

18th Population Census Conference

The Australian Population Census Dissemination Strategy

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1. The paper sets out the dissemination strategy adopted for the 1996 Census. The strategy was devised after extensive user consultation both as to the range of products and services as well as the data contents of the key products. The questions asked in the Census are set out in Attachment 1.

Aims:

2. The aims of the dissemination strategy were to provide:

- a range of standard products and services to meet the needs of a majority of current and potential census data users in terms of content, output media and presentation formats; and
- a timely, responsive and cost-efficient customised service to meet specific user needs

3. In accordance with government policy on cost recovery, it was expected that products and services were able to fully recover their dissemination component of the costs.

Situation Analysis

4. Australia has a 3 tiered system of government, comprising federal, state and local levels each of which has policy, planning and service delivery responsibilities. There is also substantial service provision, usually at the local level, by not-for-profit private sector organisations. Academic researchers also contribute to policy development.

5. Planners in the private sector rely on statistical data (rather than "local knowledge") to understand local markets in order to plan their customer activities. Because of Australia's physical size, this is particularly important for industries such as media, retailing, banking and insurance.

6. Generally users of census data are one of two kinds, which determines the products or services they require:

- The first require detailed data about specific topics or themes for analytical purposes and overall policy planning. The data are used to explore the particular topic or theme in depth. For this purpose detailed cross classifications and/or unit record files are required. Examples of such uses include investigating education levels and the links to labour force outcomes or the relationship between housing, family structures and socio-economic measures. The users

tend to be the federal and state policy departments and academic researchers. These users have high levels of access to computers and high levels of computer skills. While this group of users may be numerically small, their uses of the data are for important national policy purposes.

- The second type of user require data for small geographic areas and/or small population groups. These users tend to be state and local governments, community groups and commercial organisations. The data in these cases are required for targeting service or product delivery or monitoring outcomes or seeking funds from government for community services. Commercial organisations generally have similar uses in customer profiling and target marketing. The amount of data required may vary considerably. A local government or community group may only require data for their particular area, whereas commercial organisations may require data at the local level for all of Australia. While many of these organisations have access to computer facilities, there is still demand for data in hard copy.

7. There are overlaps between the two clusters of users described above. For example the Federal and State Government authorities also require data for small geographic areas for location of major services (eg schools, hospitals etc), for fund allocation purposes and monitoring of the outcomes of programs that may be undertaken by local authorities or community groups.

Summary of range of products and services

8. The products and services described below have been developed and refined over the last two Australian census cycles (1991 and 1996) and are designed to fulfil the aims set out above and so meet the needs of the major users identified during user consultation. The key products and services which are part of this strategy are:

- A range of publications which explain the data in the form of text, tables, graphs and maps. These products provide basic information about Australia and promote an understanding of the use of census data to the wider community.
- A set of standard two or three dimension tables (Community Profiles) covering most topics in the census and available for all Enumeration Areas (EAs) in Australia. As these tables are available at the smallest geographic area, data for other geographic areas can be obtained quickly by aggregation. These tables are made readily available in a wide range of electronic formats, products and hard copy printout to suit the wide variety of users. This meets the needs of the majority of census data users at local, state and federal government levels as well as for community groups and commercial organisations.
- A unit record file (reduced and unidentified) for sophisticated users who wish to go beyond tabulated data and undertake statistical analysis.
- An on request service for user specified cross classified tables and

Geographic Information System derived products such as thematic maps. This service will provide flexibility to those users whose needs cannot be met by the standard range of products

- Meta data products, such as glossary of concepts, census methodology, directory of census classifications, maps and boundaries in hard copy and digital forms and frequency counts for each classification code at the most detailed geographic level. These products are designed to assist both ABS staff and external users in the interpretation of the census data.
- Other products include socio-economic indexes for areas, which provide a ranking of all enumeration areas in Australia according to relative education and economic resources and a thematic profile service which provides basic information about particular population groups such as older people, language groups etc for user specified local areas.
- A user education and marketing program to assist user and potential users to understand the range of census products and how the census can assist them in their decision making processes.

9. These products are described in detail below:

Publications

10. Publications are the prime means of providing access to the census to a wide variety of users. They can also serve as an initial point of contact to more serious current and potential users of census data. Properly designed and organised in such a way as to "tell a story" these publications can be of interest to a large number of people and are a means of providing basic information to all Australians from the census. Publications are also the prime way of attracting media attention to the census results and through the media, reaching out to a wider population that may never directly access any other census product or service.

11. Australian census publications do not contain bulk tables as has historically been the case. Clients requiring large amounts of data use other products such as the Community Profiles or user specified matrix tables.

12. The publications released from the Australian census include the following:

- Summary publications for each State showing a range of social indicator type information for statistical local areas (equivalent in most cases to local government areas). These publications promote the range of data available from the census and allow the user to get a basic picture of his or her community and make comparisons with other communities.
- A Social Atlas for each capital city which contains density maps at the enumeration area level for many of the major topics from the census
- Thematic publications focusing Australia's indigenous people and

regions.

13. Given the function of publications in providing general information about Australian society, they are distributed as widely as possible including free-of-charge to the media and libraries. As well, a selection table from the publications is provided at the ABS internet site.

14. The publications have proven extremely effective in raising community awareness of the census. Extensive media coverage has been given to each release. The Social Atlases have proven particularly effective in generating media interest as the maps allow the data to be visualised and more immediately understood. Extensive coverage for the 1996 Census was obtained in all the major newspapers, most notably in The Australian, which printed an 8 page supplement featuring social atlas maps.

Community Profiles

15. These are a standard set of two or three dimensional tables which are available for small geographic areas. They are the core census data product and underlie many other products. The most important and most used of the Community Profiles is the Basic Community Profile (BCP) which consists of 32 tables and is available from Enumeration Area (EA) to total Australia. As the tables are available at the EA level, higher levels of geography can be obtained by aggregation. This flexibility in output is essential, given the wide range of users and user needs. The tables are easy to understand while providing basic information for decision making.

16. Other Community Profiles include the Usual Residents Profile, Working Population Profile, Expanded Community Profile and Indigenous Profile.

17. The ABS has developed a range of products around the Community Profiles. These include:

- *Community Profile Service:* The Community Profiles are stored on an electronic database. The ABS has developed a simple Windows based system which allows ABS staff to select either individual geographic areas or aggregations of areas (for example using GIS to match user boundaries to EA boundaries or by means of radial selection) and either download in a variety of electronic formats or printout the selected data. Simple software is provided to the users who obtain the Community Profile data in electronic format. The software allows users to select and manipulate the data and download into common spreadsheet and database formats. There continues to be a large demand for printed reports. This service is relatively inexpensive. For example, a typical local government can obtain the Basic Community Profile for the EAs within its boundaries for less than \$Aust200. This is by far the most popular product from the census.
- *Census Keydata:* This is a CDROM product which combines the Community Profiles with digital boundary data for use with a client's own

GIS. The data on Census Keydata are encrypted and the product is distributed free of charge to potential clients. Clients are able to select the data of interest using the ordering facilities provided on the CDROM and a decryption key can then be provided. The product has appeal to both sophisticated and basic GIS users. The data can be readily used with the mapping package available in Excel 7, the most popular spreadsheet package.

- *CDATA96*: This is a CDROM product which combines the Basic Community Profile with digital map, feature and boundary data and GIS software. This is a sophisticated product for high end census data which allows the users not only to map and analyse the census data but also to match their own geographically referenced data alongside census data. For example, a government department can match the characteristics of clients directly against the census data and determine whether services are reaching the target populations.
- *CLIB96*: This is a CDROM product designed for libraries. It contains the all the Community Profiles with simple selection and manipulation software. It is provided free of charge to major public and academic libraries.
- *Internet Services*: A selection of tables from the Basic Community Profile is provided on the ABS internet site with a geographic search engine to select the areas of interest. This site is achieving in the vicinity of 100,000 hits a month.

Unit record file

18. Data in this format can only be effectively used by those individuals or organisations which have a good statistical and technical infrastructure. Typically these are either academics or large government or commercial organisations. There are issues of confidentiality to be addressed. In Australia, these issues are resolved by only releasing a 1% sample of unit records with certain classification details, which could potentially lead to identification of an individual, collapsed. The most significant of these is the geography. The file only has geographic identifiers for areas of around 250,000 people. Other classifications which are collapsed include occupation and industry. Restrictions are also placed on how the file may be used.

Complex matrix tables

19. Past census output programs have focused on generating a mass of predetermined detailed cross classified tables, generally only useful to major government departments and academics. Our experience however showed that the predetermined matrix tables failed to meet the very individual needs of these organisations. A modest price was imposed on the tables from the 1991 Census which saw demand for them fall precipitately, while departments were prepared to pay far more for customised tables which met their precise needs. As a result, the production of a standard set of complex tables was discontinued for the 1996

Census and the considerable resources used to generate them were transferred to improve other aspects of census output.

20. For the 1996 Census, complex tables are designed on demand. This allows organisations maximum flexibility in specifying their needs and getting the tables they require. In order to provide the highest level of service to these key clients, the specification, coding and validation of these tables can be done in advance of the availability of the census data and delivery secured as soon as possible after the release of the data. The costs of this service to clients is determined on the total costs of labour and computer infrastructure required to meet the individual specifications.

21. Many government departments use these tables in conjunction with the Community Profile tables in products such as CDATA96. The tables are used to highlight population groups requiring services and the Community Profiles, which may contain no more than a count of the particular population group can be used to plan and monitor the effectiveness of service delivery. An example of this combined use is in the area of aged care. Detailed tables can identify the particular policy concerns, such as income, level of family support, access to transport etc. The Community Profiles can then be used to identify where the target populations live and by comparison with the departments own records, what proportion are accessing the services.

Meta data products and services

22. A variety of meta data products are essential for the intelligent use of census data. Some examples include:

- *How Australia Takes a Census*: This publication provides information on census methodology such as the topic selection process, form design and pilot testing, field operations, processing, post enumeration survey and adjustment process and general census outputs.
- *Census Dictionary*: Contains the definitions of terms used in the census, including a directory of classifications used in output
- Geographic database: This is an electronic database which links each EA to higher level geographic areas such as local government area, urban/rural, postal area etc and their names. It is needed both by users and by ABS staff undertaking tabulations. External users can obtain this file, or extracts from it, either in hard copy printout or electronically.
- Map and boundary data: Both hard copy and digital boundary and map data are required in order to interpret the census data. Print files for a set of standard hard copy maps are stored electronically and can be printed on request. Both digital boundary data and the underlying map data are also available either separately or in products such as CDATA96.
- Evaluation papers and Census Fact Sheets: These describe analyses of the

quality of census data and are needed both by users in interpreting census data and understanding its limitations as well as by the ABS for targeting areas for quality improvement in the next census.

User Education

23. In association with the release of the census data, the ABS provides information on how the data may be used. The census data do not provide in themselves the ready made answers that some users expect. While it may be thought that educating the user would be confined to the less sophisticated, such as community groups and local government, experience in Australia has shown that there are some major government departments which remain unaware of census data (and for that matter other ABS data) and how the data may be used to assist their decision making. Strategies to improve the knowledge of both current and potential users include:

- **Sales staff and Client Management:** Sales staff play an important role in promoting the understanding of census data. Generally sales staff deal with the ad hoc clients whose requirements may be limited to a particular value added product such as CDATE96. Client managers deal with key clients who have an ongoing need for ABS data. However, the role of both sales staff and client managers is to promote and extend the use of ABS data in the community.
- **Seminars:** An extensive seminar program was undertaken in the lead up to the release of 1996 Census data. In all, about 50 seminars were given in all capital cities and to a wide range of users. For key users such as major federal government departments, the seminars were tailored to meet their particular needs.
- **Marketing material:** A range of pamphlets are produced to support the products and services and the efforts of sales staff and client managers. The focus of these pamphlets is on the benefits of the products and services to the potential user rather than on the features of the particular product.
- ***Census Update:*** This is a newsletter, issued about three times a year and has a circulation of around 8,000 organisations and individuals. Each issue contains several case studies, quite often supplied by census data users, which shows how census data have been used in decision making.

Evaluation and 2001 Census Dissemination Strategy

24. As with other components of the census program, the output strategy will be subject to a process of evaluation to establish firstly whether the aims were met and secondly to contribute to the design of the output strategy for the 2001 Census. The evaluation will consist of three parts. The first, to be undertaken by an external consultant, will survey client reactions to the 1996 Census dissemination strategy and the performance of the individual products and services in meeting client needs. This will be coupled with an examination of the revenue performance of the products

and services compared with their costs of production and an internal review of census processes.

25. The results of the evaluations will feed into a 2001 Census Dissemination Strategy which will be submitted for extensive user consultation via a user survey and seminars. From this will flow the design of the individual products and service for 2001 Census and the associated business and marketing plans.

1996 Australian Census: Questions

Attachment 1

1. At what address did this household spend Census Night, Tuesday, 6 August 1996?	2. Name of each person including visitors who spent the night of Tuesday, 6 August 1996 in this household.	3. Is the person male or female?
4. Mark the person's age last birthday.	5. What is the person's relationship to Person 1/Person 2?	6. What is the person's present marital status?
7. What is the person's usual address?	8. What was the person's usual address one year ago (at 6 August 1995)?	9. What was the person's usual address five years ago (at 6 August 1991)?
10. What is the person's religious denomination?	11. Is the person an Australian citizen?	12. In which country was the person born?
13. In what year did the person first arrive in Australia to live here for one year or more?	14. Is the person of Aboriginal or Torres Strait Islander origin?	15. In which country was the person's father born?
16. In which country was the person's mother born?	17. Does the person speak a language other than English at home?	18. How well does the person speak English?
19. Is the person attending a school or any other educational institution?	20. What type of educational institution is the person attending?	21. Only continue for persons aged 15 years or more.
22. How old was the person when he or she left primary or secondary school?	23. Has the person completed a trade certificate or any other educational qualification since leaving school?	24. What is the highest qualification the person has completed since leaving school?
25. What is the main field of study for the person's highest qualification completed?	26. At which institution was the person's highest qualification completed?	27. In which year did the person complete their highest qualification?
28. For each female, how many babies has she ever had?	29. What is the gross income (including pensions and allowances) that the person usually receives each week from all sources?	30. Last week, did the person have a full-time or part-time job of any kind?
31. In the main job held last week, was the person: (a wage or salary earner)?	32. In the main job held last week, what was the person's occupation?	33. What are the main tasks that the person himself/herself usually performs in that occupation?
34. For the main job held last week, what was the employer's business name?	35. For the main job held last week, what was the workplace address?	36. What kind of industry, business or service is carried out by the employer at that address?
37. Last week, how many hours did the person work in all jobs?	38. How did the person get to work on Tuesday, 6 August 1996?	39. Did the person actively look for (paid) work at any time in the last four weeks?
40. If the person had found a job, could the person have started work last week?	41. Are there any persons who usually live in this household who were absent on the night of Tuesday, 6 August 1996? (Details then asked for)	42. How many registered motor vehicles owned or used by members of this household were garaged or parked at or near this dwelling on the night of Tuesday, 6 August 1996?
43. How many bedrooms are there in this dwelling?	44. How much does your household pay for this dwelling?	45. Mark the box which best describes this dwelling.
46. If this dwelling is being rented, who is it rented from?	47. If this dwelling is being rented, was it furnished by the landlord?	