



Planning the first wave of the Australian Family Panel Survey

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The Australian Family Panel Survey represents a major research undertaking by the Australian Institute of Family Studies that will help the Institute meet its principal task of identifying and understanding factors affecting the stability and wellbeing of Australian families. This paper outlines some of the design proposals that have been developed.

Why a panel survey?

The Australian Institute of Family Studies has established three complementary program areas to meet its key objective of identifying and understanding factors affecting the stability and wellbeing of Australian families. These are: the Children and Parenting program, the Family and Marriage program, and the Family and Society program (Saunders 1999). The Australian Family Panel Survey will be the primary data collection vehicle for these programs.

An earlier Institute Briefing Paper explained the rationale behind the development of the panel survey (Saunders and Glezer 1999). This paper outlines some of the design proposals that have been developed. The Institute is interested in obtaining feedback on these matters from other people.

Panel designs involve the collection of the same data on the same group of people on more than one occasion. They enable an examination of the level of stability or change in objective circumstances, behaviour, interpersonal relationships, and the subjective world of individuals. They help us to distinguish between outcomes and their causes by revealing the temporal order of variables. Thus, panel studies enable an estimation of the probabilities of certain personal or family trajectories taking place.

Panel surveys are also extremely valuable tools for assessing the impact of various changes in policy, such as the extent to which changes to youth payments affect the morale, aspirations, family life, and employment opportunities of young people. In addition, panel surveys that are based on large, representative samples of the community and that

gather a broad range of policy relevant information are ideally suited for research into social issues as they emerge.

While the repeated collection of the same data from the same individuals represents the essential ingredient of a panel design, each wave in the panel survey can also be used to collect new information for additional 'bolt on' research. Data from previous waves provide a wealth of background information for such studies.

Aims of the survey

The Institute's Australian Family Panel Survey is being designed to achieve the following aims:

- to build a master sample from which sub-samples can be taken when required;
- to monitor personal and family wellbeing and family-related attitudes and values in the light of policy initiatives such as the Federal Government's National Families Strategy;
- to provide data for swift analysis to inform policy relevant issues as they emerge; and
- to address core questions for projects in the Institute's three research program areas, and questions developed for 'bolt-on' studies.

The sorts of questions addressed by Institute projects, which will be analysed by means of the panel survey, include:

- What parenting behaviours, attitudes and values best promote child wellbeing?
- What types of child care arrangements are most likely to promote child wellbeing and positive family functioning?

- How do parenting and child wellbeing vary in different family types?
- What circumstances and experiences minimise adverse consequences for children's wellbeing during the divorce transition and thereafter?
- What factors are most likely to promote positive and stable family unions that persist through time?
- Why is it that some relationships are more able than others to withstand stressful events (for example, unemployment, birth of first child)?
- How do changing family circumstances affect patterns of engagement?
- What factors are influencing the declining rate of fertility?
- How are changes in work life impacting on family wellbeing?
- Is a 'culture of welfare dependency' being transmitted across the generations in some Australian families?

Design and questionnaire

There are three basic types of panel surveys: rotating surveys, non-rotating surveys, and cohort studies. Non-rotating panel surveys have an indefinite life and follow up a single sample (although various strategies may be adopted to add to this sample over time). Rotating panel surveys follow up more than one sample for a restricted period, with the first wave for each sample being staggered. Thus one sample 'drops out' (temporarily or permanently), while another begins or continues. Cohort studies focus on population sub-groups that have experienced a certain event in a given period – for example, birth cohort, marriage cohort, divorce cohort.

Each of these approaches has advantages and disadvantages (Buck, Ermisch and Jenkins 1996; Commonwealth Department of Family and Community Services 1999; Duncan and Kalton 1987). The most suitable approach for any survey depends on the purposes of that survey and the key research questions that will be asked.

The Institute's survey will be an indefinite life panel with interviews at fixed intervals with no rotation, but with some built-in self-replacement strategy. This approach is consistent with several panel surveys conducted in other countries – for example, the British Household Panel Study, the US Panel Study of Income Dynamics, the German Socio-Economic Panel survey, and the European Community Housing Panel survey.

Interviews will be conducted every two years. A tracking exercise will be undertaken 12 months after each wave to maintain contact and update information about the whereabouts and basic socio-demographic circumstances of those in the sample.

People who are highly transient (for instance, young people who live for a few weeks with their parents then move in with friends for a while, before changing residence again) tend to be under-represented in survey samples. Furthermore, transient people who happen to be included in the first wave of a longitudinal study would be very difficult to locate in subsequent waves. Questions will therefore be included in

the survey to identify transient members of households. The Institute welcomes any suggestions regarding this matter.

The core elements in the questionnaire will include:

- socio-demographic information, health and personal wellbeing;
- child wellbeing and parenting practices;
- family stability/quality of relationships in the family;
- family values; and
- engagement in the economy, political life and community life.

Some questions about attitudes to family, employment and the like will be repeated in different waves, and some may be asked of randomly selected sub-samples.

Where possible, the panel survey will complement other relevant Australian studies, including the forthcoming Household, Income and Labour Dynamics Survey planned by the Commonwealth Department of Family and Community Services, and the Negotiating the Life Course Survey run by the Australian National University.

The sample and mode of data collection

Ideally, the Australian Family Panel Survey would be based on a representative sample of all households in Australia. However, most, if not all, data collection will rely on the Institute's Computer-Assisted Telephone Interviews (CATI). The CATI system enables cost-effective, detailed surveys to be undertaken in-house and quickly. High quality data are derived through the computerised checks for inconsistencies in responses, the combining of interviewing with data entry, and ready supervision of interviewers (Mills 1994).

Thus, the practicalities are such that the study is likely to be restricted to households with telephones – possibly only those with listed numbers. In September 1996, around 97 per cent of households in Australia had a telephone (Bennett and Steel forthcoming). Those without a telephone include disproportionate numbers of people living in rented accommodation, the unemployed, young low income families, newly arrived migrants, families headed by mothers, single-person households, and households located outside capital cities (Steel, Vella and Harrington 1996; Trewin and Lee 1988). Weighting procedures will be used to compensate for the various types of biases linked with sample derivation.

Over-sampling?

Over-sampling enables the achievement of adequate numbers of certain households – especially uncommon households – for cross-sectional analysis (such as sole father families, stepmother families). However, over-sampling is expensive because it takes numerous telephone calls to locate uncommon households, unless the over-sampling is based on regional location and hence telephone prefix. Second, the data would also need to be weighted to compensate for over-sampling. A simple random sample of telephone numbers will therefore be used.

WE WELCOME YOUR VIEWS

If you wish to express a view, offer advice, or find out more about the Australian Family Panel Survey, please contact Ruth Weston at the Australian Institute of Family Studies, preferably by using email. The email address is: ruth.weston@aifs.org.au

Stratification

Stratified sampling produces a more representative (and thus more accurate) sample than simple random sampling. This is because stratified sampling ensures that the relative proportions of particular groups of interest represented in the sample are the same as for the population (de Vaus 1995). While this increased representativeness comes at the cost of a more complicated sampling design, the gains are usually worth it.

The Australian Family Panel Survey will be stratified according to geographical location. Table 1 sets out the likely number of households to be selected in each State or Territory for a sample of around 5000 households.

Table 1. Estimated number of households in the Australian Family Panel Survey by State and Territory*

State/Territory	Number
New South Wales	1670
Victoria	1230
Queensland	930
Western Australia	500
South Australia	410
Tasmania	130
Australian Capital Territory	80
Northern Territory	50
Total	5000

*Plus or minus ten households.

Source: Based on data from the Australian Bureau of Statistics,

Representativeness versus response rate

Non-response is an unavoidable problem arising from failures to contact, refusals, and a contacted individual's inability to participate owing to physical or mental disability or language barrier.

Response rates vary according to the nature of the population from which the sample is selected. Elderly people and those with low education are less inclined to participate in surveys than younger people and the better-educated (Groves and Lyberg 1988).

Telephone surveys result in lower response rates compared with face-to-face interviews. In addition, respondents are more likely to terminate the interview prematurely if interviewed by telephone rather than face-to-face (Groves and Lyberg 1988).

British experience suggests that the refusal rate for a 40-minute telephone interview will be around 5 per cent higher than that involving a 20-minute telephone interview (Groves and Lyberg 1988).

However, the Institute's primary concern is not simply to maximise survey response in the first wave of the survey, but also to maximise sample retention across all subsequent waves. This poses some difficulties, as aggressive efforts to boost the response rate in Wave 1 may fail to engage respondent cooperation and consequently result in a lower than otherwise retention rate in subsequent waves. Also, non-response needs to be managed at two levels, initially that of the first household contact, and subsequent contact with each selected person within the household.

Response rates for Institute surveys conducted via CATI have varied from 57 to 87 per cent or 40 to 77 per cent, depending on the calculation method adopted. However, none of these surveys is directly comparable to the panel survey.

Why select households and not families?

The short answer to the question of why households and not families are to be selected is that families extend beyond households. More formally, however, the Australian Bureau of Statistics defines a family as 'two or more persons, one of whom is at least 15 years of age, who are related by blood, marriage (registered or de facto), adoption, step or fostering, and who are usually resident in the same household' (ABS 1997: 48). This means that a household can contain more than one family, but a family is not spread beyond a single household. That is, the notion of family is restricted to a unit or units *within* a household.

In reality, however, families are more diffuse than this. People living alone and 'unrelated' people living in 'group households' have families with whom they are not living. Children who have left home – either temporarily or permanently – are likely to be seen as 'family' to their parents and vice versa. In addition, most children of divorced families see their non-resident father (along with any resident step-parent) as part of their family (Funder 1991).

Therefore, as most people see families as extending beyond households, it makes sense to target households and then ask household members about their families.

Sample size and unit of analysis

The unit of analysis will be the individual person rather than family or household. That is, individuals who remain in the household and those who move out will be tracked.

A sample of 5000 households will be selected. Attempts will be made to interview all adult members of the household. In addition, the pilot study will seek parental permission for interviews with children aged 12 years and upward. The results of this study will determine the age cut-off for interview in Wave 1.

Information about younger children will be sought from a parent – in most cases, the mother.

Who will be followed over the course of the panel?

Rules for identifying household members who will be followed up – 'following rules' – are being developed. For example:

- Original sample members represent all adults and children living in the household in Wave 1 – regardless of whether or not they have been interviewed. These people, and the children born to them, will be followed.
- Methods of detecting and including transient household members are under investigation. This would provide an option for widening the conventional definition of a household member. Picking up transient members will help provide policy relevant information about such people. At the same time, most users of the data may prefer to exclude such people from their analysis, thereby adhering to conventional definitions of household membership.
- At subsequent waves, all members (above a certain age) of households containing an original sample member, or child of an original sample member, will be interviewed, regardless of whether or not they are original sample members themselves. Interviews with new household members (non-original sample members) will be conducted in order to derive important information about the environmental circumstances of the original sample members. In subsequent waves, non-original sample members will only be re-interviewed if they continue to live with an original sample member.

Samples for 'bolt-on' studies

'Bolt-on' studies may involve the addition of new samples (to increase the numbers in subgroups of interest). This would be undertaken after consultation with the sampling consultant.

Maintaining a representative sample

A key problem with indefinite life panel surveys is the fact that the sample becomes progressively less representative of the population, for two reasons. First, it does not include newcomers to the population. Second, there are likely to be systematic differences between those who drop out of the survey and those who continue – for example, young people and those who divorce are more likely to be mobile and thus difficult to trace.

No decision has yet been made about whether or not immigrants should be added to the sample.

Regarding attrition, a system will be set in place to promote and maintain the interest of respondents without harassing them. Details of this system will form part of a published Australian Family Panel Survey document.

Immediate steps and longer term outcomes

The Australian Family Panel Survey will provide rich details about interpersonal relationships between family members within the household and across household boundaries. It will also enable the tracking of the personal trajectories of individual sample members (including young children not interviewed) and the identification of factors contributing to these trajectories. A pilot study will be undertaken in May/June 2000. Wave 1 will begin in Spring 2000.

The feasibility of continuing with the study will depend on response rates. This will be monitored closely, as will the reliability and validity of the questions asked.

References

ABS (1997), *Family Characteristics*, Australian Bureau of Statistics, Catalogue No. 4442.0.

ABS (1999), *Household and Family Projections, Australia: 1996 to 2021*, Australian Bureau of Statistics, Catalogue No. 3236.0.

Bennett, D.J. & and Steel, D. (forthcoming), 'An evaluation of a large scale CATI household survey using random digit dialling', *Australian & New Zealand Journal of Statistics*, vol. 42.

Buck, N., Ermisch, J., & Jenkins, S.P. (1996), *Choosing a Longitudinal Survey Design: The Issues*, ESRC Research Centre on Micro-Social Change, University of Essex, UK.

Commonwealth Department of Family and Community Services (1999), *Household, Income and Labour Dynamics in Australia (HILDA) Survey: Draft Proposed Implementation Plan*, Strategic Policy and Analysis Branch, Research Strategies Section, Canberra.

de Vaus, D. (1995), *Surveys in Social Research* (fourth edition), Canberra. Allen & Unwin, St. Leonards, NSW.

Duncan, G.J. & Kalton, G. (1987), 'Issues of design and analysis of surveys across time', *International Statistical Review*, vol. 55, no. 1, pp. 97-117.

Funder, K. (1991), 'Children's constructions of their post-divorce families: a family sculpture approach', in K. Funder (ed.) *Images of Australian Families*, Longman, Melbourne.

Groves, R.M. & Lyberg, L.E. (1988), 'An overview of non-response issues in telephone interview', in R.M. Groves, P.P. Biemer, L.E. Lyberg, J.T. Massey, W.L. Nicholls, & J. Waksberg (eds) *Telephone Survey Methodology*, Wiley, New York.

Mills, E. (1994), 'Telephone interviewing at the Institute', *Family Matters*, no. 39, pp. 32-33.

Saunders, P. (1999), *Australian Institute of Family Studies: Research Plan 1999-2001*, Australian Institute of Family Studies, Melbourne.

Saunders, P. & Glezer, H. (1999), *The New Australian Family Panel Survey*, Australian Family Briefing No. 7, Australian Institute of Family Studies, Melbourne.

Steel, D., Vella, J. & Harrington, P. (1996), 'Quality issues in telephone surveys: coverage, non-response and quota sampling', *The Australian Journal of Statistics*, vol. 38, pp. 15-34.

Trewin, D. & Lee, G. (1988), 'International comparisons of telephone coverage', in R.M. Groves, P.P. Biemer, L.E. Lyberg, J.T. Massey, W.L. Nicholls & J. Waksberg (eds) *Telephone Survey Methodology*, Wiley, New York.

ABOUT THE SURVEY

The Australian Family Panel Survey will form part of the responsibilities of the Australian Institute of Family Studies new Research Operations Unit. The team includes:

- the Manager of the Research Operations Unit;
- a Family Trends Monitoring Manager with responsibility for the development of demographic questions and analysis and publication of demographic trends;
- a Database Manager who manages the Australian Family Panel Survey database and is responsible for the development of technical reports;
- an Administration Coordinator who manages the sample;
- an external consultant with expertise in survey methods and sampling.

The Research Operations Unit is supported by the Institute's Information Technology staff including a Survey Operations Manager who is responsible for the data-to-day management of CATI surveys.

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