to verify whether or not response would be significantly better were we to use an anonymous system in a census situation. This analysis will be in terms of:

- i overall response rates;
- ii item response rates; and
- iii accuracy of response

The three pre-tests which have tested a no-name schedule are the Sydney pre-test, 1974; the Wangaratta pre-test, 1977; and the Bathurst/Orange pre-test, 1978. The results of all these are detailed in Appendix A, B and C.

B1 1974 SYDNEY PRE-TEST:

The results of the 1974 Sydney test are displayed in Appendix A - the three anonymity factors we are concerned with here are:

- i A_0 - standard collection - full name required with the collector checking response.
- ii A_1 - full name required, but respondents provided with envelopes.
- iii A_2 - first name required, and respondents provided with envelopes.

1 Overall response - the major feature of response between collection systems was that the two envelope systems (A_1 & A_2) resulted in the return of too high a proportion of completely blank schedules. Whereas the number of outright refusals was slightly lower in these systems than in the standard collection method, the proportion of blank schedules was 3% and 3.8% compared with 1%. Where the envelope was kept constant, (A_1 & A_2), it becomes evident that an anonymous schedule performs the worst in terms of non-response (but not significantly).

2 Item response - analysis of item response rates (depicted in Appendix A), lead to the following conclusions;

i the standard collection system (A_0) generally yields a higher response rate for questions than the other two collection systems. Of the analysis carried out, A_0 came up best in 17 of the cases (testing at the 95% level).

ii The question on income is regarded as one of the more intrusive questions, and thus it might be anticipated that response to this question would be better where name is not required. However, this was not the case, as the highest response for this question came from the standard collection procedure (A_0). The difference in response for the income question between A_0 , A_1 and A_2 is not sufficient to be significant, but it indicates that the standard collection system certainly produces no worse response to this question than an anonymous system.

3 Accuracy of response - as measured by the post-enumeration survey, the quality or accuracy of response appeared not to be affected by the collection system tested.

This point was supported by evidence from the analysis of gross difference rates (a comparison of census answers with answers obtained in the post-enumeration survey):

"The anonymity of the collection system seems to have done little to improve (or indeed affect) the accuracy of census answers ...

The fact that the Gross Difference Rate for income was not affected by collection systems is quite significant. Obviously people do not feel more inclined to give more truthful answers to contentious questions under the protection of an anonymous system".

B2 1977 WANGARATTA PRE-TEST

The 1977 Wangaratta field test did not consciously test an anonymous census system, as there was no control group against which the optional name response could be compared. Never-the-less, some interesting facts emerged. Table 1 in Appendix B shows the number of respondents who chose to give their name, and the number who chose not to, when given the option. The relatively high proportion that chose to give no name (44.3%) indicates that this option is

adopted by more than just that segment of the population who strongly resent giving their name on a census schedule. Obviously many respondents who would have no qualms about giving their name under normal circumstances, did not because it was not required. If such a policy (ie that of an optional name census schedule) was adopted for an actual census, the Bureau must be prepared to accept that as many as 50% of schedules will be returned anonymously, and probably even more if civil liberty groups etc use the media to encourage respondents not to give their name.

1 Overall response - this was extremely high in Wangaratta, with the occurrence of only two refusals. This may have been a function of the fact that name was optional, and hence respondents were more likely to feel secure of the confidentiality of their answers; or it may be a function of the cooperative and amiable nature of the Wangaratta population. Given the friendly reception given to most of the collectors during this test, the latter is likely to be the case!

2 Item response - a comparison of response between those who did and those who did not give their name, for selected questions, is given in table 2 of Appendix B. Although there was no control group, and thus no conclusions can be made with respect to how response may have differed had name been made compulsory, table 2 indicates that response levels between the two groups were virtually identical. This was so even for the intrusive question (income) which in fact scored better when respondents identified themselves, but not significantly so.

3 Accuracy of response - from an analysis of the PES, the Wangaratta test scored badly as far as accuracy of data was concerned. Of the 761 persons in the PES, 259 (34%) "mucked up" at least one question; although the majority of these persons (211) mucked up only one question. Because the Wangaratta test was testing the use of an OMR self coding schedule, a factor likely to be associated with many of the "mucked up" answers, no inference can be made about the use of optional name schedules and data accuracy from this test.

B3 1978 BATHURST-ORANGE PRE-TEST

The Bathurst/Orange field test used three sample groups relevant to the confidentiality issue:

- C₁ - respondents required to provide first names only.
- C₂ - respondents required to provide their full name; and
- C₃ - name was made optional.

The C₁ option was seen as a type of compromise - first names do not provide sufficient information for there to be a breach of confidentiality; and yet is sufficient to use in imputing certain information, and act as a guide to the respondent.

An analysis of the types of name supplied in terms of the amount of name information required on each schedule type is given in Appendix C Table 3. This table reveals that for all those persons given a C₃ (optional name) schedule, 44.1% gave their full name, whilst 46.5% gave no name. These results are in accordance with the results of a similar analysis in the Wangaratta test.

Non-response rates for each of the schedule types are displayed in Appendix C (for those questions where denominators are reliable).

1 Overall response. The covert refusal where respondents simply sealed the blank schedules in the envelope and returned it to the collector as occurred in the July 1974 test was also prevalent here, with a total of 411 schedules being returned blank in this manner (ie approximately 2.5% of schedules). This practice may also have been encouraged in the C₃ option by the fact that name was not required; and hence the threat of being followed up and penalised was somewhat diminished. As is evidenced in Appendix C Table 2, the C₃ option had a significantly higher number of blank covert refusals than both the C₁ and C₂ options (3.3% as opposed to 2.0% and 2.3% respectively).

2 Item response - the table displayed in Appendix C shows that response is significantly better under the standard, full-name approach. Using a t-test and testing for significance at the 95% level, the results were:-

- i For 11 person questions and 10 dwelling questions the C₁ system performed significantly better than the C₃ system.
- ii For 17 person questions and 5 dwelling questions the C₂ system performed significantly better than the C₃ system.
- iii For 12 person questions and 3 Dwellings the C₂ performed significantly better than the C₁ system.
- iv For 4 person questions and 0 dwelling questions the C₃ system performed significantly better than the C₁ system.
- v For only 4 person questions the C₂ system did not perform significantly better than either the C₁ or C₃ systems.

These results clearly demonstrate that despite the intuitive appeal of an anonymous census collection, the results are negative. It would appear that the real effect of an anonymous system is purely to reduce the threat of the penalty for non-compliance.

3 Accuracy of response - the PES in the Bathurst/Orange pre-test consisted of a DCC and a PCC only, so no conclusions can be made with regard to the accuracy of the answers given under the different C systems.

B4 CONCLUSION

The evidence from field tests carried out by the ABS, like that found in the literature, does not lend support to the theory that people are more willing to respond in an anonymous collection, or that their answers will be any more accurate. The opposite in fact appears to be the outcome. If names are not required on the census schedule, the threat of penalty for non-compliance is diminished, and hence response rates fall significantly.

From the studies done, accuracy of answers does not appear to be affected by the anonymity or otherwise of the system. This was found to be true even for the income question, which is regarded by some as being the most intrusive question on the Schedule.

Such evidence would imply that the issue of confidentiality is no more than a myth created by the media because of its "newsworthy" value prior to a National Census. It is obvious that respondents are no more willing to respond to Census questions if their name is not required on the schedule -- in fact, they are less willing.

B5 RECOMMENDATION:

Because of the problems which arise in the Field, Processing and Evaluation operations when name is not required; and because of the significant drop in response which can be attributed to anonymity, it is recommended that the requirement to provide full name be retained in future censuses.

	A ₀ (Full Name)	A ₁	A ₂ (No Name)
Dwellings:			
Type of dwelling unit	.96	.96	.96
Material of outer walls	1.00	.98	.99
Source of water supply	.99	.98	.98
Rooms	1.00	.98	.99
Fuel - cooking	.97	.97	.98
- home heating	.92	.87	.89
- water heating	.94	.90	.91
- lighting	.97	.94	.95
Motor Vehicles	.98	.94	.96
Mortgages - (a) owned	.95	.92	.93
(b) mortgage	.95	.96	.94
(c) mortgage holder	1.00	1.00	1.00
- payments, 1st	.98	.99	.98
- payments, 2nd etc	1.00	1.00	1.00
Rent - yes/no	.91	.88	.87
Rural holdings	.99	.99	.99
Persons:			
Relationship to head	.97	.94	.96
Sex	.99	.98	.98
Age	.95	.94	.91
Present marital status	.95	.94	.94
Usual residence	.99	.99	.99
Usual residence 3/7/73	.98	.97	.97
Usual residence 3/7/69	.97	.95	.92
Holidays	.99	.97	.98
Country of Birth	.99	.98	.98
Nationality	.98	.97	.98
Resident/visitor status	.98	.98	.97
Birthplace of father	.98	.96	.96
Birthplace of mother	.97	.95	.95
Language - at home	.98	.96	.96
Language - not at home	.92	.89	.88
Racial origin	.93	.91	.89
Religion	.95	.95	.95
Pre-school	.91	.90	.90
Child-minding	.89	.87	.89
Handicaps	.93	.88	.89
Life assurance	.73	.63	.66
Medical benefits	.92	.88	.89
Hospital benefits	.87	.81	.85
Educational institution	.82	.76	.78
Level of schooling	.89	.81	.83
Qualifications	.95	.91	.91
Retirement benefits scheme	.93	.91	.91
Social security benefits	.90	.87	.86
Licence - motor vehicle	.96	.92	1.00
- motor cycle/scooter	.53	.47	.47
Issue - ever married females	.94	.90	.90
- present marriage	.92	.88	.90
Duration of present marriage	.93	.91	.91
Income	.91	.89	.88
Do any work last week	.98	.98	.98
Have a job	.91	.86	.74
Looking for work	.89	.81	.83
Usual hours worked	.94	.94	.91
Occupational status	.95	.95	.93
Occupation	.96	.95	.95
Industry - trading name	.94	.94	.90
- address	.91	.86	.84
- kind of -	.87	.86	.83
Mode of travel to work	.96	.95	.95
TOTAL RESPONSE:	.94		.91

APPENDIX B : 1977 WANGARATTA PRE-TEST

TABLE 1: NO OF PEOPLE USING NAME/NO NAME WHEN GIVEN THE OPTION

TYPE OF NAME	SCHEDULE TYPE			TOTAL
	A	B	C	
NO NAME	2752 35.8%	2499 32.5%	2440 31.7%	7691 44.3%
FULL NAME	2778 31.4%	3039 34.4%	3025 34.2%	8842 51.0%
INITIALS	14 -	5 -	6 -	25 -1%
SURNAME	89	112	83 -	284 1.6%
GIVEN NAME	90 -	78 -	73 -	241 1.4%

TABLE 2: RESPONSE RATES TO SELECTED QUESTIONS BY NAME FACTOR

QUESTION	NO NAME	FULL NAME	TOTAL
SEX	.96	.96	.96
MARITAL STATUS	.96	.96	.96
RELATIONSHIP	.97	.97	.97
ACTIVITY	.96	.96	.96
USUAL RESIDENCE	.95	.92	.93
BIRTHPLACE	.99	.99	.99
INCOME	.65	.66	.66

APPENDIX C: 1978 BATHURST/ORANGE PRETEST
ITEM NON-RESPONSE RATES BY ANONYMITY FACTOR

DWELLING QUESTIONS

	C1		C2		C3
Type of Dwelling	4.5	\$ +	6.2	+	7.8
No. of Dwelling Units	8.8	\$ +	12.5	+	14.3
Material of Outer Walls	0.5	+	0.7		1.0
No Rooms	1.3	+	1.6		1.9
No. Bedrooms	1.2	+	1.4		1.7
Bathroom	0.4		0.3		0.3
Kitchen	0.7		0.7		0.7
Water Supply	0.1	\$ +	0.4		0.3
Sewerage	0.2	\$ +	0.5		0.5
Cooking	1.6		1.5		1.9
Home Heating	5.8	+	5.1	+	7.1
Water Heating	7.7	+	6.2	* +	8.2
Lighting	4.9	+	4.7	* +	6.1
Date Built	4.7		4.6		4.7
Motor Vehicles	2.4		2.2		2.5
Rural Holdings	3.2		3.2		3.9
Owned/Purchased	4.7		3.8	*	4.5

PERSON QUESTIONS:

Relationship	2.0		2.0		2.0
Major Activity	1.1		0.9		0.9
Usual Resident	5.5		5.4		5.0 *
Moved into area since 1976	10.2		8.1	* +	9.7
Period of Residence	1.1		0.9	+	1.2
Religion	3.4		2.5	* +	2.9 *
Childminding	2.4		1.6	*	1.7
Birthplace	2.4		1.5	*	1.7 *
Educational Institution	11.8		11.6		11.5
Age Left School	7.7	+	6.8	* +	8.7
Qualifications	17.3	+	15.9	* +	21.5
Income	12.3		11.2	* +	12.8
Work Last Week?	12.2		10.8	* +	12.2
Job Status	5.5		5.0		4.9 *
Occupation	4.0		3.4	* +	3.9
Industry	4.3		3.6	* +	4.1
Birthplace-father	1.8	+	1.7	+	3.7
Birthplace-mother	2.0	+	1.8	+	3.7

	C1		C2		C3
Languages	2.4	+	2.4	+	3.8
Travel to Work	1.2	\$	1.5	*	1.4
Handicap	2.1		2.2		2.2
Benefits	3.2	\$ +	4.1	* +	6.5
Total Issue	8.0	+	7.1	+	12.1
Duration of Marriage	2.3	+	1.9	+	7.1
Married Issue	9.1	+	8.5	+	14.0
Car Licence	1.4	+	1.7	+	4.3
Bike Licence	2.9	+	3.3		3.6

NB The above questions are the only ones displayed because they are the ones for which reliable denominators are known for calculating response rates.

* Significantly better than C₁

\$ Significantly better than C₂

+ Significantly better than C₃

C₁ - First name

C₂ - Full name

C₃ - Optional name

TABLE 2: NUMBER OF COVERT REFUSALS x 'C' FACTOR

DIVISION	C1	C2	C3
O1	57	55	82
O2	49	74	94
TOTAL:	106	129	176
	2%	2.3%	3.3%

TABLE 3: Particulars of name information given for the three 'C' schedule types

	Full name	Surname Only	No Name	Other
C (First name only)	26.0%	2.6%	19.5%	51.9%
C2 (Full name)	73.0%	1.7%	20.2%	5.0%
C3 (Optional name)	44.1%	4.0%	46.5%	5.4%

REFERENCES:

- 1 Ash, P. and Abramson, E (1952) - "The Effect of Anonymity on Attitude - Questionnaire Response" in JOURNAL OF ABNORMAL & SOCIAL PSYCHOLOGY Vol 47 p722-723
- 2 Erdos, P.L. & Regier, J (1977) - "Visible Vs Disguised Keying on Questionnaires" in JOURNAL OF ADVERTISING RESEARCH Vol 17, No 1. p13-18
- 3 Fuller, C (1974) - "Effect of Anonymity on Return Rate and Response Bias in a Mail Survey" in JOURNAL OF APPLIED PSYCHOLOGY. V59 No 3 p292-296
- 4 Goldfield, E.D., A.G. Turner, C.D. Cowan & J.C. Scott (1977) - "Privacy & Confidentiality as Factors in Survey Response" - paper presented at the 137th Annual Meeting of the American Statistical Assoc'n, Chicago, Illinois.
- 5 Pearlin L.I. (19) - "The Appeals of Anonymity in Questionnaire Response" in PUBLIC OPINION QUARTERLY Vol No p640-647
- 6 Rosen, N.A. (1960) - "Anonymity and Attitude Measurement" in PUBLIC OPINION QUARTERLY Vol 24. p675-679
- 7 Singer, E (1978) - "Informed Consent: Consequences for Response Rate and Response Quality in Social Surveys" in AMERICAN SOCIOLOGICAL REVIEW Vol 43 p144-162
- 8 Wildman R.C. (1977) - "Effects of Anonymity and Social Setting on Survey Responses" in PUBLIC OPINION QUARTERLY Vol 41 No 1. p74-79