The Longitudinal Study of Australian Children

2006–07 Annual Report

Australian Institute of Family Studies

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Growing Up in Australia: the Longitudinal Study of Australian Children

Growing Up in Australia is funded by the Australian Government Department of Families, Housing, 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. In Wave 2, the data collection was undertaken for the Institute by the Australian Bureau of Statistics.

Growing Up in Australia: the Longitudinal Study of Australian Children: 2006–07 Annual Report, 2008

Bibliography

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Cover: The drawings on the cover were created by children taking part in *Growing Up in Australia*

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Minister's foreword

The Hon. Jenny Macklin MP

Foreword from the Minister for Families, Housing, Community Services and Indigenous Affairs

Healthy children depend on strong families and supportive communities.

To support Australian families, we need evidence-based policies that promote the best possible health, emotional and intellectual development for all children.

Good social policy depends on solid research. In this case, the Department of Families, Housing, Community Services and Indigenous Affairs is working with the Australian Institute of Family Studies and a group of leading experts in child development.

The Longitudinal Study of Australian Children has been underway for four years. Following initial contact with the families, two main waves and two mail-out surveys have been conducted. Information collected covers areas such as parenting, family relationships, early childhood education, child care and health. This information is vital to identify opportunities for early intervention programs where they are needed.

Their work provides the data that researchers need to explore developmental pathways and the reasons for differences in individual outcomes. It is a window on how Australian children are raised and helps us understand what works best to give our children the best chance at life.

This study also demonstrates the value of partnerships between policy makers and researchers. This continued collaboration ensures the data and research is high quality and policy relevant.

I would like to acknowledge and thank all the children and families who are taking part in this valuable study.

Jenny Macklin
Minister for Families, Housing,
Community Services and Indigenous Affairs

Director's report

Professor Alan Hayes

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 (LSAC). This study is designed to identify policy opportunities for improving support for children and their families and for intervention and prevention strategies. This longitudinal study involves two representative cohorts of children—approximately 5,000 infants aged 0–1 years (B or infant cohort), and 5,000 children aged 4–5 years (K or child cohort), when the families agreed to take part in 2004. It is following the development of these children until 2010 and possibly beyond.

The study addresses a range of key questions about children's development and wellbeing. Information is collected on the children's physical health and social, cognitive and emotional development, as well as their experiences in key environments such as the family, community, child care, pre- and primary school settings.

Information is collected via interviews with parents (and children from age 6–7 years); direct assessments of the children; self-complete questionnaires filled out by mothers and fathers (including those living apart from the child), carers and teachers; and time use diaries completed by parents about their child's activities over two 24-hour periods (during the week and on a weekend).

This report, the third in a series, focuses on the Wave 2 data collection and early trends emerging from this second wave, as well as recent research findings and dissemination activities completed in the past year.

Wave 2

The main activity for 2006–07 was the Wave 2 data collection. This was completed early in 2007 and we are delighted to announce that 90 per cent of Wave 1 families were interviewed at Wave 2. For a study of this size, this result is outstanding.

Our thanks are extended to the Australian Bureau of Statistics (as the study's data collection agency), their dedicated and hardworking interviewers and, especially, to the *Growing Up in Australia* families for their contribution to this pleasing result. Further details of the second wave of data collection are given later in this report.

The Wave 2 data was released to researchers and policy makers in September 2007. Along with the inclusion of data from Wave 1.5, it is now possible to begin to explore longitudinal trends for both the B and K cohorts. User documentation accompanied the release of data, including a data dictionary, a user guide, a technical paper on weighting and non-response, and copies of the marked-up questionnaires. These products are available on the study website: www.aifs.gov.au/growingup

At the time of writing, there are about 200 users of the *Growing Up in Australia* data. The Institute continues to play a major role in the analysis, reporting and promotion of the data, for example through articles published in the Institute's journal, *Family Matters*, and presentations at many conferences, both national and international. Details of the users and uses of the data are provided later in this report.

Wave 3

A second major activity for 2006–07 was the development phase for the third wave of data collection. The third wave will be especially interesting, as it presents the first opportunity to exploit the cross-sequential cohort design. In Wave 3, children in the B cohort will be the same age as the K cohort children were in Wave 1, allowing inter-cohort comparisons.

The development process for Wave 3 began in early 2006, with design teams (comprising members of the Consortium Advisory Group, government departmental representatives, and other experts) convened to identify potential additions and changes in the research domains of health, education, child care, family functioning, child functioning and socio-demographics. Key considerations were: the maintenance of longitudinal fidelity and continuity across waves; the need for adjustments to measure children's developing attributes and capacities as they age; and the identification of opportunities for improvements in measures and data collection methodologies.

A number of new content areas were identified in this process, and testing of these occurred in late 2006 and early 2007. New content included family functioning measures, such as extended caring roles and shared parenting, as well as a longer interview with the K cohort children, now aged 8–9 years, covering such issues as self-esteem, bullying, friendship and antisocial behaviours.

For the first time, the B cohort is to take part in a direct assessment component (as occurred for the K cohort in Wave 1), comprising a short form of the Peabody Picture Vocabulary Test (PPVT), and the Who am I? school readiness activity. Two new direct assessments of literacy and numeracy were trialled for use with the K cohort, but did not provide the quality of information needed in a time-efficient manner. It was thus decided to maintain the cognitive tests completed by K cohort children in Wave 2 (a short form of the Peabody Picture Vocabulary Test and the Matrix Reasoning from the WISC IV), which will yield three waves of data on the PPVT and two on the Matrix Reasoning. Additionally, results from the National Literacy and Numeracy Benchmark testing will be sought to augment the information obtained on child functioning.

The development phase was completed in June 2007 with the identification of measures and instruments to be included in the Wave 3 data collection.

The primary data collection method, namely a face-to-face interview with the child's main parent (Parent 1) will continue, with self-complete forms for parents and teachers as before. A computer-assisted telephone interview is being used with parents living apart from the study child.

The first stage of data collection commenced in August 2007, with the main collection phase scheduled to begin early in 2008.

Contact between waves

Approximately one year after Wave 1, study families were mailed a short questionnaire (termed Wave 1.5) to gain an update of the study child's progress in specific areas. Data from Wave 1.5 was released in November 2006. The data set included responses to

questions covering aspects of the children's behaviour, development and general health issues such as asthma, injuries and sleeping patterns. The areas of education, child care, stressful life events and parents' mental health were also covered, and parents were asked to give a free-text response about what they liked about their child.

The B cohort dataset also included information from a nested study, the Parental Leave in Australia Survey, by Dr Gillian Whitehouse, from the University of Queensland, regarding service utilisation, parental employment history, maternity and other leave, and employment after birth.

With over 70 per cent of families responding to Wave 1.5 in late 2005, this between-waves contact was shown to be an important and successful way of keeping in touch with respondents between the main waves of data collection in *Growing Up in Australia*, while also providing opportunities for nested studies and gathering data about areas of development that may change substantially within the two-year gap between waves.

Growing Up in Australia again contacted study families with a short mailed questionnaire during August 2007 (Wave 2.5). This questionnaire contained questions on children's media and technology use, parents' return to work and child support. The study design team worked with both the Department of Employment and Workplace Relations and Department of Families, Housing, Community Services and Indigenous Affairs (FaHCSIA) in the development of the questionnaire.

Life at 1 documentary

The AIFS is very pleased to be involved with a documentary produced by Film Australia in conjunction with Heiress Films, which drew on the experience of the *Growing Up in Australia* study. *Life at 1* was the first instalment in the series, following 11 babies and their families through their ordinary routines and milestones, looking at the impact on their lives of factors such as their parents' relationships, finances, work, health and education. Two initial episodes were produced and screened on ABC TV in October 2006.

The documentary explored the factors that help or hinder children to thrive, with information provided by the children's families and experts, including members of the *Growing Up in Australia* Consortium Advisory Group, and analysis of data from the *Growing Up in Australia* study.

Following the successful screening of *Life at 1*, Film Australia has begun production of *Life at 3*. Institute researchers returned to conduct the *Growing Up in Australia* interviews with the families featured in the first documentary, and felt privileged to catch up with the families and see how they are progressing. Advice and commentary have again been provided by Consortium members. A *Life at 2* website has been launched by the ABC, at www.abc.net.au/lifeat2, to provide updates on the families and their children between the documentary waves.

Keeping in touch with families

Keeping in touch with families is obviously very important for a longitudinal study. In December 2006, *Growing Up in Australia* families were sent a newsletter that provided an update on the study's progress, and a 2007 calendar featuring wonderful drawings by 6–7 year old study children. Birthday cards are sent to the children each year.

Growing Up in Australia goes international!

The *Growing Up in Australia* study received considerable overseas exposure during the year, including at the inaugural International Conference for Child Cohort Studies, hosted by the Centre for Longitudinal Studies and held in Oxford, UK, during September 2006. A number of papers using data from *Growing Up in Australia* were presented by both Institute staff and members of the study's Consortium Advisory Group.

Study findings

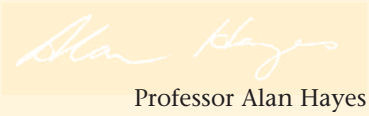
This *Annual Report* features preliminary analyses of the Wave 2 data, starting with an overview of the experiences and circumstances of the study children and their families. The presentation of findings continues with an examination of breastfeeding and return-to-work patterns, utilising data from Waves 1, 1.5 and 2, undertaken by Jennifer Baxter, a senior researcher at the Institute. Next, using Wave 2 data, parental employment and family financial wellbeing are explored by Matthew Gray, the LSAC Executive Project Manager, and Jennifer Baxter.

In July 2007, FaHCSIA released the first of a series of thematic reports using Wave 1 data, as part of its Social Policy Research Paper series. In this *Annual Report*, we include two extracts from the paper *Mothers and Fathers with Young Children: Paid Employment, Caring and Wellbeing*: one on child care and the other on parents' time with their children.

Data use

With the release of Wave 2 data, *Growing Up in Australia* has come of age as a longitudinal study. I am delighted at the steady increase in use of the data, both by Institute researchers and other colleagues, both nationally and internationally.

The pleasing progress of this groundbreaking study is the result of the expertise, dedication and hard work of the Consortium Advisory Group, the team from the Australian Bureau of Statistics, and the Institute's Project Operations Group. I especially acknowledge the efforts of Institute staff: Carol Soloff, Linda Bencic, Sebastian Misson, Mark Sipthorp, Siobhan O'Halloran, Anna Ferro, Jo Slater and Robert Johnstone. Dr Matthew Gray (Executive Project Manager), Professor Ann Sanson (Principal Scientific Advisor) and Professor Steve Zubrick (Chair of the Consortium Advisory Group) are to be thanked for their leadership that contributes so directly to the success of this study. I also gratefully acknowledge Mr Andrew Whitecross and staff of FaHCSIA for their continuing commitment to *Growing Up in Australia*, and their generous support and advice. Finally, it is to the children and families who so willingly continue to participate in the study that my greatest debt of gratitude must be extended.



Professor Alan Hayes
Director
Australian Institute of Family Studies

Fieldwork

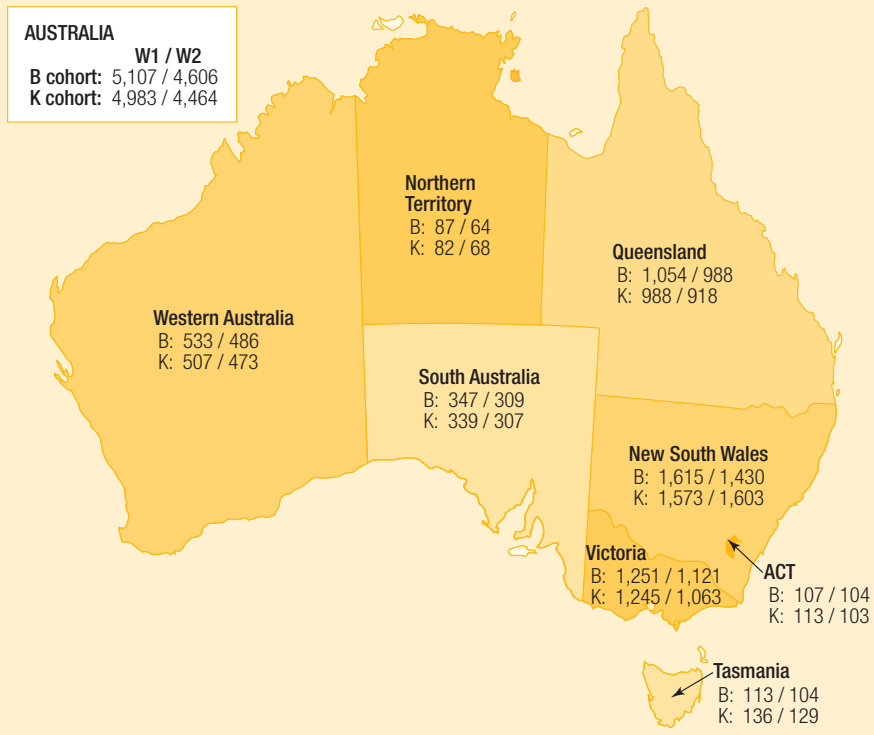
The main Wave 2 fieldwork began in April 2006 and was completed in early 2007.

There was very positive feedback from both interviewers and respondents regarding their involvement with the study. As one parent said, "Being part of a study that will be taken into consideration when future services for families are planned is a good feeling"; and from an interviewer, "I would just like to say how thankful I am for having the opportunity to work on *Growing Up in Australia*. This would have to be the most enjoyable interviewing yet".

Most of the interviews followed the standard procedure of a face-to-face interview in English with the child's primary caregiver. The exceptions were:

- 42 telephone interviews, which were necessary due to the distance of the families from where interviewers were located; most of these were in Western Australia and South Australia; and
- 110 interviews conducted in a language other than English, which was a significant reduction from the 310 interviews that required an interpreter in Wave 1. The most common languages requiring an interpreter were Arabic, Vietnamese and Cantonese.

Figure 1 Interviewed sample size, Waves 1 and 2



The time spent by interviewers in the home was reduced from the Wave 1 average of two hours to one and a quarter hours for Wave 2. The average time for the B cohort (children aged 2–3 years in Wave 2) was 66 minutes, compared with 85 minutes for the K cohort (children aged 6–7 years in Wave 2).

A Freecall *Growing Up in Australia* 1800 number is available to respondents at all times.

Overall response

In Wave 1, 10,090 families agreed to take part in *Growing Up in Australia*. Before Wave 2 commenced, 130 of these families had withdrawn from the study. Of the eligible families at Wave 2 (n = 9,960), 9,070 families were interviewed. This represents a response rate of 91.1 per cent of eligible families, and 89.9 per cent of the originally recruited sample. The response rate was similar for both cohorts, with families of 4,606 B cohort children and 4,464 K cohort children being interviewed.

A response rate of 91.1 per cent of eligible families was achieved in Wave 2.

There were 284 refusals at Wave 2 (2.8 per cent of the available sample). These included 80 permanent opt-outs, plus 204 families who refused an interview at Wave 2 but agreed to remain in the study for future waves. Many of the refusals for this wave only were attributed to situational factors, such as being too busy (32 per cent) or having an illness or other family problem (25 per cent). No reason was given in 17 per cent of cases. Among those who permanently withdrew, the most common reasons given were: not interested (16 per cent), too busy (15 per cent) and privacy/inappropriate questions (14 per cent), with 28 per cent not providing any reason at all.

There were 61 families (0.6 per cent) who were away for the entire fieldwork period, and five children had died. A total of 540 families (5.4 per cent) were not able to be located, despite extensive efforts by interviewers and ABS office staff. These families are still considered to be study members. Medicare Australia address updates are being used to help locate these currently non-contactable families.

As noted, only 80 families permanently withdrew from the study during Wave 2. Therefore, the sample size at the end of Wave 2 has been reduced to 9,875 children (5,001 B and 4,874 K), which constitutes 97.9 per cent of the originally recruited cohort.

Characteristics of non-participating families

Non-response analysis showed considerable similarities between the profiles of families who did not respond in Wave 2 and families who declined to take part in the study at Wave 1 (using Australian Bureau of Statistics Population Census data for comparable populations). The Wave 2 non-responding families were also similar to the Wave 1.5 non-responding families. Non-response rates were higher among Indigenous families (20 per cent), single-parent families (19 per cent), families where parents spoke a language other than English at home (15 per cent), and families in which parents had not completed Year 12 at school (13 per cent).

Differences between the response rates for these groups and the total sample were largely due to an inability to locate respondents, rather than significant differences in agreement to participate, and presumably reflect greater mobility, lower-quality contact information and greater difficulty in locating these families.

Rates of questionnaire returns

As in Wave 1, questionnaire responses were sought from the parent or parents who lived with the child, parents living apart from the child, child carers and teachers (as applicable) The final self-complete response rate (showing the percentage of children for whom these forms were applicable) is shown in Table 1. The table also shows the return rate of time-use diaries completed by parents about the child's activities during two specified 24-hour periods.

Table 1 Self-complete forms response rates

	Response rate %		Response rate %
Parent 1 during interview	98	Time-use diary	76
Parent 1 leave behind	78	Centre-based carer (B cohort)	68
Parent 2	77	Home-based carer (B cohort)	67
Parent living elsewhere	29	Teacher (K cohort)	82

In cases where a child's parent was living apart from the child but saw the child at least annually (1,011 children), about 70 per cent of resident parents provided contact information for the parent living elsewhere. However, only 295 (42 per cent) of parents living elsewhere returned a form.

Almost all parents provided consent to contact either the child's teacher (99 per cent) or carer (97 per cent). The most common reasons for not providing contact information for carers were language issues (25 of the 73 cases) and concern about disturbing the carer (20 cases).

Age of children at time of interview

Table 2 shows the age distribution of the children when their families were interviewed at Waves 1 and 2.

Mainly due to a later start in fieldwork for Wave 2 compared with Wave 1, there was an increase of slightly more than two years in the mean ages between Waves 1 and 2. This difference is not identical for all children, as there was some variation in the time of year that families were interviewed. Fieldwork requirements, and also the time taken to locate non-contactable families, meant that it was impossible to ensure that the time period between waves was the same for all children.

Table 2 Age distribution of children at time of Wave 1 and 2 interviews

B cohort				K cohort			
Wave 1		Wave 2		Wave 1		Wave 2	
Age	%	Age	%	Age	%	Age	%
3–5 months	11.2	2 years 3 months – 2 years 5 months	6.3	4 years 3 months – 4 years 5 months	10.6	6 years 3 months – 6 years 5 months	7.1
6–11 months	73.2	2 years 6 months – 2 years 11 months	64.8	4 years 6 months – 4 years 11 months	72.1	6 years 6 months – 6 years 11 months	63.7
1 year – 1 year 2 months	14.7	3 years – 3 years 2 months	23.5	5 years – 5 years 2 months	16.1	7 years – 7 years 2 months	23.8
1 year 3 months – 1 year 7 months	1.0	3 years 3 months – 3 years 10 months	5.4	5 years 3 months – 5 years 7 months	1.3	7 years 3 months – 7 years 10 months	5.4
Mean	**SD**	**Mean**	**SD**	**Mean**	**SD**	**Mean**	**SD**
9 months	3 months	2 years 10 months	3 months	4 years 9 months	3 months	6 years 10 months	3months

Final Wave 2 sample characteristics

Table 3 provides a summary of selected characteristics of the Wave 2 sample. To assist in the assessment of the representativeness of the sample, comparative population data from the ABS 2001 Census of Population and Housing have also been provided.

For almost all characteristics, the sample distribution was only marginally different to the Census distribution. The most substantive difference between the sample and Census children was in the educational status of the parents, with proportions for children with mothers who had completed Year 12 being 10 per cent higher for the *Growing Up* sample than for the Census.

Other differences were: children in lone-parent families were under-represented, more so for the K cohort; children with two or more siblings were under-represented and "only" children were over-represented in the B cohort; children whose mothers speak a language other than English at home were under-represented; children from families with lower incomes were under-represented; and children in New South Wales were under-represented.

Table 3 Proportion of children in families with given characteristics

Wave 2 characteristics	B cohort				K cohort			
	Wave 1		Wave 2		Wave 1		Wave 2	
	LSAC %	ABS %	LSAC %	ABS %	LSAC %	ABS %	LSAC %	ABS %
Gender*								
Male	51.2	51.3	51.1	51.3	50.9	51.3	51.0	51.3
Female	48.8	48.7	48.9	48.7	49.1	48.7	49.0	48.7
Family type								
Two resident parents/guardians:	90.7	88.1	89.0	84.0	86.0	82.0	85.2	80.5
– both biological	90.1	na	88.0	na	82.9	na	81.3	na
– step or blended family	0.4	na	0.8	na	2.7	na	3.3	na
– other	0.3	na	0.2	na	0.5	na	0.6	na
One resident parent/guardian:	9.3	11.9	11.0	16.0	14.0	18.0	14.8	19.5
– biological	9.3	na	10.9	na	13.9	na	14.7	na
– other	0.1	na	0.1	na	0.1	na	0.1	na
Siblings								
Only child	39.5	36.2	19.3	22.9	11.5	12.1	9.1	9.6
One sibling	36.8	35.6	49.1	43.6	48.4	45.9	45.2	42.4
Two or more siblings	23.7	28.2	31.6	33.5	40.1	42.0	45.7	48.0
Ethnicity								
Aboriginal or Torres Strait Islander	4.5	3.5	3.9	4.4	3.8	3.5	3.4	4.4
Mother speaks a language other than English at home	14.5	16.8	13.4	17.5	15.7	17.6	14.7	17.1
Work status								
Both parents or lone parent work	47.9	nc	56.9	nc	55.5	nc	65.4	nc
One parent works (in couple family)	40.8	nc	33.8	nc	32.8	nc	26.1	nc
No parent works	11.3	nc	9.3	nc	11.6	nc	8.6	nc
Educational status								
Mother completed Year 12	66.9	56.6	69.0	52.0	58.6	48.3	60.1	45.0
Father completed Year 12	58.5	50.2	59.7	47.4	52.7	45.3	53.2	43.1
State*								
New South Wales	31.6	34.1	31.1	33.4	31.6	33.7	31.4	33.6
Victoria	24.5	24.6	24.3	24.5	25.0	23.8	23.8	23.9
Queensland	20.6	19.3	21.5	19.8	19.8	19.7	20.6	20.1
South Australia	6.8	6.8	6.7	7.1	6.8	7.2	6.9	7.1
Western Australia	10.4	9.9	10.6	9.8	10.2	10.1	10.6	10.0
Tasmania	2.2	2.3	2.3	2.4	2.7	2.5	2.9	2.4
Northern Territory	1.7	1.4	1.4	1.4	1.7	1.6	1.5	1.3
Australian Capital Territory	2.1	1.7	2.3	1.6	2.3	1.3	2.3	1.6
Region								
Capital city statistical division	62.5	63.7	61.9	62.7	62.1	62.1	61.6	61.4
Balance of state	37.5	36.3	38.1	37.3	37.9	37.9	38.4	38.6
Number of families	**5107**		**4606**		**4983**		**4464**	

Note: ABS = 2001 census counts for children in families with 0, 2, 4 and 6 year olds, except for those marked *, which are based on September 2004 estimated resident population data for children aged 0, 2, 4 and 6 years.
na = not available; nc = comparable data not available from the census

Wave 2 snapshot

The following information is from the Wave 2 data collection and refers to all children in the study unless specified otherwise.

Children's health

Most parents said that their child was in good to excellent health. However, one in four children (24 per cent) aged 6–7 years had been diagnosed with asthma, and 66 per cent of these children had taken medication for this condition in the previous 12 months. Fewer children aged 2–3 years had been diagnosed with asthma (15 per cent), although 80 per cent of these had taken medication within the previous 12 months.

One in five children had required medical attention from a doctor or hospital in the previous 12 months because of injury.

A third of children had experienced other medical conditions in the previous 12 months, with eczema, food allergies and ear infections being the most common. One in five children had required medical attention from a doctor or hospital in the previous 12 months because of injury. The most common types of injuries requiring medical attention were cuts or scrapes, and broken or fractured bones.

Five per cent of children aged 6–7 years needed to stay in hospital for one night or more due to illness. The most common reasons were tonsillectomy and/or adenoidectomy, asthma, and fever or viral illnesses. Nine per cent of children aged 2–3 years needed to stay in hospital for one night or more due to illness. The most common reasons for these children were fever or viral illnesses, asthma and gastroenteritis.

Sleeping

Nearly all parents reported that their child always or usually went to bed at a regular time. One in four parents of children aged 6–7 years and two in five parents of children aged 2–3 years said their child's sleeping was a problem. The most common problem was waking during the night, followed by not being happy sleeping alone, and difficulty falling asleep at night.

Some parents also reported problems with their own sleep—23 per cent of parents said their quality of sleep was fairly bad to very bad, and 33 per cent of parents said their sleep quality was adequate. The other 44 per cent said their sleep quality was fairly good to very good.

Parents' health

Two-thirds of both mothers and fathers said their health was very good to excellent. However, only ten per cent of all parents reported that they had no problems or stresses in their lives.

Working lives

Fifty-five per cent of mothers with a child aged 2–3 years and 64 per cent of mothers with a child aged 6–7 years were employed. Only three per cent were unemployed and looking for work. Almost all fathers (93 per cent) were employed. Of the parents in paid work, 88 per cent reported that they felt secure in their job.

87 per cent of parents said their neighbourhood was a good place to bring up their child.

Neighbourhood

Overall, families seemed happy with where they lived—87 per cent of parents said their neighbourhood was a good place to bring up their child. Four-fifths of parents agreed

that their neighbourhood was safe for children to play outside, and 95 per cent agreed that their neighbourhood was clean. Four out of five parents said that there were good parks, playgrounds and play spaces in their neighbourhood.

Children's activities at home

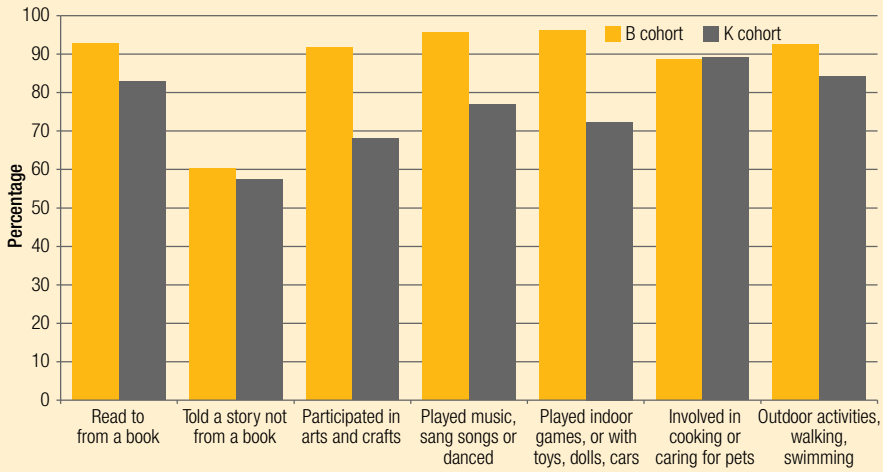
Children participated in many different activities at home during the week before the interview, as shown in Figures 2 and 3.

Over 85 per cent of 2–3 year old children, while in the company of an adult, participated at least once during the week in almost all of the activities shown in Figure 2. The only exception was being "Told a story, not from a book", where this happened for only 60 per cent of 2–3 year old children.

Over 90 per cent of 2–3 year old children were read to from a book at least once during the week.

Participation rates were around 10–20 per cent lower for the 6–7 year old children for almost all of the activities shown in Figure 2. The main exception was "Involved in cooking or caring for pets", where the participation rate for the older children was slightly higher than for the younger ones.

Figure 2 **Children's activities at home with adult in week before interview**



Source: *Growing Up in Australia*, Wave 2

When children have a choice about how to spend their time, over 40 per cent of children were just as likely to chose active as inactive pastimes (see Figure 3). For the 2–3 year old children, more children were likely to chose active than inactive pastimes (36 per cent versus 20 per cent), whereas for the 6–7 year old children, about an equal proportion of children were likely to chose active and inactive pastimes (close to 30 per cent for each).

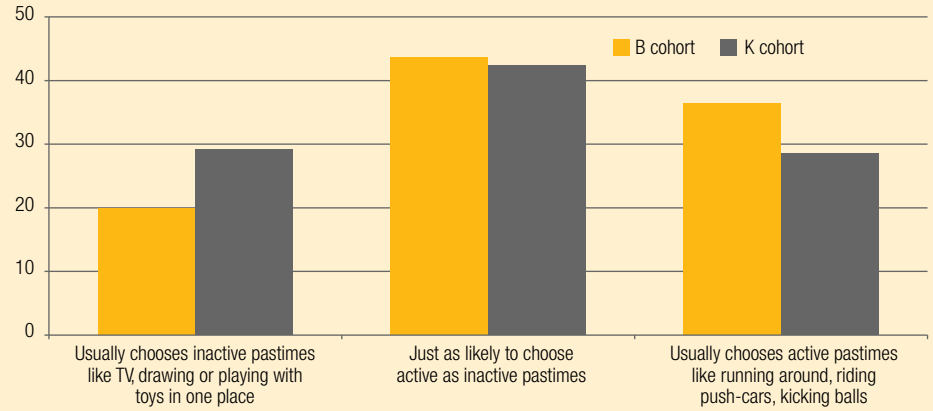
Over 40 per cent of children were just as likely to chose active as inactive pastimes.

Separated families

About 17 per cent of the study children had a biological parent not living with them. Resident parents reported that, of the parents who were not living with the child at the time of interview, 33 per cent usually saw their child once per week, and 9 per cent usually saw their child every day.

Half of the parents still living with the study child said they got along well or very well with the child's non-resident parent. However, a quarter of the parents still living with the study child said they got along poorly or very poorly with the child's other parent.

Figure 3 What child usually does when having a choice about how to spend free time



Source: *Growing Up in Australia*, Wave 2

Schooling

Twenty-seven per cent of 6–7 year old children were enrolled in Year 2, a further 68 per cent were enrolled in Year 1, and about four per cent were in pre-school programs.

Child care

Almost seven in ten children aged 2–3 years were receiving some type of regular non-parental child care.

Almost seven in ten children aged 2–3 years were receiving some type of regular non-parental child care. The most common form of child care was with day care centres (43 per cent of 2–3 year olds), followed by maternal grandparents (13 per cent), family day care (8 per cent) and paternal grandparents (7 per cent).

Children's responses

In the Wave 2 *Growing Up in Australia* interview, 6–7 year old children were asked a short set of questions about what they thought about school and how they felt overall.

Half of the children said they felt happy about going to school when they got up in the morning, a third of children said they felt happy sometimes, and one-fifth said they didn't feel happy about going to school. Seven out of ten children said that they enjoyed reading and writing and felt they were doing well at school. Eight out of ten children felt that their teacher was nice to them.

About two-thirds of children said that they felt happy lots of the time, with a further quarter saying they sometimes felt happy. Almost forty per cent of children said that they were hardly ever scared or worried, with 13 per cent saying they felt scared or worried lots of the time.

Three-quarters of children said they had a pet. About 39 per cent reported having a dog, 12 per cent having a cat and a further 9 per cent reported having both.

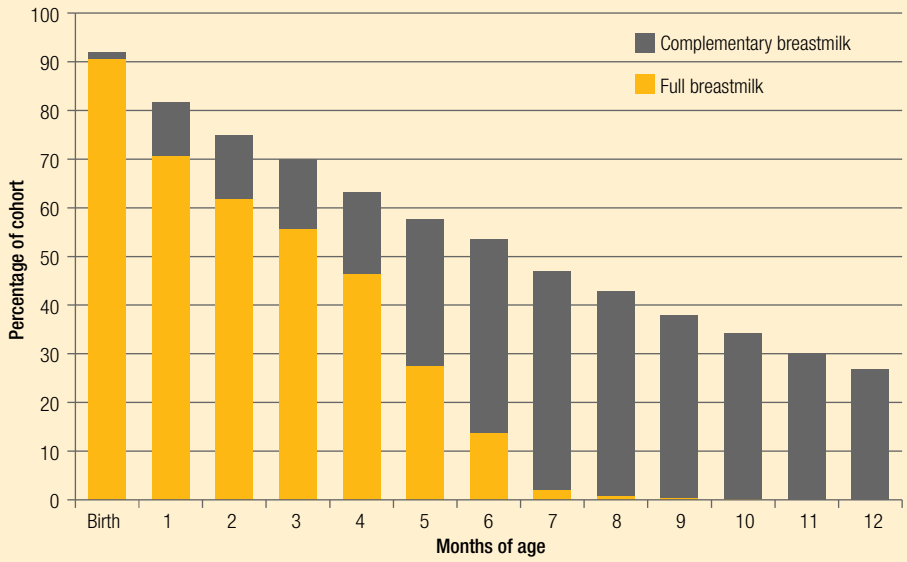
Breastfeeding

This section presents preliminary research by **Jennifer Baxter** and makes use of the B cohort data on breastfeeding from Wave 1, updated using Wave 2 data, as well as other data from Wave 1.5.

Breastfeeding confers a range of benefits to mother and child and, as such, the World Health Organisation (WHO) and the National Health and Medical Research Council (NHMRC) recommend that as many infants as possible are exclusively breastfed for the first six months of life. NHMRC also recommends infants continue to be breastfed up until at least one year old if mother and child desire to do so.

For the B cohort, 92 per cent of children were breastfed at birth. As shown in Figure 4, the overall rate of breastfeeding fell steadily from month to month. Some mothers stopped breastfeeding altogether, and others continued to breastfeed while supplementing the breast milk with other food or drink (shown in Figure 4 "Complementary breast milk").

Figure 4 **Breastfeeding: The first 12 months, B cohort**



Source: *Growing Up in Australia*, Waves 1 and 2

When children were one week old, 88 per cent were still being breastfed, but already the rate of full breastfeeding (that is, breastfeeding with no other food or milk) had dropped to 80 per cent. By the time the children were aged one month, only 71 per cent were fully breastfed, with another 11 per cent receiving complementary breast milk. This decline in full breastfeeding from birth to one month of age was greater than declines in the next 3 months, as the rate of full breastfeeding fell to 62 per cent at age 2 months, 56 per cent at age 3 months and 46 per cent at age 4 months. The rate of full breastfeeding declined more rapidly after the child's 4-month birthday, dropping to 28 per cent at 5 months and 14 per cent at 6 months. Beyond this, very few children were fully breastfed. After 6 months, breastfeeding rates continued to decline. At 12 months, 28 per cent of

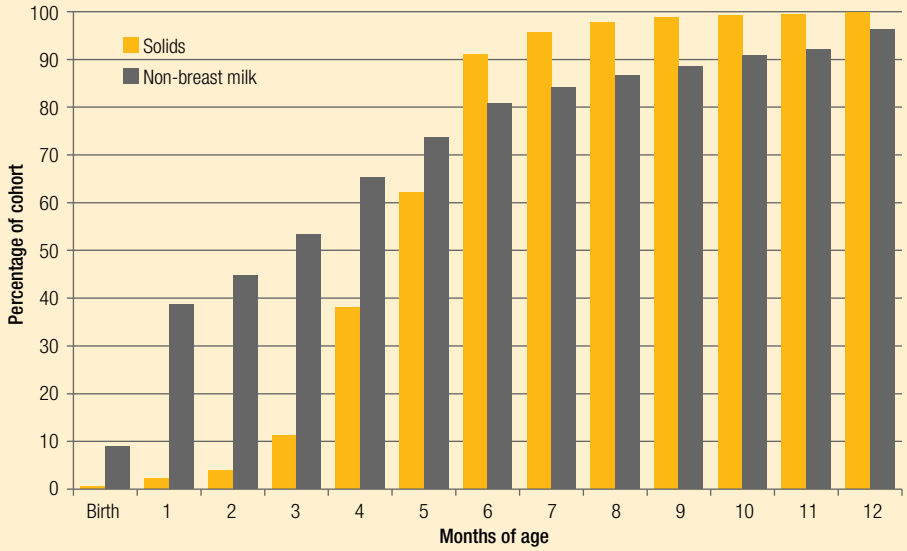
By the time the children were aged one month, only 71 per cent were fully breastfed.

children were still breastfed; at 18 months, 9 per cent of children; and at 24 months, 5 per cent were still being breastfed.

At 3 months old, 53 per cent of infants were fed non-breast milk and 11 per cent solids.

The timing of introduction of non-breast milk and of solids is shown in Figure 5. These categories are not mutually exclusive—infants could have non-breast milk as well as solids. At 3 months old, 53 per cent of infants were fed non-breast milk and 11 per cent solids. The percentage of infants on solids rose to 38 per cent at 4 months and 62 per cent at 5 months. At 6 months, the age at which WHO and NHMCR recommend introduction of solids, 91 per cent of infants had started solids.

Figure 5 **Introduction of non-breast milk and solids, B cohort**



Source: *Growing Up in Australia*, Waves 1 and 2

Breastfeeding and returning to work

Since very few women had returned to work before the child was 3 months old, factors other than employment are likely to explain the decline in breastfeeding found during this time.

To explore whether there is a relationship between mothers' breastfeeding patterns and their postpartum employment, we need to also understand mothers' return-to-work patterns. This analysis is based on information on maternal return to work, collected in the 2005 Parental Leave in Australia Survey (Wave 1.5).

When children were 3 months old, only 11 per cent of mothers had returned to work. Even by 6 months, only 21 per cent had returned. By 9 months, 31 per cent had returned and by 12 months, 42 per cent had returned (Table 4).

Analysing the association between return to work and breastfeeding requires fairly complex methods. However, since very few women had returned to work before the child was 3 months old, factors other than employment are likely to explain the decline in breastfeeding found during this time. As children get older and more women return

to work, there is a greater likelihood of employment being a factor in the declining rates of breastfeeding.

Table 4 Distribution of employment status at 3, 6, 9 and 12 months after the birth

	3 months %	6 months %	9 months %	12 months %
Not returned to work	89	79	69	58
Hours worked on return				
1 to 9	3	5	6	8
10 to 19	3	6	9	14
20 to 34	3	6	9	13
35 or more	2	4	6	8
Job type on return				
Self-employed	4	5	6	7
Permanent	3	9	15	23
Casual	3	6	8	11

Note: Employment status is based on the employment status and hours that mothers reported they were working when they first returned to work. It does not incorporate changes to other forms of work or increases in hours that might occur over this time.
Source: *Growing Up in Australia*, Wave 1.5

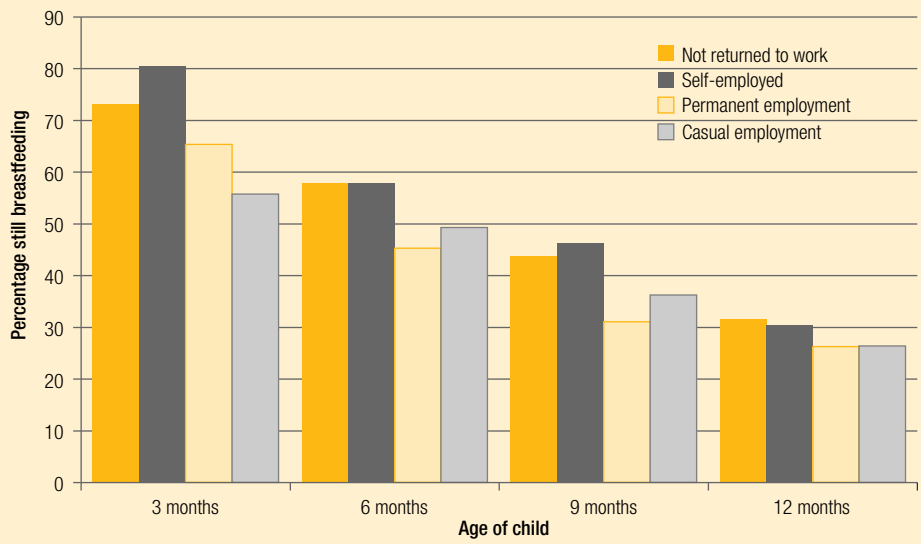
For those mothers who had returned to work in the child's first year, associations between breastfeeding and employment were likely to vary, not only with the age of the child or the mother's recommencement of work, but also with the characteristics of the job. More flexible or less time-intensive jobs are less likely than other jobs to compete with breastfeeding.

At 3 months, mothers who had returned to work were fairly equally divided between those in self-employment, permanent work and casual work. Over the 12 months, there was growth in the proportion in each of these types of jobs, but more so in permanent employment (Table 4). Figure 6 shows that women who had returned to permanent or casual jobs by the child's 3-month birthday had lower rates of breastfeeding compared to those who had remained not employed or who had taken up self-employment. At 6 and 9 months, the percentage of women breastfeeding was lowest for those in permanent employment but, by 12 months, differences were less evident.

Relatively few mothers returned to full-time work (35 hours or more) in the first year (Table 4). As shown in Figure 7, mothers who were not employed or who worked fewer than 10 hours per week had the highest breastfeeding rates at each of 3, 6, 9 and 12 months. However, breastfeeding rates were not always lowest amongst those working full-time hours (see Figure 7), and it is likely that other maternal and family characteristics contribute to these trends.

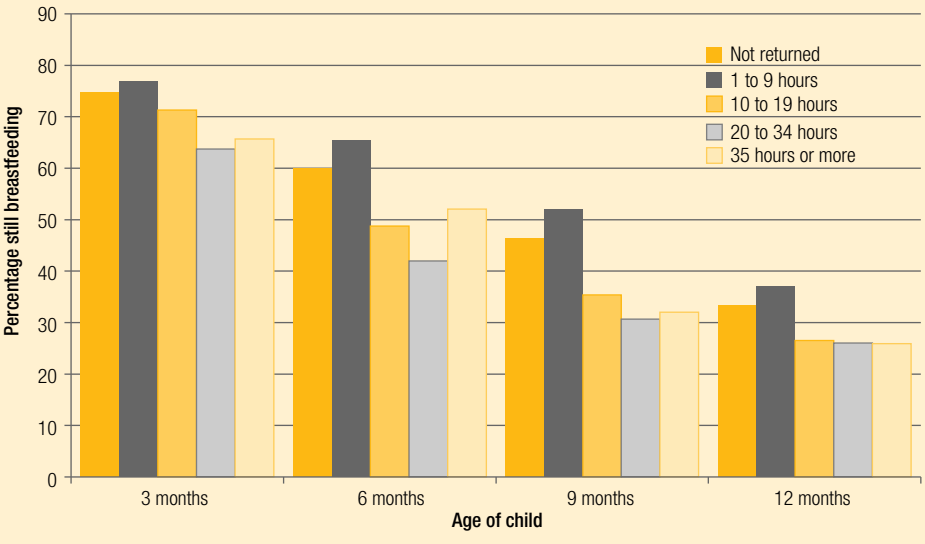
Mothers who were not employed or who worked fewer than 10 hours per week had the highest breastfeeding rates at each of 3, 6, 9 and 12 months.

Figure 6 Percentage of mothers still breastfeeding, by age of child and return to work characteristics



Source: *Growing Up in Australia*, Waves 1 and 2

Figure 7 Percentage of mothers still breastfeeding, by age of child and hours worked



Source: *Growing Up in Australia*, Waves 1 and 2

Mothers' labour market participation

This section presents preliminary results of research using data from Waves 1 and 2, conducted by **Matthew Gray** and **Jennifer Baxter**.

There are very often changes in mothers' employment following the birth of a child, and understanding the extent to which mothers with young children move in and out of employment is important information for those interested in the impact of childbearing on labour market participation. This section describes how the labour market participation of mothers changed between Wave 1 and 2. The analysis is restricted to families who participated in both waves.

Maternal labour market dynamics

Overall, the employment rate of mothers increased between Wave 1 and 2. For mothers with a study child who was an infant in Wave 1, the employment rate increased from 37 per cent at Wave 1 to 49 per cent two years later, and the proportion on extended leave fell from 13 per cent to 7 per cent. For mothers with a 4–5 year old study child at Wave 1, the employment rate increased from 52 to 59 per cent and the proportion on extended leave was 4 and 6 per cent at Waves 1 and 2 respectively. Many of the mothers with a study child aged 4 to 5 years in Wave 1 who were on extended leave also had a younger child.

For mothers with a study child who was an infant in Wave 1, the employment rate increased from 37 per cent at Wave 1 to 49 per cent two years later.

However, the picture is one of significant change when the extent to which mothers remained in the same employment status or changed employment status between 2004 (Wave 1) and 2006 (Wave 2) is examined, as shown in Table 5. Of mothers with an infant study child who were employed in Wave 1, 76 per cent were still employed at Wave 2 and 24 per cent were no longer employed at Wave 2. Among mothers with an infant who were not employed at Wave 1, 34 per cent were employed and 66 per cent were not employed 2 years later.

Table 5 Changes in maternal employment between Wave 1 and Wave 2 by age of study child

Wave 1 (2004)	Wave 2 (2006)		Number of observations
	Employed %	Not employed %	
Infant (B) cohort			
Employed	76	24	1,746
Not employed	34	66	2,824
4–5 year old (K) cohort			
Employed	82	18	2,394
Not employed	35	65	1,982

Note: Those on extended leave are classified as being not employed.
Source: *Growing Up in Australia*, Waves 1 and 2

Mothers with a study child aged 4–5 years who were employed in Wave 1 had a slightly lower rate of movement out of employment (18 per cent) than employed mothers with an infant study child in Wave 1. For mothers with a 4–5 year old who were not employed at Wave 1, 65 per cent were not employed at Wave 2 and 35 per cent were employed.

These rates of movement out of employment were similar to those of mothers with an infant.

Overall, there was more stability in the group of mothers who were employed and at work than there was in the other groups. This group of mothers grew as mothers returned from leave or entered employment following an absence from work. The transitions out of work were smaller in terms of the proportions affected, resulting in the net increase in maternal employment observed between Waves 1 and 2.

Of mothers with an infant study child who were on extended leave at Wave 1, 56 per cent were employed two years later.

It is interesting to examine the employment transitions of mothers who were on leave (for example, on maternity leave) at Wave 1 (classified as not employed in the previous data). Of mothers with an infant study child who were on extended leave at Wave 1, 56 per cent were employed two years later. The remaining 44 per cent were not employed, including 16 per cent on leave from work and 28 per cent not on leave.

Almost one-third (31 per cent) of mothers with an infant at Wave 1 had another child between Waves 1 and 2. The birth of another child has a very significant impact upon employment changes. For example, of the mothers who were employed at Wave 1, 84 per cent remained working at Wave 2 if they had no new children. In contrast, of those employed at Wave 1 who had another child, only 58 per cent were employed at Wave 2 and 18 per cent were on extended leave.

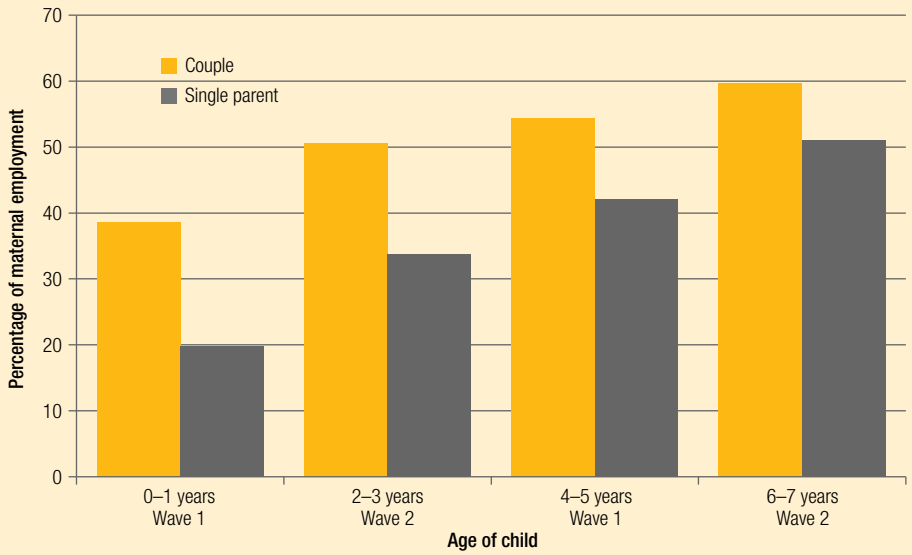
Many of the families with a 4–5 year old study child had a younger child (46 per cent at Wave 1). The presence of a younger sibling has a big impact on employment status. At Wave 1, of mothers with a 4–5 year old study child who had a younger sibling, 45 per cent were employed. For mothers whose youngest child was aged 4–5 years, 60 per cent were employed.

Employment of mothers in single- and couple-parent families

One of the most dramatic changes to Australian families in recent decades has been the increase in the number of single-parent households. In Wave 1, 10 per cent of the infant cohort and 14 per cent of the 4–5 year old cohort lived in a single-parent household. By Wave 2, 13 per cent of the infant cohort and 17 per cent of the 4–5-year cohort were in single-parent households.

Maternal employment differs considerably according to whether the family is a single- or couple-parent family, with single mothers less likely to be employed. However, the gap between couple and single mothers narrows as children get older (Figure 8). The difference in employment rates of couple and single mothers was 19 per cent for mothers with a study child aged 0–1 years, 17 per cent for 2–3 year old children, 12 per cent for 4–5 year old children, and 9 per cent for 6–7 year old children.

Figure 8 **Maternal employment, by age of study child and family type, Waves 1 and 2**



Source: *Growing Up in Australia*, Waves 1 and 2

Financial wellbeing of families

This section presents preliminary results of research using data from Waves 1 and 2, conducted by **Matthew Gray** and **Jennifer Baxter**.

This section analyses how the financial wellbeing of the families in *Growing Up in Australia* changed between Wave 1 and 2, and examines the association between relationship breakdown and changes in financial wellbeing. The analysis is restricted to families who responded to both waves, and information from both cohorts of study children are combined.

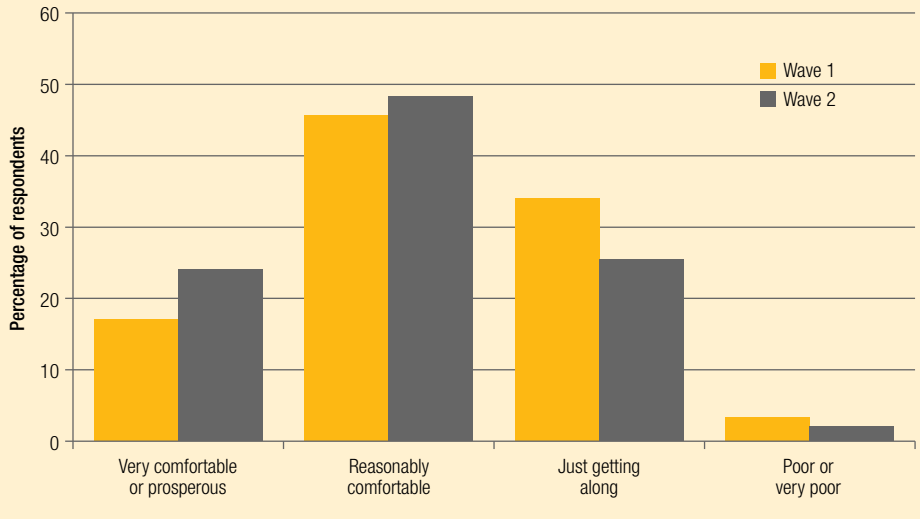
Use was made of two measures: the self-reported prosperity of families and whether financial hardships have been experienced in the previous year. Prosperity was measured using responses to the question: "Given your current needs and financial responsibilities, how would you say you and your family are getting on?" Response categories ranged from very poor through to prosperous. The bottom two categories (very poor and poor) were combined, as were the top two (very comfortable and prosperous). This question was asked of the primary carer of the study child.

To assess the extent to which families experienced financial hardship, information was used on whether primary carers reported that, due to shortage of money, they had any of the following happen: adults or children went without meals; they were unable to heat or cool their home; they pawned or sold something; or they sought assistance from a welfare or community organisation.

Between Wave 1 and Wave 2, there was an increase in perceived prosperity.

Between Wave 1 and Wave 2, there was an increase in perceived prosperity (Figure 9). For example, the proportion of respondents saying their family was very comfortable or prosperous increased from 17 per cent in Wave 1 to 24 per cent in Wave 2. The proportion saying they were just getting along decreased from 34 per cent to 25 per cent.

Figure 9 **Perceived prosperity 2004 (Wave 1) and 2006 (Wave 2)**



Source: *Growing Up in Australia*, Waves 1 and 2

Consistent with the improvement in prosperity, the proportion of families reporting having experienced a financial hardship fell from 13 to 7 per cent between Waves 1 and 2. Of those who experienced financial hardships, most families reported experiencing just one hardship. At each wave, the two most common hardships were having pawned or sold something (7 per cent at Wave 1 and 3 per cent at Wave 2) and having sought assistance from a welfare or community organisation (6 per cent at Wave 1 and 4 per cent at Wave 2).

Of those who experienced financial hardships, most families reported experiencing just one hardship.

There is a clear relationship between perceived prosperity and the experience of financial hardships, with very few families who described their financial prosperity as being reasonably comfortable or better experiencing financial hardships. Among the families just getting along, 24 per cent had experienced one or more financial hardships in the previous year. Not surprisingly, the poor or very poor families were most likely to have experienced financial hardships—64 per cent at Wave 1 and 45 per cent at Wave 2.

The extent to which families saw changes in their perceived prosperity and the experience of financial hardships between 2004 (Wave 1) and 2006 (Wave 2) is shown in Table 6.

Table 6 Perceived prosperity, changes from 2004 (Wave 1) to 2006 (Wave 2)

Perceived prosperity 2004 (Wave 1)	Perceived prosperity 2006 (Wave 2)				Number of observations
	Very comfortable or prosperous	Reasonably comfortable	Just getting along	Poor or very poor	
	%	%	%	%	
Very comfortable or prosperous	60	32	7	1	1,589
Reasonably comfortable	24	60	16	1	4,189
Just getting along	8	44	45	3	2,952
Poor or very poor	5	25	52	19	273
Total	**24**	**48**	**25**	**2**	**9,003**

Source: *Growing Up in Australia*, Waves 1 and 2

There was substantial change in self-reported financial prosperity between Wave 1 and Wave 2. For example, of those who said that their family was very comfortable or prosperous in Wave 1, 60 per cent also said that their family was very comfortable or prosperous in Wave 2, 32 per cent were reasonably comfortable, 7 per cent were just getting along and 1 per cent were poor or very poor. Of those who were poor or very poor in Wave 1, just 19 per cent said they were also poor or very poor in Wave 2. The remaining 81 per cent said that their families' level of prosperity had improved, with 52 per cent saying they were just getting along at the time of the Wave 2 interview, 25 per cent reasonably comfortable and 5 per cent very comfortable or prosperous by Wave 2.

The extent to which families experienced changes in the number of financial hardships between 2004 (Wave 1) and 2006 (Wave 2) is shown in Table 7. Families who experienced no financial hardships at Wave 1 were very unlikely to experience financial hardships at Wave 2. However, many of those who experienced financial hardships at Wave 1 did not at Wave 2, although those who had experienced two or more hardships at Wave 1

were more likely than those who had fewer hardships at Wave 1 to experience at least one financial hardship at Wave 2.

Table 7 Experiences of financial hardship, changes from 2004 (Wave 1) to 2006 (Wave 2)

2004 (Wave 1)	2006 (Wave 2)			Number of observations
	No hardships	One hardship	Two or more hardships	
	%	%	%	
No hardships	97	3	1	7,824
One hardship	78	17	5	776
Two or more hardships	51	30	19	331
Total	**93**	**5**	**2**	**8,931**

Source: *Growing Up in Australia*, Waves 1 and 2

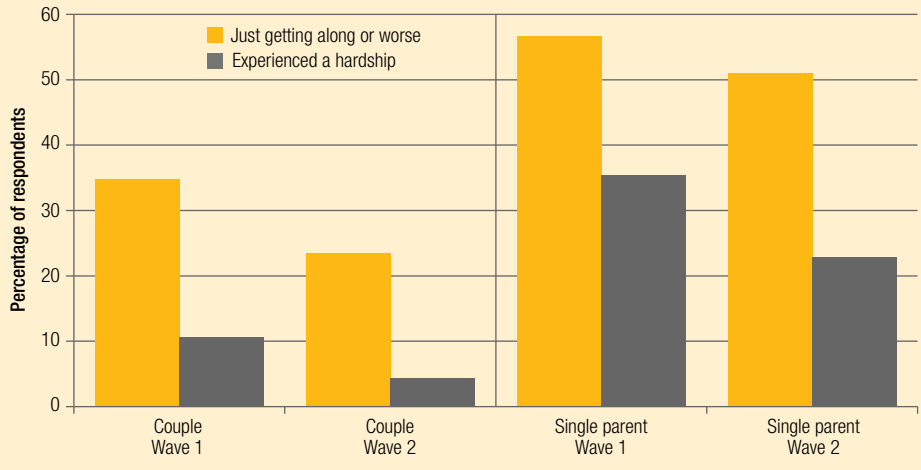
The number of families experiencing financial hardships at both Wave 1 and 2 is less than 5 per cent.

While the experience of financial hardship at any point in time may have adverse consequences, the negative effects are likely to be more severe for families that experience financial hardships for a sustained period of time. Analysis of the data suggests that the number of families experiencing financial hardships at both Wave 1 and 2 is less than 5 per cent, much lower than the 17 per cent who reported having experienced one or more financial hardships in either Wave 1 or Wave 2.

Financial wellbeing and relationship changes

Although on average financial wellbeing improved, within some families there was a decline. One possible reason for decline in prosperity is the breakdown of couple relationships, as single parents are more likely to experience financial hardship than couples (Figure 10).

Figure 10 Financial wellbeing by family types, 2004 (Wave 1) and 2006 (Wave 2)



Source: *Growing Up in Australia*, Waves 1 and 2

Families who experienced a relationship breakdown between Waves 1 and 2 reported lower prosperity, and were more likely to have experienced financial hardships at Wave 1 than the couple families who remained together (Table 8). For families that were a couple family in both Wave 1 and 2 the proportion saying that they were just getting along or worse fell from 35 to 23 per cent, and the proportion having experienced a financial hardship fell from 11 to 4 per cent. For couple families that separated between Waves 1 and 2, the proportion that said that they were just getting along or worse increased from 49 to 53 per cent. Although the proportion who reported experiencing a financial hardship fell slightly (26 to 24 per cent), the fall was smaller than for couple families who did not separate.

The financial wellbeing of families that were single-parent families at both Wave 1 and 2 improved quite significantly between Waves 1 and 2, particularly with respect to the experience of financial hardships. This analysis suggests that the biggest improvements in financial wellbeing were reported by parents who were a single parent at Wave 1 but who were a couple family at Wave 2.

The biggest improvements in financial wellbeing were reported by parents who were a single parent at Wave 1 but who were a couple family at Wave 2.

Table 8 Changes in family type and financial wellbeing, 2004 (Wave 1) to 2006 (Wave 2)

	Just getting along or worse		Experienced a financial hardship		Number of observations
	At Wave 1 %	At Wave 2 %	At Wave 1 %	At Wave 2 %	
Couple in both waves	35	23	11	4	7,695
Became single in Wave 2	49	53	26	24	386
Became partnered in Wave 2	55	42	35	18	157
Single in both waves	57	50	37	22	774
Total	**38**	**28**	**15**	**7**	**9,012**

Source: *Growing Up in Australia*, Waves 1 and 2

This section is an edited extract from FaHCSIA's Social Policy Research Paper 30, *Mothers and Fathers with Young Children: Paid Employment, Caring and Wellbeing*, by Jennifer Baxter, Matthew Gray, Michael Alexander, Lyndall Strazdins and Michael Bittman, July 2007.

There is considerable variation in the types of child care used by Australian families. Furthermore, the options and decisions around combining paid employment and how children are looked after are quite different for children of different ages. Child care for young children ranges from formal government-regulated centre and home-based child care settings to various informal unregulated arrangements that include, for example, care by grandparents, friends or nannies. This article focuses on child care for infants in Wave 1.

Just over one-third of infants had at least one regular child care arrangement in Wave 1.

Just over one-third of infants had at least one regular child care arrangement. There were substantial differences in the use of child care according to family type and employment status (see Table 9). A higher proportion of employed single parents used some form of child care (80.9 per cent) than not-employed single parents (24.7 per cent). A high proportion of couple-parent families in which both parents were employed used some form of child care (65.4 per cent), although around one-third of these dual-employed families did not. In couple-parent families where only one parent was employed (usually the father), only 16.7 per cent had regular care arrangements for the infant. This is similar to the rate for couple-parent families in which neither parent was employed (13.3 per cent).

Employed single-parent families had higher rates of use of child care than couple-parent families in which both parents were employed (see Table 9). This is not surprising, given that couple parents may be more easily able to coordinate their time and work arrangements so that non-parental care is not required.

Families with infants were more likely to use informal care only (20.5 per cent) than formal care only (10.8 per cent).

Families with infants were more likely to use informal care only (20.5 per cent) than formal care only (10.8 per cent) (see Table 9). Employed single parents were more likely than dual-employed parents to use a mix of formal and informal care.

Table 9 Child care use by family type and parental work status, infant cohort

	Single		Couple			Total
	Not employed	Employed	Neither employed	One employed	Both employed	
	%	%	%	%	%	%
Parental care only	75.3	19.1	86.7	83.3	34.6	64.8
Formal care only	6.2	22.7	4.6	4.4	21.5	10.8
Informal care only	16.5	37.7	8.7	11.4	35.6	20.5
Both formal and informal	2.0	20.5	0.0	0.9	8.4	3.9
Total	**100.0 (*n* = 385)**	**100.0 (*n* = 91)**	**100.0 (*n* = 238)**	**100.0 (*n* = 2,555)**	**100.0 (*n* = 1,834)**	**100.0 (*n* = 5,103)**

Note: Numbers have been rounded and may not add to the total.
Source: *Growing Up in Australia*, Wave 1

The reason for the use of child care was clearly related to parental employment, with the majority of employed single parents and dual-employed couples citing parental work or study commitments as the main reason for using child care (92.9 per cent and 91.2 per cent respectively). This was true regardless of whether formal or informal care was the main type of care used.

Child care in working families

A significant proportion of working families (defined as employed single-parent families, and couple-parent families where both parents were employed) were able to manage paid work responsibilities without using non-parental care (19.1 per cent of employed single parents and 34.6 per cent of employed couple-parent families).

A significant proportion of working families (defined as employed single-parent families, and couple-parent families where both parents were employed) were able to manage paid work responsibilities without using non-parental care.

An important question is: what factors are related to the probability of working families using non-parental care for their infants and, for those families who are using non-parental care, what factors[1] are associated with using formal care compared to informal care?

The data was explored using multivariate techniques, which drew out the associations between family characteristics, primary carer's job characteristics, and care arrangements. Only those relationships found to be statistically significant are included in the following discussions.

The following relationships were found:

- Younger infants aged 3 to 5 months were more likely to be solely in parental care (54.3 per cent), than infants aged 12 months or more (21.8 per cent).
- Children from larger families were more likely to be in parental care only (28.9 per cent of one-child families compared to 47.2 per cent of infants in families of three or more children).
- A higher total parental income was positively related to the use of non-parental child care. The percentage having only parental care was 43.7 per cent for families with gross income of less than $1,000 per week, 32.4 per cent where the income was between $1,000 and $1,499 and 26.5 per cent where the income was $1,500 or more.
- When the primary carer was more highly educated, there was also a greater use of non-parental child care. For example, 42.9 per cent of those with incomplete secondary schooling compared to 28.7 per cent of those with a bachelor degree or higher had parental care only.

Specific job characteristics of the primary carer also had an association with having only parental care:

- Parents working less than 16 hours per week were more likely to only have parental care for the study child (49.9 per cent), as were self-employed parents (56.4 per cent).

1 In considering these associations, it should be kept in mind that other factors, not considered here because relevant information was not collected in Wave 1 of *Growing Up in Australia*, are also likely to be important. These include affordability or availability of different care options, and views on what is appropriate care for children at different ages.

- Casual employees were more likely than permanent/ongoing employees to have only parental care (37.5 per cent compared to 19.8 per cent).
- Parents who worked evenings/nights and parents who worked weekends were more likely to have only parental care (40.8 per cent and 41.2 per cent respectively) compared to those who did not.

Formal versus informal care

Older infants were more likely to be in formal rather than informal care.

Differences in the use of formal care versus informal care were also identified for working families. Key relationships found include:

- The age of the study child had the greatest effect, with older infants more likely to be in formal care (12.0 per cent of those aged 3 to 5 months were in formal care only and 29.2 per cent in informal care only, compared to 27.4 per cent of those aged 12 months or more in formal care only and 37.0 per cent in informal care only).
- Two-child families were somewhat more likely to be in formal care than informal care than one-child families (21.4 per cent of infants in one-child families were in formal care only and 39.7 per cent in informal care only, while 24.3 per cent of infants in two-child families were in formal care only and 33.8 per cent in informal care only).
- When the primary carer was self-employed, the child was more likely to be in informal care only (29.7 per cent) than in formal care only (8.8 per cent), relative to those with a primary carer who was a permanent/ongoing employee (31.0 per cent formal care only, 37.4 per cent informal care only).
- This was also the case if the primary carer worked less than 16 hours per week (34.1 per cent were in informal care only and 11.7 per cent in formal care only), relative to working 35 hours or more (38.1 per cent informal care only, 30.5 per cent formal care only). The hours the non-primary carer worked did not significantly differentiate between those who used formal care and those who used informal care, and neither did parental income.

Parental-only care

A possible mechanism for couple working families to only have parental care is for them to share the care of children. In other words, parents schedule their hours so that one parent is available to care for the child while the other is working.

Growing Up in Australia can provide some insight into this through a question that asks the primary carer whether there are any regular times during the week when their partner takes care of the child while they are not there (for example, to go to work or do the shopping). The primary carer is then asked for how many hours the child is looked after by the partner only.

Table 10 shows that the partner spent some time caring for the child in 52.4 per cent of couple working families who used no formal or informal care. Looking from the other perspective, the primary carer was the sole carer of the child in 47.6 per cent of these dual-employed, parental-care-only families. In these families, it seems that the primary carer was working while also being responsible for their children.

Partners of self-employed primary carers were the least likely to provide care, and when they did, they provided care for fewer hours than the mean working hours of self-employed primary carers. That is, it appears that self-employed primary carers were the most likely to be working while simultaneously caring for children. For permanent/ongoing and casual employees, when their partners did provide care, they did so for an amount of hours that was similar to the mean hours worked by permanent/ongoing or casual employees, suggesting a dovetailing of hours in these families.

Table 10 **Partner involvement in care by job type of primary carer, dual-employed couples who use no child care, infant cohort**

	Self-employed	Permanent/ ongoing employee	Casual employee	Total
Partner cares for the child (%)	42.1	62.0	61.8	52.4
Weekly number of hours of care by partner (hrs)	6.9	18.1	10.5	11.8
Mean weekly hours worked by primary carer				
Partner does not care for child	12.7	19.6	8.7	13.6
Partner does care for child	13.3	21.5	11.0	15.6
Total	**13.0 (*n* = 304)**	**20.8 (*n* = 191)**	**10.1 (*n* = 143)**	**14.7 (*n* = 638)**

Source: *Growing Up in Australia*, Wave 1

Parental work and time with children

This section is an edited extract from FaHCSIA's Social Policy Research Paper 30, *Mothers and Fathers with Young Children: Paid Employment, Caring and Wellbeing*, by Jennifer Baxter, Matthew Gray, Michael Alexander, Lyndall Strazdins and Michael Bittman, July 2007.

Combining paid work and the care of young children is time-intensive. This article makes use of information reported in the children's time-use diaries to show the extent of parental availability throughout a range of children's activities.

Mothers' hours of employment reduced the time spent with their children, but not in proportion to the extra time demands of their jobs.

This analysis focuses only on those times when the mother or father was present. Only diaries completed for a weekday and nominated to be a "usual" day were analysed in order to ensure the diary day could more accurately be related to parental employment.

Highlights of this analysis[2] are:

- The time demands were greatest when children were in their first year of life and fell disproportionately upon mothers.
- Mothers' hours of employment reduced the time spent with their children, but not in proportion to the extra time demands of their jobs.
- In contrast, fathers' time with their children was only increased under the unusual circumstance of less than full-time employment, and was not much affected by the difference between standard full-time hours and very long hours of work.
- Fathers' time with children increased in response to their partners' hours of employment, partially offsetting reductions in mothers' time for infants and more adequately offsetting losses of maternal availability for 4–5 year olds.

Overview of parents' time with children

Fathers' time with children increased in response to their partners' hours of employment.

On average, mothers spent over 15 hours per day with their infant children and over 12 hours per day with their 4–5 year olds. This was roughly double the amount of time that fathers spent in the company of their infants (just over 7 hours) or 4–5 year old children (just over 6 hours) (see Table 11). The time that parents were not present included when someone else was caring for the child, but perhaps more importantly it included times when the child was in a room alone, but in proximity to parents or other carers.

The majority of mothers' time with the infant was spent with the infant sleeping (approximately 6 hours and 20 minutes per day) or in interactive care activities, which

2 Note that the data does not comprehensively measure the time that parents spend undertaking child care tasks, as parents can be responsible for children or undertaking tasks relating to child care while not in the same room as them. On the other hand, the co-presence of a parent does not necessarily indicate that the parent's primary activity was child care: the parent may be undertaking another primary activity (for example, meal preparation) while in the same room as the child; or they may be completely involved in the child's activity, for example, breastfeeding or reading to the child. In some cases, such as if both parent and child are asleep in the same room, there may actually be no active care being done by the parent. The data, therefore, are a very broad indication of parents' involvement in children's lives. A useful indicator of the likely degree of parental involvement is the activity of the child. Parental involvement is likely to be lower when the child is asleep, for example, compared to when the child is involved in personal or interactive care activities (as listed in Box 1). This analysis, therefore, includes measures of total time with children, as well as total time in different activities.

includes holding or cuddling the child, the child crying, or the child being read, talked or sung to (just over 5 hours and 30 minutes per day). For almost 4 hours per day, mothers engaged in personal care activities such as bathing, changing nappies, feeding and breastfeeding. Clearly, interactive care and personal care are likely to be high-contact activities, and involve a considerable amount of interaction with the mother. This demonstrates a heavy investment of parental time and the potential for symbolic communication in the early phases of the child's life. This was reinforced by a total of approximately 5 hours of mothers' presence during children's play activities (passive, active and other play). Infants' educational activities occupied less than 20 minutes of their mother's time on an average weekday.

Table 11 **Mean time spent with mothers and fathers, by children's activities and cohort (hours per day)**

Children's activities	Time with mother		Time with father	
	Infant	4–5 year old	Infant	4–5 year old
Sleep	6.3	4.4	3.8	3.0
Personal care	3.7	2.4	1.5	1.1
Interactive care	5.6	1.5	1.2	0.7
Education	0.2	1.1	0.1	0.4
Passive play	0.9	2.2	0.3	0.9
Active play	1.9	0.8	0.7	0.3
Other play	2.1	1.3	0.8	0.5
Travel	1.7	1.5	0.4	0.4
Time in any activity	**15.2 (*n* = 1,914)**	**12.1 (*n* = 1,171)**	**7.1 (*n* = 1,785)**	**6.1 (*n* = 1,062)**

Note: Times are for a "usual" weekday. More than one activity can be recorded at a time, so the times in each activity cannot be summed.
Source: *Growing Up in Australia*, Time-use diary (Release 1) Wave 1

Box 1 **Classification of children's activities**

Activity category	Infant	4–5 year old
Sleeping/resting	Sleeping/napping, awake in bed	Sleeping/napping, awake in bed
Personal care	Bathe/nappy change/dress/hair care, breastfeeding, other eating/drinking/being fed	Bathe/dress/hair care/health care, eating/drinking/being fed
Interactive care	Held/cuddled, crying/upset, read a story, talked to/sung to	Held/cuddled, crying/upset, being reprimanded/corrected, read a story, talked to/sung to
Education	Colour/draw/look at book, participate organised activities/playgroup	Colour/look at book/educational game, use computer, taught to do chores or read
Passive play	Looking around/doing nothing, watching television, listening to tapes	Watching television, movie, listening to tapes, radio, music, do nothing/bored/restless
Active play	Destroy things/create mess, crawl or climb	Destroy things/create mess, walk/ride bike/other exercise/participate organised lessons/activities
Other play	Other play, visiting people/special event/party	Other play/other activities, visiting people/special event/party
Travel	Taken places with adult, taken out in a pram or bicycle seat, travel in a car or on public transport	Taken places with adult, taken out in a pusher or bicycle seat, travel in a car or on public transport

On average, fathers' time with infants was less than mothers' time in all activity groups, although, as for mothers, fathers were most often present when the infant was sleeping, in personal care or interactive care. Fathers were more likely to be present during personal care than they were during interactive care, unlike mothers (see Table 11).

Time spent with children by mothers' hours of work

Maternal employment was associated with mothers spending less time with their children, although the difference between employed and not-employed mothers was not large.

In both cohorts, maternal employment was associated with mothers spending less time with their children, although the difference between employed and not-employed mothers was not large, at 2.0 hours difference (12.6 per cent) for infants and 1.8 hours difference (13.7 per cent) for 4–5 year olds (see Table 12).

The differences were greater when hours of work were taken into account. For mothers of infants, the difference between no employment and full-time employment was 3.7 hours, and for mothers of 4–5 year old children, the difference was 3.9 hours a day. If full-time employment is considered about 8 hours a day, then for every hour of work, time with children is reduced by about half an hour or less.

This is consistent with other research that concluded that mothers are reluctant to reduce the amount of time that they spend with their children.[3] Employed mothers preserved time with children, to some extent, by spending more time with children at the beginning and the end of the day and by spending less time on activities such as leisure and sleep.

Table 12 Mean time spent with mother and father by mother's hours of work (hours per day)

Mother's employment status and hours of work	Time with mother		Time with father	
	Infant	4–5 year old	Infant	4–5 year old
Not employed	15.9	13.1	7.0	5.9
Total employed	13.9	11.3	7.3	6.3
1–15 hours	14.7	12.2	6.6	5.3
16–24 hours	13.8	11.9	7.3	6.7
25–34 hours	13.7	10.3	7.5	6.2
35 hours or more	12.2	9.2	9.2	7.7
All children	**15.2 (*n* = 1,914)**	**12.1 (*n* = 1,171)**	**7.1 (*n* = 1,785)**	**6.1 (*n* = 1,062)**

Note: Times are for a "usual" weekday. Single-mother families are excluded from analyses of time with father.
Source: *Growing Up in Australia*, Time-use diary (Release 1) Wave 1

Fathers spent more time with children, both infants and 4–5 year olds, when the mother was employed (see Table 12). However, these differences were modest and only partially compensated for the difference between employed and not-employed mothers' time with children: employed mothers spent 2.0 hours per day less with infants while their partners spent 20 minutes more; and employed mothers spent 1.8 hours less with 4–5 year olds while fathers spent around 24 minutes more.

3 Craig, L. (2007). How employed mothers in Australia find time for both market work and childcare. *Journal of Family and Economic Issues*, *28*(1), 89–104.

Time spent with children by fathers' hours of work

The time that fathers spent with their children, whether infants or 4–5 year olds, was affected by the hours they devoted to paid employment, but the largest differences related to comparisons of not-employed fathers with part-time employed fathers and full-time employed fathers. For the fathers who worked 35 hours or more per week (the overwhelming majority of fathers), time spent with children was relatively invariant (see Table 13). In the 4–5 year old cohort, time fathers spent with children declined with longer hours worked, but in the infant cohort, time fathers spent with children was lowest when they worked 45 to 54 hours, rather than 55 hours or more.

For the fathers who worked 35 hours or more per week, time spent with children was relatively invariant.

Although not-employed fathers spend the most time with children (see Table 13), the 12.3 hours spent with infants and 9.0 hours spent with 4–5 year olds was still only approximately the same amount of time that mothers working full-time hours spent with their children (see Table 12).

Table 13 Mean time spent with mother and father, by father's hours of work (hours per day)

Father's employment status and work hours	Time with mother		Time with father	
	Infant	4–5 year old	Infant	4–5 year old
Not employed	16.5	11.3	12.3	9.0
Employed	14.8	11.8	6.8	6.0
1–34 hours	14.8	12.3	9.1	8.3
35–44 hours	14.9	12.0	7.1	6.4
45–54 hours	14.2	11.1	6.2	5.7
55 hours or more	15.4	12.4	6.7	5.5
All children	**15.2 (*n* = 1,785)**	**12.1 (*n* = 1,062)**	**7.1 (*n* = 1,785)**	**6.1 (*n* = 1,062)**

Note: Times are for a "usual" weekday. Excludes single-mother families.
Source: *Growing Up in Australia*, Time-use diary (Release 1) Wave 1

Mothers' time spent with children was barely affected by their partner's work hours. Mothers of infants spent the most time with their children when fathers were not employed. When fathers of infants were in paid employment, however, there was a relatively small variation in number of hours that mothers spent with their child. This pattern of relative stability of mothers' time spent with children was also found in the 4–5 year old cohort, irrespective of whether the father was employed or not (see Table 13).

Mothers' time spent with children was barely affected by their partner's work hours.

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Since the release of Wave 1 data in May 2005, by the end of June 2007 139 individuals had received approval to use the LSAC data: 89 Australian academics (73 staff and 16 students), 40 government agency staff, 4 overseas researchers and 6 others.

Thirty-one per cent of the users are in Victoria and 28 per cent are from the Australian Capital Territory. A further 22 per cent are from New South Wales, with small numbers from Queensland, South Australia and Western Australia.

An analysis of the research topics proposed by the data users indicates a predominance of health-related matters, particularly obesity, followed by work and family issues. However, the research interests do cover all of the other domains that the study was established to address—parenting, child care, disadvantage, family functioning, cognitive and behavioural development, social capital, and so on.

Growing Up in Australia website

The *Growing Up in Australia* website was established in March 2002. There has been a considerable increase in the number of site visits over the last three years, as shown in Table 14. This table also shows the number of publications that have been downloaded from the website. There is continued strong interest in the Discussion Paper series and quarterly newsletters.

Subscriber numbers to the *Growing Up* email alert group (*growingup-refgroup*) totalled 367 at 30 June 2007, an increase of 57 subscribers during the year.

Table 14 Website visits

	Release date	2004–2005	2005–2006	2006–2007
Total site visits		57,227	85,966	107,890
All publications		**14,860**	**19,664**	**37,387**
2004 Annual Report	24 May 2005	501	10,831	9,024
2005–06 Annual Report	11 December 2006			8,026
Discussion Paper 1	27 March 2002	3,002	17,844	15,198
Discussion Paper 2	22 September 2003	1,483	1,721	2,987
Discussion Paper 3	3 May 2004	10,317	10,389	9,471
Discussion Paper 5	28 June 2007			196
Technical Paper 1	26 September 2005		2,521	3,401
Technical Paper 2	11 January 2006		2,322	1,960
Technical Paper 3	25 May 2006		103	1,351
Newsletters		7,928	8,257	12,431
Data dictionary	30 May 2005	150	2,237	2,625

Publications and presentations

Publications

Baxter, J., & Gray, M. (2006). Paid work characteristics of mothers with infants. *Family Matters*, *74*, 34–41.

Baxter, J., Gray, M. & Hayes, A. (2007). *A snapshot of how Australian families spend their time*. Melbourne: Australian Institute of Family Studies.

Baxter, J., & Hayes, A. (2007). How four year olds spend their day: Insights into the caring contexts of young children. *Family Matters*, *76*, 34–43.

Blakemore, T. (2006). Examining potential risk factors, pathways and processes associated with childhood injury in the Longitudinal Study of Australian Children. *Australian Social Policy*, 27–52.

Hiscock, H., Canterford, L., Ukoumunne, O. C., & Wake, M. (2007). Adverse associations of sleep problems in Australian pre-schoolers: National population study. *Pediatrics*, *119*(1), 86–93.

Johnston, D., Sha, M., & Shields, M. A. (2007). *Handedness, time use and early child development* (IZA Discussion Paper 2752). Bonn, Germany: Institute for the Study of Labor.

Martin, J., Hiscock, H., Hardy, P., Davey, B., & Wake, M. (2007). Adverse associations of infant and child sleep problems and parent health: An Australian population study. *Pediatrics*, *119*(5), 947–955.

Misson, S. (2007). *Wave 2 data management issues* (LSAC Discussion paper No. 5). Melbourne: Australian Institute of Family Studies.

Sawyer, M. G., Miller-Lewis, L., Guy, S., Wake, M., Canterford, L., & Carlin, J. B. (2006). Is there a relationship between overweight, obesity, and mental health problems in 4 to 5 year-old Australian children? *Ambulatory Pediatrics*, *6*(6), 306–311.

Wake, M., Hardy, P., Canterford, L., Sawyer, M., & Carlin, J. B. (2006). Overweight, obesity and girth of Australian preschoolers: Prevalence and socioeconomic correlates. *International Journal of Obesity*, *31*, 1044–1051. Retrieved 4 January 2006, from http://www.nature.com/doifinder/10.1038/sj.ijo.0803503

Zhu, A. (2007). *The effect of maternal employment on the likelihood of a child being overweight* (School of Economics Discussion Paper 2007/17). Sydney: Faculty of Business, University of New South Wales.

Presentations

Blakemore, T. (2006). *Examining potential risk factors, pathways and processes associated with childhood injury in the Longitudinal Study of Australian Children*. Presentation to the Australian Government Department of Families, Community Services and Indigenous Affairs "STAR" Research Seminar Series, Canberra.

Sanson, A. V., & Gray, M. (2006, 1–2 July). *Planning longitudinal research for public access and secondary analysis: the Longitudinal Study of Australian Children*. Paper presented at the 19th Biennial Meeting of the International Society for the Study of Behavioural Development Pre-conference Workshop, Melbourne.

Edwards, B. (2006, 2–6 July). *Residential mobility and neighbourhood effects: A possible mechanism for explaining the effects of single parents on children's social and emotional*

outcomes? Paper presented at the 19th Biennial Meeting of the International Society for the Study of Behavioural Development, Melbourne.

Fisher, K., & Bittman, M. (2006, 2–6 July). *Development of the light time use diary for the* Growing Up in Australia *Study*. Paper presented at the 19th Biennial Meeting of the International Society for the Study of Behavioural Development, Melbourne.

Gray, M., Misson, S., & Hayes, A. (2006, 2–6 July). *Parental separation and the role of grandparents in young children's lives*. Paper presented at the 19th Biennial Meeting of the International Society for the Study of Behavioural Development, Melbourne.

McLeod, S., & Harrison, L. (2006, 2–6 July). *Prevalence of Australian children with communication impairments in the early childhood years*. Poster presented at the 19th Biennial Meeting of the International Society for the Study of Behavioural Development, Melbourne.

Nicholson, J. M, Strazdins, L., & Bittman, M. (2006, 2–6 July). *Impact of parental employment conditions on parents' daily activities with their children*. Paper presented at the 19th Biennial Meeting of the International Society for the Study of Behavioural Development, Melbourne.

Strazdins, L., George, E., Shipley, M, Sawyer, M., Rodgers, B., & Nicholson, J. (2006, 2–6 July). *Work, family and children's well-being: Which jobs make a difference?* Paper presented at the 19th Biennial Meeting of the International Society for the Study of Behavioural Development, Melbourne.

Ungerer, J., Harrison, L., & the LSAC Consortium. (2006, 2–6 July). *Gender differences in children's relationships with teachers and school readiness: Results from the Longitudinal Study of Australian Children*. Paper presented at the 19th Biennial Meeting of the International Society for the Study of Behavioural Development, Melbourne.

Wake, M., & Bittman, M. (2006, 2–6 July). *Overweight/obesity and preschoolers' activity patterns: Insights from the children's light time-use diary*. Paper presented at the 19th Biennial Meeting of the International Society for the Study of Behavioural Development, Melbourne.

Soloff, C. (2006, 4 August). Growing Up in Australia: *the Longitudinal Study of Australian Children*. Presentation to the New South Wales Government Department of Health and Ageing (Epidemiology Special Interest Group), Sydney.

Bencic, L. (2006, 22 August). Growing Up in Australia: *the Longitudinal Study of Australian Children*. Presentation to the Office for Children, Melbourne.

Nicholson, J.M. (2006, 24 August). *The Longitudinal Study of Australian Children: Snapshots from Wave 1 parenting data*. Invited presentation to the population health group at Telethon Institute for Child Health Research and Curtin Centre for Developmental Health, Perth.

Bradbury, B. (2006, 26 August). *Socioeconomic outcomes for young mothers and their children*. Presentation at the Intergenerational Transmission of Advantage and Disadvantage workshop, Department of Families, Community Services and Indigenous Affairs, Canberra.

Berthelsen, D. (2006, September). Growing Up in Australia: *the Longitudinal Study of Australian Children*. Invited address to Department of Education and Educational Research, Child Studies, Gothenburg University, Gothenburg, Sweden.

Nicholson, J. M. (2006, 1–2 September). *The Longitudinal Study of Australian Children: Preliminary findings from the first wave*. Opening Keynote Address, Griffith Psychological Health Research Centre, Annual Conference, Brisbane.

Wake, M., Hardy, P., Canterford, L., Sawyer, M., & Carlin, J. (2006, 3–8 September). *Overweight, obesity and girth of Australian preschoolers: Prevalence and socioeconomic correlates*. Poster presented at the 10th International Congress on Obesity, Sydney.

Joshi, H., Ward, K., Baxter, J., Gray, M., & Sanson, A. (2006, 12–14 September). *Mothers' employment and mental health in the first year of a child's life: A contrast between two maternity leave regimes*. Paper presented at the International Conference on Child Cohort Studies, Oxford, UK.

Sanson, A. V. (2006, 12–14 September). *Research questions and initial findings from the Longitudinal Study of Australian Children*. Paper presented at the International Conference on Child Cohort Studies, Oxford, UK.

Sanson, A. V., & Soloff, C. (2006, 12–14 September). Growing Up in Australia: *the Longitudinal Study of Australian Children*. Poster presented at the International Conference on Child Cohort Studies, Oxford.

Soloff, C. (2006, 12–14 September). *Sample recruitment and maintenance for* Growing Up in Australia. Poster presented at the International Conference on Child Cohort Studies, Oxford, UK.

Soloff, C., Sanson, A., Ungerer, J., Harrison, L., & Wake, M. (2006, 12–14 September). *Enhancing longitudinal studies by linkage to national databases:* Growing Up in Australia: *the Longitudinal Study of Australian Children*. Paper presented at the International Conference on Child Cohort Studies, Oxford, UK.

Wake, M., Bittman, M., Brown, J., Canterford, L., Carlin, J., Hardy, P., Sanson, A., Sawyer, M., & Soloff, C. (2006, 12–14 September). *Preschool overweight/obesity in the Longitudinal Study of Australian Children: Prevalence, socio-demographic correlates and future data possibilities*. Paper presented at the International Conference on Child Cohort Studies, Oxford, UK.

Nicholson, J. M., Zubrick, S. R., Smith, G. J., & Sanson, A. V. (2006, 23–24 November). *The role of non-resident parents in the lives of their infant and 4-year-old children: Contact, contributions, conflict and children's outcomes*. Paper presentation at 4th National Conference of the Queen Elizabeth Centre "Early Childhood: Evidence into Practice", Melbourne.

Sanson, A. V. (2006, 23–24 November). *Supporting children's social and emotional wellbeing: Longitudinal research and its implications for policy and practice*. Invited presentation at 4th National Conference of the Queen Elizabeth Centre "Early Childhood: Evidence into Practice", Melbourne.

Baxter, J. (2006, 5–8 December). *Maternal employment in the first twelve months after the birth: The effect of pre-birth job characteristics*. Paper presented at the Australian Population 13th Biennial Association Conference, Adelaide.

Baxter, J., & Alexander, M. (2006, 5–8 December). *A day in the life of a 4-year-old: The effect of parental employment*. Paper presented at the Australian Population Association 13th Biennial Conference, Adelaide.

Soloff, C. (2006, 5–8 December). Growing Up in Australia: *A study of change in children and their families*. Paper presented at the Australian Population Association 13th Biennial Conference, Adelaide.

Blakemore, T., Gibbings, J., & Strazdins, L. (2006, 10–13 December). *Measuring the socio-economic position of families in HILDA & LSAC*. Paper presented to the ACSPRI Conference, Sydney.

Bradbury, B. (2006, 10–13 December). *Which measures of family economic resources are most strongly associated with child outcomes?* Paper presented to the ACSPRI Conference, Sydney.

Losoncz, I. (2006, 10–13 December). *LSAC data on the circumstances and characteristics of families with child support entitlement*. Paper presented to the ACSPRI Conference, Sydney.

Nicholson, J. M, Zubrick, S., & Sanson, A. (2006, 10–13 December). *Parenting and couple relationships in the Longitudinal Study of Australian Children*. Paper presented to the ACSPRI Conference, Sydney.

Sanson, A., Misson, S., & the LSAC Research Consortium (2006, 10–13 December). *Derivation and validation of the LSAC Outcome Index*. Paper presented to the ACSPRI Conference, Sydney.

Soloff, C. (2006, 10–13 December). Growing Up in Australia: *the Longitudinal Study of Australian Children: Study methodology*. Presentation to the ACSPRI Conference, Sydney.

Berthelsen, D., Walker, S., & Nicholson, J. M. (2007, March). *Linking child and family characteristics to children's early learning competence: An Australian study*. Poster presented at the Biennial Conference of the Society for Research in Child Development, Boston.

Wake, M., Nicholson, J. M., Hardy, P., & Smith, K. (2007, 5–8 May). *Preschooler obesity and parenting styles of mothers and fathers: National population study*. Presentation to the Pediatric Academic Societies Meeting, Toronto, Canada.

Baxter, J., Gray, M., Qu, L., Richardson, N., Smyth, B., Weston, R., & Hayes, A. (2007, 15 May). *Making space for time*. Presentation to the Australian Government Department of Families, Community Services and Indigenous Affairs for National Families Week 2007, Canberra.

Hayes, A, Gray, M., & Baxter, J. (2007, 20–21 June). *The wellbeing of families: Conceptual issues and unique insights from* Growing Up in Australia. Presentation to the National Family Wellbeing Symposium, Canberra.

Baxter, J. (2007, 27 June). *Parents and jobs: Implications for time with children. Findings from* Growing Up in Australia: *the Longitudinal Study of Australian Children*. Invited presentation to the Work-life Association Roundtable, Canberra.

Craike, M. (2007, 3–5 July). *The buffering effect of enjoyment and participation in leisure-time physical activity on the depression of mothers of infants*. Paper presented at the Leisure Studies Association Conference, Eastbourne, UK.

Families, Housing, Community Services and Indigenous Affairs work using LSAC data (Social Policy Research Services Agreements)

Papers and presentations

Bradbury, B. (2006). *Family economic circumstances and child outcomes*. Presentation at the 2006 Social Policy Research Workshop, Canberra.

Bradbury, B. (2007). *Child outcomes and family socio-economic characteristics* (SPRC Report 10/07). Retrieved from http://www.sprc.unsw.edu.au/reports/index.htm

Leigh, A. (2006). *How large are the cognitive gaps between very young children from rich and poor households and between Indigenous and non-Indigenous children*? Presentation at the 2006 Social Policy Research Workshop, Canberra.

Commissioned reports

In order to develop expertise in the use and analysis of the data from *Growing Up in Australia*, the Department of Families, Housing, 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:

Gorgons, T., & Gong, X. *A structural model of the effect of child care arrangements on children's developmental outcomes*. Commissioned report by the Social Policy Evaluation Analysis and Research Centre, Australian National University for the Department of Families, Housing, Community Services and Indigenous Affairs.

Katz, I. *Wealth as a protective factor for child outcomes*. Commissioned report by the Social Policy Research Centre, University of NSW, for the Department of Families, Housing, Community Services and Indigenous Affairs.

Rodgers, B., Butterworth, P., Strazdins, L., & Caldwell. T. *Developing prospective measures of childhood adversity: A profile of risk in the Longitudinal Study of Australian children*. Commissioned report by the Family and Community Health Research Centre, Australian National University, for the Department of Families, Housing, Community Services and Indigenous Affairs.

Ryan, C., & Taylor, M. *Current levels of shared care and contact arrangements*. Commissioned report by the Social Policy Evaluation Analysis and Research Centre, Australian National University, for the Department of Families, Housing, Community Services and Indigenous Affairs.

Strazdins, L., Rodgers, B., & Berry, H. *Parent and child wellbeing and the influence of work and family arrangements across the family lifecycle*. Commissioned report by the Family and Community Health Research Centre, Australian National University, for the Department of Families, Housing, Community Services and Indigenous Affairs.

Yamauchi, C., & Ryan, C. *Disparities in children's outcomes*. Commissioned report by the Social Policy Evaluation Analysis and Research Centre, Australian National University, for the Department of Families, Housing, Community Services and Indigenous Affairs.

Data access

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, Housing, 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 Waves 1, 1.5 and 2 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 data user group teleconferences are held. User training sessions are conducted by the Institute to expand upon the information provided in the user manual.

For data requests, contact:

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More information on *Growing Up in Australia* can be found on the Institute's website: www.aifs.gov.au/growingup. People with an interest in the study can join the email alert 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:

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