



Growing up in Australia: The

Growing Up in Australia: The Longitudinal Study of Australian

Children (LSAC) is Australia's first national study of its kind. It delivers comprehensive national data on children as they grow up. Prior to the establishment of LSAC, Australia was one of only a few OECD countries without a large scale nationally representative survey of its young children.

This issue of *Family Matters* has a number of articles based on data from the first wave of LSAC, released in May 2005. In this paper we first provide a brief overview of the background and design of the study. This is followed by an overview of the papers included in this edition.

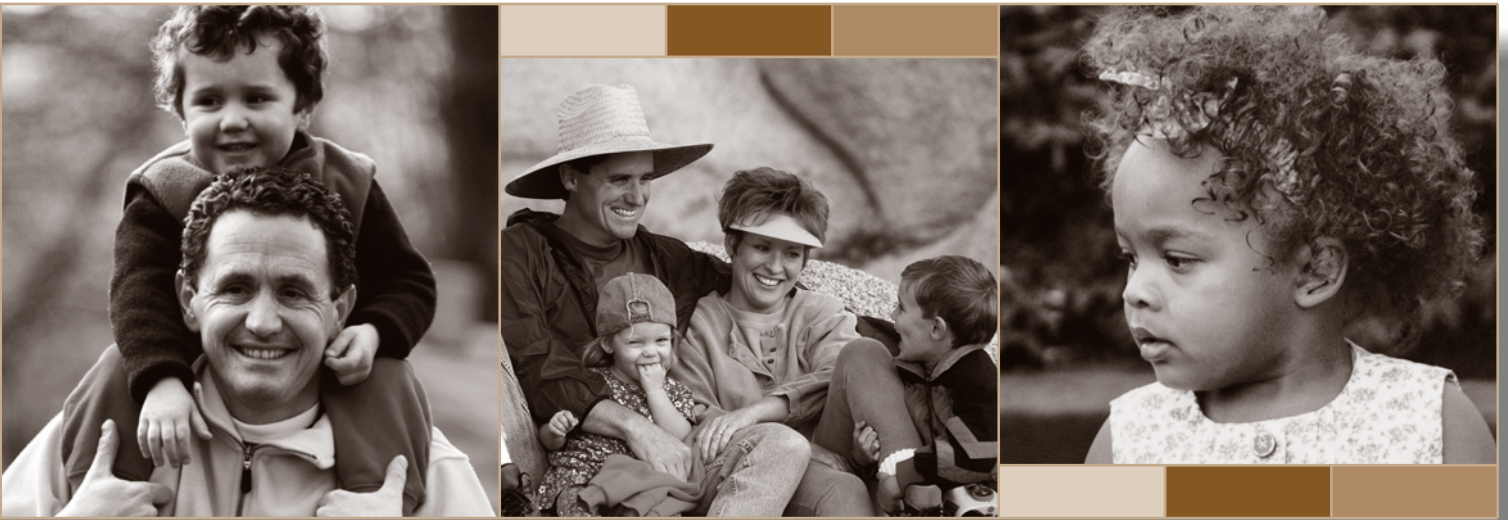
The study was instigated to throw light on the impact of Australia's current social, economic and cultural environment on the next generation. More specifically, it seeks to improve understanding of the complex interplay of factors that facilitate or impede healthy early childhood development, to identify opportunities for early intervention and prevention in policy areas concerning children, and to inform policy debate in general. Its longitudinal nature

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will enable researchers to examine in detail the impact of early experi-

ences on later development, and to identify the diverse pathways children follow over their childhood. It will also help to determine the opportune times for the provision of services and welfare support and to identify the long-term consequences of policy changes.

To achieve these objectives, the study explores multiple facets of children's wellbeing, including their physical health, and their social, cognitive and emotional development. In order to understand the risk and protective processes that underlie children's healthy development, the study also examines other attributes of the children themselves (such as their temperament), along with the contexts in which they are raised, particularly their home, child care settings, school, neighbourhood and community. The study also examines dynamics within these settings, for example the parenting practices and the quality of co-parental relationships to which children are exposed, and the quality of the care they receive in different types of non-parental care.



Longitudinal Study of Australian Children



Study design and sample selection

LSAC addresses a range of key research questions about children's development and wellbeing, clustered around the themes of family functioning, health, child care, and education (see Sanson et al. (2004) for a discussion of these questions). Respondents include parents, child carers, preschool and school teachers and, from Wave 2 onwards, the children themselves. Here we provide a brief description of the design of LSAC; more detailed information can be found in discussion and technical papers at the project's web site www.aifs.gov.au/growingup.

The focus of the study is on the early years of children's lives, and therefore "the child" is the sampling unit of interest. The study has adopted a cross-sequential design that follows two cohorts whose ages will overlap as the study progresses. In total, 10,090 children and their families participated in Wave 1; approximately half of the children were infants (aged 3-19 months) and half were 4-5 years



old. The sample is broadly representative of all Australian children (citizens and permanent residents) in each of two selected age cohorts: children born between March 2003 and February 2004 (infants) and children born between March

1999 and February 2000 (children aged four to five years). Children in some remote parts of Australia were excluded because of the extremely high data collection costs in these areas.

The sampling frame for the study was the Health Insurance Commission's (HIC) Medicare data base (now Medicare Australia). During 2004 a sample of more than 18,500 children within the LSAC sample birth dates was selected from the Medicare administrative database. The study children were from a random selection of 330 postcodes. The selection of children within postcodes was also random. A process of stratification was used in order to ensure that the numbers of children in each state/territory and within and outside each capital city were roughly proportionate to the total numbers of children in these areas.

Interviewers spent on average 2 hours with each family, collecting information from the child's parents and from the child (physical measurements and, for the 4-5 year old children, direct assessment of school readiness and language). Interviews were held with the parent who knew the child best ("Parent 1"); in 97 per cent of families, this was the child's biological mother. Parent 1 and her or his resident partner (typically the child's other parent) were also asked to fill in separate questionnaires. In addition, the interviewer recorded some personal observations about the neighbourhood, family, parent and child, and left behind two diaries for the parent to record how the child spent his or her time during two 24-hour periods. Finally, if the parent agreed, a questionnaire was sent to a carer/teacher

Response rates

Calculating response rates is complex for a study such as LSAC. The final Wave 1 sample represents 53 per cent of all families who were sent a letter by

the HIC. Refusals were the largest source of sample loss (31 and 35 per cent of infants and 4-5 year olds respectively) followed by "non-contact". Non-contact occurs when the address details supplied by HIC are out of date due to the family moving or when only a post office box address was available. The rates of "non-contact" were 10 per cent for infants and 14 per cent for 4-5 year olds. The most appropriate response rate is thus constructed by excluding the "non-contacts". This results in a response rate of 64 per cent for infants and 57 per cent for 4-5 year olds.¹

The response rates above refer to Parent 1 interviews. As noted above, parents and carers/teachers were also asked to complete other written materials.



Management and implementation of LSAC

***Growing Up in Australia* is being designed and implemented by a consortium led by the Australian Institute of Family Studies in partnership with the Australian Government Department of Family and Community Services. LSAC was initiated and funded by the Australian Government Department of Family and Community Services (FaCS) as part of its Stronger Families and Communities Strategy.**



The Consortium brings together significant research and management expertise. It includes researchers from a wide range of disciplines, including child development, sociology, epidemiology, public health, family studies, psychology, paediatrics and child health, early childhood education services, social policy research, and economics. This breadth of expertise ensures comprehensive coverage of influences on child development.

The Institute sub-contracted the first wave of data collection to Colmar-Brunton Social Research and I-view, private social and market research companies. Future waves of data collection are being undertaken by the Australian Bureau of Statistics (ABS).

A key role in the design of the study is played by the Consortium Advisory Group (CAG). The CAG includes members of each of the Consortium partners and is chaired by Professor Stephen Zubrick.

For some children, non-parental care begins in the first months of life, whereas for others, it begins at preschool-age or school entry.



Response rates for these questionnaires were highest for the Parent 1 and Parent 2 questionnaires (85 per cent and 79 per cent respectively) and for the time-use diaries (78 per cent), followed by the teacher questionnaire (69 per cent). Only 53 per cent of carers based at long day care centres and 43 per cent of home-based carers (Family Day Carers

or informal carers such as grandparents) completed and returned their questionnaires.

Sample representativeness

The LSAC sample is in broad terms, representative of the population, with no large differences from

Consortium Advisory Group Membership

Dr John Ainley, Australian Council for Educational Research.

Dr Donna Berthelsen, Faculty of Education and Faculty of Early Childhood, Queensland University of Technology.

Dr Michael Bittman, Department of Sociology, School of Social Science, University of New England.

Dr Linda Harrison, Faculty of Education at Charles Sturt University.

Professor Ian Katz, Social Policy Research Centre, University of New South Wales.

Dr Jan Nicholson, Institute for Health and Biomedical Innovation and the Centre for Health Research (Public Health), Queensland University of Technology.

Dr Bryan Rodgers, Centre for Mental Health Research, Australian National University.

Professor Michael Sawyer, Department of Paediatrics, University of Adelaide and Youth and Women's Health Service.

Professor Sven Silburn, Centre for Developmental Health, Curtin University and Telethon Institute for Child Health Research.

Dr Lyndall Strazdins, National Centre for Epidemiology and Population Health, Australian National University.

Associate Professor Judy Ungerer, Department of Psychology, Macquarie University.

Professor Graham Vimpani, University of Newcastle and Clinical Chair Kaleidoscope: Hunter Children's Health Network.

Associate Professor Melissa Wake, Centre for Community Child Health, Murdoch Childrens Research Institute.

Professor Stephen Zubrick (Chair), Telethon Institute for Child Health Research and Centre for Developmental Health at Curtin University of Technology.

In addition to the CAG, a Scientific Policy and Advisory Group was appointed during 2002 to provide high level strategic, scientific and policy input. It consists of national and international experts. Other Australian Government agencies, State and Territory Government and the community and research sectors are represented on an advisory Steering Committee.

Day-to-day management of the study is being undertaken by a Project Operations Team based at the Australian Institute of Family Studies (AIFS). AIFS Deputy Director, Research, Dr Matthew Gray is Executive Project Manager and Carol Soloff, Project Manager for the Study.

Associate Professor Ann Sanson, Department of Paediatrics, University of Melbourne and Network Coordinator for the Australian Research Alliance for Children and Youth, is the Principal Scientific Advisor for the Study.

ABS Census data on most characteristics. Variables with a close match to census figures include mother's and father's country of birth and study child gender. Children with mothers or fathers who have completed Year 12 are a little over-represented in the sample. Infants with no siblings are under-represented (by 3 percentage points), while 4-5 year olds in couple families are over-represented and those in sole parent families are under-represented (each by 4 percentage points). Weights are provided with the data to ameliorate the impact of biases in the sample selection process and survey non-response. The clustered stratified nature of the sampling, in principle, needs to be taken into account when using data. These issues are discussed in detail in LSAC Technical Report 3, *Wave 1 Weighting and non-Response*.

Overview of articles in this edition of Family Matters

Grandparents have always played an important role in raising children and in family life in general. However, very little is known about the role that grandparents play in the lives of Australian children. The paper by Gray, Misson and Hayes provides estimates of the extent to which young children have contact with their grandparents. They find that there are very few children who have no face-to-face contact with at least one grandparent. The paper also highlights the important role that grandparents can play after parental relationship breakdown. Later waves of LSAC data will provide unique insight into the ways that grandparental care is related to children's later development.

An increasing number of mothers with young children are in paid employment and the effect of this on family life is of increasing policy and scientific interest. The paper by Alexander and Baxter provides the first analysis of this issue for Australian families with very young children. The analysis identifies the effects of gender, job characteristics and the nature of the family environment in mediating the impacts of paid employment on family life. The paper provides a good example of how the LSAC data can be used to analyse family level outcomes, rather than outcomes related specifically to the study child.

The paper by Harrison and Ungerer provides an overview of the LSAC data on patterns of use of

child care. Non-parental education and child care are a feature of the wider environment that will affect all the LSAC children over the course of the study.

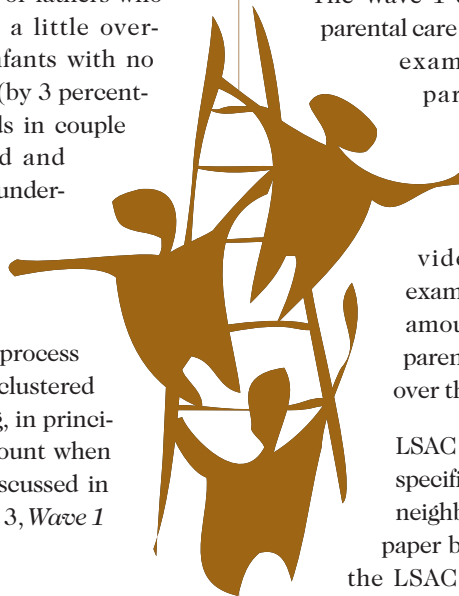
The Wave 1 data show the diversity of non-parental care experiences of children today. For example, for some children, non-parental care begins in the first months of life, whereas for others, it begins at pre-school-age or school entry.

This descriptive paper provides a useful starting point for examining the effects not only of the amount but also the quality of non-parental care on children's development over the early years.

LSAC adopted a clustered sample design specifically to allow the examination of neighbourhood effects on children. The paper by Edwards exploits this feature of the LSAC data to estimate the extent to which neighbourhood socio-economic advantage or disadvantage is associated with 4-5 year old Australian children's physical, social/emotional and learning outcomes. Edwards finds that neighbourhood socioeconomic status is associated with outcomes for children but that the effects are small. However, it is important not to downplay the potential importance of the impacts of neighbourhoods on children because small effects can accumulate over time and become substantial over the longer term.

The paper by Richardson, Higgins, Bromfield, Tooley and Stokes examines the relationship between family structure (intact, sole-parent and step-family) and the incidence of child injury. Although children living in sole parent and step families have a slightly higher injury rate than those in intact families, this slightly high risk could be fully explained by the higher levels of socio-economic disadvantage in sole parent households. It is likely that any higher risk for child injury in non-intact families occurs because such families are more likely to possess child, parent, family and neighbourhood characteristics that are risk factors for child injury, rather than being specific to family type itself.

The last 20 years have seen enormous changes in family life, and children's experiences in their



early years are vastly different today to the previous generation. This has led to considerable discussion and concern about the possible impacts on developmental outcomes for children. The Australian Temperament Project has followed a large cohort of Victorian children since their infancy in 1983, and the dataset includes some identical measures on the children in infancy and at 4 years to the LSAC Wave 1 data. Smart and Sanson exploited this unique opportunity to compare children's temperament and behaviour over this 20-year period. They found, as expected, little difference in children's temperamental characteristics. Comfortingly, they also found no evidence that children today have higher levels of emotional or behavioural difficulties than children 20 years ago. It will be exciting to make further comparisons between these two major longitudinal studies as LSAC progresses.

We hope that the articles in this issue of Family Matters illustrate the value of the first wave of data in providing new insights into the development of young children in Australia, as well as detailed information about the contexts of their lives. The articles also illustrate the breadth of issues that can be addressed using the LSAC data. While the designers of the study anticipated a wide range of questions that the survey could be used to address, the rich and comprehensive nature of the data affords opportunities to examine a range of other unanticipated questions in new and

the number of waves of data increases and the length of time covered increases. The Household, Income and Labour Dynamics in Australia (HILDA) survey, which is now up to its fifth wave provides a good example of this. For a study of development over time such as LSAC, multi-wave design is critical. It is intended that these children and their families will be followed at two-yearly intervals until 2010, and possibly beyond. As we write, the content and procedures for Wave 2 (which goes into the field in 2006) are being finalised, and planning for Waves 3 and 4 has already commenced.

Endnote

¹ This response rate calculation assumes that the "non-contacts" would respond at the same rate as those who could be contacted by an interviewer and is probably the most reasonable assumption. Nonetheless the fact that more geographically mobile families are more likely to be a non-contact may introduce some biases into the sample.

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The last 20 years have seen enormous changes in family life, and children's experiences in their early years are vastly different today to the previous generation.

informative ways. The analysis by Gray, Misson and Hayes on patterns of grandparent care following parental separation is an example of this.

While the articles in this edition illustrate the value of a single cross-sectional wave of the LSAC data, its true value will only be realised once it becomes a longitudinal study. The international experience is that the value of longitudinal surveys increases rapidly as

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We are grateful for the assistance provided by Ruth Weston in describing the LSAC survey.