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Fathering in Australia among couple families with young children

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Australian Institute of Family Studies

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Contents

Executive summary	vii
1 Introduction	1
2 Literature review	5
2.1 Defining fathering	5
2.2 Variation in fathering	6
2.3 Summary	11
3 Data and methods	13
3.1 Longitudinal Study of Australian Children	13
3.2 Data preparation	14
3.3 Selection and attrition	15
3.4 Fathering measures	16
3.5 Explanatory variables and sample characteristics	17
3.6 Statistical methods: overview	20
3.7 Methods: multivariate approach	20
4 Fathers' time with children	23
4.1 Quantity of children's time with their father	23
4.2 Children's activities while with their father	27
4.3 Fathers' participation in children's play	29
4.4 Fathers' involvement in personal care, social and educational activities	31
4.5 Changes in fathering across waves	36
4.6 Multivariate analyses	38
4.7 Summary: fathers' time with children	47
5 Couples' sharing of unpaid work, and co-parenting	49
5.1 Unpaid work of child care and household tasks	49
5.2 Subjective measures of co-parenting	58
5.3 Multivariate analyses	64
5.4 Summary: couples' sharing of unpaid work, and co-parenting	69
6 Fathers as parents	73
6.1 Comparisons of mothers and fathers on parenting	74
6.2 Connections between differing aspects of parenting	81
6.3 Similarity of parenting across fathers and mothers in the same families	82
6.4 Variations in father involvement and co-parenting, by parenting skills	84
6.5 Multivariate analyses	87
6.6 Summary: fathers as parents	93
7 Employment and fathering	95
7.1 The provider role as fathering	95
7.2 Work–family spillover and time pressures	99
7.3 Work–family spillover, time pressures and fathering	101
7.4 Longitudinal analyses of employment and fathering	106
7.5 Summary: employment and fathering	113
8 Fathers' perceived parenting self-efficacy	115
8.1 Parenting self-efficacy and fathering	118
8.2 Multivariate analyses	121
8.3 Summary: fathers' perceived parenting self-efficacy	125
9 Fathering and child outcomes	127
9.1 Data and analytical approach	128
9.2 Child outcome multivariate results	131
9.3 Summary: fathering and child outcomes	139
9.4 Future directions for analyses of fathering and child outcomes	139

10 Discussion and conclusion	141
10.1 Fathering in LSAC	141
10.2 Variation in fathering	145
10.3 Implications for policy, program development and service delivery	150
10.4 Limitations and possible future directions	153
Appendixes	
Appendix A: Self-complete bias and attrition	155
Appendix B: Time use diaries	159
Appendix C: Discussion of choice of variables	165
Appendix D: Sample characteristics	167
Appendix E: Supplementary tables	169
Endnotes	173
References	175

List of boxes

Box 1:	Time use diaries	24
Box 2:	Questions about father providing care	26
Box 3:	Fathers' play-type activities with 4 to 5 year olds	30
Box 4:	Fathers' involvement in personal care, social and educational activities	32
Box 5:	Unpaid child care and other household work	50
Box 6:	Perceived fairness of sharing on child care and domestic tasks in LSAC	53
Box 7:	Subjective co-parenting measures	58
Box 8:	Questions used to assess parenting	74
Box 9:	Work–family spillover and time pressures	99
Box 10:	Generic measure of perceived parenting self-efficacy	116
Box 11:	Items contributing to LSAC Social/Emotional and Learning/Academic Outcome Indices	130

List of tables

Table 1:	Sample counts of families with fathers and father respondents	14
Table 2:	Overview of fathering measures	16
Table 3:	Explanatory variables	18
Table 4:	Explanatory variables: child-specific fathering	19
Table 5:	Explanatory variables: broad fathering	19
Table 6:	Children's time with parents while awake, by cohort and age, minutes per day	25
Table 7:	Father regularly cares for LSAC child, percentage and duration, mother-reported data	26
Table 8:	Distribution of children's activities over their time awake and time with father and with mother	28
Table 9:	Frequency of fathers' involvement in play activities with 4 to 5 year-old children in the previous week	30
Table 10:	Children's time use by frequency of fathers' involvement in any play activities with 4 to 5 year olds in the previous week	31
Table 11:	Frequency of parents' involvement in personal care activities in the past month	33
Table 12:	Frequency of parental social and educational involvement	35
Table 13:	Frequency of parents' daily involvement in eating an evening meal with their child in the past month	35
Table 14:	Across-wave changes in distribution of father-child time from Wave 1 to Wave 3	36
Table 15:	Consistency of father involvement in personal care and social or educational involvement	38
Table 16:	Multivariate analyses of parents' time with children	42
Table 17:	Multivariate analyses of fathers providing care for children, mothers' reports	43
Table 18:	Multivariate analyses of fathers' play activities with 4 to 5 year-old children (days per week)	44
Table 19:	Multivariate analyses of fathers' involvement in personal care activities	45
Table 20:	Multivariate analyses of fathers' involvement in social or educational activities	46
Table 21:	Maternal and paternal child care, domestic and paid work by age, estimated hours per day	51
Table 22:	Comparison of total child care time with total parent-child time, mothers and fathers	52
Table 23:	Perceived fairness of own share of domestic work, fathers and mothers, by cohort/wave	54
Table 24:	Perceived fairness of own share of child care, fathers and mothers, by cohort/wave	55
Table 25:	Agreement between fathers' and mothers' perceived fairness of own share of child care and fathers' child care time as proportion of total parental child care time	56
Table 26:	Agreement between fathers' and mothers' perceived fairness of own share of domestic work and fathers' domestic work time as proportion of household-level domestic work time	57
Table 27:	Parents' reports of being a resource or support to each other	59
Table 28:	Parents' reports of being a resource or support to each other in child rearing and fathers' child care time as proportion of total parental child care time	59
Table 29:	Agreement on parents' reports of fathers being a resource or support to mothers in child rearing	60
Table 30:	Parents' reports of fathers being a resource or support to mothers in child rearing and fathers' contribution to parental income	61
Table 31:	Understanding and supportiveness of partner to parental needs, and relationships with fathers' child care times	62
Table 32:	Parental disagreements about basic child-rearing issues, and relationships with fathers' child care time	63
Table 33:	Correlation between co-parenting measures across waves, by cohort	63
Table 34:	Multivariate analyses of co-parenting: fathers' and mothers' child care and domestic work time	65
Table 35:	Multivariate analyses of subjective measures of co-parenting	66
Table 36:	Levels of maternal and paternal parenting, mean scores, children aged 0-1 to 8-9 years	75
Table 37:	Mothers and fathers engaged in high levels of warm behaviours, children aged 0-1 to 8-9 years	76
Table 38:	Mothers and fathers showing high levels of hostile parenting, children aged 0-1 to 8-9 years	77
Table 39:	Mothers and fathers showing high levels of angry parenting, children aged 4-5 to 8-9 years	78
Table 40:	Mothers and fathers using high levels of inductive reasoning, children aged 2-3 to 8-9 years	79
Table 41:	Mothers and fathers showing high levels of consistent parenting, children aged 4-5 to 8-9 years	80
Table 42:	Mothers and fathers engaging in high levels of overprotection, children aged 2-3 to 8-9 years	81

Table 43:	Correlations between different elements of fathers' parenting	82
Table 44:	Correlations between mothers' and fathers' parenting	83
Table 45:	Correlations between levels of fathers' parenting practices across waves, by cohort	83
Table 46:	Parenting and father-child time at differing ages	85
Table 47:	Support provided to partners by fathers with low and average/good parenting skills at differing ages	86
Table 48:	Multivariate analyses of the parenting styles of fathers	88
Table 49:	Multivariate analyses of the parenting styles of mothers	90
Table 50:	Fathers' income as a percentage of total parental income, by cohort/wave	95
Table 51:	Fathers' income as a percentage of total parental income, by fathers' and mothers' usual paid work hours	96
Table 52:	Couple-level employment, by cohort/wave	97
Table 53:	Fathers who rated themselves as being a very good/better than average parent, by relative income, employment status and cohort/wave	98
Table 54:	Fathers' employment status, by cohort/wave	98
Table 55:	Fathers' work-family spillover and time pressures, employed fathers	100
Table 56:	Fathers' work-family spillover, by time spent on child care	102
Table 57:	Fathers' work-family spillover, by level of fathers' provision of support to partner	103
Table 58:	Fathers' work-family spillover, by fathers' level of warmth	104
Table 59:	Overall cross-wave changes in aspects of fathering, by cohort	107
Table 60:	Multivariate analyses of parental involvement, using fixed effects models, B cohort	109
Table 61:	Multivariate analyses of parental involvement, using fixed effects models, K cohort	110
Table 62:	Multivariate analyses of fathers' parenting styles, using fixed effects models, B cohort	111
Table 63:	Multivariate analyses of fathers' parenting styles, using fixed effects models, K cohort	111
Table 64:	Mothers' and fathers' parenting self-efficacy	117
Table 65:	Correlations of fathers' and mothers' parenting self-efficacy, across waves, by cohort	118
Table 66:	Fathering time and co-parenting by fathers' parenting self-efficacy	119
Table 67:	Fathers' parenting styles by fathers' parenting self-efficacy	120
Table 68:	Multivariate analyses of fathers' parenting self-efficacy	122
Table 69:	Multivariate analyses of child socio-emotional outcomes (Social/Emotional Outcome Index)	132
Table 70:	Multivariate analyses of child learning outcomes (Learning/Academic Outcome Index)	134
Table 71:	Summary of multivariate analyses of child outcomes	138
Appendix tables		
Table A1:	Multivariate analyses of fathers' response to self-complete questionnaire	156
Table A2:	Multivariate analyses of sample attrition for fathers across waves	157
Table B1:	Sample counts of time use diaries	160
Table B2:	Multivariate analyses of families providing two good-quality child diaries at each wave	161
Table B3:	Cross-cohort/wave classification of children's activities	162
Table D1:	Sample distribution for explanatory variables, calculated over father self-complete sample	167
Table E1:	Frequency of both parents' involvement in personal care activities	169
Table E2:	Parental time with 4 to 5 year-old children according to both parents' involvement in getting children dressed or ready for school, preschool or child care	169
Table E3:	Parents' provision of being a resource or support to each other in raising children, by cohort/wave	170
Table E4:	Understanding and supportiveness of partner to parental needs by cohort/wave	170
Table E5:	Cross-wave changes in father-child time	171
Table E6:	Cross-wave changes in mothers' reports of fathers' disagreements about child care	171
Table E7:	Cross-wave changes in fathers' time spent on child care and mothers' reports on fathers' support	172
Table E8:	Cross-wave changes in fathers' warm parenting	172

Executive summary

There has been growing recognition of the importance of fathers to families in recent years. Societal trends, such as rising levels of employment among mothers of young children and recognition of the importance of the father–child relationship, have given more prominence to the contribution that fathers make to family life. Governments are increasingly interested in creating conditions that can foster fathers’ involvement in families; for example, through promoting more flexible working arrangements or by ensuring that children maintain contact with fathers following family breakdown. This growing interest in the role of fathers has been mirrored in the scientific community. However, there has been a limited amount of research on fathers in Australia, with the result that there remains much to be learnt about the ways that Australian fathers contribute to families and how they feel about themselves as fathers.

This report aims to increase understanding of the many ways in which fathers in couple families with young children contribute to family life, through the study of their time investment with children, their supportiveness as partners, their financial contribution, their parenting behaviours and styles, and their perceptions of their own adequacy as fathers. The impact of fathers on children’s wellbeing is also examined.

The report makes use of data from *Growing Up in Australia: the Longitudinal Study of Australian Children* (LSAC), a large-scale, nationally representative study of children and families that is following the experiences and wellbeing of two cohorts of children and their families, from infancy to the threshold of adulthood. The children in the LSAC were, at the first wave of the study in 2004, aged 0 to 1 years (the B cohort) and 4 to 5 years (the K cohort). The data from Wave 1 are used along with those at Wave 2, when these same children were aged 2 to 3 years and 6 to 7 years respectively, and at Wave 3, when they were aged 4 to 5 years and 8 to 9 years. The report therefore focuses on fathering in families with quite young children. The availability of data at these different ages of the children allows analyses of how fathering may change as children grow through these early years.

LSAC is unusual in that it also obtains the perspectives of mothers and fathers, and collects information on a very broad range of influences on child and family wellbeing. It is thus particularly appropriate for the investigation of fathering in the Australian context.

This report first reviews the existing literature on fathering—considering how fathering can be conceptualised and how fathering varies across families. Fathering is clearly a multidimensional concept, and we have adhered to that notion throughout this report by examining the different ways in which fathers can contribute to families.

Fathers’ time with children

The analyses began by considering fathers’ time with children as one facet of fathering. They examined a number of measures of fathers’ time with children by looking at the amount of shared time together, whether fathers regularly cared for their child, the play-type activities that children and fathers shared, and fathers’ involvement in different personal care, social or educational activities with children.

Analyses of these data showed that children spent several hours per day with their fathers, but much of this time was when mothers were also present. When children’s activities were examined, these data revealed that children were involved in a range of activities during shared father–child time. Thus, fathers were not just present for playtime. For example, they were present during children’s personal care activities (bathing, grooming) and while they were travelling.

A substantial number of fathers reported having daily involvement in their child’s personal care activities, although, not surprisingly, mothers had much higher rates of daily involvement. The gap between mothers’ and fathers’ involvement narrowed for most activities as children aged and mothers’ involvement also declined, no doubt reflecting changes in children’s needs for assistance in these activities.

While time provides a useful metric for examining fathers' involvement with children, this measure of fathering was not significantly related to children's outcomes, suggesting that the sheer amount of time spent in the child's company exerts less influence on children's outcomes than other aspects of fathering. It is likely that the quality of the time that fathers and children spend together is more central, and this is where other measures of fathering are particularly useful.

Couples' sharing of unpaid work, and co-parenting

The nature of the co-parental relationship is crucial in explaining how or whether parents' time with children may be beneficial (or otherwise). A positive co-parental relationship models and fosters communication and relationship skills in children—skills that children can emulate in their own relationships.

This report analysed the amounts of time that parents spent on child care or other domestic work, and mothers' and fathers' perceptions of the fairness of this time, as well as perceptions of the degree to which parents supported or understood each other as parents, or disagreed about child-rearing issues.

These analyses showed highly gendered patterns in the time distribution of parents of young children, with fathers spending more time than mothers in paid employment, and less time in child care and domestic work. When time spent in paid work and unpaid work was totalled, mothers and fathers undertook similar amounts of work in a usual week; however, the allocation of their time to paid versus unpaid work differed markedly.

Mothers and fathers had different perceptions of how fair the sharing of child care and other domestic work was. Fathers had more positive views than mothers of whether they did their fair share. These perceptions were related to the actual sharing of unpaid work in the home, with fathers who did more actual work also more likely to say that they did their fair share, or more than their fair share.

An important aspect of parenting is being a support and resource to the other parent. Fathers and mothers were very positive about the resource and support provided by mothers to fathers. Fathers and mothers were not so positive about fathers as a resource or support to mothers. The finding that the majority of fathers felt well supported by their partners is important, as one of the enablers of fathers' involvement is the support they receive from their partners.

One indication of the negative aspects of co-parenting is the extent of disagreement between parents over child-rearing issues. These analyses showed that the majority of parents reported low levels of disagreement about child-rearing issues, although over one-quarter of parents reported sometimes or more often having disagreements about child rearing.

The co-parental relationship was significantly related to children's outcomes, with mothers' and fathers' reports of support to each other being related to children's socio-emotional outcomes. Further, when fathers reported that there were more disagreements about child rearing, children's socio-emotional outcomes and learning outcomes were poorer.

Parenting practices and styles

This report examined the parenting practices and styles of fathers (and mothers) by looking at five core dimensions: warmth, punitive (hostile or angry) parenting, inductive reasoning, consistency and overprotection. These measures offer some insights into the quality of the time fathers spend with children.

Mothers and fathers generally displayed high levels of warmth, inductive reasoning and consistency, low levels of hostility and anger, and moderate levels of overprotection. Thus, generally, LSAC fathers (and mothers) seemed to be parenting well. There were, however, consistent differences between fathers and mothers in their parenting styles. Over all aspects of parenting, fathers differed significantly from mothers, exhibiting, on average, less warmth, less inductive reasoning, less consistency and less overprotection.

The analyses showed that greater paternal warmth was associated with more positive learning and socio-emotional outcomes among children, as was maternal warmth. Hence, the benefits of high-quality parenting by fathers were discernable.

Variation in fathering

There was considerable variation among LSAC fathers in the degree to which they undertook the various fathering roles. Not only were there differences across fathers at any point in time, there were differences across time, as children, contexts and parents changed.

In this report, extensive use was made of data on family and child characteristics to examine how fathering varied across different families, recognising that fathering occurs within families, and within the context of relationships between mothers and fathers and children. This included the examination of how fathering changed as children grew, using cross-sectional as well as longitudinal perspectives.

A general point to make is that none of the explanatory variables used were associated with each and every measure of fathering. There were, however, some very consistent associations, which are summarised here.

The majority of fathers worked full-time hours and were the main income earners in many families, making **fathers' employment** an important aspect of fathering. However, time spent in employment puts constraints on time available for spending with the family. This was evident in these analyses, as the number of work hours was a significant factor in explaining the variation in how much time fathers spent with children, and fathers' involvement in particular activities with their child. Also, in the analyses of co-parenting, fathers working longer hours undertook less unpaid work in the home and were rated lower on a number of the co-parenting measures compared to fathers working more standard hours. Hours of work, however, were not so important in explaining the variation in fathers' parenting styles.

We also found the fathers who were not in employment or who worked part-time hours had relatively high levels of involvement with their children, and also in undertaking child care and domestic work.

The associations between fathers' employment and fathering were also apparent when examining the degree to which employment was perceived to spill over onto family life. Some negative spillover was observed, although positive spillover from work to family was also found.

Analyses of the LSAC data also showed associations between fathering and **mothers' employment**, especially when mothers worked full-time hours. Fathers' greater involvement in these families was apparent in fathers' time with children and also in the extent of co-parenting. When mothers worked longer hours, fathers were more involved in some of the personal care activities, spent more time with their child or doing child care tasks, and were seen as more of a support to mothers in raising their children.

Turning to a different contextual set of variables, the analyses also considered the family context, including the quality of the parental relationship and the nature of the relationship between parents (whether married or cohabiting) and between father and children (whether biological father or stepfather).

The analyses revealed that **marital (or relationship) quality** was a consistent and powerful factor in explaining variation in fathering. Using fathers' reports of the happiness of their relationships with their partners, positive associations were evident in the analyses of fathers' time with children, co-parenting, and more positive parenting styles.

With regard to differences according to married versus cohabiting fathers, and biological versus stepfathers, differences were not consistent and tended to be small.

Another indicator of family relationships, whether fathers have **children living elsewhere**, was significantly related to fathering, with these fathers appearing to be less involved with resident children than other fathers. For example, compared to fathers who did not have children living elsewhere, fathers with children living

apart from them spent less time doing child care tasks and were rated by mothers and fathers as being less of a resource or support in child rearing. Further, looking at their parenting styles, fathers with children living elsewhere tended to show lower warmth, less inductive reasoning and less consistency.

Fathering quite often differed according to **family size**; for example, fathers less frequently talked with the LSAC child or shared an evening meal when they were in larger families. Some variations, however, were related not only to family size but also to birth order, as fathers appeared to be less involved when children had a larger number of older siblings, but were more involved when there were more younger siblings.

In terms of parental characteristics, we explored how fathering varied by fathers' and mothers' educational attainment, by fathers' mental health, age and ethnicity (whether they mainly spoke a language other than English, and whether they were Indigenous).

These analyses showed that more **highly educated fathers** spent more time reading and talking with their children and helping them with homework. Similarly, more highly educated fathers were more likely to be involved in various personal care tasks, although they did not differ on the amount of time spent with their children. Higher paternal education was also associated with some aspects of parenting, with these fathers showing, on average, less hostility and less overprotection, and more inductive reasoning and consistency. There were, however, no differences in warm or angry parenting according to fathers' educational attainment.

Throughout the analyses, fathers' **mental health** was very often significantly correlated with their fathering. For example, fathers with better mental health were more likely to talk with their child about the day and to share an evening meal with children. On the other hand, mental health was not related to the amount of time fathers spent with children, or in fathers' involvement in personal care activities. Fathers' mental health was also strongly related to children's socio-emotional outcomes. In addition, better mental health was associated with a stronger co-parental relationship and more positive parenting practices. These findings point to the salience of fathers' mental wellbeing for their fathering.

Variation in fathering according to other characteristics, such as ethnicity and age, were less consistent, and often such differences were not significant. Similarly, differences in fathering by mothers' education were generally not significant.

Finally, variation in fathering was explored by children's characteristics, including their age, sex, temperament and health status.

There was considerable evidence that fathers' involvement varied as children grew, in terms of the amount of time spent with children and the types of activities undertaken. Looking at involvement in particular activities, such as talking with their child about the day and sharing an evening meal with them, fathers were most involved at the older ages (6 to 7 and 8 to 9 years). In the analyses of the amount of time children spent with their father, the total time appeared to peak at the preschool age and then decline once children were of school age.

In the analyses of co-parenting, there were certainly differences in the amount of time parents spent on unpaid household tasks according to the age of LSAC children; however, no differences were apparent on the degree of support parents gave their partners in child rearing. Clearly, differing elements of fathering come to the fore or become less central as children grow. The analyses of parenting styles showed very little change (difference) in the parenting styles of either mothers or fathers at differing child ages. The exception was hostility, which was much lower at 0 to 1 years than at later years. There was also some evidence that parenting warmth declined slightly as children moved through childhood.

The fathering of girls as opposed to boys differed in some respects. For example, there were some differences in the activities fathers undertook with boys versus girls, with fathers spending more time with boys and more likely to be involved in their personal care activities. In terms of parenting styles, less warmth, more hostile or angry parenting, more consistency and overprotection was found among fathers of boys. Differences, however, were not always apparent, suggesting that the child's sex is more relevant to certain aspects of fathering.

This report found several associations between fathering and child temperament, especially in relation to parenting styles. For example, less positive/more negative parenting behaviours were evident among fathers of children with a more reactive temperament style. Also, among these children, fathers ate an evening meal with them or talked to them about their day less often. These findings add to the sparse literature on connections between children's temperament style and fathers' parenting.

The analyses rarely found differences in fathering according to child's health status.

In all the analyses in this report, despite finding that a range of variables were important in explaining variation in fathering, there was nevertheless considerable **unexplained variation** in the data. That is, the characteristics observed and included in the analyses do not capture fully the determinants of fathers' involvement, fathers' parenting styles and co-parenting. No doubt, some of this unexplained variation relates to different levels of motivations of fathers, with some being very committed to being highly involved with their children, and others less so, as well as fathers' personality or family experiences while growing up.

Some other findings regarding fathering

This report has shown that in Australia, when children are young, fathers rarely withdraw from the labour market to take over caring responsibilities for children. In fact, the breadwinner or provider role appears central to many fathers' lives in Australia. The LSAC data showed this clearly, through rates and hours of employment as well as through information on parents' time on child care and other unpaid work. A very gendered picture emerged, with fathers spending much more time, on average, in paid work than in unpaid work, compared to mothers. The breadwinner model was also evident in that fathers contributed more than two-thirds of the parental income in these families.

On many measures of fathering, fathers who were more involved on one dimension (for example, time spent doing child care tasks) were also involved on another dimension (for example, having higher parental warmth). For example, fathers' warmth and inductive reasoning were associated with fathers spending time with their children, with fathers who scored lower on these scales spending less time with their children. Also, when fathers showed less warmth, inductive reasoning or consistency, or greater hostility or anger in interactions with their LSAC child, they tended to be seen by mothers as being less of a resource or support in child rearing. Thus, there seemed to be considerable overlap in the elements of fathering examined, reinforcing that fathering is a 'package'. Of course, individual fathers will exhibit unique trends, perhaps being highly involved on one measure but less involved on another. Nevertheless, the differing elements of fathering are correlated, as would be expected. The richness of the LSAC data enables consideration of this issue, and this report has demonstrated the value of using multiple measures to explore fathers' involvement.

There was evidence that more involved fathers remained more involved as children grew. Levels of co-parenting appeared relatively consistent across waves as the correlations found were positive and moderate. Also, parenting practices and styles were positively correlated across waves; that is, fathers who exhibited more positive parenting styles continued to do so as children grew. These findings suggest that helping fathers get off to a good start when children are born will pay dividends later on, as patterns established early persist to a certain degree.

Fathering is clearly different to mothering. Mothers spend more time with children at all ages, but especially at the ages before school commencement. They are therefore also more often involved with children's personal care, social and educational activities. The parenting styles of mothers and fathers also differ. Despite these underlying differences there is, within couples, correspondence between mothers' and fathers' involvement. The similarity of parenting behaviours of mothers and fathers has implications for children, given parents' involvement is associated with children's outcomes. Some children may experience a compounding of negative parenting, while others may be doubly enriched through the positive parenting behaviours of both parents.

The great majority of fathers (as well as mothers) saw themselves as average or better than average parents. Only a very small percentage rated themselves as 'not very good' or 'has some trouble' at being a parent.

Within couples, mothers' and fathers' self-efficacy were correlated, such that when mothers rated themselves as being better parents, fathers tended to also do so.

Relatively high proportions of fathers of very young children, compared to older children, rated themselves as being a very good parent. For example, 36 per cent of fathers of 0 to 1 year-old children gave themselves this rating, compared to 24 per cent of fathers of 8 to 9 year olds. The percentage of fathers reporting themselves as being average parents increased over the cohorts/waves. Across the waves, there was considerable stability of perceptions of self-efficacy—those who were more positive about their parenting ability at Wave 1 were likely to also be more positive at Waves 2 and 3.

Fathers' parenting self-efficacy was related to their involvement with their children and family, although this appears to be unrelated to having the 'provider' role. A higher rating of fathers' parenting self-efficacy was also positively associated with children's socio-emotional and learning outcomes. These links remained after the effect of mothers' parenting self-efficacy was included.

Implications for policy, program development and service delivery

A critical aspect of analyses such as these is identifying ways in which the findings could be used to develop or enhance policy, programs and services for fathers. Ultimately, we would hope that such improvements would not only help fathers but also help the families in which these experiences of fathering are most keenly felt.

Fathers' parenting can be influenced by the supports they have available to them. This includes support from their partner as well as support from other family members, friends, colleagues and the wider community. At particular times, fathers as well as mothers may benefit from the support of professionals, or through participation in educational programs.

LSAC fathers are unlikely to be at the extreme end of the spectrum in terms of disengagement, neglect or harm, and of course such fathers and their families are the ones who are likely to benefit the most from outside support. However, even within the spectrum of fathering observed in this report, the results suggest several ways in which programs or services might offer opportunities for fathers to increase or improve their involvement in families. These include addressing parenting skills and self-efficacy, and addressing parents' approaches to co-parenting. Attention to specific problems such as relationship difficulties and mental health issues is also important.

Programs and services for fathers need to be developed such that they do engage fathers, and the inclusion of fathers needs to be considered across a range of services previously considered the domain of mothers, including health services (for during pregnancy and after the birth) and children's health care.

As employment is central to the lives of many fathers, a key issue is whether workplace policies might be developed or improved to better address the needs of fathers. Workplace policies that might be beneficial to fathers include those that allow fathers to better share in the responsibilities of caring for children with mothers. Such policies may address working hours, provision of leave for particular circumstances, and access to other family-friendly work arrangements. For fathers, a particular issue is the take-up of such measures, since mothers are much more likely to make use of these policies than are fathers.

Family law is another policy context in which the role of fathers is receiving considerable attention. Policies relating to child support and the sharing of care are particularly relevant to fathers with more complex family arrangements, and potentially applicable to fathers in more unstable relationships.

Conclusion

The report confirms that Australian fathers play a vital role in their families. This role is sometimes different, but complementary, to the role of mothers. The analyses showed that fathers made a major contribution to the family income, they were supportive of their partners, they participated in unpaid work within the home (albeit at lower levels than mothers), they spent time with children (although again, at lower levels than mothers),

and they were generally parenting well and felt they were doing a good job in their fathering role. Many of these qualities were linked. We also sought to explore the characteristics or circumstances that facilitated or hindered fathers' involvement. Fathers' working arrangements, their mental health and the quality of relationships between partners appeared to be particularly salient influences. Finally, clear-cut effects of fathering on children's socio-emotional and learning outcomes were found, even after taking into account the contribution of mothers. We conclude that fathering 'matters' for children and families and there are tangible benefits to be gained from fostering fathers' involvement in their families.

1 Introduction

This report explores fathering in Australia using the first three waves of *Growing Up in Australia: the Longitudinal Study of Australian Children (LSAC)*. The focus of the report is on fathers of young children, and it has a particular emphasis on the family context—specifically on couple families. This report presents a detailed examination of fathering in Australia to show the variety of ways in which fathers contribute to families and the diversity of experiences across families. The aim is to recognise the important contributions that fathers make, and to shed light on particular situations in which fathers are more fully involved, or conversely, less involved on particular dimensions of fathering. Such information will be valuable in developing policies, programs and services that seek to encourage and support fathers in their roles within the family.

Fathering has increasingly gained the attention of researchers, especially as the perceived roles of fathers have increased beyond that of being the economic provider for the family. One contributing factor has been the increased participation of mothers in the paid labour market. This has led to significant changes in how mothers and fathers conceive of their parenting roles and expectations, and fathering is often examined within this context. Such changes are most evident when examining the gendered nature of how time is allocated to paid employment and to the unpaid work of running a home and caring for children.

At the forefront of these discussions are concerns about gender equity in the home and the workplace, and underpinning this is the important issue of women's ability to participate equally with men in the labour market, and to secure current and future financial wellbeing. Such concerns call for the greater involvement of fathers in family life to ensure that the demands of unpaid family work are not a barrier to mothers' involvement in the paid labour market. While some of the differences in mothers' and fathers' allocation of time are tied up with social norms about parenting, attention is also directed to the workplace—to hours of work and the existence of family-friendly policies. Here it is acknowledged that workplace policies need to be in place and be accessible to fathers as well as mothers so that workplace barriers to family involvement can be addressed. Policy debates in these areas are apparent, especially in relation to parental leave and long working hours (see Human Rights and Equal Opportunity Commission 2007; Seward & Richter 2008). This is especially true in the Australian context, in which fathers often work quite long hours, tend to make less use of family-friendly work options than do mothers, and do not have universal access to paternity or parental leave.

Another factor contributing to the increased interest in fathering is the recognition of the importance of the father–child relationship. This relationship is important in the context of the social and emotional development of children. As such, when family relationships break down, there are potentially adverse effects on children. Indeed, other family tensions, such as financial difficulties or substance abuse, may also place strains on family relationships and put children at risk of adverse outcomes. In these respects, the importance of fathers is acknowledged as being a positive influence on families and children. When families do face difficulties, engaging fathers has become a particular focus of policy by implementing programs or services to facilitate better outcomes for families (Berlyn, Wise & Soriano 2008; Fletcher 2008; Palkovitz & Palm 2009).

Within this policy context, there has been a growing focus on fathering or fatherhood over the past twenty years or so in international research, especially in regard to the vital contribution that fathers make to children's development (for example, eds Booth & Crouter 1998; Doherty, Kouneski & Erickson 1998; Flouri 2005; Lamb & Tamis-LeMonda 2004; Palkovitz 2002; eds Tamis-LeMonda & Cabrera 2002). The international research is useful for examining likely trends in fathering in Australia. However, it is particularly valuable to have access to information derived from Australian data (Fletcher, Fairbairn & Pascoe 2004). Existing Australian research on fathering includes a significant body of work on the role of fathers in families by Russell and colleagues (Russell 1983; Russell et al. 1999), as well as others (Singleton 2005; ed. Sullivan 2003). Specific topics that have also received attention are non-resident fathers and children (Parkinson & Smyth 2004; Smyth 2004), child care by fathers (Craig 2006), work–family issues (Baxter et al. 2006; Bittman, Thompson & Hoffmann 2004; Gray et al. 2004; Hand & Lewis 2002), and access to or use of programs and

services (Berlyn 2008; Fletcher 2008). A report on fatherhood research in Australia by the Engaging Fathers Project (Fletcher, Fairbairn & Pascoe 2004) usefully summarised much of the research up to that time. Fathering, then, has received a fair amount of attention from researchers in Australia; but within a changing society, there is always more to learn, as well as new ways of examining the topic.¹

The availability of large-scale surveys, with multiple informants and longitudinal designs, provides a wealth of opportunities for research on fathering. Many of the studies upon which fathering analyses have been conducted have not had these qualities, being based on convenience samples, on samples of targeted groups within the population or entirely on mothers' reports of fathering (Cabrera & Peters 2000; eds Tamis-LeMonda & Cabrera 2002). LSAC is extremely valuable in this respect for the analyses of fathering in Australia. It is a large-scale and longitudinal study, with data obtained from mothers, fathers and children, using interview data and self-complete questionnaires, along with time use diaries about the children's activities. These data allow for an examination of how fathering differs across groups within the population, and how fathering changes as children grow older or with other changes in family characteristics.

Fathering, of course, is not an activity that can easily be defined, with great variation occurring across families in the roles that fathers undertake. Fathers' direct involvement with children through shared time together is one facet of fathering; but even this can be explored a number of ways, taking account of the amount of time spent together, types of activities undertaken together or the degree of interaction or closeness during this time. Further, while such measures of fathers' involvement with children are often equated to fathering, fathers contribute to child rearing and to family wellbeing in ways beyond those related to their time investment in children. For example, other dimensions of fathering include 'breadwinning', taking responsibility for or planning child-related activities, and supporting and sharing tasks with the child's mother (Amato 1998; Lamb et al. 1987; Palkovitz 1997; Parke 2000; Schoppe-Sullivan, McBride & Ho 2004). In this report, we do not seek to identify some overarching construct of fathering. Instead, the multidimensional nature of fathering is recognised by separately examining some of these ways in which fathers contribute to family life.

The children in LSAC were at the first wave of the study in 2004 aged 0 to 1 years (the B cohort) and 4 to 5 years (the K cohort). The data from Wave 1 are used along with those at Wave 2, when these same children were aged 2 to 3 years and 6 to 7 years respectively, and at Wave 3, when they were aged 4 to 5 years and 8 to 9 years. The report therefore focuses on fathering in families with quite young children. The availability of data at these different ages of the children allows analyses of how fathering may change as children grow through these early years.

This report focuses on fathering within couple families. This allows examination of how children share their time between mothers and fathers, how mothers and fathers share child care tasks, the co-parental relationship, and the degree of within-couple similarity between parenting behaviours of mothers and fathers. We do, however, recognise that this does not portray the fathering experiences of all fathers; in particular, those who live apart from their children. LSAC contains a rich set of data on non-resident fathers, and so provides opportunities to include these fathers in analyses of fathering. However, as these fathers are confronted with quite different issues to those living with their children, this topic will be examined elsewhere.

Given our focus in this report on couple families, while we specifically concentrate on fathering, we also include analyses of mothers. This is in part to more fully show the contexts within which children are being raised, but also to show some of the differences between mothers and fathers.

We have referred to the extensive international and Australian research on fathering when preparing this report. This research has guided the measures and the analyses used. While LSAC does not contain every item we might wish to explore, it is very comprehensive. It therefore allows for analyses of relationships between different measures of fathering and between a range of fathers' (and family and child) characteristics. To our knowledge, some of these relationships have not previously been analysed using large nationally representative datasets, so these analyses build upon our knowledge of fathering in couple families.

The report is divided into sections, with Section 2 providing a brief review of relevant Australian and international research on fathering. Section 3 then provides an overview of the study, data and statistical

methods. The results follow in Sections 4 to 9. Sections 4 to 6 examine different dimensions of fathering, with Section 4 looking at fathers' time with children; Section 5 focusing on fathers as co-parents; and Section 6 focusing on parenting practices. Section 7 brings these data together, with the addition of further work–family measures to explore the association between employment and fathering more closely. Section 8 examines fathers' parenting self-efficacy. Section 9 then presents analyses of how fathering is associated with children's outcomes—an important area of research and one that LSAC provides valuable opportunities to investigate. The final section of the report draws together the results from earlier sections to highlight the most significant findings about fathering in Australia as identified in this report and to suggest some policy implications.

2 Literature review

2.1 Defining fathering

For many families with young children, mothers and fathers have different roles. Fathers often spend more time in paid employment and therefore bring in a greater share of the family income, while mothers usually take on more of the responsibility for tasks associated with caring for children. In fact, in the majority of families, fathers continue to be the main income earner while children are young, suggesting that the provider or breadwinner role is an important aspect of fathering (Christiansen & Palkovitz 2001; Perry-Jenkins & Crouter 1990).

Research has focused more on the topic of ‘father involvement’ in recent decades, in parallel with the increased call for fathers to be more involved with families. Of course, ‘involvement’ in this context can mean many things, and this is evident in the vast literature just on the topic of how to measure father involvement, or fathering more generally (for example, Day & Lamb 2004; Hawkins et al. 2002; Hawkins & Palkovitz 1999; Pleck 2010; Schoppe-Sullivan et al. 2004). Fathering encompasses spending time with children, developing relationships with them, and providing parental guidance, discipline and love. It involves sharing the parental role with the mother, through emotional support and practical sharing of tasks. As noted above, contributing to the financial resources of the family is also a significant aspect of fathering.

Studies of fathering have been strongly influenced by the work of Lamb et al. (1987). Their conceptualisation of fathering included fathers’ interactions with children (direct contact through care taking and shared activities), availability to children (being present or accessible, whether or not interaction is occurring) and responsibility for children (ensuring that the child is taken care of and arranging for resources to be available). Following this conceptualisation, father involvement is often operationalised as the frequency of fathers’ involvement in activities with children, or the amount of time fathers spend with children (for example, Allen & Hawkins 1999; Mehall et al. 2009; Sayer, Gauthier & Furstenberg 2004). Others have explored this time spent with children in more detail, to examine the activities undertaken (Cooksey & Fondell 1996; Flouri & Buchanan 2004; Hofferth et al. 2002; Marsiglio 1991). Such time-based measures are a useful perspective, especially as parents themselves often think about their parenting behaviour in terms of time (Daly 2001).

Analyses of fathering in terms of time can be criticised because this approach may not fully capture the **quality** of father–child interactions. Shared time that is directly engaging in some positive interaction (for example, reading to a child) may have a greater value to father and child than shared time in which no interaction is occurring. Incorporating the concept of quality into the measures of fathering time is important, especially when relating fathering to children’s outcomes (Hawkins & Palkovitz 1999; Pleck 1997). The parenting practices and styles used by fathers—measures of the ways in which they interact with their children—can capture some aspects of this quality. Certain styles of parenting are likely to be more beneficial to children; for example, more supportive parenting styles facilitate positive development in children. Other characteristics of parenting styles that relate to discipline, monitoring and reasoning with children are also important (Amato 1998; Pleck 2010). Just as mothers and fathers tend to spend different amounts of time with children, they also tend to vary in their styles of parenting (Campana et al. 2008; Conrade & Ho 2001; Hawkins et al. 2002; Lamb 1997; Roskam & Meunier 2009).

Broader conceptual frameworks of fathering identify a diverse set of activities or roles that fathers undertake (Hawkins & Palkovitz 1999). Palkovitz (1997), for example, identified a list of fifteen roles of fathers: communication, teaching, shared activities, monitoring, thought processes, errands, care giving, child-related maintenance, shared interests, availability, planning, providing, affection, protection and supporting emotionality.

Fathers can make important contributions to the family through sharing the work associated with raising children and managing a home. Mothers tend to do more domestic and child care work in the home than do fathers (Aldous, Mulligan & Bjarnason 1998; Bianchi 2000; Craig 2006; Craig & Mullan 2009; Hook 2006; Sandberg & Hofferth 2001). While this is, to some extent, related to mothers' and fathers' different levels of engagement in the paid labour market, this appears to be the case even when parents work similar hours. Fathers' contribution to child care or household work has often been expressed in terms of their being a 'helper' to the mother (Allen & Hawkins 1999; Marsiglio et al. 2000; eds Moss & Wall 2007). Nevertheless, fathers do undertake a range of child-rearing tasks (Bryant & Zick 1996; Gauthier, Smeeding & Furstenberg 2004; Nock & Kingston 1988).

The time fathers spend on child care is qualitatively different to that of mothers, with mothers doing more of the physical care, and fathers spending a higher proportion of the time they are with children in play or fun activities (Craig 2002, 2006; Kazura 2000; Lamb 1997; Pleck 1997; Starrels 1994). This provides the setting for fathers to contribute to children's development through play, especially 'rough and tumble' play (Paquette 2004).

The contributions of fathers to the co-parental relationship go beyond spending time on particular tasks. Co-parenting includes the emotional and practical support parents provide to each other, and this co-parental relationship, or 'parenting alliance', is likely to influence the ways in which parents interact with their children. Therefore, the nature of this relationship is crucial in explaining how or whether parents' time with children may be beneficial (or otherwise) (Floyd, Gilliom & Costigan 1998; McBride & Rane 1998). A positive co-parental relationship teaches communication and relationship skills to children—skills that children can draw upon in developing their own relationships (Amato 1998).

In thinking about fathers' involvement with children and possible associations with children's outcomes, there are clearly many ways that such a relationship may develop, both through the direct relationship between father and child, and through the relationship the father has with the child's mother. This is discussed further in Section 9.

2.2 Variation in fathering

The nature of fathering varies considerably across families. As described by Russell and Radojevic (1992), the variation extends from the 'highly nurturant and involved "new father"', to the 'more traditional (for example, the breadwinner, the head of the house and family protector, the disciplinarian and masculine model—especially for sons)', through to those who are 'disengaged and physically and sexually abusive' (p. 297). What factors are associated with these different types or levels of fathering? This subsection provides an overview of influential research on this question. Because 'fathering', as described above, is such a broad field, the review does not provide an in-depth examination of the cited literature. Further research is also discussed as appropriate within separate sections of the report. In particular, Section 9 refers to literature relating to children's outcomes, and those issues are not discussed here beyond a very brief introduction.²

Various models of fathering or paternal involvement have been presented in the literature, including the influential work of Belsky (1984) and Lamb et al. (Lamb 1997; Lamb et al. 1987). These scholars, and many others (for example, Bailey 1994; Bronte-Tinkew, Carrano & Guzman 2006; Doherty, Kouneski & Erickson 1998; Marsiglio et al. 2000; Mikelson 2008; Parke 2000; Pleck 1997; Wood & Repetti 2004) highlight, in different ways, the factors that might influence fathering. Using Belsky's framework, we consider, in turn, parents' characteristics, the contextual factors that may impinge on parent-child relationships, and children's characteristics.

Parental characteristics

Personal characteristics that might affect fathering include self-esteem, sociability and introversion/extraversion, attitudes, knowledge and skills. Several of these dimensions are not available in

LSAC (measures of personality, attitudes or self-esteem), so we focus here on those that can be explored in this report.

According to Lamb et al. (1987), father involvement varies with the degree of fathers' motivation to be involved with their children, their skills (or perceived skills) to do so, and the extent of appropriate supports to enable this, including the support given by children's mothers. Skill level, or perceived skill level, as a predictor of fathers' involvement with children, has been confirmed in a number of studies (Crouter et al. 1987; Jacobs & Kelley 2006; Sanderson & Sanders Thompson 2002).

The attitudes of parents towards the roles they and their partner should fulfil are likely to be important in shaping the arrangements that parents make about the sharing of child care and their involvement in the labour market (Beaton & Doherty 2007; Beitel & Parke 1998; Bonney, Kelley & Levant 1999; Bulanda 2004; McBride & Rane 1998; Sanderson & Sanders Thompson 2002). These attitudes may be formed through parents' experiences as children; for example, some fathers emulate the parenting behaviour of their own father while others aim for a more involved or positive parenting style (Barnett & Baruch 1987; Cooksey & Fondell 1996; Hofferth 2003).

Societal expectations of fathering, as experienced by individuals, may also be important. That is, some men may be discouraged from more involved fathering if friends and colleagues are less involved, while others may feel more supported to exhibit greater involvement as a father and co-parent (McBride & Darragh 1995; Riley 1990). The culture of the workplace can be a particularly influential factor (Haas & Hwang 2009; Seward & Richter 2008).

The attitudes of mothers are also important (Allen & Hawkins 1999; Beitel & Parke 1998; Hofferth 2003). In fact, 'maternal gatekeeping'—the practice of mothers inhibiting fathers' involvement in particular aspects of child care or household tasks—can be a barrier to fathers' involvement (Allen & Hawkins 1999). On the other hand, mothers can actively support and encourage fathers to take on more responsibilities, which may be particularly influential for fathers who feel less confident in the parenting role (McBride & Darragh 1995).

Like fathers, mothers' attitudes are likely to have been formed by their own childhood experiences of mothering and fathering, as well as their experiences of societal expectations regarding their and their partners' roles as parents. These attitudes then will encourage or discourage certain parenting behaviours in their partners.

Level of **parental education** has strong associations with aspects of parenting. For example, higher levels of education have been consistently associated with greater parental involvement in activities aimed at increasing the human capital of children, including reading and homework (Aldous, Mulligan & Bjarnason 1998; Baxter 2010; Bianchi & Robinson 1997; Hofferth & Sandberg 2001; Marsiglio 1991; Stright & Bales 2003; Yeung et al. 2001). The amount of time fathers spend with children or doing child care tasks is, in some studies (although not all), positively associated with education levels (Aldous, Mulligan & Bjarnason 1998; Baxter 2009; Marsiglio 1991; Sayer, Gauthier & Furstenberg 2004). Positive associations may indicate that fathers with higher levels of education are likely to have a greater knowledge of parenting skills, a heightened appreciation of the value of parental input to children, and more egalitarian gender role attitudes (Hofferth et al. 2002).

Differences by education, however, may also reflect other factors that are correlated with education, notably, income. Therefore, positive associations between education and fathering may be an outcome of greater access to financial resources, which can provide a more conducive environment for fathers to be involved with children. Higher income has generally been associated with better outcomes for children, and it is thought that one of the mechanisms by which this works is through better quality parenting (Berger 2007). However, in studies of father involvement, socioeconomic status has not been consistently found to explain variations in fathering (Flouri & Buchanan 2003). In fact, some studies have found that resident low-income fathers often engage in activities with their children and exhibit positive parenting behaviours (Cabrera et al. 2004; Tamis-LeMonda et al. 2004).

Parental education may also capture some measure of time constraint if lower educated fathers are more time-constrained (Sayer, Gauthier & Furstenberg 2004). This may occur if these fathers need to work longer hours to bring in sufficient income, or because lower educated fathers have jobs with less flexibility and less family-friendly policies. Associations between fathering and hours of employment are discussed further below when exploring contextual variables.

Ethnic variation in fathering behaviour exists, which may to some extent reflect differences in attitudes towards the parental roles of mothers and fathers across differing cultures (Parke 2000). The prevailing culture experienced by children, whether through their family or wider network, may lead to their having different expectations of fatherhood as adults. Comparisons across countries show that fathers spend more time with their children (or doing child care) in some countries than others (Davis et al. 2009; Hook 2006), which reflects differences in policy settings as well as culture. Additionally, within specific countries, variations in fathering have been observed across ethnic or cultural groups (Cooksey & Fondell 1996; Hofferth 2003; Sanderson & Sanders Thompson 2002; Shears 2007). In analyses of parenting in Australia using LSAC, variations in parenting styles have been observed according to whether parents were born in or outside of Australia (Zubrick et al. 2008). In Australia, differences in parenting are also expected depending on the Indigenous status of the parents (Borg & Paul 2004).

Fathers' age may also be an important influence. Very young fathers are more likely than older fathers to be still establishing themselves in education and in the labour market, and may not be financially secure, and these factors may lead to lower levels of involvement with children. On the other hand, their youth may bring the energy that allows them to participate more actively in children's play—an important part of the father-child relationship (Parke 1996). Variation in fathers' involvement by age has been detected in a number of studies (for example, Pleck 1997; Volling & Belsky 1991), but these findings vary across the studies and measures used.

Fathers' psychological wellbeing has less often been incorporated into analyses of fathering; however, when explored, it is evident that fathers who suffer from depression or psychological distress are likely to be less engaged with their children and other family members, exhibit less positive parenting styles and provide less co-parental support (Bronte-Tinkew et al. 2007; Pleck 1997; Wilson & Durbin 2010). Mental health and depression are more often studied in relation to mothers and the wellbeing of children; however, recent examples of studies in which the role of the father was also discussed include Fletcher (2009), and Garfield and Isacco (2009).

Contextual factors

Belsky's (1984) model refers to contextual sources of stress and support that may influence parenting, including those from within the family, such as the marital relationship, and those originating outside the family, such as paid employment. As discussed previously, culture is also important and, indeed, some of these contextual factors may vary in their importance depending upon the prevailing culture.

Looking first within the family, the **family structure** would be such a context, that is, the size of the family and the nature of relationships between parents and children, including whether they are biological or non-biological relationships.

Increasingly, with parental separation and re-partnering, **stepfathers** play an important role in children's lives, and children may have two (or more) father figures—a non-resident biological father as well as a co-resident stepfather (Hofferth 2006). While some research has found biological fathers spend more time with their children and exhibit 'higher quality' or less distant parenting behaviours than do stepfathers (Amato & Sobolewski 2004; Cooksey & Fondell 1996; Hofferth & Anderson 2003), others have found no differences between biological and stepfathers, or have found 'better quality' parenting by the stepfathers (Berger et al. 2008; Gibson-Davis 2008).

Another measure of family relationships is whether the (co-resident) mother and father are legally married. **Marital status** may be an indicator of parents' commitment to the relationship, and therefore an indicator

of fathers' likely investment in their children (Hofferth & Anderson 2003). However, Kalenkoski, Ribar and Stratton (2005) found no significant differences in time spent in child care for cohabiting compared with married men. Berger et al. (2008) also found limited evidence of variation in fathering according to marital status overall, although when stepfamilies were examined separately, differences in the fathering of married compared to cohabiting fathers were apparent. Variation in fathering by marital status may depend upon the significance of marriage and the acceptance of alternative relationship arrangements in the prevailing society.

Related to these aspects of the father relationship, another key variable may be whether fathers have **children from a prior relationship living elsewhere** (Jayakody & Kalil 2002). In particular, this could have implications for the time fathers have available for resident children.

Findings regarding **family size** are somewhat mixed. Fathers with larger families are often found to be less involved, especially when measuring fathers' involvement with a specific child in the family. However, other studies have found that fathers are more involved in child care in larger families, when all children in the family are taken into account. The ages as well as numbers of children in the family are likely to be important (Bryant & Zick 1996; Flouri & Buchanan 2003; Nock & Kingston 1988; Pleck 1997; Yeung et al. 2001).

The quality of the **relationship between the parents** is a very important contextual variable for fathering. In intact couples, better marital or relationship quality is usually associated with more involved fathering (Belsky 1984; Bouchard & Lee 2000; Coiro & Emery 1998; McBride & Mills 1993; Verhoeven et al. 2007). Contradictory findings, however, have been observed. Crouter et al. (1987), for example, observed a negative relationship between marital quality and father involvement. They suggested this negative association may reflect a strain that exists because of a mismatch between fathers' expectations and perception of parenting and the reality. This might be especially relevant in dual-working families if fathers have more 'traditional' expectations regarding the division of child care responsibilities, but are needed to be involved with child care because of the mothers' employment.

One particular focus of research has been on the relationship between marital quality and the co-parental relationship or alliance. For parents in a better functioning relationship, the positive aspects of this relationship generalise into the way they parent (Verhoeven et al. 2007), including the way in which they parent together (Floyd, Gilliom & Costigan 1998). Differences in these parenting processes flow through to children, and are, in turn, likely to affect their wellbeing.

Mothers and fathers, of course, do not parent in isolation from each other. In fact, fathers tend to be more involved with their children when the mother also is more involved (Aldous, Muligan & Bjarnason 1998; Barnett et al. 2008; Russell & Russell 1994). The similarity of parenting behaviours of mothers and fathers has implications for children, given that the nature of parents' involvement is associated with children's outcomes. Children experiencing more negative parenting styles may experience this from mothers as well as fathers, while those in more positive family environments may be doubly enriched through the parenting behaviours of both parents (Barnett et al. 2008). This is discussed further in Section 9.

Fathers' parenting can be influenced by the supports they have available to them. As discussed previously, this includes support from their partner, but it also includes support from other family members, friends, colleagues and the wider community (Howard, McBride & Hardy 2003; Parke 1996). At particular times, fathers as well as mothers may benefit from the support of professionals, or through participation in educational programs. Parenting education, for example, can be particularly valuable in increasing fathers' involvement with children and in improving parenting skills among some groups of fathers, such as low-income and first-time fathers (Magill-Evans et al. 2007; McBride & McBride 1993; McBride & Mills 1993).

The nature of **paid employment** is part of the context within which parents negotiate their child-rearing responsibilities. For fathers, who very often work long hours when children are young, employment can be a significant barrier to being involved (Hand & Lewis 2002; Russell et al. 1999). Men often express a desire to spend more time with children (Hand & Lewis 2002; Milkie et al. 2004; Russell et al. 1999), and the expressed preference of many fathers working longer hours to work fewer hours (Baxter 2008) no doubt in part reflects a desire to have more time for their family. Longer hours of paid work are associated with diminished shared

time between fathers and children or time doing child care tasks (Baxter 2009; Bianchi 2000; Bonney, Kelley & Levant 1999; Bryant & Zick 1996; Jacobs & Kelley 2006; Laflamme, Pomerleau & Malcuit 2002; Yeung et al. 2001), more perceived negative spillover from work to family (Alexander & Baxter 2005) and a heightened sense of time pressure (Baxter et al. 2006).

Some studies, however, have found that fathers' work hours do not have a strong association with particular aspects of fathering. For example, Crouter et al. (1987) found that longer hours were associated with diminished leisure time between father and children in dual-earner families, but not single-earner families, and no associations were apparent for involvement in other aspects of child care.

According to Lamb et al. (1987), structural barriers to fathering, such as those that exist because of employment hours or working conditions, are less likely to determine levels of fathering than are some of the other characteristics, such as levels of motivation and support. Consistent with this, Baxter (2008) showed that the lower average levels of father involvement associated with longer paid work hours masked considerable variation within fathers working different hours. Significant proportions of fathers working very long hours reported relatively high levels of involvement with their children, and likewise the group of fathers working shorter hours included a sizeable proportion with relatively low levels of involvement. In Baxter's study, 'involvement' covered a range of dimensions of fathering, including frequency of shared activities between fathers and children.

Fathers who find themselves in a position of unemployment, or for other reasons are out of employment, may have more time to give to fathering responsibilities. However, these fathers may see themselves as being less successful as fathers, perhaps due to a perceived inability to fulfil the breadwinner role and, more generally, due to low self-esteem (Christiansen & Palkovitz 2001; Lupton & Barclay 1997; Marsiglio 1991). (This may also be relevant to fathers earning relatively low incomes.)

Mothers' paid employment may also necessitate (or be facilitated by) fathers being more involved with children, for example, by taking on some of the child care or domestic work (Bonney, Kelley & Levant 1999; Brayfield 1995; Bryant & Zick 1996; Crouter et al. 1987; Deutsch, Lussier, & Servis 1993; Jacobs & Kelley 2006; Kitterod & Pettersen 2006; McBride & Mills 1993; Roeters, van der Lippe & Kluwer 2009; Wang & Bianchi 2009).

Fathers' take-up of child care or domestic tasks does not, however, make up for the decline in time spent on such tasks by mothers who take up paid employment. Many studies have, in fact, reported very small or no differences in fathers' time spent in child care or domestic activities according to levels of maternal employment (for example, Bryant & Zick 1996; Marsiglio 1991; Pleck 1997; Sanderson & Sanders Thompson 2002). Several authors have noted that fathers' time with children or involvement in child care may not increase with mothers' work hours, as it is often other paid or unpaid child care workers or grandparents who take up such tasks when mothers are in employment (Amato & Rezac 1994; Cabrera et al. 2000; Flouri 2005).

Child characteristics

Differences in parenting of children, according to children's own characteristics, such as age, sex and temperament, have been noted in a range of studies, particularly those focused on the parenting behaviours of mothers and fathers (Parke 1996; Russell et al. 1998; Schoppe-Sullivan et al. 2006). However, it has also been noted that child characteristics tend to explain a much smaller proportion of the variability in fathering than do those parental characteristics discussed above (Verhoeven et al. 2007).

Children's age is particularly important to examine, as the nature of fathers' involvement is likely to vary with the developmental needs and stages of their children. Children's physical care needs will predominate when they are very young, but as they grow, their needs will increasingly be in the areas of social, emotional and cognitive development (Galinsky 1987). Additionally, particular parenting patterns may apply for fathers of infants, as compared to fathers of toddlers and then older children, in part because of the different roles that mothers play at different ages, especially being mindful of the likely strong attachment between mothers

and infants, for example, during breastfeeding. Fathers are less involved with infants than with toddlers, and less involved with these younger children than they are with children of school age (Brayfield 1995; Deutsch, Lussier & Servis 1993; Gaertner et al. 2007; Pleck 1997; Yeung et al. 2001).

The nature of the co-parental relationship also varies as children grow. For example, McHale et al. (2000) specifically focused on the toddler ages as a key age for co-parenting, given the child's increased independence and wilfulness, the increased input of the father, and possible post-baby declines in marital satisfaction. Stright and Bales (2003) also noted that co-parenting may be easier of 5 year-old children than of 3 year-old children, because at older ages children tend to have better self-regulation and more advanced cognitive skills.

There is also evidence that if fathers are involved when children are very young, they are also likely to have greater involvement as they grow (Aldous, Mulligan & Bjarnason 1998; Flouri & Buchanan 2003). It is valuable therefore to examine differences in fathering by age of child to look for cross-sectional differences in the nature of fathering, and also to consider how early levels of fathering are associated with later levels, taking a longitudinal perspective.

Sex of child is another key characteristic to consider. Some studies have reported higher levels of paternal involvement with sons (Marsiglio et al. 2000; Pleck 1997; Wood & Repetti 2004) and fathers using different parenting practices or styles with boys as compared to girls (Barnett et al. 2008; Parke 1996). The findings in these areas are not consistent, however (for example, Bronte-Tinkew et al. 2009; Bryant & Zick 1996; Cooksey & Craig 1998; Laflamme, Pomerleau & Malcuit 2002; Lindsey, Caldera & Colwell 2005; Palkovitz 1984). This may reflect that gender differences exist in only some dimensions of fathering, or that some gender differences may emerge as children grow (Yeung et al. 2001).

Several studies have examined how parenting varies with **child temperament**; that is, the innate characteristics of the child, measured on scales such as reactivity or emotionality, self-regulation and sociability (Putnam, Sanson & Rothbart, 2002; Sanson, Hemphill & Smart 2004). Much research has focused on children determined to have a 'difficult' temperament, as assessed on these or other scales. Difficult temperament is usually associated with weaker or more negative mother-child relationships, while sociability in children is associated with more positive parenting practices (see McBride, Schoppe & Rane 2002). However, almost all studies of child temperament and parenting refer to mothering, not fathering. McBride, Schoppe and Rane reported greater involvement of fathers with daughters when daughters had a more sociable temperament. However, Verhoeven et al. (2007) reported only small associations between child temperament and parenting styles for mothers and fathers, and similarly Mehall et al. (2009) found that child temperament did not uniquely predict father involvement, although some associations were apparent. Others have explored associations between child temperament and co-parenting—having more difficult children is generally associated with poorer co-parenting, although findings are not consistent across studies (see Davis et al. 2009; Lindsey, Caldera & Colwell 2005).³

Another variable that may be associated with different levels or types of father involvement is children's **physical health** (McNeill 2007; Reichman, Corman & Noonan 2004). For example, Parke and Beitel (1986) found that fathers of infants were more involved when they had a preterm baby, in response to the greater needs of the baby. More broadly, having a child with a disability may also make a difference to the nature of fathering (see Fletcher, Fairbairn & Pascoe 2004).

2.3 Summary

Fathering is likely to vary across very many circumstances. The LSAC study contains a very large range of information on many of the factors outlined above that can be explored in this report. In the next section, these factors are described, along with the different measures of fathering used.

3 Data and methods

3.1 Longitudinal Study of Australian Children

Growing Up in Australia: the Longitudinal Study of Australian Children (LSAC) is conducted in a partnership between the Department of Families, Housing, Community Services and Indigenous Affairs (FaHCSIA), the Australian Institute of Family Studies (AIFS) and the Australian Bureau of Statistics (ABS). The survey aims to examine the impact of Australia's unique social, economic and cultural environment on children growing up in today's world. The essential focus of LSAC is on children's lives and therefore the child is the primary sampling unit of interest.

The study follows two cohorts of children who were selected from across Australia. Children in the B cohort ('babies' at Wave 1) were born between March 2003 and February 2004, and children in the K cohort ('kindergarten' at Wave 1) were born between March 1999 and February 2000. To date, three main waves of the survey have been conducted—in 2004, 2006 and 2008.

The reports of differing respondents are sought in order to obtain information about the child's behaviour in differing contexts and to reduce the effects of respondent bias. Information is collected from the child (using physical measurement, cognitive testing and, depending upon the age of the child, interviewing), the parents who live with the child (biological, adoptive or step-parents), home-based and centre-based carers for preschool children who are regularly in non-parental care, and teachers (for school-aged children). From Wave 2, information is also obtained from parents who live apart from their child but who still have contact with the child.

The sampling frame for LSAC was created using the Health Insurance Commission's (HIC) Medicare database, a comprehensive database of Australia's population. Using the database, a stratified sample of postcodes was generated, a sample of children selected and their families invited to participate in the study. The final sample, comprising 54 per cent of these families, was broadly representative of Australian children (AIFS 2005). For a detailed description of the design of LSAC, see Soloff, Lawrence and Johnstone (2005) or Gray and Smart (2009).

As LSAC has been designed such that the study child is the main focus of the study, much of the fathering data refers to the fathering of that child. This does not give a complete picture of all of the fathering that fathers of the LSAC children may undertake, given their potential involvement with other children in the family. However, several items in LSAC capture broader information about fathers' co-parenting or involvement in child care tasks that go beyond the fathering of the LSAC child. Putting these two types of information together gives us a fuller perspective of fathering in Australian families.

For each family, parents are asked to nominate one parent as the 'primary carer'; that is, the parent who knows the most about the child. In most families, parents nominate the mother as the primary carer (see Table 1). This parent then provides the most extensive set of data about their child and about themselves, and also, on some items, about the other parent. Interview and self-complete questionnaires are used to collect this information. In couple families, the other parent is also asked to complete a questionnaire, which contains a large amount of information, particularly relating to parenting practices and different measures of wellbeing. Usually, the information provided by the second parent has been designed to correspond to similar information provided by the primary carer, such that mothers and fathers can be compared on those items that are common to each parent's survey.

Other instruments are used in the study, with the other main source for this report being the children's time use diary. At each interview, respondents are given diaries to complete about the child's activities on two pre-selected future days. These diaries include information about who was with the child, so they can be

used to analyse parental time with children or, more specifically, fathers’ time with children. More details about these diaries are given in Appendix B. The data are used primarily in Section 4, but are also referred to throughout the report.

Other LSAC data are introduced in Section 9 for exploring relationships between fathering and children’s outcomes. The LSAC Outcome Index is used for these analyses. The outcome index of children’s development is derived from different components of LSAC, including children’s scores on tests administered by interviewers, on parents’ reports of children’s development and behaviour, and teachers’ reports of children’s development.

As part of LSAC, information is also sought from non-resident parents when the child has a parent living apart from the child. These data have not been used in this report, given the focus on children living in couple families. While some of the children in these couple families have a parent living elsewhere, the analyses presented here focus on fathering within the family with whom they are living at the time of the survey.

3.2 Data preparation

Data from both the B and K cohorts are used in this report, incorporating information from the first three waves, and providing up to three points in time for each child in each cohort, resulting in six sets of data to use. At Wave 1, in each cohort, data on around 5,000 children are available. As is evident in the declining sample numbers across waves shown in Table 1, there has been some sample attrition from wave to wave. For the B cohort, as a proportion of the Wave 1 sample, 90 per cent responded at Wave 2 and 86 per cent at Wave 3. The equivalent figures for the K cohort were 90 per cent and 87 per cent. This attrition is further discussed in Section 3.3.

Table 1: Sample counts of families with fathers and father respondents

	B cohort			K cohort		
	0–1 year (Wave 1)	2–3 years (Wave 2)	4–5 years (Wave 3)	4–5 years (Wave 1)	6–7 years (Wave 2)	8–9 years (Wave 3)
Total families	5,107	4,606	4,386	4,983	4,464	4,331
% of Wave 1 sample	–	90.2	85.9	–	89.6	86.9
Exclude lone mothers, families not headed by parents, and same-sex couples	490	512	524	700	666	703
Exclude lone-father families	3	12	11	37	38	41
Total sample for analyses of fathers	4,614	4,082	3,851	4,246	3,760	3,587
Father primary carer	71	71	78	105	110	132
Mother primary carer	4,543	4,011	3,773	4,141	3,650	3,455
Self-complete data: fathers	3,687	3,132	2,731	3,370	2,952	2,632
% fathers’ self-complete response rate	79.9	76.7	70.9	79.4	78.5	73.4
Self-complete data: mothers	3,976	3,216	3,387	3,639	3,037	3,167
% mothers’ self-complete response rate	86.2	78.8	88.0	85.7	80.8	88.3

Notes: Self-complete response rates are shown as a percentage of responding eligible families. ‘–’=not applicable.

The analyses presented in this report focus on fathers in couple families and this subsection therefore introduces these data. Certain exclusions to the LSAC sample were applied for the analyses in this report. Table 1 shows, for each cohort/wave, the total number of families for which data are available, and then the

exclusions and subsequent sample numbers used in this report. Families were excluded from analyses if they were lone-mother families or if either or both ‘parent’ respondents were grandparents, aunts or uncles, or unrelated adults (although step-parents are included), as it was not valid to talk about the parenting of fathers compared to mothers in these families. For the same reason, same-sex couples were excluded. While an important group in their own right, lone fathers were excluded because of their very small numbers. Families including step-parents, foster and adoptive parents are included. Table 1 shows the number of eligible families is highest for the B cohort at Wave 1 (4,614) and lowest for the K cohort at Wave 3 (3,587).

Some data about fathering and comparative data about mothering are sourced from the primary carer interview, which was most often conducted with the mother. Certain sociodemographic characteristics of both parents (for example, age, education level, country of birth, employment characteristics) are also collected in the primary carers’ interview.

Much of the analyses presented in the report are based on the self-complete questionnaires, for which the sample numbers are smaller (see Table 1).⁴ In the next subsection, we discuss the ways in which the self-complete data may not be representative of certain families.

3.3 Selection and attrition

Fathers’ response rates to the self-complete questionnaire were around 70 to 80 per cent, varying over the waves and cohorts. To examine whether there was some bias associated with fathers completing this questionnaire, multivariate analyses were used to predict the likelihood of completing the questionnaire, given a range of social and demographic characteristics. These characteristics were measured at the interview, so for most families were reported by the mother. Full results are shown in Appendix Table A1.

The analyses indicated that there were lower self-complete rates for fathers who mainly speak a non-English language; fathers with larger families; families reported to be financially just getting along, poor or very poor; families in which the mother worked full-time hours (35 hours or more) rather than being not employed; and fathers working longer hours (55 hours or more per week). There were higher self-complete rates for fathers who were primary carers; fathers of boys only rather than of girls only or mixed-sex families; married fathers (rather than cohabiting); older fathers; and fathers with a bachelor degree or higher. To consider whether more ‘involved’ fathers might be more likely to complete the questionnaire, the mothers’ reports on the degree of fairness in the division of child care responsibilities were included in an expanded model. These results showed that, as mothers’ perceptions shifted towards ‘unfair’ (that she did more than her share), fathers were less likely to complete the questionnaire, suggesting that less involved fathers had lower response rates. Mothers’ reported relationship quality was also added to this model, and showed that fathers had a higher self-complete rate when mothers reported better relationship quality. These analyses also showed differences across the cohorts/waves. Self-complete rates for fathers were highest at Wave 1, for both cohorts.⁵

To determine whether certain characteristics explained a higher attrition rate across waves, similar analyses were conducted on the likelihood of fathers returning self-complete questionnaires at Waves 2 and 3, given they completed one in Wave 1. Characteristics at Wave 1 were used to analyse responses at Waves 2 and 3. Appendix Table A2 presents the full results. The main findings are summarised here.

Higher attrition rates were apparent for older and non-English speaking fathers, those with larger families, and those in families reported to be just getting along, poor or very poor when asked about their financial situation (significant for Wave 2 only). Higher attrition was also apparent for fathers who were not employed or were working part-time at Wave 1, and also for fathers who worked longer hours (55 hours or more per week). Fathers who were married and who had higher self-reported relationship quality at Wave 1 were most likely to remain in the survey at Waves 2 and 3, as were more highly educated fathers, and fathers in families with a more highly educated mother. The analyses incorporated information on whether fathers who were more ‘involved’ at Wave 1 were more likely to remain in the survey (and complete the self-complete questionnaire) at later waves. The mother-reported item (described above) on the fairness of division of child care tasks was used, but these results did not show differences in attrition according to this measure.

In summary, there is some bias in the responding sample in each of the samples and it is important to be mindful of this when drawing conclusions from the results and generalising to the wider population. The multivariate analyses presented throughout the report take into account the same set of sociodemographic variables used in these analyses, which helps to address this to some extent.

3.4 Fathering measures

The specific measures of fathering are discussed in the relevant sections of this report, but Table 2 provides a summary of these measures, and in which sections they are covered. Sections 7 and 9 are not mentioned in this table as they make use of the measures of fathering introduced in Sections 4 to 6 and 8.

Table 2: Overview of fathering measures

Measure	Source	Availability
Section 4: Fathers' time with children (LSAC-child-specific)		
Father-child time and father-only child time	Time use diaries: time children are awake and with their father, or with their father alone	Children's time use diaries, all cohorts/waves
Father provides care	Primary carer interview: whether and for how long partner provides care to child	Primary carer interview, all cohorts/waves except K cohort at Wave 3
Fathers' involvement in play-type activities	Non-primary carers' self-complete questionnaire	Wave 1 K cohort only
Fathers' involvement in personal care activities and in social and educational activities	Parental self-complete questionnaire	Both cohorts, Wave 2 and 3 only; items vary
Section 5: Sharing of domestic work and co-parenting (broader fathering)		
Time spent on child care and on other domestic work	Parental self-complete questionnaire	Both cohorts, Waves 2 and 3
Fairness of sharing of child care and of domestic work	Parental self-complete questionnaire	Both cohorts, all waves
Provision of support in child rearing to partner, and receipt of support from partner	Parental self-complete questionnaire	Both cohorts, Waves 1 and 3
Whether partner understands your needs as a parent	Parental self-complete questionnaire	Both cohorts, Waves 1 and 3
Extent of disagreements about child rearing	Parental self-complete questionnaire	Both cohorts, all waves
Section 6: Parenting styles and behaviours (LSAC-child-specific)		
Fathers' parenting styles (warmth, angry/hostile parenting, inductive reasoning, consistency, overprotection)	Derived from parenting items collected in parental self-complete questionnaire	All cohorts/waves, although items and scales vary
Section 8: Parenting self-efficacy (broader fathering)		
Fathers' self-reported parenting self-efficacy	Parental self-complete questionnaire	Both cohorts, all waves

Note: Equivalent items for mothers are also derived and incorporated into the analyses.

3.5 Explanatory variables and sample characteristics

As guided by the literature summarised in Section 2, a set of variables was selected for use throughout the report to examine their associations with different aspects of fathering. The characteristics used vary depending upon which measure of fathering is used (see Table 2 for the different measures), although a common set of characteristics are used across all analyses, such as fathers' level of education and hours of paid employment. See Table 3 for the full list of these core variables.

When the measure of fathering related specifically to the LSAC study child (such as the time children spend with their father, and the activities fathers do with their child), the child's characteristics (for example, sex and temperament) were added to this core set. See Table 4 for details.

When the focus was on broader aspects of fathering (for example, the co-parenting items on the degree to which parents support each other in child rearing), it was not appropriate to examine child-specific characteristics, so family-level characteristics were created and used. See Table 5 for these broader family-level measures.

These characteristics were captured at each wave for both cohorts, so changes in any characteristics, such as changes in working hours or the birth of additional children, are reflected in these variables. Summary statistics for these measures, including the sample distributions across cohorts and waves, are given in Appendix D.

LSAC contains a vast amount of detail about parents, families and children, and at times this meant there were a number of options when selecting appropriate explanatory variables. We are aware that various other explanatory factors could have been included in the analyses and some we have included could be expanded upon or classified in a different way. This, of course, leaves room for further analyses of these data. As far as possible, indicators were selected for their relevance to the topic of fathering, their ease of interpretation, and also for the completeness of data (that is, to minimise missing data). Tables 3 to 5 include remarks to highlight specific issues relating to each item selected. Additional comments are given in Appendix C to further explain the choice of selected measures and the exclusion of others.

Table 3: Explanatory variables

Variable name	Classification	Remarks
Fathers' characteristics		
Fathers' usual weekly work hours	0 hours 1–34 hours (35–44 hours; reference) 45–54 hours 55 hours or more	Zero hours includes unemployed, not in the labour force, and those employed but on long-term leave
Fathers' main language spoken at home	Not English (English; reference)	
Fathers' Indigenous status	Indigenous father (Non-Indigenous father; reference)	Indigenous includes Aboriginal and Torres Strait Islanders
Age of father	Years; treated as continuous	
Mental health	From 1 to 5; treated as continuous	Based on K6 assessment of mental health (Kessler et al. 2002) (6 items, scored from 0 to 4)—scores averaged and rescaled, so higher scores represent better mental health
Marital status of father	(Married; reference) Cohabiting	Lone fathers are excluded
Father has other children living elsewhere	Yes (No; reference)	Derived from questions, asked of all fathers, on the number of children they have living elsewhere
Fathers' education level	Bachelor degree or higher Complete secondary or certificate/diploma (Incomplete secondary education only; reference)	
Fathers' perception of relationship quality	From 1 to 7; treated as continuous	Self-report in response to: 'Which best describes the degree of happiness, all things considered, in your relationship?'—measured on a scale from 1=extremely unhappy to 7=perfectly happy
Mothers' characteristics		
Mothers' usual weekly work hours	(0 hours; reference) 1–34 hours 35 or more hours	Zero hours includes unemployed, not in the labour force, and those employed but on long-term leave (including maternity or parental leave)
Mothers' education level	Bachelor degree or higher (Education level lower than bachelor degree; reference)	The classification for mothers is simpler than for fathers only because of the focus on fathers in this report
Parent-reported financial wellbeing	Family is just getting along, poor or very poor (Family is reasonably or very comfortable, or prosperous; reference)	Collected from the primary carer, through the question: 'Given your current needs and financial responsibilities, how would you say you and your family are getting on?'—other categories were 'prosperous', 'very comfortable' and 'reasonably comfortable' (see report text for more discussion about financial wellbeing and income)

Note: In the classification column, the reference category for multivariate analyses is shown in parentheses.

Table 4: Explanatory variables: child-specific fathering

Family and child characteristics	Classification	Notes
Relationship of father to child	(Biological father; reference) Stepfather	Biological father includes a very small number of adoptive fathers, stepfather includes a very small number of foster fathers
Child's poorer physical health	1 to 5; treated as continuous	1=excellent to 5=poor, as reported by parent in response to: 'In general, how would you say <child>'s current health is?'
Family structure (included as 2 variables)	Number of younger siblings; treated as continuous Number of older siblings; treated as continuous	Other approaches were tested—capturing numbers of children, for example—but this proved the most reliable, and captured some sense of presence of siblings as well as the ages of siblings
Sex of child	Boy (Girl; reference)	
Child temperament: sociability	1 to 6 (1 to 5 for 8–9 year olds); treated as continuous	Child temperament questions varied across surveys, to reflect the use of different, developmentally appropriate measures as children grew—these were designed to measure the same construct, even if the underlying items differed (McClowry 1995; Pedlow et al. 1993; Sanson et al. 1987); based on primary carer report
Child temperament: reactivity	1 to 6 (1 to 5 for 8–9 year olds); treated as continuous	See above comment and citations; for the B cohort at Wave 1 (when aged 0 to 1 years), 'reactivity' was not measured; instead, at this age, the 'irritability' scale, which has close parallels with reactivity, is used; based on primary carer report

Note: In the classification column, the reference category for multivariate analyses is shown in parentheses.

Table 5: Explanatory variables: broad fathering

Family and child characteristics	Classification	Notes
Fathers' relationship to all children in household	(Biological only; reference) Blended Step only or other	Derived from household-level data, incorporating relationship between father and any children in household—biological only includes adopted children; blended families are those including biological (or adopted) children, as well as others
Number of children living in family	1 to 12; treated as continuous	Refers to children aged under 15 years
Sex composition of family	(Boys only; reference) Girls only Mixture	Derived from household data, based on children aged 15 years and under in household

Note: In the classification column, the reference category for multivariate analyses is shown in parentheses.

3.6 Statistical methods: overview

This subsection summarises the methods used to analyse the LSAC data in this report. The following subsection explains the multivariate techniques in more detail.

In many analyses, the data from the two cohorts and the three waves are combined, or ‘pooled’. This allows for an exploration of differences across the ages of children, both within and across cohorts. The pooled data give results for fathers of children aged 0 to 1 years through to 8 to 9 years, in two-year intervals, with data at age 4 to 5 years available from both Wave 1 of the K cohort and Wave 3 of the B cohort.

In combining these data in this way, there are some issues further to those related to attrition and respondent bias that were discussed above. At Wave 1, some differences were found in the characteristics of the two cohorts; for example, with some underrepresentation of migrant families in the B cohort (see Appendix Table D1). These differences have flowed through to later waves for this cohort. Changes to questionnaire or survey design across waves have also contributed to differences in responses. Where such changes are relevant to the data reported here, they are highlighted in those sections. Also, differences across the waves may reflect different behaviours of parents due to broad secular changes, such as changes in the economy.

Some analyses in the report focus on the data from a longitudinal perspective, to examine how fathering changes at the individual level, from one wave to another. These analyses are based on those who responded to two or more waves of LSAC, and reported on the items being analysed.⁶ For these analyses, steps were taken to ensure the ‘father’ record in each wave corresponded to the same person, as did the ‘mother’ record.

Sample weights have been used in the tabulation of data throughout the report. These weights adjust estimates to take into account the children’s probability of selection into the sample, as well as some aspects of response bias, but do not adjust for non-response to particular survey instruments or items (LSAC Project Operations Team 2009).

As appropriate, statistical tests have been used to assess the level of significance in differences across groups or to assess correlations between variables. Unweighted data were used in conducting these tests. Chi-square tests were used to compare distributions across groups. *T*-tests were used to compare two means, using paired *t*-tests to compare the means across two groups. Analysis of variance (ANOVA) was used to assess whether means varied across more than two groups. Post-hoc (Scheffé) tests were used to identify which of these means differed. Table notes indicate when these statistical tests were used.

Multivariate techniques were used to explore how the various explanatory variables are associated with the fathering measures. These methods are described in the following subsection. The results of multivariate analyses are discussed for findings that reach a significance level of at least 5 per cent (that is, $p < 0.05$).

3.7 Methods: multivariate approach

The multivariate analyses are all based on unweighted data, using linear regression estimations.⁷

When only the data from one wave are being analysed—that is, when there is only one observation per respondent—ordinary least squares (OLS) estimation was used. From these analyses, the coefficients allow the reader to observe associations between fathers’ characteristics and the particular measure of fathering, after taking into account other factors that might be associated with fathering. It is important to note that these are associations, and cannot be used to make statements about causality. For example, many analyses show that fathers with better relationship quality are more involved as fathers. This is not the same as saying that having a better relationship **leads to** more involved fathering, as there may be some other unmeasured characteristic that explains the better relationship quality and the more involved fathering, or a reciprocal relationship between these two dimensions.

When there is more than one record per person—that is, when data from two or three waves are combined—the records are no longer independent, and this needs to be taken into account.⁸ Random effects (RE) models are used for this purpose, as these models allow us to examine how different dimensions of fathering vary with the set of parental, family and child characteristics outlined in Section 3.5. The coefficients in these models, like the OLS models described above, represent the amount of change in the dependent variable associated with the presence of a particular characteristic, but because they are derived from multiple records per person, they represent both differences across respondents (at any wave) and differences within respondents (across waves). Some characteristics do not change at all across waves (such as sex of the child), while some change considerably (for example, fathers' age), or have the potential to change a great deal (for example, parents' work hours). For those variables that may change across waves, the estimated coefficient will reflect these changes among individuals as well as between individuals. As is the case for OLS models, the coefficients cannot be used to draw conclusions about causal relationships. They instead are used to describe associations between variables.

For these models, in addition to the estimated coefficients, model statistics have been given: the size of the sample included in the analyses, the number of children this relates to, the overall *R*-squared value, and rho (ρ), which is equal to the proportion of total variance contributed by the child-level variance. The *R*-squared value gives an estimate of the amount of overall variance explained by the model. Rho is an indication of the importance of taking into account the fact that multiple records from individual children are included in the analyses.

In these multivariate analyses, categorical variables are entered using dummy variables. The reference categories for these variables are shown in Tables 3 to 5. Continuous variables were 'centred' before including them in the models; that is, their values were changed to reflect their difference from the overall sample mean instead of their absolute value. This is done to give the constant term more substantive meaning. For example, if absolute values were used instead, the constant term would reflect the impossible situation in which fathers were aged 0 years and scored 0 on relationship happiness and mental health. By centring the variables, the constant term instead reflects the situation in which fathers' age, relationship happiness and mental health were at their mean value. These adjustments do not alter the coefficients on the explanatory variables. This applies to fathers' age (centred at 35.1 years), fathers' mental health (centred at 4.5), relationship quality (5.4), child health (1.5), child's temperament: reactivity (2.6), and child's temperament: sociability (3.9). The children's time use models also include a control variable to capture the amount of minutes for which there was no information about who the child was with—this was centred at 14 minutes.

Another approach to the analyses of data where there is more than one period of data from one person (that is, panel data) is the estimation of fixed effects (FE) models. These models are useful for analysing how a change in some characteristic (for example, hours worked) is associated with a change in an aspect of fathering. The models cannot be used for characteristics that do not change (such as sex of child or country of birth), and so are not suitable for the majority of our analyses, in which we wish to explore associations between a range of variables and fathering. However, we use this approach in Section 7, to explore how changes in work hours of mothers or fathers are associated with changes in fathering. As described above, continuous variables were also centred at their sample means.

When data from multiple waves of LSAC are combined, differences across the cohorts/wave are captured through the inclusion of variables indicating from which cohort/wave the response comes. This allows for some assessment of how fathering changes over the waves and cohorts, although these changes are not always interpreted, as the primary purpose of the multivariate analyses is to examine how fathering varies with other family or child characteristics. Note that these multivariate analyses are not estimated separately by cohort/wave, and this is a possible future direction for these analyses—to explore whether associations between characteristics and fathering change or develop as children grow.

4 Fathers' time with children

One important way in which fathers contribute to their children's development is through investing in spending time with them. During this time, they share in children's activities, talk with them, teach them and develop relationships with them. This section explores some of these dimensions of fathering, with a focus on time—the time fathers spend with children, and what fathers do with children during their time together. This dimension of fathering is an important one to explore, given that fathers and children view time together as an important part of the father–child relationship (Daly 1996; Hand & Lewis 2002; Pocock & Clarke 2005; Russell et al. 1999; Sanderson & Sanders Thompson 2002). A single measure of time spent with children, on its own, does not shed sufficient light on the quality of fathering (Dermott 2005). However, time spent together provides the potential for interactions and the development of relationships. Here, we begin with a simple measure of time, but then expand that to incorporate what the children's time use data tell us about the time shared with their father, and to analyse the types of activities fathers report doing with their children. These aspects then begin to capture different qualities of the shared time between fathers and children.

First, the LSAC children's time use data are used to analyse fathers' time with children (with comparisons to mothers' time with children). Fathers' self-reported information on involvement in play activities with 4 to 5 year-old children is then analysed. Then, mothers' and fathers' self-reported involvement in personal care, social and educational activities is analysed. All these measures of fathers' time with children are then analysed together to examine how various parental, family and child characteristics explain variation in these measures.

Prior research indicates that fathers spend less time with children than do mothers, primarily due to fathers spending more time in the paid labour market. Also, fathers' time with children is qualitatively different to mothers' time with children, with fathers spending proportionately less of their time than mothers on the task-oriented jobs associated with the physical care of children (Craig 2002, 2006; Laflamme, Pomerleau & Malcuit 2002; Lamb 1997; Robinson & Bianchi 1997). As discussed earlier, father involvement is likely to vary with a range of parental and family characteristics, which are explored later in this section.

4.1 Quantity of children's time with their father

As discussed in Section 2, a common means of exploring father involvement is to examine the total amount of time that fathers spend with children. This section uses the children's time use diaries to examine, on average, how much time children spend with their fathers. This is a measure of co-presence, and does not attempt to capture the quality of time fathers spend with children. As noted in Box 1, the time is limited to times children are awake, and this helps in focusing the analyses on the times when there is potential for fathers and children to interact. Also, we include analyses of what children were doing during the father–child time (and compared to mother–child time) to gain some insight into this. See Box 1 for a description of the data used in this section.

Note that this measure of time use does not reflect the amount of time fathers spend with **all** children in the family, as the data only reflect the time use of one child in the family—the LSAC study child.

By way of comparison, we have included information on how much time children spend with their mother. The mother–child and father–child data have also been used to derive the amount of time children spend with their mother without their father, and their father without their mother. Further, these can be compared to the total time children are awake. This is necessary because calculations of mother–child and father–child time cover only those times children are awake, thus some of the apparent increase in parents' time with children is due to the children spending more time awake as they grow older.

Box 1: Time use diaries

Information about the LSAC children's time use diaries is provided in Appendix B. The analyses are based on those children for whom two diaries were available—one weekday and one weekend day. The focus is on time use information about who children were with during the day,* using derived measures of time spent with father (and mother), and information about what children were doing while with either parent.

The children's activity data were first used to distinguish between asleep and awake times. The 'who with' data were then only analysed during those times children were awake, in order to exclude the situation in which children were reported to be with parents all night, perhaps reflecting the supervisory nature of parenting even when everyone is asleep.** As it is not possible to separate out times parents are awake from the time they are asleep, it is simpler to do this using the children's activity data.

Estimates of total time with father (or with mother, or others) were derived by summing the number of 15-minute intervals the child was reported to be with their father. One estimate was derived for a weekday and one for a weekend day, and these were combined to generate an average day figure using the LSAC diary weights (which adjust for day of week). Weekdays are effectively given a weight of 5 and weekends a weight of 2. This 'average day' estimate does not allow for comparisons of weekend days to weekdays, but provides a simpler means of analysing how fathers' time with their child varies over age and other characteristics.

Children's activity details were further analysed to explore what children were doing while with their father. Appendix B provides detailed information about how this was completed, as the activity details collected across cohorts/waves varied and were therefore converted into a broad classification that could be compared across cohorts/waves. The final classification is shown in Table 8.

* 'Who was with the child' was defined as who was in the same room as the child, or nearby if outside.

** Across all cohorts/waves, between 10 pm and 6 am, around 30 per cent of children are recorded as being with their mother and 23 per cent with their father. This co-presence can reflect co-sleeping patterns of parents and children. However, a US study estimated the rate of regular parent–infant co-sleeping was about 13 per cent in 2000 (Willinger et al. 2003), so these figures of up to 30 per cent, including older children, appear too high to entirely represent co-sleeping behaviours.

Table 6 shows the average amount time children spent with their father. Across the cohorts/waves, this varied from a low of 247 minutes per day (at 6 to 7 years, K cohort) up to 281 minutes per day (4 to 5 years, B cohort). That is, children spent, on average, 4 to 5 hours per day with their father. This time appears to have been greatest for children at 2 to 3 years and 4 to 5 years. Much of this time was spent also in the presence of the child's mother. Examination of the number of minutes the child spent with the father alone—defined as being with the father without the mother also being present—reveals that father-only time was lowest for children aged 0 to 1 years, then remained just below one hour per day for children of other ages.

Table 6: Children's time with parents while awake, by cohort and age, minutes per day

	B cohort			K cohort		
	0–1 year	2–3 years	4–5 years	4–5 years	6–7 years	8–9 years
	Minutes per day (SD)					
Father–child time total	260 (146)	275 (145)	281 (149)	272 (152)	247 (139)	260 (151)
Father-only child time	38 (61)	57 (76)	57 (81)	59 (76)	57 (73)	55 (73)
Mother–child time total	517 (141)	510 (167)	486 (170)	470 (174)	377 (152)	389 (160)
Mother-only child time	294 (149)	291 (167)	263 (168)	258 (160)	187 (130)	183 (139)
Total parent–child time	554 (131)	567 (154)	544 (158)	530 (163)	434 (144)	443 (158)
With other adults	38 (91)	110 (149)	174 (149)	156 (139)	255 (128)	251 (141)
Alone or with other children only	22 (39)	49 (73)	49 (75)	75 (99)	96 (104)	105 (122)
Awake total	626 (106)	738 (77)	779 (63)	775 (67)	804 (60)	818 (61)
Number of children	2,787	2,527	2,197	2,144	2,151	1,903

Notes: SD=standard deviation. Total of parent–child time, time with other adults and time alone or with other children does not quite add to the total time awake, as total awake time includes a small amount (less than 20 minutes per day) of missing 'who with' data, which has not been shown (see Box 1).

Source: Children's time use diaries.

The amount of children's time with their mother was considerably higher than with their father. In particular, children spent noticeably more time with only their mother than they did with only their father. This is consistent with analyses of adults' time use, which reveal the same patterns of time use (Craig 2006; Folbre et al. 2005). These patterns are not surprising given the differences between mothers and fathers in the time they devote to the paid labour market.

As children grow, not only do they spend more time awake, they spend more time without their parents, as shown in the lesser amounts of time with either parent and the increases in time with other adults, as well as alone or with other children. This is related largely to increases in children's participation in early education and then in school.

Table 6 shows that children spent little time alone with their father compared to the time they spent alone with their mother. Arguably, it is this time alone with fathers that has the potential to free up mothers to pursue other activities, whether they be work—paid or unpaid—or recreation or leisure. Given that children's time with fathers was usually when mothers were also present, these data suggest that fathering does not often involve taking on the sole care of children. To examine this more closely, we can make use of some LSAC data provided by mothers on whether or not the father looked after the child on his own at all, and if so, for how long. See Box 2 for details. Note that this question prompts mothers to exclude 'casual sharing of care that parents do for each other' and may therefore underrepresent the caring done by fathers, to the extent that it is seen as a routine part of family life.

Box 2: Questions about father providing care

In the interview, the primary carer is asked:

- Are there any regular times during the week when <your partner> takes care of <child> while you are not there (for example, when you go to work or do the shopping)? (Not just casual sharing of care that parents do for each other.)

Usually the mother answers this question. If she answers ‘yes’, she is then asked to estimate for how long, in a week, this care is for.

Table 7 shows that around half the children in each cohort/wave were regularly cared for by their father at some time during the week. For children who received such care, the average duration varied from lows of 66 or 69 minutes per day (at ages 6 to 7 and 0 to 1 years respectively) to a high of 75 minutes per day at 4 to 5 years.

Table 7: Father regularly cares for LSAC child, percentage and duration, mother-reported data

	B cohort			K cohort	
	0–1 year	2–3 years	4–5 years	4–5 years	6–7 years
	Percentage				
Fathers providing some care	43.9	45.2	47.9	52.1	46.3
	Minutes per day (SD)				
Mean time fathers provide care, of those who provide care	69.0 (78.6)	72.6 (76.1)	75.5 (73.9)	75.2 (77.4)	65.7 (63.9)
Mean time fathers provide care, over all fathers	30.1 (62.2)	32.8 (62.6)	36.1 (63.5)	38.9 (67.2)	30.4 (54.4)
Number of children	4,536	4,011	3,772	4,134	3,650

Notes: Mothers gave estimates for a week, which were converted to daily minutes to allow comparisons with the children’s time use data. SD=standard deviation. Includes all cohorts/waves except at 8 to 9 years old.

Source: Primary carer interviews.

In summary, these time use patterns show very great differences in the amounts of time children spent with mothers compared to fathers. However, the amount of time children spent with fathers, on average, was not insignificant. Children spent around 270 minutes per day with their fathers (the exact amount varying over the cohorts/waves), which equates to more than 30 hours per week. Clearly this provided considerable potential for fathers to interact and develop relationships with children.

The nature of the time children spent with their fathers was different to time with mothers since children spent much more time alone with mothers compared to fathers. Children were more often with fathers during ‘family time’, such that both mother and father were present. While this may suggest that fathers were not necessarily taking sole responsibility for much of the child care, it does mean children spent a significant amount of time in the family environment. As discussed by Folbre et al. (2005), having two parents present can be positive because it means parents can share the duties of child care so they may be less stressed, and children can learn from observing the interactions between their parents.

Time with parents changes as children grow, as children become more independent and spend more time away from their parent. This change is much more apparent for children’s time with their mother than for time with their father, given the greater amounts of time spent with mothers when children are very young.

4.2 Children's activities while with their father

This subsection examines the activities children were doing during shared father–child and mother–child times, also using the children's time use diaries. While these data do not allow us to determine whether a parent was directly involved with a child's activity when present in the same room, these activities give some idea of the nature of this shared parent–child time.

As noted in Box 1, the activity classifications in the diaries changed somewhat over the waves to capture more age-appropriate activities as children grew older. Changes were also introduced in Waves 2 and 3 to improve the coding framework. Within these constraints, it was still possible to broadly classify children's activities from each survey, although some differences across waves reflect changes in the underlying coding framework (see Appendix B for more detail). The activity categories are not mutually exclusive, as children could be reported to be involved in several activities at the same time. As a result, when time is allocated to each activity group, the distribution of these activities over the day adds to more than 100 per cent.

Table 8 shows children's activities during their awake time by cohort/wave, in total, and over the times they were with their father and the times they were with their mother. The first column shows the total amount of time children were awake, in total, and with their parents. The other columns then show how this time was distributed over the activities. For example, of the 626 minutes during which 0 to 1 year olds were awake, 30 per cent was spent eating or drinking. A comparison of the activities by cohort/wave show, in particular, that the activities of the 0 to 1 year olds were quite different to those of older children.

Table 8: Distribution of children’s activities over their time awake and time with father and with mother

	Total time awake (minutes per day)	Eating and drinking (incl. being fed, breastfeeding)	Personal care (bathing and grooming)	Watching TV	Reading or being read to (talked to, sung to)	Playing	Social or organised activities and school	Doing jobs and being taught to read	Travel and taken places (incl. walking, riding etc, for fun)	Being hugged or cuddled	Other activities
		Percentage of total time awake									
Total time awake											
0–1 year	626	30.3	15.3	5.6	15.7	41.9	11.1	–	20.0	23.7	5.7
2–3 years	738	16.7	7.7	12.8	5.1	32.0	20.3	1.8	14.6	6.6	4.7
4–5 years (B)	778	14.5	7.3	13.0	7.0	30.0	25.0	2.2	12.6	3.9	3.5
4–5 years (K)	774	16.9	8.3	16.5	9.9	23.4	34.8	2.6	18.0	5.7	2.8
6–7 years	804	12.4	6.6	11.5	5.0	20.5	26.5	2.5	11.6	2.3	2.9
8–9 years	818	12.2	6.4	12.7	4.5	20.7	26.5	3.2	11.6	1.4	3.1
Awake and with father											
0–1 year	259	27.8	14.1	5.2	14.3	37.2	6.5	–	13.8	21.6	4.5
2–3 years	274	20.9	9.6	12.8	6.2	32.1	12.5	1.7	13.6	7.6	4.5
4–5 years (B)	280	19.6	9.7	15.0	8.8	31.3	13.0	2.3	12.5	5.1	4.0
4–5 years (K)	270	21.3	9.7	17.0	11.1	24.1	20.3	2.5	18.1	6.6	2.8
6–7 years	246	20.6	8.0	15.9	6.8	24.5	15.7	3.5	14.0	3.5	3.4
8–9 years	259	19.7	7.8	19.1	5.2	22.2	15.7	4.6	13.2	1.9	3.4
Awake and with mother											
0–1 year	515	27.8	13.6	5.0	14.5	36.8	7.3	–	16.5	20.1	4.3
2–3 years	506	19.6	8.9	13.7	5.5	32.9	13.8	2.0	16.1	7.3	4.1
4–5 years (B)	482	18.5	9.1	15.0	8.2	32.1	14.1	2.5	14.8	4.7	3.5
4–5 years (K)	469	20.2	9.7	17.4	10.9	23.3	20.8	2.9	20.5	6.2	2.6
6–7 years	376	20.0	9.1	15.2	6.8	23.0	15.8	3.7	16.2	3.7	3.2
8–9 years	386	19.1	8.4	17.5	5.4	22.2	15.5	4.8	15.8	2.1	3.3

Notes: See Appendix B for a listing of how activities were grouped to form this classification. Percentages do not add to 100 per cent as children can be doing any number of activities simultaneously. ‘Other’ includes a range of activities, such as crying, destroying things, awake in bed. Excludes cases with incomplete data (see Box 1). ‘–’=not applicable.
 Source: Children’s time use diaries.

The distribution of children's activities for those times they were with their fathers can be compared to the time they were with mothers. This allows us to examine whether fathers and mothers tended to be with children during different activities. The data reveal remarkable similarity for time with mothers and fathers in these distributions, despite the large difference in the amounts of time children spent with each parent (as Baxter, 2010, found in the analyses of these data for 4 to 5 year olds). The largest amounts of time were for eating (which include meal times together), play and social activities, and travel and being taken places. Clearly, fathers were not just present for playtime, being also with children, for example, for their personal care activities (bathing, grooming) and while they were travelling.

These results are somewhat surprising, given that research on parents' time use generally finds that fathers and mothers spend time with children in quite different ways. Mothers are usually reported to undertake more of the child care work associated with primary care tasks, and fathers more likely to be playing with, talking to or reading to their children in their time together (Craig 2002, 2006; Lamb 1997; Starrels 1994). However, these adult time use data are very different from the children's time use data in a number of respects. A limitation of the LSAC data is that they show co-presence but do not provide information on who (if anyone) was interacting with the child at the time. On the other hand, the reported adult time use data may include only those times parents are undertaking child care as a main or secondary activity, therefore missing out on the substantial amount of time in which parents are passively caring for children, but reporting their activity as something other than child care (Folbre et al. 2005). These factors will contribute to differences between the children's and adults' time use results.

These children's time use data show that fathers are at least present for a range of children's activities, providing opportunities for engagement and involvement in more than just the 'fun' parts of the day. Other studies of children's time use have also shown fathers' presence across a range of children's activities (Bryant & Zick 1996; Gauthier et al. 2004; Nock & Kingston 1988).

4.3 Fathers' participation in children's play

Fathers' participation in play-type activities, or 'fun' activities, is one measure of fathers' engagement with children and is a dimension of fathering that is most tangible to children (Dermott 2005; Kazura 2000; Russell et al. 1999). Playtime provides an important context for the development of the father-child relationship, especially in the young toddler to preschool years (Parke 1996). During children's play, mothers and fathers tend to interact with and respond to children in different ways, such that each parent uniquely contributes to children's development (Grossmann et al. 2002; Kazura 2000; Laflamme, Pomerleau & Malcuit 2002; Roggman et al. 2004; Tamis-LeMonda 2004).

This subsection examines fathers' involvement in play-related activities. In Wave 1 of LSAC, for the 4 to 5 year-old children, details were collected of how frequently fathers engaged in different activities with their child, including reading to them, and playing inside or outside games with them. Exploration of fathers' involvement in such activities is only possible at this age, as in all other waves, and in the infant cohort, questions have instead been asked about **any** adult's participation in children's play-type activities. As these cannot be used to focus on fathering they have not been explored in this report.

A significant focus in the literature of fathers' play with children relates to the 'rough and tumble' or 'rough-housing' aspect of play that is associated with fathers more so than mothers (Paquette 2004). This issue cannot be examined with the LSAC data as no information has been collected on parents' engagement in this type of play.

Box 3: Fathers’ play-type activities with 4 to 5 year olds

These data were collected at Wave 1 only. In the self-complete questionnaire, fathers were asked: ‘In the past week, on how many days have you personally done the following activities with the study child?:

- ▶ read to this child from a book
- ▶ told this child a story, not from a book
- ▶ played with toys or games indoors, like board or card games, with this child
- ▶ played a game outdoors or exercised together, like walking, swimming, cycling
- ▶ involved this child in everyday activities at home, such as cooking or caring for pets**

The response categories were: none, 1 or 2 days, 3 to 5 days and every day (6 or 7 days).

* The last item is not primarily ‘play’, but has been included in this subsection given that these everyday activities can provide contexts for fun interactions between parents and children.

Table 9 shows that the most commonly occurring activities were playing outdoor games and reading a story, with 14 per cent and 12 per cent respectively reporting doing so on six or seven days of the past week. However, more fathers reported that they had not done this at all in the previous week, and the most common response was to have done these—or any of the activities—on one or two days of the week.

To explore whether fathers were involved in **any** activity, these data were aggregated, as shown in Table 9. Fewer than 2 per cent of fathers did none of these activities with their child on any day in the previous week. Around one-quarter did at least one activity on one or two days, 45 per cent did at least one on three to five days and 29 per cent did something on six or seven days per week. Thus, almost three-quarters of fathers shared an activity with their children on three or more days per week.

Table 9: Frequency of fathers’ involvement in play activities with 4 to 5 year-old children in the previous week

	No days	1 or 2 days	3 to 5 days	6 or 7 days	Total
	%				
Read to child from a book	22.2	39.1	26.8	11.9	100.0
Told child a story	44.9	40.3	11.6	3.3	100.0
Played indoor games	19.8	45.7	27.3	7.1	100.0
Played outdoor games	19.5	38.4	28.3	13.8	100.0
Involved child in everyday activities	13.4	49.9	29.1	7.6	100.0
Any of these activities	1.7	24.4	44.9	29.1	100.0

Note: n=3,376 fathers. ‘Any of these activities’ was derived as the maximum frequency reported across all the activities.
 Source: Fathers’ self-complete questionnaire, Wave 1 K cohort.

There was a reciprocal relationship between these play-activity data and children’s time with father. Children spent more time with fathers who were more frequently engaged in activities with them (Table 10). For example, the average shared father–child time was 306 minutes per day for children whose father reported they undertook one of the listed activities with them on six or seven days per week and, of this time, 75 minutes, on average, was during the child’s play time. This compares to a total of 247 minutes, with 60 minutes playtime, for children whose father undertook activities with them on one or two days per week.

Table 10: Children's time use by frequency of fathers' involvement in any play activities with 4 to 5 year olds in the previous week

	No days	1 or 2 days	3 to 5 days	6 or 7 days	Total
	Minutes per day				
Mean time with father	171	247	262	306	246
Mean time while child playing	44	60	62	75	60

Notes: n=3,376 fathers. Excludes cases with incomplete time use data (see Box 1).

Source: Children's time use diaries and fathers' self-complete questionnaire, Wave 1 K cohort.

4.4 Fathers' involvement in personal care, social and educational activities

The previous subsections presented information on fathers' time with children and involvement in children's play-type activities. This subsection extends this to examine fathers' involvement in activities that might be viewed as the task-oriented jobs of raising children. Of course, this is never clear-cut, as personal care tasks may be combined with play to make such tasks more pleasurable. Also, some 'tasks' discussed here are not really tasks, but are everyday routines such as eating meals and talking together.

Research on parents' time use generally finds that mothers and fathers undertake different types of child care tasks. For example, on average, mothers spend longer than fathers doing some of the essential child care tasks such as transporting, feeding and bathing children (Craig 2006; Laflamme, Pomerleau & Malcuit 2002). Also, mothers' and fathers' activities with children differ according to the time of day each parent is with their children. On weekdays, fathers are more likely to be constrained by hours of paid employment than are mothers, often precluding their involvement with children in after-school time (Baxter 2010). Given these findings, we expected the types of activities fathers did with their children would differ from those that mothers did. The children's time use data showed that similar **proportions** of mother-child and father-child time were allocated to children's personal care task. However, mothers spent longer with children in total, thus spending longer with children during those personal tasks.

Box 4: Fathers' involvement in personal care, social and educational activities

In the Waves 2 and 3 self-complete questionnaires, parents (mothers and fathers separately) reported on the extent to which they were involved in a range of different child care tasks. Some items were not asked at both waves, and for this analysis some were combined where they represented similar activities but the wording of the item differed slightly (see below).

Parents were asked: 'In the past month how often did you ...?:

- ▶ assist this child with eating? (B at Wave 2)
- ▶ change this child's nappies or help this child use the toilet? (B at Wave 2)
- ▶ get this child ready for bed or put him/her to bed? (B at Waves 2 and 3, K at Wave 2)
- ▶ give this child a bath or shower? (B at Waves 2 and 3, K at Wave 2)
- ▶ help this child get dressed? (B at Wave 2); help this child get ready for school/preschool/child care? (B at Wave 2); help get this child ready for school? (K at Wave 2)
- ▶ help this child brush his/her teeth? (B at Waves 2 and 3, K at Wave 2); supervise this child brush his/her teeth? (K at Wave 3)
- ▶ eat an evening meal with this child? (B at Waves 2 and 3, K at Waves 2 and 3)
- ▶ talk to this child about his/her school/preschool/child care activities? (B at Wave 3); talk to this child about his/her day at school? (K at Wave 2); talk to this child about his/her school activities? (K at Wave 3)
- ▶ help this child with his/her homework? (K at Waves 2 and 3).'

The response categories for fathers were: once a day or more, a few times a week, a few times a month, rarely and not at all.*

All but the final three of these activities were considered personal care activities, with the final three analysed as social and educational activities.

* These questions were asked of the primary carer in the interview rather than in the self-complete questionnaire. For 'help with homework' and 'talking to this child ...', the wording and categories were slightly different in the interview, so when fathers were primary carers this was taken into account. The homework question was not asked of the primary carer at Wave 3, so could not be derived for mothers or the small group of fathers who were primary carers. The primary carer was instead asked about the frequency of involvement in homework by self or other family members.

Personal care activities

Table 11 first examines a range of personal care activities collected in Waves 2 and 3. As indicated in Box 4, children's needs for assistance with personal care change as they grow and so some activities were not relevant to ask about at particular ages. Some wording changes were incorporated into the questionnaires to allow for these different developmental needs; for example, from **helping** a child brush their teeth at ages 6 to 7 years, to **supervising** them while they brush their teeth at ages 8 to 9 years.

Table 11: Frequency of parents' involvement in personal care activities in the past month

Activity	Age of child (years)	Fathers' frequency of involvement (%)				Total	Mothers' daily involvement (%)
		Once a day or more	Few times a week	Few times a month	Rarely or not at all		
Assist child with eating	2-3	31.1	41.9	11.7	15.4	100.0	55.1
Change child's nappies or help use toilet	2-3	40.9	44.7	7.4	6.9	100.0	88.8
Get child ready for bed or put child to bed	2-3	27.6	55.9	10.7	5.8	100.0	79.2
	4-5	30.9	52.2	10.7	6.2	100.0	72.0
	6-7	28.2	50.7	11.6	9.5	100.0	62.2
Give child a bath or shower	2-3	18.8	55.7	15.6	10.0	100.0	64.4
	4-5	17.0	51.4	18.1	13.5	100.0	61.2
	6-7	11.4	44.2	18.0	26.2	100.0	40.4
Help child get dressed/ready for day	2-3	29.4	54.7	11.5	4.5	100.0	89.7
	4-5	13.7	31.2	17.8	37.3	100.0	47.2
	6-7	17.5	29.6	17.7	35.2	100.0	48.2
Help/supervise child brushing teeth	2-3	21.1	46.5	14.9	17.4	100.0	69.8
	4-5	20.3	46.2	15.1	18.4	100.0	59.0
	6-7	13.1	36.0	15.3	35.7	100.0	32.7
	8-9	12.4	33.7	17.3	36.6	100.0	22.7

Notes: For fathers, sample sizes were 3,090 at 2 to 3 years; 2,732 at 4 to 5 years; 2,904 at 6 to 7 years; and 2,645 at 8 to 9 years. For mothers, sample sizes were 3,198 at 2 to 3 years; 3,829 at 4 to 5 years; 3,015 at 6 to 7 years; and 3,551 at 8 to 9 years. Numbers varied slightly on specific items due to small amounts of item non-response.

Source: Fathers' and mothers' self-complete, both cohorts, Waves 2 and 3.

As might be expected, Table 11 shows that children become more independent in most of these activities as they grow older, with declines evident in maternal as well as paternal involvement. In particular, children's independence in getting ready for child care, preschool or school is very evident when comparing the 2 to 3 year olds to the older children. The frequency of parents' involvement in getting children ready for bed or putting them to bed changed the least of these personal care activities.

Table 11 shows that a substantial number of fathers reported having daily involvement in these personal care activities although, not surprisingly, mothers had much higher rates of daily involvement. The gap between mothers' and fathers' involvement narrowed for most activities as children grew older. While fathers' involvement declined over the children's ages, mothers' involvement declined more so, no doubt reflecting changes in children's needs for assistance in these activities.

Fathers' involvement is often found to be higher in families in which mothers' involvement is also higher (Flouri 2005), so it is not always that fathers' greater involvement represents a displacement of mothers from taking on those activities. It may instead reflect a greater sharing of tasks, or of taking on tasks together. In Appendix Table E1, mothers' and fathers' reports on their own involvement are combined to show the extent to which parents share these tasks and activities. The least common pattern was for fathers to undertake an activity daily but for the mother to do so less frequently. It was also relatively rare for both parents to

be involved in the activity daily, although this was much more likely at the younger ages, when parents' involvement in personal care was greater. As children grew older they were more likely to not have the daily input of either parent in these personal care tasks.

Fathers' involvement in children's personal care activities may in part be an outcome of the co-parental relationship—the way in which mothers and fathers negotiate child care and household work. This is discussed further in Section 5. But also, fathers' involvement in these activities may reflect fathers' interests in spending time with their children and desire to be involved in their upbringing. While some of these tasks in themselves may not be particularly fulfilling for either parent, they do provide opportunities for parents to develop relationships with their children (Almeida & Galambos 1991; Coltrane 1996; Lamb 1997).

Links between these personal care data—focusing on getting children ready for the day—and the time use data presented in Section 4.1 are shown in Appendix Table E2 (just showing one age group, the 4 to 5 year olds from the B cohort). On average, the time use data show that fathers who helped get children ready on a daily basis also spent more time with that child than those who did not.

To summarise, fathers are less involved in personal care activities than are mothers, which is consistent with findings from analyses of adult time use diaries and consistent with expectations, given the differences in the amounts of time mothers and fathers share with children. Despite these differences, fathers were not absent from these personal care activities. For example, 41 per cent of fathers reported changing nappies or helping their 0 to 1 year-old children with the toilet every day. Most fathers helped with a range of personal care activities at least a few times a week, showing that there is some sharing of these tasks within many families. These data showed strong differences in parental involvement as children grew older and their developmental needs changed. The differences, however, were more apparent for mothers than fathers.

Social and educational activities

Moving on from personal care to look at other types of activities in which fathers are potentially involved, this subsection examines 'social and educational activities'. This includes eating evening meals with the LSAC child, talking to them about their day, and helping with their homework. Like play activities, these types of activities are particularly important to the development of relationships and competencies in children, and it is therefore important to examine them in relation to the level of fathers' involvement.

Table 12 shows that the majority of fathers shared an evening meal with their child daily. The proportion doing so only a few times a month or less was quite low, at around 10 per cent. Further, the majority of fathers talked with children about their day at least a few times a week. A minority of fathers helped their child with homework every day, with most saying they did this either a few times a week or a few times a month. (This most likely reflects that, at these ages, children are not often required to do homework every day.) As with the personal care activities, mothers had more regular involvement than fathers in these activities.

Table 12: Frequency of parental social and educational involvement

Activity	Age of child (years)	Fathers' involvement in the previous month (%)				Total	Mothers' daily involvement (%)
		Once a day or more	Few times a week	Few times a month	Rarely or not at all		
Eat evening meal with child	2-3	55.4	32.6	7.6	4.4	100.0	82.0
	4-5	57.4	33.7	5.9	3.0	100.0	81.4
	6-7	58.5	32.7	5.8	3.0	100.0	76.2
	8-9	65.5	27.6	4.3	2.6	100.0	81.7
Talk to child about his/her day	4-5	43.6	41.8	11.9	2.7	100.0	68.3
	6-7	60.4	32.7	6.2	0.7	100.0	91.0
	8-9	53.9	35.4	9.9	0.4	100.0	87.4
Help child with homework	6-7	14.1	44.7	35.3	5.9	100.0	71.3
	8-9	8.9	39.8	45.6	5.7	100.0	-

Notes: See Box 4 for information about categories. Helping with homework at age 8 to 9 years, for mothers, is reported as not applicable (-) as in this survey mothers were asked about the extent to which they or another family member helped with homework; the data are therefore not comparable to other data presented in this table.

Source: Fathers' and mothers' self-complete, both cohorts, Waves 2 and 3.

Looking at the data on eating an evening meal with the LSAC child, derived from mothers' and fathers' reports of their own involvement, half the children had an evening meal with both their mother and father every day (Table 13). A substantial proportion (23 to 32 per cent) had an evening meal with the mother alone, while only a small percentage (5 to 8 per cent) had an evening meal only with their father every day. The 12 to 16 per cent not eating an evening meal with their parents on a daily basis includes children who eat at a different time (earlier) than their parents.⁹

Table 13: Frequency of parents' daily involvement in eating an evening meal with their child in the past month

Age of child (years)	Neither mother nor father	Father only	Mother only	Both mother and father	Total
2-3	12.7	5.1	31.9	50.3	100.0
4-5	12.7	5.8	30.9	50.6	100.0
6-7	15.8	7.9	25.9	50.5	100.0
8-9	11.8	6.5	23.3	58.4	100.0

Note: Includes only those families in which both mother and father completed the self-complete questionnaire in Waves 2 and 3.

Source: Fathers' and mothers' self-complete, both cohorts, Waves 2 and 3.

These social and educational activities again show a reasonable presence of fathers, with few having less than weekly interaction with children in eating evening meals and talking to children about their day. Compared to these other activities, fathers reported less involvement in helping with homework, but this may reflect the fact that homework is unlikely to be an everyday occurrence. It is also quite possible that many children do their homework straight after school, when fathers are often still at work, such that helping with homework is more frequently done by mothers.

4.5 Changes in fathering across waves

Previous research suggests we can expect some, perhaps modest, correlation across time in fathers' time spent with children. Fathers who are more involved when children are younger are likely to remain more involved as children grow (Aldous, Mulligan & Bjarnason 1998; Hwang & Lamb 1997). Some research, however, finds limited evidence that there is stability in fathers' involvement across time; for example, showing that high levels of non-traditional father involvement (such as primary care giving) is not likely to be sustained (Russell et al. 1999).

This subsection examines whether fathers who are highly involved when their children are younger remain highly involved when their children are older, using multiple waves of LSAC data. A later section of this report (Section 7) explores changes in father involvement more fully with respect to changes in fathers' or mothers' employment, or changes in family structure.

This question was first addressed using the time use father–child data (as presented in Table 6) for both cohorts at Waves 1 and 3. At each cohort/wave, the father–child time distribution was divided into thirds and fathers allocated to these thirds based on their father–child time. Thus, for these waves, fathers are classified as being in the lowest, middle or highest third of the distribution. It is then possible to see whether fathers move across these classifications over the waves, to determine whether fathers exhibit a similar pattern of involvement across time.

Table 14 follows fathers in the three categories at Wave 1 to explore which categories they are in at Wave 3. These data provide modest evidence of continuity, as fathers in the lowest third at Wave 1 were most likely to remain in the lowest third at Wave 3, in both cohorts. Likewise, the more 'involved' fathers—those in the highest third at Wave 1—were most likely to still be in this third at Wave 3. However, there was considerable change also, as some of those fathers in the lower involvement categories became more highly involved, and some of the highly involved showed less involvement at Wave 3.

Table 14: Across-wave changes in distribution of father–child time from Wave 1 to Wave 3

Distribution at Wave 1	Distribution at Wave 3			Total
	Lowest third	Middle third	Highest third	
%				
B cohort at age 4–5 years				
B cohort at age 0–1 years				
Lowest third	46.9	31.3	21.8	100.0
Middle third	30.9	36.1	33.0	100.0
Highest third	23.7	34.0	42.4	100.0
Total	33.5	33.9	32.6	100.0
K cohort at age 8–9 years				
K cohort at age 4–5 years				
Lowest third	46.5	27.7	25.9	100.0
Middle third	29.3	35.9	34.9	100.0
Highest third	27.6	31.8	40.6	100.0
Total	34.3	31.9	33.9	100.0

Notes: Excludes cases with incomplete time use data (see Box 1). Analyses include only those responding to Waves 1 and 3 time use diaries, and those in which the father is the same person at Waves 1 and 3.

Source: Children's time use diaries, Waves 1 and 3.

Because of the very different ways in which personal care and social or educational involvement data were collected across the waves, it is not possible to examine fathers' consistency of involvement on these measures across time. Also, these data were only collected at Waves 2 and 3. So instead, Table 15 shows, for the Wave 1 time use subgroups (Table 14), fathers' level of personal care and social/educational involvement at Waves 2 and 3. Level of personal care was calculated from responses to the personal care items listed in Table 11. Responses were first reversed such that 'every day' equals 5 and 'never' equals 1. These were summed to create an index. For the B cohort, this meant summing 6 items at age 2 to 3 years to give a range of 1 to 30, and summing 4 items at age 4 to 5 years to give a range of 1 to 20. For the K cohort, 4 items were available at age 6 to 7 years to give a range of 1 to 20, while only one item was available at age 8 to 9 years. Similarly, the social/education index reflects responses to items shown in Table 12. At 2 to 3 years, only one item is captured, while at 4 to 5 years, two items are captured, and at 6 to 7 and 8 to 9 years, three items are captured. On each scale, then, a higher score indicates more involvement.

Fathers who had lower levels of father-child time at Wave 1 also had lower involvement in personal care and social/educational activities at Waves 2 and 3. The opposite was true of those with higher levels of time use at Wave 1. While the differences are quite small, they are, in all but one case, statistically significant. This provides some evidence that those who were more involved when their children were younger tended to remain more involved as their children grew.

Putting aside the matter of changes in fathering over time, we also note that there is a relationship between the father-child time data and the indices of involvement in personal care and social/educational activities. That is, more father-child time is associated with more involvement in these activities. However, the relatively small differences between the groups show that fathers with low levels of father-child time were not absent from these activities with their children.

Table 15: Consistency of father involvement in personal care and social or educational involvement

Father-child time, in tertiles	Personal care index (mean)		Social/education index (mean)	
	2-3 years (range 1-30)	4-5 years (range 1-20)	2-3 years (range 1-5)	4-5 years (range 1-10)
0-1 year				
Lowest third	18.36	11.22	4.26	7.60
Middle third	18.74	11.53	4.44	7.72
Highest third	19.12	11.69	4.51	7.72
Total	18.74	11.49	4.40	7.68
Significance	*	**	***	-
Sample size	2,118	1,925	2,110	1,925
	6 to 7 years (range 1-20)	8 to 9 years (range 1-5)	6 to 7 years (range 1-15)	8 to 9 years (range 1-15)
4-5 years				
Lowest third	9.89	2.92	10.13	9.92
Middle third	10.48	3.05	10.53	10.36
Highest third	11.24	3.27	10.83	10.59
Total	10.53	3.09	10.50	10.30
Significance	***	***	***	***
Sample size	1,648	1,571	1,651	1,573

Notes: A higher score means more involvement. Excludes cases with incomplete time use data (see Box 1). Tests of significance are based on one-way ANOVA. * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

Source: Children’s time use diaries and fathers’ self-complete questionnaire, Waves 2 and 3.

4.6 Multivariate analyses

In this subsection, we now examine which parental, family and child characteristics explain the variations in the measures of fathers’ time with children that have been presented. The explanatory factors were presented in Section 3 (specifically in Tables 3 and 4) and all are shown in the tables that follow. Multivariate analyses were used to identify the independent relationships between the measures of fathering and each explanatory factor. More detail about the methods used is also found in Section 3.7. We examine each measure of fathers’ time with children separately, since prior research on parental involvement leads us to expect that a common set of variables will not be important to all measures (for example, Barnett & Baruch 1987; Hofferth 2003; McBride et al. 2004; Volling & Belsky 1991).

The results are presented in the following tables:

- Table 16 contains the children’s time use data, including father-child time, in total and alone (that is, without the mother). Equivalent measures for mothers’ time with the LSAC child have also been included for comparative purposes, as is total parental time.
- Table 17 covers the mother-answered questions on whether and for how long the father regularly provided care.

- Table 18 then looks at the fathers' involvement in the play-type activities of 4 to 5 year olds.
- Table 19 covers the personal care involvement measures, analysing the response on each one as captured on a 1 to 5 scale, 5 being the most involvement.
- Table 20 is similar, but focusing on the social and educational activities.

The results are discussed in detail below, taking one set of characteristics at a time to draw out consistencies (or inconsistencies) in associations across the measures of fathers' time with children.

Paid work hours of fathers and mothers

The analyses showed strong associations between paid work hours and the various measures of fathers' time with children. On almost all the measures analysed, we found, on average, that fathers who were not employed or were employed part-time had the highest levels of involvement, while those working the longest hours (55 hours or more per week) had the lowest levels of involvement.

While children spent less time with fathers who worked longer hours, in these families they were likely to spend more time with their mother, such that there was actually no net difference in the amount of time children spent with at least one of their parents.

There is some evidence of parents sharing their time with children. For example, children of mothers who worked full-time hours (35 hours or more) spent less time with their mothers, but spent more time with their fathers; in particular, they spent more time with their fathers alone. Overall, however, children spent less time with their parents when mothers were in paid work—part-time or full-time. When mothers were in paid work, fathers reported more frequent involvement in children's personal care activities, and this was especially so when mothers worked full-time hours. The greatest difference was in relation to helping children get ready for the day, where fathers were most likely to be involved if mothers worked full-time hours. Consistent with this, mothers were more likely to report that fathers spent time caring for children when the mothers were employed, especially if they were employed full-time. Fathers more often ate an evening meal with their child, talked with them about the day and helped them with homework when mothers were in paid employment, especially if they were working full-time hours.

Marital and parental status

These analyses showed quite a mixed picture in relation to the cohabiting versus married fathers and the time they spent with children. On average, cohabiting fathers spent somewhat more time overall with their child compared to married fathers, and were reported to spend more time caring for their child. When involvement in personal care activities was explored, married fathers were more involved in most of these tasks. The variation in fathers' involvement in social or educational activities was not significantly related to marital status. However, when reading to children was examined for fathers of 4 to 5 year olds, there was an association with marital status, as married fathers more frequently read to these children than cohabiting fathers.

Children's time with fathers did not vary according to whether their resident father was biological or not.¹⁰ Mothers' reports of the amount of time fathers spent caring for the child also did not vary according to whether fathers were or were not the child's biological father. However, compared to stepfathers, biological fathers had higher levels of involvement in getting children ready for bed and helping with teeth or bath or shower. They did not vary in their involvement in other personal care activities or their involvement in eating an evening meal, talking about the day and helping with homework.

When fathers had children living elsewhere, they spent less time alone with their (co-resident) child and, according to mothers, were less likely than those without children living elsewhere to sometimes care for the child. These fathers were also considerably less likely to help co-resident children get ready for bed, or to help with brushing teeth or bath or shower, and were less frequently involved in getting children ready for the day. This flowed through to social and educational activities also, with fathers with children living elsewhere less frequently talking to their co-resident child about their day, and less frequently helping with homework.

The quality of the parents' relationship with each other, as measured by the fathers' perceived happiness with the relationship, proved to be a very strong indicator of father involvement. When the relationship was happier, children spent more time in total with their father. Also, when the relationship was happier, fathers were more involved with most of the personal care activities. Those with happier relationships also more frequently ate an evening meal with their child, talked to them about their day and helped with homework.

Other parental characteristics

Fathers' education was categorised as: (a) incomplete secondary education only; (b) complete secondary education only, or some post-school qualification but less than a bachelor degree; and (c) bachelor degree or higher. Fathers' total time spent with their child and likelihood of providing care for their child did not vary with education level. However, more highly educated fathers of 4 to 5 year olds more often shared play-type activities with them, in particular reading (a very strong association), telling them a story and playing with toys or games with them. Also, the more highly educated fathers were more frequently involved in most personal care tasks, and differences were also apparent when comparing those in the middle education group to the lower education group. Fathers' education level was also associated with involvement in talking with their child and with helping them with homework—higher levels of involvement were found for those with higher levels of education. Fathers' education level did not have an association with the frequency of eating an evening meal with their child.

Small effects of **ethnicity** were apparent, in that fathers whose main language spoken at home was not English spent a little more time per day with their child. These fathers, however, had less frequent involvement than other fathers in the personal care tasks, in talking to their child about their day and eating an evening meal with them. No statistically significant associations were apparent for **Indigenous** versus non-Indigenous families, except that Indigenous fathers more frequently helped children get dressed for the day, and for 4 to 5 year olds, more often involved children in everyday activities.

For every year more in **fathers' age**, there was a tendency for children to spend more time with their father alone, although this did not correspond to a statistically significant increase in the total amount of time a child spent with this father. Older fathers more often read to 4 to 5 year olds, helped with children's eating/feeding and getting children ready for the day, but less often helped getting children ready for bed.

The analyses also explored whether fathers with better **mental health** had higher levels of involvement. There was no evidence that mental health was associated with different amounts of shared father-child time. Also, mental health was largely not associated with fathers' involvement in personal care activities or in undertaking play-type activities with 4 to 5 year olds. However, strong associations were apparent for fathers' involvement in the social and educational activities (eating an evening meal with their child, talking to their child about their day, and helping them with homework), with fathers being more involved in these activities when they had better mental health.

No statistical differences were apparent for the measure of **financial stress** except for a small difference in helping to get children ready for bed (in more financially stressed families, fathers were more involved).

Family and child characteristics

Boys were reported to spend more time with their father—in total and without their mother—and fathers were more often reported to provide care for boys than for girls. Fathers had more frequent involvement with boys than with girls on all the personal care tasks except helping them with eating (at age 0 to 1 year) and getting them ready for the day. No gender differences were apparent for the social or educational activities. For 4 to 5 year olds, fathers were again found to be more involved with boys than with girls, especially in playing indoor and outdoor games.

Children with a greater number of older **siblings** spent less time with their father. Also, as the number of older siblings increased, fathers tended to be less involved in each of the personal care tasks. Conversely, fathers were more frequently involved in most personal care activities (except helping with eating) when

children had a larger number of younger siblings. It is possible that those with older siblings are cared for or at least supervised by their siblings, for example, during cleaning of teeth or doing their homework.¹¹ Further, for 4 to 5 year olds, fathers were less involved in children's play-type activities when the child had a greater number of older (but not younger) siblings. However, children having a greater number of siblings, whether older or younger, was associated with fathers' reduced involvement in their social and educational activities.

Looking at **child temperament**, no associations were apparent for fathers' total time with children, nor with the frequency of fathers' involvement in personal care activities. However, when children had a more reactive temperament, fathers spent less time eating evening meals with them, talking with them about their day and helping them with homework. Also, more reactivity was associated with lower levels of involvement by fathers in the play-type activities of 4 to 5 year olds, especially reading to them or telling them a story, and involving them in everyday activities. The sociability of the child was not associated with differences in these various measures of fathers' time with children.

There were some associations between fathers' time with children and **child's physical health**. No differences were apparent for the amount of fathers' time with children, but fathers were less likely to sometimes care for the child if they had poorer health. Poorer health was also associated with fathers being somewhat less involved in getting children ready for bed, helping them to get ready for the day and talking to them about their day.

The time use data showed that fathers spent more time with children aged 2 to 3 years or 4 to 5 years than with younger or older children. This was also true for the time fathers spent with children without mothers. Where it was possible to analyse changes in fathers' involvement in children's personal care by age of child, this involvement usually declined with children's age. The exception was in helping children get dressed or get ready, for which fathers were more involved with the older children (this was collected up to age 6 to 7 years). Fathers more often shared an evening meal with the older children, but for talking about the day, the highest frequency was at age 6 to 7 years. Similarly, fathers were more involved in helping with homework of the 6 to 7 year olds than the 8 to 9 year olds.

Summary

The most significant associations between the explanatory variables and measures of fathers' time with children were for fathers' and mothers' paid work hours. This was especially in relation to variation in father-child time, but also in analysing fathers' involvement in different activities. Family composition, in terms of numbers of younger or older siblings, made a contribution, and some variations too were apparent according to whether fathers were biological (versus step) and married (versus cohabiting) and whether they had children living elsewhere. These associations, however, were not consistent across the different measures of fathers' time with children. For example, children spent no more actual time with stepfathers compared to biological fathers (a non-significant coefficient of -1 minute per day; see Table 16), while stepfathers were less likely to be involved with many of children's personal care tasks (for example, a significant coefficient of -0.29 on the 1 to 5 scale for getting children ready for bed; see Table 19). Similarly, more highly educated fathers were more involved in personal care tasks and in talking to their child about their day, but children spent no more time with more educated fathers than with less educated fathers.

The *R*-squared value for each model provides an estimate of the percentage of variation in that measure that is explained by the explanatory variables. Most of the analyses presented in this section had *R*-squared values of less than 10 per cent. So although many of the explanatory variables were statistically significant in explaining fathers' time with children, much of the variation remains unexplained. This demonstrates just how variable fathers' time with children is, and suggests that some of those measures not included—for example, explicit measures of attitudes towards fathering—are likely to contribute to this unexplained variation.

Table 16: Multivariate analyses of parents' time with children

	Father total	Father only	Mother total	Mother only	Total parental time
	Minutes per day				
Fathers' usual work hours (ref: 35–44 hours)					
0 hours	59***	23***	-18***	-54***	5
1–34 hours	32***	22***	-14*	-26***	7
45–54 hours	-15***	-6***	7*	18***	2
55 hours or more	-43***	-13***	18***	49***	5
Fathers' education (ref: Incomplete secondary)					
Complete secondary, certificate/diploma	-1	2	-1	2	1
Bachelor degree or higher	-1	4	-13*	-8	-9
Mothers' usual work hours (ref: 0 hours)					
1–34 hours	7*	12***	-38***	-33***	-25***
35 hours or more	34***	37***	-102***	-101***	-65***
Fathers' characteristics					
English not main language	13*	-3	15**	-1	12*
Indigenous	-14	-8	12	18	4
Age (years) ^(a)	0	1***	0	1***	1***
Better mental health ^(a)	-1	0	1	1	0
Cohabiting (ref: Married)	17***	1	15**	0	16***
Stepfather (ref: Biological)	-1	-3	-17	-18	-19
Has children living elsewhere	-6	-7**	4	3	-3
Relationship quality ^(a)	7***	-1	3*	-4***	3*
Other family and child characteristics					
Mother bachelor degree or higher	-11**	6***	-14***	4	-8*
Family is just getting along, poor or very poor	4	-1	6	1	5
Boy	14***	9***	-2	-7*	7*
Poorer child health ^(a)	1	1	3	4*	4*
Child temperament: reactivity ^(a)	3	0	5**	2	4**
Child temperament: sociability ^(a)	0	-1	-2	-2	-2
Number of younger siblings	-3	1	-4	0	-3
Number of older siblings	-6***	-3***	0	2	-3*
Cohort/wave (ref: 0–1 year)					
Child age 2–3 years	20***	18***	-3	-4	16***
Child age 4–5 years (B)	23***	11***	-18***	-29***	-7
Child age 4–5 years (K)	17***	16***	-30***	-30***	-13**
Child age 6–7 years	-6	8**	-109***	-94***	-100***
Child age 8–9 years	6	3	-99***	-101***	-96***
Missing minutes of 'who with' information ^(a)					
Constant	-1***	0	-1***	-1***	-1***
	257***	30***	533***	306***	563***
Number of observations	12,448	12,448	12,448	12,448	12,448
Number of children	6,278	6,278	6,278	6,278	6,278
Overall R-squared	0.09	0.08	0.20	0.17	0.18
Rho	0.24	0.16	0.24	0.17	0.23

(a) Centred at sample means. See Section 3.7 for details.
 Notes: Results are from RE models. * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

Table 17: Multivariate analyses of fathers providing care for children, mothers' reports

	All fathers	Only fathers who provided care	Likelihood father provides care
	Total minutes per day of care		Random effects logit, odds ratios
Fathers' usual work hours (ref: 35–44 hours)			
0 hours	25***	41***	0.25**
1–34 hours	22***	29***	0.40***
45–54 hours	–6***	–8***	–0.33***
55 hours or more	–12***	–10***	–0.81***
Fathers' education (ref: Incomplete secondary)			
Complete secondary, certificate/diploma	0	2	–0.03
Bachelor degree or higher	–3	–7*	0.08
Mothers' usual work hours (ref: 0 hours)			
1–34 hours	26***	31***	1.11***
35 hours or more	54***	62***	1.56***
Fathers' characteristics			
English not main language	1	9**	–0.20*
Indigenous	–4	–14	0.27
Age (years) ^(a)	0	0	0.00
Better mental health ^(a)	1	3	–0.04
Cohabiting (ref: Married)	6**	10***	0.10
Stepfather (ref: Biological)	–4	0	–0.16
Has children living elsewhere	–3	–1	–0.25**
Relationship quality ^(a)	–1	–1	0.00
Other family and child characteristics			
Mother bachelor degree or higher	0	–1	0.04
Family is just getting along, poor or very poor	0	2	–0.03
Boy	4**	4*	0.12*
Poorer child health ^(a)	–1*	–1	–0.07*
Child temperament: reactivity ^(a)	–1*	–2**	0.00
Child temperament: sociability ^(a)	1	1	–0.01
Number of younger siblings	–2*	–3*	–0.03
Number of older siblings	–2**	–1	–0.09**
Cohort/wave (ref: 0–1 year)			
Child age 2–3 years	1	3	–0.11
Child age 4–5 years (B)	2	1	–0.01
Child age 4–5 years (K)	7***	6*	0.30***
Child age 6–7 years	–6**	–12***	–0.12
Constant	17***	42***	–0.48***
Number of observations	14,049	6,750	14,077
Number of children	7,301	4,633	7,312
Overall <i>R</i> -squared	0.14	0.17	–
Rho	0.41	0.36	0.32

(a) Centred at sample means. See Section 3.7 for details.

Notes: Results are from RE models. * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$. '–' = not applicable.

Table 18: Multivariate analyses of fathers' play activities with 4 to 5 year-old children (days per week)

	Any of these activities	Read to child from a book	Told child a story	Played indoor games	Played outdoor games	Involved child in everyday activities
Fathers' usual work hours (ref: 35–44 hours)						
0 hours	0.22***	0.05	0.20***	0.24***	0.39***	0.37***
1–34 hours	0.10	0.05	0.21**	0.19**	0.22***	0.14
45–54 hours	–0.01	–0.01	0.06	0.03	0.06	0.02
55 hours or more	–0.15***	–0.14**	0.02	–0.06	–0.07*	–0.14**
Fathers' education (ref: Incomplete secondary)						
Complete secondary, certificate/diploma	0.03	0.12*	0.08	0.04	0.01	0.01
Bachelor degree or higher	0.14**	0.37***	0.12*	0.15**	0.02	0.05
Mothers' usual work hours (ref: 0 hours)						
1–34 hours	0.07*	0.01	0.05	0.00	0.08*	0.14***
35 hours or more	0.17***	0.00	0.09*	0.07	0.09*	0.36***
Fathers' characteristics						
English not main language	–0.08	–0.15**	0.10*	0.07	–0.11*	–0.26***
Indigenous	0.03	–0.17	0.18	0.04	0.17	0.37*
Age (years) ^(a)	0.00	0.02***	0.00	0.00	0.00	–0.01
Better mental health ^(a)	0.00	0.01	–0.04	0.03	0.04	0.04
Cohabiting (ref: Married)	–0.03	–0.16**	0.02	0.09	–0.04	–0.06
Stepfather (ref: Biological)	0.05	–0.22	0.07	–0.08	–0.08	0.17
Has children living elsewhere	–0.11*	–0.18**	–0.05	–0.13*	–0.10	0.02
Relationship quality ^(a)	0.06***	0.01	0.05***	0.04**	0.07***	0.08***
Other family and child characteristics						
Mother bachelor degree or higher	–0.02	0.15***	0.06	–0.01	–0.05	–0.03
Family is just getting along, poor or very poor	–0.01	–0.05	0.04	0.00	–0.04	0.05
Boy	0.08**	0.04	0.05	0.13***	0.10***	–0.02
Poorer child health ^(a)	–0.01	–0.01	–0.01	–0.03	0.00	–0.03
Child temperament: reactivity ^(a)	–0.06***	–0.08***	–0.05**	–0.02	–0.02	–0.05**
Child temperament: sociability ^(a)	–0.02	–0.02	0.01	–0.01	0.00	0.00
Number of younger siblings	0.02	0.03	0.00	–0.03	0.02	0.00
Number of older siblings	–0.12***	–0.17***	–0.06***	–0.17***	–0.06***	–0.05**
Constant	1.99***	1.27***	0.55***	1.21***	1.24***	1.29***
Number of children	3,073	3,069	3,065	3,066	3,073	3,066
Overall R-squared	0.07	0.12	0.03	0.07	0.05	0.06

(a) Centred at sample means. See Section 3.7 for details.

Notes: Results based on OLS models. The activity data are scored from (0) done on no days, to (3) done on 6 to 7 days in last week. * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

Table 19: Multivariate analyses of fathers' involvement in personal care activities

	Assist child with eating	Change child's nappies or help use toilet	Get child ready for bed or put child to bed	Give child a bath or shower	Help child get dressed/ready for day	Help/supervise child brushing teeth
Fathers' usual work hours (ref: 35–44 hours)						
0 hours	0.10	0.04	0.04	0.01	0.34***	0.04
1–34 hours	–0.14	0.19*	0.05	–0.01	0.39***	0.00
45–54 hours	–0.12*	–0.13**	–0.07**	–0.07**	–0.23***	–0.08**
55 hours or more	–0.21***	–0.30***	–0.18***	–0.23***	–0.42***	–0.19***
Fathers' education (ref: Incomplete secondary)						
Complete secondary, certificate/diploma	0.17*	0.13*	0.12***	0.09*	0.18***	0.15***
Bachelor degree or higher	0.16	0.18**	0.22***	0.10*	0.38***	0.36***
Mothers' usual work hours (ref: 0 hours)						
1–34 hours	0.11*	0.18***	0.09***	0.10***	0.19***	0.07**
35 hours or more	0.03	0.11	0.09**	0.25***	0.52***	0.15***
Fathers' characteristics						
English not main language	0.02	–0.32***	–0.35***	–0.43***	–0.17***	–0.29***
Indigenous	–0.23	0.26	–0.06	–0.02	0.33*	0.01
Age (years) ^(a)	0.02***	0.00	–0.01**	0.00	0.01**	0.00
Better mental health ^(a)	–0.02	–0.02	0.04*	0.04	–0.01	0.03
Cohabiting (ref: Married)	–0.21**	–0.09	–0.08*	–0.11**	–0.03	–0.14**
Stepfather (ref: Biological)	–0.22	0.03	–0.29***	–0.38***	–0.06	–0.37***
Has children living elsewhere	–0.08	–0.10	–0.20***	–0.13**	–0.13*	–0.27***
Relationship quality ^(a)	0.03	0.05**	0.04***	0.03**	0.02*	0.03**
Other family and child characteristics						
Mother bachelor degree or higher	0.09	0.10*	0.03	0.04	0.10**	0.08**
Family is just getting along, poor or very poor	0.02	0.04	0.05*	0.02	0.00	0.01
Boy	0.08	0.15***	0.07**	0.22***	0.05	0.13***
Poorer child health ^(a)	–0.03	–0.03	–0.03**	0.00	–0.04*	–0.03
Child temperament: reactivity ^(a)	–0.01	–0.01	–0.02	–0.02	0.01	–0.02
Child temperament: sociability ^(a)	0.01	0.02	0.01	0.00	0.00	–0.01
Number of younger siblings	0.07	0.15***	0.06**	0.09***	0.06**	0.06**
Number of older siblings	–0.17***	–0.15***	–0.07***	–0.17***	–0.06***	–0.19***
Cohort/wave (ref: 2–3 years)						
Child age 4–5 years (B)	–	–	0.01	–0.18***	–1.10***	–0.08**
Child age 6–7 years	–	–	–0.10***	–0.55***	–1.05***	–0.60***
Child age 8–9 years	–	–	–	–	–	–0.65***
Constant	3.81***	4.04***	3.94***	3.77***	3.82***	3.58***
Number of observations	2,680	2,679	7,971	7,961	7,938	10,445
Number of children	2,680	2,679	5,942	5,934	5,932	6,375
Overall R-squared			0.07	0.12	0.22	0.12
Rho	–	–	0.50	0.66	0.37	0.47

(a) Centred at sample means. See Section 3.7 for details.

Notes: Results are from RE models, except for first two OLS models, which were applicable to one wave only. Each question was modelled separately, with response items from (1) not at all, to (5) once a day or more. * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$. '–' = not applicable.

Table 20: Multivariate analyses of fathers' involvement in social or educational activities

	Eat evening meal with child	Talk to child about his/her day	Help child with homework
Fathers' usual work hours (ref: 35–44 hours)			
0 hours	0.05	0.03	0.15**
1–34 hours	0.03	0.08*	0.09
45–54 hours	–0.09***	–0.02	–0.16***
55 hours or more	–0.22***	–0.09***	–0.28***
Fathers' education (ref: Incomplete secondary)			
Complete secondary, certificate/diploma	0.04	0.12***	0.12*
Bachelor degree or higher	–0.02	0.18***	0.14*
Mothers' usual work hours (ref: 0 hours)			
1–34 hours	0.06***	0.07***	0.07*
35 hours or more	0.05*	0.14***	0.23***
Fathers' characteristics			
English not main language	–0.09**	–0.25***	0.00
Indigenous	0.07	0.10	0.24
Age (years) ^(a)	0.00	0.00	0.00
Better mental health ^(a)	0.06***	0.04*	0.11***
Cohabiting (ref: Married)	–0.02	–0.05	–0.04
Stepfather (ref: Biological)	0.03	–0.08	–0.09
Has children living elsewhere	–0.05	–0.12**	–0.18***
Relationship quality ^(a)	0.03***	0.05***	0.03
Other family and child characteristics			
Mother bachelor degree or higher	–0.04*	0.03	–0.01
Family is just getting along, poor or very poor	0.02	0.01	–0.04
Boy	–0.01	0.01	0.03
Poorer child health ^(a)	–0.02	–0.03*	0.00
Child temperament: reactivity ^(a)	–0.03***	–0.04***	–0.04*
Child temperament: sociability ^(a)	–0.01	–0.01	0.00
Number of younger siblings	–0.04**	–0.04**	–0.04
Number of older siblings	–0.01	–0.11***	–0.11***
Cohort/wave (ref: 8–9 years)			
Child age 2–3 years	–0.17***	–	–
Child age 4–5 years (B)	–0.10***	–0.20***	–
Child age 6–7 years	–0.08***	0.11***	0.19***
Constant	4.62***	4.36***	3.30***
Number of observations	10,462	7,747	5,048
Number of children	6,380	5,698	3,083
Overall <i>R</i> -squared	0.04	0.08	0.06
Rho	0.54	0.56	0.47

(a) Centred at sample means. See Section 3.7 for details.

Notes: Results are from RE models. Each question was modelled separately, with response items from (1) not at all, to (5) once a day or more. * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$. '–' = not applicable.

4.7 Summary: fathers' time with children

This section has examined a number of measures of fathers' time with children, looking at amount of shared time together, whether fathers regularly cared for their child, the play-type activities that children and fathers shared, and fathers' involvement in different personal care, social or educational activities with children.

These measures all attempt to tap into different aspects of the time children and fathers spent together, and it is therefore not surprising to find relationships between the measures (in Tables 10 and 15) and consistency in the multivariate analyses for these different measures.

In addition, there is also evidence of some stability in involvement as children grow; that is, the more involved fathers remain more involved over time. Again, though, this was not a certainty, with some variability in the involvement data across the waves. However, the positive association suggests that it is valuable to encourage the involvement of fathers when children are young. If early involvement of fathers is an indication that they will remain involved with children as they grow, then this affirms the need to encourage and provide employment conditions such that fathers can spend time with children in their infancy.

There was certainly change in the amount of father involvement as children grew older, with the greatest involvement apparent when children had grown out of infancy but were not yet at school. Changes in fathering as children grow have been reported elsewhere, including increases in fathers' time with children and participation in different activities (Brayfield 1995; Deutsch, Lussier & Servis 1993; Gaertner et al. 2007; Pleck 1997; Yeung et al. 2001).

These multivariate analyses of the LSAC data confirm many of the findings reported elsewhere, although they also offer some new insights. The results did show that some of the explanatory variables had quite different associations with specific measures of fathers' time with children, as has been reported in previous studies (Barnett & Baruch 1987; Volling & Belsky 1991).

As we found for all measures of fathers' time with children, fathers' work hours have been reported previously as constraining fathers' time with children (Baxter 2009; Bianchi 2000; Bonney, Kelley & Levant 1999; Bryant & Zick 1996; Jacobs & Kelley 2006; Laflamme, Pomerleau & Malcuit 2002; Yeung et al. 2001). Here, we also saw that not-employed and part-time employed fathers, on average, were more involved with children than those who were working standard hours.

Prior research has been inconsistent in regard to mothers' work hours and fathers' time with children (for example, Bonney, Kelley & Levant 1999; Brayfield 1995; Bryant & Zick 1996; Crouter et al. 1987; Deutsch, Lussier & Servis 1993; Jacobs & Kelley 2006; Kitterod & Pettersen 2006; Marsiglio 1991; McBride & Mills 1993; Pleck 1997; Roeters, van der Lippe & Kluwer 2009; Sanderson & Sanders Thompson 2002; Zick & Bryant 1996). The current analyses actually shows some quite clear patterns, with fathers being more involved with children (in measures of both time and involvement in activities) when mothers were in paid employment, especially when working full-time hours.

Like previous studies, these analyses found that fathers' level of education was associated with some indicators of fathers' time with children, but not with the total amount of time spent with children (Aldous, Mulligan & Bjarnason 1998; Baxter 2009, 2010; Bianchi & Robinson 1997; Hofferth & Sandberg 2001; Marsiglio 1991; Sayer, Gauthier & Furstenberg 2004; Stright & Bales 2003; Yeung et al. 2001). Education may therefore capture differences in attitudes towards how fathers' time with children is spent.

The inclusion of the measure of financial stress in these analyses rarely resulted in significant associations, consistent with the findings of Flouri and Buchanan (2003).

Differences by the ethnic grouping used yielded quite small differences, although this may be because the classification was not sensitive enough to identify subtle differences by cultural groups. Other studies in the international literature have observed stronger ethnic differences (Cooksey & Fondell 1996; Hofferth 2003; Sanderson & Sanders Thompson 2002; Shears 2007).

Some differences by fathers' age were apparent, consistent with other studies (for example, Pleck 1997; Volling & Belsky 1991), although they were not apparent on all measures. Where significant, they suggested greater levels of involvement by older fathers, except in relation to getting children ready for bed, which suggested more involvement by younger fathers.

The mixed findings regarding marriage versus cohabiting and step versus biological fathers found here are also consistent with mixed findings in prior research (Amato & Sobolewski 2004; Berger et al. 2008; Cooksey & Fondell 1996; Gibson-Davis 2008; Hofferth & Anderson 2003; Kalenkoski, Ribar & Stratton 2005). It is interesting that marriage does not always mean more involvement by fathers, and neither does being the biological parent.

We found that fathers with children living elsewhere did appear to spend less time with, and were less involved with, resident children. Consistent with prior research, the quality of the relationship between mother and father was an important contextual variable, always in the direction of a happier relationship equating to more involvement in fathering (Belsky 1984; Bouchard & Lee 2000; Coiro & Emery 1998; McBride & Mills 1993; Verhoeven et al. 2007). There were some exceptions in the analyses, with some measures of fathers' time with children not being significantly related to the relationship quality.

Previous research on fathering and psychological wellbeing suggests that fathers' poorer wellbeing is associated with some level of disengagement from other family members (Bronte-Tinkew et al. 2007; Pleck 1997; Wilson & Durbin 2010). It was interesting therefore to note that fathers' psychological wellbeing was only significantly associated with fathers' involvement in social and educational activities.

Family size findings were also somewhat mixed, and in fact fathers' involvement appeared to depend upon the ages as well as the number of siblings. These analyses found that the number of older—not younger—siblings reduced fathers' time with children and involvement in many tasks. In part, this may indicate that older siblings alleviate the need for fathers to take on some of the tasks of helping to supervise young children. The number of younger siblings, however, was more likely to be associated with greater levels of father involvement, although this did not explain variation on all measures. It may mean, then, that fathers tend to take on some aspects of parenting of older children in the family, while mothers and older siblings play a greater role in parenting younger children. However, to confirm these findings, this needs further analyses of the data on mothers' involvement with children.

These analyses also found that boys shared more time with fathers than did girls, and fathers were more involved with boys than girls on a range of, though not all, activities. The evidence therefore confirms that, like the findings of several other studies, there are higher levels of fathers' involvement on a range of measures for boys, but with exceptions to this at particular ages and on particular tasks (Bryant & Zick 1996; Cooksey & Craig 1998; Laflamme, Pomerleau & Malcuit 2002; Palkovitz 1984; Yeung et al. 2001).

In contrast to previous work looking at child health and fathering (McNeill 2007; Parke & Beitel 1986), these analyses found that fathers had somewhat lower involvement with children of poorer health, although this was apparent on only some measures; for example, it was not apparent in total father-child time, nor on fathers' involvement with the play activities of 4 to 5 year olds.

Child temperament proved to explain some of the variation in fathers' time with children, when measured in terms of reactivity, but not sociability. Reactivity measures 'how intense and volatile the child is' (Smart & Sanson 2005, p. 52). That is, fathers were less involved with more 'difficult' children. Previous research has not consistently reported significant effects for reactivity for fathers (McBride et al. 2002; Mehall et al. 2009), and so further exploration of these results in comparison to the findings of international research may be useful.

To finish, we also note that it is clear from these data that fathers' time with children differed from mothers' time with children, most notably in terms of the amount of time each parent spent with their child and, subsequently, their involvement in different activities. Of course, this relates to different levels of paid employment, which we will see in the analyses in Section 5 and later in Section 7.

5 Couples' sharing of unpaid work, and co-parenting

In couple families, the father's role is defined within the context of a co-parental relationship, with mothers and fathers negotiating the sharing of unpaid work of bringing up a family, managing the household and providing support to each other in their roles within (and outside) the family (Feinberg 2003; Hawkins et al. 2002; Lamb 1986, 1997; Russell et al. 1999; Singleton 2005).

Feinberg (2003) conceptualised co-parenting as incorporating four intersecting components: division of labour, support/undermining, child-rearing agreement and joint family management. This section explores the first three of these dimensions using the LSAC data. (No data are available to explore the dimension of joint family management.)

We firstly examine the time that parents spend on child care, domestic work and also paid work, as this time dimension is one way to consider how parents share the tasks associated with raising children and running a home. This is also related to subjective measures of the fairness of time spent on child care and domestic work, using reports of mothers and fathers. A particular strength of LSAC is the availability of this information from mothers and fathers, so that both parents' views can be taken into account (Mikelson 2008).

Perceptions of the co-parental relationship are then examined, again using the reports of mothers and fathers. This subsection analyses the degree to which mothers and fathers say they give support to and are supported by each other in child rearing and the degree to which mothers say their partners understand their needs with respect to child rearing. (No information is available on whether parents undermine each other in their child-rearing patterns, the other aspect of this support/undermining component of co-parenting.) This is followed by analyses of mothers' and fathers' reports of the frequency of disagreements about child rearing. We then examine how these measures change across the waves of LSAC.

Finally, we examine how unpaid work and co-parenting vary with a range of explanatory variables.

These data are different from those presented in the previous section in one important respect. This section analyses questions that relate to fathering of any or all children in the family. In the previous section, fathering information was child-specific; that is, it focused on fathers' involvement with only the LSAC study children.

In the previous section, it was meaningful to analyse fathering according to the age of the study child by making comparisons across cohorts and waves of LSAC. In this section, comparisons by cohort/wave do not have the same meaning, given that fathering does not just relate to the study child. Nevertheless, continuing the use of this classification helps to maintain consistency with the rest of the report. Analysing differences across cohorts/waves also has some meaning in terms of family form, as the average age of the youngest child and the number of children increase over the cohorts/waves (see Appendix Table D1).

5.1 Unpaid work of child care and household tasks

Time spent on child care and household tasks

This subsection explores the amount of child care and domestic work undertaken by fathers relative to mothers, and also uses information provided by parents on the fairness of the division of child care and domestic work. Time spent in child care is likely to bring different immediate and long-term rewards than those offered by time spent in domestic work. Following Deutsch, Lussier & Servis (1993) and Bulanda (2004), then, these types of unpaid work are examined separately.

The amounts of time spent on child care or domestic work are based on parents' self-reports, using questions asked about usual time spent doing such activities. These items were captured in Waves 2 and 3 (see Box 5). Being self-reported, they may be subject to some misreporting, in that parents could over or underestimate the amount of time they spend on these tasks. However, these data appear to be consistent with estimates of parents' time use derived from time use diaries from other sources.¹²

Box 5: Unpaid child care and other household work

In Waves 2 and 3, parents were asked to estimate the amount of time they spent on child care and the amount of time spent on other household work. This information was collected in the self-complete questionnaire, completed by each parent. Responses could be given in hours or minutes per week (or a combination of minutes/hours), and these data were converted to minutes for analyses. For presentation here, the data have been converted back to hours per day by dividing the weekly figures by seven.

On unpaid child care, parents were asked:

- ▶ 'How much time per week do you personally spend playing with your children, helping them with personal care, teaching, coaching or actively supervising them, getting them to child care, school or other activities?'

For other household work, parents were asked:

- ▶ 'How much time per week do you personally spend on domestic tasks such as housework, home maintenance, shopping and cooking?'

Note: See notes to Table 21 for more information about the derivations from these data.

We expected to find that mothers do the majority of unpaid household work, whether child care or other domestic work, given the findings from previous Australian analyses of adult time use (Baxter 2002; Baxter, Hewitt & Western 2005; Craig & Mullan 2009). Even when mothers are in paid employment, and even if employed full-time, on average they are likely to spend more time in these tasks than fathers (Baxter, Hewitt & Western 2005; Craig 2006).

The LSAC data show considerable differences for mothers and fathers in the time they spent on child care or domestic tasks (Table 21). Fathers spent around two hours per day, on average, on child care, with this time declining across the cohorts/waves (that is, as children grew older). Mothers' time on child care was more than double fathers' time, at over five hours per day for the younger cohort, when the LSAC children were aged 2 to 3 years and 4 to 5 years, compared with just under four hours for the older cohort at 6 to 7 and 8 to 9 years. For other domestic work, smaller differences were evident across the cohorts/waves, although the time fathers spent on this work (around 1.3 hours per day) was again less than half that of mothers at all time points (between 3.5 hours and 3.8 hours per day).

Table 21: Maternal and paternal child care, domestic and paid work by age, estimated hours per day

Mean hours per day	2–3 years	4–5 years (B)	6–7 years	8–9 years
Fathers				
Total unpaid	3.7	3.5	3.2	3.0
Child care	2.4	2.1	1.9	1.7
Domestic work	1.3	1.3	1.4	1.3
Total paid employment	6.0	6.1	6.0	6.1
Total paid and unpaid	9.8	9.5	9.3	9.1
Sample size	3,039	2,675	2,842	2,587
Mothers				
Total unpaid	9.3	8.7	7.5	7.4
Child care	5.4	5.0	3.7	3.9
Domestic work	3.8	3.6	3.8	3.5
Total paid employment	1.7	1.9	2.1	2.6
Total paid and unpaid	10.9	10.6	9.7	10.0
Sample size	2,932	3,825	2,784	3,547
Couple-level estimates				
Child care				
Total couple-level child care (hours per day)	7.9	7.2	5.6	5.5
Mean fathers' child care (% of fathers'+mothers')	32.4	30.8	34.7	32.1
Domestic work				
Total couple-level domestic work (hours per day)	5.1	4.9	5.3	4.7
Mean fathers' domestic work (% of fathers'+mothers')	27.4	28.3	27.9	29.2
Sample size	2,771	2,651	2,605	2,547

Notes: These figures have been derived from weekly data by dividing by seven. The apparently low estimates for paid work are because most people do not work over seven days. Assumes child care, domestic work and paid work are all mutually exclusive. This may be a less valid assumption for child care and domestic work, as supervisory child care work may be done while doing domestic tasks. See Box 5 for question wording. Couple-level estimates are based on families in which both mother and father returned self-complete questionnaires.

Source: Mothers' and fathers' self-complete questionnaires, Waves 2 and 3.

One important dimension of co-parenting is the way in which parents organise their paid work to facilitate gaining sufficient income to support the family's needs. In many families, fathers play a very significant role in this respect, being the main income earner in a high proportion of families (see Section 7.1). While this subsection does not examine paid work in financial terms, fathers' hours of paid employment are considered, relative to those of mothers, and relative to the hours of unpaid housework and child care carried out by both parents.

Table 21 shows that fathers complete between 9.1 and 9.8 hours per day of paid and unpaid work, on average—based on the sum of time spent on child care, domestic work and paid work—to give a total daily ‘work’ figure. Mothers do a little more than this, between 9.7 and 10.9 hours per day. For both parents—especially mothers, who do more domestic work—there may be some double-counting of time if domestic and child care work is done concurrently. The total workload of mothers and fathers may therefore actually be fairly comparable (see notes to Table 21). This finding has been reported elsewhere, for the United States (Bianchi & Raley 2005). Using Australian data, Craig, Mullan and Blaxland (2010) showed that the total workloads of mothers and fathers (with children aged under 5 years) were similar when the main activities of parents were considered. But when secondary activities were also included, mothers’ unpaid work total was greater than fathers’ due to the greater amount of time spent in child care as a secondary activity. There is considerable variation in such estimates of mothers’ and fathers’ time in unpaid work, depending upon the methods and measures used (Folbre et al. 2005).

The types of work undertaken by mothers and fathers are very different. At the aggregate level, fathers’ work is predominantly paid work in the labour market and mothers’ work is predominantly the unpaid work of child care or domestic tasks, although of course at the individual family level this is not always the case. As children get older, changes in the nature of mothers’ work are apparent, with increases in time spent in paid work, and declines in child care time. There is little change in the amount of domestic work, however. Fathers, too, report a decline in time spent doing child care tasks from when the LSAC children are aged 2 to 3 years to when aged 8 to 9 years.

Overall, fathers undertake around one-third of the total child care (measured in time) in couple families and do a little less, as a proportion of total, of the domestic work, at just under 30 per cent of the combined mother and father domestic work. These proportions are very similar to those reported in time use studies for other OECD countries (for example, Hook 2006; Wood & Repetti 2004).

Parents spent a lesser amount of time on child care tasks than they spent in total with their LSAC child (see Table 22). This is consistent with analyses of adult time use diaries, in which it is noted that parents are not always primarily engaged in child care while with their child (Budig & Folbre 2004; Folbre et al. 2005). Table 8 showed that children are engaged in a range of tasks while in the presence of their parents, and at different ages some tasks may require more parental input than others. That is, at certain times and for particular ages of children, parents would be engaging in child care, while at other times they would be less actively involved.

Table 22: Comparison of total child care time with total parent–child time, mothers and fathers

	2–3 years	4–5 years	6–7 years	8–9 years
Mean hours per day				
Father–child time	4.6	4.7	4.1	4.3
Fathers’ child care time	2.4	2.1	1.9	1.7
Mother–child time	8.5	8.1	6.3	6.5
Mothers’ child care time	5.4	5.0	3.7	3.9
Sample sizes				
Mother–child and father–child time	2,536	2,225	2,200	1,964
Fathers’ child care time	3,060	2,686	2,864	2,598
Mothers’ child care time	2,971	3,825	2,820	3,547

Notes: Father–child and mother–child time refer to the amounts of time fathers or mothers were with the child, while the child was awake, derived from the children’s time use diaries. Data in minutes per day were given in Table 6. Only Waves 2 and 3 are shown as the child care data were only available from these waves. Excludes cases with incomplete time use data (see Box 1).

Source: Children’s time use diaries and mothers’ and fathers’ self-complete questionnaires, Waves 2 and 3.

It is also possible that child-oriented tasks are completed when children are not present. This captures the dimension of fathering that Lamb (1986) referred to as 'responsibility', in which fathers are not necessarily engaging with children, but are nevertheless undertaking some task associated with their upbringing; for example, attending to issues of school attendance or shopping for their clothes. As with other aspects of child care, such tasks more often rest with the mother (Lamb et al. 1987). This 'invisible' domestic or child care work can also include the mental work of planning and worrying, and may not be included in parents' estimates of unpaid household work (Ehrenberg et al. 2001; Meier, McNaughton-Cassill & Lynch 2006).

Clearly, there are differences between mothers and fathers in how much time they spend doing domestic or child-rearing work. But this may be part of the negotiated co-parental relationship, as fathers' participation in paid employment, and the income associated with this, is an important contribution to family wellbeing. This, of course, is also true for mothers in paid employment and, in these families, there may be more day-to-day sharing of tasks required in order to manage the 'work' associated with running a family and household. We return to this in the multivariate analyses later in this section.

Perceived fairness of division of child care and household tasks

How fair is this division of child care and household tasks seen to be? We know that satisfaction with the distribution of unpaid work is likely to vary for mothers and fathers (Baxter & Western 1997). Also, the actual distribution of time spent on such tasks within couples may not represent what they would ideally like (Milkie et al. 2002). Further, parents may have different perceptions of how much time they and their partner spend on child care or household work. For example, Milkie et al. found that fathers' estimates of their own level of involvement in domestic work were higher than mothers' estimates of fathers' involvement.

Perceptions of fairness are important as, especially for mothers, a sense of unfairness is an important trigger for conflict when children are very young (Cowan & Cowan 1988). Discrepancies between expectations and reality with regard to household work and child care are related to depression and relationship difficulties, parental stress and poorer parenting styles (Blair 1998; Feinberg 2003; Goodnow 1998; Kalmuss, Davidson & Cushman 1992).

In the LSAC survey, questions relating to the fairness of the sharing of domestic and child care work were obtained from mothers and fathers at each wave, for both cohorts (see Box 6).

Box 6: Perceived fairness of sharing on child care and domestic tasks in LSAC

In the self-complete questionnaires, in all waves, questions were asked about the fairness of the sharing of child rearing and household work.

- ▶ 'Do you think that you do your fair share of the child-rearing tasks?'
- ▶ 'Do you think that you do your fair share of the domestic tasks?'

Response categories were: 1=I do much less than my fair share; 2=I do less than my fair share; 3=I do my fair share; 4=I do more than my fair share; 5=I do much more than my fair share.

Table 23 shows, for each cohort/wave, the distribution of fairness for domestic tasks, as reported by fathers and mothers. Between 55 and 59 per cent of fathers thought they did their fair share of the domestic work, with 9 to 15 per cent (more in Wave 1 and generally less in Waves 2 and 3) feeling they did more or much more than their fair share. However, one-quarter to one-third reported that they did less or much less than their fair share. Mothers' reports were more skewed, as they were more likely to think they did more or much more than their fair share (56 to 64 per cent of mothers). A much smaller proportion of mothers than of fathers saw the balance of domestic work as fair (between 34 and 42 per cent of mothers).

The responses for child care work were similar, although compared to the domestic work responses, fathers were somewhat more likely to think they did their fair share, and less likely to say they did less or much less

than their fair share. For most of the age groups, mothers were a little more likely to say the child care sharing was fair, compared to their perceptions regarding domestic work. For mothers of the 0 to 1 year LSAC children, a relatively high proportion said they did more or much more than their fair share.

Table 23: Perceived fairness of own share of domestic work, fathers and mothers, by cohort/wave

	Do less or much less than my fair share	Do my fair share	Do more or much more than my fair share	Total	Sample size
	%				
Fathers					
0–1 year	26.0	59.4	14.7	100.0	3,604
2–3 years	33.8	57.7	8.6	100.0	3,093
4–5 years (B)	33.1	57.5	9.4	100.0	2,725
4–5 years (K)	30.6	55.1	14.3	100.0	3,305
6–7 years	36.3	54.7	9.1	100.0	2,888
8–9 years	34.6	55.1	10.3	100.0	2,634
Mothers					
0–1 year	2.3	36.7	61.0	100.0	3,902
2–3 years	2.1	36.9	61.1	100.0	3,079
4–5 years (B)	2.5	40.8	56.7	100.0	3,828
4–5 years (K)	1.8	34.0	64.1	100.0	3,579
6–7 years	2.2	35.2	62.6	100.0	2,894
8–9 years	2.2	42.2	55.6	100.0	3,550

Source: Self-complete questionnaires, Waves 1–3.

Table 24: Perceived fairness of own share of child care, fathers and mothers, by cohort/wave

	Do less or much less than my fair share	Do my fair share	Do more or much more than my fair share	Total	Sample size
	%				
Fathers					
0–1 year	20.2	68.7	11.1	100.0	3,612
2–3 years	23.1	70.6	6.4	100.0	2,784
4–5 years (B)	25.4	66.9	7.7	100.0	2,720
4–5 years (K)	20.8	66.4	12.9	100.0	3,311
6–7 years	26.8	66.5	6.8	100.0	2,779
8–9 years	26.9	65.0	8.1	100.0	2,632
Mothers					
0–1 year	0.5	37.4	62.1	100.0	3,905
2–3 years	1.2	43.4	55.5	100.0	3,074
4–5 years (B)	1.2	45.1	53.7	100.0	3,828
4–5 years (K)	0.9	40.1	59.0	100.0	3,588
6–7 years	1.7	41.4	56.9	100.0	2,879
8–9 years	0.7	47.8	51.5	100.0	3,550

Source: Self-complete questionnaires, Waves 1–3.

It is interesting to examine couple-level responses to these items to assess the level of concordance within couples about the degree of fairness in the distribution of unpaid work. The first portion of Table 25 shows the agreement between fathers' and mothers' responses about the fair sharing of child care tasks. These data show that when fathers thought they (the fathers) did less than their fair share of child care, around three-quarters of the mothers agreed that they (the mothers) did more than their fair share. In 26 per cent of these families, however, there was some imbalance between mothers' and fathers' perceptions, as mothers thought they did their fair share. For the largest group—fathers who thought they did their fair share—around half the mothers agreed, but the remaining half thought they (the mothers) did more than their fair share, representing another imbalance in perceptions. It was rare for fathers to say they thought they did **more** than their fair share of the child care tasks, and about half of the mothers in these families also thought they themselves were doing more than their fair share, so these are possibly the very time-pressed families in which everyone is feeling stretched.

Are parents' perceptions of fairness based on the actual time mothers and fathers spend on such activities? These data on perceptions of fairness can be related to the information provided by parents on the amount of time they spent on child care or domestic tasks (in Waves 2 and 3 only). Focusing just on child care time, by adding together the amount of time mothers and fathers reported they spent on these tasks within each family (where both mother and father responded), we calculated the percentage of the total parental child care time that was completed by fathers. The second portion of Table 25 shows that, on average, fathers undertook 32 per cent of the parental child care within these couple families overall. For fathers who thought they did less than their fair share of child care, it was 24 per cent; for those who felt they did about their fair share, it was 34 per cent; while fathers who felt they did more than their fair share carried out 42 per cent of the total parental child care. Within these groups, the variation by mothers' reporting of fairness of sharing child care was also apparent.

Table 25: Agreement between fathers’ and mothers’ perceived fairness of own share of child care and fathers’ child care time as proportion of total parental child care time

Fathers’ reports of child care fairness	Mothers’ reports of child care fairness				Sample size
	Do less than fair share	Do fair share	Do more than fair share	Total	
Distribution: agreement between mother and father (%)					
Do less than fair share	0.4	26.2	73.4	100.0	4,240
Do fair share	0.7	49.7	49.6	100.0	12,086
Do more than fair share	3.7	47.0	49.3	100.0	1,514
Total	0.9	43.8	55.3	100.0	17,840
Fathers’ child care time (mean %)					
Do less than fair share	31.7	27.3	23.2	24.3***	2,668
Do fair share	52.9	36.7	31.1	34.2***	6,965
Do more than fair share	73.1	43.8	37.6	42.4***	668
Total	55.6	35.8	28.6	32.2***	10,301
Significance	***	***	***	***	

Notes: Cohorts have been combined, including Waves 1–3 in calculations of the distribution, and Waves 2–3 in calculations of child care time (since these data were not collected at Wave 1). If there were non-responses at any wave, data at responding waves were retained. Includes only families in which both mother and father completed self-complete questionnaire. Asterisks indicate significance of difference across the reports of fairness of sharing, across mothers’ reports (as indicated in total column) and across fathers’ reports (final row). *** $p < 0.001$.

Source: Self-complete questionnaires.

The correspondence between mothers’ and fathers’ reports of domestic work was similar to that described for child care in Table 25, although, at an average of 28 per cent, fathers did a slightly lower percentage of the total household domestic work compared with child care (Table 26). Relating this time distribution to perceptions of fairness, similar relationships are apparent to those described for child care: the proportion of domestic work completed by parents (mothers or fathers) who felt they undertook less than their fair share of the domestic work was lower than the proportion for parents who felt they did more than their fair share.

Table 26: Agreement between fathers' and mothers' perceived fairness of own share of domestic work and fathers' domestic work time as proportion of household-level domestic work time

Fathers' reports of domestic work fairness	Mothers' reports of domestic work fairness				Sample size
	Do less than fair share	Do fair share	Do more than fair share	Total	
Distribution: agreement between mother and father (%)					
Do less than fair share	0.7	20.2	79.1	100.0	5,729
Do fair share	1.6	46.7	51.7	100.0	10,115
Do more than fair share	9.9	47.9	42.2	100.0	1,888
Total	2.2	38.3	59.5	100.0	17,732
Fathers' domestic work time (mean %)					
Do less than fair share	30.7	20.8	17.4	18.2***	3,700
Do fair share	55.7	34.3	27.9	31.6***	6,068
Do more than fair share	64.8	46.1	37.8	45.0***	930
Total	56.6	33.1	23.6	28.1***	10,698
Significance	***	***	***	***	

Notes: Cohorts have been combined, including Waves 1–3 in calculations of the distribution, and Waves 2–3 in calculations of domestic work time (since these data were not collected at Wave 1). Includes only families in which both mother and father completed self-complete questionnaire. Asterisks indicate significance of difference across the reports of fairness of sharing, across mothers' reports (as indicated in total column) and across fathers' reports (final row). *** $p < 0.001$.

Source: Self-complete questionnaires.

Differences in the gendered nature of household tasks are apparent in these data as, even when mothers reported the division of child care to be 'fair', they undertook 64 per cent of the child care (that is, fathers were doing 36 per cent). Similarly, when mothers reported the division of domestic work as 'fair', they completed 67 per cent of this work (that is, fathers were doing 33 per cent). Looking at fathers' reports, those who felt there was a fair division of child care undertook 34 per cent in actuality, and those who perceived there to be a fair division of domestic work carried out only 32 per cent of such tasks. Of course, these data do not include time that mothers and fathers spent in paid employment, and this time commitment no doubt forms part of the process by which mothers and fathers assess the fairness of time spent on unpaid work in the home (both child care or other work) (Blair 1998; Goodnow 1998; Kalmuss, Davidson & Cushman 1992).

Summary

These data on the time mothers and fathers spend on child care and domestic tasks affirm just how different the distributions are of their unpaid work in the home. However, when considered within the broader context of paid and unpaid work, the total workload of mothers and fathers is similar. It is the allocation of time to unpaid versus paid work that differs significantly. Across the ages of children analysed here, there is some change in these patterns, with mothers allocating more of their time to paid rather than unpaid work as their children grow older. But among mothers of 8 to 9 year olds, there remained very significant differences in the time spent by fathers and mothers on these tasks.

The subjective reports of fairness of time given to child care and domestic work differed considerably for mothers and fathers. Assessments of fairness appeared to reflect the actual sharing of these tasks within the home. Even so, the perceptions of fairness differed for mothers and fathers, and this is likely to be linked to gender role attitudes as well as differences in time spent in the paid labour market.

5.2 Subjective measures of co-parenting

There are other dimensions to the co-parental relationship beyond the sharing of unpaid work. ‘Co-parenting’ incorporates how parents support each other in the parenting role and how they share decisions and communicate about child rearing (Bronte-Tinkew et al. 2009; McHale et al. 2004; Van Egeren 2004). This co-parenting can have significant flow-on effects to the children (see Section 9), and in particular is thought to be an important link between parental relationship difficulties or conflict and children’s outcomes (Floyd, Gilliom & Costigan 1998; Margolin, Gorbis & John 2001).

Co-parenting can be measured using a number of constructs; for example, incorporating the ways in which parents support each other or put each other down; or the way in which they affirm each other’s parenting styles or undermine them (Floyd, Gilliom & Costigan 1998; Margolin, Gordis & John 2001; McHale et al. 2000; Stright & Bales 2003). This subsection examines some aspects of the co-parental relationship available from the LSAC dataset. While these do not cover all dimensions of co-parenting, they capture some of the positive as well as negative aspects. These measures are the degree to which mothers and fathers say they give support to and are supported by each other in child rearing; the degree to which mothers and fathers say their partner understands and is supportive of their needs with respect to child rearing; and mothers’ and fathers’ reports of the frequency of disagreements about child rearing. These questions were asked of both cohorts at Waves 1 and 3. The question about disagreements was also asked at Wave 2. See Box 7 for details.

Box 7: Subjective co-parenting measures

Reports of parents’ provision of support to each other, and other measures relating to the co-parental relationship were collected in the self-complete questionnaires.

Parents were asked, ‘How often:

- is your partner a resource or support to you in raising your children?
- are you a resource or support to your partner in raising your children?
- do you feel your partner understands and is supportive of your needs as a parent?
- do you and your partner disagree about basic child-rearing issues?’

Response categories were: 1=never, 2=rarely, 3=sometimes, 4=often, 5=always.

Parents’ provision of support to each other

In terms of parents’ provision of support to each other in child rearing, Table 27 shows fathers’ reports about themselves and their partner, and mothers’ reports about themselves and their partner. Initially, we look at combined data from all cohorts at Waves 1 and 3 (no Wave 2 data were collected). Fathers were very positive about the resource and support provided by the mother to them (76 per cent said their partner was always a resource or support). Shown in the final column, mothers’ perceptions of the support they themselves provided was very similar (71 per cent said they were always a resource or support). Fathers were considerably less positive about their own fulfilment of this role (37 per cent answered always, 42 per cent often and 19 per cent sometimes). This assessment was more negative than that reported by mothers (52 per cent always, 34 per cent often and 12 per cent sometimes).

Table 27: Parents' reports of being a resource or support to each other

	Fathers' reports of partner as a support	Fathers' reports of self as a support to partner	Mothers' reports of partner as a support	Mothers' reports of self as a support to partner
	%			
Rarely or never	0.8	2.2	2.5	1.0
Sometimes	3.5	18.5	11.8	3.2
Often	19.6	42.4	33.5	24.5
Always	76.1	36.8	52.2	71.3
Total	100.0	100.0	100.0	100.0
Sample size	12,236	12,216	13,800	13,789

Note: Data are from Waves 1 and 3 only since these data were not collected at Wave 2.

Source: Waves 1 and 3, B and K cohorts.

We also explored whether these perceptions of supportiveness varied across the cohorts/waves (see Appendix Table E3). The differences were quite slight and there was not an overall trend upwards or downwards. However a comparison of the parents of 0 to 1 year olds with those of 8 to 9 year olds suggests that parents rate the supportiveness of mothers a little higher at the younger age, although it is very high at all cohorts/waves. Mothers' reports of the degree to which the father is a resource or support are more positive at 8 to 9 years than at 0 to 1 years, but fathers' reports are slightly less positive.

How are these perceptions of support related to the amount of child care done by fathers? To examine this, Table 28 firstly compares the amount of child care undertaken by fathers (as a proportion of the total parental child care time) by mothers' and fathers' reports of being a support to each other. Differences are apparent for fathers' fulfilment of being a resource or support according to mothers' and fathers' reports alike, with fathers who are more often a resource or support spending proportionately more time doing child care. However, mothers' support to the father—as self-assessed or assessed by the father—is far less strongly related to the way child care time is shared between mothers and fathers. It appears that for mothers, being a resource or support to the father is less related to the time they spend on child care. For mothers, however, having fathers share more in the child care seems to be a valued component of being a resource or support.

Table 28: Parents' reports of being a resource or support to each other in child rearing and fathers' child care time as proportion of total parental child care time

	Fathers' reports of partner as a support	Fathers' reports of self as a support to partner	Mothers' reports of partner as a support	Mothers' reports of self as a support to partner
	Fathers' child care time (mean %)			
Sometimes, rarely or never	31.8	23.4	24.9	28.9
Often	32.1	31.4	30.8	32.8
Always	31.2	35.3	34.1	31.0
Total	31.4	31.4	31.4	31.5
Sample size	5,181	5,181	5,010	5,007
Significance	n.s.	***	***	*

Notes: Includes only families in which both mother and father completed self-complete questionnaire. Data are from Waves 1 and 3 only since these data were not collected at Wave 2. * $p < 0.05$; *** $p < 0.001$. n.s.=not significant.

Source: Wave 3, B and K cohorts.

As we have family-level data, we can examine whether mothers and fathers agree on the extent to which each is a resource or support to the other. Focusing on the degree to which fathers were rated as a resource or support by themselves or by mothers, Table 29 shows that there was some correspondence between mothers' and fathers' assessments. However, a very significant proportion was not in agreement. In particular, when fathers rated themselves as always a resource or support in child rearing, 69 per cent of mothers agreed with this rating, 24 per cent said they were often a support, and 7 per cent gave lower ratings than this. When fathers rated themselves as often being a resource or support, however, 51 per cent of the mothers gave them the higher 'always' rating. Even among those who rated themselves as sometimes, rarely or never being a resource or support, 33 per cent of mothers said they were always a resource or support. Perhaps these differences indicate that mothers and fathers take different things into account when making such assessments.

Table 29: Agreement on parents' reports of fathers being a resource or support to mothers in child rearing

Fathers' reports of self as support	Mothers' reports of father as support				Sample size
	Sometimes, rarely or never	Often	Always	Total	
Distribution: agreement between mother and father (%)					
Sometimes, rarely or never	28.6	38.6	32.9	100.0	2,466
Often	10.9	38.1	51.0	100.0	5,095
Always	6.9	23.7	69.4	100.0	4,268
Total	13.1	32.9	53.9	100.0	11,829

Notes: Includes only families in which both mother and father completed self-complete questionnaire. Data are from Waves 1 and 3 only since these data were not collected at Wave 2.

Source: Waves 1 and 3, B and K cohorts.

We have already examined the relationship between perceptions of support and time spent on child care. Another way in which many fathers contribute resources to the family is by providing income from paid employment. Fulfilling the provider role by contributing more to the family income may be one way fathers see themselves as being a resource or support to their partner in raising children. Equally, mothers may value this role when assessing the extent to which fathers are a resource or support. This question was addressed by looking at whether perceptions of fathers as being a resource or support were related to the proportion of total parental income contributed by fathers. Table 30 shows that a higher rating of being a resource or support was not associated with a greater financial contribution.¹³ In fact, the differences across groups show that the percentage of financial contributions are smaller, on average, for those rated as 'often' or 'always' being a resource or support in raising children. This does not mean the provider role is not valued, but it appears to be unimportant when mothers are rating their partners' supportiveness.

Table 30: Parents' reports of fathers being a resource or support to mothers in child rearing and fathers' contribution to parental income

	Fathers' reports of self as a support to partner	Mothers' reports of father as a support
	Fathers' contribution to parental income (mean %)	
Sometimes, rarely or never	73.8	70.4
Often	72.2	72.0
Always	67.4	69.4
Total	70.7	70.4
Sample size	10,707	12,082
Significance	***	***

Notes: Income calculations are based on those who provided income details for each parent using gross income. Data are from Waves 1 and 3 only since these data were not collected at Wave 2. *** $p < 0.001$.

Source: Waves 1 and 3, B and K cohorts.

Understanding and supportiveness of partners' needs

Mothers and fathers were also asked about whether they felt their partner understood and were supportive of their needs as a parent. While this is similar to the question previously analysed, the 'understanding' might also capture some degree of respect or appreciation of the other's role.

Table 31 shows that mothers perceived fathers to be often (40 per cent) or always (36 per cent) understanding and supportive of their needs as a parent. One-quarter, however, were less positive, giving ratings of sometimes (19 per cent) or rarely or never (5 per cent). These perceptions were linked to the amount of child care that fathers undertook, with fathers who were rated more positively carrying out more of the child care, on average. The differences, however, were not very large, with the least supportive fathers doing 27 per cent of the child care, on average, compared to the most supportive fathers, who did an average of 34 per cent of the child care. These data do not allow us to determine causal relationships. Thus, it is possible that through doing child care, fathers gain a greater understanding of the mothers' needs; or, alternatively, that fathers' understanding and supportiveness facilitate their participation in child care; or that these trends reflect other characteristics of fathers that underpin both their supportiveness and contribution to child care.

Table 27 shows that, according to fathers, the vast majority of mothers always or often were a resource or support to them in raising their children, and Table 31 shows also that the vast majority of fathers (84 per cent) said their partner often or always understood their needs as a parent. It thus appears that the majority of fathers feel that they are well supported by their partner in their role as father. This is of interest, as previous research has shown that an important factor in enabling the involvement of fathers is to have a supportive partner (Allen & Daly 2002; Shannon, Tamis-LeMonda & Cabrera 2006; Volling & Belsky 1991).

We see in Table 31 that there is a significant relationship between fathers' child care time and fathers' assessments of mothers' understanding and supportiveness regarding parenting. The very small proportion of fathers who said their partner rarely or never understood or was supportive of their needs as a parent did a relatively high share of the child care. Among other fathers, those who rated mothers as being sometimes supportive and understanding did a smaller share of the child care than those who rated mothers as being always supportive and understanding.

Table 31: Understanding and supportiveness of partner to parental needs, and relationships with fathers' child care times

	Fathers' reports		Mothers' reports	
	Partner understands and is supportive	Fathers' child care time (mean %)	Partner understands and is supportive	Fathers' child care time (mean %)
Rarely or never	2.1	32.0	4.7	26.7
Sometimes	13.6	29.3	19.2	29.0
Often	40.1	30.7	39.9	31.3
Always	44.3	32.7	36.1	33.6
Total	100.0	31.4	100.0	31.4
Sample size	12,165	5,165	13,776	5,007
Significance		***		***

Notes: For reports of understanding, cohorts were combined from Waves 1 and 3, when these questions about support were asked. The percentage of fathers' child care time was from Wave 3 only as these child care data were only collected in Waves 2 and 3. *** $p < 0.001$.

Source: Waves 1 and 3.

These data on the degree to which partners understood and were supportive of each others' needs as a parent were also analysed by cohort/wave. The results are shown in Appendix Table E4. Only very small changes were detected, and only on mothers' reporting on the extent to which fathers understood and were supportive of their needs as a parent. Mothers were a little less positive when their children were older, but it is not clear that there was a trend across the ages.

Disagreements about child rearing

One indication of the negative aspects of co-parenting is the extent of disagreements between parents over child-rearing issues. While occasional disagreements are likely to be commonplace, more regular disagreements may be symptomatic of a strained relationship between mother and father (Feinberg 2002, 2003). Most parents in LSAC reported low levels of disagreement about child-rearing issues. Around two-thirds never or rarely had disagreements, with 29 to 32 per cent reporting sometimes having disagreements (Table 32).

From fathers' reports, there was some relationship between fathers doing less child care and having more disagreements about child rearing (Table 32). This could suggest that fathers disengage from children when there is more disharmony in the home, or that arguments become more likely when the division of child care time is more inequitable. In contrast, mothers' reports of the frequency of disagreements were not related to the percentage of child care time fulfilled by fathers.

Table 32: Parental disagreements about basic child-rearing issues, and relationships with fathers' child care time

	Fathers' reports		Mothers' reports	
	Disagree about child rearing	Fathers' child care time (mean %)	Disagree about child rearing	Fathers' child care time (mean %)
Never	15.3	32.6	14.6	32.9
Rarely	51.2	32.7	47.9	32.4
Sometimes	28.8	32.5	31.5	32.6
Often or always	4.7	30.7	6.1	33.0
Total	100.0	32.5	100.0	32.6
Sample size	18,242	10,631	21,399	10,416
Significance		**		n.s.

Notes: For reports of disagreements, cohorts were combined from Waves 1, 2 and 3. The percentage of fathers' child care time was based on Waves 2 and 3 when these data were available. ** $p < 0.01$. n.s.=not significant.

Source: Waves 1–3.

Co-parenting across waves of LSAC

The co-parental relationship initially develops through the transition to parenthood, but the nature of this relationship evolves over time. Changes in child characteristics, and the birth of additional children, as well as changes in the parents themselves and the contexts in which they live are all likely to contribute to how this co-parental relationship develops. However, research on co-parenting in the year or so after a birth has shown some stability in co-parenting patterns, with parents who exhibited more positive co-parenting behaviours early on tending to exhibit positive co-parenting behaviours as the child grew older (Davis et al. 2009; McHale & Rotman 2007; Van Egeren 2004).

To examine whether fathers who were 'better' co-parents at one point in time remained so at later times, across-time correlations were computed for mothers' and fathers' reports of how supportive fathers were towards mothers. Table 33 shows that the correlations, whether two years (one wave) or four years (two waves) apart, are positive and moderate. This suggests a certain degree of stability. However, correlations of less than 0.5 also suggest that there were changes in perceptions of co-parenting across the waves.

Table 33: Correlation between co-parenting measures across waves, by cohort

		Correlation Waves 1 to 2	Correlation Waves 2 to 3	Correlation Waves 1 to 3
Fathers' reports of self as resource/support	B cohort	–	–	0.32***
	K cohort	–	–	0.39***
Mothers' reports of father as resource/support	B cohort	–	–	0.40***
	K cohort	–	–	0.46***
Mothers' reports that father understands needs	B cohort	–	–	0.42***
	K cohort	–	–	0.49***
Fathers' reports of disagreements about child rearing	B cohort	0.38***	0.43***	0.34***
	K cohort	0.45***	0.40***	0.38***

Notes: '–'=not applicable (data for these items were not collected in Wave 2, so correlations could not be made). Based on families in which the mother and father did not change over the waves. *** $p < 0.001$.

Source: Waves 1–3.

Of course, an underlying reason for consistency across waves is that some men, or fathers, are possibly ‘better’ co-parents by way of their own or family characteristics, or their desire to be a ‘good father’ and ‘good partner’ to the child’s mother. Further, the differences across waves could reflect changes in family characteristics, such as the birth of additional children, or changes in work patterns, that might affect the co-parental relationship. The following subsection examines this, by looking at which factors explain variation in a range of co-parenting items as well as the measures of time spent on child care and domestic tasks.

5.3 Multivariate analyses

The various measures of co-parenting are now explored with multivariate analyses, using the explanatory variables outlined in Section 3, to ascertain how these aspects of fathering vary according to different parental, child and family characteristics. As discussed at the beginning of this section, these analyses are based on fathering of all children in the family, not just the LSAC child. For these multivariate analyses, therefore, some of the explanatory variables differ to those used in Section 4. For example, specific child characteristics are excluded and replaced by general measures of family form. The variables common to the previous analyses were described in Table 3 and the new broad fathering variables were described in Table 5.

The results for parents’ time spent on unpaid work are given in Table 34, and include the time fathers and mothers spent on child care or domestic tasks. These analyses only use Wave 2 and 3 data since they were not collected in Wave 1. The mothers’ data are included for comparative purposes and to show how mothers’ use of time may be associated with differences in fathers’ characteristics. We have not undertaken multivariate analyses of the fairness of division of tasks. For the subjective measures of co-parenting (Table 35), a subset of the measures are used, some mother-reported and some father-reported, to give a picture of the factors related to the co-parenting done by fathers (in particular, the degree to which fathers say they are understood by mothers in relation to their needs as a parent). The measures included here are the extent of support fathers give mothers, as reported by both parents; the extent to which parents feel their needs as a parent are understood by their partner, as reported by mothers and fathers; and the extent of disagreement about child rearing, also as reported by each parent. For the latter, the measure has been reversed such that a higher number indicates fewer disagreements, so that on all measures a higher score indicates a ‘better’ co-parental relationship. These co-parenting measures were all based on Waves 1 and 3, except for disagreements about child rearing, which was also available at Wave 2.

Table 34: Multivariate analyses of co-parenting: fathers' and mothers' child care and domestic work time

	Fathers' child care time	Fathers' domestic work time	Mothers' child care time	Mothers' domestic work time
	Minutes per week			
Fathers' usual work hours (ref: 35–44 hours)				
0 hours	165***	169***	-178***	-95**
1–34 hours	177***	100***	-132*	-183***
45–54 hours	-40*	-65***	118***	73**
55 hours or more	-94***	-132***	170***	205***
Fathers' education (ref: Incomplete secondary)				
Complete secondary, certificate/diploma	18	37*	102*	-2
Bachelor degree or higher	18	17	52	-98**
Mothers' usual work hours (ref: 0 hours)				
1–34 hours	63***	40***	-245***	-287***
35 hours or more	153***	169***	-614***	-630***
Fathers' characteristics				
English not main language	-89***	-20	-229***	13
Indigenous	99	22	190	20
Age (years) ^(a)	-1	7***	-3	8***
Better mental health ^(a)	30*	-24*	-4	-47*
Has children living elsewhere	-85**	-35	18	-42
Relationship quality ^(a)	44***	4	21	10
Cohabiting (ref: Married)	41	38*	51	49
Family structure (ref: Biological children only)				
Blended family	65*	87***	-131*	-14
Stepfather	24	82	-41	-136
Other family and child characteristics				
Mother bachelor degree or higher	37*	20	36	85***
Family is just getting along, poor or very poor	-17	16	141***	-26
Number of children	-59***	15*	-43**	167***
Age of youngest child (years)	-30***	-10***	-124***	-22***
Girls only (relative to boys only)	-59*	3	-70	-15
Mixed sex (relative to all boys)	0	4	-13	9
Cohort/wave (ref: 8–9 years)				
Child age 2–3 years	188***	15	62	99**
Child age 4–5 years (B)	100***	19	9	-32
Child age 6–7 years	50**	38**	-255***	141***
Constant	983***	479***	2,633***	1,341***
Number of observations	10,440	10,452	10,144	10,153
Number of children	6,369	6,378	6,275	6,288
Overall R-squared	0.08	0.07	0.15	0.14
Rho	0.40	0.41	0.21	0.31

(a) Centred at sample means. See Section 3.7 for details.

Notes: Results are from RE models. Each question was modelled separately, with response items from: 1=not at all to 5=once a day or more. * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

Source: Waves 2 and 3, B and K cohorts.

Table 35: Multivariate analyses of subjective measures of co-parenting

	Father is support to mother		Partner understands your needs as parent		Fewer disagreements about child rearing	
	Mother agrees	Father agrees	Mother agrees	Father agrees	Mother agrees	Father agrees
Fathers' usual work hours (ref: 35–44 hours)						
0 hours	0.06*	0.14***	0.09**	0.08***	-0.02	0.01
1–34 hours	0.03	0.12***	0.04	0.07*	-0.02	-0.01
45–54 hours	-0.07***	-0.07***	-0.06**	-0.02	0.00	0.00
55 hours or more	-0.20***	-0.19***	-0.15***	-0.05**	0.03	0.02
Fathers' education (ref: Incomplete secondary)						
Complete secondary, certificate/diploma	0.07**	-0.01	0.03	0.01	0.03	0.03
Bachelor degree or higher	0.17***	-0.04	0.12***	0.01	0.13***	0.10***
Mothers' usual work hours (ref: 0 hours)						
1–34 hours	0.01	0.08***	0.00	0.00	0.00	0.00
35 hours or more	0.10***	0.19***	0.07**	-0.01	-0.05*	-0.04*
Fathers' characteristics						
English not main language	-0.06*	0.13***	0.04	0.14***	-0.10***	-0.11***
Indigenous	0.02	0.01	0.05	0.05	-0.05	-0.02
Age (years) ^(a)	0.00	0.00**	0.00	0.00	-0.00*	0.00
Better mental health ^(a)	0.08***	0.22***	0.11***	0.23***	0.04***	0.14***
Has children living elsewhere	-0.08**	-0.06*	-0.04	-0.04	-0.02	-0.03
Relationship quality ^(a)	0.13***	0.12***	0.20***	0.26***	0.14***	0.17***
Cohabiting (ref: Married)	-0.08**	0.01	-0.14***	-0.03	-0.10***	-0.10***
Family structure (ref: Biological children only)						
Blended family	-0.06	-0.03	-0.04	-0.05	-0.15***	-0.12***
Stepfather	-0.06	0.01	0.16	0.13	0.16*	0.07
Other family and child characteristics						
Mother bachelor degree or higher	-0.06**	-0.07***	-0.02	0.05**	-0.01	0.01
Family is just getting along, poor or very poor	-0.05***	0.02	-0.10***	0.02	-0.04**	-0.01
Number of children	0.00	0.01	-0.01	-0.01	-0.02**	-0.03***
Age of youngest child (years)	0.00	0.00	0.01	0.00	-0.01	0.00
Girls only (relative to boys only)	-0.02	0.00	0.01	0.05*	0.05*	0.02
Mixed sex (relative to all boys)	-0.02	-0.02	0.00	0.02	0.01	0.01
Cohort/wave (ref: 0–1 year)						
Child age 2–3 years	-	-	-	-	-0.11***	-0.13***
Child age 4–5 years (B)	-0.16***	0.07**	-0.07**	-0.02	-0.08***	-0.10***
Child age 4–5 years (K)	0.04	0.03	0.03	-0.01	-0.11***	-0.14***
Child age 6–7 years	-	-	-	-	-0.04	-0.10***
Child age 8–9 years	-0.18***	0.06	-0.09*	0.01	-0.06	-0.08**
Constant	4.46***	4.09***	4.13***	4.21***	2.85***	2.91***
Number of observations	11,272	11,592	11,251	11,547	16,639	17,058
Number of children	7,145	7,285	7,141	7,268	7,549	7,652
Overall R-squared	0.10	0.10	0.13	0.23	0.09	0.14
Rho	0.42	0.32	0.43	0.29	0.39	0.36

(a) Centred at sample means. See Section 3.7 for details.

Notes: Results are from RE models. Based on one question each, categories from: 1=least agreement to 5=most agreement. Includes both cohorts, using Waves 1 and 3 for the 'support' and 'understanding' questions, and all waves for the disagreements questions. * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$. '-'=not applicable.

Source: Waves 1–3, B and K cohorts.

As in Section 4, we discuss the findings for one explanatory variable at a time, tying together their relationships with the various measures of co-parenting and sharing of household tasks.

Paid work hours of fathers and mothers

As with the father involvement data presented in the previous subsection, these data show strong associations between fathers' **paid work hours** and the amount of time they spent on child care or other domestic tasks. Fathers spent less time on these activities when they worked longer hours. Also, if fathers worked longer hours, mothers spent more time doing these tasks, after controlling for other factors such as mothers' own paid work hours. Additionally, mothers' perceptions of fathers as a resource or support in child care, or in understanding their needs in regard to raising children were lower when fathers worked longer hours. Fathers too were less likely to see themselves as a resource or support to mothers when they worked longer hours. There was, however, no tendency for parents to report more (or less) disagreement about raising children when fathers worked longer hours.

Employed mothers spent considerably less time doing child care or other domestic tasks compared to not-employed mothers, and this difference was particularly large for mothers working full-time hours. Fathers in these families reported significantly higher levels of child care and domestic work relative to fathers with a not-employed partner. However, the additional amount of unpaid work undertaken by these fathers fell well short of the lesser amount of unpaid work done by the mothers. When mothers worked full-time—rather than being not employed—fathers and mothers were more likely to have positive perceptions of the degree to which fathers were a resource or support to mothers, and mothers were more likely to believe that fathers understood their needs regarding raising children. These families, it seems, have to be quite collaborative to make the work–family balance work. However, there is evidence of some difficulties in these families, as both mothers and fathers were more likely to report that they had disagreements about child rearing than those in families with a mother who was not employed. Families with mothers in part-time employment tended to sit between these extremes for amounts of fathers' unpaid work, and also on one of the measures of co-parenting—the extent to which fathers say they support the mother in child rearing. On other subjective co-parenting measures, there were not statistically significant differences between families in which mothers were not employed and were part-time employed.

Marital and parental status

On the sharing of unpaid work—child care or other domestic work—there was very little difference according to whether parents were married or cohabiting. But more differences were apparent when looking at **family composition**. In blended families—when children in the family included those born to the father as well as stepchildren—fathers did more of the domestic work (but not child care), compared to families in which all children were the biological children of fathers. Mothers in these families did not differ significantly in the time spent on domestic work, but they spent less time on child care. Also, fathers who had children living elsewhere spent somewhat less time undertaking child care tasks.

According to mothers' reports, married, as opposed to cohabiting, fathers were more supportive and, according to both mothers and fathers, experienced fewer disagreements about child rearing. There were significant differences between those in blended as opposed to biological families on disagreements about child rearing, with mothers and fathers in the former situation both reporting more disagreements. Compared to fathers with only resident children, those with children living elsewhere were less of a support or resource to mothers, according to both fathers and mothers.

Having a happier parental relationship (as measured by fathers' perceptions of **relationship quality**) was important in explaining variation in many of these outcomes. These analyses showed that fathers and mothers in happier relationships spent more time on child care, but not on domestic work. Those in happier relationships were also more positive about themselves and their partner in all the co-parenting measures, and were less likely to report disagreements about child rearing.

Other parental characteristics

More **highly educated fathers** were a better resource or support, and more understanding of mothers' needs than were less educated fathers, according to mothers' reports. But when mothers were more highly educated, fathers were perceived to be less of a resource or support, according to both fathers and mothers. Also, when fathers were more highly educated, fewer disagreements about child rearing were reported.

Looking at fathers' **ethnicity**, fathers whose main language was not English spent less time doing child care, although mothers in these families also did significantly less. The co-parenting measures revealed some inconsistencies—fathers from a non-English speaking background were more likely than other fathers to think they were a resource or support to mothers. However, according to mothers in these families, fathers were less often reported to be a resource or support in relation to child care. In these families, both mothers and fathers reported higher levels of disagreements about child rearing. No differences on co-parenting were apparent for **Indigenous** fathers.

Older fathers did more domestic work, but not more child care and in these families, the same was true of mothers.

Fathers' **better mental health** was strongly positively associated with the subjective co-parenting measures. There was also some variation in time spent in unpaid household work, with better mental health being associated with more time spent in child care and less time spent in other household work. When fathers had better mental health, mothers also did less domestic work.

Looking at **financial wellbeing**, when the family was reported to be just getting along, poor or very poor, fathers did a little more of the child care, compared to those families who reported being more comfortable. In poorer families, mothers did significantly more domestic work and mothers' reports of the co-parental relationship were more negative.

Family and child characteristics

Unlike the previous subsection, where specific child characteristics were related to father involvement, this subsection uses more general measures of all children in the family, since these fathering measures are about fathering and co-parenting at the family level (see Section 3.5). Instead of the sex of the LSAC child, the **sex composition** of all children in the family has been included. Using this measure, it was possible to test whether fathers did more child care, for example, when there were boys in the family. No significant variation in the sharing of unpaid work was found according to the sex composition of children in the family. With regard to co-parenting, according to mothers, disagreements about child rearing were less likely when all children in the family were girls, as opposed to them being all boys.

Age of the youngest child and **number of children** in the family were included to capture these different characteristics of families. Not surprisingly, these factors were related to the amount of time parents spent on child care and domestic work. In families in which the age of the youngest child was younger, mothers and fathers both spent more time on child care and domestic work. However, with more children, the amount of child care time decreased for both mothers and fathers, while the amount of domestic work increased, especially for mothers. Presumably, this is because of the finite amount of time in which certain tasks, such as laundry and preparing meals, need to be done, which 'crowds out' the child care time from the day. Also, with more children, there is scope for child care to be delegated to children's older siblings, as discussed previously.

The age of the youngest child and number of children were unrelated to most aspects of co-parenting, but as the number of children in the family increased, so did the likelihood of disagreements about child rearing, according to mothers' and fathers' reports alike.

Summary

Overall, the results show that several factors are associated with almost all elements of parents' time on unpaid work and their subjective assessments of co-parenting. Some are consistently associated with lower

levels of these measures (for example, less unpaid work and less co-parenting was consistently found among fathers who had longer paid work hours), while others were associated with higher levels (for example, fathers who were happier in their relationship spent longer on child care tasks and had a better co-parental relationship on all measures). Additionally, many factors played some role but were less consistently associated with the sharing of unpaid work or co-parenting; that is, they had significant associations with fewer outcomes, or operated in different directions across outcomes. For example, older fathers spent no more time doing child care tasks than younger fathers, but spent more time doing other household tasks.

The *R*-squared values for these models give an estimate of the amount of variance in each measure explained by the model. As in the multivariate analyses presented in Section 4, the proportion of the variance explained by these models is not high, with a large amount of variation being unexplained. This variability reminds us that, while the factors included here play some role in mothers' and fathers' co-parenting, there are factors beyond these that also contribute to co-parenting.

5.4 Summary: couples' sharing of unpaid work, and co-parenting

This section has explored the co-parental relationship, with a focus on fathers' contribution to unpaid work in the home and child rearing, both as partners and as parents.

There are different ways of examining this, through data on the division of tasks and on subjective measures. These data may not always accurately reflect how parents share the tasks associated with parenting, as they may be subject to some reporter bias (Mikelson 2008). However, examining these two types of data together enables a more comprehensive understanding of parenting, and in the context of this report, a more comprehensive understanding of fathering.

There are clearly highly gendered patterns in the time distribution of parents of young children, with fathers spending more time than mothers in paid employment, but less time in child care and domestic work. Such patterns have been established before (Baxter 2002; Baxter, Hewitt & Western 2005; Craig & Mullan 2009). The time fathers spend on child care and other domestic work appears to be taken into consideration by mothers when they are making assessments about the fairness of division of work in the home, and also of how supportive, or how much of a resource, fathers are. Fathers' contribution to families in this way therefore appears to be important and appreciated.

The allocation of fathers' time to child care and other domestic work was associated with several of the factors analysed here. Paid work hours of fathers and mothers, along with contextual variables such as numbers and ages of children and relationship quality were all associated with different patterns of time distribution. Such associations have been observed in the extensive literature on parents' time use (Barnett & Baruch 1987; Cook & Willms 2002; Deutsch, Lussier & Servis 1993; Sayer, Gauthier & Furstenberg 2004).

Despite fathers contributing many more hours of paid work to the total 'work' of a household, and therefore contributing proportionately more of the income (see also Section 7), this contribution did not appear to have been a factor in assessing the contributions made by fathers to the co-parental relationship. However, more direct questions about the provider role and how much value parents attach to it may be needed in order to fully capture parents' views on this significant contribution that many fathers make.

One of the contextual factors affecting fathers' involvement is the supportiveness of his spouse. Fathers tend to be more involved when they are encouraged and supported to do so by mothers (Allen & Daly 2002) and, more generally, spousal support is associated with more positive parenting practices (Ehrenberg et al. 2001). The LSAC data show that fathers were overwhelmingly positive about the extent to which mothers were a resource or support, or understood their needs and were supportive of them in raising their children. While these data cannot shed light on fathers' conceptions of their fathering roles, it is encouraging to see that, in most families, fathers have positive perceptions of how they are supported in these roles.

Prior research has documented the effects of employment on co-parenting (Crouter et al. 1999; Lindsey, Caldera & Colwell 2005; Volling & Belsky 1991). This research has shown that the long working hours of fathers was one factor that appeared to be something of a barrier to good co-parenting. While long hours were not significantly associated with more disagreements about child rearing, other indicators suggested poorer outcomes, perhaps because couples spend less time together when one of them works long hours, or because of other stresses or strains that spill over from work to family.

These data also showed that co-parenting differed when mothers were employed, especially full-time. Time use patterns altered such that mothers reduced their unpaid work and fathers increased theirs a little. These families showed somewhat better co-parenting, no doubt because of the extra collaboration that is required to manage the time commitments of the family as well as paid employment. However, when mothers worked full-time, we saw some negative effects in the increased reporting of disagreements about child rearing. One possible reason for this is that fathers may contribute more to the decisions about child rearing in these families, given mothers' employment commitments, compared to families in which mothers are the main carers of children. This could then create more opportunities for disagreements.

It was not at all surprising to see very strong positive associations between perceived relationship quality and subjective measures of co-parenting, consistent with other research (Ehrenberg et al. 2001; Floyd, Gilliom & Costigan 1998; Margolin, Gorbis & John 2001; Verhoeven et al. 2007). It was interesting to see this also meant that fathers in happier relationships spent more time doing child care tasks. As with all these analyses, we cannot say which came first—the happier relationship or the co-parenting and child care. However, prior research has established that the co-parental relationship is an important link between relationship quality and children's outcomes, in particular when determining how parental conflict flows through to children (Gable, Belsky & Crnic 1995; Margolin, Gorbis & John 2001). These results confirm that these associations between relationships and co-parenting exist, and this is an important finding when thinking about children whose parents experience relationship difficulties. We explore associations between co-parenting and children's outcomes in Section 9.

Family structure and composition were related to co-parenting. There were some differences between married and cohabiting fathers in respect of their time use, but not in terms of their subjective assessments of co-parenting. There were some differences, too, when families included stepchildren, or when fathers had children living elsewhere. In these families, there may be more negotiation required between parents to manage child rearing, and there also may be added pressures on time; for example, when fathers wish to spend time with children living elsewhere. Some of the stepchildren may also have a parent living elsewhere, potentially placing strains (in time or in other ways) on family life.

We will not review all the findings for fathers' characteristics and the sharing of unpaid work and of co-parenting here because the effects were often quite small or resulted in inconsistent findings across the measures. However, one that is worth reiterating is the strong association between fathers' mental health and co-parenting. This suggests some disengagement of fathers from other family members when they have poorer mental health; for example, when they are depressed. There are policy implications here, in terms of families managing when fathers have poorer mental health. Addressing fathers' mental health and helping couples to address co-parenting are both valid approaches to helping these families.

There were some differences in the sharing of unpaid work and co-parenting according to the ages and numbers of children, consistent with earlier work that has found differences in co-parenting according to the developmental stages of families (Gable, Belsky & Crnic 1995, 1995; Lindsey, Caldera & Colwell 2005; Margolin, Gorbis & John 2001). Family composition effects were expected, as having younger children and more children are likely to equate to different ways of distributing time and different types of parenting.

To summarise, some of these findings related to time constraints that make it difficult for fathers to contribute to the unpaid work in the home, just as was found in the lower levels of time spent with children that was reported in Section 4. Other associations are likely to reflect different attitudes towards how such tasks should

be shared and different attitudes towards parenting. Some variables, like relationship quality, capture the nature of the family context. This context is likely to be very important in setting the scene for any parenting.

Co-parenting is viewed as an important link between parental wellbeing and children's outcomes and the findings of this section have direct implications for children, as we will explore in Section 9.

6 Fathers as parents

A large body of research documents strong associations between parenting practices and styles, and children's wellbeing and development (Barnes & Farrell 1992; Bender et al. 2007; Coie 1996; Dishion & McMahon 1998; Loeber & Farrington 1998; O'Connor 2002; Patterson, Reid & Dishion 1992). Key elements of parenting include parent-child relationship quality; types of discipline used (for example, limit-setting, reasoning, corporal punishment); consistency of parenting behaviours; parental rules and boundaries; supervision of children's activities and friendships; and parental engagement in children's activities.

A distinction is frequently made between **parenting practices**, which refer to the specific strategies and methods parents use to manage their children's behaviour (for example, limit-setting, supervision/monitoring) and **parenting style**, which refers to the emotional climate in which parents raise their children (for example, warmth, hostility) (Darling & Steinberg 1993). Additionally, four broad typologies of parenting style—authoritative, authoritarian, indulgent and neglectful—have been identified (Baumrind 1971, 1978, 1989) that are differentially related to children's outcomes (Lamborn et al. 1991; Steinberg et al. 1991).

In exploring fathering, it is important to recognise that there may be different dimensions to fathering than mothering (Hawkins et al. 2002; Lamb 1997), and that the parenting styles of mothers and fathers may differ (Campana et al. 2008; Conrade & Ho 2001; Roskam & Meunier 2009). Thus, fathers' and mothers' parenting may complement, rather than mirror, each other. As Fletcher (2008) pointed out, 'although being sensitive and responsive is likely to be an important ingredient of positive mothering and fathering ... fathering tends to be systematically different from mothering' (p. 4). For example, Grossmann et al. (2002) reported that fathers' sensitivity during play with their children was an important and more powerful precursor of children's subsequent attachment than infant-father attachment, whereas the opposite was found for mothers.

In this section, fathering is examined from the perspective of the parenting practices and styles that fathers use, although we do not investigate the existence of Baumrind's (1971, 1978, 1989) broad typologies. These aspects capture parenting warmth, hostile/angry parenting, inductive reasoning, consistency, and overprotection. That is, five dimensions of parenting are examined, although two measures for negative or punitive parenting—hostile parenting and angry parenting—have been included, and we therefore have six measures of parenting.

Similarities between the parenting of fathers and mothers on these aspects of parenting are examined. The way in which fathers parent is likely to be related to the quality of time children and fathers spend together; hence, this section builds upon earlier sections by investigating links between fathers' parenting and the time they spend with their children and the degree of support they give their partners. We also investigate the factors that are associated with fathers' parenting, such as their own personal characteristics and circumstances, their child's characteristics and broader family/contextual factors. All analyses in this section focus on fathers' parenting in relation to their LSAC child, rather than how they parent all the children in the family.

Box 8: Questions used to assess parenting

The items used to assess parenting come from the self-complete questionnaires completed by each parent (see Tables 36 to 42 for details of item wording). The items used varied somewhat across waves to ensure developmental appropriateness.

Items relating to **parental warmth** (Table 37) and **inductive reasoning** (Table 40) were introduced via the following statement:

- ▶ ‘The next questions ask about your relationship with this child. There are no right or wrong answers.’

Response categories were: never/almost never, rarely, sometimes, often, and always/almost always.

Items relating to **hostile parenting** (Table 38), **angry parenting** (Table 39) and **consistent parenting** (Table 41) were introduced via the statement:

- ▶ ‘When parents spend time with their children, sometimes things go well and sometimes they don’t. For each of the following questions, tick one box to indicate how often this happens.’

For **hostile parenting**, a slightly different second statement was used:

- ▶ ‘In the past six months, how often would you say ...’

For **angry parenting** and **consistent parenting**, response categories were: never/almost never, less than half the time, about half the time, more than half the time, and all the time. For **hostile parenting**, response categories of: 1=not at all, through to 10=all the time, were used, with the intermediate points left unlabelled.

Items relating to **overprotection** (Table 42) were introduced via the statement:

- ▶ ‘The next questions ask about being a parent. There are no right or wrong answers, we are just asking about parents’ views on child rearing.’

Response categories were identical to the warmth and inductive reasoning scales.

6.1 Comparisons of mothers and fathers on parenting

Table 36 shows average levels of parenting practices for fathers and mothers on each of the parenting scales when LSAC children were aged from 0 to 1 to 8 to 9 years. Mean scores for each scale were created by taking the average of responses across all items included in the scale. Several facets of parenting were measured at each wave; however, some parenting dimensions were not assessed at certain ages, or differed slightly in content in order to ensure developmental appropriateness.

Overall, two trends were evident. Firstly, fathers differed significantly from mothers on almost all aspects of parenting. Compared to mothers, fathers exhibited, on average, less warmth, less inductive reasoning, less consistency and less overprotection. Nevertheless, while there were significant differences between mothers and fathers, inspection of means indicated that both groups generally displayed high levels of warmth, inductive reasoning and consistency (means of approximately 4 out of a possible range of 1 to 5); a limited amount of anger (means of approximately 2 out of a range of 1 to 5) and hostility (means of approximately 3 out of a range of 1 to 10); and quite high levels of overprotection (means of approximately 3.5 out of a range of 1 to 5).

Secondly, there was very little change (difference) in the parenting of either mothers or fathers at differing child ages, as indicated by the mean scores. The exception was hostility, which was much lower at 0 to 1 years than at later years. There was also a trend for parenting warmth to decline slightly as children aged (decreasing among mothers from, on average, 4.6 at 0 to 1 years to 4.3 at 8 to 9 years, and for fathers from 4.2 to 4.0 over the same age ranges).

Table 36: Levels of maternal and paternal parenting, mean scores, children aged 0–1 to 8–9 years

Parenting dimension	0–1 years	2–3 years	4–5 years (B)	4–5 years (K)	6–7 years	8–9 years
Fathers						
Warmth	4.2	4.3	4.2	4.1	4.1	4.0
Hostility (score out of 10)	1.8	3.2	3.0	–	3.3 ^(a)	3.0
Anger	–	–	2.2 ^(a)	2.3	2.1	2.2 ^(a)
Inductive reasoning	–	4.0	4.0	4.0	4.0	3.9
Consistency	–	–	4.1	4.0	4.1	4.1
Overprotection	–	3.5	3.4	–	3.4	3.4
Mothers						
Warmth	4.6	4.6	4.5	4.4	4.4	4.3
Hostility (score out of 10)	1.9	3.4	3.4	–	3.3 ^(a)	3.3
Anger	–	–	2.1 ^(a)	2.2	2.2	2.1 ^(a)
Inductive reasoning	–	4.2	4.2	4.3	4.2	4.1
Consistency	–	–	4.2	4.1	4.2	4.2
Overprotection	–	3.7	3.6	–	3.5	3.5

Notes: Refer to Box 8 for information about the items included in each scale. ‘–’=not applicable (not collected this wave). Scales on each measure ranged from 1 to 5, except hostility, which ranged from 1 to 10. A higher score indicates higher levels of the parenting behaviour. All mother–father differences are significant at the 1 per cent level, except those labelled (a), which did not reach significance at $p < 0.05$. Significance is based on paired *t*-tests, comparing mothers and fathers on each parenting dimension, with separate tests conducted for each cohort/wave.

Source: Self-complete questionnaires, all cohorts/waves.

Next, these patterns are explored in more detail in order to identify the specific parenting behaviours on which fathers differed from mothers. Trends are examined for mothers and fathers on the items included in each scale by focusing on the percentage of mothers and fathers showing high levels of each parenting behaviour, with the percentage that always/almost always engaged in the behaviour being displayed, unless otherwise indicated.

Warmth

We saw above that mothers scored higher than fathers on the composite warmth scale. Looking next at the separate items, significant differences were found on all items at all ages (Table 37). Generally, there were differences of approximately 20 percentage points in the proportions of mothers and fathers who reported that they always/almost always engaged in each of these behaviours. There was also a decrease in the percentage of mothers and fathers reporting very high levels of engagement in these behaviours as children grew older (as noted earlier, this was also evident in the mean scores on the composite scale).

Table 37: Mothers and fathers engaged in high levels of warm behaviours, children aged 0–1 to 8–9 years

Items used to assess parenting warmth	0–1 years	2–3 years	4–5 years (B)	4–5 years (K)	6–7 years	8–9 years
	%					
Fathers						
Express affection by hugging, kissing and holding this child	65.4	62.9	53.3	51.8	48.4	40.8
Hug or hold this child for no particular reason	40.3	45.1	41.4	27.5	36.5	32.5
Tell this child how happy he/she makes you	28.9	31.1	27.7	17.7	22.7	20.6
Have warm, close times together with this child	25.6	39.7	33.7	19.7	28.6	24.3
Enjoy doing things with this child	42.5	41.9	35.2	27.7	31.8	28.3
Feel close to this child both when he/she is happy and when he/she is upset	47.0	51.8	46.2	41.7	44.3	40.4
Mothers						
Express affection by hugging, kissing and holding this child	84.9	80.7	71.3	79.4	68.1	58.9
Hug or hold this child for no particular reason	57.1	64.6	62.5	52.8	60.1	51.5
Tell this child how happy he/she makes you	47.1	50.4	45.9	35.7	40.1	34.3
Have warm, close times together with this child	50.3	62.9	53.3	38.9	44.8	37.4
Enjoy doing things with this child	59.3	62.7	49.0	43.8	45.3	40.5
Feel close to this child both when he/she is happy and when he/she is upset	66.2	68.5	57.8	58.1	58.0	51.6

Notes: Response categories were: always/almost always, often, sometimes, rarely, never/almost never. Percentages are shown for parents responding always/almost always. All mother–father differences are significant at $p < 0.001$.

Source: Self-complete questionnaires, all cohorts/waves.

Hostile and angry parenting

The scales of hostile and angry parenting capture some of the potentially negative interactions that can occur between parents and children. Very few mothers and fathers showed high levels of hostile parenting behaviours (generally less than 5 per cent), with the most commonly reported behaviour of this type being raising one’s voice or shouting at the child (Table 38). Aspects of angry parenting (Table 39) appear more prevalent, although as these items were measured on a different scale, the prevalence of hostile and angry parenting behaviours cannot be directly compared. The most common aspects of angry parenting were being

angry when punishing the child, showing disapproval when talking with the child, and **less often** praising the child when talking with him/her.

There were some, but not a large number of, significant differences between mothers and fathers on aspects of hostile parenting (on 8 of the 20 comparisons undertaken). Up to the age of 4 to 5 years, slightly more mothers than fathers had very often been angry with the child, or had frequently raised their voice or shouted at the child. On the other hand, slightly more fathers than mothers of children in this age range often felt their child got on their nerves when she/he cried. These differences tended to wane as children grew older. As noted above, these findings are derived from very small proportions reporting high levels of hostility.

Turning now to comparisons of fathers and mothers on angry parenting, there were significant differences on most aspects, but inconsistency in the direction of these differences over the various items. For example, mothers were more likely to report that they were angry when punishing their child at ages 4 to 5 years (B cohort) and 6 to 7 years (K cohort) but not at 8 to 9 years; while fathers were more likely to feel that their level of punishment depended on their mood, or to tell their child that he/she behaved worse or was not as good as other children.

Table 38: Mothers and fathers showing high levels of hostile parenting, children aged 0–1 to 8–9 years

Items assessing hostile parenting	0–1 years	2–3 years	4–5 years (B)	6–7 years	8–9 years
	%				
Fathers					
I have been angry with this child	1.6	4.8 ^(a)	2.5	5.2 ^(a)	3.4
I have raised my voice with or shouted at this child	1.9	7.0	7.4	8.6 ^(a)	8.7 ^(a)
When this child cries, he/she gets on my nerves	5.2	5.5	4.7	5.8	–
I have lost my temper with this child	1.1	3.2 ^(a)	2.6 ^(a)	4.3 ^(a)	3.1
I have left this child alone in his/her room when he/she was particularly irritable or upset	3.0	4.9 ^(a)	–	–	–
Mothers					
I have been angry with this child	4.3	5.8 ^(a)	4.5	4.6 ^(a)	4.5
I have raised my voice with or shouted at this child	2.8	8.5	8.7	8.5 ^(a)	7.6 ^(a)
When this child cries, he/she gets on my nerves	3.5	3.9	3.5	3.6	–
I have lost my temper with this child	1.8	3.4 ^(a)	3.5 ^(a)	4.3 ^(a)	4.0
I have left this child alone in his/her room when he/she was particularly irritable or upset	2.4	5.2 ^(a)	–	–	–

(a) The difference between fathers and mothers failed to reach significance at $p < 0.05$ on this item.

Note: Response categories ranged from: 1=not at all, to 10=all the time. Percentages shown are for parents with scores between 7 and 10. '–'=not applicable (not collected this wave).

Source: Self-complete questionnaires, all cohorts/waves.

Table 39: Mothers and fathers showing high levels of angry parenting, children aged 4–5 to 8–9 years

Items assessing angry parenting	4–5 years (B)	4–5 years (K)	6–7 years	8–9 years
	%			
Fathers				
Of all the times you talk to this child about his/her behaviour:				
how often is this praise? ^(a)	11.4	11.5	12.3	14.3
how often is this disapproval?	10.3	15.0	7.3 ^(b)	10.2
How often:				
are you angry when you punish this child?	14.9	17.8 ^(b)	12.6	16.7
do you feel you are having problems managing this child in general?	3.6	3.3	2.2	3.3
do you tell this child that he/she is bad or not as good as others?	2.1	–	1.7 ^(b)	1.8
do you think that the level of punishment you give this child depends on your mood?	9.1	–	8.8	8.9
Mothers				
Of all the times you talk to this child about his/her behaviour:				
how often is this praise? ^(a)	7.1	5.6	5.1	11.1
how often is this disapproval?	18.5	7.8	8.1 ^(b)	11.0
How often:				
are you angry when you punish this child?	23.2	17.5 ^(b)	15.7	13.3
do you feel you are having problems managing this child in general?	1.7	4.4	3.4	4.3
do you tell this child that he/she is bad or not as good as others?	1.6	–	2.1 ^(b)	–
do you think that the level of punishment you give this child depends on your mood?	7.5	–	5.8	7.9

(a) For this item, percentage shown is those responding never or less than half the time.

(b) The difference between fathers and mothers failed to reach significance at $p < 0.05$ on this item.

Notes: Response categories were: never/almost never, less than half the time, about half the time, more than half the time, all the time. Percentages are shown for parents responding all the time or more than half the time. ‘–’=not applicable (some items not asked at all waves). Angry parenting was not measured in the B cohort at Waves 1 and 2.

Source: Self-complete questionnaires, B cohort Wave 3, K cohort Waves 1–3.

Inductive reasoning

Inductive reasoning is an area in which there has been considerable measurement change over the first three waves of the study (Table 40). Only two items were measured at all waves, while two further items were introduced in Wave 3 to assess inductive reasoning behaviours appropriate to this older age.

As found for parenting warmth, there were significant differences between fathers and mothers on their use of inductive reasoning over all items and at all ages that data were available. Thus, approximately 10 per cent more mothers than fathers always or almost always engaged in these parenting behaviours. Differences were particularly evident on mothers' and fathers' tendency to talk it over and reason with the child when he/she misbehaved.

Table 40: Mothers and fathers using high levels of inductive reasoning, children aged 2–3 to 8–9 years

Items assessing inductive reasoning	2–3 years	4–5 years (B)	4–5 years (K)	6–7 years	8–9 years
	%				
Fathers					
Explain to this child why he/she was being corrected	28.6	28.2	31.7	27.0	25.9
Talk it over and reason with this child when he/she misbehaved	25.9	25.7	22.4	25.5	23.0
Give this child reasons why rules should be obeyed	27.1	26.8	–	26.8	24.2
Explain to this child the consequences of his/her behaviour	–	29.8	–	–	27.9
Emphasise to this child the reasons for rules	–	23.9	–	–	23.2
Mothers					
Explain to this child why he/she was being corrected	39.0	36.6	41.6	37.0	33.8
Talk it over and reason with this child when he/she misbehaved	41.0	40.3	36.4	42.7	35.7
Give this child reasons why rules should be obeyed	38.3	35.2	–	38.9	32.4
Explain to this child the consequences of his/her behaviour	–	41.7	–	–	37.1
Emphasise to this child the reasons for rules	–	35.0	–	–	32.4

Notes: Response categories were: always/almost always, often, sometimes, rarely, never/almost never. Percentages shown are for parents responding always/almost always. '–'=not applicable (some items not asked at all waves). Inductive reasoning was not measured in the B cohort at Wave 1. All mother–father differences are significant at $p < 0.001$.

Source: Self-complete questionnaires, B cohort Wave 2 and 3, K cohort Wave 1–3.

Consistent parenting

Most parents were consistent in their disciplinary approach, with generally more than three-quarters of mothers and fathers reporting high levels of consistency (Table 41). Mothers tended to be slightly, but

significantly, more consistent than fathers, with higher percentages never or less than half the time allowing their children to get away with things or escape a punishment. Similarly, mothers were more likely to ensure that their child complied with an instruction or request, or to follow through with a punishment after a warning had been given. Only on one item—whether the child ignored the punishment when the parent disciplined the child—was there generally a lack of significant differences across mothers and fathers.

Table 41: Mothers and fathers showing high levels of consistent parenting, children aged 4–5 to 8–9 years

Items assessing consistent parenting	4–5 years (B)	4–5 years (K)	6–7 years	8–9 years
	%			
Fathers				
When you give this child an instruction or request to do something, how often do you make sure that he/she does it?	83.2	82.1	79.2	79.6
If you tell this child he/she will get punished if he/she doesn't stop doing something, but he/she keeps doing it, how often will you punish him/her?	71.8	67.2	65.6	68.0
How often does this child get away with things that you feel should have been punished? ^(a)	76.9	69.2	76.4	77.1
How often is this child able to get out of punishment when he/she really sets his/her mind to it? ^(a)	78.9	71.1	80.0 ^(b)	77.2
When you discipline this child, how often does he/she ignore the punishment? ^(a)	85.5	81.5 ^(b)	89.2 ^(b)	89.0 ^(b)
Mothers				
When you give this child an instruction or request to do something, how often do you make sure that he/she does it?	87.8	85.5	86.0	83.2
If you tell this child he/she will get punished if he/she doesn't stop doing something, but he/she keeps doing it, how often will you punish him/her?	75.1	70.4	73.9	72.7
How often does this child get away with things that you feel should have been punished? ^(a)	82.2	74.8	79.7	83.1
How often is this child able to get out of punishment when he/she really sets his/her mind to it? ^(a)	83.3	77.6	81.8 ^(b)	82.8
When you discipline this child, how often does he/she ignore the punishment? ^(a)	87.8	83.2 ^(b)	87.6 ^(b)	89.7 ^(b)

(a) For these items, the percentage shown is those responding never/almost never or less than half the time. Consistent parenting was not measured in the B cohort at Waves 1 and 2.

(b) The difference between fathers and mothers failed to reach significance at $p < 0.05$ on this item.

Notes: Response categories were: never/almost never, less than half the time, about half the time, more than half the time, all the time. Percentages shown are for parents responding all the time or more than half the time.

Source: Self-complete questionnaires, B cohort Wave 3, K cohort Wave 1–3.

Overprotective parenting

Overprotective parenting was measured from 2 to 3 years onwards (Table 42). Mothers were significantly more likely than fathers to report that they always or almost always tried to protect their child from difficulties (from 4 to 5 years onward), and put their LSAC child's needs and wants ahead of their own. However, differences between mothers and fathers on whether they always or almost always felt upset when leaving their child with another person were inconsistent over time.

Whether overprotection is a positive or negative parenting behaviour can be difficult to determine. There is considerable research showing that high levels of overprotection are a risk for the development of childhood internalising behaviour problems (for example, Rapee, Schniering & Hudson 2009; Rubin, Cheah & Fox 2001), particularly for children with a shy temperament style. In contrast, uninvolved or distant parenting falls under the neglectful category in Baumrind's typology, as it reflects disengagement from children's lives and a preoccupation with parents' concerns. While uninvolved parenting is not the direct reverse of overprotection, it is akin to very low overprotection through the disengagement from children's lives that occurs. Darling (1999) noted that 'the detrimental effects of uninvolved parenting are evident as early as the preschool years and continue throughout adolescence and into early adulthood' (p. 2). In the sections that follow, we compare fathers showing higher and lower levels of overprotection in line with the above research, but note that the relationship between overprotection and children's outcomes is complex and unlikely to be linear (it is possible that a moderate degree of 'overprotection' is advantageous for children, rather than high or low levels).

Table 42: Mothers and fathers engaging in high levels of overprotection, children aged 2–3 to 8–9 years

Items assessing overprotection	2–3 years	4–5 years (B)	6–7 years	8–9 years
Fathers				
Do you try to protect this child from life's difficulties?	36.7 ^(a)	34.3	35.6	33.2
Do you put this child's wants and needs before your own?	40.0	38.8	38.2	37.4
Does leaving this child with other people upset you no matter how well you know them?	8.6 ^(a)	7.1	7.8 ^(a)	6.6
Mothers				
Do you try to protect this child from life's difficulties?	37.2 ^(a)	30.3	38.0	40.3
Do you put this child's wants and needs before your own?	54.8	46.4	51.9	45.1
Does leaving this child with other people upset you no matter how well you know them?	9.4 ^(a)	4.6	7.9 ^(a)	10.4

(a) The difference between fathers and mothers failed to reach significance at $p < 0.05$ on this item.

Notes: Response categories were: always/almost always, often, sometimes, rarely, never/almost never. Percentages shown are for parents responding always/almost always. Overprotection was not assessed in Wave 1.

Source: Self-complete questionnaires, Waves 2 and 3, B and K cohorts.

6.2 Connections between differing aspects of parenting

It is expected that the differing facets of parenting, while separately examined above, will be interrelated. Baumrind's typology (1978), for example, posits that certain parenting behaviours cluster together and there is considerable empirical support for her model. Connections between differing elements of parenting among

fathers are explored next, although we do not attempt to create typologies. For this analysis, the cohorts were combined and the data pooled across waves.

Consistent with other research, there were modest to moderate correlations between differing types of fathers' parenting practices (Table 43). Thus, fathers who were warmer, for example, tended to be less hostile or angry, and showed more inductive reasoning, consistency and overprotection. The strongest interconnections were found between warmth and inductive reasoning, and between hostile and angry parenting (0.50 and 0.55 respectively). The strong association between hostile and angry parenting is expected since these measures capture aspects of punitive parenting.

Table 43: Correlations between different elements of fathers' parenting

	Warmth	Hostility	Anger	Inductive reasoning	Consistency	Overprotection
Warmth	1.00	-0.22***	-0.39***	0.50***	0.15***	0.26***
Hostility		1.00	0.55***	-0.10***	-0.22***	-0.05***
Anger			1.00	-0.18***	-0.26***	-0.11***
Inductive reasoning				1.00	0.24***	0.12***
Consistency					1.00	-0.09***
Overprotection						1.00

Notes: Cohort/waves were pooled where data were available for both mother and father within a family. As evident in Table 36, some items were not available at all cohorts/waves. *** $p < 0.001$.

Source: All cohorts/waves.

6.3 Similarity of parenting across fathers and mothers in the same families

The above analyses have shown in detail how fathering differs from mothering in a national, representative sample of Australian parents. The next issue examined is how closely the parenting of mothers matches that of fathers within the same family. Does one parent compensate for the other by being 'warmer', for example, when their partner is less so, or do parenting practices tend to be similar for both partners? Starrels (1994) noted that it is more likely that parenting will be consistent within couples, which may be in part due to mothers encouraging their partners to adopt similar parenting approaches to those they use themselves. For these analyses, the two cohorts' data were combined and pooled across waves.

There appeared to be some similarity across couples, as shown in Table 44, with mothers' and fathers' scores on each aspect of parenting positively correlated (the bold numbers on the diagonal). Nevertheless, as the correlations ranged from 0.20 to 0.45 on identical measures, with an average correlation of 0.33 over the six aspects, there was also clearly considerable independence in the parenting of fathers and mothers.

Table 44: Correlations between mothers' and fathers' parenting

Fathers	Mothers					
	Warmth	Hostility	Anger	Inductive reasoning	Consistency	Overprotection
Warmth	0.27***	-0.11***	-0.17***	0.15***	0.07***	0.08***
Hostility	-0.11***	0.45***	0.30***	-0.01	-0.09***	-0.01
Anger	-0.19***	0.31***	0.36***	-0.05***	-0.12***	-0.03
Inductive reasoning	0.12***	-0.02	-0.04***	0.20***	0.10***	0.03***
Consistency	0.04***	-0.11***	-0.13***	0.08***	0.35***	-0.08***
Overprotection	0.14***	-0.04***	-0.07***	0.06***	-0.08***	0.35***

Notes: Cohort/waves were pooled where data were available for both mother and father within a family. As evident in Table 36, some items were not available at all cohorts/waves. *** $p < 0.001$.

Source: All cohorts/waves.

While we saw earlier that there was little change in the average levels of parenting among fathers at differing child ages (with the exception of hostility and, to a lesser extent, warmth), it is interesting to examine this at the individual level. The next analysis looks at whether, for example, fathers who show warmth when their children are at an early age tend to remain relatively warm when their children are older. Trends are examined separately for the two cohorts, looking at the correlation between each aspect of fathers' parenting at Wave 1 with the same aspect at Waves 2 and 3.

Fathers' degree of warmth tended to be relatively constant over time (Table 45). There was also substantial stability of consistent and angry parenting among fathers from 4 to 5 years onwards (K cohort). Less stability was found on fathers' tendency to use inductive reasoning (K cohort) or show hostility (B cohort) over time. As would be expected, there was higher stability across the two-year span of adjacent data collection waves, although considerable stability was evident across four years as well.

Table 45: Correlations between levels of fathers' parenting practices across waves, by cohort

		Wave 1 with Wave 2	Wave 2 with Wave 3	Wave 1 with Wave 3
B cohort	Warmth	0.50***	0.59***	0.43***
	Hostility	0.31***	0.51***	0.29***
K cohort	Warmth	0.60***	0.64***	0.56***
	Anger	0.51***	0.57***	0.47***
	Inductive reasoning	0.40***	0.46***	0.35***
	Consistency	0.56***	0.56***	0.51***

Notes: Angry, overprotective and consistent parenting and inductive reasoning were not measured at Wave 1 for the B cohort, nor was hostility and overprotection for the K cohort. Based on families in which the mother and father did not change over the waves. *** $p < 0.001$.

Source: All cohorts/waves.

6.4 Variations in father involvement and co-parenting, by parenting skills

We next examine whether fathers who show lower parenting skills tend to spend less time with their children, or exhibit poorer co-parenting, as reported by mothers. Previous exploration of this question has found that fathers who have a more authoritarian parenting style spend less time with children on weekdays, although the degree to which their parenting style was characterised as being protective was not related to the time they spent with their children (Gaertner et al. 2007). Zubrick et al. (2008), in analyses of data from the first wave of LSAC, found that poorer co-parenting supportiveness was associated with lower parenting warmth.

As noted earlier, parenting practices such as low warmth, high hostility or anger towards the child, inconsistency, low use of reasoning and high overprotection have been linked to a higher rate of problems among children (for example, Bender et al. 2007; Buehler & Gerard 2002; Hovee et al. 2009; Zubrick et al. 2008). Thus, in this analysis, separate groups of fathers were identified who showed parenting practices of this type; that is, those fathers in the lowest third of the LSAC distribution on warmth, inductive reasoning or consistency, and the highest third on hostility, angry parenting or overprotection. (Note this does not imply that these fathers showed very deficient parenting, it merely indicates that their parenting was less skilled by comparison with other fathers in the study.) We then examined whether the groups of fathers with less optimal parenting skills also spent less time with their LSAC children or showed lower levels of co-parenting.

Fathers who were less warm or made less use of inductive reasoning were found to spend a lower amount of time with their children at all ages (see Table 46). However, there were no associations between higher levels of hostility/anger, inconsistency or overprotection and fathers' time with children. Thus, aspects of parenting reflecting positive behaviours, rather than negative ones, were associated with fathers' propensity to spend more time with their children. Looking next at co-parenting, when fathers showed less warmth, consistency or inductive reasoning, or greater anger or hostility with their LSAC child, they tended to be seen by the children's mothers as being less of a resource or support in child rearing (Table 47). Here, almost all types of parenting practices (the exception being overprotection) were associated with being a more supportive partner. However, scrutiny of the mean scores for the groups indicate that these differences were not large, as all mean scores were above 4, which is at the 'high support' end of the scale of 1 to 5.

Table 46: Parenting and father-child time at differing ages

Groups compared	0-1 years	2-3 years	4-5 years (B)	4-5 years (K)	6-7 years	8-9 years
	Father-child time (mean minutes per day)					
Low warmth	250	263	273	264	241	249
Moderate-high warmth	268	283	286	281	253	272
Significance	**	**	n.s.	**	*	**
High hostility	255	273	277	-	244	263
Moderate-low hostility	261	278	282		251	259
Significance	n.s.	n.s.	n.s.		n.s.	n.s.
High anger	-	-	266	264	247	264
Moderate-low anger			285	276	248	259
Significance			*	n.s.	n.s.	n.s.
Low inductive reasoning	-	272	279	264	241	253
Moderate-high inductive reasoning		284	285	290	262	275
Significance		*	n.s.	***	***	**
Low consistency	-	-	274	272	246	267
Moderate-high consistency			284	273	249	257
Significance			n.s.	n.s.	n.s.	n.s.
High overprotection	-	283	295	-	257	271
Moderate-low overprotection		273	275		245	257
Significance		n.s.	**		n.s.	n.s.

Notes: Excludes cases with incomplete time use data (see Box 1). As evident in Table 36, some parenting items were not available at all cohorts/waves. Angry, overprotective and consistent parenting and inductive reasoning were not measured at Wave 1 for the B cohort, nor was hostility and overprotection for the K cohort. Significance is based on *t*-tests comparing father-child time across groups with differing parenting styles (for example, low warmth compared to moderate-high warmth) within cohort/wave.

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$. '-'=not applicable; n.s.=not significant.

Source: Children's time use diaries.

Table 47: Support provided to partners by fathers with low and average/good parenting skills at differing ages

	0–1 years	4–5 years (B)	4–5 years (K)	8–9 years
	Level of support by father (mean score)			
Low warmth	4.29	4.16	4.33	4.17
Moderate–high warmth	4.53	4.40	4.60	4.42
Significance	***	***	***	***
High hostility	4.37	4.22	–	4.19
Moderate–low hostility	4.44	4.34		4.34
Significance	n.s.	***		***
High anger	–	4.15	4.31	4.14
Moderate–low anger		4.33	4.52	4.33
Significance		***	***	***
Low inductive reasoning	–	4.24	4.40	4.22
Moderate–high inductive reasoning		4.41	4.60	4.45
Significance		***	***	***
Low consistency	–	4.16	4.39	4.36
Moderate–high consistency		4.36	4.52	4.14
Significance		***	***	***
High overprotection	–	4.34	–	4.33
Moderate–low overprotection		4.28		4.27
Significance		n.s.		n.s.

Notes: Support by father is measured from 1 to 5, with a high score indicating high support, based on mothers’ reports of whether father is a resource or support. Parents reports of support to each other were not collected at Wave 2. As evident in Table 36, some parenting items were not available at all cohorts/waves. Angry, overprotective and consistent parenting and inductive reasoning were not measured at Wave 1 for the B cohort, nor was hostility and overprotection for the K cohort. Significance based on *t*-tests comparing support across groups displaying low versus average/good parenting skills (for example, low warmth compared to moderate–high warmth) within cohort/wave. **p*<0.05; ***p*<0.01; ****p*<0.001. ‘–’=not applicable; n.s.=not significant.

Source: Waves 1 and 3, B and K cohorts.

6.5 Multivariate analyses

The last issue examined in this section is the factors associated with fathers' parenting practices. For these analyses, characteristics of the parents (for example, fathers' mental health), child (for example, temperament) and contextual environment (for example, fathers' working arrangements) included in earlier subsections are used. Associations between these characteristics and the six measures of parenting previously discussed—warmth, hostility, anger, inductive reasoning, consistency and overprotection—are investigated using multivariate analyses.

Table 48 gives the results for the multivariate analyses of factors associated with fathers' parenting. We have also included, in Table 49, the results for the same analyses of mothers' parenting, for the interested reader who may like to compare these findings. (As might be expected, the factors related to fathers' and mothers' parenting practices are not identical.) However, we focus here exclusively on results for fathers. A large number of factors were explored for their relationships with fathers' parenting, and those factors showing associations with several dimensions of parenting are highlighted in the following discussion.

Table 48: Multivariate analyses of the parenting styles of fathers

	Warmth	Hostility	Anger	Inductive reasoning	Consistency	Overprotection
Fathers' usual work hours (ref: 35-44 hours)						
0 hours	0.05***	-0.04	-0.05**	0.09***	0.00	0.04
1-34 hours	0.03	-0.10*	-0.04	0.05	0.04	-0.01
45-54 hours	0.00	-0.06*	-0.03**	0.00	0.02	0.01
55 hours or more	-0.02	-0.11***	-0.04*	-0.05**	-0.01	0.04*
Fathers' education (ref: Incomplete secondary)						
Complete secondary, certificate/diploma	0.00	-0.01	0.00	0.04*	0.08***	-0.04
Bachelor degree or higher	-0.01	-0.13**	-0.01	0.09***	0.15***	-0.21***
Mothers' usual work hours (ref: 0 hours)						
1-34 hours	0.02**	0.05	-0.01	0.04**	0.03**	-0.02
35 hours or more	0.04**	0.10**	0.00	0.08***	0.02	0.03
Fathers' characteristics						
English not main language	0.04*	-0.17***	-0.01	0.06*	-0.27***	0.22***
Indigenous	0.08	-0.04	-0.05	-0.02	-0.08	0.20*
Age (years) ^(a)	0.00	-0.02***	-0.01***	0.00	-0.00***	0.00
Better mental health ^(a)	0.06***	-0.36***	-0.16***	0.05***	0.14***	-0.07***
Cohabiting (ref: Married)	0.01	-0.04	0.00	0.00	-0.11***	0.11***
Stepfather (ref: Biological)	-0.41***	0.03	0.05	-0.02	-0.06	-0.11
Has children living elsewhere	-0.04*	0.02	-0.02	-0.05*	-0.07**	0.04
Relationship quality ^(a)	0.07***	-0.09***	-0.06***	0.06***	0.04***	0.04***

Table 48: Multivariate analyses of the parenting styles of fathers (continued)

	Warmth	Hostility	Anger	Inductive reasoning	Consistency	Overprotection
Other family and child characteristics						
Mother bachelor degree or higher	-0.02	-0.07*	0.01	-0.02	0.07***	-0.07***
Family is just getting along, poor or very poor	0.01	-0.03	-0.02	0.02	-0.03*	0.03
Boy	-0.03**	0.14***	0.07***	0.02	0.04**	-0.04**
Poorer child health ^(a)	-0.02***	0.02	0.03***	-0.03***	-0.02**	0.01
Child temperament: reactivity ^(a)	-0.04***	0.25***	0.14***	-0.01	-0.10***	-0.02**
Child temperament: sociability ^(a)	0.01	0.00	0.01*	0.01	0.00	-0.02**
Number of younger siblings	-0.06***	0.15***	0.06***	0.00	0.02	-0.03*
Number of older siblings	-0.06***	-0.01	0.00	-0.09***	-0.02**	-0.01
Cohort/wave (ref: 8–9 years)						
Child age 0–1 year	0.13***	-1.23***	–	–	–	–
Child age 2–3 years	0.27***	0.05	–	0.10***	–	0.14***
Child age 4–5 years (B)	0.17***	-0.02	-0.03	0.09***	-0.01	0.07**
Child age 4–5 years (K)	0.03**	–	0.05***	0.08***	-0.10***	–
Child age 6–7 years	0.07***	0.30***	-0.10***	0.05**	-0.03	0.04**
Constant	4.15***	3.05***	2.18***	3.88***	4.01***	3.50***
Number of observations	16,855	13,774	10,851	13,548	10,848	10,461
Number of children	7,595	7,046	6,276	6,933	6,275	6,382
Overall <i>R</i> -squared	0.10	0.26	0.16	0.04	0.12	0.06
Rho	0.55	0.40	0.46	0.39	0.51	0.55

(a) Centred at sample means. See Section 3.7 for details.

Notes: Results are from RE models. A more positive result means more of that parenting style (scale is 1 to 5 for all except for hostility, which is 1 to 10). ‘–’ = not applicable (data not available at all cohorts/waves). **p*<0.05; ***p*<0.01; ****p*<0.001.

Source: All cohorts/waves.

Table 49: Multivariate analyses of the parenting styles of mothers

	Warmth	Hostility	Anger	Inductive reasoning	Consistency	Overprotection
Fathers' usual work hours (ref: 35-44 hours)						
0 hours	0.00	-0.13**	-0.03	-0.02	-0.02	0.04
1-34 hours	-0.03	-0.21***	-0.02	-0.01	0.01	-0.07*
45-54 hours	-0.01	0.01	0.01	0.00	0.02	-0.03
55 hours or more	-0.01	-0.01	-0.01	0.00	0.02	0.01
Fathers' education (ref: Incomplete secondary)						
Complete secondary, certificate/diploma	0.02	-0.03	-0.04*	0.03	0.06**	0.01
Bachelor degree or higher	0.00	-0.06	-0.05*	0.03	0.09***	-0.09***
Mothers' usual work hours (ref: 0 hours)						
1-34 hours	0.01	-0.02	-0.02*	-0.03*	0.01	-0.01
35 hours or more	0.00	-0.05	0.00	-0.04*	-0.01	0.00
Fathers' characteristics						
English not main language	0.01	-0.06	0.06**	0.01	-0.31***	0.17***
Indigenous	0.05	-0.11	-0.05	0.05	-0.21***	0.23**
Age (years) ^(a)	-0.00***	-0.01***	0.00	-0.00**	-0.00***	-0.00**
Better mental health ^(a)	0.01	-0.04	-0.04***	0.00	0.02*	-0.02
Cohabiting (ref: Married)	0.01	-0.06	0.02	-0.02	-0.14***	0.09***
Stepfather (ref: Biological)	0.03	0.10	0.01	0.06	0.01	0.04
Has children living elsewhere	0.03*	0.01	-0.03	0.06*	0.00	0.08**
Relationship quality ^(a)	0.03***	-0.06***	-0.02***	0.02***	0.02***	0.00

Table 49: Multivariate analyses of the parenting styles of mothers (continued)

	Warmth	Hostility	Anger	Inductive reasoning	Consistency	Overprotection
Other family and child characteristics						
Mother bachelor degree or higher	-0.05***	-0.21***	0.00	0.04**	0.11***	-0.15***
Family is just getting along, poor or very poor	0.01	0.03	0.00	0.00	-0.01	0.07***
Boy	-0.01	0.09***	0.05***	0.00	0.02	-0.01
Poorer child health ^(a)	-0.04***	0.04**	0.04***	-0.04***	-0.03***	0.02
Child temperament: reactivity ^(a)	-0.06***	0.43***	0.23***	-0.02***	-0.14***	0.00
Child temperament: sociability ^(a)	0.01***	-0.01	0.00	0.02***	0.00	-0.02***
Number of younger siblings	-0.09***	0.15***	0.06***	0.00	0.03**	0.00
Number of older siblings	-0.03***	-0.11***	-0.04***	-0.06***	-0.03***	-0.02
Cohort/wave (ref: 8-9 years)						
Child age 0-1 year	0.09***	-1.38***	-	-	-	-
Child age 2-3 years	0.25***	-0.14**	-	0.09***	-	0.17***
Child age 4-5 years (B)	0.14***	0.08*	-0.01	0.05**	0.01	0.08***
Child age 4-5 years (K)	0.07***	-	-0.01	0.09***	-0.07***	-
Child age 6-7 years	0.09***	0.10**	0.01	0.06***	-0.02	0.03
Constant	4.44***	3.44***	2.18***	4.20***	4.16***	3.54***
Number of observations	16,783	13,732	10,793	13,470	10,790	10,426
Number of children	7,581	7,022	6,248	6,909	6,246	6,359
Overall R-squared	0.10	0.30	0.20	0.03	0.15	0.06
Rho	0.51	0.40	0.49	0.39	0.54	0.55

(a) Centred at sample means. See Section 3.7 for details.

Notes: Results are from RE models. A more positive result means more of that parenting style (scale is 1 to 5 for all except for hostility, which is 1 to 10). '-'=not applicable (data not available at all cohorts/waves). * $p<0.05$; ** $p<0.01$; *** $p<0.001$.

Source: All cohorts/waves.

Paid work hours of fathers and mothers

Not-employed fathers tended to report higher warmth and inductive reasoning and lower angry parenting than fathers working full-time (35 to 44 hours per week). Fathers **working long hours** (45 to 54 hours per week) were lower on hostile and angry parenting, and those working very long hours (55 or more hours per week) were likewise lower on hostile and angry parenting, but also lower on inductive reasoning and higher on overprotection than fathers working normal full-time hours. Overall, the most consistent trends were for not-employed fathers to show more positive parenting (warmth, inductive reasoning) and for fathers working very long hours to show less negative parenting (hostile and angry parenting).

When **mothers were employed**, either part or full-time (versus not employed), fathers tended to show more warmth and inductive reasoning. If mothers were working part-time, fathers also tended to show more consistency, while if mothers were working full-time, fathers showed more hostility. However, the most consistent associations were between mothers being in work and fathers showing more positive parenting practices.

Marital and parental status

When compared to married fathers, **cohabiting fathers** showed less consistency and more overprotection. No other differences were significant. By comparison with biological fathers, **stepfathers** showed less warmth. If fathers had **children living elsewhere**, they tended to be less warm and less consistent and use less inductive reasoning with the study child than fathers who did not have a child living apart from them.

Being **happy in the marital relationship** was associated with higher quality fathering—higher warmth, lower hostile/angry parenting, more consistency and inductive reasoning. It was also associated with greater overprotection.

Other parental characteristics

Fathers who had **completed secondary school or had a post-secondary qualification other than a university degree** used more inductive reasoning and were more consistent than fathers who had incomplete secondary education only. Similar trends were evident for fathers with a **bachelor degree or higher qualification**, who in addition were less hostile and less overprotective. Also, when **mothers were highly educated** (bachelor degree or higher), fathers tended to be more consistent, lower on hostility and less overprotective.

Fathers from a **non-English speaking background** showed more warmth, inductive reasoning and overprotection as well as less hostility, but also showed less consistency in their parenting than other fathers. **Indigenous** fathers also showed more overprotection than non-Indigenous fathers.

Older fathers were less likely to report hostile or angry parenting, but were also less consistent in their disciplinary approach.

A highly significant factor in explaining the parenting styles of fathers was their **mental health**. Fathers with better mental health exhibited warmer parenting, more inductive reasoning, more consistency, less hostile/angry parenting and less overprotection.

Family and child characteristics

Parenting of **boys** differed to that of girls, with differences found on all but one aspect of parenting. Towards boys, fathers were more consistent but less warm, less overprotective and engaged in more hostile/angry parenting.

Children with **poorer physical health** tended to receive less warmth, less inductive reasoning and less consistency, as well as more angry parenting from fathers when compared to children with better health.

Fathers' parenting of children with a **more reactive temperament** style (that is, children who were more intense, volatile, moody) differed in many ways to that of children with a less reactive temperament. Reactive

children received less warmth and more hostile/angry parenting from fathers, less consistency, less inductive reasoning and less overprotection. Children with a more **sociable temperament** (that is, were comfortable in new social situations or in interacting with others) tended to receive somewhat more angry parenting, and a little less overprotection.

The **presence of siblings** was related to differences in fathers' parenting. Compared to children without siblings, having younger or older siblings was associated with less paternal warmth. Having younger siblings was also associated with more hostile/angry parenting and less overprotection from fathers, while having older siblings was associated with less use of inductive reasoning and less consistency in disciplinary approach among fathers.

The multivariate analyses also allowed comparisons of fathers' parenting skills with their **children's ages**, after controlling for the effects of other paternal, maternal, child and family factors. Compared to when their children were aged 8 to 9 years, fathers' levels of warmth were higher at all other ages, but especially higher during the infancy and toddler years. Levels of hostility were much lower when the children were aged 0 to 1 years, but higher at age 6 to 7 years, compared to 8 to 9 years. Results were also inconsistent for angry parenting, with this being higher when children were 4 to 5 years, but lower at 6 to 7 years, than at 8 to 9 years. Fathers made more use of inductive reasoning at earlier ages, but were also more overprotective. Fathers' levels of consistency tended to be similar at differing child ages, except for lower consistency reported at age 4 to 5 years (but just the B cohort).

Summary

In summary, two consistent and powerful predictors of fathers' parenting skills were relationship happiness and mental health, with more positive parenting behaviours exhibited by fathers who had happier relationships and better mental health. This was found across all aspects of parenting. Other parental characteristics also emerged as being important, but not as consistently across the differing dimensions of parenting. For example, higher paternal education was associated with less hostility and overprotection and more inductive reasoning and consistency, but was not related to warmth or angry parenting. Child characteristics appeared to be important, with many differences evident according to child gender (for example, less warmth, more hostile/angry parenting, more consistency and overprotection was shown among fathers of boys) and child temperament (for example, less positive/more negative parenting behaviours among fathers of reactive children). Contextual factors, such as the number of younger or older siblings, were associated with fathers' parenting (more siblings generally being associated with more negative or less positive parenting behaviours, although results varied across types of parenting and siblings).

The amount of variance explained in fathers' parenting was modest, and ranged from lows of 4 per cent for inductive reasoning and 6 per cent for overprotection to highs of 26 per cent for hostile parenting and 16 per cent for angry parenting. It is interesting to note that more explanatory power (as indicated by higher *R*-squared values) was evident for the clearly 'negative' parenting practices, despite these practices being uncommon among the sample. Clearly, also, there are significant unmeasured characteristics that contribute to fathers' parenting beyond those included here. These could include the fathers' own temperament style, the type of parenting fathers themselves experienced as children, cultural and community effects, and fathers' attitudes and values concerning parenting.

6.6 Summary: fathers as parents

This section examined the parenting practices and styles of fathers, looking at five core dimensions: warmth, hostile and angry parenting, inductive reasoning, consistency and overprotection. Three main issues were explored: whether mothers and fathers differed in parenting practices and styles; relationships between fathers' parenting and the time they spent with their LSAC child, and their supportiveness as co-parents; and the parental, child and broader family characteristics that are related to fathers' parenting.

Over almost all aspects of parenting, fathers differed significantly from mothers, with fathers exhibiting, on average, less warmth, less inductive reasoning, less consistency and less overprotection. However, it should be noted that mean scores on the parenting dimensions were at the positive ends of the scales, indicating that fathers were generally parenting well. These differences are to some extent consistent with other research. Bentley and Fox (1991) and Starrels (1994) also found that mothers exhibited higher nurturance and warmth than fathers. While Bentley and Fox did not find differences on disciplinary approach, Starrels found that mothers made more use of behaviours akin to consistency (for example, more often enforced rules) and inductive reasoning (for example, discussed discipline with the child). Likewise, Adamsons and Buehler (2007) found significant mean differences across mothers and fathers on acceptance, but not psychological intrusiveness or harshness. The current study differs from these other studies in finding some differences on 'negative' parenting practices, such as hostile and angry parenting, as well as on overprotection. These may be due to the cultural differences (Australian versus US samples), the age of the children (Starrels and Adamsons and Buhler used older samples), and differences in the measures and constructs used in the various studies.

In the current study there was little change in the parenting of either mothers or fathers at differing child ages. The exceptions were hostility, which was much lower at 0 to 1 years than at later ages, and parenting warmth, which declined slightly as children grew older. Additionally, there was considerable stability at an individual level, with fathers who tended to be warm or consistent when their children were younger tending to maintain these styles of behaviour at older ages. Fathers' angry parenting also tended to be stable over time. However, less stability was found on fathers' use of hostile parenting or inductive reasoning. We have not been able to locate comparable studies that examine the stability of fathers' parenting over a similar time span and child age.

Connections between fathers' parenting and time spent with children, and supportiveness as co-parents were explored. Warmth and inductive reasoning were associated with fathers spending more time with their children; however, there were no relationships between hostility/anger, consistency or overprotection and fathers' time with children. When fathers showed less warmth, inductive reasoning or consistency, or greater hostility or anger with their LSAC child, they tended to be seen by the children's mothers as being less of a resource or support in child rearing. These findings are in keeping with other research findings, although there appears to have been limited examination of these issues thus far. Gaertner et al. (2007) found that fathers with a more authoritarian parenting style tended to spend less time with children. Coley and Schindler (2008) found that fathers' involvement in parenting (via responsibility and emotional connection to the child) was associated with lower maternal psychological distress and parenting stress. Zubrick et al. (2008) found that lower levels of parenting warmth were associated with poorer co-parenting support.

Examination of the parental, child and family factors associated with fathers' parenting revealed two consistent correlates: fathers who had happier relationships and better mental health exhibited more positive parenting behaviours. There is a large literature linking marital relations and parent-child relationships (for example, Cox, Paley & Harter 2001; Erel & Burman 1995). Further, some studies suggest that father-child relationships are more closely tied to marital relationship quality than are mother-child relationships (Brody, Pellegrini & Sigel 1986; Cowan & Cowan 1987; Crockenberg & Covey 1991; O'Keefe 1994), although this was not supported by the review of Coiro and Emery (1998). With regard to fathers' mental health, similar trends to the current study were found in the meta-analysis conducted by Wilson and Durbin (2010). Depression among fathers was found to have significant effects on their parenting, via decreased positive and increased negative parenting behaviours.

Other characteristics that also emerged as important influences on fathers' parenting in the current study, albeit not as consistently, included higher paternal education; fathers' non-English speaking background; sex of child, temperament and age; and the number of siblings in the family. Thus, a broad range of paternal, maternal, child and family factors were related to fathers' parenting practices and styles.

7 Employment and fathering

In this section, we explore how employment and fathering intersect. The difficulties in reconciling work and family responsibilities for fathers are not insignificant, given fathers often work considerably longer hours in the paid labour market than do mothers (Baxter et al. 2006; de Vaus 2004). Prior Australian research has demonstrated that employment is perceived as a barrier for fathers who wish to be more involved with their children (Hand & Lewis 2002; Russell et al. 1999). Earlier sections in this report have also showed negative associations between fathers working longer hours and their involvement with children and co-parenting.

Employment and family intersect because both are demanding of time, and managing this is not always easy. However, a particular reward that employment brings is income. In this section, we acknowledge this by considering the provider or breadwinner role as a facet of fathering. Indicators of work–family spillover and time pressures are then explored for employed fathers. This is where the greatest strain can result through the combined time demands of work and family. Associations between these data and some of the previously presented data on fathering are also examined here. Then multivariate techniques are used to more closely examine how changing work hours of fathers (and also mothers) are related to changes in father involvement.

7.1 The provider role as fathering

The measures of father involvement used so far in this report do not fully capture all that fathers contribute to families; the notable omission being the income contribution made by fathers. When children are young, mothers often reduce their involvement in the paid labour market and families become especially reliant on the income of fathers. Even in families in which mothers have the same or higher earning potential as fathers, mothers often work part-time hours, with the result that the proportion of the family income derived from fathers' employment increases. In some families, these arrangements will reflect a conscious decision of mothers and fathers to divide paid and unpaid work in this way when children are very young.

Fathers' employment is therefore crucial to families and could be seen as a further way of fulfilling the fathering role (Christiansen & Palkovitz 2001; Singleton 2005; Warren 2007). Bianchi, Robinson and Milkie (2006), commenting on fatherhood in the United States, noted that men:

... also see their paid work as a powerful way to become more involved with their children. Paid work hours 'count' as good parenting for them. This pushes men to work more, not fewer, hours outside the home when they first become fathers ... To the extent that providing is the essence of good parenting for men, and to the extent this has not changed as the ideal for them, it is very difficult to cut back on one's role as a provider and still be a 'good father'. (pp. 12–13)

This breadwinner role is apparent in examining the proportion of the total parental income that comes from fathers in the LSAC study. As Table 50 shows, at all cohorts/waves, fathers contribute more than two-thirds of the parental income, with the proportion approaching three-quarters in the families with the youngest children.

Table 50: Fathers' income as a percentage of total parental income, by cohort/wave

	0–1 year	2–3 years	4–5 years (B)	4–5 years (K)	6–7 years	8–9 years
Fathers' income as % of parental income	72.5	70.3	69.9	68.4	68.4	67.7
Sample size	3,774	3,858	3,598	3,424	3,531	3,328

Notes: Income is the total from all sources, so includes government benefits and allowances, if applicable. Child-related government payments are usually attributed to mothers. Results are calculated for respondents who provided income information for both mother and father.

Source: All cohorts/waves, primary carer interview.

Table 51 shows how mothers' and fathers' paid work hours are associated with the income contribution by fathers. Contributions by fathers are highest when they work the longest hours and mothers are not employed. The fewer hours worked by fathers or the more hours mothers work, the less the contribution of fathers' income to the total parental income. The situations in which fathers contribute less than half of the income occur when they are not employed but mothers are employed, or when they are employed part-time (up to 34 hours per week) and the mothers are employed full-time (35 hours or more). When both mothers and fathers work full-time hours, on average fathers contribute a little more than half of the parental income (53 to 56 per cent).

Table 51: Fathers' income as a percentage of total parental income, by fathers' and mothers' usual paid work hours

Fathers' usual paid work hours	Mothers' usual paid work hours				Sample size
	0 hours ^(a)	1–34 hours	35 hours or more	Total	
Fathers' income as % of parental income					
0 hours	51.2	48.4	23.0	46.8	2,096
1–34 hours	59.7	52.6	33.9	52.1	1,227
35–44 hours	80.8	68.6	53.3	71.4	7,581
45–54 hours	85.4	72.5	54.0	75.4	5,804
55 hours or more	86.9	71.0	56.2	75.5	4,736
Total	77.2	68.4	49.5	69.6	
Sample size	9,218	9,034	3,192	21,444	

(a) Zero hours includes not employed and those on long-term leave from employment.

Note: Income is the total from all sources, so includes government benefits, if applicable. Calculated for respondents who provided income information for both mother and father (both details collected in primary carer interview).

Source: All cohorts/waves, primary carer interviews.

The breadwinner role is also apparent when examining couple-level employment status across the cohorts/waves. In the vast majority of families, fathers are the only full-time workers, with mothers either working part-time hours or not employed (Table 52).

While some fathers reduce their involvement in paid work when children are young to help with the care of children, this is not a common occurrence (ABS 2006; Russell 1999). Very few of the fathers in LSAC appear to be 'stay-at-home dads', as evidenced by the small percentage who are not employed while mothers are in full-time employment. Similarly, the proportion of families in which both mother and father work part-time hours is very small, at less than 3 per cent over all waves.

Table 52: Couple-level employment, by cohort/wave

Fathers	Mothers	%					
		0–1 year	2–3 years	4–5 years (B)	4–5 years (K)	6–7 years	8–9 years
Full-time	Full-time	6.2	9.8	11.4	12.2	14.5	18.3
	Part-time	26.9	34.4	37.8	35.2	37.8	41.4
	Not employed ^(a)	49.2	38.5	34.1	35.6	30.8	25.6
Part-time	Full-time	0.6	1.2	1.4	1.3	1.3	1.1
	Part-time	2.0	2.3	2.8	1.8	2.2	1.8
	Not employed ^(a)	3.9	2.7	2.0	3.0	2.5	2.1
Not employed ^(a)	Full-time	1.0	1.3	1.6	1.2	1.7	2.1
	Part-time	1.5	1.6	2.2	2.0	2.3	2.5
	Not employed ^(a)	8.7	8.2	6.8	7.7	7.0	5.1
Total		100.0	100.0	100.0	100.0	100.0	100.0
Sample size		4,550	4,078	3,848	4,205	3,758	3,587

(a) Not employed includes unemployed, not in the labour force and employed but on long-term leave.

Source: All cohorts/waves, primary carer interviews.

The LSAC data do not permit analyses of how much the provider role is valued by mothers and fathers, or whether this is seen as an important part of fathering. As an indication, however, that fathers **do not** make the link between being in paid employment and being a good father, Table 53 shows the percentage of fathers who rated themselves as being better than average or a very good father (rather than lower self-ratings) according to the cohort/wave and two measures of the provider role: fathers' employment status and their income as a proportion of total parental income. These data show no differentiation in fathers' perceptions of how well they thought they were doing in their parenting role between those who worked different amounts of time or whose income contributed more or less to the total parental income. These self-efficacy data are explored further in Section 8.

Table 53: Fathers who rated themselves as being a very good/better than average parent, by relative income, employment status and cohort/wave

	0–1 year	2–3 years	4–5 years (B)	4–5 years (K)	6–7 years	8–9 years
	%					
Fathers’ employment status						
Not employed	73.5	76.7	66.6	69.8	70.8	65.5
Part-time employed	75.6	72.8	70.3	71.4	65.7	67.2
Full-time employed	75.7	76.8	69.9	65.4	69.0	64.9
Sample size	3,584	3,109	2,710	3,300	2,929	2,596
Percentage of parental income contributed by father^(a)						
0–61%	76.5	76.9	69.5	67.8	69.3	63.6
62–82%	73.4	74.9	69.4	65.5	68.1	66.7
83–100%	76.2	76.9	69.2	65.0	68.5	65.8
Sample size	2,989	2,964	2,554	2,750	2,782	2,422

(a) The income percentage ranges were selected to divide fathers roughly into three groups of equal size. None of the results are statistically significant.

Source: All cohorts/waves, fathers’ self-complete questionnaires.

Table 54 shows fathers’ employment status, differentiating between those who were unemployed and those not in the labour force. Around 7 per cent of fathers were not employed, with somewhat more of these classified as not in the labour force than unemployed. In Waves 2 and 3 of the study, reasons for not working were collected from these fathers. Fewer than one in ten of the unemployed fathers and about one-quarter of those not in the labour force said that ‘prefers to look after own children themselves’ was one of their reasons for not working. Unemployed fathers were more likely to say ‘no jobs available’, and a significant proportion of both unemployed and not in the labour force fathers selected ‘other reasons’. Many of these reasons related to ill health or disability.

Table 54: Fathers’ employment status, by cohort/wave

Percentage	0–1 year	2–3 years	4–5 years (B)	4–5 years (K)	6–7 years	8–9 years
Employed ^(a)	92.7	93.2	93.8	93.0	94.0	95.0
Unemployed	3.2	2.3	1.9	2.2	1.9	1.2
Not in the labour force	4.2	4.5	4.3	4.8	4.1	3.8
Total	100.0	100.0	100.0	100.0	100.0	100.0
Sample size	4,609	4,078	3,848	4,239	3,758	3,587

(a) Employed includes those who had a job but were on leave.

Source: All cohorts/waves, primary carer interview.

Even if many of the not-employed fathers appear to be out of employment for reasons unrelated to child care, the analyses throughout this report show that these not-employed fathers tend to have relatively high levels of father involvement, especially in terms of time spent with children and involvement in their activities. The time freed up from employment no doubt facilitates this greater involvement.

7.2 Work–family spillover and time pressures

Despite the income that employment provides and its contribution to family life, clearly the hours associated with employment are a barrier to fathers being more involved in home life. This has been evident in the earlier sections on father involvement, in which fathers' hours of paid work are very often important explanatory factors in describing variation in the different measures used. Longer work hours were associated with less time with children, less time spent doing child care and domestic work, and being less of a resource or support to mothers.

Other indicators of the extent to which paid employment and family intersect are available in measures of work–family spillover. Also, more general measures of perceptions of being rushed or pressed for time are likely to be related to fathers' wishes or needs to combine work and family responsibilities.

Note that the spillover between work and family can be in either direction, and positive as well as negative. While the focus in the literature is often on the negative aspects of work-to-family spillover, employment also has positive spillover effects. For example, through employment, fathers (and mothers) gain satisfaction and a sense of fulfilment and self-esteem; they can acquire skills and knowledge that are useful in other environments; and they can enjoy social interactions with others (Barnett 1998; Baxter et al. 2006; Grzywacz, Almeida & McDonald 2002; Marshall & Barnett 1993).

The items analysed here are shown in Box 9. They have been collected at all cohorts/waves, which have been combined for the initial analyses of these items.

Box 9: Work–family spillover and time pressures

In the self-complete questionnaires, parents are asked a range of questions about work and family. The questions used in this report are:

- ▶ 'Because of my work responsibilities I have missed out on home or family activities that I would have liked to have taken part in.'
- ▶ 'Because of my work responsibilities my family time is less enjoyable and more pressured.'
- ▶ 'Working helps me to better appreciate the time that I spend with my children.'
- ▶ 'My working has a positive effect on my children.'
- ▶ 'The fact that I work makes me a better parent.'
- ▶ 'Because of my family responsibilities, I have had to turn down work activities or opportunities that I would prefer to take on.'

Response categories were: strongly agree; agree, neither agree or disagree, disagree and strongly disagree.

An additional question (asked earlier in the questionnaire) is about time pressure. Parents were asked how often they feel rushed or pressed for time. The response options were: always, often, sometimes, rarely and never.

Table 55 shows that almost two-thirds of fathers agreed or strongly agreed that, because of work responsibilities, they had missed out on home or family activities that they would have liked to have taken part in. Fathers' responses to the other items indicate that some, but a minority of, fathers found that work had a negative impact upon their parenting, family life or children. More generally, the time factor was evident in the degree to which fathers reported being rushed or pressed for time (46 per cent always or often and 39 per cent sometimes).

For many fathers, the spillover from work was seen to be less intrusive on family. More than half the fathers disagreed (or strongly disagreed) with the statement that their family time was less enjoyable and more pressured because of work responsibilities; nearly three-quarters agreed that working helped them to better appreciate the time they spent with their children. Just over half agreed that their work had a positive effect on their children and almost half agreed that their working made them a better parent.

Some 63 per cent of fathers disagreed or strongly disagreed that their family responsibilities had meant they had turned down work activities they would have preferred to take on.

More detailed analyses of these data, at Wave 1, was presented by Baxter et al. (2006). This work, along with research on work–family spillover using other data sources, has demonstrated that fathers working longer hours experience more negative spillover from work to family, and are more likely to be rushed and pressed for time. Other job characteristics also make a difference, such as the degree of control over work responsibilities, and the flexibility of hours (Baxter et al. 2006; Pocock & Clarke 2005).

Table 55: Fathers’ work–family spillover and time pressures, employed fathers

Work–family spillover measures	Agreement	%	Sample size
Because of my work responsibilities I have missed out on home or family activities that I would have liked to have taken part in	Agree/strongly agree	63.7	16,787
	Neither	15.3	
	Disagree/strongly disagree	21.0	
Because of my work responsibilities my family time is less enjoyable and more pressured	Agree/strongly agree	23.0	16,754
	Neither	23.3	
	Disagree/strongly disagree	53.7	
Working helps me to better appreciate the time that I spend with my children	Agree/strongly agree	72.1	16,758
	Neither	18.9	
	Disagree/strongly disagree	9.0	
My working has a positive effect on my children	Agree/strongly agree	54.6	16,765
	Neither	33.3	
	Disagree/strongly disagree	12.1	
The fact that I work makes me a better parent	Agree/strongly agree	47.6	16,766
	Neither	35.9	
	Disagree/strongly disagree	16.6	
Because of my family responsibilities, I have had to turn down work activities or opportunities that I would prefer to take on	Agree/strongly agree	16.4	16,773
	Neither	20.9	
	Disagree/strongly disagree	62.7	
How often feel rushed or pressed for time	Always/often	46.3	17,175
	Sometimes	38.8	
	Rarely/never	14.9	

Source: All cohorts/waves, fathers’ self-complete questionnaires.

7.3 Work–family spillover, time pressures and fathering

How are these experiences of work–family spillover related to fathering? A direct association is possible, as fathers' reports of work–family spillover should be capturing, to some extent, whether they are actually missing out on time with children, or are feeling constrained in what they can offer as parents or partners to the fathering role.

Prior research on this topic has explored somewhat different, although related, questions. For example, excessive role strain or greater dissatisfaction or stress at work can reduce parental wellbeing, which in turn is associated with more negative parenting behaviours (Belsky 1984; Crouter et al. 1999; Volling & Belsky 1991). Kinnunen, Gerris and Vermulst (1996) found that job strain experienced by fathers flowed through to strains in their experiences of child rearing and parenting. Repetti (1994) and Goodman et al. (2008) reported more negative interactions between fathers and children when fathers had less supportive workplaces. One study of paternal involvement in which work–family strain was examined as a possible explanatory factor found no evidence that more strain was associated with different levels of involvement (Jacobs & Kelley 2006).¹⁴

In this subsection, we take a selection of the fathering measures by cohort/wave and examine whether there are different experiences of fathering when more work–family spillover or more time pressures are reported. The first fathering measures used are fathers' time spent on child care (Table 56) and mothers' reports on the level of fathers' support in child rearing (Table 57) from Section 5. Note, for the latter, as reported in Section 5, most fathers are rated highly in this regard, and this is evidenced by the mean scores of greater than 4 on a 1–5 point scale. We could also have included data on fathers' time with children from Section 4, but the broader measure of fathers' time on child care should capture these aspects of time adequately and has the advantage of including child care for all children, not just the LSAC study child. We also include the parenting style of warmth, to incorporate information on how work–family spillover might be related to fathers' parenting behaviour (Table 58). As for the co-parenting item, it is also worth remembering (as discussed in Section 6) that fathers score highly on the parental warmth scale. Here, the mean score is never lower than 3.8 on a 1–5 scale.

In all cases, having more negative work-to-family spillover (that is, missing out at home, or finding family time less enjoyable because of work) was associated with having less child care time, being less of a support to mothers and exhibiting lower levels of warmth (Tables 56 to 58). Also, being more rushed or pressed for time was associated with spending less time on child-rearing tasks (although not significantly in the oldest cohort/wave), being rated lower as a resource or support to the mother, and reporting lower levels of warm parenting for the youngest age groups. Especially when children were aged 0 to 1 years and 2 to 3 years, fathers exhibited less warmth when more rushed. It does appear, then, that negative work-to-family spillover is associated with strains on fathering.

Having more positive work-to-family spillover, as measured by agreeing more strongly that working helped appreciate time with children, or had a positive effect on children, was associated with fathers having more child care time and being more of a support to their partners (with one exception, where relationships were non-significant). Fathers who agreed with these aspects of positive work-to-family spillover also tended to have a warmer parenting style. The other measure of positive work-to-family spillover—working makes one a better parent—had no significant relationships with time fathers spent on child care (Table 56) but was significantly associated with greater co-parenting in two of the four cohort/waves (Table 57). Fathers who agreed with this statement also had relatively high levels of parental warmth (Table 58).

Time spent on child care and levels of support did not vary significantly by the measure of family-to-work spillover (that is, turning down work opportunities because of family responsibilities), suggesting that the degree of involvement at home does not in itself lead to increased 'missing out' on work opportunities. Indeed, fathers who had not had to turn down work opportunities because of family were found to have higher levels of warmth, while those who did were, on average, less warm in their parenting style. This requires further

exploration, but suggests that when fathers are missing out at work because of family, there may be some negative spillover back to the family.

These work–family spillover items emphasise the importance of taking fathers’ employment into account when examining their role as parents. For some fathers, there is a sense that their role as a father is separate to their role as a worker. For others, there is a sense that their role as a father is enhanced by their role as a worker. For many fathers, however, the time pressures of work do make parenting more difficult. The associations between work–family spillover and fathers’ time on child rearing, co-parenting and warmth, show that these perceptions of work–family spillover are tied to or reflected in differences in fathering.

Table 56: Fathers’ work–family spillover, by time spent on child care

Work–family spillover measures	Agreement	2–3 years	4–5 years (B)	6–7 years	8–9 years
		Mean minutes per week			
Because of my work responsibilities I have missed out on home or family activities that I would have liked to have taken part in	Agree/strongly agree	959	830	709	661
	Neither	964	891	819	644
	Disagree/strongly disagree	1,146	963	935	764
	Significance	***	***	***	***
Because of my work responsibilities my family time is less enjoyable and more pressured	Agree/strongly agree	865	742	623	592
	Neither	939	811	779	652
	Disagree/strongly disagree	1,084	943	841	729
	Significance	***	***	***	***
Working helps me to better appreciate the time that I spend with my children	Agree/strongly agree	1,033	897	802	709
	Neither	872	788	717	607
	Disagree/strongly disagree	958	797	663	615
	Significance	***	**	**	***
My working has a positive effect on my children	Agree/strongly agree	1,017	906	820	702
	Neither	992	841	728	649
	Disagree/strongly disagree	914	745	628	627
	Significance	*	***	***	*
The fact that I work makes me a better parent	Agree/strongly agree	1,027	884	799	704
	Neither	979	873	746	655
	Disagree/strongly disagree	948	802	746	650
	Significance	n.s.	n.s.	n.s.	n.s.
Because of my family responsibilities I have had to turn down work activities or opportunities that I would prefer to take on	Agree/strongly agree	1,022	904	783	717
	Neither	964	836	721	666
	Disagree/strongly disagree	1,010	871	789	676
	Significance	n.s.	n.s.	n.s.	n.s.
How often feel rushed or pressed for time	Always/often	928	856	743	673
	Sometimes	1,064	904	807	700
	Rarely/never	1,159	934	831	700
	Significance	***	*	**	n.s.

Notes: Significance tests compare mean time on child care tasks by the spillover categories shown, each cohort/wave tested separately, using one-way ANOVA. Time on child care was not collected in Wave 1. * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$. n.s.=not significant.

Source: Waves 2 and 3, B and K cohorts, fathers’ self-complete questionnaires.

Table 57: Fathers' work-family spillover, by level of fathers' provision of support to partner

Work-family spillover measures	Agreement	0-1 year	4-5 years (B)	4-5 years (K)	8-9 years
		Mean score			
Because of my work responsibilities I have missed out on home or family activities that I would have liked to have taken part in	Agree/strongly agree	4.39	4.23	4.41	4.22
	Neither	4.43	4.32	4.47	4.29
	Disagree/strongly disagree	4.55	4.42	4.63	4.47
	Significance	***	***	***	***
Because of my work responsibilities my family time is less enjoyable and more pressured	Agree/strongly agree	4.29	4.17	4.30	4.10
	Neither	4.38	4.17	4.40	4.25
	Disagree/strongly disagree	4.50	4.37	4.56	4.38
	Significance	***	***	***	***
Working helps me to better appreciate the time that I spend with my children	Agree/strongly agree	4.45	4.32	4.50	4.33
	Neither	4.36	4.20	4.40	4.23
	Disagree/strongly disagree	4.40	4.19	4.35	4.11
	Significance	n.s.	**	***	***
My working has a positive effect on my children	Agree/strongly agree	4.47	4.32	4.55	4.35
	Neither	4.43	4.27	4.41	4.23
	Disagree/strongly disagree	4.31	4.11	4.23	4.06
	Significance	***	**	***	***
The fact that I work makes me a better parent	Agree/strongly agree	4.46	4.34	4.49	4.33
	Neither	4.41	4.22	4.45	4.30
	Disagree/strongly disagree	4.41	4.22	4.40	4.10
	Significance	n.s.	**	n.s.	***
Because of my family responsibilities I have had to turn down work activities or opportunities that I would prefer to take on	Agree/strongly agree	4.42	4.24	4.47	4.33
	Neither	4.39	4.24	4.40	4.20
	Disagree/strongly disagree	4.44	4.31	4.48	4.31
	Significance	n.s.	n.s.	n.s.	**
How often rushed or pressed for time	Always/often	4.35	4.24	4.41	4.20
	Sometimes	4.47	4.32	4.49	4.36
	Rarely/never	4.56	4.35	4.56	4.37
	Significance	***	***	**	***

Notes: Fathers' support measured on 1-5 scale, 5 being more support. Significance tests compare mean support by the spillover categories shown, each cohort/wave tested separately, using one-way ANOVA. Questions about provision of support to each other were not collected in Wave 2. * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$. n.s.=not significant.

Source: Waves 1 and 3, B and K cohorts, self-complete questionnaires.

Table 58: Fathers' work-family spillover, by fathers' level of warmth

Work-family spillover measures	Agreement	Mean score					
		0-1 year	2-3 years	4-5 years (B)	4-5 years (K)	6-7 years	8-9 years
Because of my work responsibilities I have missed out on home or family activities that I would have liked to have taken part in	Agree/strongly agree	4.21	4.30	4.21	4.06	4.08	4.01
	Neither	4.20	4.30	4.19	4.03	4.10	4.00
	Disagree/strongly disagree	4.27	4.37	4.29	4.17	4.20	4.12
	Significance	**	*	*	***	***	**
Because of my work responsibilities my family time is less enjoyable and more pressured	Agree/strongly agree	4.13	4.25	4.12	3.95	3.95	3.93
	Neither	4.17	4.25	4.12	4.00	4.06	3.96
	Disagree/strongly disagree	4.28	4.38	4.31	4.17	4.21	4.11
	Significance	***	***	***	***	***	***
Working helps me to better appreciate the time that I spend with my children	Agree/strongly agree	4.27	4.37	4.27	4.14	4.17	4.09
	Neither	4.11	4.15	4.07	3.94	3.96	3.86
	Disagree/strongly disagree	4.10	4.25	4.20	3.96	4.00	3.97
	Significance	***	***	***	***	***	***
My working has a positive effect on my children	Agree/strongly agree	4.29	4.36	4.26	4.16	4.19	4.10
	Neither	4.19	4.28	4.21	3.99	4.01	3.92
	Disagree/strongly disagree	4.12	4.22	4.11	3.97	3.97	3.89
	Significance	***	***	***	***	***	***
The fact that I work makes me a better parent	Agree/strongly agree	4.29	4.35	4.27	4.15	4.15	4.08
	Neither	4.18	4.28	4.17	4.03	4.07	3.96
	Disagree/strongly disagree	4.19	4.28	4.20	4.00	4.03	4.04
	Significance	***	***	***	***	**	**

Table 58: Fathers' work-family spillover, by fathers' level of warmth (continued)

Work-family spillover measures	Agreement	Mean score					
		0-1 year	2-3 years	4-5 years (B)	4-5 years (K)	6-7 years	8-9 years
Because of my family responsibilities I have had to turn down work activities or opportunities that I would prefer to take on	Agree/strongly agree	4.16	4.29	4.20	4.08	4.07	3.99
	Neither	4.19	4.23	4.13	4.00	4.07	3.99
	Disagree/strongly disagree	4.25	4.36	4.26	4.10	4.13	4.06
	Significance	***	***	***	**	*	n.s.
How often rushed or pressed for time	Always/often	4.20	4.29	4.20	4.06	4.08	4.00
	Sometimes	4.24	4.32	4.24	4.08	4.12	4.04
	Rarely/never	4.35	4.40	4.28	4.12	4.18	4.10
	Significance	***	***	*	n.s.	*	n.s.

Notes: Fathers' warmth measured on 1-5 scale, 5 being warmer parenting (see Table 37). Significance tests compare mean warmth by the spillover categories shown, each cohort/wave tested separately, using one-way ANOVA. * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$. n.s.=not significant.

Source: All cohorts/waves, self-complete questionnaires.

7.4 Longitudinal analyses of employment and fathering

This subsection now turns to the analyses of how changes in fathers' and mothers' employment relate to fathering. The focus here is somewhat different to that of previous analyses, as we make more detailed use of the longitudinal nature of the data. For both cohorts, we can examine how fathering changed over the three waves so far of the LSAC study. For the B cohort, this is particularly valuable because it covers a period of years over which many changes occur in the nature of fathering, and changes may also be occurring in mothers' participation in the labour market. For the K cohort, changes in fathering are also occurring as children grow older. In the next subsection, we will first present some descriptive results on the extent of change in father involvement across the waves of the study.

Overall change in father involvement

Overall, Table 59 shows changes from one wave to the next in the mean levels of a selection of fathering measures. The measures examined are fathers' time with the LSAC child (father-child time), fathers' time spent undertaking child care tasks, mothers' reports of the level of support fathers provide mothers, and fathers' reports on disagreements about child rearing. Also, the analyses cover fathers' parenting styles or behaviours, as listed in Table 59. Two measures related to mothers' involvement with children are also included in order to explore how fathers' participation in paid work might affect mothers as well as fathers.

The changes from wave to wave varied considerably, depending on which cohort was used and which waves were being compared. For example, on average, fathers **increased** their father-child time between Waves 1 and 2 for the B cohort, but **decreased** this time for the K cohort.¹⁵ Between Waves 2 and 3, the time fathers spent with their children increased for both cohorts. However, the time that fathers spent on child care tasks decreased between Waves 2 and 3. The larger or differing changes detected from Wave 1 to 2 for the B cohort, compared to Wave 2 to 3 and compared to the K cohort, are possibly related to the significant changes that occur in children's care needs as they grow out of infancy into early childhood. For some families, the more significant changes at the younger ages may also reflect increases in mothers' employment participation, as mothers return to work from a period of leave. While such changes are still likely for the older cohort, the differences are generally smaller than those experienced by the younger cohort. (For example, Appendix Table D1 shows more change across waves in mothers' work hours in the B cohort than the K cohort.)

Table 59: Overall cross-wave changes in aspects of fathering, by cohort

Aspects of fathering	Units of measurement	B cohort		K cohort	
		Wave 1 to 2	Wave 2 to 3	Wave 1 to 2	Wave 2 to 3
Changes in mean scores					
Father-child time	Hours per day	0.34	0.09	-0.31	0.16
Fathers' child care time	Hours per day	-	-0.32	-	-0.22
Mother-child time	Hours per day	-0.15	-0.38	-1.50	0.18
Mothers' child care time	Hours per day	-	-0.38	-	0.08
Child-rearing disagreements (father reports)	1-5, 5 is more	-0.18	0.04	0.02	0.00
Father is support (mother reports) ^(a)	1-5, 5 is more	-	-0.17	-	-0.20
Fathers' parenting behaviours					
Warmth	1-5, 5 is more	0.09	-0.08	0.04	-0.08
Hostility	1-10, 10 is more	1.39	-0.18	-	-0.31
Anger	1-5, 5 is more	-	-	-0.19	0.06
Inductive reasoning	1-5, 5 is more	-	0.02	-0.02	-0.05
Consistency	1-5, 5 is more	-	-	0.10	0.01
Overprotection	1-5, 5 is more	-	-0.08	-	-0.01

(a) Fathers' support shown in the Wave 2 to 3 column is actually Wave 1 to 3, as these support questions were not asked at Wave 2. Only includes families in which the 'mother' is the same mother, and the 'father' the same father, in each wave. Comparisons between Waves 1 and 2 only include those responding to both waves and comparisons between Waves 2 and 3 only include those responding to both waves.

Note: '-'=not applicable.

Source: All cohorts/waves.

Analyses of how some of these measures varied with changes in fathers' and mothers' work hours are presented in tables in Appendix E. The results, however, are very difficult to interpret given that fathering, however measured, varies with many of the characteristics that can also be changing from wave to wave. Therefore, we turn to multivariate analyses to help in interpreting these results.

Fixed effects analyses

Multivariate analyses are useful for identifying associations between an explanatory variable and an outcome measure, while taking account of other influential variables. Such an approach has been used throughout this report. While other analyses have used random effects (RE) models to allow examination of a broad range of characteristics, this subsection uses fixed effects (FE) models. Fixed effects models are used to analyse how explanatory variables explain **change** in the outcome variables (the different measures of fathering) across time periods, or across waves. Unlike RE models, we cannot incorporate any variables that remain constant in value across the waves. The purpose is to analyse those variables that **do** change, and to explore how they are related to changes in aspects of fathering. More detail about these models is given in Section 3.7. As discussed in Section 3, these analyses focus on the across-wave differences in fathering (that is, changes within fathers over time), as opposed to differences across fathers.

The fathering measures analysed are the same as those presented in Table 59.

The explanatory variables included are fathers' and mothers' paid work hours, number of children in the family, fathers' mental health, and relationship quality. These were important explanatory variables when exploring variation in the RE models previously, and are variables that may change over the waves. Variables are also included to indicate at which wave the measure was taken, relative to Wave 3, to capture time effects. We have not included age of youngest child as a variable, since the number of children, along with the wave indicators, captures a great deal of information about family composition.

In the models, fathers' and mothers' usual paid work hours were converted to per-day estimates (by dividing usual weekly work hours by seven) to aid in the interpretation of results. All variables (except the wave indicators) were 'centred' before being included in the models. That is, their values were changed to reflect their difference from the overall sample mean instead of their absolute value.¹⁶ Cohorts were analysed separately, given the above findings that changes across waves were quite different for the B cohort compared to the K cohort.

The results for fathers' and mothers' time with children and co-parenting (supportiveness and disagreements about child rearing) are presented for the B cohort in Table 60 and for the K cohort in Table 61. The analyses of parenting styles are presented in Table 62 and Table 63. All the models presented produced a significant fit of the data, even though the amount of variation explained (the *R*-squared values) was quite small. These low *R*-squared values suggest that much of the variation across the waves cannot be explained by the variables we have included. Models for inductive reasoning in the B cohort and overprotection in the K cohort are not presented as the models did not produce a significant fit of the data.

To help explain the results, we can look at the B cohort results in Table 60. We look first at changes in father-child time over waves. The constant term for the first model shows that father-child time was on average 4.68 hours per day at Wave 3. The Waves 1 and 2 coefficients show that father-child time at Wave 1 was significantly lower than at Wave 3 (by 0.36 hour), but not significantly different between Waves 2 and 3. The other coefficients capture how changes in fathers' or family characteristics across waves are associated with changes in father-child time over waves. The significant variables in this model were fathers' work hours (-0.12) and mothers' work hours (0.05). The coefficient for fathers' work hours shows that, across waves, a one hour increase in paid work hours per day was associated with a decline in father-child time of 0.12 hour. The coefficient for mothers' hours show that for a one hour increase in mothers' work hours, father-child time increased by 0.05 hours. Other variables did not significantly explain the change in father-child time across the waves.

In the discussion of results we concentrate on how changes in mothers' or fathers' work hours are associated with changes in parenting over time, focusing primarily on the results for fathers. The inclusion of information about mothers is to explore interactions between fathers' and mothers' work hours and their across-time impact on how they function as parents. We do not discuss all the findings relating to mothers, only those most relevant to fathering.

Table 60: Multivariate analyses of parental involvement, using fixed effects models, B cohort

	Fathers				Mothers	
	Father-child time (hours per day)	Fathers' child care time (hours per day)	Less child-rearing disagreement, father reports (1-5)	Father more of a support, mother reports (1-5)	Mother-child time (hours per day)	Mothers' child care time (hours per day)
Fathers' work hours (per day)	-0.12***	-0.03*	0.00	-0.02***	0.06**	0.10**
Mothers' work hours (per day)	0.05*	0.09***	-0.01	0.00	-0.35***	-0.28***
Number of children	0.00	0.15	-0.04*	-0.02	0.12	0.62**
Relationship quality	0.03	0.02	0.10***	0.07***	-0.03	0.05
Fathers' better mental health	0.11	0.04	0.14***	0.04	0.05	0.27
Wave 1 (relative to Wave 3)	-0.36***	-	0.10***	0.14***	0.34**	-
Wave 2 (relative to Wave 3)	-0.01	0.38***	-0.04*	-	0.31***	0.72***
Constant	4.68***	2.12***	3.78***	4.30***	7.99***	5.01***
Number of observations	6,626	5,249	8,488	5,609	6,626	5,101
Number of children	3,226	3,215	3,727	3,498	3,226	3,167
Overall R-squared	0.06	0.02	0.13	0.07	0.10	0.03
Rho	0.48	0.59	0.61	0.57	0.47	0.51

Note: Based on FE models. All variables except wave dummy variables are centred at mean of sample. '-=' not applicable. * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.
Source: Waves 1-3, B cohort.

Table 61: Multivariate analyses of parental involvement, using fixed effects models, K cohort

	Fathers			Mothers		
	Father-child time (hours per day)	Fathers' child care time (hours per day)	Less child-rearing disagreement, father reports (1-5)	Father more of a support, mother reports (1-5)	Mother-child time (hours per day)	Mothers' child care time (hours per day)
Fathers' work hours (per day)	-0.09***	-0.03*	0.01*	0.00	0.05*	0.07*
Mothers' work hours (per day)	0.01	0.03	-0.02***	0.00	-0.13***	-0.09*
Number of siblings	0.06	-0.06	-0.07**	0.01	0.02	1.01***
Relationship quality	0.05	0.05	0.11***	0.06***	0.01	-0.05
Fathers' better mental health	-0.25*	0.02	0.09***	0.05	0.15	0.11
Wave 1 (relative to Wave 3)	0.17*	-	-0.07***	0.21***	1.30***	-
Wave 2 (relative to Wave 3)	-0.17*	0.22***	-0.04*	-	-0.19*	0.06
Constant	4.34***	1.65***	3.80***	4.28***	6.48***	3.68***
Number of observations	3,769	5,096	8,129	5,247	5,600	4,949
Number of children	2,453	3,046	3,433	3,222	2,775	2,999
Overall R-squared	0.03	0.03	0.09	0.06	0.09	0.02
Rho	0.50	0.56	0.54	0.60	0.50	0.53

Notes: Based on FE models. All variables except wave dummy variables are centred at mean of sample. '-.' = not applicable. **p* < 0.05; ***p* < 0.01; ****p* < 0.001. Source: Waves 1-3, K cohort.

Table 62: Multivariate analyses of fathers' parenting styles, using fixed effects models, B cohort

	Warmth (1–5)	Hostility (1–10)
Fathers' work hours (per day)	0.00	–0.00
Mothers' work hours (per day)	0.01	0.02
Number of children	–0.05***	0.15***
Relationship quality	0.03***	–0.06**
Fathers' better mental health	0.10***	–0.34***
Wave 1 (relative to Wave 3)	–0.04**	–1.14***
Wave 2 (relative to Wave 3)	0.08***	0.22***
Constant	4.23***	3.01***
Number of observations	8,496	8,479
Number of children	3,730	3,725
Overall <i>R</i> -squared	0.06	0.23
Rho	0.61	0.52

Notes: Based on FE models. All variables except wave dummy variables are centred at mean of sample. * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

Source: Waves 1–3, B cohort.

Table 63: Multivariate analyses of fathers' parenting styles, using fixed effects models, K cohort

	Warmth (1–5)	Hostility (1–10)	Anger (1–5)	Inductive reasoning (1–5)	Consistency (1–5)
Fathers' work hours (per day)	–0.01**	–0.02	0.00	–0.01*	0.00
Mothers' work hours (per day)	0.00	0.02	0.00	0.01*	0.00
Number of children	–0.11***	0.02	0.08***	–0.01	0.01
Relationship quality	0.04***	–0.02	–0.03***	0.03**	0.02*
Fathers' better mental health	0.03*	–0.21***	–0.12***	0.05*	0.11***
Wave 1 (relative to Wave 3)	0.01	–	0.12***	0.07***	–0.11***
Wave 2 (relative to Wave 3)	0.07***	0.34***	–0.07***	0.06***	–0.01
Constant	4.07***	2.97***	2.14***	3.91***	4.11***
Number of observations	8,121	5,160	8,116	8,116	8,114
Number of children	3,430	3,069	3,432	3,429	3,432
Overall <i>R</i> -squared	0.03	0.04	0.06	0.02	0.04
Rho	0.67	0.64	0.61	0.53	0.64

Notes: Based on FE models. All variables except wave dummy variables are centred at mean of sample.

– = not applicable. * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

Source: Waves 1–3, K cohort.

Fathers' work hours

We look first at how fathers' time with children or on child care tasks varied over waves in conjunction with their hours in paid work (Tables 60 and 61). For the B cohort, a one-hour increase in fathers' work hours was associated with a 0.12 hour (7 minutes) per day decrease in father-child time, and an even smaller decrease in the time spent doing child care tasks. For the K cohort, a one-hour increase in fathers' work hours was also associated with a small decline in father-child time (5 to 6 minutes) and a smaller decline in time spent on child care tasks.

In the B cohort, but not the K cohort, increases in work hours across waves were associated with a drop in fathers' supportiveness (according to mothers' reports). No associations were apparent for disagreements about child rearing in either cohort.

For each cohort, a one-hour increase in fathers' work hours over waves was associated with an increase in mother-child time and mothers' time undertaking child care, albeit for no more than a few minutes (between 3 and 10 minutes) extra for every additional hour worked by fathers.

Turning to parenting practices and styles, fathers' work hours were not significantly related to changes in parenting styles in the B cohort (Tables 62 and 63). In the K cohort, very small associations were apparent, with increased hours associated with declines in warmth and inductive reasoning.

Mothers' work hours

Now we examine how changes in mothers' work hours are associated with changes in fathering (Tables 60 and 61). In the B cohort, for every additional hour of maternal employment, fathers spent 0.05 hour (3 minutes) more time with their LSAC children, and spent 0.09 hour (about 5 minutes) more doing child care tasks. These associations were not apparent in the K cohort. Changes in mothers' work hours, of course, were strongly associated with changes in mothers' time spent with their child and in child care tasks in both cohorts.

The degree of support that fathers were reported to provide to mothers did not change significantly with changes in mothers' work hours. However, in the K cohort, an increase in mothers' working hours over time was associated with an increase in disagreements about child rearing, as reported by fathers.

No associations between changes in mothers' work hours over waves and fathers' parenting styles were apparent for the B cohort, but in the K cohort, more hours worked by mothers were associated with somewhat higher inductive reasoning by fathers.

Other characteristics

In many of the analyses undertaken, there were stronger or equally strong relationships between changes in fathering and changes in characteristics such as number of children in the family, fathers' perceived relationship happiness and mental health.

An increase in the number of children in the family was related to higher levels of disagreements about child rearing (in both cohorts). An increasing number of children was also associated with reduced parental warmth and increased hostile or angry parenting in both cohorts.

Improvements in relationship happiness over time were associated with fewer disagreements about child rearing and higher ratings of fathers' supportiveness to mothers, again in both cohorts. In the B cohort, a happier relationship was associated with higher parental warmth and less parental hostility. In the K cohort, it was associated with higher parental warmth, less angry parenting, higher inductive reasoning and consistency.

Improved mental health over time was also associated with fewer disagreements about child rearing. In the K cohort, improved mental health was associated with a decline in the shared time between father and child—a finding that is difficult to interpret. Improved mental health was very strongly associated with increases in parental warmth, inductive reasoning and consistency, and decreases in parental hostility and angry parenting.

The variables that captured at which wave the measures were taken were often quite significant, demonstrating that there was considerable change across the waves (or ages of children), regardless of other changes occurring within the family.

Summary

To summarise, changes in fathers' work hours seemed to affect their involvement with children, most notably in the time-based measures of fathering. The trade-off between an additional hour of work and time lost with children, on these measures, was quite small, however. Other changes in characteristics of fathers and family form were also linked to variations in fathering across the waves. These types of models aim to explain how an outcome measure varies over time, in association with other variables that change over time. In fact, much of the variation in fathering over the waves was not captured by the characteristics examined here, as evidenced by the relatively small *R*-squared values. This is consistent with the RE models analyses reported in earlier sections, and suggests that changes in fathering are associated with a range of unmeasured variables—whether they be contextual or related to the characteristics of the family, parents or children. The unexplained variation in the RE models likely also captures variation due to innate differences across fathers in their propensity to be involved with children. The unexplained variation in FE models used in this section, however, only captures variations in characteristics across waves (that is, over time). No doubt many contextual variables, as well as unmeasured family and child characteristics, change across waves, and such changes are likely to influence fathering. Individuals also are unlikely to be consistent from day to day in how much time and effort they can contribute to particular roles, parenting or other, which is doubtless another source of unmeasured variation across waves.

7.5 Summary: employment and fathering

There can be considerable constraints on fathers' time as they try to find time for their children's needs alongside the demands of hours in paid employment. Like mothers, some fathers experience work–family spillover that means that their employment spills over, to some extent, to their family time. In these analyses, we have seen that fathers have less time to spend with children when they experience negative work-to-family spillover. To some extent, there is also a link between negative work–family spillover and styles of parenting. This spillover from work to family can also flow through to the co-parental relationship, as seen in mothers' reports of the degree to which fathers were a resource or support to them in child rearing.

However, a minority of fathers viewed the interaction between employment and fathering negatively in the current study, and some reported positively on how their work affected their family time. Dermott (2005) also noted this in qualitative interviews with fathers. In this study, fathers did not always feel the time they spent at work was a problem for their families; they often felt that it was the quality of time they spent with their family and being there for their children that mattered. The possibility of positive spillover from work to family is also linked to fathers' views that their employment is important to families for the income it brings in. This cannot always be separated out when considering the effects of work on family (Bianchi et al. 2006).

Clearly there is great variation in fathers' experience of work–family spillover, and this experience will vary with a range of job characteristics not explored here, as well as personal and family characteristics (Barnett & Marshall 1992; Baxter & Alexander 2008; Marshall & Barnett 1993; Voydanoff 2005). Future analyses of these data could examine more closely the links between work–family spillover and fathering, to examine in which circumstances negative or positive work–family spillover contributes to differences in fathering. This might be particularly useful for identifying which workplace policies improve fathers' perceptions of the work–family balance and which directly affect fathering. Baxter's (2009) analyses of children's time with fathers (using only Wave 1 LSAC data) found that fathers' hours of work and whether fathers worked at weekends were the only job characteristics that were significantly associated with the amount of time children spent with their father. However, other job characteristics, such as flexible work hours, may nevertheless be associated with differences in the amount or nature of father involvement when measured in different ways.

These analyses showed that variations in fathering across time were to some extent associated with variation in the hours fathers usually worked. In particular, the measures of fathering capturing the time aspects of fathers' involvement with children, or child care, were most likely to be related to hours at work.

We saw in this section that fathers contribute the majority of income to the total parental income, and most of this will be due to their employment. However, many mothers are also employed, increasingly so as children grow up. The analyses of fathering here showed that as mothers' work hours change, there are associated changes in fathering in the B cohort. While such changes are small in terms of the amount of time fathers spend with children, they no doubt contribute to the functioning of these households in which time demands are likely to be more difficult to manage.

We will not review the findings regarding the other characteristics here, as they have been covered in previous sections. However, as before, it is worth noting again that relationship quality and fathers' mental health were found to be important in explaining variation in fathering, again highlighting the relevance of these factors in thinking about policy implications for families.

Also we reiterate that the multivariate analyses left much of the change in fathering over three waves of LSAC unexplained. Our analyses did not include many of the contextual variables that might in themselves change and have flow-on effects to fathering. For example, the degree to which fathers are encouraged by spouses or others to be involved fathers might make a significant difference to how fathers change their involvement over time. Or fathers' experiences at work might change, such that they experience more negative work-family spillover, and this could also flow through to lower levels of father involvement in parenting. In relation to changes in employment, the analyses here examined hours of work, while other job characteristics and associated experiences of stress would likely also be important in explaining the impacts of work upon fathering. These are possible areas for future analyses of these data.

8 Fathers' perceived parenting self-efficacy

This section explores an important aspect of fathering—the degree to which fathers perceive themselves to be good parents. This issue is explored through analyses of fathers' reports of self-efficacy in their parenting. Teti and Gelfand (1991) stated that 'perceived self-efficacy beliefs concern judgements of one's ability to perform competently and effectively in a particular task' (p. 918). Here, we look at fathers' judgements in relation to the task of parenting. Parenting self-efficacy incorporates fathers' views of whether they possess the knowledge or skills to fulfil the role of being a 'good parent', and how confident they feel in this role (Bandura 1989; Coleman & Karraker 1998).

Fathers' perceived parental self-efficacy has received little attention in the literature, with most parental self-efficacy research having been focused on mothers. There are some exceptions where fathers have been the focus, some in the context of correlates of paternal involvement with children (Grimm-Thomas & Perry-Jenkins 1994; Hastings & Brown 2002; Hudson, Elek & Fleck 2001; Jacobs & Kelley 2006). Others have studied or reviewed the issues of parenting self-efficacy as they relate to both mothers and fathers (Beitel & Parke 1998; Ehrenberg et al. 2001; Gilmore & Cuskelly 2009; Jones & Prinz 2005; Junttila, Vauras & Laakkonen 2007).

Fathers' self-efficacy is important, as being confident and happy in the parental role is likely to 'feed back' into the greater parental involvement of fathers, and perhaps to the establishment of better relationships between fathers and mothers, and fathers and children, and to better wellbeing in a more general sense (Beitel & Parke 1998; Coleman & Karraker 2000; Crouter et al. 1987; Ehrenberg et al. 2001; Jacobs & Kelley 2006; Sanderson & Sanders Thompson 2002). Prior research, especially on mothers, has established links between self-efficacy and parenting (Junttila et al. 2007; Sanders & Woolley 2005; Teti & Gelfand 1991), as well as links between self-efficacy and parenting and children's outcomes (Junttila et al. 2007; Teti & Gelfand 1991).

Higher parental self-efficacy is usually correlated with parental mental health and with children's characteristics, such as temperament and age (Coleman & Karraker 2000; Forste, Bartkowski & Jackson 2009; Spielman & Ben-Ari 2009; Teti & Gelfand 1991). Coleman and Karraker (2000) also found that mothers of school-age children had higher parental self-efficacy if they had higher education and higher family incomes. They found no difference by sex of the child. In the multivariate analyses presented later in this section, we explore the parental and family characteristics associated with fathers' perceived parental self-efficacy. As this measure refers to parenting of all children in the family, these analyses do not examine LSAC children's characteristics such as temperament and health.

This section uses a question, asked of mothers and fathers, which captures parents' own ratings of themselves as a parent (see Box 10). This question does not ask the parent to think about their relationship with a particular child when answering. The analyses here, then, refer to the more generic aspects of fathering within a family context, rather than child-specific aspects. Throughout this section this item is referred to as parenting self-efficacy. In this context, parenting self-efficacy captures, quite broadly, how well parents believe they fulfil their roles as parents. This question is the only self-efficacy measure available for analyses in LSAC at each cohort/wave.

Parenting self-efficacy research is often studied using more detailed measures—for example, using global or task-specific scales of parental self-efficacy—and these measures have been recommended for analyses of self-efficacy in roles such as parenting (Bandura 1989; Coleman & Karraker 1998). However, this report does not cover such specific measures, although LSAC offers the potential to explore some of these dimensions as they relate to parents' perceived ability to manage infants' behaviour.¹⁷ (For examples of analyses of parental (although usually maternal) self-efficacy using other scales, refer to: Coleman & Karraker 1998, 2000; Meunier & Roskam 2009; Raikes & Thompson 2005; Spielman & Ben-Ari 2009; Teti & Gelfand 1991.)

This section also draws together data on fathers' self-efficacy with some of the previous sections' results to examine associations between self-efficacy and fathers' time with children, co-parenting and parenting styles and behaviours. To some extent, this tests whether fathers' perceptions of themselves as parents is related to, for example, their being more or less involved, or more or less supportive as co-parents. However, these associations do not tell us the direction of effects—while the above proposition is possible, it is also possible that when fathers are inherently more confident as fathers, they tend to be more active and involved.

How fathers decide whether or not they are good parents will relate to their perceptions of what defines a good parent or, perhaps more specifically, a good father. LSAC does not provide information on this, but prior research on fathers' views on what a good father is or does identifies a range of qualities. For example, Morman and Floyd (2006) found that the most commonly cited aspects of being a good father, as reported by fathers, were those relating to emotional and relational qualities, including 'love', 'availability', 'involvement' and 'role model'. Interestingly, 'provider' was also near to the top of the list of qualities nominated by fathers. Other research has shown that fathers see simply 'being there' for children as being important (Forste, Bartkowski & Jackson 2009; see also Howard, McBride & Hardy 2003).

While this section does not attempt to fully explore the links between self-efficacy and the mother–father relationship, this is shown in the multivariate analyses, which includes whether fathers who are happier in their relationship report a higher level of self-efficacy. In terms of whether children are better off in families with a more efficacious father, this is explored in the analyses of child outcomes in Section 9.

Box 10: Generic measure of perceived parenting self-efficacy

This question was asked in the self-complete component of LSAC in each wave:

- ▶ 'Overall, as a parent, do you feel that you are: (1) not very good at being a parent; (2) a person who has some trouble being a parent; (3) an average parent; (4) a better than average parent; (5) a very good parent?'

The great majority of fathers and mothers tended to rate themselves as average or better than average as a parent (Table 64). A very small percentage rated themselves as not very good or 'has some trouble' at being a parent. Mothers' and fathers' self-efficacy were correlated within couples, such that when the mother rated herself as a better parent, the father tended to also (Table 64).

If parents' ratings are analysed as scores from 1 to 5 (5 being highest self-efficacy), the means of these scores, across the cohorts/waves, show some tendency for parental self-efficacy to be highest when children are younger, with some decline over subsequent years. The trend is not clear-cut, however, with higher self-efficacy also evident at age 6 to 7 years (Table 64). The relatively high ratings at younger ages reflected a higher proportion of parents saying they were very good parents. For example, of fathers in the 0 to 1 year cohort/wave, 36 per cent gave themselves this rating, compared to 24 per cent of fathers in the 8 to 9 year cohort/wave. The percentage reporting themselves as average increased over the cohorts/waves.

Table 64: Mothers' and fathers' parenting self-efficacy

	0-1 year	2-3 years	4-5 years (B)	4-5 years (K)	6-7 years	8-9 years
Father						
Not very good at being a parent	0.1	0.1	0.2	0.3	0.2	0.5
A person who has some trouble being a parent	1.7	1.1	2.1	2.7	1.8	2.8
An average parent	22.2	21.9	27.6	30.2	28.6	30.8
A better than average parent	39.6	42.2	44.3	41.5	41.7	41.6
A very good parent	36.4	34.7	25.8	25.3	27.7	24.3
Total	100.0	100.0	100.0	100.0	100.0	100.0
Sample size	3,613	3,111	2,710	3,318	2,930	2,596
Mother						
Not very good at being a parent	0.2	0.1	0.2	0.3	0.1	0.3
A person who has some trouble being a parent	1.7	0.8	2.4	2.3	0.9	2.8
An average parent	25.2	24.3	33.3	32.3	27.1	34.5
A better than average parent	32.1	38.8	37.9	33.0	35.3	35.9
A very good parent	40.8	36.1	26.3	32.1	36.6	26.7
Total	100.0	100.0	100.0	100.0	100.0	100.0
Sample size	4,576	3,973	3,367	4,208	3,644	3,122
	Parenting self-efficacy (mean score)					
Fathers	4.10	4.11	3.94	3.88	3.95	3.85
Mothers	4.11	4.10	3.87	3.96	4.09	3.86
Correlation mother-father	0.21***	0.24***	0.27***	0.24***	0.24***	0.28***

Note: The mean parenting self-efficacy score is the mean, from 1 to 5, of the ratings parents gave themselves on this one item, 1 equating to the lowest rating (not very good at being a parent) and 5 the highest rating (a very good parent). The correlation was calculated on paired mother-father data; that is, when the self-complete was returned for both mother and father in a family. *** $p < 0.001$.

Source: All cohorts/waves, self-complete questionnaires.

There seemed to be considerable stability of perceptions across waves, as shown in the correlations presented in Table 65. Those who were more positive about their parenting ability at Wave 1 were likely to also be more positive at Waves 2 and 3.

Table 65: Correlations of fathers' and mothers' parenting self-efficacy, across waves, by cohort

		Correlation Wave 1 with Wave 2 measure	Correlation Wave 2 with Wave 3 measure	Correlation Wave 1 with Wave 3 measure
B cohort	Fathers' self-efficacy	0.46***	0.50***	0.42***
	Mothers' self-efficacy	0.45***	0.49***	0.43***
K cohort	Fathers' self-efficacy	0.50***	0.53***	0.49***
	Mothers' self-efficacy	0.50***	0.53***	0.48***

Note: Data were used where available at specific waves mentioned. All correlations significant: *** $p < 0.001$.

Source: All cohorts/waves, self-complete questionnaires.

8.1 Parenting self-efficacy and fathering

We next explore whether the different measures of father involvement presented previously are related to fathers' parenting self-efficacy.

The existing literature on parenting self-efficacy and parenting behaviours leads us to expect significant positive relationships between fathers' perceived parenting self-efficacy and fathering. Overall, more positive parenting practices are expected to be observed for fathers who rate themselves as better fathers (see review by Jones & Prinz 2005; Teti & Gelfand 1991). In these analyses, this might be particularly pertinent to the analyses of parenting styles. The positive relationship may also extend to a more positive co-parental relationship among fathers who have a higher parenting self-efficacy rating, although the existing literature does not appear to cover this topic. Feinberg's (2003) review of co-parenting suggested that self-efficacy might be an important link between co-parenting and children's outcomes, in which case we would expect a positive relationship between co-parenting and parenting self-efficacy. A positive relationship between perceived parenting self-efficacy and fathers' involvement with children is also expected (Jacobs & Kelley 2006; Lamb et al. 1987; Sanderson & Sanders Thompson 2002). Such a relationship might exist because spending more time with children could enhance fathers' self-efficacy, or because fathers spend more time with children when they feel more skilled and confident in their abilities as parents. Some evidence for the association between self-efficacy (measured as perceived skill level) and time spent in child care tasks was found by Crouter et al. (1987), but only for single-earner families. (They suggested the lack of relationship for dual-earner couples may reflect the fact that fathers are required to be more involved in child care in these families, regardless of their perceived skill level.)

The analyses presented here differ from most studies of parenting self-efficacy in that our rating of self-efficacy is based on one self-report item, rather than a scale derived from reports of self-efficacy on specific parenting tasks. As a result, it is possible that this measure of self-efficacy may be too broad to differentiate specific fathering behaviours. However, it is also possible that this more global measure of parenting self-efficacy will better predict some of the parenting behaviours that are not captured in the more task-oriented measures (Coleman & Karraker 1998).

As noted previously, this measure of parenting self-efficacy does not relate to fathers' feelings about their ability in parenting one specific child. Therefore, it is particularly meaningful to examine associations of

parenting self-efficacy with the broader fathering measures—those of fathers' total time spent on child care tasks, and the co-parenting measure of how well fathers support mothers in child rearing (from Section 5). These measures are explored in this subsection. However, to explore whether there are associations between parenting self-efficacy and fathering of the LSAC study child, some of these child-specific measures are also explored. These are: fathers' total time with the study child (father-child time), whether fathers sometimes provide care for this child (as reported by mothers) (from Section 4) and different parenting styles (from Section 6).

The results in Table 66 compare fathers who believe they are better than average fathers with fathers who believe they are average or worse. These show that father-child time was not strongly associated with fathers' parenting self-efficacy, but other measures of father involvement were. At some child ages—more often the younger ages—fathers who rated themselves as better fathers were more likely to provide care for their child. Also, at all ages, fathers who rated themselves as better parents spent more time doing child care tasks. More efficacious fathers were rated higher on how well they supported mothers in child rearing (as rated by mothers). Looking at parenting styles (Table 67), strong associations were apparent, with self-rated 'better' fathers scoring higher on parental warmth and inductive reasoning, and lower on parental hostility.

Table 66: Fathering time and co-parenting by fathers' parenting self-efficacy

	0–1 year	2–3 years	4–5 years (B)	4–5 years (K)	6–7 years	8–9 years
Father-child time, child-specific (mean minutes per day)						
Up to average father	251	267	274	263	240	252
Better than average father	266	280	285	281	253	266
Total	263	277	282	275	249	261
Significance	n.s.	**	n.s.	*	n.s.	n.s.
Primary carer reports of father sometimes providing child care, child-specific (%)						
Up to average father	39.3	40.0	47.4	50.2	45.5	
Better than average father	46.4	47.6	49.1	54.9	47.6	–
Total	44.6	45.8	48.5	53.3	47.0	
Significance	***	***	n.s.	**	n.s.	
Fathers' time on child care tasks, any children (mean minutes per week)						
Up to average father		854	768		623	598
Better than average father	–	1,064	942	–	855	741
Total		1,015	890		783	692
Significance		***	***		***	***
Level of support provided by father, mother reports (means scores)						
Up to average father	4.20		4.10	4.26		4.12
Better than average father	4.51	–	4.37	4.57	–	4.38
Total	4.44		4.29	4.47		4.29
Significance	***		***	***		***

Notes: '–'=not applicable, as not collected this cohort/wave. Significance tests based on *t*-tests comparing measure for up to average father with better than average fathers. Separate tests conducted across cohorts/waves. * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$. n.s.=not significant.

Source: Father-child time sourced from children's time use diaries (all cohorts/waves, excluding cases with incomplete time use data, see Box 1); father sometimes cares for child sourced from primary carer interview (all except Wave 3 K cohort); time on child care sourced from fathers' self-complete questionnaire, Waves 2 and 3, both cohorts; level of support by father sourced from mothers' self-complete, Waves 1 and 3, both cohorts.

Table 67: Fathers’ parenting styles by fathers’ parenting self-efficacy

	0–1 year	2–3 years	4–5 years (B)	4–5 years (K)	6–7 years	8–9 years
Warmth (mean scores)						
Up to average father	3.94	4.08	3.98	3.82	3.78	3.74
Better than average father	4.35	4.39	4.34	4.22	4.27	4.19
Total	4.25	4.32	4.23	4.08	4.11	4.03
Significance	***	***	***	***	***	***
Hostility (mean scores)						
Up to average father	2.10	3.68	3.41		3.73	3.46
Better than average father	1.71	3.03	2.87	–	3.11	2.80
Total	1.81	3.18	3.03		3.30	3.03
Significance	***	***	***		***	***
Inductive reasoning (mean scores)						
Up to average father		3.74	3.80	3.78	3.71	3.73
Better than average father	–	4.06	4.10	4.09	4.07	4.01
Total		3.98	4.01	3.99	3.96	3.91
Significance		***	***	***	***	***
Consistency (mean scores)						
Up to average father			3.96	3.82	3.92	3.94
Better than average father	–	–	4.14	4.02	4.12	4.16
Total			4.09	3.96	4.06	4.18
Significance			***	***	***	***

Notes: Scales on each measure ranged from 1 to 5, except hostility, which ranged from 1 to 10. A higher score indicates higher levels of the parenting behaviour. ‘–’=not applicable, as not collected this cohort/wave (see Table 36). Significance tests based on *t*-tests comparing measure for up to average father with better than average fathers. Separate tests conducted across cohorts/waves. ****p*<0.001.

Source: All cohorts/waves, self-complete questionnaires.

These brief analyses confirm the previously published findings on the links between self-efficacy and parenting, showing that they apply to fathers across a range of parenting measures. They also show the existence of relationships for different measures of fathering—time spent with children, co-parenting, and parenting practices and styles. It is interesting that these relationships are apparent despite the use of the global measure of parenting self-efficacy. These associations are also explored in the multivariate analyses presented in the next subsection.

First, though, we also reiterate the findings from Section 7, in which associations between fathers’ self-efficacy and the provider role were explored. Those analyses found no evidence that more efficacious fathers contributed a higher proportion of the parental income.

8.2 Multivariate analyses

We look now at those characteristics of fathers and families that are associated with a higher rating of self-efficacy. The analyses starts with a 'base' model in which fathers' perceived parenting self-efficacy is analysed with respect to fathers' and family characteristics. These results are given in Table 68.

The analyses extend the multivariate analyses presented elsewhere by linking some of the fathering data to the self-efficacy data. So, in addition to the 'base' model, there is a model for each of the following: father-child time, total time on child care tasks, fathers' support (as reported by mothers), fathering warmth and fathers as providers (percentage of income contributed by father).¹⁸ As noted previously, the two child-specific measures are included, despite the parenting self-efficacy referring to parenting of any children, as we expect overall self-efficacy to be related to parenting of individual children. Each of the models analysing associations between fathers' parenting self-efficacy and elements of fathering are estimated separately to maximise the sample included in each analysis. (The fathering data are often only available for a subset of the sample, for example, being only available for two of the waves, or being based on the time use diaries, for which the response rate was lower.)

Table 68: Multivariate analyses of fathers' parenting self-efficacy

	Fathers' self-efficacy (base model)	+ father-child time (child-specific)	+ warmth (child-specific)	+ time spent in child care (all children)	+ father is support (all children)	+ percentage of parental income
Fathers' usual work hours (ref: 35-44 hours)						
0 hours	0.07**	0.07**	0.04	0.08**	0.05*	0.04
1-34 hours	0.05*	0.07*	0.03	0.07*	0.04	0.03
45-54 hours	0.01	0.02	0.02	0.04*	0.01	0.01
55 hours or more	-0.02	-0.01	0.01	-0.02	-0.01	-0.01
Fathers' education (ref: Incomplete secondary)						
Complete secondary, certificate/diploma	0.05*	0.05	0.05	0.05	0.04*	0.06*
Bachelor degree or higher	0.12***	0.12***	0.10**	0.11***	0.12***	0.14***
Mothers' usual work hours (ref: 0 hours)						
1-34 hours	0.02	0.03	0.01	0.04*	0.01	0.01
35 hours or more	0.01	0.02	-0.02	0.02	0.00	-0.03
Fathers' characteristics						
English not main language	0.21***	0.14***	0.18***	0.22***	0.20***	0.21***
Indigenous	-0.10	-0.17*	-0.19*	-0.14	-0.12	-0.11
Age (years) ^(a)	0.00	0.00	0.00	0.00	0.00	0.00
Better mental health ^(a)	0.22***	0.23***	0.22***	0.24***	0.20***	0.23***
Has children living elsewhere	-0.05*	-0.06*	-0.04	-0.05	-0.03	-0.06*
Relationship quality ^(a)	0.11***	0.12***	0.11***	0.09***	0.08***	0.11***
Cohabiting (ref: Married)	-0.05*	0.00	-0.07*	-0.03	-0.04*	-0.05*
Family structure (ref: Biological children only)						
Blended family	-0.07*	-0.07	-0.06	-0.07	-0.07*	-0.06
Stepfather	0.02	-0.03	-0.02	-0.06	0.12	0.02
Other family and child characteristics						
Mother bachelor degree or higher	0.00	0.00	0.00	0.00	0.00	-0.01
Family is just getting along, poor or very poor	-0.01	-0.02	-0.03	0.00	-0.02	-0.01
Number of children	-0.01	0.00	0.00	0.00	0.02**	-0.01

Table 68: Multivariate analyses of fathers' parenting self-efficacy (continued)

	Fathers' self-efficacy (base model)	+ father-child time (child-specific)	+ warmth (child-specific)	+ time spent in child care (all children)	+ father is support (all children)	+ percentage of parental income
Age of youngest child (years)	0.00	0.00	0.00	0.00	0.00	0.00
Girls only (relative to boys only)	0.06*	0.04	0.05*	0.06*	0.04	0.06*
Mixed sex (relative to all boys)	0.01	0.00	0.00	0.01	-0.01	0.02
Fathering						
Father-child time (hours per day divided by 10)		0.12***				
Hours doing child care per day (divided by 10)			0.08***			
Father is support (mother report; 1-5 scale)				0.13***	0.44***	-0.15***
Fathering warmth (1-5 scale)						
Proportion of income provided by father (0-1)						
Cohort/wave (ref: 8-9 years)						
Child age 0-1 year	0.27***	0.28***	-	0.27***	0.19***	0.25***
Child age 2-3 years	0.25***	0.24***	0.21***	-	0.12***	0.23***
Child age 4-5 years (B)	0.08**	0.07*	0.06*	0.09***	-0.01	0.07**
Child age 4-5 years (K)	0.05*	0.03	-	0.03	0.02	0.04
Child age 6-7 years	0.10***	0.10***	0.09***	-	0.05**	0.09***
Constant	3.75***	3.67***	3.66***	3.13***	1.94***	3.88***
Number of observations	16,962	12,416	10,381	11,162	16,954	15,339
Number of children	7,637	6,265	6,350	7,107	7,635	7,327
Overall R-squared	0.11	0.11	0.12	0.13	0.22	0.11
Rho	0.46	0.48	0.48	0.44	0.42	0.47

(a) Centred at sample means. See Section 3.7 for details.

Notes: Results are from RE models. A more positive result means higher parental self-efficacy (scale of 1-5). All cohorts/waves included for the 1st model, the 2nd (add father-child time), the 3rd model (add warmth), and the 6th model (add income), although sample counts are smaller in these due to missing data on the added items. The 4th model (add child care time) excludes Wave 1 as these data were not collected at that wave. The 5th model excludes Wave 2 as these data were not collected at that wave. * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$. '-'=data not applicable.

Source: All cohorts/waves, as noted.

Fathering and self-efficacy

Associations between more involved fathering and higher parenting self-efficacy were apparent in all the models incorporating aspects of fathers' time with children and the nature of that time, as well as the nature of the co-parental relationship. That is, fathers who spent more time with their LSAC study child, or more generally, on child care tasks, who had a warmer parental relationship with the LSAC study child, and were a greater resource or support to the mother, were more likely to see themselves as better parents. The analyses confirmed earlier findings (see Table 53), that contributing proportionately more to the total parental income was actually associated with lower self-efficacy, although this also needs to be considered in conjunction with the other parental characteristics, as discussed below.

Paid work hours of fathers and mothers

Fathers' parenting self-efficacy was not strongly related to their **work hours**, although fathers who were not in employment rated themselves a little higher on parenting self-efficacy, on average, than those working full-time hours. This, however, should be interpreted in light of the findings on **fathers' contribution to parental income**, discussed above, which showed that those contributing more financially had lower parenting self-efficacy. It may therefore be only in certain situations that not-employed fathers had higher self-efficacy. Table 53 showed parental self-efficacy by employment status, and there was no evidence of an overall higher level of fathers' self-efficacy among those who were not employed full-time.

There was very little association evident when examining fathers' parenting self-efficacy by **mothers' work hours**.

Marital and parental status

Being **married**, rather than cohabiting, was related to slightly greater parenting self-efficacy among fathers, while fathers who had **children living elsewhere** or who were fathering in a **blended family** had a little lower parental self-efficacy. By far the strongest association of these variables, however, was **relationship quality**, in that fathers who were happier in their relationship perceived themselves as better fathers.

Other parental characteristics

Another quite strong association was evident for fathers' **level of education**, with fathers with a bachelor degree or higher having higher parenting self-efficacy than those with lower levels of education.

A very strong association was found between better **mental health** and higher parenting self-efficacy.

Fathers from a **non-English speaking background** also had relatively high parenting self-efficacy. Before the inclusion of fathering measures in the analyses, there were no significant differences associated with **Indigenous** status, but with the inclusion of some of these variables, Indigenous fathers were found to have lower self-efficacy than other fathers.

Family and child characteristics

Fathers' perceived self-efficacy did not vary according to the reported **financial wellbeing of the family**.

Looking at the **sex composition** of children in the family, a small effect was found in which fathers' self-efficacy was higher when they were fathers to only girls, as compared to only boys.

Self-efficacy did not vary by the **age of youngest child** or the **number of children**, but some of these differences may have been captured in the cohort/wave control variables. These control variables mirrored the findings of Table 64, with declines in self-efficacy evident across waves, except for the somewhat higher scores at 6 to 7 years.

Summary

As expected, given the descriptive findings presented previously, associations between fathering and self-efficacy were apparent, and this was apparent after also taking into account the characteristics of fathers and their families.

In terms of these other characteristics that were important in explaining fathers' parenting self-efficacy, fathers' own characteristics—especially mental health, ethnicity and education level—were important, and a very strong contextual factor was fathers' perception of the quality of the marital (or cohabiting) relationship. These analyses do not shed light on the direction of effects—whether having a happier relationship leads to higher self-efficacy, or whether being a 'better' parent strengthens the relationship, or whether there are reciprocal, bi-directional effects.

As with other analyses of fathering, the proportion of the variance explained in these analyses is usually just over 10 per cent. Interestingly, this proportion increases considerably to over 20 per cent when parental warmth is included in the estimation, showing the strong association between this parenting style and parenting self-efficacy.

8.3 Summary: fathers' perceived parenting self-efficacy

First, we note that the measure of perceived parenting self-efficacy used throughout this section is the global rating fathers give themselves about their parenting. This single measure is perhaps not ideal; however, the analyses nevertheless revealed some clear relationships.

Within couples, fathers' parenting self-efficacy was correlated with that of mothers. There was also some consistency in self-efficacy across time, although parents were most confident when their children were very young.

Fathers' parenting self-efficacy was clearly related to their involvement with children and the family, although it appears to have been unrelated to the 'provider' role. The relationships between parenting self-efficacy and parenting behaviours (styles such as warmth) observed here for fathers have previously been established for mothers (Sanders & Woolley 2005; Teti & Gelfand 1991).

We also explored different aspects of fathering to examine how fathers' perceived parenting self-efficacy is linked with their time with children. Some relationships were evident, especially when this was captured as time spent undertaking child care tasks, as opposed to time spent with the LSAC child. Further, relationships with one co-parenting measure were evident; that is, fathers rated themselves as better parents when mothers said that fathers were more of a support to them. This probably reflects a positive parenting experience, which is likely to have flow-on effects to other family members.

These findings do not enable the disentangling of the direction of relationships to determine whether higher self-efficacy promotes or is promoted by greater involvement and more effective parenting. It is likely that there are reciprocal relationships between the various dimensions of fathering, and other factors also making important contributions.

With regard to the correlates of parenting self-efficacy, some findings are consistent with other research on the correlates of mothers' parenting self-efficacy. These correlates include mental health, relationship quality and parental education (Teti & Gelfand 1991).

For mothers, being in a lower income family is a risk factor for poorer parenting self-efficacy (Coleman & Karraker 2000; Raikes & Thompson 2005). It is interesting to note that there was no relationship evident for the measure of perceived financial wellbeing for fathers' parenting self-efficacy. There appear to be complex relationships here, as not-employed fathers had relatively high self-efficacy and when fathers' income as a percentage of parental income was examined, a higher contribution equated to lower parenting self-efficacy. These relationships between income and self-efficacy need to be explored further to understand how relatively

low and high-income fathers perceive they fulfil their roles as fathers. It could be that the association between income and parenting self-efficacy is different for mothers and for fathers.

These results are relevant to the development of programs for parents, especially in that greater parenting self-efficacy and more positive parenting practices are linked. Targeting parents' self-efficacy as well as parenting skills in programs and parenting education may be fruitful for the enhancement of more positive parenting behaviours.

9 Fathering and child outcomes

Throughout this report, some of the ways in which fathers can contribute to family life have been explored, including their direct involvement through shared time with children, the co-parental relationship with the child's mother, different styles of parenting, and undertaking the provider role. This section now examines how such aspects of fathering are associated with children's outcomes.

It is beyond the scope of this report to present comprehensive analyses of associations between all elements of fathering and the entire range of children's outcomes measured in LSAC. Also, as the literature on this topic is too extensive to summarise fully, we refer the reader to other reviews on this topic (for example, Amato 1998; Belsky 1998; Bender et al. 2007; Cabrera et al. 2000; Coley 2001; Flouri 2005; Marsiglio et al. 2000; Palkovitz 2002; Sarkadi et al. 2008). This section focuses on children's learning and socio-emotional outcomes and examines the relevance of a subset of indicators of fathering to children's functioning in these areas.

There is considerable evidence that the involvement of fathers is linked to better children's outcomes, even taking into account the various factors that co-occur with more involved fathering and children's outcomes (for example, Amato 1998; Belsky 1998; England & Folbre 2002; Lamb 2002; Palkovitz 2002; Vogel et al. 2006). The investment that fathers make in their children—through time spent, their relationship with the mother, their quality of parenting, and their financial contributions—is expected to provide a base for children's learning and social opportunities (Amato 1998; Coley & Schindler 2008). On the other hand, fathers who exhibit more negative parenting practices can contribute to children's outcomes in a negative way (Jaffee et al. 2003).

Factors other than fathering (for example, parental education, ethnicity and family economic circumstances) contribute to the variation in children's outcomes (for example, Smart et al. 2008; Wake et al. 2006). Thus, a range of potential family influences need to be taken into account when analysing associations between fathering and children's outcomes. An important influence is the contribution made by mothers' involvement with children. Analyses of fathering and child outcomes that incorporate information about the mother-child relationship as well as the father-child relationship tend to report weaker findings than those that look only at how outcomes vary with father-child relationships. Nevertheless, independent associations between fathering and child outcomes have been found in some of these studies (see Amato 1998; Marsiglio et al. 2000).

At this point, it is worth reiterating the multidimensional nature of fathering (Schoppe-Sullivan et al. 2004), and that when considering the potential links between fathering and children's outcomes, we need to be clear about how fathering or father involvement is to be conceptualised and measured (Palkovitz 2002; Pleck 1997). Across a breadth of studies, fathering covers time with children, shared activities and the co-parental relationship, as well as fathers' parenting behaviours and relationships with their children. Each of these aspects of fathering is important, but each does not have the same degree of importance in predicting children's outcomes (Flouri 2005; Pleck 2010). Further, some aspects of fathering may contribute directly to children's outcomes—for example, fathers' style of parenting—while others may contribute indirectly. For example, more cooperative and supportive parenting with the child's mother may contribute through more positive parenting of mothers (Pleck 2010).

We also note that 'child outcomes' can encompass many aspects of how children are developing. Some studies focus on cognitive abilities, while others focus on behavioural outcomes or other aspects of socio-emotional development. Also, some base their analyses on outcomes measured during childhood—at the same time as children experience the 'fathering' or soon after. Others measure outcomes at a later time—some many years after childhood—to explore potential long-term effects of fathers' involvement during childhood. When fathering and child outcomes are measured at the same time, it is only possible to discuss the relationship between them as associations. In interpreting these results, it has to be remembered that associations between fathering and child outcomes may not mean that child outcomes are affected by fathers'

involvement—it may instead mean that fathers are more involved when children are more highly developed cognitively or socio-emotionally, or less involved when children have more difficult personal characteristics. Longitudinal data allow these relationships to be disentangled further, to begin to assess whether fathers' involvement leads to better outcomes for children (Amato 1998; Belsky 1998; Marsiglio et al. 2000).

Relationships between children's outcomes and fathers' financial contribution to the family have been less often explored than have other aspects of fathering. However, extensive research on financial hardship or poverty consistently finds such family circumstances result in poorer outcomes for children (Allen & Daly 2002; Amato 1998; Marsiglio et al. 2000; Smart et al. 2008). As the family's financial situation is very dependent upon the employment and income of the father, especially when children are very young, fathers' income contribution may be particularly important to children's outcomes (Amato 1998; Cabrera & Peters 2000; Crockett, Eggebeen & Hawkins 1993). Amato's analyses in fact showed that fathers' financial contribution directly affected child educational outcomes and had indirect effects on children's socio-emotional outcomes.

There is general acceptance that the sheer amount of time parents spend with children is not likely, on its own, to have associations with children's outcomes (Amato 1998; Cabrera et al. 2000; Pleck 1997). The quality of that time is a much more important indicator. For example, where involvement is captured as the amount of interaction or specific types of engagement, associations between fathering and cognitive outcomes have been observed for infants and young children (see Allen & Daly 2002; Easterbrooks & Goldberg 1984; Tamis-LeMonda et al. 2004; Yogman, Kindlon & Earls 1995).

An important aspect of quality is the style of parenting, characterised here in terms of, for example, warmth, hostility or consistency of parenting. Very strong links between parenting styles and children's outcomes are expected (Smart et al. 2008). Although much of this work is based on links between mothers and children, some have shown these findings also extend to fathers (Flouri 2005; Marsiglio et al. 2000; Tamis-LeMonda et al. 2004).

Importantly, the contexts within which fathers and children relate to each other are also likely to affect the quality of fathers' interactions with children. On this topic, there is extensive evidence that the co-parental relationship has an important influence on children's outcomes, particularly their socio-emotional outcomes (Coley & Schindler 2008; Cowan & Cowan 1987; Davis et al. 2009; McBride & Rane 1998).

Another pathway by which it is thought children's outcomes are enhanced is through parenting self-efficacy. With respect to fathers, this means that when fathers feel they have more parenting skills and are more confident in using those skills, children are likely to have better outcomes (Jones & Prinz 2005).

Of course, the ways in which these different measures of fathering are connected to children's outcomes are much more complex than has been suggested above. Fathers contribute to children's outcomes directly and indirectly, and as seen throughout this report and in the cited literature, fathers' involvement with children, co-parenting, parenting self-efficacy and parenting styles are likely to be interrelated (Amato 1998; Cabrera et al. 2000; Jones & Prinz 2005). Fathering, however measured, is also related to factors such as parental employment, education and overall relationship satisfaction. Further, fathering and mothering are intertwined such that more involved fathering (especially as co-parents) can improve mothers' interactions with their children (Amato 1998). The links between fathering and children's outcomes are therefore not entirely straightforward.

9.1 Data and analytical approach

As in the analyses presented in the rest of this report, the LSAC data from each cohort and wave are used in these analyses. Children's outcomes are related to measures of fathering and mothering, as well as the explanatory variables used in the previous analyses, using the pooled dataset of cohorts and waves. More sophisticated longitudinal statistical techniques are not used, but represent the next step that could be taken to explore how fathering is related to children's outcomes. The current analyses can provide important

guidance for such potential future approaches. As noted above, our analyses do not allow causal inferences to be made, or the direction of associations to be discerned (that is, whether fathering affects child outcomes or child outcomes affect fathering). Details of measures and methods used are described below.

Analysing the links between father involvement and child outcomes in the LSAC data is complex, one reason being that measures of children's outcomes change across the cohorts/waves to ensure that they remain age-appropriate as children grow. An outcome measure at one wave of LSAC may therefore not be available nor applicable at the next. To enable analyses of outcomes across groups of children, the LSAC team developed an overall outcome index, and an outcome index for the domains of learning (that is, language and cognitive skills), socio-emotional wellbeing (externalising and internalising behaviour problems, social competence) and physical health status (general health, presence of long-term health conditions or disabilities) (Misson et al. in press; Sanson et al. 2005). These indices are derived at each cohort/wave, based on items that are age-appropriate, yet describing similar concepts, and so intended for use across as well as within cohorts/waves.

This subsection uses the Social/Emotional Outcome Index and Learning/Academic Outcome Index as indicators of children's outcomes. For each cohort/wave, each index is standardised to a mean of 100 and a standard deviation of 10, and higher scores denote better child outcomes. More detail about the constructs that contribute to each outcome index is provided in Box 11.

One methodological issue that can arise in analysing associations between fathering and child outcomes is that of 'shared method variance'. This arises when the same person reports on levels of parental involvement and also on children's outcomes. Correlations between these measures may occur simply because they are from the same informant, and this can lead to inflated or biased estimates of parenting effects on outcomes (Belsky 1998; Marsiglio et al. 2000). To address this issue, it is preferable to have outcomes measured or reported by a different person than is reporting on fathering. In the current analyses, children's learning outcomes are generally assessed by children's test scores and teacher reports, and social-emotional outcomes are usually reported by mothers. The fathering data is often, although not always, reported by fathers.

Box 11: Items contributing to LSAC Social/Emotional and Learning/Academic Outcome Indices

The items contributing to the Social/Emotional Outcome Index and the Learning/Academic Outcome Index are summarised below. For further information about the derivation of these indexes, refer to Misson et al. (in press).

Social/Emotional Outcome Index incorporates measures of internalising and externalising problems, and social competence:

- ▶ *B cohort, Wave 1*: Short Temperament Scale for Infants (STSI) approach (adaptation)—irritability and cooperativeness temperament dimensions
- ▶ *B cohort, Wave 2*: Factor-analysed Brief Infant Toddler Social and Emotional Assessment (BITSEA)—internalising problems, externalising problems and social competence
- ▶ *B cohort, Wave 3 and K cohort, Waves 1 to 3*: Strengths and Difficulties Questionnaire (SDQ)—emotional, conduct, hyperactivity, peer problems and prosocial behaviour scales.

Learning/Academic Outcome Index incorporates measures of language and literacy:

- ▶ *B cohort, Wave 1*: Communication and Symbolic Play Scales (CSBS)—total standardised score
- ▶ *B cohort, Wave 2*: Macarthur Communication Developmental Inventory (MCDI) child's communication skills—MCDI-III Vocabulary, MCDI-III Grammatical Markers
- ▶ *B cohort, Wave 3 and K cohort, Wave 1*: Australian Council for Educational Research (ACER) Who Am I?; Peabody Picture Vocabulary Test (PPVT)—teacher-rated numeracy
- ▶ *K cohort, Waves 2 and 3*: PPVT; Wechsler Intelligence Scale for Children (WISC)—Matrix Reasoning subscale; Academic Rating Scale (ARS)—language and literacy, and mathematical thinking.

Any testing of variation in child outcomes also needs to take account of the fact that these outcomes are expected to vary with a number of child, parental or family characteristics. Many of the explanatory variables used throughout this report to examine fathering are relevant also to the study of child outcomes. Hence, these same variables have been used as control variables in the analyses in this section; that is, in explaining how child outcomes vary with different levels of fathering, these background variables are first entered into the analyses. So 'fathering' effects are indicated by the additional explanatory power achieved once other characteristics are taken into account.

Because so many variables other than fathering are likely to predict children's outcomes, this section of the report focuses solely on the multivariate analyses. As with the regression analyses presented elsewhere in this report, RE models were used to analyse associations between family, parental and child characteristics and children's socio-emotional and learning outcomes. Because these are RE models, the coefficients represent differences between children, as well as differences across the waves.

The number of available indicators of fathering is very large. Within each previous section of this report, numerous aspects of each element of fathering have been analysed. We have selected key aspects of each of these dimensions of fathering to include in the analyses undertaken for this section. These are the hours per day fathers spend in their LSAC children's company; the warmth parenting style (this was the only parenting scale whose content was identical over all waves); the degree of support given to partners; the level of disagreement between partners about child rearing; and fathers' self-efficacy in their parenting. To take into account the potential impact of mothers' behaviours and skills in these areas, whenever a measure of father involvement was included in the analyses, the equivalent measure of mother involvement was also included (for example, in the second-stage analysis looking at the impact of fathers' time with children, mothers' time with children was also included). The effect of fathers' involvement is therefore that remaining after a large range of other parental, child and family characteristics and mothers' involvement are included.

9.2 Child outcome multivariate results

The multivariate results are presented for the Social/Emotional Outcome Index in Table 69 and the Learning/Academic Outcome Index in Table 70. The base model is shown in the first column of each table. This base model does not include the different elements of parenting of fathers and mothers. The subsequent columns show the separate analyses undertaken to assess the relevance of each aspect of parenting. Thus, these analyses do not include all parenting measures together; each aspect of parenting is examined separately.

There are clearly many important predictors of children's outcomes beyond those captured by father (or mother) involvement. Before moving on to look at the contribution of fathers' and mothers' parenting, these results are summarised below, using results for the base model for each outcome index.

Parental, family and child characteristics, and children's outcomes

Starting with fathers' characteristics, for both socio-emotional and learning outcomes, children's scores were higher when their father was **older** or more **highly educated**. Also, children's socio-emotional outcomes were lower when the father was **Indigenous** or mainly spoke a **language other than English**. Learning outcomes were also somewhat lower among children with Indigenous fathers.

Children's socio-emotional outcomes, but not learning outcomes, were higher when they were living with **biological fathers** rather than stepfathers. Socio-emotional outcomes were not different according to parents' **marital status**, but slightly higher learning outcomes were evident for children with **cohabiting** rather than married parents. No significant relationships were apparent in families in which fathers had children living elsewhere.

Children's socio-emotional outcomes were higher when **fathers worked longer hours** rather than standard full-time hours. Socio-emotional outcomes were also higher when fathers had **better mental health** and **a happier relationship with their partner**. Learning outcomes were not significantly associated with these variables.

Some associations were apparent for mothers' characteristics, with children having better socio-emotional and learning outcomes when their **mother was more highly educated**. Also, when **mothers worked part-time hours**, rather than being not employed, children had more positive outcomes on both measures. Such differences were not evident if mothers were employed full-time hours, with no significant differences between children whose mothers were working full-time compared with those whose mothers were not employed.

The measure of **family financial wellbeing** showed that when the family was reported to be just getting along, poor or very poor, as opposed to more comfortable financially, children had poorer socio-emotional and learning outcomes.

Children's own characteristics were strongly associated with their developmental outcomes. **Boys** scored lower than girls on both measures, and children with **poorer health** also scored lower on both. Children with a **more reactive or less sociable temperament style** scored lower on both outcomes. Looking at family size and composition, having **younger siblings** was associated with lower socio-emotional outcomes, while having **older siblings** was associated with better socio-emotional outcomes but lower learning outcomes. The number of younger siblings was unrelated to learning outcomes.

Table 69: Multivariate analyses of child socio-emotional outcomes (Social/Emotional Outcome Index)

	Base model	Base + parent-child time	Base + warmth	Base + support	Base + disagreements	Base + self-efficacy
Fathers' usual work hours (ref: 35-44 hours)						
0 hours	0.03	0.21	-0.02	-0.25	0.04	-0.02
1-34 hours	-0.05	-0.12	-0.02	0.14	-0.04	-0.13
45-54 hours	0.32*	0.31	0.32*	0.37*	0.32*	0.30*
55 hours or more	0.60***	0.46*	0.65***	0.76***	0.59***	0.62***
Fathers' education (ref: Incomplete secondary)						
Complete secondary, certificate/diploma	0.46*	0.32	0.41	0.29	0.46*	0.41
Bachelor degree or higher	0.83**	0.53	0.87***	0.70*	0.80***	0.71**
Mothers' usual work hours (ref: 0 hours)						
1 to 34 hours	0.58***	0.49**	0.54***	0.82***	0.58***	0.59***
35 hours or more	0.34	0.17	0.25	0.61*	0.36	0.35
Fathers' characteristics						
English not main language	-1.06***	-0.69*	-1.10***	-0.57*	-1.01***	-1.26***
Indigenous	-1.47*	-1.33	-1.54*	-1.42	-1.46*	-1.14
Age (years) ^(a)	0.03*	0.03*	0.04*	0.03*	0.03	0.03*
Better mental health ^(a)	0.76***	0.73***	0.67***	0.76***	0.69***	0.60***
Cohabiting (ref: Married)	-0.34	0.11	-0.42	-0.21	-0.31	-0.42
Stepfather (ref: Biological)	-2.28***	-2.32**	-1.99***	-2.30***	-2.23***	-2.12***
Has children living elsewhere	-0.11	-0.51	-0.18	-0.32	-0.10	-0.14
Relationship quality ^(a)	0.34***	0.35***	0.19**	0.18**	0.27***	0.24***
Other family and child characteristics						
Mother bachelor degree or higher	0.63***	0.58***	0.78***	0.61***	0.61***	0.58***
Family is just getting along, poor or very poor	-0.65***	-0.60***	-0.71***	-0.47**	-0.65***	-0.60***
Boy	-1.80***	-1.71***	-1.75***	-1.34***	-1.80***	-1.77***
Poorer child health ^(a)	-1.44***	-1.49***	-1.29***	-1.36***	-1.44***	-1.32***
Child temperament: reactivity ^(a)	-4.45***	-4.60***	-4.27***	-5.59***	-4.44***	-4.34***
Child temperament: sociability ^(a)	1.65***	1.69***	1.62***	1.92***	1.65***	1.64***

Table 69: Multivariate analyses of child socio-emotional outcomes (Social/Emotional Outcome Index) (continued)

	Base model	Base + parent-child time	Base + warmth	Base + support	Base + disagreements	Base + self-efficacy
Number of younger siblings	-0.36**	-0.27*	-0.08	-0.41**	-0.35**	-0.30*
Number of older siblings	0.36***	0.46***	0.52***	0.53***	0.37***	0.39***
Cohort/wave (ref: 0-1 year)						
Child age 2-3 years	4.63***	4.87***	4.07***	-	4.68***	4.54***
Child age 4-5 years (B)	2.58***	2.83***	2.42***	3.02***	2.62***	2.80***
Child age 4-5 years (K)	3.25***	3.34***	3.40***	3.62***	3.31***	3.44***
Child age 6-7 years	1.95***	1.98***	2.02***	-	1.99***	1.96***
Child age 8-9 years	4.45***	4.72***	4.83***	5.12***	4.51***	4.69***
Parenting						
Father-child time (hours/day)		0.00				
Mother-child time (hours/day)		-0.03				
Father warmth ^(b)			1.00***			
Mother warmth ^(b)			2.56***			
Father is support ^(b)				0.55***		
Mother is support ^(b)				0.43**		
Less disagreement about child rearing ^(b)					0.43***	
Fathers' self-efficacy ^(b)						0.40***
Mothers' self-efficacy ^(b)						1.14***
Constant	98.35***	98.57***	82.50***	93.08***	99.25***	92.15***
Number of observations	16,822	12,410	16,753	11,232	16,791	16,613
Number of children	7,571	6,256	7,547	7,112	7,566	7,527
Overall R-squared	0.34	0.34	0.36	0.40	0.34	0.35
Rho	0.34	0.33	0.32	0.23	0.33	0.32

(a) Centred at sample means. See Section 3.7 for details.
 (b) These parenting items are measured on a scale of 1 to 5, with a higher number meaning 'better' fathering.
 Notes: Results are from RE models—'-' = not applicable ('support' questions were not asked in Wave 2). * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.
 Source: All cohorts/waves.

Table 70: Multivariate analyses of child learning outcomes (Learning/Academic Outcome Index)

	Base model	Base + parent-child time	Base + warmth	Base + support	Base + disagreements	Base + self-efficacy
Fathers' usual work hours (ref: 35-44 hours)						
0 hours	0.07	0.19	0.02	0.05	0.06	0.03
1-34 hours	0.01	-0.11	0.00	0.06	0.06	-0.04
45-54 hours	0.34	0.23	0.32	0.25	0.33	0.33
55 hours or more	0.10	-0.01	0.11	0.19	0.09	0.09
Fathers' education (ref: Incomplete secondary)						
Complete secondary, certificate/diploma	0.77**	0.98**	0.76**	0.75*	0.78**	0.70**
Bachelor degree or higher	2.14***	2.23***	2.16***	2.23***	2.11***	2.04***
Mothers' usual work hours (ref: 0 hours)						
1-34 hours	0.44**	0.24	0.41*	0.54**	0.43**	0.44**
35 hours or more	0.01	-0.07	0.01	-0.07	0.02	0.04
Fathers' characteristics						
English not main language	-0.53	-0.27	-0.53	-0.39	-0.48	-0.60*
Indigenous	-1.81*	-1.91	-1.87*	-1.12	-1.81*	-1.64*
Age (years) ^(a)	0.04*	0.03	0.04*	0.01	0.04*	0.04*
Better mental health ^(a)	0.25	0.29	0.18	-0.05	0.20	0.18
Cohabiting (ref: Married)	0.55*	1.03**	0.58*	0.73*	0.60*	0.60*
Stepfather (ref: Biological)	-1.99**	-1.94*	-1.74**	-2.45***	-1.97**	-2.12**
Has children living elsewhere	-0.53	-0.81*	-0.54	-0.64	-0.49	-0.54
Relationship quality ^(a)	-0.05	-0.04	-0.12	-0.12	-0.10	-0.09
Other family and child characteristics						
Mother bachelor degree or higher	1.75***	1.62***	1.81***	1.47***	1.74***	1.74***
Family is just getting along, poor or very poor	-0.41*	-0.41*	-0.44*	-0.17	-0.41*	-0.41*
Boy	-2.35***	-2.29***	-2.32***	-2.56***	-2.36***	-2.35***
Poorer child health ^(a)	-0.70***	-0.69***	-0.66***	-0.91***	-0.69***	-0.68***
Child temperament: reactivity ^(a)	-0.83***	-0.82***	-0.75***	-0.81***	-0.82***	-0.80***
Child temperament: sociability ^(a)	0.23***	0.23**	0.21**	0.19*	0.24***	0.23***
Number of younger siblings	-0.22	-0.28	-0.10	-0.48**	-0.21	-0.20

Table 70: Multivariate analyses of child learning outcomes (Learning/Academic Outcome Index) (continued)

	Base model	Base + parent-child time	Base + warmth	Base + support	Base + disagreements	Base + self-efficacy
Number of older siblings	-0.89***	-0.87***	-0.81***	-0.93***	-0.88***	-0.89***
Cohort/wave (ref: 0-1 year)						
Child age 2-3 years	2.04***	2.55***	1.80***	-	2.09***	2.02***
Child age 4-5 years (B)	2.95***	3.73***	2.86***	3.22***	3.02***	3.02***
Child age 4-5 years (K)	2.81***	3.78***	2.88***	3.04***	2.86***	2.86***
Child age 6-7 years	2.80***	3.97***	2.86***	-	2.83***	2.85***
Child age 8-9 years	2.91***	3.96***	3.03***	3.35***	2.96***	2.99***
Parenting						
Father-child time (hours/day)		0.03				
Mother-child time (hours/day)		-0.07*				
Father warmth ^(b)			0.66***			
Mother warmth ^(b)			0.83***			
Father is support ^(b)				0.11		
Mother is support ^(b)				0.25		
Less disagreement about child rearing ^(b)					0.33***	
Fathers' self-efficacy ^(b)						0.20*
Mothers' self-efficacy ^(b)						0.26**
Constant	99.37***	99.27***	92.78***	97.73***	100.06***	97.57***
Number of observations	16,444	12,115	16,328	10,813	16,412	16,195
Number of children	7,489	6,187	7,462	6,971	7,484	7,440
Overall R-squared	0.08	0.09	0.09	0.08	0.08	0.08
Rho	0.40	0.40	0.40	0.30	0.40	0.40

(a) Centred at sample means. See Section 3.7 for details.

(b) These parenting items are measured on a scale of 1 to 5, with a higher number meaning 'better' fathering.

Notes: Results are from RE models—a more positive result means better outcomes. '-'=not applicable ('support' questions were not asked in Wave 2). * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$. Source: All cohorts/waves.

Most of these results are as expected, although there are some exceptions. We found that children of cohabiting fathers had better learning outcomes, after taking other factors into account. We also found that children of fathers working longer hours had better socio-emotional outcomes. The reasons for these associations are not immediately clear, although they are likely to be related to other unobserved characteristics of parents or families. For example, longer work hours may equate to higher incomes, and cohabiting families may have different attitudes towards gender roles and parenting. Further exploration is required to understand the reasons for these associations.

These findings are based on the first analysis undertaken for each outcome, before the inclusion of fathers' and mothers' parenting. In most cases, the same results are evident in the models that incorporate measures of fathering.

Fathers' parenting and children's outcomes

Next, examining the potential impact of fathers' parenting, the tables show that most of the measures of fathering are associated with children's outcomes, even with the inclusion of the characteristics from the base model and the data on mothers' parenting. The sole exception was the amount of father-child time, or the time children spent in the company of their father (as measured in the time use diaries), which was not significantly associated with children's socio-emotional or learning outcomes. Thus, when measured just as co-presence, fathering does not appear to be associated with children's wellbeing.

Somewhat surprisingly, there was a small, but significant, negative association between the amount of time children spent in their mothers' company and their learning outcomes (that is, the more time children spent with their mothers, the poorer their learning outcomes). A closer examination of this relationship revealed that the negative association was significant at the ages of 4 to 5 and 6 to 7 years in the K cohort, but was not at other ages. The negative relationship occurs just prior to and following primary school starting age. This finding may reflect greater attention to children by mothers if learning difficulties are anticipated or identified. However, further investigation is needed to explain this relationship with more certainty.

Associations between parenting style and children's outcomes were tested here for the dimension of warmth. For children's socio-emotional and learning outcomes alike, more **paternal warmth** was associated with more positive outcomes.

A better quality co-parental relationship, as measured through mothers' and fathers' reports of the **degree of support parents give each other**, was positively associated with children's socio-emotional outcomes. Significant associations with learning outcomes were, however, not apparent. The other aspect of co-parenting included—the **level of disagreement about child rearing** (as reported by the father)—was related to both socio-emotional and learning outcomes. Fewer disagreements were associated with better outcomes.

These results also showed that children's outcomes were enhanced when parents reported higher levels of perceived **parental self-efficacy**. Mothers' and fathers' parenting self-efficacy were both significantly related to better socio-emotional and learning outcomes. Interestingly, mothers' parenting self-efficacy was more powerfully related to children's socio-emotional outcomes than was fathers' self-efficacy.

The amount of variance explained by these models was substantial for socio-emotional outcomes and modest for learning outcomes. These statistics are summarised in Table 71. Looking first at socio-emotional outcomes, the base model explained 34.4 per cent of the variance in socio-emotional outcomes. The addition of paternal and maternal parenting variables explained a further 0.1 per cent to 2.2 per cent of variance, depending on the aspect of parenting included. Co-parental support and a warm parenting style were the most powerful contributors, while father-child time (the measure of co-presence) did not make a significant contribution to children's socio-emotional outcomes.

Looking next at children's learning outcomes (also in Table 71), 8.9 per cent of the variance was explained by the base model. A further 0.0 per cent to 0.2 per cent was explained by the inclusion of the parenting variables. Father-child time and parents' reports of support to each other did not contribute to variation in learning

outcomes. The frequency of disagreement about child rearing was significant in explaining variation in learning outcomes, even though the amount of variation explained did not increase when this item was included. (That is, the inclusion of disagreement about child rearing absorbed some of the variation that had been attributed to other variables in the base model.) Only a warm parenting style added to the variance explained by the base model.

These findings suggest that children's socio-emotional outcomes are more powerfully correlated with fathers' (and mothers') parenting than are their learning outcomes.

Table 71: Summary of multivariate analyses of child outcomes

	Base	Base + parent-child time	Base + warmth	Base + support	Base + disagreements	Base + self-efficacy
Socio-emotional outcomes						
Overall <i>R</i> -squared without parenting items	0.344	0.343	0.339	0.398	0.339	0.340
Overall <i>R</i> -squared with addition of parenting items	–	0.344	0.361	0.400	0.340	0.354
Difference in <i>R</i> -squared due to addition of parenting items	–	0.001	0.022	0.002	0.001	0.014
Test that the fathering measure significantly improved the model	–	n.s.	***	**	***	***
Learning outcomes						
Overall <i>R</i> -squared without parenting items	0.089	0.089	0.084	0.084	0.084	0.084
Overall <i>R</i> -squared with addition of parenting items	–	0.089	0.086	0.084	0.084	0.085
Difference in <i>R</i> -squared due to addition of parenting items	–	0.000	0.002	0.000	0.000	0.001
Test that the fathering measure significantly improved the model	–	n.s.	***	n.s.	***	*

Notes: The ‘Overall *R*-squared without parenting items’ was calculated by estimating the model on the estimation sample used for this model, but excluding the parenting items. The ‘Overall *R*-squared with addition of parenting items’ is as reported in Table 69 and Table 70. The *R*-squared differs to that of the base model because of the restriction of the sample to just those for whom non-missing data on the parenting items were available. **p*<0.05; ***p*<0.01; ****p*<0.001. ‘–’=not applicable; n.s.=not significant.

9.3 Summary: fathering and child outcomes

Children's outcomes clearly vary with many parental and family characteristics. Mothers' and fathers' characteristics are important explanatory factors, which no doubt reflects the different environments that children are exposed to as well as differences in parenting behaviours they encounter. For example, factors such as parental employment, education, age and ethnicity emerged as important influences on children's socio-emotional and/or learning outcomes. This is consistent with prior research (for example, Smart et al. 2008; Wake et al. 2006). Family structure and composition were also important, with marital status, the presence of stepfathers, and number and age of siblings all related to children's outcomes. Child characteristics—such as sex, temperament style and health—also featured. These findings are consistent with much prior research (Prior et al. 1993; Sanson, Hemphill & Smart 2004). There were considerable differences in the amount of variance explained, with children's socio-emotional wellbeing being more susceptible to these parental, family and child factors than was their cognitive/learning progress.

Beyond these associations, and also beyond the associations with mothers' involvement, some of the variation in children's outcomes was uniquely explained by fathers' involvement, as measured on a number of dimensions. The one measure that seemed unrelated to children's outcomes was the actual amount of time shared between father and child. No doubt this is because this measure of time is not sufficiently refined to differentiate those times fathers are engaged or involved with children from those times fathers are present but with their attention focused elsewhere. While time together provides opportunities for quality interaction, and is therefore a useful measure of fathering, measures that incorporate the quality of fathers' time with children are more important when examining links to children's outcomes.

Consistent with previous analyses of fathering and children's outcomes, these analyses showed that fathers' parenting style (warmth), co-parenting and self-efficacy were all significantly associated with children's outcomes. Socio-emotional and learning outcomes were enhanced when there were high levels of these qualities, even after taking into account various other contributors to children's outcomes. Future work could extend these analyses to consider other aspects of parenting style, such as hostile/angry parenting and consistency. In the current analyses, we focused on the parenting practices that were measured identically across waves.

The analyses confirm that fathering 'matters' to children's socio-emotional and learning development (as does mothers' parenting). However, the aspects of parenting examined appeared much more salient for children's socio-emotional outcomes than their learning outcomes if the amount of variance explained is considered. These findings reaffirm that how fathers parent is a vital ingredient of children's wellbeing.

9.4 Future directions for analyses of fathering and child outcomes

These analyses used the LSAC Outcome Indices to explore associations between fathering and children's outcomes. These child outcome measures capture children's progress on a range of aspects of socio-emotional development and learning, by incorporating information gathered on various scales, tests and assessments. It is possible that more refined measures of children's outcomes may provide deeper insights into the ways in which parenting and child outcomes are associated. In fact, it is likely that fathers' involvement matters more to some outcomes than others within the broad domains examined here. For example, Belsky (1998), examining socio-emotional development, found that fathers' involvement explained more of the variation in children's inhibition than in externalising problems, which was more strongly related to mothers' involvement. Clearly, using LSAC, such analyses are possible, and may provide greater insights into the ways in which fathering affects children's outcomes.

Another way these analyses can be taken forward is to explore whether fathers' involvement matters more to some children than others; for example, to examine whether the associations apparent here are stronger at particular ages, or for boys rather than girls. In these analyses, we have not tested whether there are different

effects across children or families with different characteristics, and this is an obvious area for future analyses of these data.

In these analyses, the different dimensions of fathering were considered separately in relation to their associations with child outcomes. The reality of fathering day to day is that children are not likely to identify or experience specific elements of fathering as have been isolated here—fathering is a package of behaviours. It would be valuable to explore the complexities of relationships between the different measures of fathering.

Finally, as we noted in the introduction to this section, by analysing these data cross-sectionally, the relationships observed can only be interpreted as associations. Clearly there are opportunities for more detailed analyses using the longitudinal data to explore direct, indirect, mediated and reciprocal relationships between father involvement and children's development.

10 Discussion and conclusion

This report has explored various dimensions of fathering for partnered fathers of young children in Australia. The report makes use of LSAC data to analyse information about the time children and fathers spend together, the nature of fathers' co-parental relationship with mothers, the quality of fathers' parenting, and also the role of provider. These dimensions of fathering are all important ways in which fathers can and do contribute to families (for example, Day & Lamb 2004; Hawkins et al. 2002; Hawkins & Palkovitz 1999; Schoppe-Sullivan et al. 2004).

The report focuses on couple families, with extensive use being made of data on family and child characteristics to examine how fathering varies across different families. In particular, we recognise that fathering occurs within families, within the context of relationships between mothers and fathers and children. The first three waves of LSAC have been used to analyse the diversity of fathering across and within families. We have examined how fathering changes as children grow, and how it varies across families with different characteristics.

This section draws out common themes across the findings from the report, highlights their significance from a policy perspective, and discusses limitations and future research possibilities using the LSAC data. Given the breadth of material in this report, the detailed findings from each section are not repeated here.

10.1 Fathering in LSAC

Breadwinning

This report has shown that in Australia, when children are young, fathers rarely withdraw from the labour market to take over caring responsibilities for children. In fact, families often become more reliant upon the incomes of fathers at this life-cycle stage, while mothers withdraw from employment or reduce their paid work hours to devote their time to caring for children. As such, the breadwinner or provider role is still central to many fathers' lives in Australia, just as it is in other advanced economies (Christiansen & Palkovitz 2001; Perry-Jenkins & Crouter 1990).

The LSAC data showed this very clearly, through rates and hours of employment as well as through information on parents' time on child care and other unpaid work. A very gendered picture emerged, with fathers spending much more time, on average, in paid work than in unpaid work, compared to mothers. The breadwinner model was also evident in that fathers contributed more than two-thirds of the parental income in these LSAC families. In the families with the youngest children, fathers contributed nearly three-quarters of the parental income.

This breadwinner role has important implications for the capacity of fathers to be involved in family life in ways beyond the contribution of income. The time commitment associated with earning an income means that fathers usually do not have the same time to spend with the family as mothers, and further, may experience other stresses from managing this work–family balance. We return to this below in discussion of the interaction of employment and fathering.

Despite the centrality of the provider role, there was no indication that this role was considered by mothers or fathers when making assessments about the adequacy of fathering. Fathers did not rate themselves as a more supportive partner on child rearing when they contributed more to the parental income and neither did they see themselves as better parents when they contributed more. Mothers' assessments of fathers as a resource or support similarly did not indicate that providing more of the parental income was linked to their being a better resource or support. Despite these findings, we suggest that this provider role is valued. It is likely that questions about parenting and about child rearing put out of mind the fact that contributing income to the family is a valued part of fathering.

Fathers' time with children

Fathering can be operationalised in many ways, and the first way explored in this report was through the dimension of time. This has been a common approach to the study of fathering, with previous work examining, for example, the amount of time fathers spend with children or the frequency of fathers' involvement with children, overall and in different activities (for example, Allen & Hawkins 1999; Cooksey & Fondell 1996; Flouri & Buchanan 2004; Hofferth et al. 2002; Marsiglio 1991; Mehall et al. 2009; Sayer, Gauthier & Furstenberg 2004).

A number of measures of fathers' time with children were examined, looking at the amount of shared time spent together, whether fathers regularly cared for their LSAC child, the play-type activities that children and fathers shared, and fathers' involvement in different personal care, social or educational activities with children.

Analyses of these data showed that children spent several hours per day with their fathers, but much of this time was when mothers were also present. When children's activities were examined, these data showed children were involved in a range of activities during shared father-child time. Thus, fathers were not just present for playtime. For example, their presence was also evident during children's personal care activities (bathing, grooming) and while they were travelling.

A substantial number of fathers reported having daily involvement in their child's personal care activities, although not surprisingly, mothers had much higher rates of daily involvement. The gap between mothers' and fathers' involvement narrowed for most activities as children aged and mothers' involvement also declined, no doubt reflecting changes in children's needs for assistance in these activities.

While time provides a useful metric for examining fathers' involvement with children, this measure of fathering was not significantly related to children's outcomes, suggesting that the sheer amount of time spent in the child's company exerts less influence on children's outcomes than other aspects of fathering. It is likely that the quality of the time fathers and children spend together is more central, and this is where other measures of fathering are particularly useful.

Co-parenting

Co-parenting is a key dimension of fathering. It incorporates how parents support each other in parenting roles, how they share decisions and communicate about child rearing, and how they share the unpaid work of child care and other domestic work (Bronte-Tinkew et al. 2009; Feinberg 2003; Floyd, Gilliom & Costigan 1998; McBride & Rane 1998; McHale et al. 2004; Van Egeren 2004). The nature of this relationship is crucial in explaining how or whether parents' time with children may be beneficial (or otherwise). A positive co-parental relationship models and fosters communication and relationship skills in children—skills that children can emulate in their own relationships (Amato 1998). Co-parenting was examined in this report via examination of the division of sharing of unpaid work in the home and perceptions of how fair this division was; by how much mothers and fathers felt their partners supported them in their parenting role; and by the extent to which parents reported disagreeing with each other about child-rearing matters.

Consistent with other Australian research, these analyses of LSAC data showed highly gendered patterns in the time distribution of parents of young children (Baxter 2002; Baxter, Hewitt & Western 2005; Craig & Mullan 2009). Fathers spent more time than mothers in paid employment, but less time in child care and domestic work. When time spent in paid work and unpaid work was totalled, mothers and fathers undertook similar amounts of work in a usual week. However, the allocation of their time to paid versus unpaid work differed markedly.

Mothers and fathers had different perceptions of how fair the sharing of child care and other domestic work was. Fathers had more positive views than mothers of whether they did their fair share. These perceptions were related to the actual sharing of unpaid work in the home, with fathers who did more actual work also more likely to say that they did their fair share, or more than their fair share. However, even for these fathers,

the division of unpaid work was not equal. Averaged over the whole sample, mothers undertook close to two-thirds of the couples' unpaid work.

An important aspect of parenting is being a support and resource to the other parent. Fathers and mothers were very positive about the resource and support provided by mothers to fathers. Fathers and mothers were not so positive about fathers as a resource or support to mothers. The finding that the majority of fathers felt well supported by their partners is important, as other research shows that one of the enablers of fathers' involvement is the support they receive from their partners (Allen & Daly 2002). The time fathers spend on child care and other domestic work appears to be taken into consideration by mothers when they are making assessments of how supportive or how much of a resource fathers are and also about the fairness of the division of work in the home.

One indication of the negative aspects of co-parenting is the extent of disagreement between parents over child-rearing issues. These analyses showed that the majority of parents reported low levels of disagreement about child-rearing issues, although over one-quarter of parents reported sometimes or more often having disagreements about child rearing. The experience of regular disagreement about child rearing may reflect a strained relationship between mother and father. More frequent disagreement may also have implications for children, especially if these disagreements are manifest in less supportive parental behaviours (Feinberg 2002, 2003).

The co-parental relationship was significantly related to children's outcomes, with mothers' and fathers' reports of support to each other being related to children's socio-emotional outcomes. Further, when fathers reported that they and the child's mother had more disagreements about child rearing, children's socio-emotional outcomes and learning outcomes were worse.

Parenting practices and styles

The parenting practices and styles used by fathers can provide information about the ways in which they interact with their children, and they reflect the quality of relationships between fathers and children (Amato 1998; Campana et al. 2008; Conrade & Ho 2001; Hawkins et al. 2002; Lamb 1997; Roskam & Meunier 2009). This report examined the parenting practices and styles of fathers (and mothers) by looking at five core dimensions: warmth, hostile or angry parenting, inductive reasoning, consistency and overprotection.

Mothers and fathers generally displayed high levels of warmth, inductive reasoning and consistency, low hostility and anger, and moderate levels of overprotection. Thus, we concluded that, generally, LSAC fathers (and mothers) were parenting well. There were, however, consistent differences between fathers and mothers in their parenting styles. Over all aspects of parenting, fathers differed significantly from mothers, exhibiting, on average, less warmth, less inductive reasoning, less consistency and less overprotection. While some differences observed here have not been reported elsewhere, the findings are largely consistent with other research (for example, Adamsons & Buehler 2007; Bentley & Fox 1991; Starrels 1994).

The parenting practices of mothers and fathers have been linked to children's outcomes in past research, particularly their socio-emotional outcomes (Flouri 2005; Marsiglio et al. 2000; Smart et al. 2008; Tamis-LeMonda et al. 2004). However, Zubrick et al. (2008), using LSAC Wave 1 data, found that fathers' parenting generally did not add explanatory power beyond that of mothers' in the prediction of children's outcomes, with the exception of paternal hostility, which made a significant independent contribution to children's outcomes at 4 to 5 years. The analyses in this report showed that greater paternal warmth was associated with more positive learning and socio-emotional outcomes among children, as was maternal warmth. Hence, the benefits of high-quality parenting by fathers were discernable in the current analyses.

Connections between different aspects of fathering

On many measures, fathers who were more involved on one dimension (for example, time spent doing child care tasks) were also involved on another dimension (for example, having higher parental warmth). The associations were weaker, but still evident, for the measure of fathers' time spent with the LSAC child, which

is a measure only of co-presence, and perhaps is less differentiating between more and less involved fathers since it takes no account of the activities that fathers and children do together during shared time.

For example, fathers' warmth and inductive reasoning were associated with fathers spending time with their children, with fathers who scored lower on these scales spending less time with their children. Also, when fathers showed less warmth, inductive reasoning or consistency, or greater hostility or anger in interactions with their LSAC child, they tended to be seen by mothers as being less of a resource or support in child rearing. Thus, there seemed to be considerable overlap in the elements of fathering examined, reinforcing that fathering is a 'package'. Of course, individual fathers will exhibit unique trends, perhaps being highly involved on one measure but less involved on another. Nevertheless, the differing elements of fathering are correlated, as would be expected. The richness of the LSAC data enables consideration of this issue, and this report has demonstrated the value of using multiple measures to explore father involvement.

Consistency of fathering over time

The report suggests that if fathers are involved when children are very young they are also likely to have greater involvement as children grow. It is valuable therefore to examine differences in fathering by age of child to look for cross-sectional differences in the nature of fathering, and to examine this from a longitudinal perspective to consider how early levels of fathering are associated with later levels.

There was evidence that more involved fathers remained more involved as children grew. Levels of co-parenting appeared relatively consistent across waves as the correlations found were positive and moderate. Also, parenting practices and styles were positively correlated across waves; that is, fathers who exhibited more positive parenting styles continued to do so as children grew. These findings suggest that helping fathers get off to a good start when children are born will pay dividends later on, as patterns established early persist to a certain degree.

The report also examined factors associated with changes in fathering over time. Improvements in relationship quality and fathers' mental health were positive influences on fathering, while an increase in fathers' work hours was associated with less father-child time and lower supportiveness towards partners. An increase in the number of children in the family was also associated with decreasing father involvement over time. While these results are unsurprising, they are a reminder of the importance of addressing parental and family wellbeing in intervention and prevention efforts aimed at enhancing fathers' (and mothers') effectiveness.

Fathers and mothers

Mothers and fathers, of course, do not parent in isolation from each other. In fact, fathers tend to be more involved with their children when mothers are also more involved (Aldous, Mulligan & Bjarnason 1998; Barnett et al. 2008; Russell & Russell 1994). The similarity of parenting behaviours of mothers and fathers has implications for children, given that parents' involvement is associated with children's outcomes. Some children may experience a compounding of negative parenting, while others may be doubly enriched through the parenting behaviours of both parents.

However, as this report shows, fathering is clearly different to mothering. Mothers spend more time with children at all ages, but especially at the ages before school commencement. They are therefore also more often involved with children's personal care, social and educational activities. As described above, the parenting styles of mothers and fathers also differ. Despite these underlying differences, there is, within couples, correspondence between mothers' and fathers' involvement. This was shown by the significant correlations across parents, which were modest to moderate in size, over the different elements examined. Thus, there was symmetry in the parenting of mothers and fathers, although there was also some variation between the two.

The attitudes of mothers are also important. On the one hand, mothers can actively support and encourage fathers to take on more responsibilities, and this may assist fathers who feel less confident in the parenting role. On the other hand, mothers may manage or play a 'gatekeeper' role in fathers' involvement (Allen &

Hawkins 1999; Beitel & Parke 1998; Hofferth 2003; McBride & Darragh 1995). Thus, fathers' (and mothers') involvement with children occurs within the context of broader family life.

Fathering and parenting self-efficacy

The great majority of fathers (as well as mothers) saw themselves as average or better than average parents. Only a very small percentage rated themselves as 'not very good' or 'has some trouble' at being a parent. Within couples, mothers' and fathers' self-efficacy were correlated, such that when mothers rated themselves as being better parents, fathers tended to also do so.

Relatively high proportions of fathers of very young children, compared to older children, rated themselves as being a very good parent. For example, of fathers of 0 to 1 year-old children, 36 per cent gave themselves this rating, compared to 24 per cent of fathers of 8 to 9 year olds. The percentage of fathers reporting themselves as being average parents increased over the cohorts/waves. Across the waves, there was considerable stability of perceptions of self-efficacy—those who were more positive about their parenting ability at Wave 1 were likely to also be more positive at Waves 2 and 3.

Fathers' parenting self-efficacy is clearly related to their involvement with their children and family, although this appears to be unrelated to having the 'provider' role. The relationships between parenting self-efficacy and parenting behaviours (styles, such as warmth) are well established (for example, Sanders & Woolley 2005; Teti & Gelfand 1991) and these results support previous findings. We also explored different aspects of fathering to examine how fathers' perceived parenting self-efficacy is linked to their time with children. Some relationships were evident, especially when this was compared to time spent undertaking child care tasks, as opposed to time spent with the LSAC child. Further, fathers rated themselves as better parents when mothers reported that fathers were more of a support to them. This probably reflects a positive parenting experience for these fathers, which is likely to have flow-on effects to other family relationships.

According to Lamb et al. (1987), father involvement varies with the degree of fathers' motivation to be involved with their children, their skills (or perceived skills) to do so, and the extent of supports available to enable this, including the support given by children's mothers. Skill level, or perceived skill level, as a predictor of fathers' involvement with children has been confirmed in a number of studies (Crouter et al. 1987; Jacobs & Kelley 2006; Sanderson & Sanders Thompson 2002). There are clear benefits to children as well, as seen here in the links found between fathers' parenting self-efficacy and children's socio-emotional and learning outcomes. These links remained after the effect of mothers' parenting self-efficacy was included.

10.2 Variation in fathering

There was considerable variety among LSAC fathers in the degree to which they undertook the various fathering roles. Not only were there differences across fathers at any point in time, there were differences across time, as children, contexts and parents changed.

Guided by the existing literature on fathering (for example, Bailey 1994; Belsky 1984; Bronte-Tinkew et al. 2006; Doherty et al. 1998; Lamb 1997; Lamb et al. 1987; Marsiglio et al. 2000; Mikelson 2008; Parke 2000; Pleck 1997; Wood & Repetti 2004), we used the LSAC data to examine how fathering varied across parents' characteristics, a range of contextual factors, and children's characteristics.

In all the analyses in this report, despite finding a range of variables that were important in explaining variation in fathering, there was nevertheless considerable unexplained variation in the data. That is, the characteristics we have observed and included in the analyses do not capture fully what determines which fathers will be more involved and which will be less involved. No doubt, some of this unexplained variation relates to different levels of motivations of fathers, with some being very committed to being highly involved with their children, and others less so.

The variability is a reminder that other factors are also likely to lead fathers to be more or less involved, and that the associations we report are based on averages. There will be exceptions to these associations; for example, of fathers working longer hours, some will not be characterised by relatively low levels of involvement. In addition, variations will exist according to some of those characteristics we have not analysed; for example, different levels of motivation or differential access to family-friendly employment conditions.

Another general point to make is that none of the explanatory variables employed was associated with each and every measure of fathering. There were, however, some very consistent associations, and these are discussed below.

We provide a summary of the key results emerging from the analyses of variation in fathering next. For results pertaining to specific elements of fathering, refer back to the appropriate sections.

As in Section 2, we consider fathering in relation to parental characteristics, family contexts and child characteristics. We present these findings in a different order here to focus first on some characteristics very strongly related to fathering—the contexts of work and family. We then explore the paternal characteristics of ethnicity, age, mental health and education. We lastly look at children’s characteristics—their age, sex and temperament.

Fathers’ employment

The nature of paid employment is part of the context within which parents negotiate their child-rearing responsibilities. The majority of fathers work full-time hours and are the main income earners in many families, making fathers’ employment an important aspect of fathering. However, time spent in employment puts constraints on time available for spending with the family. Longer hours in employment are very clearly linked to spending less time with children or doing child care tasks (Baxter 2009; Bianchi 2000; Bonney, Kelley & Levant 1999; Bryant & Zick 1996; Hand & Lewis 2002; Jacobs & Kelley 2006; Laflamme, Pomerleau & Malcuit 2002; Russell et al. 1999; Yeung et al. 2001).

This was evident in these analyses of LSAC data, as the number of work hours was a significant factor in explaining the variation in how much time fathers spent with children, and fathers’ involvement in particular activities with their child. Also, in the analyses of co-parenting, fathers working longer hours undertook less unpaid work in the home, and were rated lower on a number of the co-parenting measures, compared to fathers working more standard hours. The fixed effects analyses presented in Section 7 also affirmed the relevance of work hours in exploring how fathers’ involvement and co-parenting changed across the waves. Hours of work, however, were not so important in explaining the variation in fathers’ parenting styles.

The intersection of employment and family was also explored in the analyses of work–family spillover, which is described further in a later subsection.

While ‘too much’ employment is linked to lower levels of participation in child rearing by fathers, the reverse is not necessarily true—that no employment is associated with very high levels of participation by fathers. Some studies have reported that not-employed fathers actually have difficulties fulfilling their role as fathers, perhaps because of a perceived lack of success as a breadwinner and low self-esteem (Christiansen & Palkovitz 2001; Lupton & Barclay 1997; Marsiglio 1991). In this report, however, we found the fathers who were not in employment or who worked part-time hours had relatively high levels of involvement with their children, and also in undertaking child care and domestic work. This is perhaps consistent with the work of Cabrera et al. (2004) and Tamis-LeMonda et al. (2004), who have shown that resident low-income fathers in the United States often engaged in activities with their children and exhibited positive parenting behaviours (assuming that fathers not in full-time employment can be considered to be similar to low-income fathers).

While our analyses were not specifically designed to analyse fathering by fathers’ own socioeconomic status, an indicator of family financial wellbeing was included that identified families who said they were ‘just getting along’, ‘poor’ or ‘very poor’, as opposed to more comfortable families. This indicator was rarely significant in explaining variation in fathering. Flouri and Buchanan (2003) also reported non-significant results by family socioeconomic status.

We have mentioned the importance of considering fathering in the family context, and one important characteristic of families is the employment participation of mothers. Mothers' paid employment may necessitate or be facilitated by fathers taking on a greater role within the home (Bonney, Kelley & Levant 1999; Brayfield 1995; Bryant & Zick 1996; Crouter et al. 1987; Deutsch, Lussier & Servis 1993; Jacobs & Kelley 2006; Kitterod & Pettersen 2006; McBride & Mills 1993; Roeters, van der Lippe & Kluwer 2009; Wang & Bianchi 2009). Analyses of the LSAC data showed that there were some associations between fathering and mothers' paid work hours, especially when mothers worked full-time hours. Fathers' greater involvement in these families was apparent in fathers' time with children and also in the extent of co-parenting. When mothers worked longer hours, fathers were more involved in some of the personal care activities, spent more time with their child or doing child care tasks, and were more of a support to the mother in raising their children.

Contextual factors: family composition and relationships

It is not surprising to see that fathering varied according to the nature of the relationships within the family and the size of the family. We examined whether stepfathers and biological fathers differed. On this question, prior evidence was somewhat contradictory as to whether we would expect there to be differences in the ways these fathers parent (Amato & Sobolewski 2004; Berger et al. 2008; Cooksey & Fondell 1996; Gibson-Davis 2008; Hofferth & Anderson 2003). Our analyses also did not produce a simple answer. We found that the amount of time children spent with their fathers did not vary according to whether fathers were or were not their biological father; however, biological fathers were more likely than stepfathers to be involved in some of their children's personal care activities. On the measures of co-parenting, there were no significant results when comparing stepfathers and biological fathers on the extent of the support that parents reported they gave each other, but stepfathers were less likely to exhibit warm parenting styles than were biological fathers.

A complexity for some families is that some of these fathers may have children living elsewhere. Where this is the case, fathers may experience more time pressure in fitting in time for non-resident children, and perhaps also some emotional strain in managing the relationships. To examine this, we considered how fathering differed for those fathers who had a child living elsewhere. We did find that fathers who had children living elsewhere were less involved in some of the children's personal care activities and also less often talked with their child about their day or helped them with homework. These fathers also spent less time doing child care tasks and were rated by mothers and fathers as being less of a resource or support in child rearing. Further, looking at their parenting styles, fathers with other children living elsewhere showed less warm parenting, less inductive reasoning and less consistency.

Previous research on differences in fathering by parents' marital status has not been entirely consistent (Berger et al. 2008; Hofferth & Anderson 2003; Kalenkoski et al. 2005). This report mirrors this inconsistency by finding that married fathers are more involved on some aspects of fathering (for example, involvement in various personal care activities), while cohabiting fathers are more involved on others (for example, total shared time between father and child). Often, though, marital status proved to be non-significant in explaining variation in fathering.

Better quality parental relationships are usually associated with more involved fathering (Belsky 1984; Bouchard & Lee 2000; Coiro & Emery 1998; McBride & Mills 1993; Verhoeven et al. 2007). Further, when relationships are better, this is also evident in more positive or sensitive parenting styles and more cooperative and supportive co-parenting (Floyd, Gilliom & Costigan 1998; Verhoeven et al. 2007). Our analyses of the LSAC data supported these findings strongly. This was evident in the analyses of fathers' time with children, co-parenting and parenting styles.

In existing research about fathering, findings regarding family size are somewhat mixed. Here, too, these data have produced some mixed results. The analyses here incorporate information on numbers and ages of siblings where analyses refer to fathering of the LSAC child. Where fathering refers to all or any children in the family, number of children and age of youngest child were considered. We found that fathering quite often differs according to family size; for example, fathers less frequently talked with the LSAC child or shared an evening meal when they were in larger families. Some variations, however, were related not only to family

size but also to birth order, as fathers appeared to be less involved with children when they had more older siblings, but were more involved when they had more younger siblings.

Contextual factors: employment

We have already discussed the relationships between employment and fathering above in relation to the associations between fathers' and mothers' work hours and the various measures of fathering.

Work–family spillover was also examined for its links to fathering. Almost two-thirds of fathers agreed or strongly agreed that, because of work responsibilities, they had missed out on home or family activities that they would have liked to have taken part in. However, for many fathers, their work–family life seemed manageable—more than half disagreed (or strongly disagreed) with the statement that their family time was less enjoyable and more pressured because of work responsibilities, and nearly three-quarters agreed that working helped them to better appreciate the time they spent with their children. Just over half agreed that their work had a positive effect on their children and almost half agreed that working made them a better parent.

Having more negative work-to-family spillover (that is, missing out at home or finding family time less enjoyable, because of work) was associated with having less child care time and being less of a support. Having more positive work-to-family spillover, as measured by agreeing more strongly that working helps fathers to appreciate the time spent with children, or has a positive effect on children, was associated with having more child care time and being more of a support. Thus, there were clear links between the way in which fathers experienced work–family spillover and their fathering.

Parental characteristics

Throughout this report, we examined whether fathering varied according to fathers' own characteristics. One such characteristic is ethnicity. Here we looked at differences between fathers who mainly spoke a language other than English at home and English speaking fathers, and between Indigenous and non-Indigenous fathers. While these identifiers are quite broad, it was anticipated that fathering may vary by these ethnic groups, given previous Australian and international research on fathering and family functioning (for example, Cooksey & Fondell 1996; Hofferth 2003; Sanderson & Sanders Thompson 2002; Shears 2007; Walker & Shepherd 2008; Zubrick et al. 2008). Over all aspects of fathering, however, few ethnic differences emerged. It remains possible that such differences exist. For Indigenous fathers, our sample size may have been insufficient to produce statistically significant results. In relation to the language spoken at home indicator, this may not be a sensitive enough measure, given the diversity of cultures within the groups compared.

We also explored associations with fathers' age, given that some studies have reported that fathers' age is related to the level or type of fathering (Parke 1996; Pleck 1997; Volling & Belsky 1991). Our analyses suggested that age matters only on some measures. For example, there were some differences in fathers' time spent with children by fathers' age, with there being greater involvement for older fathers when measured as fathers' time alone with the LSAC child and involvement in some of the personal care activities. Some differences in fathers' parenting styles were also apparent, as older fathers were less likely to report hostile or angry parenting but were also less consistent in their disciplinary approach.

One characteristic of fathers that has received limited attention in work on fathering is fathers' mental health or depression. Throughout our analyses, mental health was very often significantly correlated with fathering. For example, fathers with better mental health were more likely to talk with their child about the day and to share an evening meal with children. On the other hand, mental health was not related to the amount of time fathers spent with children, or in fathers' involvement in personal care activities. Better mental health was also associated with a stronger co-parental relationship and more positive parenting practices. Fathers' mental health was also strongly related to children's socio-emotional outcomes. These findings point to the salience of fathers' mental wellbeing for their fathering.

In our analyses, we were unable to assess the possible roles of personality, attitudes and self-esteem in relation to fathering. This is unfortunate, especially in relation to parents' attitudes towards parenting roles, which are likely to be important in shaping those roles within a family (Allen & Hawkins 1999; Beaton & Doherty 2007; Beitel & Parke 1998; Bonney, Kelley & Levant 1999; Bulanda 2004; McBride & Rane 1998; Sanderson & Sanders Thompson 2002).

Parental education was also examined for its contribution to fathering. Investigations of parenting generally find that more highly educated parents are more involved in activities such as reading or other activities aimed at helping children to develop cognitively or socially (Aldous, Mulligan & Bjarnason 1998; Baxter 2010; Bianchi & Robinson 1997; Hofferth & Sandberg 2001; Marsiglio 1991; Stright & Bales 2003; Yeung et al. 2001). These findings were supported in the current analyses, for example, with more highly educated fathers spent more time reading and talking with their children and helping them with homework. Positive associations between education and amount of time fathers spend with children or doing child care tasks have also been reported in some studies (Aldous, Mulligan & Bjarnason 1998; Baxter 2009; Marsiglio 1991; Sayer, Gauthier & Furstenberg 2004). Similarly, in this study, more highly educated fathers were more likely to be involved in various personal care tasks, although they did not differ on the amount of time spent with their children. Higher paternal education was also associated with some aspects of parenting, with these fathers showing, on average, less hostility and less overprotection, and more inductive reasoning and consistency. Differences in warm or angry parenting by education were not apparent.

The pathways between education and fathering have yet to be clarified. It is often assumed that associations with higher levels of education reflect more egalitarian gender role attitudes, or greater awareness of the contributions parents can make to their children's lives. Higher education may, however, also mean access to jobs with better working conditions—more flexibility in hours, for example. On the other hand, higher education may also mean more demanding or more stressful jobs. Higher education is also likely to be associated with a higher income and higher standard of living.

Child characteristics

Differences in parenting according to children's own characteristics, such as age, sex and temperament, have been noted in a range of studies, particularly those focused on the parenting behaviours of mothers and fathers (Parke 1996; Russell et al. 1998; Schoppe-Sullivan et al. 2006). Here we also saw evidence of these differences.

A particular focus in this report was on how fathering changes as children age, given our ability to analyse fathering from infancy through to 8 to 9 years. Previous research has found that fathers' involvement increases as children grow from infancy through to school age, and fathers' involvement also changes in nature with the changing needs of children (Brayfield 1995; Deutsch, Lussier & Servis 1993; Gaertner et al. 2007; Pleck 1997; Yeung et al. 2001). In LSAC, there was considerable evidence that fathers' involvement varied as children grew, in terms of the amount of time spent with children and the types of activities undertaken. When analysed in terms of time fathers spent doing child care, on average there was a decline from when the LSAC children were 2 to 3 years to when aged 8 to 9 years. However, looking at involvement in particular activities like talking with their child about the day and sharing an evening meal with them, fathers were most involved at the older ages (6 to 7 and 8 to 9 years). In the analyses of the amount of time children spent with their father, the total time appeared to peak at the preschool age and to then decline once children were of school age.

The analyses of parenting styles showed very little change (difference) in the parenting styles of either mothers or fathers at differing child ages. The exception was hostility, which was much lower at 0 to 1 years than at later years. There was also some evidence that parenting warmth declined slightly as children moved through childhood.

The nature of the co-parental relationship also varies as children grow, as children can require different parental input, and perhaps become more of a challenge as they exert their own independence and wilfulness (McHale et al. 2000; Stright & Bales 2003). In the analyses of co-parenting, there were certainly differences in

the amount of time parents spent on unpaid household tasks according to the age of LSAC children; however, no differences were apparent on the degree of support parents gave their partners in child rearing. Clearly, differing elements of fathering come to the fore or become less central as children grow.

Based on previous research, variations in fathering by sex of child were expected, with greater involvement and different styles of parenting for boys than girls (Barnett et al. 2008; Marsiglio et al. 2000; Parke 1996; Pleck 1997; Wood & Repetti 2004). However, the evidence suggests that the existence of sex differences might depend upon the measure of fathering used (Bronte-Tinkew et al. 2009; Bryant & Zick 1996; Cooksey & Craig 1998; Laflamme, Pomerleau & Malcuit 2002; Lindsey, Caldera & Colwell 2005; Palkovitz 1984) and upon the ages of children (Yeung et al. 2001). Our findings were consistent with these expectations. There were some differences in the activities fathers undertook with boys versus girls, with fathers spending more time with boys and more likely to be involved in their personal care activities. In terms of parenting styles, less warmth, more hostile or angry parenting, more consistency and overprotection was found for fathers of boys.

Several studies have examined how parenting varies with child temperament, that is, the innate characteristics of the child, measured on scales such as reactivity or emotionality, self-regulation and sociability (Putnam, Sanson & Rothbart 2002; Sanson, Hemphill & Smart 2004). Much research has focused on children identified as having a 'difficult' temperament, as assessed on these or other scales. Difficult temperament is usually associated with weaker or more negative mother-child relationships, while sociability in children is associated with more positive parenting practices (see McBride, Schoppe & Rane 2002). However, almost all studies of child temperament and parenting refer to mothering, not fathering. McBride, Schoppe & Rane (2002) reported greater involvement of fathers with daughters when daughters had a more sociable temperament. However, Verhoeven et al. (2007) reported only small associations between child temperament and parenting styles for mothers and fathers. Similarly Mehall et al. (2009) found that child temperament did not uniquely predict father involvement, although some associations were apparent. Others have explored associations between child temperament and co-parenting—having more difficult children is generally associated with poorer co-parenting, although findings are not consistent across studies (see Davis et al. 2009; Lindsey, Caldera & Colwell 2005).

This report found several associations between fathering and child temperament, but more in relation to parenting styles than other aspects of fathering. For example, less positive/more negative parenting behaviours were evident among fathers of children with a more reactive temperament style. Also, among these children, fathers less often ate an evening meal with them, or talked to them about their day. These findings add to the sparse literature on connections between children's temperament style and fathers' parenting.

We also explored how fathering varied by the child's physical health (a single item, parent-reported measure of the child's general health). While previous work has shown some differences by child health (McNeill 2007; Parke & Beitel 1986) very few of the results here emerged as significant. This quite possibly suggests that this measure does not capture the type of variation in child health that may be important to fathers' involvement. Future work using LSAC could explore this in more depth by making use of the much more detailed information about children's illnesses or disabilities.

10.3 Implications for policy, program development and service delivery

A critical aspect of analyses such as these is identifying ways in which the findings could be used to develop or enhance policy, programs and services for fathers. Ultimately, we would hope that such improvements would not only help fathers, but also help the families in which these experiences of fathering are most keenly felt.

Fathers' parenting can be influenced by the supports they have available to them. As discussed previously, this includes support from their partner, but it also includes support from other family members, friends, colleagues and the wider community (Howard, McBride & Hardy 2003; Parke 1996). At particular times, fathers

as well as mothers may benefit from the support of professionals, or through participation in educational programs. Parenting education, for example, can be particularly valuable in increasing fathers' involvement with children and in improving parenting skills among some groups of fathers, such as low-income and first-time fathers (Magill-Evans et al. 2007; McBride & McBride 1993; McBride & Mills 1993).

We have seen above that some fathers have weaker or less supportive ties to their children and families and this suggests that targeting policies to particular groups of fathers may be of benefit. LSAC fathers are unlikely to be at the extreme end of the spectrum in terms of disengagement, neglect or harm, and of course such fathers and their families are the ones who are likely to benefit the most from outside support. However, even within the spectrum of fathering observed in this report, the findings suggest that there are tangible benefits for parents and children from increases in fathers' wellbeing, and improved relationships with children and partners. These areas are clear targets for policy and service delivery. The report provides convincing evidence that fathering 'matters'—a message that is not well articulated at present and could be used to support the tailoring of policies and services to address fathers' needs.

Programs and services for fathers

Participation in parenting programs and contact with child and family services can be beneficial to parents in increasing parenting skills, parental self-efficacy and relationships with children (Berlyn, Wise & Soriano 2008; Doherty, Erickson & LaRossa 2006; Fletcher 2008; Magill-Evans et al. 2007; Sanderson & Sanders Thompson 2002).

An important focus for fathering has been the acknowledgement that such programs and services, if they are to apply to fathers, need to be developed such that they do engage fathers. In the past, mothers have been assumed to be the target client group, and these programs may not necessarily 'work' for fathers. Issues such as when and where the programs are held, the sex of the facilitators and staff members and the materials used all need addressing to facilitate the engagement of fathers (Fletcher 2008; Parke 2000). The inclusion of fathers needs be considered across a range of services previously considered the domain of mothers, including health services (for during pregnancy and after the birth) and children's health care.

The results presented in this report suggest several ways in which programs or services might offer opportunities for fathers to increase or improve their involvement in families. These include addressing:

- **parenting skills and self-efficacy:** low levels of confidence in parenting may reflect actual deficits among fathers or a lack of confidence that may hinder the use of these skills. These aspects of fathering can be addressed through parenting skills classes, which have been demonstrated to improve parenting skills and self-efficacy and to have flow-on effects to parents' relationships with children and children's outcomes. Such programs might be particularly beneficial for new fathers, to help them to establish positive fathering behaviours early (Hudson et al. 2003; Sanders & Woolley 2005). As we have seen previously, there is some consistency of fathering over time, so helping fathers start off well in fatherhood is important. We also saw in Section 6 that, on average, fathers had slightly less well-developed parenting skills than mothers, being a little more likely to use negative practices (for example, angry parenting) and less likely to use positive practices (for example, reasoning). These findings further highlight the potential usefulness of parenting skills and self-efficacy programs for fathers.
- **the co-parental relationship:** this report shows that while fathers felt very supported in their fathering role by mothers, mothers generally felt less supported by fathers. The way in which mothers and fathers co-parent is an important part of the context within which children experience their family life, and this has potential to affect children's outcomes. Parenting education programs or interventions should ensure this relationship is targeted, even if the ultimate goal is to address a separate issue. As noted by Margolin, Gorbis & John (2001), even in conflicted relationships, parents quite often have a shared goal of seeking solutions regarding parenting. Targeting the co-parental relationship can therefore be a valuable approach when helping parents who are experiencing relationship difficulties.

As discussed above, attention to specific problems such as mental health issues is also important. Further, such issues may be linked to factors we have not examined here, such as substance abuse, financial difficulties or poor physical health and, clearly, providing families with supports to manage these and other difficulties would likely have flow-on effects to fathers and their families.

Family law

Family law is another policy context in which the role of fathers is receiving considerable attention. This is more relevant to a discussion of issues for lone than partnered fathers, but of course some partnered fathers also have children from prior relationships who may be affected by such policies. As we have seen in this report, fathers who have children living elsewhere do seem to face some constraints in fathering that are not apparent for those who do not have children living elsewhere. Such issues may also be pertinent to fathers in unstable relationships. Policies relating to child support and the sharing of care are particularly relevant to fathers with these more complex family arrangements. A comprehensive analysis of related issues in Australia can be found in the report *Evaluation of the 2006 family law reforms* (Kaspiew et al. 2009).

Workplace policies

As employment is central to the lives of many fathers, a key issue is whether workplace policies might be developed or improved to better address the needs of fathers (Bittman et al. 2004). While considerable attention has been paid to mothers' workplace policies in past years, fathers' needs have received more limited attention (Human Rights and Equal Opportunity Commission 2007).

Workplace policies that might be beneficial to fathers include those that allow fathers to better share in the responsibilities of caring for children with mothers. A particular barrier is the disparity in paid work hours of fathers (who work relatively long hours) and mothers (who often work part-time hours when children are young). The very different allocations among mothers and fathers of time devoted to the paid labour market is a significant factor in explaining their different parenting activities. A more balanced distribution of hours in the paid labour market may mean a more balanced distribution within the home. In particular, if fathers' work hours were not so long, they might be more available to take on some of the child care tasks and to spend time with children. The length of the work week is therefore one area in which workplace policy could be relevant to fathering.

A particularly challenging life-cycle stage is when new children are born and family dynamics change. At this time, mothers are far more likely than fathers to be the children's primary carers (Baxter & Gray 2008). While this is unlikely to change in a dramatic way, it may be beneficial to families for fathers to be given more opportunities to provide assistance to the family in these early weeks or months after the birth of a child. While significant changes to the availability of maternity leave for mothers are about to be introduced in Australia, such changes offer little to fathers. The availability of paternity leave for the time shortly after the birth of a child, parental leave that can be shared with fathers, or parental leave set aside only for fathers have all been targeted as possible ways for fathers to contribute more at this important stage of life. For fathers, a very significant issue is whether such leave is paid, and at what rate this leave is offered, given their often-held role of primary earner within many families (for example, O'Brien & Moss 2010, who focused on European policies).

While perhaps less amenable to policy, the location and timing of work are also key factors in assessing potential conflicts between employment and family.

For all workplace measures that target better balancing of work and family, one issue is the take-up of such measures. Mothers are much more likely to make use of these policies than are fathers, and as a result the availability of work-family policies to mothers and fathers can actually increase the gendered division of unpaid work (Bittman, Thompson & Hoffmann 2004). Greater uptake of work-family policies by fathers may therefore be an important goal for the future, which may result in a greater sharing of unpaid work within the home (Monna & Gauthier 2008).

10.4 Limitations and possible future directions

LSAC has a wealth of data on fathers' involvement with children, and on the nature of fathering. However, we noted early in this report (Section 3) that the sample of fathers responding to the fathering questions is not necessarily representative of all fathers. The analyses of survey non-response and attrition showed there was some bias in the sample of responding families, with our sample perhaps overrepresenting the more involved fathers. It is therefore important to be mindful of this when generalising from these results.

Despite this, the large sample size of LSAC made it possible to examine how fathering varied according to large range of characteristics, and many of those were found to be important in explaining variation in fathering, as discussed above. However, these analyses could be extended to consider interactions between these factors to examine, for example, whether certain factors are more important in explaining fathers' involvement with boys rather than girls, or younger children rather than older children. Such analyses may be important for targeting families at greatest risk for poorer child (or parental) outcomes, to ascertain whether, in these families, there are certain factors that might promote fathers' involvement.

Being able to examine associations between parenting and children's outcomes is one of the key reasons for the development of LSAC, and previously presented research has started to explore these associations (Smart et al. 2008; Wake et al. 2006). We have added to that work here by considering how fathering is associated with children's socio-emotional and learning outcomes. These analyses, however, represent a first step in exploring links between fathering and children's development. As we outlined in Section 9, these analyses can be extended in a number of ways to gain greater insights into how fathering might contribute to children's development. The analyses here showed that associations exist, and they operate in ways that would be expected—more involved fathering being linked to better outcomes. However, more could be learnt about how this happens and, also, whether these associations are different for families or children with different characteristics, and whether they are larger or smaller for more specific or differing outcomes.

In preparing this report, a decision was made to focus only on fathers living in couple families. While some of these fathers have children living elsewhere as well as co-resident children, and so represent those men who are negotiating more complex fathering relationships to some extent, we have not examined the parenting of fathers who do not live with their children. An obvious extension of this work, then, would be to also examine fathering for this group.

Conclusion

The report confirms that Australian fathers play a vital role in their families. This role was sometimes different but complementary to the role of mothers. Fathers made a major contribution to the family income, they were supportive of their partners, they participated in unpaid work within the home (albeit at lower levels than mothers), they spent time with children (again, this was lower than mothers) and they were generally parenting well and felt they were doing a good job in their fathering role. Many of these qualities were linked. We also sought to explore the characteristics or circumstances that facilitated or hindered fathers' involvement. Fathers' working arrangements, their mental health and the quality of relationships between partners appeared to be particularly salient influences. Finally, clear-cut effects of fathering on children's socio-emotional and learning outcomes were found, even after taking into account the contribution of mothers. We conclude that fathering 'matters' for children and families and there are tangible benefits to be gained from fostering fathers' involvement in their families.

Appendix A: Self-complete bias and attrition

The following tables present the analyses of (1) sample bias in the fathers' self-complete questionnaires, and (2) attrition, from Wave 1 to 2 and then to Wave 3, given the self-complete questionnaire was returned at Wave 1. These analyses are random effects (RE) logistic regression models (see description of RE models in Section 3). The dependent variable in each is equal to 1 if the survey was completed and 0 if not. Coefficients are presented as odds ratios, given the use of logistic regression rather than OLS.

Table A1: Multivariate analyses of fathers' response to self-complete questionnaire

	Odds ratio, likelihood father returned self-complete ^(a)	Odds ratio, likelihood father returned self-complete ^(b)
Fathers' usual work hours (ref: 35–44 hours)		
0 hours	0.93	1.05
1–34 hours	0.90	0.93
45–54 hours	0.99	1.00
55 hours or more	0.76***	0.76**
Fathers' education (ref: Incomplete secondary)		
Complete secondary, certificate/diploma	1.19*	1.19
Bachelor degree or higher	1.86***	1.93***
Mothers' usual work hours (ref: 0 hours)		
1–34 hours	0.86**	0.93
35 hours or more	0.61***	0.79*
Fathers' characteristics		
English not main language	0.31***	0.60***
Indigenous	0.56*	0.62
Age (years) ^(c)	1.04***	1.04***
Mothers' perceived relationship quality ^(c)		1.13***
Cohabiting (ref: Married)	0.40***	0.50***
Family structure (ref: Biological children only)		
Blended family	1.01	1.09
Stepfather	0.72	0.91
Other family and child characteristics		
Mother bachelor degree or higher	1.49***	1.14
Family is just getting along, poor or very poor	0.78***	0.76***
Number of children	0.73***	0.78***
Age of youngest child (years)	0.96*	0.95*
Girls only (relative to boys only)	0.78*	0.72**
Mixed sex (relative to all boys)	0.91	0.76**
Father is primary carer	1.91***	24.25***
Fairness of sharing of child rearing (higher: more unfair, mother does more)		0.82***
Cohort/wave (ref: 0–1 year)		
Child age 2–3 years	0.63***	2.18***
Child age 4–5 years (B)	0.38***	0.23***
Child age 4–5 years (K)	1.06	1.06
Child age 6–7 years	0.79*	2.00***
Child age 8–9 years	0.48***	0.30***
Constant	33.31***	195.51***
Number of observations	23,468	19,039
Number of children	8,909	8,189
Rho	0.57	0.48

(a) Includes all children for whom a primary carer interview was conducted, and does not incorporate the relationship happiness nor fairness of sharing variable.

(b) Only includes children in which the mother returned a self-complete questionnaire, and incorporates relationship happiness and the fairness of sharing variable. The dependent variable is whether or not (1 or 0) the father completed the self-complete questionnaire, for all families in which a father was present and an interview was conducted with the child's primary carer. The two cohorts and three waves of data were combined, so a random effects model was estimated to allow for the multiple records per person.

(c) Centred at sample means. See Section 3.7 for details.

Note: * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

Table A2: Multivariate analyses of sample attrition for fathers across waves

	Odds ratio, likelihood father returned self-complete at Wave 2	Odds ratio, likelihood father returned self-complete at Wave 3
K cohort (relative to B cohort)	1.02	1.02
Fathers' usual work hours (ref: 35–44 hours)		
0 hours	0.69***	0.71***
1–34 hours	0.76*	0.73*
45–54 hours	0.98	0.93
55 hours or more	0.77**	0.70***
Fathers' education (ref: Incomplete secondary)		
Complete secondary, certificate/diploma	1.17	0.99
Bachelor degree or higher	1.26*	1.20
Mothers' usual work hours (ref: 0 hours)		
1–34 hours	1.09	1.07
35 hours or more	0.97	1.08
Fathers' characteristics		
English not main language	0.57***	0.53***
Indigenous	0.65	0.66
Age (years) ^(a)	1.04***	1.04***
Better mental health ^(a)	0.98	1.03
Married (ref: Cohabiting)	2.27***	2.16***
Fathers' perceived relationship quality ^(a)	1.09**	1.11***
Family structure (ref: Biological children only)		
Blended family	0.97	0.98
Other children only	0.61	0.52
Other family and child characteristics		
Mother bachelor degree or higher	1.49***	1.46***
Family is just getting along, poor or very poor	0.86*	0.94
Number of children	0.86***	0.84***
Age of youngest child (years)	0.99	1.01
Girls only (relative to boys only)	0.93	0.93
Mixed sex (relative to all boys)	1.04	1.02
Father is primary carer	0.61*	1.07
Fairness of sharing of child rearing (higher: more unfair, mother does more)	0.95	0.95
Constant	3.08***	2.41***
Number of observations (children)	6,355	6,355

(a) Centred at sample means. See Section 3.7 for details.

Notes: The dependent variable is whether or not (1 or 0) the father completed the self-complete questionnaire at Wave 2, and at Wave 3, for those fathers who returned to self-complete questionnaire at Wave 1. The analyses are further restricted to families in which the mother returned the Wave 1 self-complete questionnaire. * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

Appendix B: Time use diaries

One of the components of LSAC is a time use diary (TUD). In the TUD, details of the study child's activities are recorded over two randomly assigned days, one a weekday and one a weekend day. The diaries divided the day into 15-minute time intervals and parents were asked to mark the times during which their child was involved in any of 26 pre-coded activities.

To analyse these data, the activity was assumed to last for the full 15 minutes, although it is likely that some activities' duration were shorter than this. The TUD also collected details of where the child was in each time period. Possible categories were 'own home (indoors)', 'other person's home (indoors)', 'day care centre, playgroup', 'other indoors' and 'other outdoors'. For this analysis, children's attendance at 'day care centre, playgroup' was treated as an activity, as part of a category of 'social and organised' activities.

One of the problems in using the children's TUDs is the extent of missing data in these diaries. This may occur because parents do not complete the diary for the whole day, or may occur because some components of the diary were not completely filled.

Assessing the quality of diaries was done in two steps. First, we needed to determine at what times children were awake, as it was over these times we would examine the extent of parental presence. These data were edited for those children who had no information on their activity (permitting the distinction between awake and asleep) between the hours of 10 pm and 6 am. For these time periods, children were said to be asleep if that information was not provided.

The diaries collected details of who the children were with in each 15-minute period. Sometimes this information was not reported. When children were, in another part of the diary, reported to be at child care or school, and if the 'who with' data were missing, it was assumed that at this time children were with other (non-parental) adults. If children's 'who with' data were missing while they were asleep, children were assumed to be alone. Note, however, that this latter assumption made no difference to calculations, as the 'who with' data were only used over those times children were awake. It did mean that these asleep 'who with' times did not count towards the sum of total amount of missing 'who with' data. After these edits, diaries were assessed as poor quality if they had more than 2.5 hours of missing 'who with' data in the 24-hour day, calculated over those times children were said to be awake.

The sample counts are shown in Table B1. Overall, the time use diaries are available for around 50–60 per cent of the sample.

Multivariate analyses were used to explore the characteristics associated with being likely, at each wave, to have two (not poor-quality) diaries completed (see Table B2). Lower completion rates were evident for fathers who mainly speak a language other than English; Indigenous fathers; families in which the study child has a younger sibling; where the child is of poor physical health; families who were reported to be just getting along, poor or very poor when asked about their financial situation; fathers who were not employed or part-time employed, or who worked longer hours (55 hour or more per week); families in which the mother worked full-time hours (35 hours or more per week) rather than being not employed. Those with higher completion rates were the 4 to 5 year cohort compared to the infant cohort; biological, as opposed to step or other fathers; and fathers with a bachelor degree or higher. Response rates were also lower in those families in which the sharing of such tasks was more skewed towards the mother, so again, the diaries perhaps underrepresent the less involved fathers.

Analyses of children's activities across the cohorts/waves was done by creating categories of children's activities, as shown in Table B3.

Table B1: Sample counts of time use diaries

	0-1 years	2-3 years	4-5 years (B)	4-5 years (K)	6-7 years	8-9 years
Total sample for analyses of fathers	4,614	4,082	3,851	4,246	3,760	3,587
Diary counts (diaries returned from in-scope sample)						
Weekday diaries	3,595	3,132	2,668	3,088	2,982	2,556
Exclude poor quality ^(a)	474	354	282	564	459	355
Total retained	3,121	2,778	2,386	2,524	2,523	2,201
Weekend diaries	3,513	3,085	2,646	3,005	2,922	2,558
Exclude poor quality ^(a)	470	338	294	430	513	422
Total retained	3,043	2,747	2,352	2,575	2,409	2,136
Total diaries retained	6,164	5,525	4,738	5,099	4,932	4,337
Child counts						
Total children with at least one diary	3,373	2,989	2,513	2,923	2,732	2,373
% of all children (out of father sample)	73.1	73.2	65.3	68.8	72.7	66.2
Total children with one weekday and one weekend diary	2,791	2,536	2,225	2,176	2,200	1,964
% of all children (out of father sample)	60.5	62.1	57.8	51.2	58.5	54.8

(a) Diaries were assessed as being of poor quality if they had more than 2.5 hours of missing 'who with' data over the 24-hour day.

Table B2: Multivariate analyses of families providing two good-quality^(a) child diaries at each wave

	Odds ratio, likelihood two good-quality diaries were returned
Fathers' usual work hours (ref: 35–44 hours)	
0 hours	0.73 ^{***}
1–34 hours	0.86
45–54 hours	1.01
55 hours or more	0.89 [*]
Mothers' usual work hours (ref: 0 hours)	
1–34 hours	0.98
35 hours or more	0.70 ^{***}
Fathers' characteristics	
English not main language	0.33 ^{***}
Indigenous	0.72
Age (years) ^(b)	1.01 [*]
More than incomplete secondary	1.24 ^{**}
Bachelor degree or higher	1.64 ^{***}
Married	1.42 ^{***}
Biological father	1.72 ^{***}
Has children living elsewhere	1.16
Mothers' perceived relationship quality ^(b)	1.05 [*]
Family and child characteristics	
Mother bachelor degree or higher	1.79 ^{***}
Family is just getting along, poor or very poor	1.00
Boy	1.11 [*]
Poorer child health ^(b)	0.91 ^{***}
Child temperament: reactivity ^(b)	0.92 ^{***}
Child temperament: sociability ^(b)	1.00
Number of younger siblings	1.03
Number of older siblings	0.85 ^{***}
Fairness of sharing of child rearing (higher: more unfair, mother does more)	0.95
Cohort/wave (ref: 0–1 year)	
Child age 2–3 years	1.73 ^{***}
Child age 4–5 years (B)	0.70 ^{***}
Child age 4–5 years (K)	0.54 ^{***}
Child age 6–7 years	1.04
Child age 8–9 years	0.59 ^{***}
Constant	1.46
Number of observations	19,278
Number of children	8,218
Rho	0.34

(a) Diaries were assessed as being of poor quality if they had more than 2.5 hours of missing 'who with' data over the 24-hour day. The dependent variable is whether or not (1 or 0) two good-quality diaries were available, for those families in which the mother returned the self-complete questionnaire. Those who completed no diaries, or for whom the quality of at least one diary was not sufficient for it to be used, are coded as 0 in this analysis.

(b) Centred at sample means. See Section 3.7 for details.

Note: * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

Table B3: Cross-cohort/wave classification of children’s activities

Category	Wording in diary	Applicable to
Sleep	Sleeping, napping	All cohorts/waves
Eating (including being fed, breastfeeding)	Breastfeeding	0-1
	Eating and drinking, being fed Other eating and drinking, being fed	Other cohorts/waves 0-1
Personal care	Bathe/nappy change, dress/hair care	0-1
	Bathing, dressing, hair care, health care	Other cohorts/waves
Watching TV	Watching TV, video, DVD, movie	All cohorts/waves
Reading or being read to (talked to, sung to)	Read a story, talk/sing, talked/sung to	0-1, 2-3 and 4-5 (B and K)
	Being read to, told a story, or sung to Reading or looking at book by self	6-7
	Being read to or told a story Reading or looking at book by self	8-9
Social or organised activities & school	Visiting people, special event, party (or outing)	All cohorts/waves
	Organised activities/playgroup	0-1
	Organised lesson/activity	2-3 and 4-5 (B and K)
	Organised sport/physical activity (for example, swim, dance, Auskick)	6-7 and 8-9
	Other organised lesson/activity (for example, music, drama)	
	Day care centre, playgroup	0-1, 2-3
	Day care centre, playgroup, preschool, school School, after/before school care	4-5 (B, K) 6-7, 8-9
Doing jobs/lessons	Not applicable	0-1
	Being taught to do chores, read, etc	2-3 and 4-5 (B and K)
	Helping with chores, jobs	6-7 and 8-9
Playing	Listening to tapes, CDs, radio, music	All cohorts/waves
	Using computer/computer game	2-3 onwards
	Colour, look at book, puzzle/drawing, educational game	0-1 to 4-5 (B and K)
	Quiet free play (for example, jigsaw, craft, dress-ups for 2-3, 4-5 years; board games, craft, dress-ups for 6-7 and 8-9)	2-3, 4-5 (B), 6-7 and 8-9
	Active free play (for example, running, climbing, ball game)	2-3, 4-5 (B), 6-7 and 8-9
	Other play, other activities	0-1 and 4-5 (K)
	Crawl, climb, swing arms or legs	0-1
	Other exercise—swim/dance/run about	4-5 (K)

Table B3: Cross-cohort/wave classification of children's activities (continued)

Category	Wording in diary	Applicable to
Being hugged or cuddled	Being held, cuddled, comforted, soothed	All cohorts/waves to 6–7
	Being hugged, comforted, helped to calm down	8–9
Other activities	Awake in bed (plus ‘/cot’ for 0–1)	All cohorts/waves
	Looking around, doing nothing	0–1 years
	Doing nothing, bored/restless	All cohorts/waves from 2–3
	Crying, upset	0–1
	Crying, upset, tantrum	2–3 through to 6–7
	Sulking, upset	8–9
	Destroying things, creating mess	2–3 through to 6–7
	Arguing, fighting	2–3, 4–5 (B), 6–7, 8–9
	Being reprimanded, corrected	2–3 through to 8–9
Travel and taken places (including walking, riding etc. for fun)	Taken places with adult (for example, shopping)	All cohorts/waves
	Walking (for travel or fun)	2–3 onwards
	Ride bicycle, trike etc. (for travel or fun)	2–3 to 4–5 (B, K)
	Riding bicycle, scooter, roller blades etc. (for travel or fun)	6–7, 8–9
	Travel on public transport, ferry, plane	All cohorts/waves (‘ferry, plane’; not in all diaries)
	Taken out in pram or bicycle seat	0–1
	Travel in pusher or on bicycle seat	2–3 to 4–5 (B, K)
	Travel in car/other household vehicle	All cohorts/waves (‘other household vehicle’; not in all diaries)

Appendix C: Discussion of choice of variables

This appendix briefly describes the reasoning for the use of particular variables in this report and the exclusion of other variables, as introduced in Section 3.

In this report, we have not made the **socioeconomic position** of the family a large focus. This is to some degree captured in variables of hours of work (with the families of not-employed or part-time employed fathers likely to have lower family incomes); education levels of parents (given positive associations between parental education and income); as well as the indicator of subjective measurement of the family as just getting along, poor or very poor. However, in terms of analysing how fathering varies with socioeconomic status, the interpretation is not straightforward and likely to be confounded if other measures—for example, parental income or fathers' education—are also included. Certainly, family socioeconomic position could be explored in future analyses of these data. For this report, it was important to be able to explore hours of employment and parental education directly, given strong associations reported for these variables in prior analyses of fathering. The subjective measure of financial wellbeing is useful also for identifying how fathering differs in those families experiencing some financial strain. A different measure of financial strain could have been used—one which measures the experience of hardships in the previous year. However, previous analyses of these data have shown these hardship data to be strongly correlated with the subjective measure of financial wellbeing that we have used (Smart et al. 2008).

In this report, the association between parents' employment characteristics and fathering have been explored in relation to **working hours**. Clearly, this could be expanded to include the information available on job characteristics in the study (for example, whether self-employed, permanent or casual; flexibility of hours, occupation; frequency of weekend work). Given that a large number of variables covering a diverse range of characteristics were already to be included in the analyses, it was decided not to increase the number of employment variables used. Based on prior analyses of these data, working hours is likely to be the most significant factor in explaining variation in fathering (Baxter 2008). Future analyses will be able to explore some of these other dimensions of employment in more detail.

As discussed in the introduction, the **quality of the relationship** between mother and father is likely to be an important variable in explaining variation in fathering. LSAC offers different measures of relationship quality, and we have elected to include a single measure of self-reported 'relationship happiness'. Another possible measure is the Relationship Assessment Scale (Hendrick 1988), but this is not available at all waves. Other measures capture the argumentativeness and hostility between parents, but these measures captured more specific aspects of the relationship. Future analyses could be extended to incorporate these aspects.

The **study child's general health**, as reported by the primary carer, has been included in the analyses. This measure could be expanded upon in a number of ways, given the existence of a number of measures of health within LSAC. For instance, measures of children's chronic health conditions or disabilities are contained in the data set. Broader health measures such as the one used have been found by others to provide a useful approximation of general health (Eisen et al. 1979). Incorporation of chronic health or disability data may also have involved separation of illness from disability, and more detailed examination of the types of illness or disability. This was beyond the scope of this report. However, it would be a worthwhile topic for future analyses of these data.

We did not incorporate any information on the **levels of support** the father or the family received (or needed), except in relation to the support mothers and fathers give to each other (in Section 5). Neither was any information on access to programs or services used in this report. These also are potential areas of further investigation.

Appendix D: Sample characteristics

Table D1: Sample distribution for explanatory variables, calculated over father self-complete sample

	B cohort			K cohort		
	0–1 year	2–3 years	4–5 years	4–5 years	6–7 years	8–9 years
	% and sample counts			% and sample counts		
Fathers' usual work hours						
0 hours	10.0	8.8	9.4	8.9	9.7	9.0
1–34 hours	6.1	5.5	5.4	5.9	5.7	4.7
35–44 hours	35.1	36.8	34.1	34.2	34.6	35.8
45–54 hours	29.0	27.6	27.5	27.9	27.3	27.0
55 hours or more	19.7	21.3	23.6	23.1	22.7	23.6
<i>Mean usual hours worked (not working=0 hours)</i>	41.1	41.3	42.2	42.1	41.6	43.3
Number of observations	3,657	3,115	2,662	3,353	2,925	2,519
Father: English not main language	9.7	9.3	7.9	12.7	12.3	11.4
Number of observations	3,634	3,061	2,676	3,324	2,882	2,576
Father: Indigenous	1.6	1.2	1.1	1.1	0.8	1.1
Number of observations	3,687	3,118	2,731	3,370	2,927	2,632
<i>Fathers' age (mean years)</i>	33.9	36.3	38.3	37.6	39.9	41.9
Number of observations	3,687	3,118	2,723	3,369	2,926	2,627
<i>Fathers' mental health (mean Kessler: 1–6 scale)</i>	4.4	4.5	4.5	4.4	4.5	4.5
Number of observations	3,484	3,113	2,714	3,234	2,920	2,613
Biological father	99.9	99.4	98.6	98.0	97.6	96.3
Number of observations	3,687	3,118	2,662	3,370	2,927	2,519
Married	82.3	87.8	89.3	90.3	92.6	92.9
Number of observations	3,687	3,118	2,662	3,370	2,927	2,519
Father has children living elsewhere	9.3	7.5	8.1	10.2	7.4	8.3
Number of observations	3,687	3,118	2,662	3,370	2,927	2,519
Family: Biological children only	94.27	94.8	94.4	92.4	92.5	92.1
Family: Blended	5.6	4.8	4.9	6.5	6.4	6.4
Family: Step or other	0.1	0.4	0.8	1.1	1.1	1.6
Number of observations	3,687	3,118	2,662	3,370	2,927	2,519
Father: Incomplete secondary	14.7	16.7	15.5	16.5	18.1	17.4
Father: Complete secondary and/or certificate/diploma	58.2	56.1	56.0	56.9	55.1	54.9
Father: Bachelor degree or higher	27.1	27.2	28.5	26.6	26.8	27.7

Table D1: Sample distribution for explanatory variables, calculated over father self-complete sample (continued)

	B cohort			K cohort		
	0–1 year	2–3 years	4–5 years	4–5 years	6–7 years	8–9 years
	% and sample counts			% and sample counts		
Number of observations	3,667	3,118	2,731	3,357	2,927	2,632
<i>Fathers' perceived relationship quality (mean)</i>	<i>5.5</i>	<i>5.4</i>	<i>5.3</i>	<i>5.3</i>	<i>5.3</i>	<i>5.3</i>
Number of observations	3,598	2,997	2,614	3,279	2,818	2,490
Mothers' usual work hours						
0 hours	60.9	47.8	40.5	44.1	36.1	28.7
1–34 hours	31.7	40.9	46.1	42.1	46.4	49.5
35 hours or more	7.5	11.3	13.5	13.8	17.5	21.8
<i>Mean number of hours (not working=0 hours)</i>	<i>7.8</i>	<i>11.7</i>	<i>13.5</i>	<i>13.0</i>	<i>15.0</i>	<i>18.0</i>
Number of observations	3,673	3,118	2,662	3,362	2,927	2,519
Mother: Bachelor degree or higher	32.5	35.7	37.5	28.7	30.4	32.2
Number of observations	3,686	3,118	2,731	3,368	2,927	2,632
Family is just getting along, poor or very poor	34.4	19.7	22.1	30.6	18.5	19.9
Number of observations	3,686	3,118	2,730	3,367	2,927	2,632
LSAC child is boy	51.2	51.2	51.8	50.9	51.3	51.3
Number of observations	3,687	3,118	2,731	3,370	2,927	2,632
Family: Boys only	21.7	21.4	22.0	19.5	20.0	20.4
Family: Girls only	19.5	19.3	19.3	16.4	17.4	17.8
Family: Boys and girls	58.7	59.3	58.7	64.1	62.6	61.8
Number of observations	3,687	3,118	2,662	3,370	2,927	2,519
<i>LSAC child: Physical health (mean)</i>	<i>1.5</i>	<i>1.6</i>	<i>1.5</i>	<i>1.5</i>	<i>1.6</i>	<i>1.5</i>
Number of observations	3,687	3,118	2,731	3,370	2,927	2,632
<i>LSAC child: Number of younger siblings (mean)</i>	<i>0.00</i>	<i>0.34</i>	<i>0.60</i>	<i>0.58</i>	<i>0.70</i>	<i>0.76</i>
<i>LSAC child: Number of younger siblings (mean)</i>	<i>0.90</i>	<i>0.88</i>	<i>0.85</i>	<i>0.91</i>	<i>0.87</i>	<i>0.85</i>
Age of youngest child in family (years)	0.2	1.7	2.8	2.9	4.4	6.0
<i>Mean number of children in family</i>	<i>2.0</i>	<i>2.3</i>	<i>2.6</i>	<i>2.5</i>	<i>2.7</i>	<i>2.7</i>
Number of observations	3,687	3,118	2,662	3,370	2,927	2,519

Note: Means are shown in italics.

Appendix E: Supplementary tables

Table E1: Frequency of both parents' involvement in personal care activities

Personal care activity	Age (years)	Undertaking activity once a day or more in the past month (%)				Total (%)
		Neither	Mother only	Father only	Both	
Change nappies, help use toilet	2-3	7.4	53.1	3.5	36.0	100.0
Assist with eating	2-3	33.6	35.3	11.2	19.9	100.0
Give child a bath or shower	2-3	27.0	54.5	8.9	9.6	100.0
	4-5	33.5	49.7	7.6	9.2	100.0
	6-7	53.1	35.6	6.3	5.0	100.0
Get child ready for bed or put him/her to bed	2-3	6.4	65.0	4.0	24.6	100.0
	4-5	46.9	39.4	6.8	6.9	100.0
	6-7	43.8	39.7	8.2	8.3	100.0
Help (supervise) child brush his/her teeth	2-3	22.8	56.6	7.2	13.4	100.0
	4-5	32.8	47.3	8.0	12.0	100.0
	6-7	60.9	26.2	6.6	6.3	100.0
	8-9	70.2	17.7	7.1	5.1	100.0
Help child get ready for school/preschool/child care	2-3	13.3	59.5	7.4	19.9	100.0
	4-5	18.0	52.3	10.4	19.4	100.0
	6-7	27.0	45.6	10.9	16.5	100.0

Table E2: Parental time with 4 to 5 year-old children according to both parents' involvement in getting children dressed or ready for school, preschool or child care

	Neither helps get ready once a day or more		Father only helps get ready once a day or more		Mother only helps get ready once a day or more		Both help get ready once a day or more		Total
	Mean	(SD)	Mean	(SD)	Mean	(SD)	Mean	(SD)	
Total father time	280	(147)	326	(171)	270	(144)	313	(132)	281 (148)
Father with mother	224	(132)	226	(151)	221	(132)	244	(111)	224 (132)
Father-only time	57	(81)	100	(110)	49	(72)	68	(85)	57 (81)
Mother-only time	271	(173)	192	(162)	259	(155)	211	(167)	257 (167)

Notes: Includes only those families when both mother and father completed self-complete questionnaire. SD=standard deviation.

Table E3: Parents' provision of being a resource or support to each other in raising children, by cohort/wave

	Fathers' reports of partner as a support	Fathers' reports of self as a support to partner	Mothers' reports of partner as a support	Mothers' reports of self as a support to partner	No. of fathers	No. of mothers
	% often/always					
0-1 year	97.6	77.6	87.9	97.1	3,605	3,901
4-5 years (B)	94.6	80.7	83.2	94.6	2,711	3,275
4-5 years (K)	96.5	79.3	87.2	96.5	3,308	3,582
8-9 years	93.0	80.3	83.1	94.6	2,592	3,031
Comparison of 0-1 to 8-9 years	***	**	***	***		

Notes: Items not collected in Wave 2. Stars show results of chi-square test comparing the youngest and oldest groups only. ** $p < 0.01$; *** $p < 0.001$.

Source: Waves 1 and 3 (B and K cohorts).

Table E4: Understanding and supportiveness of partner to parental needs by cohort/wave

	Father: Partner understands and is supportive of your needs as a parent	Mother: Partner understands and is supportive of your needs as a parent	No. of fathers	No. of mothers
	% always/often			
0-1 year	85.2	76.9	3,592	3,898
4-5 years (B)	83.9	75.2	2,701	3,275
4-5 years (K)	83.6	77.4	3,287	3,575
8-9 years	84.5	74.4	2,585	3,028
Comparison of 0-1 to 8-9 years	n.s.	**		

Notes: Items were not collected in Wave 2. Stars show results of chi-square test comparing the youngest and oldest groups only. ** $p < 0.01$. n.s.=not significant.

Source: Waves 1 and 3 (B and K cohorts).

Table E5: Cross-wave changes in father-child time

	B cohort		K cohort	
	Wave 1 to 2	Wave 2 to 3	Wave 1 to 2	Wave 2 to 3
Mean change in father-child time				
Fathers' usual work hours				
Reduced (by more than 5 hours per week)	45.3	38.3	-9.4	27.9
Stayed around the same (+/- 5 hours per week)	23.4	4.2	-17.7	6.8
Increased (by >5 hours per week)	-8.4	-20.8	-41.5	4.1
Significance	***	***	*	n.s.
Mothers' usual work hours				
Reduced (by more than 5 hours per week)	29.7	3.5	-20.8	-1.9
Stayed around the same (+/- 5 hours per week)	16.9	7.6	-22.1	21.9
Increased (by >5 hours per week)	24.4	0.6	-17.5	-2.0
Significance	n.s.	n.s.	n.s.	*

Notes: * $p < 0.05$; *** $p < 0.001$. n.s.=not significant.

Table E6: Cross-wave changes in mothers' reports of fathers' disagreements about child care

	B cohort		K cohort	
	Wave 1 to 2	Wave 2 to 3	Wave 1 to 2	Wave 2 to 3
Mean change in disagreements about child care scale				
Fathers' usual work hours				
Reduced (by more than 5 hours per week)	0.18	-0.07	0.03	-0.03
Stayed around the same (+/- 5 hours per week)	0.16	-0.03	-0.05	0.02
Increased (by >5 hours per week)	0.20	-0.05	-0.03	-0.06
Significance	n.s.	n.s.	n.s.	n.s.
Mothers' usual work hours				
Reduced (by more than 5 hours per week)	0.25	-0.07	-0.12	-0.07
Stayed around the same (+/- 5 hours per week)	0.16	-0.05	0.01	0.00
Increased (by >5 hours per week)	0.17	-0.02	-0.03	-0.01
Significance	n.s.	n.s.	*	n.s.

Notes: * $p < 0.05$. n.s.=not significant.

Table E7: Cross-wave changes in fathers' time spent on child care and mothers' reports on fathers' support

	B cohort		K cohort	
	Time on child care Wave 2 to 3	Mothers' reports on father as support	Time on child care Wave 2 to 3	Mothers' reports on father as support
Fathers' usual work hours				
Reduced (by more than 5 hours per week)	-116	-0.05	-35	-0.16
Stayed around the same (+/- 5 hours per week)	-134	-0.18	-89	-0.21
Increased (by >5 hours per week)	-154	-0.26	-155	-0.23
Significance	n.s.	***	*	n.s.
Mothers' usual work hours				
Reduced (by more than 5 hours per week)	-227	-0.14	-171	-0.23
Stayed around the same (+/- 5 hours per week)	-136	-0.20	-88	-0.20
Increased (by >5 hours per week)	-84	-0.15	-63	-0.20
Significance	*	n.s.	n.s.	n.s.

Notes: * $p < 0.05$; *** $p < 0.001$. n.s.=not significant.

Table E8: Cross-wave changes in fathers' warm parenting

	B cohort		K cohort	
	Wave 1 to 2	Wave 2 to 3	Wave 1 to 2	Wave 2 to 3
	Mean change in fathering warmth scale			
Fathers' usual work hours				
Reduced (by more than 5 hours per week)	0.12	-0.08	0.06	-0.06
Stayed around the same (+/- 5 hours per week)	0.10	-0.09	0.05	-0.07
Increased (by >5 hours per week)	0.08	-0.09	0.03	-0.11
Significance	n.s.	n.s.	n.s.	n.s.
Mothers' usual work hours				
Reduced (by more than 5 hours per week)	0.08	-0.09	0.07	-0.09
Stayed around the same (+/- 5 hours per week)	0.09	-0.10	0.03	-0.08
Increased (by >5 hours per week)	0.12	-0.06	0.07	-0.08
Significance	n.s.	n.s.	n.s.	n.s.

Note: n.s.=not significant.

Endnotes

- 1 The demand for fathering research is evident in the establishment of the Australian Fatherhood Research Network in 2008. This network ‘promotes high-quality collaborative research into fatherhood and fathering in Australia by encouraging researchers, academics, managers, practitioners and those developing policy to pay attention to the important role that fathers play in family and community life’ (University of Newcastle 2010).
- 2 In this report and in this review, the question of which fathers are likely to maltreat or severely neglect their children is not addressed.
- 3 Further, there are possible reciprocal effects, as children raised in families with ‘better’ co-parents may become less difficult over time (Davis et al. 2009).
- 4 The sample counts for the self-complete data (Table 1) vary for particular questions, as the method of administering the self-complete questionnaire varied across waves. In particular, in Wave 2, primary carers were given an in-interview self-complete questionnaire, which had very high response rate (around 98 per cent), as well as a leave-behind self-complete. Table 1 shows the response rate for the leave-behind instrument.
- 5 However, focusing just on those families in which the mother had completed the self-complete questionnaire, fathers’ self-completion rates were much higher in Wave 2 than they were at Wave 1.
- 6 For some analyses, only those responding to all three waves are included. This is stated in the relevant table notes.
- 7 There is one exception, in which a logistic regression is used to analyse the likelihood of fathers’ providing child care, as reported in Table 17. For this analysis, logistic regression is appropriate because the variable of interest is binary.
- 8 The child identifier and the father member number are used to identify records that are not independent. The father member number is included to take into account the fact that the father may be a different person at different waves of the survey if the mother has separated and re-partnered over the course of the survey.
- 9 Analyses of the children’s time use data support this, and suggest that in some of these families the mother may be with these children while they are eating, even if not eating an evening meal herself at this time (results not shown).
- 10 If the child was living with a stepfather and also had a parent living elsewhere, the father–child time may include time with either or both fathers.
- 11 This is supported by the data for mothers’ involvement in children’s personal care—for mothers also, involvement in personal care is reduced when children have older siblings (results not shown).
- 12 To check the validity of the LSAC data, they were compared to those produced from the ABS Time Use Survey. The ABS data, based on time use diaries, can include child care or domestic work reported to be a person’s primary or secondary activity. Craig (2006) used the 1996 ABS Time Use Survey to estimate the time use of parents of children aged under 12 years. She estimated that partnered fathers spent 2.4 hours per day, on average, on child care (either primary or secondary activities), compared to 5.9 hours for mothers. The ABS published estimates, based on the 2006 Time Use Survey, for parents of children aged under 15 years, measuring only primary activity. Based on these estimates, fathers spent an average of 1.2 hours per day on child care and 1.5 hours per day on domestic work, compared to 3.1 hours on child care and 3.4 hours on domestic work for mothers (calculated from ABS 2008). The stylised questions

(as opposed to diary collections) in LSAC did not direct parents to include or exclude time spent on child care or domestic work as secondary activities. It is likely that the time reported will include a mix of primary and secondary time. As such, given the different age distributions of children in LSAC compared with the ABS, the LSAC data shown in Table 21 appear to be sufficiently close to these diary-based estimates, despite the simpler methodology used to collect the data.

- 13 We could also use actual income, assuming that a ‘better’ provider is one who contributes more in total. This has not been done here, as income data would need to be adjusted for changes in costs of living over the cohorts/waves. Analyses of unadjusted income data shows the same pattern as observed in the proportions—that higher incomes are not reported for those who are given higher ratings on this measure of co-parenting.
- 14 This study was based on quite a small sample and the authors acknowledge that the low reliability of their work–family conflict scale may have contributed to the non-significant findings.
- 15 The increase in time that B cohort fathers spent with their child while the child was awake may be due to children spending more time awake as they grow older. See Section 4.
- 16 This is done to give the constant term more substantive meaning. If absolute values were instead used, the constant term would reflect the impossible situation in which parents worked no hours per week, there were no children in the family, and fathers scored zero on relationship happiness and mental health. By centring the variables, the constant term instead reflects the situation in which parents work average hours, and the numbers of children, relationship happiness and mental health were at their mean value.
- 17 Additional questions were asked of the B cohort parents in Wave 1. The questions were: ‘(a) Does this child behave in a manner different from the way you want him/her to?; (b) Do you think that this child’s behaviour is more than you can handle?; (c) Do you feel that you are good at getting this child to do what you want him/her to do?; (d) Do you feel that you are in control and on top of things when you are caring for this child?’.
- 18 The two measures of time (father–child time and total child rearing time) were divided by 10. Using the unadjusted measures, the coefficients are significant, but smaller than 0.00, making it impossible to see the nature of the relationship.

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Occasional Papers

1. *Income support and related statistics: a ten-year compendium, 1989–99*
Kim Bond and Jie Wang (2001)
2. *Low fertility: a discussion paper*
Alison Barnes (2001)
3. *The identification and analysis of indicators of community strength and outcomes*
Alan Black and Phillip Hughes (2001)
4. *Hardship in Australia: an analysis of financial stress indicators in the 1998–99 Australian Bureau of Statistics Household Expenditure Survey*
J Rob Bray (2001)
5. *Welfare Reform Pilots: characteristics and participation patterns of three disadvantaged groups*
Chris Carlile, Michael Fuery, Carole Heyworth, Mary Ivec, Kerry Marshall and Marie Newey (2002)
6. *The Australian system of social protection—an overview (second edition)*
Peter Whiteford and Gregory Angenent (2002)
7. *Income support customers: a statistical overview 2001*
Corporate Information and Mapping Services, Strategic Policy and Knowledge Branch, Family and Community Services (2003)
8. *Inquiry into long-term strategies to address the ageing of the Australian population over the next 40 years*
Commonwealth Department of Family and Community Services submission to the 2003 House of Representatives Standing Committee on Ageing (2003)
9. *Inquiry into poverty and financial hardship*
Commonwealth Department of Family and Community Services submission to the Senate Community Affairs References Committee (2003)
10. *Families of prisoners: literature review on issues and difficulties*
Rosemary Woodward (2003)
11. *Inquiries into retirement and superannuation*
Australian Government Department of Family and Community Services submissions to the Senate Select Committee on Superannuation (2003)
12. *A compendium of legislative changes in social security 1908–1982*
(2006)
13. *A compendium of legislative changes in social security 1983–2000*
Part 1 1983–1993, Part 2 1994–2000
Bob Daprè (2006)
14. *Evaluation of Fixing Houses for Better Health Projects 2, 3 and 4*
SGS Economics & Planning in conjunction with Tallegalla Consultants Pty Ltd (2006)
15. *The ‘growing up’ of Aboriginal and Torres Strait Islander children: a literature review*
Professor Robyn Penman (2006)

16. *Aboriginal and Torres Strait Islander views on research in their communities*
Professor Robyn Penman (2006)
17. *Growing up in the Torres Strait Islands: a report from the Footprints in Time trials*
Cooperative Research Centre for Aboriginal Health in collaboration with the Telethon Institute for Child Health Research and the Department of Families, Community Services and Indigenous Affairs (2006)
18. *Costs of children: research commissioned by the Ministerial Taskforce on Child Support*
Paul Henman; Richard Percival and Ann Harding; Matthew Gray (2007)
19. *Lessons learnt about strengthening Indigenous families and communities: what's working and what's not?*
John Scougall (2008)
20. *Stories on 'growing up' from Indigenous people in the ACT metro/Queanbeyan region*
Cooperative Research Centre for Aboriginal Health in collaboration with the Telethon Institute for Child Health Research and the Department of Families, Housing, Community Services and Indigenous Affairs (2008)
21. *Inquiry into the cost of living pressures on older Australians*
Australian Government Department of Families, Housing, Community Services and Indigenous Affairs submissions to the Senate Standing Committee on Community Affairs (2008)
22. *Engaging fathers in child and family services: participation, perception and good practice*
Claire Berlyn, Sarah Wise and Grace Soriano (2008)
23. *Indigenous families and children: coordination and provision of services*
Saul Flaxman, Kristy Muir and Ioana Oprea (2009)
24. *National evaluation (2004–2008) of the Stronger Families and Communities Strategy 2004–2009*
Kristy Muir, Ilan Katz, Christiane Purcal, Roger Patulny, Saul Flaxman, David Abelló, Natasha Cortis, Cathy Thomson, Ioana Oprea, Sarah Wise, Ben Edwards, Matthew Gray and Alan Hayes (2009)
25. *Stronger Families in Australia study: the impact of Communities for Children*
Ben Edwards, Sarah Wise, Matthew Gray, Alan Hayes, Ilan Katz, Sebastian Misson, Roger Patulny and Kristy Muir (2009)
26. *Engaging hard-to-reach families and children*
Natasha Cortis, Ilan Katz and Roger Patulny (2009)
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33. *Problem gamblers and the role of the financial sector*
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35. *Post-diagnosis support for children with Autism Spectrum Disorder, their families and carers*
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