











The Longitudinal Study of Australian Children 2004 Annual Report





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Bibliography

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Minister's foreword



Senator Kay Patterson

From the Minister for Family and Community Services

The Howard Government understands the importance of long-term investment in developing the evidence base for social policy in Australia. *Growing Up in Australia* – the Longitudinal Study of Australian Children (commonly known as LSAC) is one such investment.

Until the Coalition Government provided the funding for LSAC, Australia was one of the few OECD countries

not to have a national longitudinal study of very young children. As we have seen from the experiences of Canada, the United Kingdom and New Zealand, studies that follow children over time from the early years are vitally important to the development of sound and effective policies. They help governments, policy makers, researchers and communities understand how different factors influence and affect children's pathways as they grow and mature into adults. The study will also help us understand how well our young children are doing on a range of indicators – social and emotional development, language and school achievement, and mental and physical health. It will also guide our understanding about how and why these results and outcomes might change over time. By improving our understanding we can ensure that policy interventions are as effective and timely as they can be.

Part of the uniqueness of LSAC is in the tracking of two different age cohorts of children – infants and 4-5 year olds. Following the infants will enable us to understand the influences of the early years of life in Australia on later outcomes. The 4-5 year olds will be followed through a significant transition in their lives, as they move from home or child care or preschool into the school environment. Another highlight of the study is the richness of the data collected from the children's parents as well as their teachers and child carers, giving a well-rounded picture of the child's life and experiences.

This is the first annual report on LSAC, and coincides with the release of the data from the first wave of the study. The report explains the basis for the study and highlights some of the interesting findings. As future waves of LSAC data are collected we will have a high quality source of information on the dynamic nature of Australian children's lives and the factors that impact on their well-being and development. I hope that policy analysts and researchers find this report useful in the valuable work they undertake in contributing to the best foundation we can provide for Australian children.

Senator the Hon. Kay Patterson Minister for Family and Community Services

Kay Palleron

Director's foreword



Professor Alan Hayes

I have been delighted to witness the production of the first results from *Growing Up in Australia* – the Longitudinal Study of Australian Children (LSAC). It demonstrates that the great deal of careful thought and work that has gone into the design and implementation of this landmark study is already bearing fruit. To have the first data collection completed and to start analysis are significant milestones in the survey process.

On behalf of the Australian Institute of Family Studies, I extend our thanks to the Australian Government officials, the academics, the interviewers, and especially the many families who have helped make this first wave of the study such a success. I also particularly thank the Minister for Family and Community Services, Senator the Hon. Kay Patterson, for her strong support.

The Institute is proud to lead the consortium of research agencies that conducts LSAC, and we are thankful for the hard work and commitment shown by members of the Consortium Advisory Group who assisted with the design of the structure and content of the survey. This is our first annual report, and with subsequent waves of the data – we will be out in the field again next year for Wave 2 – we will further reap the benefits that only large-scale longitudinal studies can provide.

The topics covered by the survey are comprehensive. The children in the study already have more than two thousand variables attached to each of their data files. The six broad domains covered in the survey are: health, education, child care, family functioning, child functioning and socio-demographics. Teams of expert researchers from the consortium, as well as other experts, developed questions for each domain, and we and the Department of Family and Community Services consulted widely on the final content of the questionnaires.

The way the data are collected is quite innovative. Using a team of some 130 interviewers we interviewed parents and sent questionnaires to teachers and child carers. Interviewers spent considerable time inside the homes of the children, administering questionnaires and taking direct measurements of the child (such as height and weight) and, for the older children, administering some early literacy tests. I want to thank both I-view and Colmar Brunton Social Research for their outstanding commitment to the fieldwork process for Wave 1 and, once again, the more than 10,000 families in the study who so generously contributed their time, information and thoughts.

One of the innovative aspects of the study is the inclusion of time-use diaries. For the first time in Australia, we know how infants and 4-5 year old children spend their time. This information will be of great use to policy \rightarrow

makers and researchers as we continue to develop our understanding about what children do in their early years and how this might influence later life outcomes. How much time do children spend outdoors? How often do they eat? How often do they see particular members of their families and how do they play?

The beauty of the Longitudinal Study of Australian Children is that it can allow us to give a collective voice to our children. While we cannot gather much information from them directly at these very young ages, we can gather information from people who are closest to them to paint pictures of what their lives are like. Over time, we will see their stories unfold in ways that will give those who make and implement policy a very valuable view of the determinants of different outcomes for children and insights into how we can best support families to raise healthy and happy children.

Professor Alan Hayes

Alan Hayes

Director

Australian Institute of Family Studies

Key personnel

Survey Management Team



Dr Alison Morehead, Deputy Director (Research) and LSAC Executive Project Manager, Australian Institute of Family Studies. Alison has overall responsibility for LSAC within the Institute, which she joined in May 2004.



Associate Professor Ann Sanson, LSAC Project Director, University of Melbourne. Ann was at the Australian Institute of Family Studies from 2000 to 2004, on secondment from the University of Melbourne. She held the roles of Principal Research Fellow, Deputy Director and Acting Director during this time. As LSAC Project Director, she also led the early development work on LSAC. She now fills the role of Project Director on a part-time basis.



Carol Soloff, LSAC Project Manager, Australian Institute of Family Studies. Carol was initially part of the LSAC team as Survey Manager from July 2002, outposted from the Australian Bureau of Statistics. Carol formally joined the Institute as LSAC Project Manager in July 2004.

Project Operations Team



Pictured from left: (back row) Linda Bencic, Design Manager; Anna Ferro, Research Officer; Emma White, Survey Officer. (front row) Robert Johnstone, Data Manager; Joanne Slater, Graduate Assistant; Sebastian Misson, Data Administrator; Grace Soriano, Research Officer. Not pictured: Christine Millward, original Design Manager.

Assistance was received from Institute researchers, Michael Alexander and Jenny Baxter, for the "Highlights from Wave 1" section of this report.

Consortium Advisory Group members



Dr Donna Berthelsen is a member of the Centre for Learning Innovation in the Faculty of Education, and Senior Lecturer in the Faculty of Early Childhood at the Queensland University of Technology.

Dr Michael Bittman is a Professorial Fellow in the Department of Sociology, School of Social Science, University of New England.

Dr Linda Harrison is a Senior Lecturer in Early Childhood in the Faculty of Education at Charles Sturt University.

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

Dr Bryan Rodgers is a Senior Fellow in the Centre for Mental Health Research, the Australian National University.

Professor Michael Sawyer is Head, Department of Paediatrics and Associate Dean (Women's and Children's Health) at the University of Adelaide and Head, Research and Evaluation Unit, Division of Mental Health at the Child, Youth and Women's Health Service.

Professor Sven Silburn is Director of the Centre for Developmental Health at Curtin University and a Senior Researcher in the Division of Population Science at the Telethon Institute for Child Health Research, Western Australia.

Dr Lyndall Strazdins is a Research Fellow in the National Centre for Epidemiology and Population Health, the Australian National University.

Associate Professor Judy Ungerer is in the Department of Psychology, Division of Linguistics and Psychology, at Macquarie University.

Professor Graham Vimpani is Professor of Paediatrics and Child Health at the University of Newcastle and Clinical Chair Kaleidoscope: Hunter Children's Health Network.

Associate Professor Melissa Wake is Director of Research and Public Health in the Centre for Community Child Health, Murdoch Childrens Research Institute, Melbourne.

Professor Stephen Zubrick is Head of the Division of Population Science at the Telethon Institute for Child Health Research in Western Australia, and Co-Director of the Centre for Developmental Health at Curtin University of Technology.

Consultants

Dr David Lawrence is Senior Statistician in the Centre for Developmental Health at Curtin University of Technology.

Professor John Carlin has appointments in the Departments of Paediatrics and Public Health, University of Melbourne, and is Director, Clinical Epidemiology and Biostatistics Unit, Murdoch Childrens Research Institute.

LSAC Scientific and Policy Advisory Group

Australia

Dr Jan Carter, Consultant, Melbourne

Professor Alan Hayes, Australian Institute of Family Studies

Professor Terry Nolan, Department of Public Health, University of Melbourne

Associate Professor Ann Sanson (Convener), Department of Psychology, University of Melbourne

Dr Graeme Russell, Department of Psychology, Macquarie University

Professor Sue Spence, School of Psychology, University of Queensland

Professor Fiona Stanley, Telethon Institute of Child Health Research, Western Australia

Dr Christina van Kraayenoord, Schonell Special Education Research Centre, University of Queensland

Canada

Professor Clyde Hertzman, Department of Health Care and Epidemiology, University of British Columbia

New Zealand

Dr Richie Poulton, Dunedin Multidisciplinary Health and Development Research Unit, University of Otago

United Kingdom

Professor Judy Dunn, Institute of Psychiatry, King's College London

United States of America

Professor Jeanne Brooks-Gunn, Teachers College, Columbia University

Dr Sarah Friedman, NICHD Study of Early Child Care and Youth Development, National Institute of Child Health and Human Development, Washington

Dr Jerry West, Early Childhood Longitudinal Study Program, National Center for Education Studies, Washington

Department of Family and Community Services LSAC Project Team

Branch Manager, Strategic Policy Branch Fiona Dempster

Longitudinal Surveys Section, Strategic Policy Branch Karen Wilson, Paula Chevalier, Jane Dickenson, Peter Walkear and Margaret Wada

What is Growing Up in Australia?

Growing Up in Australia is the Longitudinal Study of Australian Children (also known as LSAC). This study aims to examine the impact of Australia's unique social, economic and cultural environment on children growing up in today's world. It will further our understanding of early childhood development, inform social policy debate, and be used to identify opportunities for early intervention and prevention strategies in policy areas concerning children.

During 2004, over 10,000 children and their families were recruited to the study from a sample selected from the Health Insurance Commission's Medicare database. It is intended that these children and their families will be followed at two-yearly intervals until 2010, and possibly beyond.

LSAC addresses a range of key research questions about children's development and well-being. Information is collected on the children's physical health and social, cognitive and emotional development, as well as on their child care, education, and family and social environment. Respondents include parents, child carers, preschool and school teachers and, in time, the children themselves. The study's longitudinal design will enable researchers to determine optimal periods for the provision of services and welfare support and identify the long-term consequences of policy innovations (see LSAC Discussion Paper No. 1, "Introducing the Longitudinal Study of Australian Children").

LSAC delivers the first-ever comprehensive Australian national data on children as they grow up.

Who is involved?

LSAC was initiated and is funded by the Australian Government Department of Family and Community Services (FaCS) as part of the Government's Stronger Families and Communities Strategy. Responsibility for the design and management of the study rests with the Australian Institute of Family Studies, in collaboration with a consortium of eight other leading research organisations across Australia.

Six Design Teams, as well as a Sampling Design Team, have been formed around the research domains of health, education, child care, family functioning, child functioning and socio-demographics. Each team comprises members from the Consortium Advisory Group as well as others who have expertise in the area. In addition, a Scientific and Policy Advisory Group has been established, comprising international experts on children's development.

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

Timelines

Development work for the study commenced in March 2002, with the testing phase continuing through 2003. The first phase of the study involving more than 500 families occurred in late 2003. The main phase of recruitment, of over 10,000 children and their families, took place from March until November 2004. A "between-waves" questionnaire will be mailed to all families in the main wave in May-July 2005, prior to the second wave of data collection commencing in March 2006.

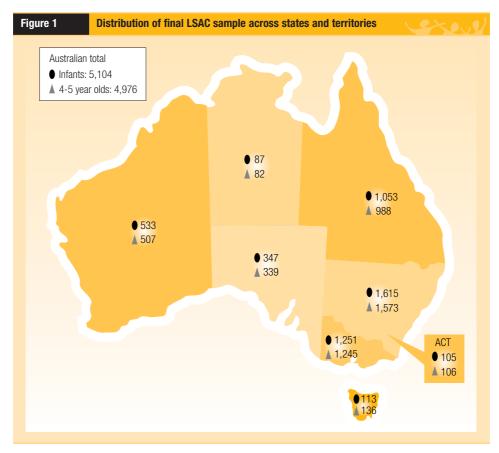
Reference population

The essential focus of the study is on the early years of children's lives, and therefore "the child" is the sampling unit of interest. The study has adopted a cross-sequential design that follows two cohorts whose ages will overlap as the study progresses. The sample is broadly representative of all Australian children (citizens and permanent residents) in each of two selected age cohorts: children born between March 2003 and February 2004 (infants) and children born between March 1999 and February 2000 (children aged four to five years). Children in some remote parts of Australia were excluded.

Sample selection

With facilitation by FaCS, the Health Insurance Commission (HIC) agreed to select a random sample of children from the Medicare database, the most comprehensive database of Australia's population. Families of the selected children received letters of invitation to take part in the study, sent by HIC. The sample selection process respected parents' privacy and allowed them to opt-out of the study before their details were passed to the data collection agency, I-view.

About 300 postcodes were selected at random across Australia, and then a number of children from each cohort were selected from these. The sample was stratified by state, capital city statistical division/balance of state, and size of the target population in the



postcode. The actual number of children selected per postcode depended on which stratum the postcode was in. Overall, about 18,800 families were sent a letter of invitation by HIC.

The sample achieved in each state and territory is shown in Figure 1 on the previous page. Since the finalisation of this report, ten cases (three infants and seven 4-5 year olds) have been added to the dataset.

Data collection

Once HIC had removed from the sample any families who had opted out of the study, contact names and addresses were passed to I-view, who then sent another letter to families saying when an interviewer would be in their area. About 130 interviewers recruited families and conducted interviews across Australia.

The main data collection for Wave 1 was a face-to-face interview with the parent who knew the child best (Parent 1). In 97 per cent of cases, Parent 1 was the biological mother. The interview included taking direct physical measurements of the child (such as weight) and, for the 4-5 year old children, direct assessments of school readiness and language. Self-complete modules for Parent 1 and Parent 2 (where Parent 2 was the other resident parent/guardian of the study child and/or the partner of Parent 1) were either filled in during the interview or returned later. The interviewer completed some observations about the neighbourhood, family, parent and child.

The data collection phase also included two time-use diaries which were left behind for the parent to complete about what the study child did in two 24-hour periods. In addition, if the parent agreed, a questionnaire was sent to a carer/teacher who cared for the child for at least eight hours a week.

Wave 1 response

The final response to the recruitment of children was 54 per cent of those families who were sent a letter by HIC. The response rate was higher for the infant cohort, with 57 per cent of families agreeing to take part, compared with 50 per cent of families with 4-5 year old children.

The main sources of sample loss were refusals (31 per cent for the infants and 35 per cent for the 4-5 year olds) and non-contacts – people who had moved or for whom only a post office box address was available (10 per cent for the infants and 14 per cent for the 4-5 year olds). The most common reason given for refusing was "not interested/too busy". Interviewers felt that many parents of young children were very time pressured.

Although the response rate is lower than would be preferred, the main issue is whether the sample is representative of the target population. As is shown in the next section, this is the case for most of the characteristics of the sample, and the more significant differences between the target population and the sample have been compensated through differential weighting of the final sample.

The response rates for the other study materials were:

- 85 per cent for Parent 1 self-complete
- 78 per cent for Parent 2 self-complete
- 80 per cent for time-use diaries
- 68 per cent for Teacher self-complete
- 53 per cent for Infant Centre-based Carer self-complete
- 43 per cent for Infant Home-based Carer self-complete.

Sample characteristics

Table 1 (on page 9) provides a summary of selected characteristics of the sample. To assist in the assessment of the representativeness of the sample, comparative (previously unpublished) population data from the ABS 2001 Census of Population and Housing has also been provided.

For almost all characteristics, the sample distribution is only marginally different to the Census distribution. The most significant difference between the sample and the Census children is in the educational status of the parents, where children with mothers who have completed Year 12 are over-represented in the sample, with proportions 10 per cent higher for the sample than for the Census. Other differences are:

- children in lone-parent families are under-represented, more so for the 4-5 year old cohort:
- children with two or more siblings are under-represented and only children are over-represented in the infant cohort;
- children with mothers who speak a language other than English at home are underrepresented;
- children from families with lower income are under-represented; and
- children in New South Wales are under-represented.

Data release

A full set of data, including survey weights, has been prepared for release. Details on accessing the Wave 1 data are given on page 29.

Looking ahead to Wave 2

LSAC aims to retain all families recruited in Wave 1 for future waves of the study. As the child is the sampling unit of interest, it will be the child who is followed over the years. Specific procedures will be put in place for children where there is a change in the person who knows the child best (Parent 1).

A number of strategies are in place to maintain contact with the children and their families. These include obtaining several types of contact information for both parents, giving families a change of address card and mementos that have details of the 1800 contact number, sending birthday and season's greetings cards to the children, sending annual newsletters updating them on the progress of the study, and maintaining a respondent website.

In addition, about one year after the Wave 1 interview, families are being sent a short "between-waves" questionnaire that they are encouraged to return. For the infant cohort, additional questions have been included on parental working conditions and leave around the time of the birth of the study child, as part of a nested study by Dr Gillian Whitehouse, University of Queensland.

Development of the Wave 2 data instruments is currently underway. The main differences between Wave 1 and Wave 2 are that all child functioning measures will be updated to be age-appropriate and the older cohort will contain considerable information relating to the child's early years at school. In addition, some other new information will be included, such as family of origin measures, a more comprehensive examination of factors influencing obesity, and more detail on what families do together.

Table 1 Sample characteristics (unweighted data)						
	INFANT			CHILD		
	LSAC Ce		Census	LSAC		Census
	No.	%	%	No.	%	%
Gender* Male Female	2613 2491	51.2 48.8	51.3 48.7	2532 2444	50.9 49.1	51.3 48.7
Age range of children** 3-5 months / 51-53 months 6-11 months / 54-59 months 12-14 months / 60-62 months 15-19 months / 63-67 months	573 3727 748 55	11.2 73.0 14.7 1.1	n.a. n.a. n.a. n.a.	525 3585 800 65	10.6 72.1 16.1 1.3	n.a. n.a. n.a. n.a.
Family type Two resident parents/guardians: - both biological - step or blended family - other One resident parent/guardian: - biological - other	4629 4598 10 21 475 472 3	90.7 90.1 0.2 0.4 9.3 9.2 0.1	88.2 n.a. n.a. n.a. 11.8 n.a. n.a.	4281 4126 107 48 695 688 7	86.0 82.9 2.2 1.0 14.0 13.8 0.1	82.1 n.a. n.a. n.a. 17.9 n.a. n.a.
Siblings Only child One sibling Two or more siblings	2019 1873 1212	39.6 36.7 23.8	36.3 35.8 27.9	570 2409 1997	11.5 48.4 40.1	12.2 46.2 41.6
Ethnicity Aboriginal or Torres Strait Islander Mother speaks a language other than English at home	227 739	4.5 14.5	3.5 16.8	185 778	3.7 15.6	3.5 17.6
Work status** Both parents or lone parent in work One parent works (in couple family) No parent works	2414 2036 573	48.1 40.5 11.4	n.a. n.a. n.a.	2729 1613 569	55.6 32.8 11.6	n.a. n.a. n.a.
Educational status Mother completed Year 12 Father completed Year 12	3408 2654	66.9 58.5	56.6 50.2	2898 2239	58.6 52.7	48.3 45.3
Parents' combined income** Less than \$800 per week \$800-1499 per week \$1500 or more per week	1531 1980 1321	31.7 41.0 27.3	41.2 39.1 19.7	1359 1735 1563	29.2 37.3 33.6	40.6 38.6 20.8
State* New South Wales Victoria Queensland South Australia Western Australia Tasmania Northern Territory Australian Capital Territory	1615 1251 1053 347 533 113 87 105	31.6 24.5 20.6 6.8 10.4 2.2 1.7 2.1	34.8 24.1 19.1 7.0 9.6 2.3 1.6	1573 1245 988 339 507 136 82 106	31.6 25.0 19.9 6.8 10.2 2.7 1.7 2.1	33.7 23.8 19.7 7.2 10.1 2.5 1.6 1.3
Region* Capital City Statistical Division Balance of state	3192 1912	62.5 37.5	65.1 34.9	3088 1888	62.1 37.9	61.9 38.1
Total	5104			4976		

Note: *Proportions based on the ABS 2003 Estimated Resident Population data for children aged 0 and 4 years. ABS 2001 Population Census data are based on children aged 0 and 4 years at the time of the Census. In both cases, these are different populations from the LSAC target population, but it is expected that the populations could display similar characteristics. **Sub-totals may not add to totals, due to missing data. n.a. = not available/applicable.

Highlights from Wave 1

In this section, some descriptive data from Wave 1 are presented. The conceptual model underlying LSAC is that children's development is determined by a large number of interacting factors in the environment as well as by their own intrinsic characteristics. To understand this complex process fully requires sophisticated analyses and data from further waves. While causal conclusions cannot be drawn from Wave 1, the data presented here suggest some of the many areas worthy of further detailed examination. Note that the following analyses have used *weighted* data.

Who are the LSAC children?

Not surprisingly, the vast majority of LSAC children were living with both biological parents – 89 per cent of the infant cohort and 82 per cent of the older cohort. For the infant cohort, 10 per cent lived with a lone biological parent (in almost all cases, this was the mother). For the older cohort, the passage of time had allowed for a number of other family forms to become more prevalent, including an increase in lone biological parents to 15 per cent (96 per cent of whom were mothers). Two per cent of households in this older cohort had children living with a step-parent.



Concerns have recently been voiced about the falling fertility rate in Australia (currently 1.75), which parallels similar trends overseas (Weston et al. 2004). More women are having no children, or postponing having children, with estimates now that one-quarter of women currently of child-bearing age will not have children (ABS 2002). Family sizes have also decreased (de Vaus 2004).

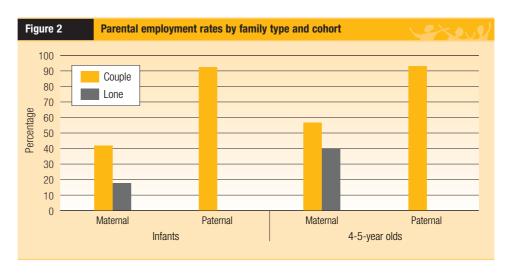
Nevertheless, most LSAC children were not only children. Among the infant cohort, 39 per cent were the only child in their family, 36 per cent had one other sibling, 17 per cent had two siblings, and 8 per cent had three or more siblings. Among the 4-5 year cohort, only 11 per cent were still an only child, 47 per cent had one other sibling, 27 per cent had two siblings, and 14 per cent had three or more siblings. Hence, one-quarter of infants and more than 40 per cent of 4-5 year olds were already in families with more than two children. It can be expected that many of the families will continue to grow in size.

The study child was one of a multiple birth in 3 per cent of each cohort.

Employment and income

One of the key research questions for LSAC concerns the impact of parental labour force participation and the family's economic status on child outcomes. A striking demographic change in recent decades has been the rise in maternal employment. Consistent with previous research (see Gray et al. 2002, 2003), rates of maternal employment were strongly related to the age of the study child, whereas paternal employment was not. At the time of the interview, the overall rate of maternal employment in the infant cohort was 39 per cent, whereas for fathers it was 92 per cent. In the 4-5 year old cohort, the rate of employment for mothers was 54 per cent, while that of the fathers was similar to the infant cohort (93 per cent).

The employment rate of parents varied by family type and across the two cohorts (see Figure 2). Mothers of 4-5 year olds in both lone and couple parent families were more likely to be working than lone and couple mothers of the infant cohort. In contrast, for couple fathers, the employment rate was identical between the two cohorts (93 per cent for both). In both cohorts, however, lone mothers (18 per cent for infants and 40 per cent for 4-5 year olds) were less likely to be in employment than couple mothers (42 per cent for infants and 57 per cent for 4-5 year olds). No comparison with lone fathers was possible since there were only three lone fathers in the infant cohort and 37 lone fathers in the 4-5 year old cohort.

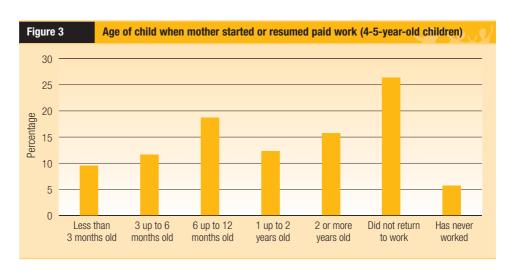




More than one in five mothers are working by the time the child is six months old

While mothers started or resumed paid work at varying times after the birth of the study child, a very similar proportion of mothers in both cohorts had resumed or commenced paid work by the time the child was six months old. Figure 3 (over page) shows that for 10 per cent of 4-5 year olds, their mother had returned to work before they were three months old, while for another 12 per cent, their mother returned when they were aged between three and six months old. The corresponding figures for infants were 10 and 15 per cent respectively.

Figure 3 also shows that for 4-5 year olds, a further 19 per cent of their mothers had returned to work when they were between six and twelve months old. This indicates that for two in five children, their mother had returned to work within their first year. Of the remaining three in five children, about half had mothers who remained out of the paid workforce up until the time of the interview. Thus at the time of the interview, 68 per cent of 4-5 year old children had mothers who had returned to paid employment at some point since they had been born. The fact that only 54 per cent of the mothers of this older cohort were actually in employment at the time of the interview is largely explained by these mothers having had additional children (almost half of the 4-5 year olds already had at least one younger sibling).





work part-time

Most of the mothers who were in employment at the time of interview were working part-time. Among mothers of infants who were in paid employment:

- 38 per cent were working 15 hours or less per week;
- 35 per cent were working 16-34 hours per week; and
- 27 per cent were working 35 or more hours per week (that is, full-time).

Mothers of 4-5 year olds who worked part-time tended to work for more hours than mothers of infants; the percentage working full-time hours, however, was the same. Among mothers of 4-5 year olds who were in paid employment:

- 33 per cent were working 15 hours or less per week;
- 40 per cent were working 16-34 hours per week; and
- 27 per cent were working 35 or more hours per week.

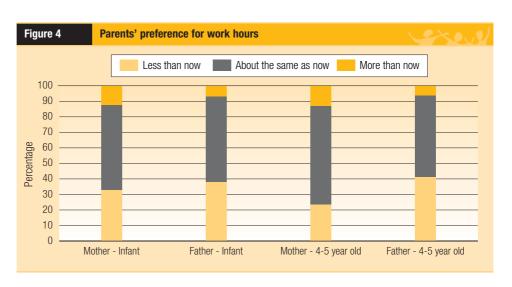
In contrast, more than nine-in-ten working fathers were working 35 or more hours per week.

Combining work and family

On the whole, parents had quite a positive view of work, both in terms of its impact on them (around 70 per cent of parents agreed that working made them feel more competent) and their children (49 per cent felt that their working had a positive effect on their children, while a further 37 per cent felt the effect was neither positive nor negative). Most parents disagreed with the statement that family time was less enjoyable due to work.

However, when asked what hours they would prefer to work, taking into account the impact on their income, a substantial number of parents indicated that they would like to work fewer hours than they do now (see Figure 4).

This is consistent with the fact that working parents were more likely to indicate that they felt rushed (47 per cent of working parents stated that they felt rushed always or often, as compared to 36 per cent of non-working parents).



Parental income

For 34 per cent of infants and 32 per cent of 4-5 year olds, the combined parental income per week (before tax) was less than \$800. Many children were in families with incomes between \$800 and \$1499 per week (40 per cent of infants and 38 per cent of 4-5 year olds). Higher incomes of \$1500 or more per week were experienced in 26 per cent of the infants' families and 31 per cent of the 4-5 year olds' families.

Incomes are of course related to parental employment. For mothers of infants who were employed at the time of the interview, their median gross income from paid work was \$375 per week. For the older cohort, this was \$479 per week, probably reflecting the greater number of hours that mothers tend to work as their children get older. For working fathers, the median gross income was similar in the two cohorts – \$862 per week for infants and \$900 per week for the older cohort. In many families, children's experience is one where their father earns considerably more than their mother.

Quality of neighbourhood

Community-level influences are increasingly being recognised as important contributors to children's development. For young children, these influences are usually mediated through their impact on parents and families (see, for example, Brooks-Gunn, Duncan and Aber 1997). Characteristics such as the availability and safety of playgrounds and other amenities, access to appropriate services, and broader measures of "social capital" are among the relevant factors assessed in LSAC.

Most children live in neighbourhoods that are considered by parents to be safe and to have good facilities. Around nine out of ten parents agreed that theirs was a safe and clean neighbourhood and around three-quarters agreed the neighbourhood had good parks, playgrounds and play spaces. Three-quarters of parents agreed that they had access to close, affordable, regular public transport and access to basic services such as banks and medical clinics in their neighbourhood. Nine in ten agreed they had access to basic shopping facilities. The two lowest ranked items were "street lighting", and "footpaths and roads", but even here two-thirds agreed they were good.

Table 2 (over page) presents the overall regional trends and shows that, in both cohorts, parents in capital cities were happier with the facilities in their neighbourhood than were parents outside the capital cities.



Most parents are happy with their neighbourhoods

Table 2 Neighbourhood characteristics by region (p	2301			
	Infants		4-5 year olds	
Proportion of parents who agreed that:	Capital city	Rest of state	Capital city	Rest of state
This is a safe neighbourhood	90.2	91.9	90.3	91.9
This is a clean neighbourhood	92.4	95.0	92.3	93.7
There are good parks, playgrounds and play spaces in this neighbourhood	79.2	68.2	80.4	70.5
There is good street lighting in this neighbourhood	73.9	60.5	77.2	59.2
The state of footpaths and roads is good in this neighbourhood	69.1	53.7	73.2	58.5
There is access to close, affordable, regular public transport in this neighbourhood	85.8	53.7	85.8	52.5
There is access to basic shopping facilities in this neighbourhood	93.3	82.8	93.2	83.3
There is access to basic services such as banks, medical clinics, etc. in this neighbourhood	83.2	67.4	83.0	65.3
There is heavy traffic on my street or road	33.0	34.2	30.7	37.4

To aid further analysis, the Australian Bureau of Statistics SEIFA indices of disadvantage (ABS 2003) at the postcode level are linked to the LSAC data. It will be possible to examine the relationship between these indices and parents' satisfaction with their neighbourhoods and available services. Furthermore, the direct and indirect ways in which neighbourhood characteristics impact on children's development will be a focus of further analyses. While relationships can be expected to be complex, parental satisfaction and stress may be important mediators of the impact of neighbourhood disadvantage.

Breastfeeding and weight

Breastfeeding is linked to a number of important child outcomes including reduced prevalence of obesity and asthma and improved cognitive outcomes. The National Health and Medical Research Council's (NHMRC) dietary guidelines (NHMRC 2003) consider that an initiation rate in excess of 90 per cent, and 80 per cent of mothers breastfeeding at six months, are achievable goals in Australia. The 2003 dietary guidelines also recommend "exclusive" breastfeeding (the consumption of breastmilk only) to the age of six months, a change from the previous guidelines (NHMRC 1996) which recommended exclusive breastfeeding for the first four to six months.

As shown in Table 3, the proportion of babies who start breastfeeding is around 90 per cent, compatible with the NHMRC goal. However, the length of time babies are breastfed falls below the guidelines. In both cohorts, by about six months only around one-half of all babies were still being breastfed, as compared to the 80 per cent goal. The numbers being breastfed dropped quickly after six months. In the 4-5 year old cohort, 72 per cent had ceased breastfeeding by age one.

The data also indicate that many babies are starting solids earlier than the 2003 dietary guideline recommendation. In the infant cohort, 37 per cent of babies aged four months or older had commenced solid foods on a regular basis (at least twice a week for several continuous weeks) by the age of four months, with the great majority of these starting at or just before four months, and 91 per cent of infants aged six months or older had commenced solids before six months of age. Further analysis is required to understand these trends and to begin to draw out possible implications for children's outcomes.



Around 50 per cent of children are breastfed for at least six months

Table 3 Age at which child stopped being breastfed	12×2011			
	Infants*	4-5 year olds		
Never breastfed	9.3	10.7		
Less than 1 month	12.2	10.7		
1 to up to 3 months	11.0	9.5		
3 up to 6 months	15.4	14.4		
6 months or more	52.1	54.7		
Note: *Restricted to infants who were at least 6 months old at the time of the interview				



15 per cent of 4-5 year olds are overweight and 6 per cent are obese . . .



... but few parents are worried about this

Obesity is becoming a significant problem amongst the Australian child population and diet is a major contributor to weight problems. Research from South Australia suggests that obesity may be starting at a much younger age than in the past (Vaska and Volkmer 2004), yet we have very little national trend data on its prevalence, particularly for young children. LSAC seeks to fill this gap.

Based on measurements of height and weight taken at the time of the interview, 79 per cent of the 4-5 year olds were assessed as having a body mass index that was within the normal range for a child of that age (see Cole et al. 2000). However, 15 per cent were classified as overweight and a further 6 per cent were assessed as being obese. Girls (23 per cent) were more likely than boys (20 per cent) to be overweight or obese.

The above figures contrast with what parents thought about their child's weight. While 82 per cent of parents indicated they thought their child was of a "normal weight" and 14 per cent thought their child was "underweight", only 5 per cent of parents considered their child to be overweight. Most of the parents of overweight children (86 per cent) said they were not worried about their child's weight.

Most experts agree that being obese does matter (for example, Catford and Caterson 2003; Waters and Baur 2003). Worryingly, of the children classified as obese, 52 per cent of parents indicated their child was of a "normal weight" or "underweight" and 50 per cent were not worried about their child's weight.

Children's diet

The dietary intake of the 4-5 year old cohort was assessed by asking whether certain types of foods were consumed once, more than once, or not at all in the previous 24 hours. The dietary intake of some types of foods for 4-5 year olds in a specified 24-hour period is collated in Table 4 (over page). While the data collected are based on the number of occasions of consumption, rather than servings (which is the basis for dietary guidelines), the proportion of children consuming little or no fresh fruit or vegetables (16 per cent) and those having high fat foods at least three times a day (28 per cent) is worth noting. For example, the NHMRC 2003 dietary guidelines recommended consumption of between one and two servings of fruit and two to four of vegetables (including legumes) each day for children aged four to seven years. Further analysis of the diet data will be able to ascertain the relationship of diet to concurrent and future weight problems, as well as other health outcomes.

Table 4 Food and drink cons	Food and drink consumed by 4-5 year old children in previous 24 hours (per cent)						
Food	Not at all	Once	At least twice	At least three times	At least four times		
Fresh fruit, cooked or raw vegetables	4.7	11.5	21.3	28.0	35.6		
Fruit juice*, soft drink or cordial	19.6	22.0	35.0	14.8	8.6		
High fat foods	9.2	29.3	33.3	17.9	10.4		
Note: *Considered to be a high-sugar drink, although is available for separate analysis within the data set							

Childhood injuries

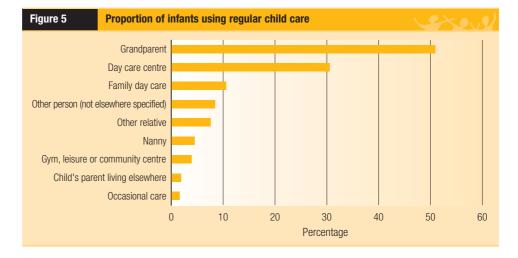
Injuries are the leading cause of child mortality in Australia (Al-Yaman, Bryant and Sargeant 2001) and repeat injuries can impact on subsequent development. Over the previous 12 months, 7 per cent of infants and 18 per cent of the older cohort were hurt, injured or had an accident that needed medical attention from a doctor or hospital. Of the children who were hurt or injured, in the vast majority of cases (90 per cent of infants and 74 per cent of 4-5 year olds) there was only one incident. For infants, most injuries were unspecified, whereas cuts or scrapes and broken or fractured bones were most common for the older cohort. The broad LSAC data set will be able to help identify factors in the child's environment that are related to the occurrence of injuries.

Child care

The expansion in the use of non-parental child care has raised concerns about possible long-term effects on children's development. At the same time, child care can provide a range of valuable experiences to the child. LSAC gathers data on the quantity and quality of regular non-parental care a child receives, and so will be able to shed important light on the influence of care arrangements on developmental outcomes.

In the previous month before the survey, 35 per cent of infants had been looked after by someone other than a parent at regular times during the week. Multiple care was experienced by a minority of infants. Of those who experienced non-parental child care, most infants (76 per cent) only had one type of care arrangement per week, and a further 21 per cent experienced two types of care.

Of those infants who experienced some type of regular non-parental care, the two most common types of care were with grandparents and day care centres (Figure 5).



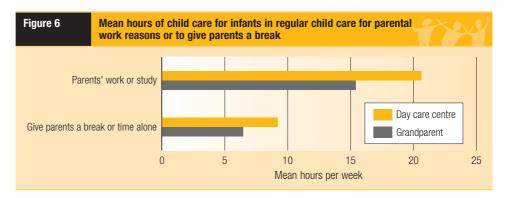


More than one-third of infants have some non-parental care



Grandparents provide most non-parental care for infants LSAC provides an opportunity to understand the why parents use particular types of care. For parents using grandparent care or day care centres, the main reason for using child care was for the parents' work or study commitments. This was cited by 80 per cent of parents using day care centres and 72 per cent of those using grandparent care. The second most common reason for using grandparent care was the parent's sport, shopping, social or community activities (11 per cent); in contrast, this was cited as a reason by few users of day care centres (1 per cent). The second most common reason for using day care was to give the parent a break or time alone (9 per cent).

The time spent in care varied by type of care. On average, infants in day care centres spent longer in care than those using grandparent care (Figure 6), particularly where work/study was the main reason for use (21 hours compared to 15 hours).



Preschool and child care use by 4-5 year olds

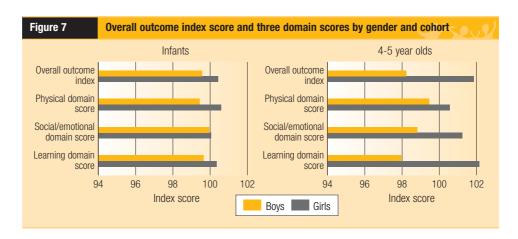
Preschool and attendance at day care centres provides an opportunity for developing school readiness skills. Almost all of the 4-5 year old children (95 per cent) attended a school, kindergarten, preschool or day care centre at least one day a week. In addition, 40 per cent of this cohort were also looked after by someone other than a parent at regular times during the week.

How are Australian infants and 4-5 year old children faring overall?

LSAC collected extensive information on many aspects of children's development. To facilitate analysis of these data, they were summarised into outcome indices for both infants and 4-5 year old children. For each cohort, three domain scores were created – health and physical development, social and emotional functioning, and learning and academic competency. These scores were then used to create an overall outcome index, which was given a mean of 100 and a standard deviation of 10, so that approximately 70 per cent of the cohort scored between 90 and 110 (Sanson and Misson 2005).

Scores should thus be interpreted as indicating children's standing with respect to others in the cohort on these measures, rather than some absolute level of good or poor functioning. As there was some variation in actual age of children within cohorts, these scores were standardised by age (within cohort) so that the scores of all children within a cohort would be comparable. These outcome indices will be further tested for validity in later analyses.

Figure 7 shows the overall outcome index score and the scores on each of the three domains, comparing males and females from each cohort. For the infants, there were very small gender differences, with a slight trend for girls to score higher in the physical and learning domains. For the 4-5 year old children, gender differences were more pronounced. In particular, girls showed better outcomes in the learning and social/emotional domains. Such differences are commonly found at this age (Halpern 2003; Ruble and Martin 1998).





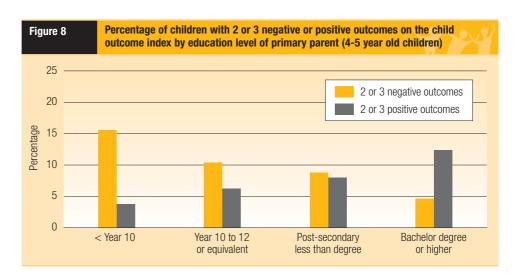
Having siblings relates to children's outcomes in different ways



Children's outcomes are associated with parental education Children's outcomes were related to different family characteristics. Infants with no siblings had the highest scores in the learning domain, while for the 4-5 year old children, having no or only one sibling was associated with a higher learning outcome score. Smaller but contrasting differences were found for 4-5 year old children in the other domains: those with more siblings scored higher on the physical domain, and having four or more siblings was associated with the lowest social/emotional score. Understanding these differences of course requires analysis of many other factors such as parental education and income, family type and parenting differences across families.

The distribution of domain scores was used to identify children in the lowest 15 per cent and the highest 15 per cent of the distribution, who were classified as having "negative outcomes" or "positive outcomes" respectively in the relevant domain. The number of negative outcomes and positive outcomes recorded for each child provides a useful snapshot of their developmental status, and is used as a categorical form of the outcome index.

As shown in Figure 8, children's outcomes (classified in this way) were related to the education level of the primary parent (who was the mother in 97 per cent of cases). Lower education levels were associated with more negative outcomes and fewer positive outcomes. Figure 8 shows the association for those children with positive or negative outcomes in two or three domains; however, the association is just as pronounced for those children who had no or only one positive or negative outcome.

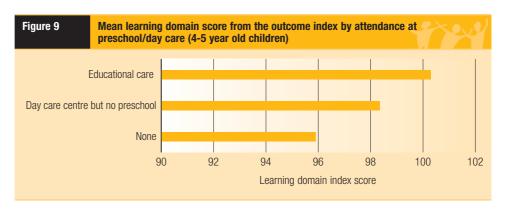


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Early education is linked with child outcomes

Having a successful start to school is a predictor of children's later academic achievement, and their readiness to learn when they start school is an important part of this. LSAC includes measures of a number of factors that are involved in readiness to learn, the most central of which are incorporated in the learning domain of the outcome index. In particular, the 4-5 year old learning domain includes the results of two direct assessments that interviewers conducted with the children – an adapted version of the Peabody Picture Vocabulary Test (Dunn and Dunn 1997) that assesses receptive language, and the "Who Am I?" test (de Lemos and Doig 1999), which assesses early literacy and numeracy skills.

Figure 7 (previous page) showed a strong gender difference on learning domain scores for the 4-5 year old children. Figure 9 shows learning domain scores by attendance at educational care, day care centre or neither. The "educational care" group includes children who attended school or preschool of some kind (year one or pre-year one in school; preschool in school; other preschool) or a day care centre that also had a preschool program. Figure 9 shows that attendance in care with an educational focus is associated with higher learning scores compared to day care without such a program; and that the absence of any such care is associated with the poorest learning scores.



Parenting infants and 4-5 year old children

The way that families function, including relationships among family members and parents' approaches to rearing their children, has an important impact on the growing child. Family functioning often mediates the effects of family transitions and family type (Sanson and Lewis 2001). LSAC contains the first-ever Australian national data on a number of aspects of family functioning, including parenting and parent–child relationships. While no causal connections can be made between these family functioning measures and Wave 1 child outcomes, their role in contributing to later child outcomes will be a focus of much interest.

One aspect of this is how parents feel about their parenting abilities. Parents were asked to self-assess their ability as a parent on a five-point scale ranging from "Not very good at being a parent" to "A very good parent". As Table 5 shows, the vast majority of parents felt they were doing a good job as a parent. Parents of infants were more likely to consider themselves good parents than those of the older children. For the infant cohort, only 2 per cent gave a negative rating, while 73 per cent felt they were better than average. For the 4-5 year old cohort, 3 per cent of parents rated themselves in a negative way, while 65 per cent felt they were better than average.

Table 5	Parental self-effi	cacy by cohort (p			
	Not very good at being a parent	Some trouble being a parent	An average parent	A better than average parent	A very good parent
Infants	0.2	1.8	25.0	33.9	39.1
4-5 year olds	0.3	2.8	32.0	34.7	30.1

It might be expected that first-time parents would be less confident about their parenting skills than those with older children. Alternatively, the time pressures on parents with more than one child might mean they have less time to devote to the parenting of each child and so parents may feel they are not as competent as those with only one child. A look at the LSAC data on birth order, however, reveals a less than straight-forward relationship with parent self-efficacy. For the infant cohort, the most positive ratings came from first-time parents. Where the infant was a third-born child, self-efficacy ratings were lowest. For the 4-5 year old cohort, the self-efficacy rating for first-time parents was almost identical to that where the child was a second or third child in the family. Only where the study child was fourth-born or higher did parents rate their parenting abilities more highly than for first-time parents.

Parents' views about their own parenting ability were associated with their child's social/emotional development. Figure 10 shows that, for 4-5 year olds, parents who considered themselves to be more competent at parenting tended to have children with higher scores on the social/emotional development domain. A similar but less striking pattern was found for infants.

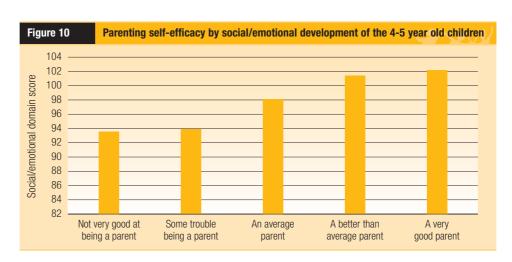
Of course, in this first wave of data, we cannot indicate a causal direction. While less competent parenting could be leading to lower developmental outcomes, it could



Most parents feel they are doing a good at job being a parent



Parents' selfreported parenting ability and children's outcomes are linked

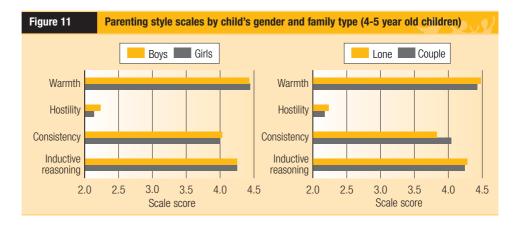


equally be the case that parents who are aware that their child is having difficulties in the social/emotional arena perceive themselves to be less competent at parenting.

LSAC also contains a number of multiple item scales that measure different aspects of parenting style, with each scale running from 1 to 5. Figure 11 shows scores on four parenting style scales for the 4-5 year old cohort. As expected, most primary parents (who are overwhelmingly the mother) rate their parenting quite positively, showing very high levels of warmth towards the child (for example, showing affection, enjoying times together), high levels of consistency and "inductive reasoning" (which refers to using explanations for rules and helping the child understand the consequences of their behaviour), and low levels of hostility (such as becoming angry and annoyed with the child).

Figure 11 shows that boys and girls are parented fairly similarly, apart from levels of hostile parenting which, although low overall, were higher for boys than girls. Across family type, 4-5 year olds in lone parent families experienced slightly lower levels of consistency in parental style and slightly greater levels of warmth and hostility. Overall, however, the findings indicate more similarities than differences across gender and family type.

For the infant cohort, only parental warmth and hostility were assessed. These showed little or no differences by gender or family type.



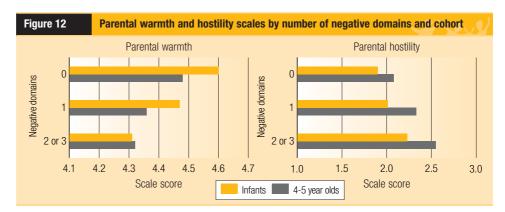


Couple and lone parents have similar parenting styles



Style of parenting is related to child outcomes

An association between parenting style and developmental outcomes is demonstrated in Figure 12. Here the warmth and hostility scores for children with negative outcomes in 0, 1, or 2 or 3 outcome index domains are shown. The pattern is similar for infants and 4-5 year olds: lower levels of parental warmth and higher levels of parental hostility are associated with a greater number of negative domains. As with parental self-efficacy, it is not possible to identify the direction of effects in these findings: a more challenging child may elicit less warmth and more hostility from parents, or a colder, more hostile style of parenting could help create developmental difficulties in the child. In all probability, both are true and bi-directional effects are operating. Multivariate approaches to analysis and further waves of data are needed to shed light on this. What can be said is that parenting style and children's developmental outcomes are associated with each other.



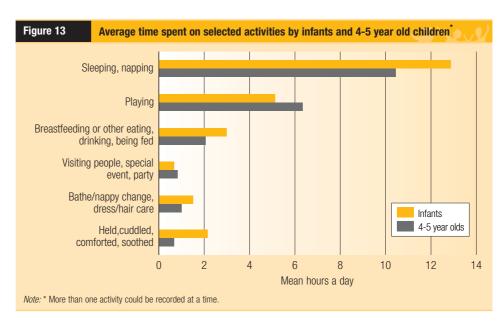
How do Australian infants and 4-5 year old children spend their time?

For the first time, we have a national picture of how infants and 4-5 year old children spend their time. An innovative part of LSAC was the inclusion of time-use diaries to record the child's activities over a randomly selected weekday and a randomly selected day in the weekend. These diaries were completed by the parents and covered an entire 24-hour period, except for any time the child's activities were unobserved, such as when they were in child care or preschool.

Such data are not collected in any of the national longitudinal studies overseas, and there are few other data available on children's time use in Australia. These data will help address the key research question about how children's activities (for example, outdoor activities, unstructured play, television viewing, reading, etc.) relate to outcomes such as family attachment, obesity and social skills.

Not surprisingly, infants spent a large part of their day, on average about 13 hours, asleep (see Figure 13). Their hours awake were largely a mix of playing, being physically cared for and being held and comforted. Playing took up a considerable proportion of time – about five hours a day. On average, one and a half hours were spent being bathed, having nappies changed and being dressed and about three hours were spent breastfeeding, eating and drinking.

Compared with the infants, the older children spent less time sleeping, on average ten and a half hours a day, and more of their day playing – more than six hours a day on average.





Children spend 5-6 hours a day in play Table 6 shows the range of activities infants engage in while playing. There was much physical play at this age – around 70 per cent of parents reported play in the category of crawling, climbing and so on, and these children spent around three hours in the day in this form of activity. Much infant play (about three hours) was recorded as "other" play, which may include playing with toys or with other children, and perhaps "stationary" play for the very young infants such as lying on a rug, watching a mobile.

Table 6	How do infants play?					
		Proportion who undertook this activity on the diary day (%)	Of those who did this activity, mean duration (hours)	Mean duration, all infants (hours)		
Crawl, climb, swi	ng arms or legs	69.8	2.9	2.0		
Read a story, talke	ed/sung to, sing/talk	58.5	2.2	1.3		
Watching TV, a vic	deo or a DVD	45.5	1.4	0.6		
Listening to tapes	, CDs, radio, music	28.0	1.8	0.5		
Colour/draw, look	at book, puzzles	16.9	0.8	0.1		
Other play, organ	ised activities	82.2	3.0	2.4		
Any play*		98.0	5.1	5.0		

Note: * Since children are likely to do more than one thing at once (for example, crawling while listening to music), the duration of different play activities adds to more than the "any play" time. It should be kept in mind that the ages in the infant sample range from 3 to 19 months, and there will be considerable variation in the infants' type of play across this age range.



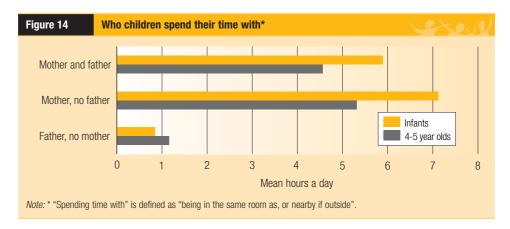
Most 4-5 year old children watch TV, videos or DVDs, on average for 2.3 hours per day . . . The activities of older children differed considerably from infants', as might be expected (see Table 7 over page). The amount of time children spend watching television is a popular topic in public debate. The data show that 4-5 year old children are relatively heavy watchers of television. Based on the time-use diary results, 89 per cent of 4-5 year old children watched television, a video or a DVD, on average for 2.3 hours per day. This is more time than was spent walking, running or doing other exercise – activities that only 66 per cent of the 4-5 year old children engaged in, for 1.9 hours on

average. For infants, watching television was not such a prevalent activity, but nonetheless, 46 per cent of infants were reported as watching television, a video or a DVD for an average of 1.4 hours per day.

About 70 per cent of children had experienced some reading, singing or talking activities on the nominated days. In the parent interview, just under half of all parents reported reading to their child every day of the previous week. Again, "other play" was often recorded, and is likely to include creative and pretend play such as playing dress-ups, and playing with toys and other children.

Table 7 How do the 4-5 ye	ear old children play?		Stevel 1		
	Percentage who undertook this activity (%)	Of those who did this activity, mean duration (hours)	Mean duration, all 4-5 year old children (hours)		
Read a story, talk/sing, talked/sung to	70.1	1.5	1.0		
Colour, look at book, educational game	57.5	1.2	0.7		
Watching TV, video, DVD, movie	89.3	2.3	2.1		
Use computer/computer games	25.6	1.1	0.3		
Listening to tapes, CDs, radio, music	26.9	1.2	0.3		
Walking, riding a bicycle, or other exercise	65.6	1.9	1.2		
Other play, other activities	69.3	2.6	1.8		
Any play	98.8	6.4	6.3		

LSAC attempts to redress the neglect in much research on the role of fathers in children's lives, and has gathered data about a number of aspects of fathers' involvement. For example, data from the time-use diary shed light on how much time fathers, in comparison to mothers, are with their children. For infants, most of their day was spent with their mother in the same room. On average, just under six hours was spent with both mother and father present, and just over seven hours was spent with the mother only. In comparison, on average less than one hour a day was spent by infants with the father when the mother was not present (Figure 14). The time infants spent alone with their father did increase slightly on weekends (around 13 minutes more than on weekdays).



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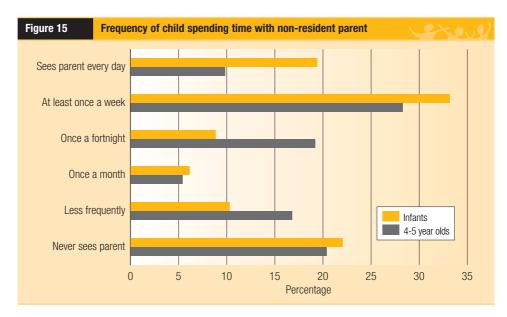
... but most children are also engaged in some reading activities

The picture is similar for older children. These children spent most of their day with either their mother and father, or their mother but not their father. These data corroborate other Australian findings that fathers continue to spend relatively little time as the primary carer of their children (Craig 2003).

Children spending time with non-resident parents

There is currently a great deal of interest in the level of involvement of non-resident parents (predominantly fathers) in the lives of their children. In Wave 1 of LSAC, where a child had a non-resident parent, primary parents were asked about their own and the child's relationship with the non-resident parent and, when there was no or little contact, the reasons for this. In later waves, it is hoped that data will be collected directly from non-resident parents.

About 11 per cent of infants and 17 per cent of the older children had a parent who did not live with them. As Figure 15 shows, around 20 per cent of both infants and 4-5 year old children did not see the non-resident parent. Infants were more likely to spend time with their non-resident parent on a daily or weekly basis, while 4-5 year olds were more likely to have once a fortnight or less frequent time together. Further analyses will be able to examine factors associated with the amount of time spent together, and its relationship to children's wellbeing.



Summary

The Wave 1 data of LSAC provide a unique insight into Australian children. Much of this information has never been collected before at a national level. In particular, the time-use diary data and the development of the outcome index are exciting initiatives. These findings, using simple analytic techniques, illustrate some of the richness in the Wave 1 LSAC data, at the same time as pointing towards the need for more sophisticated analyses and, in many cases, longitudinal data, in order to address some pressing issues around the development of young children in Australia today.

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"Parental leave and return to work: The design and implementation of a national survey", Presentation at *Families Matter*, 9th Australian Institute of Family Studies Conference, Melbourne, 9-11 February 2005 (Gillian Whitehouse and Carol Soloff).

"Summarising children's wellbeing: The LSAC outcome index", Presentation at *Families Matter*, 9th Australian Institute of Family Studies Conference, Melbourne, 9-11 February 2005 (Ann Sanson and Sebastian Misson).

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"Long-term research program for LSAC", Presentation at *Families Matter*, 9th Australian Institute of Family Studies Conference, Melbourne, 9-11 February 2005 (Paula Chevalier, Karen Wilson, Ann Sanson and Alison Morehead).

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"The power of the interviewer", Paper presented at the Australian Market and Social Research Association 2004 Adaptation conference, Melbourne, September 2004 (Kylie Brosnan).

"Growing Up in Australia: A Longitudinal Study of Australian Children – Data Management Strategic Directions", Presentation to the Department of Family and Community Services, Department of Science and Technology, Australian Institute of Health and Welfare and the Australian Bureau of Statistics, Canberra, 10 June 2004 (Robert Johnstone).

"Growing Up in Australia: A Longitudinal Study of Australian Children – an overview", Presentation to the Research and Evaluation Division, NSW Department of Community Services, Sydney, March 2004 (Carol Soloff).

"Growing Up in Australia: A Longitudinal Study of Australian Children – an overview", Presentation to the Australian Research Alliance on Children and Youth (ARACY) Meeting, Canberra, 29 January 2004 (Ann Sanson).

"Growing Up in Australia – The Longitudinal Study of Australian Children", Poster presented at the World Association for Infant Mental Health World Congress, Melbourne, 14-17 January 2004 (Ann Sanson, Graham Vimpani and the LSAC Consortium Advisory Group).

"Growing Up in Australia: The Longitudinal Study of Australian Children - Background and current status", Paper presented at the Australasian Human Development Association (AHDA) Conference, Auckland, New Zealand, 7-9 July 2003 (Ann Sanson, Jan Nicholson, Project Operations Team and Consortium Advisory Group and presented by Judy Ungerer).

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"Sample design for *Growing Up in Australia*: The Longitudinal Study of Australian Children: Key features, challenges and solutions", Paper presented at the Australasian Human Development Association (AHDA) Conference, Auckland, New Zealand, 7-9 July 2003 (Carol Soloff).

"The Longitudinal Study of Australian Children", Presentation to the Regional Centre for Child and Adolescent Psychiatry, Oslo, Norway, 20 June 2003 (Ann Sanson).

"Child care in perspective in Australia: The new Longitudinal Study of Australian Children", Paper presented at the biennial meeting and conference of the Society for Research in Child Development in Tampa, Florida, 24-27 April 2003 (Ann Sanson, Judy Ungerer, Sarah Wise and the LSAC Consortium).

The public use file

Data from LSAC will be warehoused at the Australian Institute of Family Studies and will be available to researchers approved by the Australian Government Department of Family and Community Services, and who must abide by strict security and confidentiality protocols. Prospective users will be required to complete a dataset application and read and sign a deed of license.

Application forms and deeds of license are available on the study's website. A nominal fee will be charged to cover administrative costs of delivering datasets (\$77 for Australian users, \$132 for overseas users).

The Institute will provide user support services to those who receive the data. Datasets supplied to users will be accompanied by a user manual including 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. User training sessions will be offered by the Institute to expand upon the information provided in the user manual.

For data requests, contact:

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More information on LSAC and its progress can be found on the *Growing Up in Australia* website: http://www.aifs.gov.au/growingup. People with an interest in the study are invited to subscribe to *growingup-refgroup*. By subscribing, you will be kept up to date with developments in the project.

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:

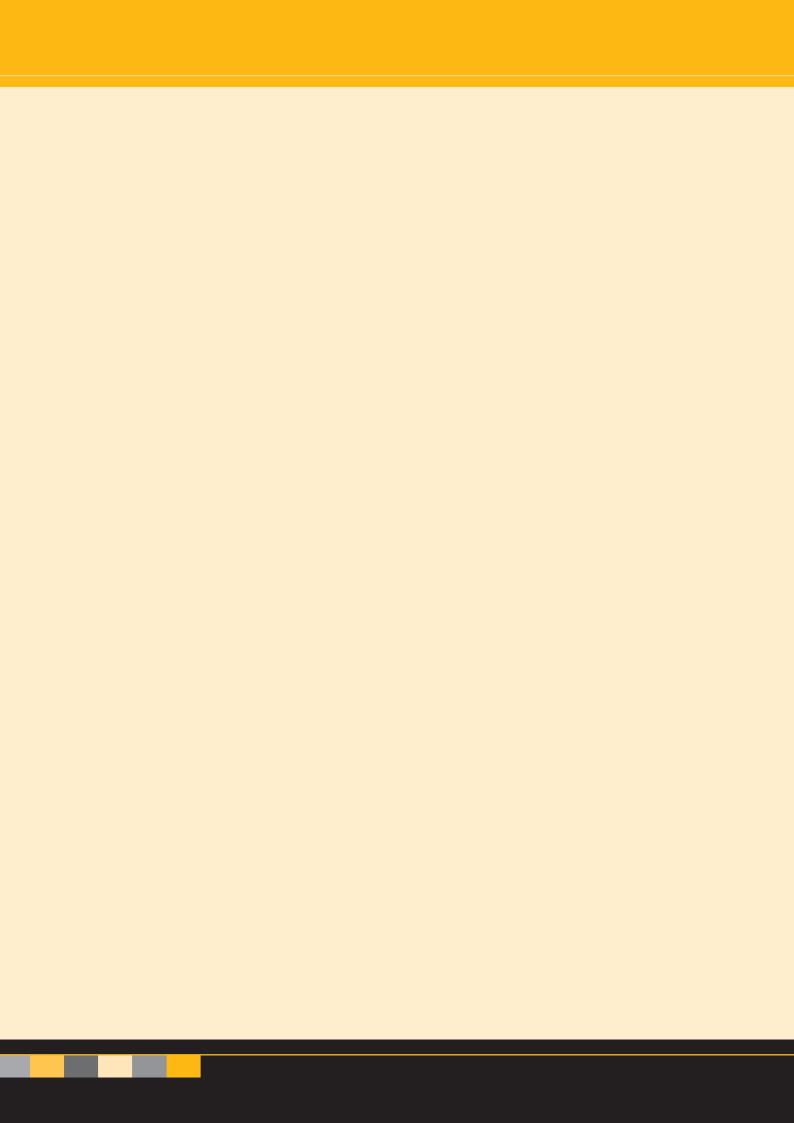
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The Longitudinal Study of Australian Children