



The First Five Years: What makes a difference?

3.1 Associations between early childhood education and care attendance and child development

Key findings

We analysed the associations between early childhood education and care attendance and developmental vulnerability, including the influence of other characteristics.

- For children from Aboriginal and Torres Strait Islander families, language other than English and single parent households, attending formal child care resulted in higher rates of being developmentally on track on all 5 domains.
- Children who attended formal child care exhibited lower rates of overall developmental vulnerability (that is, they had lower rates of being developmentally vulnerable on at least one developmental domain), though some developmental domains showed a different pattern.
- Rates of formal child care attendance decreased with distance from metropolitan areas.
- Rates of formal child care attendance increased for higher levels of parental education.
- Children who attended preschool had much lower rates of developmental vulnerability.

Child care attendance

Data and definitions

Child care is part of Australia's Early Childhood Education and Care sector. For the purpose of this report, Child Care Management System (CCMS) data was used to identify whether a child had attended child care and their enrolled hours. Government-funded preschool attendance is not captured in the CCMS data.

A child is considered to have attended formal child care if they had a record in the CCMS prior to 2018 (their first year of school), meaning they were registered for subsidised child care and were charged for a session. As such, the results consider child care attendance at any age, not just in the year before school.

There are limitations with this definition: preschool attendance in fully state government-funded preschools is not captured; children with any attendance, even at a very low level, are captured; and families who attended a non-Child Care Benefit approved service, such as the former Budget Based Funded services, are not included (noting these groups are likely to be very small).

Charged hours are used as a proxy for attended hours in the analysis as there is no information about the actual hours of care attended by a child. Data custodians have suggested that, on average, charged hours represent approximately 70 per cent of attended hours. Therefore, it is likely that we will have overestimated attendance hours using this method.

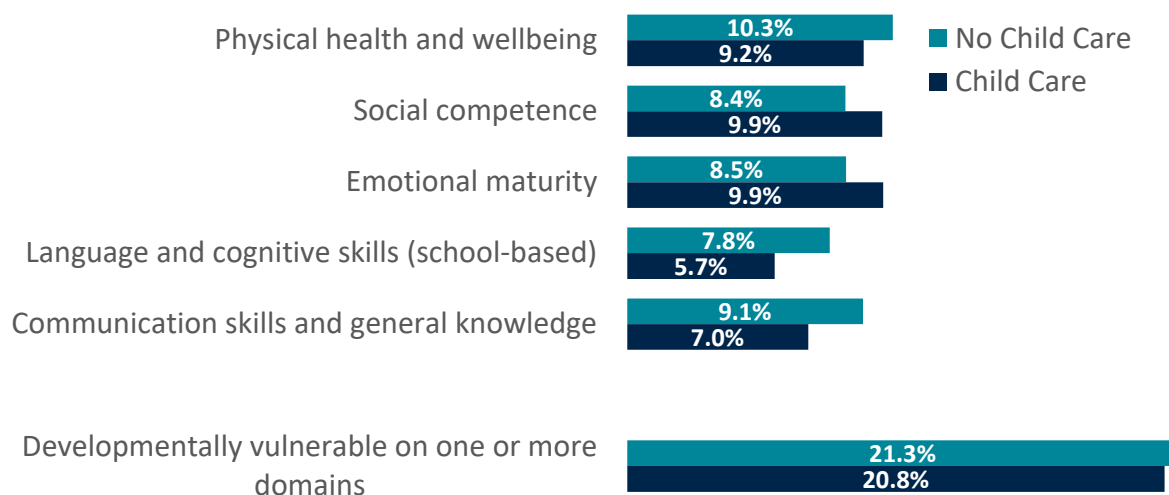
Association with developmental vulnerabilities

Attending child care or preschool has a range of impacts on child development. The Effective Provision of Pre-School Education study found that a longer preschool (as defined in the United Kingdom) experience was associated with greater gains in cognitive ability (Sylva et al. 2004). Changing carers, be it through attending child care or a change in primary carer, can have short term effects on behaviour and distress, but these changes return to normal within weeks (Cryer et al. 2005). Some studies have found that the longer a child spends in child care, the more likely children are to fall ill or display behavioural issues (NICHD Early Child Care Research Network 2005; Belsky et al. 2007). However, Rey-Guerra et al. (2023) used a more robust within-child design – exploiting variations in the hours used by the same child, rather than comparing different children who attended for different amounts of hours – and found that increases in centre-based care hours were not associated with changes in child behaviour across five countries. Studies have also observed that learning outcomes of children (and in particular boys) who attended any child care before the age of three are better than those of children who attended no child care at all (Kalb et al. 2014).

Figure 1 shows the rates of developmental vulnerability on one or more domains (DV1), as well as rates of developmental vulnerability on each of the five domains by formal child care attendance. Children who attended child care had an overall lower rate of vulnerability than children who did not. Looking at the individual domains, children who attended formal child care had lower rates of vulnerability in the physical health and wellbeing, language and cognitive skills (school-based), and communication skills and general knowledge domains. However, they exhibited higher rates of developmental vulnerability in the social competence and emotional maturity domains. The following fact sheets explore this further by considering the quality of child care and the amount of hours used.



Figure 1. Proportion (%) of children who are developmentally vulnerable, by domain, by formal child care attendance, 2018 AEDC cohort.



Source: Customised 'First Five Years' extract from the Multi-Agency Data Integration Project.

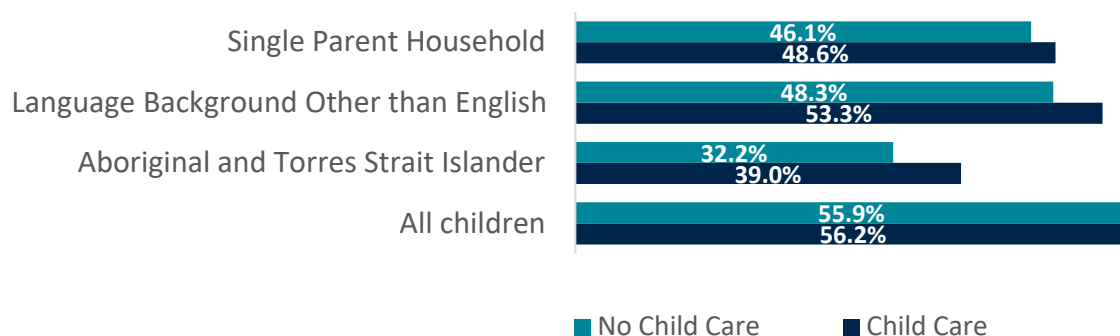
Notes: This figure compares children from the 2018 cohort of the Australian Early Development Census. DV1: Developmentally vulnerable on one or more domains. N = 272,626. Child care attendance is identified through the child having one or more records in the CCMS prior to 2018. Children in both the No Child Care or the Child Care groups may have separately attended preschool.

Association with being developmentally on track for selected equity groups

In Figure 2, the proportion of children who are developmentally on track on all 5 domains is shown for all children split by equity groups, and by their formal child care attendance. For the whole AEDC cohort, children who attended formal child care had a higher rate of being developmentally on track on all 5 domains, consistent with the lower DV1 rate for the child care attendance group shown in Figure 1.

Though the rate of being developmentally on track on all domains is lower for the equity groups compared to the rate for all children, attending formal child care is associated with higher rates of being developmentally on track on all domains for Aboriginal and Torres Strait Islander children, children from a single parent household and those with a language background other than English, consistent with other studies (AIHW 2015). For Aboriginal and Torres Strait Islander children who attended child care, there is a 14 percentage point increase in the rate of being developmentally on track on all 5 domains, while the increase is around 5 and 2.5 percentage points for children from other language backgrounds and single parent households respectively.

Figure 2. Proportion (%) of children who are developmentally on track on all 5 domains, by equity group, by formal child care attendance, 2018 AEDC cohort.



Source: Customised 'First Five Years' extract from the Multi-Agency Data Integration Project.

Notes: This figure compares children from the 2018 cohort of the Australian Early Development Census. Child care attendance is identified through the child having one or more records in the CCMS quarterly enrolment data prior to 2018. Children in both the No Child Care or the Child Care groups may have separately attended preschool. On track on all 5 domains measured differently to currently used AEDC methods (see Methodology).

Child care attendance drivers

To add context to our findings we investigated the relationships between parental and child-centric factors and the rates of formal child care attendance. The analysis is descriptive and is therefore limited in its ability to indicate any causal links between these factors and child care attendance.

Child care attendance rates also differ by remoteness of the areas. Figure 3 shows that children living in metropolitan areas had the highest child care attendance rates, at 76 per cent. Children from very remote areas had the lowest rate at 48 per cent. This may be partly caused by limited availability of child care services in remote and very remote communities.

Figure 3. Proportion (%) of children who attend formal child care by remoteness, 2018 AEDC cohort.



Source: Customised 'First Five Years' extract from the Multi-Agency Data Integration Project.

Notes: This figure compares children from the 2018 cohort of the Australian Early Development Census. N = 271,400. Only children with known remoteness status shown. Child care attendance is identified through the child having records in the CCMS prior to 2018. Remoteness identified through child's most remote address (see Methodology section).

Figure 4 shows the rate of formal child care attendance versus the highest educational attainment of the most educated parent or carer. Children with more educated parents were more likely to attend child care. This is consistent with parents with higher educational attainment having higher rates of employment and higher earning potential, both factors leading to higher demand for formal child care.

Figure 4. Proportion (%) of children who attend formal child care, by highest educational attainment of most educated parent, 2018 AEDC cohort.



Source: Customised 'First Five Years' extract from the Multi-Agency Data Integration Project.

Notes: This figure compares children from the 2018 cohort of the Australian Early Development Census. N = 260,233. Only children with known parental highest educational attainment are shown. Child care attendance is identified through the child having records in the CCMS prior to 2018. Parent or carer education is identified using the AEDC (see *Methodology* section).

Figure 5 compares the rates of attendance for children in single parent households with children who are in dual parent households. There was only a small difference in child care attendance rates.

Figure 5. Proportion (%) of children who attend formal child care, by household status, 2018 AEDC cohort.



Source: Customised 'First Five Years' extract from the Multi-Agency Data Integration Project.

Notes: This figure compares children from the 2018 cohort of the Australian Early Development Census. N = 267,580. Only children with known single-parent household status shown. Child care attendance is identified through the child having records in the CCMS prior to 2018. Single-parent household status identified through child and parent(s) shared address data (see *Methodology* section).

Preschool

Preschool services deliver a structured play-based learning preschool program. According to formal requirements under the former Universal Access National Partnership, services were to be delivered

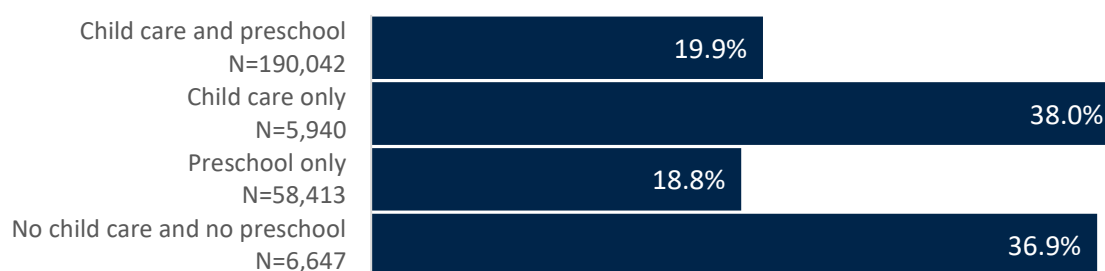
by a qualified teacher (in practice, having ‘access to’ an early childhood teacher was accepted for services to meet the National Quality Standards). Preschool programs are aimed only at children in the year or two before they start full time school. Preschool starting ages differ by state or territory (Productivity Commission 2023). Children can attend dedicated preschool services attached to a school or standalone services, or through a preschool program at a child care centre.

Preschool attendance was identified either through the preschool attendance flag in the AEDC, or if a child had attended 600 hours of Long Day Care (LDC) child care based on the CCMS in their year before school. Attendance for 600 hours at LDC in the year before school corresponds to the Universal Access National Partnership aim from both federal and state and territory governments to guarantee 600 hours of preschool or high-quality child care to all children (DESE 2021). Measuring child care attendance using CCMS data does not allow us to distinguish between preschool programs in a child care centre and child care without a preschool program. We are also unable to capture attendance at fully state government-funded preschools using administrative data, although this should be captured in preschool attendance as reported in the AEDC.

We observed that children who attended preschool had far lower rates of developmental vulnerability on one or more domains compared to those who did not (Figure 6). Most children attended both child care and preschool, with a rate of developmental vulnerability of 19.9%. The preschool only group (identified as attended preschool from the AEDC but not in the CCMS data) has a similar rate of developmental vulnerability of 18.8%.

For the group who did not attend preschool (no matter whether they had attended formal child care) there is a significant risk of developmental vulnerability of close to one in three, compared to 1 in five for those who attended preschool. Around 4.8 per cent of the population do not attend preschool, with the apparent high rate of developmental vulnerability in this group potentially reflecting other disadvantages in life. Finding out why this small group of children do not attend preschool and helping them access preschool could reduce their rates of developmental vulnerability.

Figure 6. Proportion (%) of children who are developmentally vulnerable on one or more domains, by preschool and formal child care attendance, 2018 AEDC cohort.



Source: Customised ‘First Five Years’ extract from the Multi-Agency Data Integration Project.

Notes: This figure compares children from the 2018 cohort of the Australian Early Development Census. N = 261,042. Only children with known preschool attendance status shown. Preschool attendance was identified through AEDC data or 600 hours of Long-Day Care attendance as per CCMS in year before school (see *Methodology* section).

References

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