

School's out—After-school's in

Children's after-school care arrangements and activities

6

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6.1 Introduction

The time after school is a critical juncture in a child's day. It is important during this time that children have adequate and appropriate care arrangements as well as opportunities to engage in activities that promote their healthy development. The care arrangements and activities in which children engage after school have increasingly become the focus of policy attention in Australia, as articulated in the My Time, Our Place policy framework (DEEWR, 2011). A number of factors underscore this, including increasing levels of maternal employment, aligned with concerns about children being unsupervised and a desire to encourage children to engage in developmentally positive activities (Cartmel, 2007; Vandell, Pierce, & Dadisman, 2005).

Given that the importance of children's time after school is gaining increasing public recognition, it is notable that there is limited Australian research in this area (Cartmel, 2007). Nationally, there is a lack of knowledge about the full range of after-school care arrangements used by parents, combined with a distinct lack of knowledge about the activities in which children engage after school. *Growing Up in Australia: The Longitudinal Study of Australian Children (LSAC)* is an important resource for addressing this gap. It provides information about both the after-school care arrangements reported by parents, and information about how children spend their time after school and who they spend it with (reported by children from the age of 10–11 years) for a nationally representative group of families with school-age children. This chapter uses the most recent data from LSAC (Wave 4) to provide a comprehensive picture of after-school care arrangements and activity patterns for children aged 10–11 years.

After-school settings and children's development and wellbeing

The time immediately following school is a period in the day when children have the opportunity to engage in activities associated with positive developmental outcomes (Posner & Vandell, 1999). These activities may occur as part of an after-school program or club, or they may take place in an activity-specific setting such as a swimming club or dance class. Research shows that children's engagement in leisure activities (such as hobbies) and achievement-related activities (such as sports, reading and homework) is associated with positive developmental outcomes (Hofferth & Sandberg, 2001; McHale, Crouter, & Tucker, 2001). Others highlight that activities with structure, supervision and an emphasis on building skills are especially important for promoting children's development (Mahoney, Larson, & Eccles, 2005); that is, the content of activities is important, but so too is the social and organisational context within which those activities take place.

As well as presenting opportunities, the time after school poses potential threats to children's wellbeing. In particular, there is a recurrent concern, both in the research literature and in public discourse, about leaving children unsupervised after school (Ochiltree, 1992). Parents tend to increasingly leave their children unsupervised by an adult as their children get older and as parents decide that their children are sufficiently mature to be unsupervised (which is not necessarily related to age) (Cain & Hofferth, 1989). Under these circumstances, unsupervised time can be an important aspect of a child's development, as it promotes independence.

There is some evidence, however, that unsupervised children fare worse on developmental and behavioural outcomes (Aizer, 2004; Pettit, Bates, Dodge, & Meece, 1999; Pettit, Laird, Bates, & Dodge, 1997; Steinberg, 1986), though being unsupervised does not affect all children similarly. Having no adult supervision for very young children and children living in disadvantaged or unsafe neighbourhoods may be more problematic than if older or less disadvantaged children living in safe areas are left unsupervised (Marshall et al., 1997; Pettit et al., 1997). Moreover, unsupervised time tends to be less problematic when parents know the whereabouts of their children (Steinberg, 1986)—especially for those living in unsafe neighbourhoods (Pettit et al., 1999)—and tends to be less problematic when children are at home rather than “hanging out” away from home (Osgood, Anderson, & Shaffer, 2005; Steinberg, 1986). In addition, appropriate parenting and having a supportive family environment can help to lessen the potentially negative effects of unsupervised time (Steinberg, 1986; Vandell & Ramanan, 1991). Findings from this research literature have filtered into the advice that governments provide to parents around leaving children unsupervised (see, for example, Parenting SA, 2010).

Factors associated with different after-school care arrangements

Perhaps the most consistent factor associated with the use of non-parental after-school care is maternal employment (Australian Bureau of Statistics [ABS], 2008; Casper & Smith 2004; Laird, Pettit, Dodge, & Bates, 1998; Vandell & Ramanan, 1991). The influence of income and socio-economic status more generally is less clear, however. Cain and Hofferth (1989), for example, found that children aged 5–13 years not supervised by an adult, compared with those in other forms of non-parental care, were more likely to be from middle-class families. In contrast, Vandell and Ramanan (1991) found that income was lowest in families with children aged 8–10 years in the care of their mother after school, followed by those not supervised by an adult, and was highest for families with children cared for by another adult. Laird et al. (1998) also found high socio-economic status to be associated with having less unsupervised time, less care by a relative or neighbour, and more care in school programs. A more recent study on a large sample of children aged 5–13 years, however, found no association between family income and care arrangements, including unsupervised time (Casper & Smith, 2004). They did find, however, that leaving children aged 11–13 years unsupervised by an adult was positively associated with having safe places to play in the neighbourhood, which broadly may be associated with having a higher socio-economic status. Finally, research shows that family income is positively associated with children’s engagement in structured after-school activities (for a review, see Vandell et al., 2005).

After-school care arrangements and activities in Australia

Published data from the Childhood Education and Care Survey (ABS, 2008) provide some information on the usual or typical use of formal after-school care programs. Unfortunately, these data about the use of before- and after-school care were only published in a combined form. Around 7% of parents used formal before- or after-school care. Usage was largest for children aged 6–8 years (16%), but dropped substantially by the time children reached 9–12 years (8%). A much larger percentage of children aged 9–12 years (28%) were being cared for informally by other adults before and after school.¹ Children in one-parent families and English-speaking families were more likely to use non-parental care (informal care by other adults, formal after-school programs and no adult supervision). Families living in major cities were more likely to use formal before- or after-school care programs, and the vast majority of families used non-parental care arrangements for work-related reasons. These data provide a broad overview, but they provide little insight into what activities children are doing after school, and there are no data on unsupervised time.

Simoncini (2010) conducted a study that asked a sample of mothers with children aged 5–8 years in seven Queensland primary schools about the regular care arrangements they used each day of the week. The results provide insights into the mixture of different care arrangements employed by these mothers. Around two-thirds of mothers reported that children were in full-time parental care after school. A further 15% reported using a combination of parent care and formal care after school, and just fewer than 5% of mothers reported using full-time after-school care. These findings

¹ Other adults could be nannies/babysitters, informal carers, siblings aged 18 years and older, grandparents, neighbours or parents of another child.

are broadly comparable with the ABS data cited earlier. Around 13% reported using informal after-school care by other adults. This study also showed that most children (80%) engaged in a range of extracurricular after-school activities, such as sports. Simoncini's work is a rare example of a detailed, insightful study of children's after-school time in Australia, but it does have certain limitations. There were little reported data on unsupervised time, which is likely because the children in the study were younger (preschool up to Year 3), and information on activities was partial, as it ignored home-based activities such as TV viewing and general unorganised activities. Similarly, the study did not provide information on children's activities across different after-school care arrangements. Finally, the sample was not representative of the Australian population.

There has been limited research on children's after-school care arrangements and activity patterns using nationally representative data in Australia. This is a problematic gap considering the developmental implications (positive and negative) of children's after-school time highlighted in previous research, and articulated in the recent Australian government policy document on out-of-school-hours care (*My Time, Our Place*; DEEWR, 2011). This chapter seeks to address this gap, and the analysis pivots on the following two broad questions:

- To what extent do Australian children remain unsupervised by an adult (18 years and over) after school, and what factors are associated with their after-school care arrangements?
- What kinds of activities are children engaged in after school, and what factors are associated with their engagement in these activities?

The first question focuses on the different after-school care and supervision arrangements children experience, with a particular focus on instances when children are not supervised by an adult, which has largely been neglected by previous data and research. Data from Parent 1² and child time use diary reports in LSAC are used to address this question and the results of this analysis are contained in section 6.2. The second question considers children's engagement in different activities, using child time use diary reports. The results of this analysis are contained in section 6.3.

The analyses in this chapter are primarily descriptive, focusing mainly on bivariate relationships between key factors and children's after-school care and supervision arrangements, and after-school activities. The key factors (as outlined in Chapter 1) are:

- parent characteristics—parental employment, educational status, main language and age;
- family characteristics—family type, number of older siblings, geographic location and socio-economic position; and
- child characteristics—child age and gender.

For the analysis of children's after-school care and supervision arrangements, we looked at all these factors and found that Parent 1's employment status and the number of older siblings were the most consistently significant factors ($p < .05$) across the full range of measures, when controlling for other variables. Therefore, due to space constraints, we focus on these factors in this chapter. In the analysis of children's activities, we found a wide range of significant associations ($p < .05$), and we present a summary of these.

6.2 Children's after-school care and supervision arrangements

Parents' reports

In Wave 4 of LSAC, parents reported on the after-school care arrangements that they regularly used (at time of interview) for the study child aged 10–11 years. The questionnaire did not specify the exact meaning of "regularly". One could interpret it to mean that they used a particular after-school care arrangement most consistently, most often, or for the most amount of time out of all options. Vandell and Posner (1999) showed that the measurement of after-school care arrangements is sensitive to the different methods for collecting the data and this is important to bear in mind when considering the results.

² The vast majority of Parent 1s were mothers (94%), although a small proportion were fathers (5%) or other adults who were identified as the primary carer of the study child (1%).

Interviewers guided the parents through fourteen separate questions—each relating to a specific type of after-school care arrangement—and respondents could answer “yes” to multiple care arrangements. To keep the analysis here tractable, we collapsed these fourteen possible after-school care arrangements into four groups:

- parental care (including by parents who live elsewhere from Parent 1);
- informal care by other adults (such as grandparents or neighbours);
- formal after-school programs or care; and
- no adult supervision (including care by self and care by other young people aged under 18 years).

Informal care by other adults, formal after-school programs and no adult supervision are also sometimes referred to together as non-parental care.

Regular use of after-school care arrangements

Table 6.1 reports the total percentages of parents who did or did not report the regular use of each of these types of care arrangements.

Table 6.1: After-school care arrangements, by whether regularly used, parent reports, K cohort, Wave 4				
After-school care arrangements	Regularly used (%)	Not regularly used (%)	Totals (%)	No. of observations
Parental care	90.9	9.1	100.0	4,132
Informal care by other adults	16.8	83.2	100.0	4,132
Formal after-school program or care	8.2	91.8	100.0	4,132
No adult supervision	6.1	93.9	100.0	4,132

The vast majority of parents (91%) reported that they, or another parent, regularly cared for their 10–11 year old children after school. The most common alternative to regular parental care after school was regular informal care by other adults such as grandparents or neighbours (17%). Just less than one in ten children (8%) regularly attended after-school programs or care, and 6% of children either regularly looked after themselves or were under the regular care of other children under 18 years (no adult supervision). Therefore, according to these data, the percentage of Australian children 10–11 years with no adult supervision after school was slightly lower than the percentage regularly in after-school programs or care.

Parents could report multiple care arrangements, and therefore these data are optimal for capturing the complexity of after-school care arrangements as reported by parents. Table 6.2 reports on the broad range of different combinations of after-school care arrangements reported by parents.

Table 6.2: Combinations of regularly used after-school care arrangements, parent reports, K cohort, Wave 4		
After-school care arrangements	Regularly used (%)	Category totals (%)
Parental care only	72.0	72.0
Informal care by other adults and parental care	10.0	13.8
Informal care by other adults only	3.7	
Formal after-school programs or care and parental care	4.0	6.0
Formal after-school programs or care	2.0	
No adult supervision and parental care	2.6	5.1
No adult supervision only	2.4	
Two forms of non-parental care and parental care	2.3	3.1
Two forms of non-parental care and no parental care	0.9	
Totals	100.0	100.0
No. of observations	4,132	4,132

The vast majority of parents who reported regular parental care reported that only they and/or another parent regularly cared for their children after school (72%). Most of the 14% of parents using informal care by other adults also reported using parental care (10%). Of the 8% of parents who reported that the child regularly attended formal after-school programs or care (see Table 6.1), half combined this with parental care (4%). Two per cent reported this as the sole form of regular after-school care, and the remaining parents combined this with other forms of non-parental and parental care. Just less than 3% of parents reported that they used parental care as well as periods when an adult did not supervise the child. A further 2% reported that the most regular arrangement for their child was for them to be left unsupervised by an adult. Finally, 2% of parents reported using three different care arrangements, while fewer than 1% reported using only two forms of non-parental care arrangements.

Main factors associated with after-school care arrangements

Maternal employment

Previous research (see section 6.1) has shown that maternal employment is one of the most important factors associated with after-school care arrangements, and bivariate analysis (also controlling for other factors detailed in section 6.1 and Chapter 1) confirms that this is the case for LSAC children. To keep the analysis manageable while retaining some degree of the complexity of after-school care arrangements, we focus on the following:

- parental care only;
- informal care by other adults (with and without instances of parental care);
- formal after-school programs or care (with and without instances of parental care);
- no adult supervision (with and without instances of parental care); and
- multiple care arrangements.³

Table 6.3 compares the percentages of parents using different after-school care arrangements separately for mothers who were not in paid work, or had part-time or full-time employment. Throughout, part-time employment is defined as working 1–34 hours per week, and full-time employment 35 or more hours per week. It is clear that the vast majority of mothers not in paid work (93%) reported regularly using parental care only, with half of the remaining 7% of these parents reporting using parental care combined with other adult care.

After-school care arrangements	Not in paid work (%)	Part-time paid work (%)	Full-time paid work (%)	All parents (%)
Parental care only ***	92.9	71.2	51.6	72.0
Informal care by other adults (with and without parental care) ***	3.5	15.3	21.9	13.8
Formal after-school programs or care (with and without parental care) ***	1.8	6.0	10.4	6.0
No adult supervision (with and without parental care) ***	1.1	4.5	10.2	5.1
Multiple care arrangements ***	0.7	3.0	5.9	3.1
Totals	100.0	100.0	100.0	100.0
No. of observations	1,132	1,912	1,087	4,132

Notes: Percentages may not total exactly 100.0% due to rounding. Statistically significant differences are noted: *** $p < .001$.

The use of all types of non-parental care increases substantially with mothers' increasing engagement in paid work. Mothers in part-time employment reported more regular use of informal care (15%), after-school programs or care (6%) and no adult supervision (5%) than those not in paid work. For mothers in full-time employment the corresponding percentages were 22%, 10%, and 10%. Though small, the percentage of employed mothers (full- and part-time) who reported

³ Only a small group of parents regularly used multiple care arrangements.

multiple care arrangements was triple the percentage for non-employed mothers. These results correspond with previous research showing variation in parental paid employment to be one of the most important factors influencing the regular use of non-parental after-school care.

Number of older siblings

Table 6.4 compares regular after-school care arrangements for children with no older siblings, one older sibling, and two or more older siblings. Having a greater numbers of older siblings is unrelated to the regular use of parental care only, but is related to the use of different types of non-parental care. Around 16% of parents of children with no older siblings reported using informal adult care and 9% reported using formal after-school programs or care. These percentages were lower (11% and 2% respectively) for children with two or more older siblings. In contrast, instances of no adult supervision were more common in families with larger numbers of older siblings. Two per cent of children with no older siblings had no adult supervision, compared to 7% of children with a single older sibling, and 9% of those with at least two older siblings. Analysis looking at the influence of younger siblings (not shown) revealed patterns that were the inverse of those reported in Table 6.4. Broadly, children with two or more younger siblings were more likely to be only cared for by a parent, and less likely to experience periods of no adult supervision.

Table 6.4: Number of children's older siblings and after-school care arrangements, parent reports, K cohort, Wave 4

After-school care arrangements	No older siblings (%)	One older sibling (%)	Two+ older siblings (%)	All children (%)
Parental care only *	69.5	74.0	74.0	72.0
Informal care by other adults (with and without parental care) ***	16.2	12.6	10.5	13.8
Formal after-school programs or care (with and without parental care) ***	9.3	4.2	1.9	6.0
No adult supervision (with and without parental care) ***	1.9	6.7	9.2	5.1
Multiple care arrangements *	3.1	2.5	4.4	3.1
Totals	100.0	100.0	100.0	100.0
No. of observations	1,823	1,501	807	4,132

Notes: Percentages may not total exactly 100.0% due to rounding. Statistically significant differences are noted: *** $p < .001$; ** $p < .01$; * $p < .05$.

Children's time use diary reports

Parent 1 reports provide a useful perspective on regular after-school care arrangements, but they have certain limitations. Firstly, emphasis on the use of regular care arrangements likely masks a fair degree of complexity or irregularity in after-school care arrangements. Secondly, parent reports ignore activity-based care arrangements that do not occur as part of an after-school program, but may be formal nonetheless. Finally, reported instances of unsupervised time after school are low and perhaps underrepresented.

Children's time use diaries provide another source of information from which it is possible to glean more information on after-school supervisory arrangements, as recorded by children on a specified day, as well as information on their activities after school. In these diaries, children record their main activities, the people who are with them, and their location throughout the day before a scheduled LSAC interview.⁴ As we are looking at children's time use patterns after school, we restricted the analysis to children who were at school on the day they filled in the time use diary. The time use diaries allow us to analyse in great detail the children's after-school care arrangements immediately after and for several hours following school on the day they completed their time use diary.

⁴ Respondents could choose the day on which the LSAC interview took place, and therefore could choose on which day children completed the diary.

First, we consider children's care and supervision arrangements immediately after school on the day they filled in their diary. Then we examine their care and supervision over a period of four hours following the end of the school day. Details of the measures are provided in the appropriate subsections.

Care and supervision immediately after school

In considering children's care and supervision arrangements immediately after school, we chose 3:30 pm as the cut-off time for the end of classes, as the "official" school day finishes on or before 3:30 pm for the vast majority of children in Australia. We grouped children depending on whether they were collected after school by their parents or other adults, or were unsupervised by an adult. It is important to note that time spent unsupervised by an adult includes being alone or being with other children 0–17 years. Therefore, children could be under the supervision of a responsible young person. Children unsupervised by an adult who travelled alone after school could be further separated into those who then met their parents (at home or elsewhere), met another adult (at home or elsewhere), remained unsupervised by an adult at home, or remained unsupervised by an adult elsewhere. This is important because it allows us to identify children who travelled home or elsewhere unsupervised by an adult and then remained unsupervised by an adult for some further period of time, as distinct from those who met their parents or other adults immediately following their unsupervised journey. Finally, a group of children remained in school after 3:30 pm for at least one hour after classes ended. We did not want to assume that every child who finished school after 3:30 pm was in a formal after-school program or care arrangement, so we included in this category only those who remained at school for at least one hour after the end of their last class. As we cannot be certain about the specific care arrangements for these children, we simply note that they "remained in school".

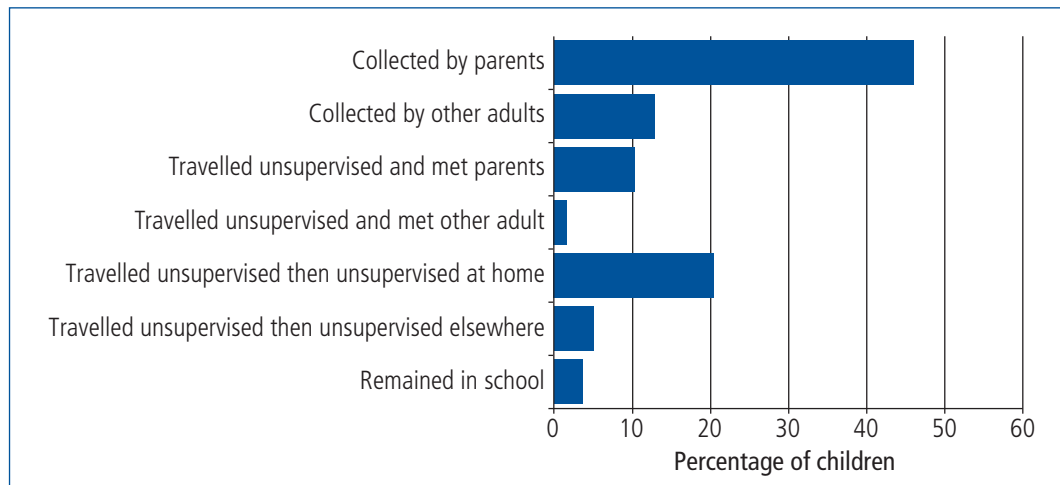
The result is a seven-point indicator of children's immediate after-school supervision arrangements, which gives us insights from the unique perspectives of the children:

- collected from school by parents;
- collected from school by other adults;
- travelled unsupervised by an adult and met parents (at home or elsewhere);
- travelled unsupervised by an adult and met other adults (at home or elsewhere);
- travelled unsupervised by an adult, then unsupervised by an adult at home;
- travelled unsupervised by an adult, then unsupervised by an adult elsewhere; and
- remained in school.

Figure 6.1 (on page 84) shows the percentages of children in each of these groups on the day they filled in their time use diary. Around 46% of children were collected by their parents directly after school and 10% travelled from school unsupervised by an adult and subsequently met their parents. This means that just over half of children reported being supervised by their parents, either directly from school or after travelling unsupervised from school. Other adults collected around 13% of the children immediately after school. A further 2% of children travelled unsupervised and met up with another adult.

A substantial number of children (around one in five) travelled home unsupervised by an adult and did not report being with their parents or any other adults when they got home. A further 5% of children reported that they went somewhere else unsupervised by an adult and remained unsupervised when they arrived there. These percentages are substantially larger than Parent 1 reports of their children having no regular adult supervision after school.⁵ Finally, a relatively small percentage of children (4%) remained in school for at least one hour after classes. This time could have been spent in an after-school program or care, or in an organised activity at their school, such as sport or a dance class.

⁵ It is worth noting at this point that the parents' reports of after-school care arrangements for the restricted sample of children with time use diaries completed on a school day are not significantly different from the parents' reports of after-school care arrangements for the entire sample, reported above.



Note: No. of observations = 1,927. Unsupervised time refers to time not spent with an adult 18+ years.

Figure 6.1: Children's supervision arrangements immediately after school, children's time use diaries, K cohort, Wave 4

Factors associated with care and supervision immediately after school

As above, we performed bivariate analysis of this measure, focusing on Parent 1 employment and the number of older siblings in the household, because these factors were found to be the most consistently significant factors ($p < .05$) in bivariate analysis and when controlling for other factors (see section 6.1 and Chapter 1 for details on the other factors).

Maternal employment

There was a significant association between after-school care arrangements and maternal employment ($p < .001$). Figure 6.2 (on page 85) shows a breakdown of the supervision groups by maternal employment. A lower percentage of children with employed mothers were collected by their parents directly after school (29%) than children with mothers either not in paid work (51%) or in part-time employment (54%). Other adults collected a larger percentage of children with full-time employed mothers directly after school compared with children who had a mother in part-time paid work or not in paid work. Children with full-time employed mothers were also more likely to be unsupervised by an adult after school, either at home or elsewhere.

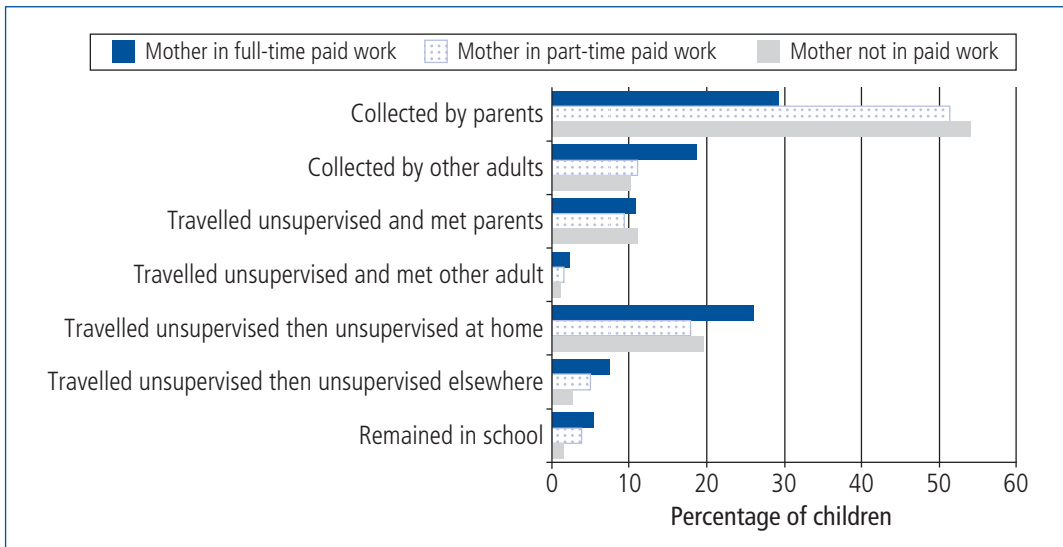
Number of older siblings

There was a significant association between after-school care arrangements and how many older siblings the child had ($p < .001$). Figure 6.3 (on page 85) shows that children with older siblings were less likely to be collected by their parents, and more likely to return home unsupervised by an adult after school, compared with children with no older siblings. Having more than one older sibling had no influence on the percentage of children in any of the other supervisory arrangements immediately after school.

Children's unsupervised time immediately after school

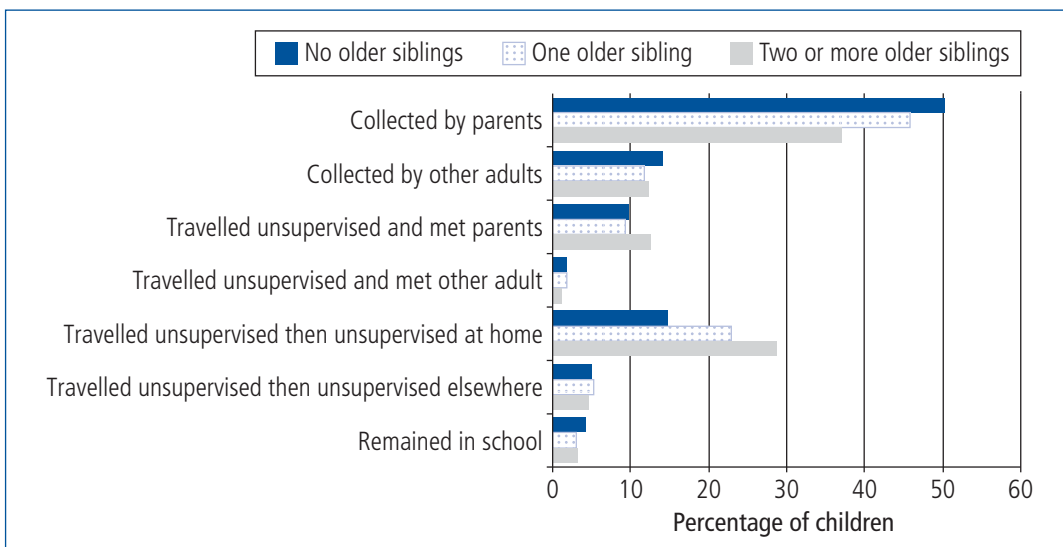
Perhaps the most striking insight gained from children's time use diaries into their supervision arrangements immediately after school on a specified day relates to those who were unsupervised by an adult after school. The incidence of children being unsupervised by an adult was considerably greater in the time use diary data than that reported by parents (see Table 6.1 on page 80). It is important to note though that these findings correspond with previous research showing that time use diary data collected directly from children provide greater estimates of instances of time unsupervised by an adult than estimates derived from reports by parents (Vandell & Posner, 1995). Karrebrock and Lewit (1999) pointed out that parents can be reluctant to state accurately how often children are left with no adult supervision. Therefore, parent reports may understate the full extent of unsupervised time, and the results from time use diary data collected from children suggest that

this may be the case. However, it is important to bear in mind that parents reported on “regular” care arrangements, whereas children’s time use diaries provide information for a single day only.



Note: No. of observations: not in paid work = 498; part-time paid work = 898; full-time paid work = 531. Unsupervised time refers to time not spent with an adult 18+ years.

Figure 6.2: Maternal labour force status and children’s supervision arrangements immediately after school, children’s time use diaries, K cohort, Wave 4



Note: No. of observations: no older siblings = 825; one older sibling = 728; two or more older siblings = 374. Unsupervised time refers to time not spent with an adult 18+ years.

Figure 6.3: Number of children’s older siblings and children’s supervision arrangements immediately after school, children’s time use diaries, K cohort, Wave 4

Supervisory arrangements during the four hours after school

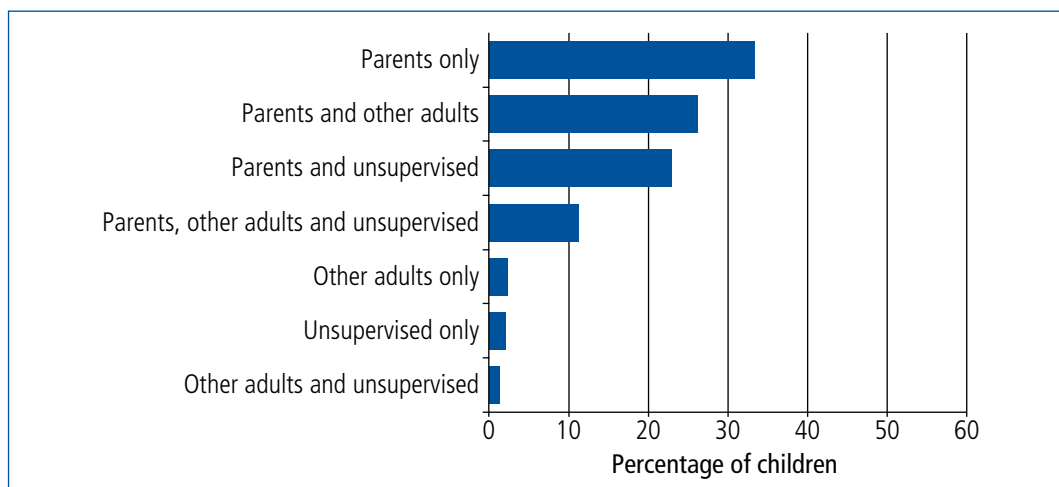
It is important to stress that the description above only covers the period directly after school, and does not provide an overall picture of the supervisory arrangements for children in the hours after school. Of particular interest is the extent to which children collected by parents also spent time with other adults (away from parents), perhaps because of parents taking children to after-school activities and leaving them there. In addition, for children unsupervised by an adult directly after

school, it is important to know more about how much time they spent unsupervised by an adult in total. This section thus moves beyond the time immediately after school to consider children's after-school supervision arrangements in the four hours following school, excluding travel time.

Policy concerns in this arena are more focused on the hours immediately following school rather than later in the evening. Moreover, as the day progresses towards later in the evening (around 7–8 pm), the vast majority of children are in the care of at least one parent, and most are preparing or close to preparing for bed. Therefore, we concentrate on the four hours after school because we wish to cover a period that provides us with the greatest opportunity to consider the full range of activities and supervision arrangements children can experience after school, but we do not wish to include family time later in the evening.

We first examine the complexity of children's primary after-school supervision arrangements, starting with identifying children who reported spending any time with a parent in the four hours after school. It is important to note that children may have also been with other adults and/or other children while being with a parent. During the time when children reported not being with a parent, we identified whether or not they reported spending any time with other adults (including having other children present). The remainder of the time (not with a parent or other adult) was spent alone or only with other children younger than 18 years, and we refer to this as unsupervised time.

Thus, we grouped children according to whom they spent time with—their parents, other adults (while not with their parents), or no parents or other adults (unsupervised), or any combination of these three options—during the four hours after school. Figure 6.4 shows the percentages of children in the seven possible different combinations, in descending order of occurrence.



Note: No. of observations = 1,927. Unsupervised time refers to time not spent with an adult 18+ years.

Figure 6.4: Children's supervision arrangements during the four hours after school, children's time use diaries, K cohort, Wave 4

Around one-third of the children spent time only with their parents in the four hours after school. Recall that these children may have been with other adults simultaneously while with their parents, but we assume that if the parents were present, they would have had primary responsibility for the supervision of the child rather than the other adults. A quarter of the children spent some time with their parents, and while away from their parents, some time with other adults. Just under one-quarter of the children spent some time unsupervised by an adult and some time with their parents (23%), while just over one in ten children (11%) spent some time with their parents, with other adults while not with their parents, and with no adult supervision otherwise. A relatively small percentage of children spent the entire four-hour period after school unsupervised by an adult (2%). These results show that the vast majority of children spent time with their parents after school, and certainly echo parent-based reports that the vast majority of parents provided after-school care for their children.

Bivariate descriptive analyses (results not shown) reveal very similar patterns to those shown in section 6.2 for parent reports of after-school care arrangements and for child time use diary reports of supervision arrangements immediately after school. Children with full-time-employed parents were less likely to be cared for solely by their parents, and were more likely to be using non-parental care in combination with parental care. Again, as above, children with older siblings were more likely to be unsupervised for some time, in combination with parental care and/or care by other adults.

For children not collected by an adult after school, a further interesting issue relates to the amount of time that they reported elapsing between the end of school, when they were unsupervised, and being with either a parent or another adult. Again focusing on the four hours directly after school, Table 6.5 shows the average number of minutes that these children were unsupervised until they reported being with a parent or other adult.

Table 6.5: Average time unsupervised during the four hours after school, children not collected immediately after school, children's time use diaries, K cohort, Wave 4

Care arrangement immediately after school	Average time unsupervised (min.)	No. of observations
Travelled unsupervised, then met parents at home or elsewhere	25	196
Travelled unsupervised, then met other adult elsewhere	41	32
Travelled unsupervised and unsupervised by an adult at home, then met parents/other adult	134	397
Travelled unsupervised and unsupervised elsewhere, then met parents/other adult	123	97
Remained in school	11	70

Notes: Unsupervised time refers to time not spent with an adult 18+ years.

The average unsupervised journey time for children who then met their parents was 25 minutes. This was greater for those children who travelled unsupervised by an adult to meet with another adult outside the family home (perhaps for additional tuition or some other organised activity). The children who remained unsupervised after travelling either home or elsewhere without adult supervision spent the longest time before they reported being with a parent or other adult. For both groups of children, an average of just over 2 hours elapsed before they recorded being with a parent or other adults from the moment they left school. Finally, children who remained in school (perhaps for an after-school program, organised activity, or care) spent a small amount of time (11 minutes on average) not under adult supervision.

In addition to the variety of supervision arrangements observed immediately after children finished school, results here show that there is considerable diversity in the use of different combinations of supervision arrangements across the four-hour period after school. In relation to unsupervised time, these results also show that there is a group of children whose unsupervised time is relatively limited and primarily spent travelling. However, other groups of children spent a substantial amount of time unsupervised by an adult, either at home or elsewhere. The extent to which their location has an effect upon the quality of this time depends to some extent on the nature of their activities. As noted above, research suggests that excessive engagement in unorganised activities not supervised by adults while outside the home may be more detrimental to children's development than time spent unsupervised by an adult within the home. We turn in the final section to examine children's activities in the four hours immediately after school.

6.3 Children's after-school activities

In this section, we consider six different activities in which children were engaged during the four hours after school, as reported in their time use diaries. As noted in section 6.1, children's engagement in different activities after school, such as organised sport, may be linked with positive outcomes. Time use diaries have been shown to provide reliable estimates of children's engagement in various activities over the course of a sampled day (Hofferth et al., 1997). We were able to use children's time use diaries to learn more about different after-school care arrangements and

supervision arrangements, and combine this information with data on their engagement in various activities to provide a more comprehensive picture of children's after-school time.

The activities we focused on were:

- playing organised sports (including individual and team sports);
- taking part in organised non-sport activities (tuition, clubs, etc.);
- doing homework and reading;
- engaging in unorganised active games/play (e.g., ball games, riding a bike, scooter or skateboard);
- watching TV; and
- playing computer games.

Taken together, these six activities consumed, on average, two-thirds of the four-hour period after school, with the remaining third dominated by eating and travel. As this is a partial view of the total time children spent in these activities on any given day, rather than looking at the number of minutes children spent in these activities after school, we consider the percentages of children participating in each of these activities. We compare engagement in each activity separately for children with different supervisory arrangements immediately following school and for all children together.

Table 6.6 reports the percentages of children who engaged in these activities. Note that children could participate in more than one of the six activities and therefore the row percentages do not sum to 100%.

Type of activity	With parents	With other adults	Unsupervised at home	Unsupervised elsewhere	Remained in school	Total
Playing organised sports ***	23.3	26.4	18.2	18.3	42.2	23.1
Taking part in organised non-sport activities ***	8.3	7.2	4.2	6.2	23.8	7.8
Doing homework and reading	42.8	41.7	38.9	32.3	36.6	41.1
Engaging in unorganised active games/play *	33.0	33.5	35.5	48.7	44.6	34.8
Watching TV ***	57.0	63.3	60.7	47.6	34.4	58.6
Playing computer games	29.6	24.5	30.9	30.4	21.8	28.9
No. of observations	1,083	280	397	97	70	1,927

Note: Unsupervised time refers to time not spent with an adult 18+ years. Children could participate in more than one activity, therefore row percentages do not sum to 100%. The residual percentage of non-participants for each activity is omitted. Statistically significant differences are noted: * $p < .05$; *** $p < .001$.

Bivariate analyses were conducted for each activity separately to test for differences in participation across groups of children with different supervision arrangements immediately after school. Significant results were further tested, controlling for other factors (outlined in Chapter 1 and in section 6.1), though we report the bivariate tests only when considering associations with children's after-school arrangements. We then discuss the results for other factors.

Overall, just fewer than one-quarter of all children participated in organised sport in the four-hour period after school. Participation in organised sport was greatest for children who remained in school (42%) and lowest for children who were unsupervised directly after school, whether at home or elsewhere (18%).

Overall, 8% of children engaged in some type of organised non-sport activities, such as creative activities, additional tuition, scouts, or other club-based activities. Around one-quarter of children who remained in school took part in organised non-sport activities, and this was higher than the participation rates for children in all other groups, the lowest being for children who were unsupervised by an adult at home (4%). Doing homework and reading was relatively similar across groups, with around 40% of all children engaging in these activities in the four-hour period directly

after school. It was lower, however, for children who were unsupervised by an adult outside the home (32%).

On average, 35% of children reported engaging in unorganised active games/play, and we did not observe a highly significant association between children's after-school care arrangements and unorganised active games/play ($p > .05$). This percentage was highest for children who were unsupervised by an adult somewhere other than at home (49%) and for children who were in school (45%), but the numbers of children in these groups were small, which likely explains the lack of statistical significance overall.

TV viewing was the most common activity in which children were engaged after school, with 59% of all children reporting spending some time in front of the TV. The figure was highest for children who were supervised by other adults (63%) and those who were unsupervised at home (61%). A lower percentage of children who remained in school reported watching TV in the four-hour period after school compared with children in other groups, especially those who went home after school with either their parents or other adults. In addition, fewer children who were unsupervised and did not go home immediately after school engaged in TV viewing (49%). Finally, 29% of all children played computer games after school, and this was not significantly different across the supervision groups, ranging from 22% for children who remained in school to around 30% for children unsupervised by an adult at home and elsewhere and children supervised by parents.

As noted above, we further tested bivariate associations by controlling for other variables (as outlined in Chapter 1 and section 6.1) in logistic regression analysis. We found several significant ($p < .05$) associations between certain control variables and children's engagement in each of the six activities we considered in this chapter. The key findings were:

- **Child gender**—Girls were less likely to participate in unorganised active games/play and play computer games, but more likely to engage in organised non-sport activities, and homework and reading. There was no significant difference between girls and boys in participation in organised sport after school.
- **Family socio-economic position**—Children from families in the lowest quartile of socio-economic position were significantly less likely to engage in organised sport and significantly more likely to engage in unorganised active games/play, watch TV, and play computer games.
- **Parent 1's language is other than English**—Children with a Parent 1 who mostly spoke a language other than English at home were significantly less likely to engage in organised sport and unorganised active games/play. However, they were significantly more likely to engage in organised non-sport activities (e.g., music tuition), and homework and reading.
- **Parent 1's age**—Children with older parents were less likely to take part in unorganised active games/play, and more likely to engage in organised non-sport activities, watch TV and play computer games.
- **Locality**—Children living in regional areas were less likely to play computer games than those in metropolitan areas.

6.4 Summary and discussion

Issues around the care arrangements and types of activities in which children engage after school are gaining increasing prominence in the policy arena. However, there is little research in Australia using national data that brings together information about care arrangements and activity patterns. This chapter has considered children's after-school care arrangements and activity patterns using information collected from parents and their children aged 10–11 years in Wave 4 of LSAC.

The first research question addressed in this chapter concerned the use of different after-school care arrangements, including unsupervised time. Parents' reports on the regular use of after-school arrangements showed that parents cared for the vast majority of children after school. It follows that the percentages of families regularly using other types of care arrangements was relatively low. Around 17% of parents reported regularly using informal care by other adults. Fewer parents reported regularly using formal care (around 8%) and no adult supervision (around 6%). Parents likely interpret "regular" to mean arrangements that, in some way, dominate.

Data from children's time use diaries provide more insights into their after-school supervision arrangements, especially with regard to time spent unsupervised by an adult. During the four hours

following school, the majority of children (94%) spent some time with their parents, corroborating to some extent the parents' reports in this regard. Forty per cent of children reported spending some time with other adults (and not with parents), which encompasses formal and informal care arrangements. This tallies more closely with other national data (ABS, 2008) than the parents' reports do. What is different here is that children could record relatively small amounts of time with other adults in their time use diaries, which a parent may (reasonably) not regard as constituting a regular care arrangement.

However, it is in the area of time spent unsupervised by an adult that the child reports provide key insights not available elsewhere. About one in ten children travelled from school unsupervised by an adult and then met their parents. One in five children travelled from school unsupervised by an adult and spent some time at home unsupervised by an adult, while about 5% of children travelled from school unsupervised by an adult and spent some time elsewhere not supervised by an adult. These proportions are clearly greater than the parents' reports of their children's regular unsupervised time, which reflects previous research with similar types of data (Vandell & Posner, 1995). Note, however, that parents reported on regular care arrangements, whereas children provided reports for a single day.

It is important to bear in mind that previous research (see section 6.1) has consistently shown that unsupervised time occurs in a variety of settings, with differential implications for children. Under the right circumstances, making the journey from school unsupervised by an adult (either alone or with other children) may constitute an important dimension of a child's ongoing development, building their confidence and fostering independence and responsibility. Research also shows that parents who leave children unsupervised by an adult for a limited period of time, do so because they judge that the children are mature enough, and often they maintain telephone contact (Cain & Hofferth, 1989). There may be some problems with the relatively small group of children who remain unsupervised outside the home after school if their parents are unaware of their whereabouts, associates and activities (Osgood et al., 2005). Future analysis should explore this and other aspects of children's unsupervised time after school.

The parents' and children's reports represent different approaches to collecting information about children's after-school care arrangements. However, there are many similarities in the factors associated with different arrangements, regardless of how the information is collected. A higher percentage of study children aged 10–11 years with full-time employed parents were in non-parental care (parents' reports), and a lower percentage, on a specified day, were collected by their parents directly after school (children's reports). Full-time employed parents were also more likely to rely on the children having no adult supervision (parents' and children's reports). Both parents' and children's reports showed that children with more older siblings were more likely to be unsupervised by an adult. This latter finding raises questions about the quality of after-school care arrangements and outcomes for children in larger families, which further research should examine.

The second key research question related to children's activity patterns after school, with a particular focus on select activities that have been shown in previous research to be related to child outcomes in both positive and negative ways. Around one-quarter of children engaged in some form of organised sport, and a further 8% engaged in organised non-sport activities such as scouts, dance, or other classes. This is considerably lower than the percentage reported by Simoncini (2010) over the period of a week. It is important to bear in mind, though, that the data in this chapter cover a single day, and it is likely that many children who did not report engaging in these activities on the day they filled in their time use diary do indeed typically engage in them on other days. One-third of the children engaged in homework or reading after school.

In addition to these activities, the chapter reported on children engaging in unorganised active games/play, watching TV and playing computer games. TV viewing was the most common after-school activity among children (59%), followed by unorganised active games/play (35%) and then computer games (29%).

Children's engagement in these activities varied greatly across different supervision arrangements immediately after school. A higher percentage of children who remained in school or who were supervised somewhere other than home after school engaged in organised sport and other organised activities. Although it was a small group of children, and findings were not statistically significant, a higher percentage of children who were unsupervised by an adult outside the home engaged in unorganised games/play compared to other children, including those unsupervised by

an adult at home. This is something highlighted in the literature as being potentially problematic (see section 6.1) and should be considered more extensively in further research. Children collected from school by other adults and then supervised by them had the highest rates of TV viewing, followed by children who travelled unsupervised by an adult and then met their parents. Children who did not travel home immediately after school reported the lowest rates of TV viewing.

Interestingly, the activity profiles of children collected by their parents from school were relatively similar to those for children who travelled home after school unsupervised by an adult and remained unsupervised by an adult at home for a time. The latter were slightly less likely to engage in organised sport or non-sport activities, but their engagement in the other activities was very similar to children in other groups.

Results also highlighted associations between children's activities and key child and family factors. There was no difference between boys' and girls' engagement in organised sport after school (Chapter 9 considers organised sport more specifically). However, children in lower socio-economic status families were less likely to engage in organised sport and more likely to engage in unorganised active games/play, watch TV and play computer games. Cultural factors were important, with children of non-English speaking parents engaging less in sport and other physical activities (organised and unorganised) and more in organised non-sport activities, and homework and reading.

Overall, this chapter has provided key insights into children's after-school time, using the most recent data available from LSAC. While different types of reports yield different measures of the use of care arrangements, all of this information is useful. Considering the varied nature of after-school time in a child's life, it seems appropriate to collect data from as many sources as possible, and this chapter has shown the benefits of doing so. Especially important, however, are data from children themselves, and this will gain increasing importance as children progress into adolescence. Future work on the influence on child outcomes of spending time unsupervised by an adult in different settings is warranted. As well, we must consider whether engagement in developmentally positive activities like organised sports can be increased and spread more evenly across all groups of children, regardless of social background.

Future work should also consider a longitudinal treatment of this topic, which would allow examination of the trajectory of care arrangements and activity patterns as children progress through primary school and, in the future, move into high school. As well, there is much scope for developing our understanding of the relationship between after-school time and child outcomes, and future work should take up this question.

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