The Longitudinal Study of Australian Children

2005-06 Annual Report

Australian Institute of Family Studies
Growing Up in Australia: the Longitudinal Study of Australian Children

In 2004, over 10,000 children and families around Australia agreed to take part in Growing Up in Australia, the longitudinal study of Australian children. This study is designed to identify policy opportunities for improving support for children and their families and for early intervention and prevention strategies. This longitudinal study involves two representative cohorts of children — approximately 5,000 infants aged 0-1 years and 5,000 children aged 4-5 years when the families agreed to take part in 2004. It is following the development of these children until 2010 and possibly beyond.

Growing Up in Australia was initiated and funded as part of the Australian Government’s Stronger Families and Communities Strategy by the Australian Government Department of Families, Community Services and Indigenous Affairs. The study is being undertaken in partnership with the Australian Institute of Family Studies, with advice being provided by a consortium of leading researchers at research institutions and universities throughout Australia. In Wave 1, the data collection was undertaken by i-view, in conjunction with Colmar Brunton Social Research. From Wave 2, the data collection is being undertaken for the Institute by the Australian Bureau of Statistics.
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minister’s foreword</td>
<td>2</td>
</tr>
<tr>
<td>Director’s foreword</td>
<td>3</td>
</tr>
<tr>
<td>Key personnel</td>
<td>4</td>
</tr>
<tr>
<td>Overview of 2005-06</td>
<td>7</td>
</tr>
<tr>
<td>Highlights from Wave 1.5</td>
<td>12</td>
</tr>
<tr>
<td>Parental leave in Australia</td>
<td>19</td>
</tr>
<tr>
<td>Parenting and families in Australia</td>
<td>22</td>
</tr>
<tr>
<td>Mothers, fathers, work and wellbeing</td>
<td>26</td>
</tr>
<tr>
<td>Young children and their grandparents</td>
<td>29</td>
</tr>
<tr>
<td>Does it take a village?</td>
<td>31</td>
</tr>
<tr>
<td>Use of formal and informal child care for infants</td>
<td>33</td>
</tr>
<tr>
<td>A comparison of children’s temperament and adjustment across 20 years</td>
<td>35</td>
</tr>
<tr>
<td>Publications and presentations</td>
<td>38</td>
</tr>
<tr>
<td>Accessing the data</td>
<td>42</td>
</tr>
</tbody>
</table>
Foreword from the Minister for Families, Community Services and Indigenous Affairs

Growing Up in Australia: the Longitudinal Study of Australian Children, is an exciting and important social policy research project that is providing high quality data to better understand children’s development in Australia’s current social, economic and cultural environment.

The Government is committed to understand how families can give their children “the best start in life” to help them grow up strong. Growing Up in Australia is the first comprehensive national study examining Australian children as they grow up, and with each wave of data collected, knowledge and understanding of children’s development will increase in breadth and scope. The objective of Growing Up in Australia is to provide an evidence base for family and children’s policy over the long term as part of the Australian Government’s Stronger Families and Communities Strategy initiative.

I would like to thank Professor Alan Hayes and his team at the Australian Institute of Family Studies for their continuing dedication to delivering such a high quality product for social and policy research.

The release of Wave 1.5 data builds upon the Australian Government’s commitment to providing quality data as an evidence base for social policy in Australia. By funding and promoting Growing Up in Australia, the Australian Government Department of Families, Community Services and Indigenous Affairs, in partnership with the Australian Institute of Family Studies, has established itself in a position of significant leadership in Australian social research.

This year the Department of Families, Community Services and Indigenous Affairs has helped to build the evidence base by commissioning research that uses Growing Up in Australia data to examine a range of issues relating to children and families, such as the use of child care, children’s health and development, parenting and work-family life balance, to assist in developing policies that will improve the lives of Australians.

Growing Up in Australia has already made a valuable contribution to research into aspects of Australia’s children and families and I look forward to an ever greater wealth of knowledge that will become available as further waves of data are collected and released.

The Hon. Mal Brough MP
Minister for Families, Community Services and Indigenous Affairs
Understanding the impact of Australia’s unique social and cultural environment on the next generation of Australians is crucial to the future of Australia. *Growing Up in Australia*: the Longitudinal Study of Australian Children is designed to provide this information and, following the release of the first wave of data in 2005, is beginning to realise this potential.

This report marks the end of a productive year for *Growing Up in Australia*. As I write, the fieldwork for Wave 2 is being conducted. Given the tight timelines for Wave 2, this has represented a significant challenge for those involved in *Growing Up in Australia*. I’m pleased to report the challenge has been met successfully.

With analysis of the Wave 1 data now well underway, it is encouraging to see that the information collected in this study is already being used. Researchers are examining the data to further our understanding about what children’s lives are like and what they do in their early years and how these might influence later life outcomes. Data from future waves of the study will undoubtedly add to the depth of analysis possible with *Growing Up in Australia*.

The success of *Growing Up in Australia* is the result of the contributions of many people. I would like to acknowledge the commitment and contribution of the families who have generously given their time to participate in *Growing Up in Australia*. Without the time, experience and insight they have given and continue to share with us, the *Growing Up in Australia* study would not be possible. The commitment to *Growing Up in Australia* shown by the Australian Government Department of Families, Community Services and Indigenous Affairs has been outstanding and I want to thank them for their continuing support of the study.

*Growing Up in Australia* has also benefited from the knowledge and skill of many, including the Consortium Advisory Group, other consultants and both data collection agencies – I-view (as the data collector for Wave 1) and the Australian Bureau of Statistics (as the data collector for Waves 2-4). The collaborative nature of the partnerships between these parties and *Growing Up in Australia* has been a highlight and has added to the wealth of expertise that already exists among those involved with the development of the study.

Professor Alan Hayes
Director
Australian Institute of Family Studies
AIFS Management Team

Dr Matthew Gray  
Executive Project Manager  
Deputy Director (Research)

Robert Johnstone  
General Manager  
(Research)

Carol Soloff  
Project Manager

Linda Bencic  
Design Manager

Sebastian Misson  
Data Manager

Anna Ferro  
Siobhan O’Halloran  
Joanne Slater  
Research Officers

Pictured (left to right) front: Sebastian Misson, Siobhan O’Halloran, Robert Johnstone;  
back: Matthew Gray, Linda Bencic, Carol Soloff. Absent: Anna Ferro, Joanne Slater.

Australian Government Department of Families, Community Services and Indigenous Affairs Growing Up in Australia Project Team

Pictured (left to right): Andrew Whitecross (Branch Manager), Sue Sutton, Diane Du Toit, Matuna Mostafa, Michael Kortt (Section Manager)
**Consortium Advisory Group members**

<table>
<thead>
<tr>
<th>Name</th>
<th>Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Associate Professor Ann Sanson</td>
<td>Principal Scientific Advisor University of Melbourne</td>
</tr>
<tr>
<td>Professor Stephen Zubrick</td>
<td>(Chair) Telethon Institute for Child Health Research</td>
</tr>
<tr>
<td>Dr John Ainley</td>
<td>Australian Council for Educational Research</td>
</tr>
<tr>
<td>Dr Donna Berthelsen</td>
<td>Queensland University of Technology</td>
</tr>
<tr>
<td>Dr Michael Bittman</td>
<td>University of New England</td>
</tr>
<tr>
<td>Dr Linda Harrison</td>
<td>Charles Sturt University</td>
</tr>
<tr>
<td>Professor Ilan Katz</td>
<td>University of New South Wales</td>
</tr>
<tr>
<td>Associate Professor Jan Nicholson</td>
<td>Griffith University</td>
</tr>
<tr>
<td>Professor Bryan Rodgers</td>
<td>Australian National University</td>
</tr>
<tr>
<td>Professor Michael Sawyer</td>
<td>University of Adelaide</td>
</tr>
<tr>
<td>Professor Sven Silburn</td>
<td>Telethon Institute for Child Health Research</td>
</tr>
<tr>
<td>Dr Lyndall Strazdins</td>
<td>Australian National University</td>
</tr>
<tr>
<td>Associate Professor Judy Ungerer</td>
<td>Macquarie University</td>
</tr>
<tr>
<td>Professor Graham Vimpani</td>
<td>University of Newcastle</td>
</tr>
<tr>
<td>Associate Professor Melissa Wake</td>
<td>Murdoch Childrens Research Institute</td>
</tr>
</tbody>
</table>

Consortium Advisory Group members pictured (left to right) front: Judy Ungerer, Ann Sanson, Melissa Wake; middle: Linda Harrison, Donna Berthlesen, Michael Sawyer, Lyndall Strazdins, Michael Bittman; back: John Ainley, Sven Silburn, Bryan Rodgers, Jan Nicholson, Steve Zubrick. Absent: Ilan Katz, Graeme Vimpani
Consultants

Dr David Lawrence  
Curtin University of Technology

Professor John Carlin  
University of Melbourne

Scientific and Policy Advisory Group

AUSTRALIA
Dr Jan Carter  
Formerly Professor of Social Work at the University of Melbourne

Professor Alan Hayes  
Australian Institute of Family Studies

Professor Terry Nolan  
University of Melbourne

Dr Graeme Russell  
Macquarie University

Professor Sue Spence  
Macquarie University

Professor Fiona Stanley  
Telethon Institute of Child Health Research

Dr Christina van Kraayenoord  
University of Queensland

NEW ZEALAND
Dr Richie Poulton  
University of Otago

UK
Professor Judy Dunn  
King’s College London

USA
Professor Jeanne Brooks-Gunn  
Columbia University

Dr Sarah Friedman  
National Institute of Child Health and Human Development, Washington

Dr Gary Resnick  
Child and Family Studies, Westat, Rockville

Dr Jerry West  
National Center for Education Studies, Washington

CANADA
Professor Clyde Hertzman  
University of British Columbia

Australian Bureau of Statistics

Pictured (left to right): Celia Moss (Director), Helen Spong, Narelle Budd, Joanne Corey, David Zago, Tara David, Gill McPadden. Absent: Kate Loane
Growing Up in Australia is the Longitudinal Study of Australian Children (also known as LSAC). This study is following two representative cohorts of children and their families, recruited when the children were aged 0-1 years (B or infant cohort) or 4-5 years (K or child cohort).

The main activities since the previous Annual Report have been those associated with the release of Wave 1 data, the conduct of a between-waves mail-out (‘Wave 1.5’) and preparation for and commencement of the second wave of data collection.

**Dissemination**

The first wave of data from Growing Up in Australia was released in May 2005. The level of interest in the data from the research community continues to grow. The confidentialised files are available to approved researchers and there are now over 90 researchers who have been granted access to the data. The number of publications using Growing Up in Australia data has increased. The Growing Up in Australia bibliography (pages 38-41) lists articles in refereed journals and a large number of conference papers and presentations undertaken since the last Annual Report.

Family Matters, the Institute’s peer reviewed journal, has contained articles featuring Growing Up in Australia analyses. For example, Issue 72 (Summer 2005) contained articles on the relationship between childhood injuries and family type, neighbourhood influences on children’s wellbeing, work-family balance, child care, the role of grandparents in children’s lives, and children’s temperament and adjustment.

The Australian Government Department of Families, Community Services and Indigenous Affairs has commissioned a number of papers and reports based on data from Wave 1 of Growing Up in Australia. Details are included on page 40. Four major reports due for release in the near future are:

- Parenting and families in Australia;
- Mothers, fathers, children and work;
- How well are Australian infants and 4-5 year old children doing?; and
- Child care in Australia.

Included in this Annual Report are a number of short articles, based on the Growing Up in Australia data, including sections from relevant Family Matters articles and highlights from some of the commissioned reports.

**Wave 1.5**

Wave 1.5 was conducted midway between Waves 1 and 2 (about a year after Wave 1) and consisted of a mail-back questionnaire that was distributed to the Growing Up in Australia families, along with a newsletter containing updates on the study. Information was collected on how the study child and their families were doing. It also assisted in maintaining contact with respondents and retaining them in the study.

The questionnaires for both cohorts included questions about the study child’s health, behaviour, development and education/child care. Information was also collected about stressful life events experienced by the family as well as parental mental...
Parents were also asked what they liked about their child. The B cohort questionnaire included questions about service utilisation, parental employment history, and the use of maternity and other leave following the birth of the study child and return to employment (described in more detail below). The questionnaires for both cohorts also asked study families to confirm their contact details and asked about intentions to move house prior to the Wave 2 interviews.

A novel feature of Wave 1.5 was the option for study families to complete the questionnaire online. However, only 7 per cent of respondents used this facility.

The Parental Leave in Australia Survey

The B cohort questionnaire included detailed questions on parental employment and leave around the time of the birth of the study child. This nested component of Wave 1.5, entitled ‘The Parental Leave in Australia Survey’, was funded by an Australian Research Council grant held by Dr Gillian Whitehouse (University of Queensland), Dr Marian Baird (University of Sydney) and Dr Chris Diamond (University of Queensland).

This nested study was designed to redress the lack of information available on issues such as the number of pregnant women in paid work, the proportion eligible for 52 weeks unpaid parental leave, take-up rates of paid and unpaid parental leave, and women’s patterns of return to work following the birth of a child. Some initial findings from The Parental Leave in Australia Survey are presented later in the Annual Report.

Response rate

The overall response rate to the Wave 1.5 questionnaire was 70.6 per cent (3,573) for the B cohort and 72.6 per cent (3,594) for the K cohort, giving an overall response rate of 71.7 per cent. Updated contact details were obtained for 80 per cent of the families in the study.

The lowest response rates to the Wave 1.5 questionnaire were from Indigenous participants (44 per cent), lone parents (53 per cent), Parent 1’s (the parent who knew their child best) with poor spoken English (58 per cent), Parent 1’s who hadn’t completed Year 12 (62 per cent) and Parent 1’s who speak a language other than English at home (63 per cent). The differences in the response rates for these groups were statistically significant.

The extent of differences in the characteristics of the families that returned the Wave 1.5 questionnaire and the full Wave 1 sample was tested by comparing the characteristics of Wave 1 and Wave 1.5 respondents (Table 1). Despite the differences in response from particular sub-populations, the characteristics of the Wave 1 and Wave 1.5 samples were generally similar, indicating that non-response had only a small impact on overall sample composition. The largest differences in sample composition, between Wave 1.5 and Wave 1, were greater proportions of families with higher levels of parental educational attainment and income for the Wave 1.5 sample.
Table 1  Wave 1 characteristics of families responding to the Wave 1.5 questionnaire compared with the characteristics of the full Wave 1 sample (unweighted data) (a)

<table>
<thead>
<tr>
<th>Wave 1 characteristics</th>
<th>B cohort</th>
<th>K cohort</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Wave 1.5</td>
<td>Wave 1</td>
</tr>
<tr>
<td></td>
<td>no.</td>
<td>%</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>1,849</td>
<td>51.8</td>
</tr>
<tr>
<td>Female</td>
<td>1,724</td>
<td>48.3</td>
</tr>
<tr>
<td>Age range of children (b)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B cohort</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3-5 months</td>
<td>516</td>
<td>14.1</td>
</tr>
<tr>
<td>6-11 months</td>
<td>2,631</td>
<td>73.6</td>
</tr>
<tr>
<td>12-14 months</td>
<td>503</td>
<td>14.1</td>
</tr>
<tr>
<td>15-19 months</td>
<td>23</td>
<td>0.6</td>
</tr>
<tr>
<td>Family type</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Couple family:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- both biological</td>
<td>3,322</td>
<td>93.0</td>
</tr>
<tr>
<td>- other (e.g. step/blended)</td>
<td>17</td>
<td>0.5</td>
</tr>
<tr>
<td>Single parent family</td>
<td>172</td>
<td>6.5</td>
</tr>
<tr>
<td>Siblings</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Only child</td>
<td>1,431</td>
<td>40.1</td>
</tr>
<tr>
<td>One sibling</td>
<td>1,370</td>
<td>38.3</td>
</tr>
<tr>
<td>Two or more siblings</td>
<td>772</td>
<td>21.6</td>
</tr>
<tr>
<td>Cultural background</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aboriginal or Torres Strait Islander</td>
<td>94</td>
<td>2.6</td>
</tr>
<tr>
<td>Mother speaks a language other than English at home</td>
<td>444</td>
<td>12.4</td>
</tr>
<tr>
<td>Work status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Both parents or lone parent work</td>
<td>1,844</td>
<td>51.8</td>
</tr>
<tr>
<td>One parent works (in couple family)</td>
<td>1,451</td>
<td>40.7</td>
</tr>
<tr>
<td>No parent works</td>
<td>268</td>
<td>7.5</td>
</tr>
<tr>
<td>Educational status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mother completed Year 12</td>
<td>2,623</td>
<td>73.5</td>
</tr>
<tr>
<td>Father completed Year 12</td>
<td>2,019</td>
<td>61.4</td>
</tr>
<tr>
<td>Parents’ combined income</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than $800 per week</td>
<td>881</td>
<td>25.9</td>
</tr>
<tr>
<td>$800-1,499 per week</td>
<td>1,467</td>
<td>43.1</td>
</tr>
<tr>
<td>$1,500 or more per week</td>
<td>1,055</td>
<td>31.0</td>
</tr>
<tr>
<td>State</td>
<td></td>
<td></td>
</tr>
<tr>
<td>New South Wales</td>
<td>1,103</td>
<td>30.9</td>
</tr>
<tr>
<td>Victoria</td>
<td>895</td>
<td>25.1</td>
</tr>
<tr>
<td>Queensland</td>
<td>716</td>
<td>20.0</td>
</tr>
<tr>
<td>South Australia</td>
<td>266</td>
<td>7.4</td>
</tr>
<tr>
<td>Western Australia</td>
<td>369</td>
<td>10.3</td>
</tr>
<tr>
<td>Tasmania</td>
<td>80</td>
<td>2.2</td>
</tr>
<tr>
<td>Northern Territory</td>
<td>55</td>
<td>1.5</td>
</tr>
<tr>
<td>Australian Capital Territory</td>
<td>89</td>
<td>2.5</td>
</tr>
<tr>
<td>Region</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capital City Statistical Division</td>
<td>2,288</td>
<td>64.0</td>
</tr>
<tr>
<td>Balance of state</td>
<td>1,285</td>
<td>36.0</td>
</tr>
<tr>
<td>Number of observations</td>
<td>3,573</td>
<td>5,107</td>
</tr>
</tbody>
</table>

(a) See the 2004 Annual Report for details on how the Wave 1 sample composition compared to the ABS 2001 Population Census data for children aged 0 and 4 years.
(b) Age range of children at Wave 1.
**Maintaining participation and contact with study families**

The success of longitudinal studies relies on the retention of study participants across the waves of the study. A number of strategies are being used to maintain contact with children and their families, and to encourage participants to update their contact details when necessary. Strategies include:

- obtaining several types of contact information for both parents (for example, phone and email addresses, contact details for extended family or friends);
- sending regular newsletters to study families;
- giving families mementos that have details of the study’s freecall 1800 number and email address;
- providing families with change of address cards; and
- including a section in the Wave 1.5 questionnaire for updating contact details.

We also keep in touch with the study families by sending birthday cards to the study children. A 2006 *Growing up in Australia* calendar, featuring children’s drawings of their families, was sent in December 2005, along with a newsletter.

**Wave 2 design and questionnaires**

Wave 2 development commenced in late 2004 and was finalised in early 2006. The first phase of data collection for Wave 2 was undertaken in October and November 2005, with over 400 families interviewed. The main second wave of data collection is being conducted during April to November 2006. A major improvement to the data collection is the use of computer assisted interviewing rather than the paper and pencil forms used in Wave 1. This will increase the accuracy of the data collected.

Information about the study child and their family is being collected via:

- a computer assisted interview with the parent who knows the child best (Parent 1);
- a short self-complete form completed by Parent 1 while the interviewer is in the home;
- leave behind self-complete questionnaire(s) for (both) resident parents;
- two 24-hour time use diaries recording how the study child spends their day;
- a self-complete questionnaire for non-resident parents (where the resident parent agrees to provide contact details for this parent);
- physical measurements of the child (weight, height and girth); and
- questionnaires sent to child carers (B cohort) and teachers (K cohort).

In addition, for the K cohort children, who are aged 6-7 years at Wave 2, there are:

- direct assessments of language and cognitive development administered by the interviewer to the child; and
- a series of questions that the interviewer asks the child directly about school and the child’s feelings in general.
Wave 2 fieldwork

The fieldwork for Wave 2 is being conducted by the Australian Bureau of Statistics (ABS). About 150 interviewers were trained in seven training courses conducted during March and April 2006. Feedback from interviewers indicated that families had been looking forward to the Wave 2 interviews and that the retention of the sample between Waves 1 and 2 will be high, with many of those who did not respond to Wave 1.5 responding to Wave 2. Wave 2 data will be released in 2007.

Looking ahead to Wave 3

Work began on the development of Wave 3 in early 2006 and will be completed in 2007.

Design teams, convened by members of the Consortium Advisory Group and comprised of experts from academic, research and government agencies, have been formed to work on content in the areas of health, education, child care, family functioning, child functioning and socio-demographics. Most members of these teams also worked on Wave 1 content.

Fieldwork for Wave 3 is scheduled to commence in March 2008.

Notes

- All data are from Growing Up in Australia Wave 1 unless otherwise stated.
- Weighted data have been used unless otherwise stated.
- Data in tables may not add to 100 per cent due to rounding error.
- The SEIFA measures referenced in the following articles are the 2001 Socio-Economic Indices for Areas, produced by the Australian Bureau of Statistics.
Wave 1.5 provides the first opportunity to analyse *Growing Up in Australia* as a longitudinal dataset.

The analyses that follow are presented to give an example of the type of changes that are occurring in the course of one year in the children’s lives. All cross-wave analyses in this section include only those respondents who responded to the relevant question at both Wave 1 and Wave 1.5. This eliminates differences between the sample at each wave as an explanation for differences over time.

**Changes since Wave 1**

Change is certainly a part of life. Most families (about 80 per cent of the B cohort and 70 per cent of the K cohort) experienced an important life event, such as a change in job or working hours, the birth of a child, or death of a close friend or relative, in the 12 months prior to Wave 1.5 (which is roughly the time between Waves 1 and 1.5) (see Figure 1).

The most common event was changing jobs or returning to work (34 per cent of the B cohort and 26 per cent of the K cohort parents). The next most common event was pregnancy or the birth of a child for the B cohort (25 per cent) and increased work hours (25 per cent for the B cohort and 22 per cent for the K cohort parents). Moving house was also common (20 per cent for the B cohort and 14 per cent for the K cohort) and the death of someone close to the family (about 16 per cent for both cohorts).

<table>
<thead>
<tr>
<th>Event</th>
<th>B cohort</th>
<th>K cohort</th>
</tr>
</thead>
<tbody>
<tr>
<td>Changed jobs or returned to work</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Became pregnant or had a baby</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increased work hours</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moved house</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Had a member of family or close friend die</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Decreased work hours</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suffered a serious illness, injury or assault</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lost a job</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sought work unsuccessfully for more than 1 month</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Separated from a partner/spouse</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Been away from home a lot</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Started living with a new partner/spouse</td>
<td></td>
<td></td>
</tr>
<tr>
<td>None of the above</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 1: Life events that happened to child’s (resident) parents in 12 months prior to Wave 1.5
Almost half of the parents changed their rating of their child’s health between waves.

**Child’s overall health rating**

Overall, parents’ ratings of their children’s health were slightly lower in Wave 1.5 than in Wave 1 (Figure 2). This was true for both cohorts. There was a decrease in the proportion of parents rating their child’s health as excellent and an almost corresponding increase in the proportion of parents who rated the child’s health as very good. At the other end of the scale, however, slightly fewer parents rated their child’s health as fair or poor at Wave 1.5.

The above figure compares the overall health ratings for each cohort at each point in time. This aggregate actually masks considerable change at the individual level. If the child health rating is compared for each child at Wave 1 and Wave 1.5, more than half of the parents (53 per cent for the B cohort and 58 per cent for the K cohort) did not change their ratings between waves. However, 27 per cent of the B cohort and 24 per cent of the K cohort gave their child’s health a lower rating at Wave 1.5, and just under 20 per cent for both cohorts gave their child’s health a higher rating at Wave 1.5. Future analyses will identify factors involved in both improvements and deteriorations in child health over this 12 month period.

**Sleep problems**

At each wave, about 50 per cent of B cohort parents and 70 percent of K cohort parents stated that their child’s sleeping pattern or habits was not a problem for them (Figure 3). However, parents in the B cohort reported that, on average, their child’s sleeping pattern or habits was more of a problem at ages 1-2 years than at ages 0-1 years, with more parents reporting that sleeping caused a small problem and fewer reporting that it did not cause a problem. In contrast, for the K cohort overall, the study child’s sleeping pattern or habits was causing less of a problem for parents at Wave 1.5, with more parents reporting that it was not a problem and fewer parents reporting that their child’s sleep caused small, moderate and large problems.
When these data are examined at the individual child level, we find that the sleeping patterns or habits for 35 per cent of the B cohort and 58 per cent of the K cohort caused no problems for the parent at either wave. For 7 per cent of the B cohort and 3 per cent of the K cohort, the child’s sleeping patterns or habits caused a moderate or large problem at both waves. For both cohorts, the child’s sleeping patterns or habits caused less problems at Wave 1.5 than Wave 1 for about one-fifth of children, whereas it caused more problems at Wave 1.5 for 27 per cent of the B cohort and 11 per cent of the K cohort. In further analyses it will be possible to relate changes in sleeping patterns to a range of child, parent and family characteristics.

Parents were asked whether their child had particular problems on 4 or more nights a week, such as wheezing or asthma, waking during the night or not happy to sleep alone. Waking during the night was reported for a relatively large proportion of children. At Wave 1, 42 per cent of the B cohort had ‘Waking during the night’ as a problem, with 37 per cent recording this at Wave 1.5. For the K cohort, 18 per cent had problems with waking during the night at Wave 1, and 11 per cent still had a problem with waking during the night on most nights at Wave 1.5. Other common problems were: the child is not happy to sleep alone (about one in five or six children for the older cohort); and, the child has difficulty getting to sleep at night (about one in ten children for both cohorts at each wave).

About 42 per cent of the B cohort and 39 per cent of the K cohort did not show any sleeping problems at either wave. For those who did have problems, fewer than half the children had the same problem at both Wave 1 and Wave 1.5. In fact, very few children had problems such as snoring or difficulty breathing, and wheezing or asthma/coughing, at both waves. This suggests that many childhood sleeping problems are time-limited rather than chronic.
Developmental concerns over the early years of life

At both Waves 1 and 1.5, parents of the B cohort were asked if they had concerns over their child’s expressive language development (how the child talks or makes speech sounds), receptive language development (how the child understands the things said to them) and gross motor skill development (use of arms and legs).

Given that all of these areas develop rapidly in the second year of life, we might expect parental concerns over their child’s development to also increase from infancy to toddlerhood. This is borne out by comparing the parental concerns for the B cohort at Wave 1 with Wave 1.5, where very marked increases are evident – the proportion of parents with concerns increased from 2 per cent to 17 per cent for expressive language, 1 per cent to 32 per cent for receptive language and from 2 per cent to 30 per cent for gross motor skills. It is possible that the different collection methodologies may contribute in part to these large increases in parental concern.

At Wave 1.5, parents of the K cohort children were asked about a range of concerns they might have for their children. About 31 per cent of parents had concerns over their child’s behaviour, 45 per cent had concerns about how their child was getting along with others, 44 per cent had concerns about how the child was learning to do things himself/herself and 44 per cent had concerns about how their child was learning (pre-) school skills. Despite these concerns, almost all parents (96 per cent) thought their child plays and works well by himself/herself compared to other children the same age.

Children’s education and child care (K cohort)

With the children in the K cohort being around the age of starting school at Wave 1.5, a major focus of the Wave 1.5 questionnaire was their adjustment to school entry. Most of the children (57 per cent) were attending a preparatory year1 in primary school, 28 per cent were in Grade or Year 1, 15 per cent were still attending pre-school and 1 per cent were not at school or pre-school.

The vast majority of children attending school (94 per cent) or pre-school (92 per cent) were reported as looking forward to school or pre-school on most days. When asked how often the child appeared reluctant to go to school or pre-school, 12 per cent of parents reported that this happened at least once a month, 7 per cent at least once a week, and 2 per cent on most days. This pattern was very similar, whether the child was at school or pre-school.

Over three-quarters (77 per cent) of parents reported that their child liked their teacher a lot, 20 per cent quite a bit, 3 per cent a little, and only 0.2 per cent not at all. Slightly more children attending preparatory years liked their teachers a lot, compared to those attending Grade/Year 1.

1 Preparatory year is any pre-year 1 program located within a school (also known as kindergarten, transition or reception depending on the state or territory).
Reading
Most children (56 per cent) spent 11-20 minutes per day on average doing reading activities at home either with an adult or by himself/herself. A further 26 per cent read for an average of 21-40 minutes a day and 5 per cent read for more than 40 minutes. Only 13 per cent of children spent less than 10 minutes a day on reading activities. These percentages varied a little by the level of education program the child was attending (see Figure 4), with children at school being more likely to spend more time on reading activities at home.

Child care
At Wave 1.5, about half of the 5-6 year old children were in some form of non-parental child care other than preschool or school. The most common form of non-parental care was ‘Other home based care’, regardless of whether the child was at school or preschool, followed by ‘Before or after school care at school’ for those at school, and ‘Child care centre’ for those at preschool (see Table 2).
As expected, beginning school decreased the number of hours in regular (non-school) child care (see Figure 5). Children who were at pre-school were more likely to have child care (57 per cent) than children in the preparatory school year (47 per cent) or Grade/Year 1 (50 per cent). However, 19 per cent of children at school who used child care did so for ten or more hours a week.

Table 3 shows the use of child care arrangements in the B cohort at ages 0-1 and 1-2 years. Almost twice as many were using child care at age 1-2 years than when they were aged 0-1 years (36 per cent compared with 65 per cent). Child care centres had slightly outstripped grandparents as the most common form of child care, and the proportion of children in each type of care had increased substantially.

Of those responding to Wave 1.5, 31 per cent of children were not in child care at either wave, just under 33 per cent were in child care at both waves, just under 33 per cent were only in child care at Wave 1.5, and a few per cent were only in child care at Wave 1.
For children who were in child care at both Waves 1 and 1.5 (33 per cent of the Wave 1.5 respondents), they were on average spending longer in child care at the time of Wave 1.5. As Figure 6 shows, there was a considerable decrease in the proportion of children having only 1-9 hours of care per week, and increases in the proportion of children with 10-19, 21-29 and 30 or more hours care per week.

The impact of these different childcare experiences over time, along with the quality of care received, on children’s educational, health and social outcomes can be examined in future analyses.

![Figure 6: B cohort children in regular child care at both Waves 1 and 1.5: Hours spent in child care](image)

Due to the brevity of the questionnaire, little contextual information was collected that could help to explain changes found between Waves 1 and 1.5. This information will be gathered at Wave 2, allowing the data from Wave 1.5 to then add to the depth of information on the trajectory of developmental change in relation to the child’s life circumstances.
The Parental Leave in Australia Survey was distributed to the B cohort as part of the Wave 1.5 mail out. The questionnaire was designed as part of an Australian Research Council funded project\(^2\) to fill a considerable statistical gap in Australia on the utilisation and efficacy of parental leave provisions. It provides details on the employment status of parents prior to the birth of their child, eligibility for the entitlement to unpaid parental leave under federal legislation, the uptake of different types of leave, return to work experiences and the choices and preferences of the parents of young children balancing work and caring responsibilities. The goal of the survey is to extend the range and quality of information available on parental leave in Australia.

Some initial findings from the Wave 1.5 questions are presented below. They cover issues of employment status prior to the birth, eligibility for unpaid parental leave and the combinations of leave arrangements most commonly taken by mothers and fathers.

Preliminary estimates from the survey indicate that around 69 per cent of B cohort mothers were in paid employment during their pregnancy and that, of the 31 per cent who were not in paid work, the majority were looking after their families full-time (see Table 4). Table 4 also shows that of those mothers in paid employment, 72 per cent were employees who had worked for the same employer for the 12 months prior to the birth. As this is the primary criterion for eligibility for the statutory provision for 52 weeks unpaid parental leave, this can be taken as a preliminary estimate of eligibility among mothers working during their pregnancy, although some adjustment may be necessary once the prevalence of other factors potentially affecting eligibility have been assessed.

### Table 4

<table>
<thead>
<tr>
<th></th>
<th>Mothers</th>
<th>Fathers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(% of total)</td>
<td>(% of employed)</td>
</tr>
<tr>
<td><strong>Employed</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employee, with same employer for 12 months</td>
<td>50</td>
<td>72</td>
</tr>
<tr>
<td>Employee for 12 months, but not with same employer</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Employee, but not for the full 12 months</td>
<td>9</td>
<td>13</td>
</tr>
<tr>
<td>Self employed</td>
<td>7</td>
<td>11</td>
</tr>
<tr>
<td><strong>Not in paid employment</strong></td>
<td>31</td>
<td>4</td>
</tr>
<tr>
<td>At home to look after family</td>
<td>27</td>
<td>1</td>
</tr>
<tr>
<td>Not in paid work for other reasons</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

\(^2\) Linkage Project LP0453613, Parental leave in Australia: Access, utilisation and efficacy, Chief Investigators Gillian Whitehouse (University of Queensland), Marian Baird (University of Sydney), post-doctoral fellow Chris Diamond (University of Queensland).
The survey data show a complex pattern of leave-taking among parents around the birth of their child. Among fathers of the study children, around 95 per cent were in paid employment in the 12 months prior to the birth, although a considerably higher proportion of fathers, compared with mothers, were in self-employment (19 compared with 7 per cent) (see Table 4). Of those fathers who were in paid employment, Table 4 shows that 65 per cent were employees who worked for the same employer over the 12 month period, thus meeting the basic eligibility criterion for access to up to 52 weeks unpaid parental leave if they take on the role of primary carer of the child. Again, this provides a preliminary estimate of eligibility for this form of leave.

The survey data show a complex pattern of leave-taking among parents. Among mothers, the most prevalent arrangements were combinations of different forms of paid and unpaid leave. As Table 5 shows, among mothers employed in the 12 months prior to the birth of the study child, just 4 per cent took paid maternity leave only, and in total only around 11 per cent took paid forms of leave only (forms of paid leave other than maternity leave include annual, sick and long service leave). A larger percentage (around 17 per cent) took unpaid maternity leave only, but the most common arrangements were combinations of paid and unpaid leave, particularly combinations that included leave other than formally designated maternity/parental leave. Twenty-nine percent of employed mothers fell into this latter category. There were 26 per cent of mothers who took no leave at all. Around 60 per cent of this group indicated that the reason they took no leave was because they had left employment (they had chosen to leave, been dismissed or retrenched, or their contract had expired) and another 16 per cent did not take leave because they were self-employed.

It was among those taking combinations of paid and unpaid leave that the longest average durations of leave were recorded – 50 weeks on average for mothers combining paid and unpaid maternity/parental leave, and 43 weeks on average for those taking combinations of paid and unpaid leave that were not limited to leave designated as maternity or parental leave.

<table>
<thead>
<tr>
<th>Table 5</th>
<th>Mothers employed in the 12 months prior to the birth of their child: combinations of leave types and average duration of leave (unweighted)</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of employed mothers</td>
<td>Mean duration of leave (weeks)</td>
</tr>
<tr>
<td><strong>Paid leave only</strong></td>
<td></td>
</tr>
<tr>
<td>Paid maternity leave only</td>
<td>4</td>
</tr>
<tr>
<td>Paid maternity and other paid leave</td>
<td>5</td>
</tr>
<tr>
<td>Other paid leave only</td>
<td>2</td>
</tr>
<tr>
<td><strong>Unpaid leave only</strong></td>
<td></td>
</tr>
<tr>
<td>Unpaid maternity/parental leave only</td>
<td>17</td>
</tr>
<tr>
<td>Unpaid maternity/parental and/or other unpaid leave</td>
<td>7</td>
</tr>
<tr>
<td><strong>Paid and unpaid leave</strong></td>
<td></td>
</tr>
<tr>
<td>Paid and unpaid maternity/parental leave only</td>
<td>9</td>
</tr>
<tr>
<td>All other combinations of paid and unpaid leave</td>
<td>29</td>
</tr>
<tr>
<td><strong>No leave</strong></td>
<td></td>
</tr>
</tbody>
</table>
The pattern of leave taking for fathers was quite different. Unsurprisingly, fathers took much shorter periods of leave than mothers – the overall average duration of leave taken by fathers was 14 days, while for mothers the overall average duration of leave taken was 38 weeks. In addition, fathers were much more likely than mothers to take paid leave only, particularly forms of paid leave other than paternity or parental leave. As Table 6 shows, 40 per cent of employed fathers fell into this latter category. A small proportion of fathers accessed unpaid leave only (13 per cent overall), and very few took combinations of paid and unpaid leave (3 per cent). However, it was among this ‘combinations’ group that the average duration of leave was longest (29 days). Among the 25 per cent of employed fathers taking no leave, the most common reason given for not taking leave was self-employment (47 per cent of this group), but for over one-third of this group the main reason given was that their partner was at home full-time.

<table>
<thead>
<tr>
<th>Table 6</th>
<th>Fathers employed in the 12 months prior to the birth of their child: combinations of leave types and average duration of leave (unweighted)</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of employed fathers</td>
<td>Mean duration of leave (days)</td>
</tr>
<tr>
<td>Paid leave only</td>
<td>60</td>
</tr>
<tr>
<td>Paid paternity leave only</td>
<td>10</td>
</tr>
<tr>
<td>Paid paternity and other paid leave</td>
<td>10</td>
</tr>
<tr>
<td>Other paid leave only</td>
<td>40</td>
</tr>
<tr>
<td>Unpaid leave only</td>
<td>13</td>
</tr>
<tr>
<td>Unpaid paternity/parental leave only</td>
<td>5</td>
</tr>
<tr>
<td>Unpaid paternity/parental and/or other unpaid leave only</td>
<td>8</td>
</tr>
<tr>
<td>Paid and unpaid leave</td>
<td>3</td>
</tr>
<tr>
<td>No leave</td>
<td>25</td>
</tr>
</tbody>
</table>

While these are preliminary statistics, they indicate the capacity of these survey data to extend significantly what is known about the use of parental leave in Australia. Other indicators that have been available, such as estimates of the proportion of workplaces or organisations at which parental leave is provided, the incidence of provisions in awards and agreements, and general employee surveys that provide perceptions of access, are limited in important ways. For example: data on small business provisions are not available; variations in access within organisations cannot be assessed; provisions in industrial agreements cannot be used to determine coverage across the labour market; and information collected directly from employees is complicated by the possibility that respondents will be poorly informed about their entitlements, or confused about whether to answer in terms of general availability or what is relevant to them. More fundamentally, none of these sources sheds light on the actual use of parental leave or the experiences of users.

The data obtained through *The Parental Leave in Australia Survey* provide a wide range of analytical possibilities, including investigation of the factors that influence leave-taking arrangements, parents’ perceptions of their leave experiences, return to work patterns and post-birth working experiences. Moreover, the potential for analysis across different waves of *Growing Up in Australia* means that links between issues such as leave taking and child/family wellbeing can be investigated and tracked in the future.
Parenting is one of the ‘engines’ of child development. Aspects of parenting include not only the provision of the necessary means to create safe, sustaining environments but entail parental expectations about the capacities of children and the provision of opportunities that prompt and facilitate their development. Parenting is a process that results in change for both the child and the parent and highlights the active participation of the developing child in the process.

Evidence from the first wave of data from Growing Up in Australia shows that the vast majority of parents are doing well in the task of caring for their families and parenting their children. It also reveals a clear link between parenting quality, parenting self-efficacy and the overall functioning of infants and children. Family and parenting characteristics ‘matter’ for children’s development, with parenting practices having a particularly prominent role. Even when adjusted for parental income, education, employment, family structure and parental wellbeing, the independent association of poorer parenting quality with poorer developmental outcomes remains for both the children aged 0-1 (B or infant cohort) and the children aged 4-5 (K or child cohort). Thus, parenting styles show clear associations with child development from very early in life and these associations are sizeable and, in all likelihood, persistent over time.

Analysis

The outcome measure used in these analyses (LSAC Outcome Index) is designed to provide a general indication of how children are developing. It is a composite of three domains which are proposed to be the major components of current wellbeing and the future capability to be a successful member of society: health and physical development; social and emotional functioning; and learning and academic competency. Summary scores for each of these domains are calculated, and they are combined into the overall Index.

The analyses that follow show the significance of a number of independent variables in predicting the likelihood of a child falling below the negative cut-off (that is, the bottom 15 per cent) on the Outcome Index. This information is conveyed through odds ratios. The odds ratios presented below indicate how membership of a category within an independent variable predicts the likelihood of a child falling below the negative cut-off on the Outcome Index. Each category within the independent variable (using family size as an example: 2 children, 3 children, 4 or more children) is compared to the reference category for that variable (in the case of family size: 1 child). An odds ratio with a value above 1 indicates an increase in the odds of falling below the negative cut-off (compared with the reference category of the independent variable) while an odds ratio below 1 suggests a decrease in the odds. If the 95 per cent confidence interval does not include a value of 1, this is considered statistically significant. It is important to note that these are adjusted odds ratios, meaning they indicate the unique predicting power of each independent variable after all others have been taken into account.
A number of caveats need to be borne in mind in interpreting these results: causal inferences cannot be made from the cross-sectional data available in Wave 1 of *Growing Up in Australia*; the measure of outcome used here is a global one, and assesses only the ‘problem’ or ‘negative’ end of the spectrum of outcomes; and the same source (a parent) provided most of the data on both the predictors (for example, parenting practices) and the outcome, resulting in the possibility of respondent bias impacting upon findings.

For the infant cohort, ten of 15 predictor variables made significant contributions. Broadly speaking, infants were more likely to fall below the negative Outcome Index cut-off if they were male; if their primary parent was born outside Australia, reported lower community connectedness, and reported less support from sources outside their immediate family; and if there were more children in the family. In addition, the three parenting measures of global self-efficacy, warmth and hostility each made strong unique contributions to the prediction of Outcome Index scores, with lower self-efficacy, lower warmth and higher hostility being associated with a greater likelihood of having a negative outcome (see Figure 7).

The analyses also revealed some counter-intuitive results that indicate that lower levels of parental education and living in a step-family are associated with the child being less likely to fall below the negative cut-off.

The primary parent’s age, employment status, and psychological distress, the family’s income and the community rating of ‘disadvantage’ (SEIFA Disadvantage quintiles) were not significantly related to the likelihood of negative outcomes for infants in the multivariable analysis.

---

**Figure 7**

**Significant predictors (a) of infants falling below the negative cut-off on the Overall Outcome Index**

- Low parental self-efficacy
- Low parental warmth
- High hostile parenting
- Parent born outside Australia
- Parent has low community connectedness
- Male study child
- Parent does not get enough external support

**Number of children in household:**
- 1
- 2
- 3
- 4 or more

<table>
<thead>
<tr>
<th>Adjusted odds ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
</tr>
</tbody>
</table>

(a) Reference category (odds ratio=1) only included when the predictor variable is not a binary variable.
For the child cohort, eight of 16 variables made significant contributions to the model (see Figure 8). Broadly speaking, children were more likely to fall below the negative Outcome Index cut-off if they were male; their primary parent was younger, had less education, and was psychologically distressed; the family received less income (although trends here were non-linear); and the primary parent reported more hostility, less consistency and lower self-efficacy in their parenting. Some trends were close to significant: there was a trend towards more negative outcomes for children whose primary parents were not in the workforce (in comparison to those in full-time employment), for children in single-parent families (in comparison to married intact families), for children whose primary parent reported not getting enough support, and for children receiving less parental warmth.

The primary parent’s country of birth, employment status, community connectedness, the family’s structure, household size and the SEIFA Disadvantage quintile for the neighbourhood, were not significantly related to the likelihood of negative outcomes for children in the multivariable analysis.

Figure 8 Significant predictors (a) of child aged 4-5 years falling below the negative cut-off on the Overall Outcome Index

More hostility, less consistency and lower parental self-efficacy were associated with a greater likelihood of a child having a negative outcome.
Conclusion

In the infant cohort, all three parenting measures were strongly related to negative outcomes, with the associated odds ratios often being higher than for any other variable. The findings for the child cohort suggest that parental hostility is a particularly potent predictor of poor developmental outcomes for 4-5 year olds. Consistency in parenting practices, particularly around discipline, also emerged as an important predictor of outcome in the child cohort. Compared to the infant cohort, parental warmth and parenting self efficacy were less salient.

In terms of parent and family characteristics, for the older cohort the primary parent’s educational status made a consistent contribution to prediction of child outcomes, indicating that this is an important aspect of the psychological capital contributed by the parent. This was not the case for the infant cohort. Older parents tended to be beneficial for the child cohort, while community connectedness had some role for infants. However, parental work status, country of birth, family type, family income, and neighbourhood disadvantage had little role in prediction for either cohort.

While other aspects of the child’s family and community context played some part in predicting children’s negative outcomes, it appears that parenting, as the most proximal influence on the child, played the stronger part. Especially in early childhood, many aspects of the family's functioning can be expected to be mediated through the way that they impact on the parents' ability to be warm, responsive, and consistent and to use non-punitive disciplinary techniques.

An important feature of these parenting data is that there is no apparent “threshold” for distinguishing ‘good parenting’ from ‘poor parenting’. In this study, the measures of parental warmth, hostility, and consistency were all positively skewed, and their predictive importance was evident despite this. That is, almost all primary and secondary carers scored in a positive direction on the parenting measures. Among those who were classified for the current analyses as being ‘higher’ in hostility or ‘lower’ in warmth, consistency or self-efficacy, only a small proportion reported parenting behaviours that would be regarded as being clearly worrisome or in the clinical range of ‘abnormal’ or ‘abusive’. Thus, the current findings suggest that even somewhat subtle variations occurring within the ‘normal’ range of parenting behaviours are potent predictors of children’s outcomes. This gives general support to universal initiatives that assist all parents in their parenting skills.
In recent decades, the increasing employment rates of mothers, combined with other changes in Australian society, have had a major impact upon many aspects of family life. Data from *Growing Up in Australia* provide a unique opportunity to examine the different patterns of parental employment and the impacts of this on family life. This article provides an extract from the report *Mothers and fathers with young children: Paid employment, caring and wellbeing*, and provides an overview of some relationships between parental employment and parental wellbeing.

**Parental employment and working hours**

The labour force status of mothers was strongly associated with age of children. Maternal employment (excluding those on maternity/parental leave) was lowest for mothers with an infant (38 per cent) and highest for those with a youngest child aged 4-5 years (60 per cent). (The rate of employment for mothers with a study child aged 4-5 years and a younger sibling was 46 per cent.) In contrast, the employment rates for fathers did not vary according to the age of the child – just over 92 per cent of fathers were employed for both the infant and child cohort.

There were large differences in working hours between mothers and fathers. For mothers, the average usual hours worked was 20 hours per week for those with an infant and 26 hours per week for those with a youngest child aged 4-5 years, compared with the average of 46 hours for fathers in both cohorts.

**Work-family spillover**

In Wave 1 of *Growing Up in Australia*, employed parents were asked to indicate on a five-point scale ranging from ‘strongly agree’ to ‘strongly disagree’ the extent to which they agreed or disagreed with a number of statements describing the relationship between work and family. These statements capture the extent to which work is perceived to ‘spill over’ to family or family to ‘spill over’ to work in a positive way (‘work/family gains’) and in a negative way (‘work/family strains’). The infant and child cohorts were combined for this analysis.

Most parents were positive about the impact of their work on their family, with more than 65 per cent of employed parents agreeing that these responsibilities made them more well-rounded, gave their life more variety and made them feel more competent (Figure 9). More than 70 per cent agreed that working helped them to better appreciate the time that they spent with their children and less than one-quarter agreed that their work responsibilities made their family time less enjoyable and more pressured. Employed mothers and fathers differed very little in their assessment of the impact of work on their family, despite their very different employment patterns.
Work-family strains for employed mothers and fathers are shown in Figure 10. The only statement for which there were large differences between mothers and fathers was ‘Because of my work responsibilities I have missed out on home or family activities that I would have liked to have taken part in’. Employed fathers were more likely to agree with this statement (66 per cent) compared with employed mothers (40 per cent). For the other measures, one-quarter or fewer of parents agreed, whether considering the effects of family on work or the effects of work on family.
Some 46 per cent of mothers and fathers had problems coping, and 44 per cent of mothers and 43 per cent of fathers experienced time pressure. For mothers and fathers, not being employed was associated with having less time pressure. Not-employed fathers were more likely to have problems coping but this was not the case for not-employed mothers.

Focusing on employed parents, mothers working 35 hours or more were more likely to report problems coping than those working fewer hours. For mothers working part-time, problems coping increased as working hours increased, but the differences were relatively small (Figure 11). Not surprisingly, the extent to which employed mothers reported having time pressure increased as hours worked increased, although about one-third of those working full-time did not experience time pressure. The pattern for employed fathers differed to that of mothers (see Figure 12). Fathers working part-time hours did not differ to fathers working very long hours (more than 55 hours per week) in their likelihood of having problems coping. Fathers working 35 to 44 hours were the least likely to report problems coping.

The full report explores employment patterns, child care use, time with children, co-parenting and a more extensive range of data on work-family spillover and wellbeing. The analysis illustrates the interconnections between these aspects of family life. Participation in paid employment can have a positive or negative effect on family life, and understanding the conditions under which negative effects are minimised and positive maximised is an important challenge facing individual families as well as those responsible for design of policies that impact on young families.
Grandparents have always played an important role in family life and raising children, and various aspects of ‘grandparenting’ are increasingly discussed in social policy debates. Information on the role of grandparents in children’s lives is important for several reasons - for example: grandparents caring for their grandchildren can enable parents to be in paid employment; the quality of the relationship between children and grandparents can have an impact upon the wellbeing of the grandparent as well as on the developmental outcomes for the child; and, for parents who separate and divorce, grandparents can play a particularly important role in caring for children and assisting in raising the child.

**Contact with grandparents**

While much of the recent policy debate has been about grandparents who have full responsibility for raising their grandchildren, the number of children in this situation is quite small. Living in a household in which grandparents reside is more common. Estimates from *Growing Up in Australia* are that 7 per cent of infants and 4 per cent of 4-5 year olds were living with a grandparent in the household.

Figure 13 shows that there were very few children who had no face-to-face contact with at least one grandparent (3 per cent of infants and 4-5 year olds). A substantial majority of grandchildren saw their grandparents at least every month or more frequently (79 per cent of infants and 75 per cent of 4-5 year olds). Overall, infants saw their grandparents slightly more often than 4-5 year olds, but the differences are very small.

A much debated question is the impact of parental relationship breakdown on contact between children and their grandparents. In particular, there are concerns about the difficulties that some grandparents have seeing their grandchildren following relationship breakdown. Data from *Growing Up in Australia* show that children with a parent living elsewhere were more likely to see a grandparent daily than children without a parent living elsewhere, particularly for the infant cohort (Figure 14).
Grandparent care

While the proportion of children having contact with their grandparents was high, a smaller proportion of children received regular care from their grandparent. Slightly less than one in five infants (18 per cent) received care on a regular basis from their grandparents. A similar proportion of 4-5 year olds received regular care from their grandparents.

For both cohorts, grandparent care was, on average, shorter than time spent in child care centres. For infants receiving grandparent care, the average number of hours per week was 12, and for 4-5 years olds it was 11 hours per week. For both cohorts, the average number of hours spent in child care centres was 19 hours per week.

The majority of grandparents caring for children were not paid for the care they provided, with just 5 per cent of grandparents receiving remuneration for caring for an infant, and 8 per cent of grandparents being paid for caring for 4-5 year olds.

These analyses cast new light on the nature of grandparenting in Australia. They illuminate the patterns of grandparent involvement and the nature of their relationships with grandchildren. Clearly grandparents are playing an important role in many children’s lives. With longitudinal data, we will be able to look at the influence of grandparent care on children’s developmental outcomes and for understanding variation and change in key social relationships for children.
There is a large body of international research that documents neighbourhood influences on children’s developmental outcomes. However, there are few studies of neighbourhood effects on Australian children. This issue has particular relevance to policy given the federal and state governments’ recent emphasis on community development policies that aim to foster positive childhood development.

This analysis examined whether a measure of neighbourhood socio-economic advantage and disadvantage (SEIFA Index of Advantage/Disadvantage) is associated with 4-5 year old Australian children’s physical, social/emotional and learning outcomes (as measured by the Outcome Index, which was developed specifically for Growing Up in Australia), even when controlling for several child and family socio-demographic factors. Using these factors as controls limited the likelihood that neighbourhood influences reported in this study were the result of selection bias, as socio-demographic factors such as family income may be associated with parents’ decisions to live in a particular neighbourhood.

**Do neighbourhoods affect Australian children’s developmental outcomes?**

Analysis shows that the SEIFA Index of Advantage/Disadvantage had a statistically significant association with the Overall Outcome Index, and the Physical, Social/Emotional and Learning domains when it was the only variable included in the model. When the variables that were used to control for selection bias were also included (weekly family income, child age and gender, child is of Aboriginal and Torres Strait Islander origin, single parent family, at least one parent employed, mother’s highest level of education), the Index of Advantage/Disadvantage was still significantly associated with children’s Overall Outcome Index, and the Social/Emotional and Learning domains but not the Physical domain.

Figures 15 to 16 illustrate the mean scores of children on the Overall Outcome Index and Learning domains for children living in the five levels of neighbourhood advantage/disadvantage.
disadvantage after statistically adjusting for the control variables. Note that graphs are not centred around 100 because variables that were used to control for selection bias in the statistical analyses explain a portion of the variability in the Outcome Index.

Figure 15 suggests that children’s scores on the Overall Outcome Index were higher in more advantaged neighbourhoods. Children in the most disadvantaged quintile had significantly lower scores on the Overall Outcome Index than children living in all other neighbourhoods except the second most disadvantaged neighbourhood quintile. Conversely, children in the most advantaged quintile had significantly higher scores than children living in all other neighbourhoods except those living in the second most advantaged quintile. Other significant differences are also evident from inspection of the confidence intervals.

The overall pattern and differences between neighbourhood quintiles for the Social/Emotional domain was the same as for the Overall Outcome Index.

The pattern of scores for the Learning domain was different across the neighbourhood quintiles (Figure 16) than for the Overall Outcome Index and the Social/Emotional domain. Children living in the middle and the two most disadvantaged neighbourhood quintiles had similar scores on the Learning domain while children from the two most advantaged neighbourhoods had significantly higher Learning domain scores than the other three neighbourhood types. Children living in the most advantaged neighbourhood quintile also had significantly higher scores on the Learning domain than children living in the second most advantaged neighbourhood quintile.

Thus, the preliminary evidence from this study suggests that neighbourhoods do matter to children’s development and supports the community emphasis of many federal and state government policies. However, it should be noted that there is a very limited evidence base on neighbourhood effects on Australian children.

Further data about how neighbourhoods affect Australian children is needed and Growing Up in Australia will become an invaluable source of such information, especially as it will allow us to document effects over time. Further support for research within this area will enable policies that target community development to be tailored for the maximum benefit of Australian children and their families.
A common extra-familial experience shared by many Australian children is participation in early childhood education and care programs. In the infancy and toddler years, these range from formal, government-regulated centre- and home-based child care settings to various unregulated arrangements that include, for example, care by grandparents or friends. While Australian government policy and financial support for out-of-home child care has typically been regarded as a means of enabling parents to participate in the paid workforce or to support families at risk, there is also evidence to suggest that these services may impact on the development of children in different ways. Research studies indicate that good quality child care can provide support for children’s learning, socialisation, and development and, in contrast, research also suggests that children in poor quality care may be exposed to some level of developmental risk.

Child care participation

Almost two-thirds of Growing Up in Australia infants (64 per cent) were not participating in regular non-parental care arrangements, indicating that exclusive regular care by parents is still the norm for most young Australian infants. For a considerable number of others, Australian parents are accessing a range of formal and informal care arrangements for their children, due primarily to their work or educational commitments, and their overall level of satisfaction with these arrangements is high.

Infants participated in a wide range of different formal and informal care arrangements. The majority of infants in care (59 per cent) were in informal care settings, while 30 per cent were in formal care arrangements and 11 per cent experienced a mix of both formal and informal care (Figure 17). Formal care arrangements are subject to state regulations specifying quality-related aspects of care, including staff-to-child ratios, staff training requirements, group size, health and safety standards. Long day care and Family Day Care services offering child care subsidies are also required to meet Commonwealth accreditation standards. Of the Growing Up in Australia infants in formal care, 22 per cent attended long day care centres, eight per cent were receiving family day care, and less than one per cent attended both long day care and Family Day Care.

Informal care arrangements were more varied than formal care. In most states, informal home-based care arrangements with four or fewer children are not subject to state government regulatory requirements specifying minimum standards of care quality, and it is likely that the quality of care in these settings is more variable than in formal care. For infants in informal care, the majority were cared for by close relatives. Grandparents were the sole providers of care for 37 per cent of these infants, and they contributed to the care of a further 13 per cent. While informal care providers were more likely to care for the child in a location other than the child’s own home, the difference between the incidence of in-home and out-of-home care was not large (46 per cent versus 54 per cent, respectively).
The states and territories are responsible for the regulation and some funding of child care, so it might be expected that the use of formal versus informal care arrangements would vary by state or territory in accord with the type of regulations and the availability of services for infant care. The rates of attendance at informal versus formal care were similar to the national average for the most populous states of New South Wales, Victoria, South Australia, and Western Australia. However, for Queensland and the states and territories with smaller populations (Tasmania, Northern Territory and the Australian Capital Territory), attendance at formal care was more common. For example, in Queensland, 53 per cent of infants in care were in a formal care arrangement, while 47 per cent were in informal care only. While similar trends were observed for Tasmania, Northern Territory and the Australian Capital Territory, the small numbers of children in the Growing Up in Australia sample in those locations suggests that the data should be interpreted with caution.

The type of care used by parents was related to overall family income, with families using only formal care arrangements having higher yearly incomes, and those using only informal care having lower yearly incomes. Parents’ overall satisfaction with child care was highest for grandparent care and lowest for long day care centres, though the difference between the two was minimal. Infants whose first care placement was informal care were likely to have started care at an earlier age but for less hours on average per week than infants whose first care placement was in a formal care setting.

Differences in the use of formal and informal care appear to be related to factors that are of interest from a policy perspective. The availability of choice in care may have significant consequences for children. Formal care programs provide care that must meet regulatory and accreditation requirements to enhance children’s learning and development. The opportunities for children who are excluded from these care settings may be compromised and any inequalities resulting from economic disadvantage strengthened and perpetuated.
This article draws on data on children’s temperament style and socio-emotional well-being from the Australian Temperament Project and Growing Up in Australia to investigate similarities and differences between children growing up in the 1980s and 2000s.

Three main questions were investigated: How do Australian Temperament Project and Growing Up in Australia children compare on temperament? Have levels of children’s behavioural and socio-emotional adjustment changed between the 1980s and 2000s? Are the relationships between temperament and behavioural and socio-emotional adjustment in the Growing Up in Australia cohort similar to those in the Australian Temperament Project cohort?

While child characteristics such as temperament style may predispose children to develop behavioural or socio-emotional problems, environmental factors (particularly the family context and broader societal conditions) play a considerable role as well. There have been many changes in family life and prevailing economic circumstances in Australia during the past 20 years. Our hypothesis was that, despite the socio-cultural changes that have occurred, the same developmental processes that link temperament with behavioural and emotional adjustment would be evident.

The data used come from the fourth Australian Temperament Project survey wave undertaken in 1986, when the children were between 44 and 57 months of age, the average age being 47.5 months. The Australian Temperament Project cohort are compared with the Growing Up in Australia child cohort who were aged between 51 and 67 months, with an average age of 56.9 months. In the statistical analyses undertaken, child age was included as a covariate to control for the effects of this difference between the two cohorts.

Both studies used an abridged form of the Short Temperament Scale for Children to measure: approach-sociability – how comfortable the child is in new situations or with unfamiliar children or adults; reactivity – how intense and volatile the child is; and persistence – the child’s capacity to see tasks through to completion. High scores reflect high sociability, high reactivity and high persistence.

The studies employed measures based on the Rutter Child Behaviour Questionnaire to measure behavioural and socio-emotional adjustment. Common subsets of questions were used for comparison on hyperactivity, anxiety, peer problems and pro-social behaviour. High scores reflect high levels of each of these.

**Temperament**

Comparisons of the cohorts revealed significant differences on two of the three aspects of temperament style (see Figure 18). For approach-sociability, while both groups were on average between ‘usually’ and ‘frequently’ sociable and approaching, Growing Up in Australia children tended to be more outgoing, with a medium effect size. For reactivity, both groups were between ‘rarely’ and ‘usually not’ reactive, but Australian Temperament Project children tended to be more intense and volatile. No significant difference was found for the other aspect of temperament style, persistence.
Regarding children’s behavioural and socio-emotional adjustment, differences were found on anxiety (*Growing Up in Australia* children reported fewer problems such as worrying, being fearful or miserable), peer problems (parents reported that *Growing Up in Australia* children were less likely to have problems such as not being liked, being a loner), and pro-social behaviour (parents reported that *Growing Up in Australia* children were more likely to show behaviours such as sharing and being considerate) (Figure 19). Interestingly, there were no significant differences on aggression and hyperactivity. Hence the differences that emerged seemed to reflect children’s capacities to interact comfortably and well in social situations.
There appear to have been small but significant shifts in Australian children’s temperament over the past 20 years.

Relationship between temperament and adjustment

Multiple regression analysis was used to identify significant contributors to child behaviour and adjustment, with family demographic factors and child age entered at the first step to control for their effects, and the three temperament dimensions – reactivity, persistence, approach-sociability – entered at the second step. All in all, very similar connections between temperament and behavioural and socio-emotional adjustment emerged across both studies. While there were several differences between the cohorts in the type of family demographic factors that had an impact on children’s outcomes, generally these connections were weak and accounted for very little variance. Temperament style was confirmed as a salient predictor especially for hyperactivity, aggression and pro-social behaviour in both cohorts, with the temperament traits of greatest importance being reactivity and persistence.

In conclusion, there appear to have been small but significant shifts in Australian children’s temperament over the past 20 years, as assessed by parents. These were all in the direction of children of the 2000s being a little ‘easier’ in temperament style – less irritable and reactive and also more outgoing and sociable. However, the size of these differences was small, and it is probably more appropriate to emphasise the overall similarity in temperamental traits across the cohorts, which is to be expected given temperament’s constitutional basis.

The differences between the cohorts on adjustment were again in the direction of Growing Up in Australia children faring slightly better than Australian Temperament Project children. These findings tend to allay concerns that today’s children are having difficulty coping with new family contexts, such as the trend for more mothers of young children to return to work, the greater utilisation of child care, and the higher levels of hardship, stress and isolation reportedly experienced by young families.

Finally, these findings confirm that children’s temperament style “matters” for their development and wellbeing. The trends emerging from the two studies were remarkably similar in terms of the amount of variance explained and the temperament dimensions that were most salient. Hence there was consistency in the way temperament impacted on adjustment among children separated by a 20-year time span, although sociability appeared to play a slightly larger role among children of the 2000s.
Papers and Presentations


**Publications**


**Commissioned reports**

In order to develop expertise in the use and analysis of the data from *Growing Up in Australia*, the Department of Families, Community Services and Indigenous Affairs has commissioned (some are still in progress) a number of pieces of research based on the first wave of data from Growing Up in Australia. These are:


Bradbury, B. *The outcomes of children of young parents.* Commissioned report by the Social Policy Research Centre for the Department of Families, Community Services and Indigenous Affairs.


Leigh, A. & Gong, X. *How large are cognitive and non-cognitive gaps between very young children from rich and poor households, and between Indigenous and non-Indigenous children?* Commissioned report by the Social Policy Evaluation, Analysis and Research Centre, The Australian National University, for the Department of Families, Community Services and Indigenous Affairs.
Wake, M., Sanson, A, Berthelsen, D., Hardy, P., Misson, S., Smith, K., Ungerer, J., & the LSAC Research Consortium. *How well are Australian infants and children aged 4 to 5 doing?* Commissioned report by the Murdoch Childrens Research Institute for the Department of Families, Community Services and Indigenous Affairs.


**Forthcoming and in press**

Blakemore, T., Gibbings, J., & Strazdins, L. *Derivation of a socio-economic status variable for analysis of the HILDA and LSAC datasets.* Paper will be presented at the ACSPRI conference in December 2006.


Blakemore, T. *Describing the influence of low, medium and high socio-economic status on the lives of infants and children in the Longitudinal Study of Australian Children.* Paper in progress.

Blakemore, T. & Gibbings, J. *Parent and child wellbeing and the influence of work and family arrangements across the family lifecycle.* Paper in progress from Family and Children’s Policy Branch, Department of Families, Community Services and Indigenous Affairs.


Data from *Growing Up in Australia* is warehoused at the Australian Institute of Family Studies and is available to researchers approved by the Australian Government Department of Families, Community Services and Indigenous Affairs. Prospective users must abide by strict security and confidentiality protocols and are required to complete a dataset application and read and sign a deed of license.

Data from both Wave 1 and Wave 1.5 are now available. Application forms and deeds of license are available on the study’s website: www.aifs.gov.au/growingup. A nominal fee is charged to cover the administrative costs of delivering datasets ($77 for Australian users, $132 for overseas users).

The Institute provides user support services. Datasets are accompanied by a user manual that includes a description of the sample design, how the study was conducted, details of weighting procedures and item derivations, and a listing of variable names, labels and response categories. Information on the Institute's website is regularly updated and bimonthly data user group teleconferences are held. User training sessions can be offered on demand by the Institute to expand upon the information provided in the user manual.

**For data requests, contact:**

Sebastian Misson  
*Growing Up in Australia* Data Manager

Phone: + 61 3 9214 7820  
Fax: + 61 3 9214 7839  
Email: sebastian.misson@aifs.gov.au

More information on *Growing Up in Australia* can be found on the website http://www.aifs.gov.au/growingup. People with an interest in the study can join our reference group to receive regular information on the study.

**To join, send the following email:**

To: majordomo@aifs.gov.au  
Subject: (leave blank)  
In the body of the email, type: subscribe growingup-refgroup

Further general enquiries can be directed to lsacweb@aifs.gov.au, or contact:

Carol Soloff  
*Growing Up in Australia* Project Manager

Phone: + 61 3 9214 7892  
Fax: + 61 3 9214 7839  
Email: carol.soloff@aifs.gov.au