



AUSTRALIAN INVESTMENT IN EDUCATION: EARLY CHILDHOOD EDUCATION AND CARE

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Key points

- Government expenditure on early childhood education and care (ECEC) has grown substantially since 2008, and in 2018 was approximately \$9.2 billion. This is an increase in real terms since 2008 of almost 140%.
- The overall increase in government expenditure is due in part to an increase in participation across the ECEC sector. It may also be related to investments to lift the quality of ECEC services, to improve children's learning and development.
- In 2018, government investment in ECEC fell for the first time in at least a decade.
- The vast majority of government expenditure, 83.5% in 2018, is in the form of child care subsidies, with preschool delivery accounting for the remaining proportion of expenditure.
- Although private expenditure on ECEC is not systematically captured, estimates based on available data indicate that Australian families and carers are spending between \$3.8 billion and \$6.8 billion on ECEC per year. This private investment constitutes a significant proportion of Australia's total investment in ECEC.
- While per child expenditure on ECEC is difficult to calculate, estimates indicate that it remains below the base level of per-student expenditure in primary schools; despite the higher ratios of educators to children required to deliver quality ECEC services.
- Only expenditure on preschool services is officially counted as education and training by the Australian Bureau of Statistics. Although all ECEC services are required to support early learning, child care subsidies are not recognised as expenditure on education.
- Promising areas of policy reform include:
 1. Improving the transparency and certainty of government funding for ECEC, including achieving stability in preschool funding; and reporting on real changes in ECEC investment by controlling for variables related to participation.
 2. Investing in quality in all types of ECEC services to maximise the return on government investment in the sector. Classifying child care services as 'education and training' may clarify the investment logic for early learning.
 3. Improving the transparency of private investment in ECEC, including better data collection and reporting, and simplifying funding arrangements for families.

Policy context for investment in ECEC

The ECEC sector comprises all services that provide education and care to young children, including preschool (for children in the year before school, also extended to three-year-olds in some jurisdictions); long day care (full-day programs for children aged from birth to school age); family day care (full-day programs in educators' homes); and outside school hours care (before-school, after-school and vacation care). The ECEC sector includes government, private for-profit and not-for-profit services.

The evidence base on the importance of early childhood, and the significant return on investment in early childhood, has developed substantially over the past two decades, leading to significant policy reform during this period. In 2009, Australian governments introduced a national approach to improve access to and participation in affordable, quality preschool in the year before school, funded primarily by the Commonwealth and state/territory governments, with contributions from families. A National Quality Framework for all ECEC services was introduced at around the same time, comprising an agreed learning framework and regulatory mechanisms, to enhance quality in all parts of the ECEC sector.

In line with emerging evidence and policy reform, the overlap and integration of education and care has become a defining characteristic of the contemporary ECEC sector. Child care originated as a response to parental labour force participation, while preschool has historically had a more explicit educational focus. This distinction has become less relevant under recent reforms, as all ECEC services are now required to meet the same standards, under an agreed national approach. While this evolution is increasingly reflected in policy and practice, funding mechanisms remain largely siloed in line with historic classifications.

The distinctions are visible in the different roles of levels of government, as well as the mechanisms by which funding is provided. While preschool education over this period has involved all levels of government in funding and delivery (including local government), subsidies for other types of ECEC have largely been the purview of the Australian Government. The major reform in this space has been to streamline two separate subsidies (the Child Care Rebate and Child Care Benefit) into a single, means-tested and activity-tested payment, the Child Care Subsidy, which began in 2018.

This ongoing complexity in funding models means that many ECEC services must manage multiple streams of funding, especially long day care services that deliver an integrated preschool program. It also complicates the lines of responsibility for meeting the costs of providing high-quality ECEC to all children, to reap the returns it can deliver. With ongoing upward pressure on costs and the unresolved issue of low remuneration for educators in the ECEC sector, ECEC funding policy in Australia is yet to arrive at a sustainable model.

Major shifts in policy and service provision, combined with historic funding legacies, make it difficult to generate accurate expenditure figures for ECEC, so there are many limitations and assumptions in the data presented in this report. It is, however, possible to calculate broad estimates and trends to demonstrate the sector's growth, and how these costs are being met.

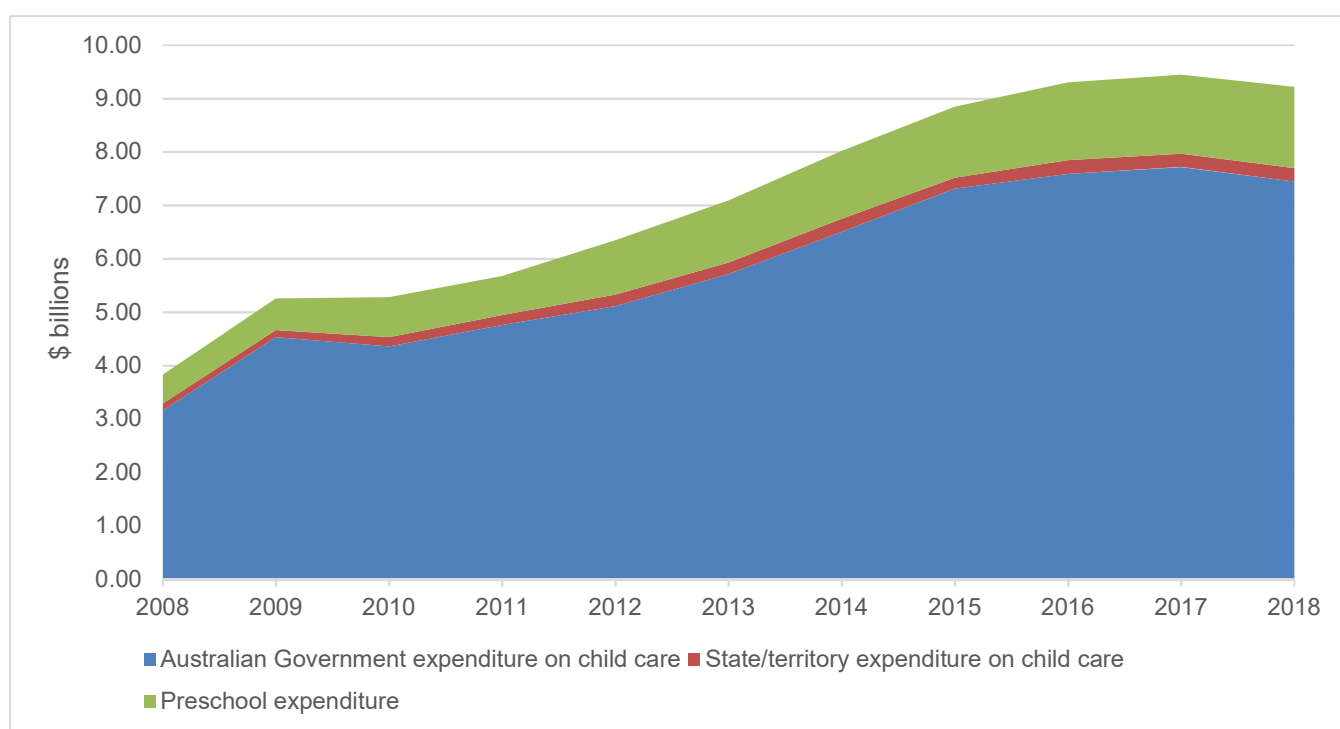
How much does Australia invest in ECEC?

Government investment in ECEC has grown rapidly since 2008, but in 2018 fell for the first time in at least a decade.

Figure 1 shows Australia's total investment in ECEC, using best available data. Calculating Australia's reported investment in ECEC relies on two sets of data. The first is government expenditure on pre-primary education, collected by the Australian Bureau of Statistics. The second is expenditure on child care as listed in the Productivity Commission's Report on Government Services (RoGS) (Productivity Commission, 2019). Figure 1 shows total ECEC government expenditure since 2008 using these sources.

There are major limitations with this data, in that it only captures government investment in ECEC. Compared to other parts of the education system, ECEC is much more fragmented and has a greater diversity of providers, making analysis of total expenditure data extremely complex. Also, private expenditure in ECEC in Australia is not systematically captured which means out-of-pocket costs are not included in reported figures.

Figure 1: Total reported annual government investment in ECEC (2018 dollars)



	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Australian Government expenditure on child care (\$000,000)	\$3,160	\$4,535	\$4,361	\$4,762	\$5,113	\$5,715	\$6,505	\$7,313	\$7,592	\$7,720	\$7,445
State/territory expenditure on child care (\$000,000)	\$131	\$130	\$171	\$183	\$214	\$214	\$247	\$207	\$257	\$247	\$253
Preschool expenditure (\$000,000)	\$539	\$590	\$746	\$734	\$1,019	\$1,163	\$1,270	\$1,332	\$1,456	\$1,480	\$1,520
Total (\$000,000)	\$3,830	\$5,255	\$5,279	\$5,678	\$6,347	\$7,092	\$8,022	\$8,851	\$9,305	\$9,448	\$9,218

Source: ABS (unpublished), Productivity Commission (2013, 2015, 2019)

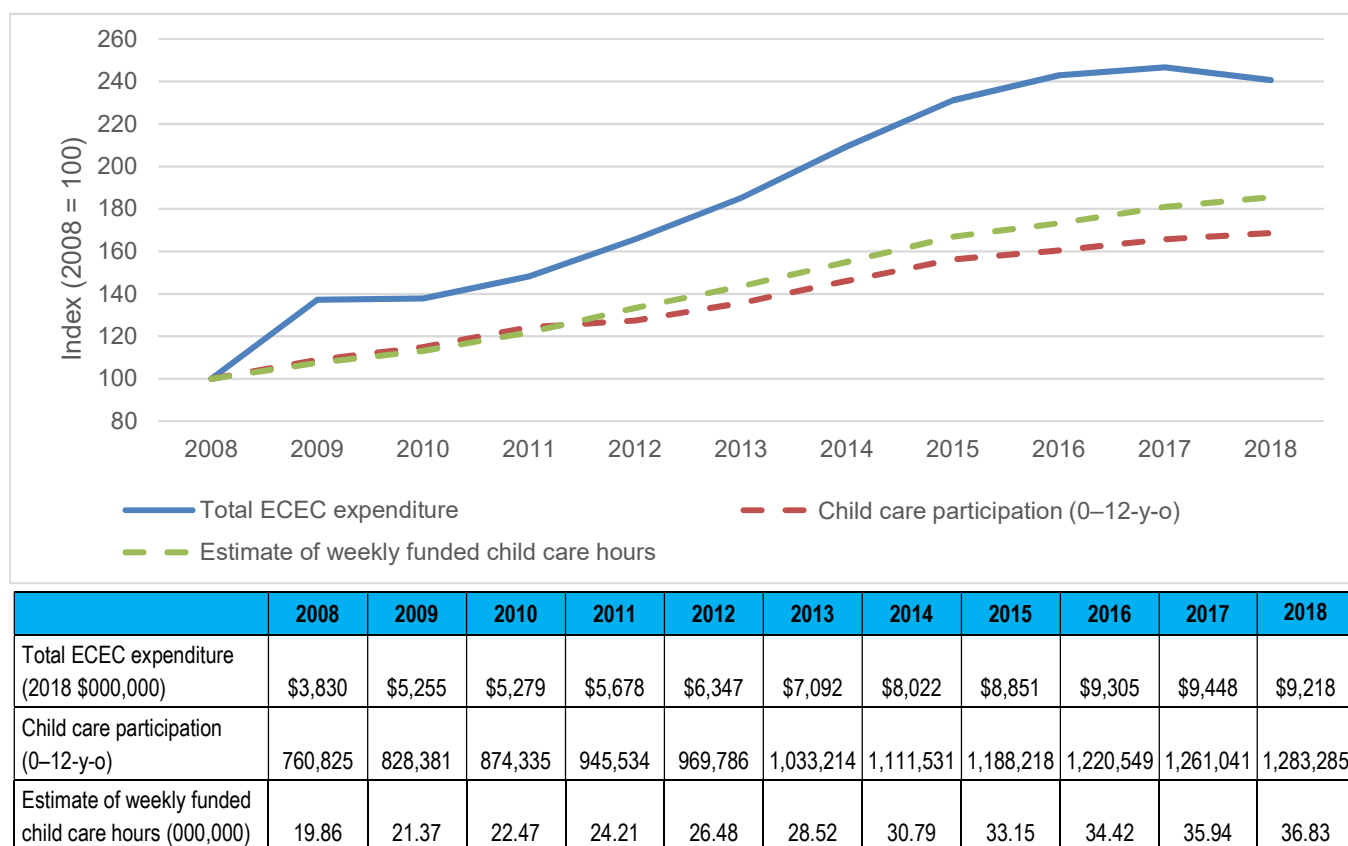
These figures show that total government investment in ECEC has been rising steadily since 2008 and peaked in 2017. However, in 2018, expenditure in ECEC fell slightly. The Child Care Subsidy redistributed government support with a greater emphasis on supporting low and middle-income families. Research has shown mixed effects of the subsidy, with many lower income families reporting a decline in child care costs, but a greater proportion of families reporting an increase (Baxter et al., 2019). While it is still too early to fully understand the impact of the new Child Care Subsidy on child care investment, there are signs that as child care costs rise, total government investment in the ECEC sector will also begin to increase again (Ireland, 2019). The Australian Government projects year-on-year increases in expenditure on the Child Care Subsidy and the Child Care Safety Net, reaching nearly \$10 billion in 2021/22, representing an increase of 24% between 2018 and 2022 (Commonwealth DET, 2019c).

These figures also show that in terms of size, the Australian Government dominates total investment, accounting for 82% of recorded ECEC expenditure in 2018. This expenditure occurs mainly through various subsidies for child care services (all types of ECEC except preschool).

The total increase since 2008 is due to a range of factors, including an increase in participation. Figure 2 compares the percentage change in funding since 2008 (base year) to percentage changes in two key indicators of participation. The first indicator is the number of children aged 0 to 12 years participating in child care. This measures total participation regardless of the average hours per week a child attends child care.

The second indicator is an estimate of total weekly hours of attendance at child care compared to 2008. This is calculated by multiplying the average hours of attendance for long day care (the most common type of ECEC service) by the number of children using child care services. This indicator is better suited to exploring whether more children are attending child care and whether they are attending child care more often.

Figure 2: Percentage change in ECEC investment and key participation indicators since 2008



Source: Productivity Commission (2013, 2016, 2019).

Figure 2 shows that not only are more children attending child care, they are also attending more often.

Figure 2 also shows that while participation in ECEC has increased rapidly, it does not account for the total increase in overall government investment. According to these indicators, participation since 2008 has increased between approximately 68% and 86%, while total government expenditure in ECEC has increased by 140%.

There are a variety of reasons why the growth of government investment in ECEC has increased at a higher rate than the growth in participation. Some of this difference may be attributable to increased investment in quality improvements associated with the introduction of the National Quality Framework for ECEC services, to lift the quality of ECEC services and improve outcomes for children. Other reports have found that while child care costs have increased above inflation over the past decade, 'the fact that the cost of a domestically produced service such as child care has increased more rapidly than the CPI is not unusual' (Baxter et al., 2019, p. 14).

While the impact of policy reforms on ECEC costs remains uncertain, there is clearer evidence of the positive impact of policy reforms on the quality of ECEC services. For instance, since the introduction of the National Quality Framework, the proportion of ECEC services meeting the National Quality Standard has increased from 57% in 2013 to 79% in 2019 (ACECQA, 2019). This suggests that policy reforms have had some success in improving the quality of ECEC services, towards long-term improvement in children's learning and development.

How much do Australian families and carers invest in ECEC?

Estimates show that Australian families and carers are investing more in ECEC than ever before.

In contrast to the universal entitlement to free school education in Australia, all forms of ECEC remain a shared public and private investment. A limitation of publicly-released finance figures for ECEC is that they do not account for private expenditure. Consequently, the investment shown in Figure 1 is missing a significant proportion of total expenditure on ECEC.

Calculating private expenditure on ECEC is difficult although estimates are possible. One way to estimate how much Australian families and carers invest in ECEC is to use the former Child Care Rebate (CCR)¹ as a guide. The CCR was a non-means tested rebate of out-of-pocket expenses incurred by families and carers where the Australian Government effectively covered 50% of out-of-pocket expenses on eligible types of ECEC. Table 1 shows how much the Australian Government outlaid for CCR, which was approximately matched by private outlays.

Table 1: Child care rebate outlays (2018 dollars)

Year	CCR outlays (\$000,000)
2009	\$1,520.75
2010	\$1,502.91
2011	\$1,738.14
2012	\$2,036.05
2013	\$2,321.46
2014	\$2,115.80
2015	\$1,636.62
2016	\$2,500.90
2017	\$3,660.35
2018	\$3,766.60

Source: Commonwealth DET (2014, 2015, 2016, 2017, 2018a, 2019b), DEEWR (2010, 2011, 2012, 2013)

As Table 1 shows, the CCR rebate totalled approximately \$3.8 billion in 2017/2018. The remaining 50% was met by families, indicating a further \$3.8 billion in private expenditure on ECEC that is not accounted for in published expenditure figures. The actual figure is almost certainly higher because not all private expenditure on ECEC was eligible for the 50% rebate, including private expenditure on preschool, which can also involve substantial out-of-pocket costs if it is not eligible for state/territory government subsidies. These figures also show that overall private expenditure on ECEC in Australia has been increasing, and in 2018 outlays were 148% above what they were in 2009.

¹ The Child Care Rebate was replaced by the Child Care Subsidy in July 2018.

Another way to calculate out-of-pocket expenses on ECEC is to use data collected on household expenditure. For instance, the Household Income and Labour Dynamics in Australia (HILDA) survey calculates out-of-pocket household expenditure on formal and informal (e.g. babysitters, nannies) care. Table 2 uses median weekly expenditure as reported in the HILDA survey, and combines it with the number of families who received government subsidised child care to estimate national annual out-of-pocket expenses.

Table 2: Estimate of annual private expenditure on ECEC (2018 dollars)

Year	Median weekly out-of-pocket expenditure on child care	Number of families who receive child care rebates	Estimated national out-of-pocket expenses
2008-09	\$109.99	579,470	\$3.31 billion
2010-11	\$115.74	691,060	\$4.16 billion
2012-13	\$130.07	773,070	\$5.22 billion
2014-15	\$148.23	833,120	\$6.42 billion
2016-17	\$153.99	852,160	\$6.82 billion

Source: Commonwealth DET (2018b), Ruppanner (2019)

This table shows that median household expenses on formal care for children under five years of age in 2016/2017 were \$154 per week (Ruppanner, 2019; Wilkins, Laß, Butterworth, & Vera-Toscano, 2019). This figure can be combined with the number of Australian families and carers who received the CCR to arrive at an estimate. In 2016/2017, the result is an estimate of approximately \$6.82 billion in private expenditure on ECEC.

While these figures are estimates only, they suggest that the out-of-pocket costs for ECEC are substantial. Moreover, total private expenditure is increasing as out-of-pocket costs rise above inflation and more families use ECEC. Combined with the total government investment in ECEC shown in the previous section, these figures also suggest that the total size of the ECEC sector is somewhere in the order of \$13 billion to \$16 billion per year.

How much does Australia invest per child in ECEC?

Estimated per child costs in ECEC are close to the cost of primary school, but families pay a much larger share.

Calculating per child costs of ECEC is difficult because there is a huge range of variables associated with the cost of ECEC. For instance, some forms of ECEC are cheaper than others. According to the Commonwealth Department of Education and Training, in December 2017 the average hourly cost of long day care before government subsidies was \$9.35. By comparison, in December 2017 outside school hours care (OSHC) cost on average \$7.20 per hour before government subsidies (Commonwealth DET, 2019b). This in part reflects the different age groups attending these services, and the higher staff to child ratios that are necessary for ECEC services catering for younger children.

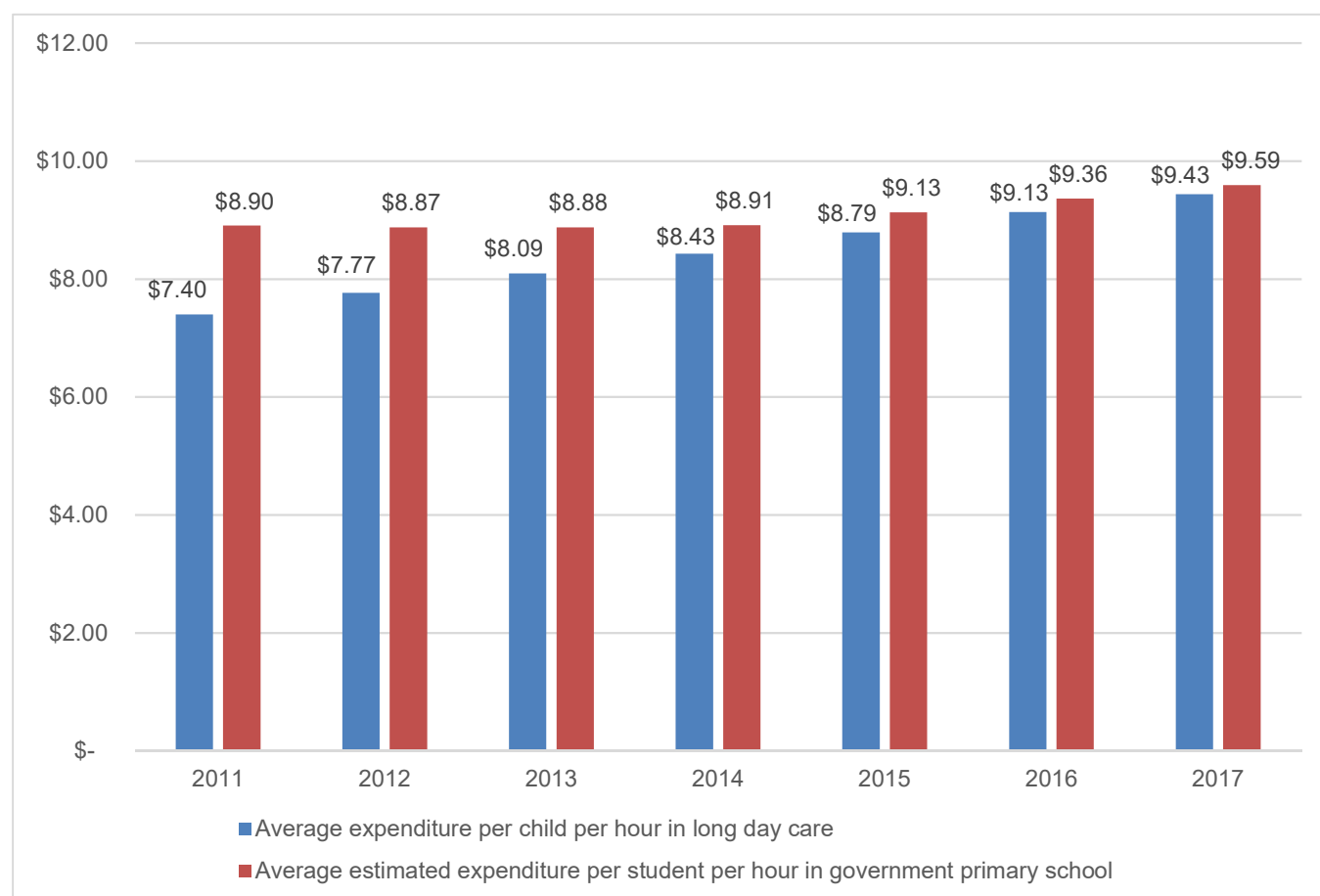
Child care subsidies are subject to a further range of variables based on income. The Child Care Subsidy, which began in 2018, is means tested. In 2019/2020, an eligible family with a combined income below \$68,163 receives a subsidy of 85% of their child care fees up to an annual limit. This subsidy gradually reduces as combined family income increases. In 2019/2020, families with a combined income above \$352,453 are not eligible to receive the Child Care Subsidy (Commonwealth DET, 2019a).

It is nevertheless worthwhile to estimate the per student costs of ECEC, especially to compare them to other parts of our education system. For instance, primary school education provides a useful comparison in terms of per child costs.

In order to make this comparison, a number of assumptions have been made. First, the cost per hour used in the calculations is the average hourly rate for long day care published by the Commonwealth Department of Education in December each year (Commonwealth DET, 2019b). Second, the average hourly cost per primary school student assumes a child attends primary school for the typical time period of six and a half hours per day, five days a week, for forty weeks of the year (Victorian DET, 2020). In reality, funding for children at school is not allocated per hour, but presenting the data in this way enables a comparison to be made that equates to approximately 1,300 hours of attendance per year for a child at primary school.

Figure 3 applies these assumptions to the available data, and compares the real average per hour cost for a child attending long day care to the estimated per hour income a government primary school received for a student between 2011 and 2017. A government primary school is used for comparison, as the closest approximation of the actual costs of educating a primary school-aged child.

Figure 3: Estimated expenditure per child/student per hour in long day care and government primary school (2018 dollars)



Source: Commonwealth DET (2019b), ACARA (2019)

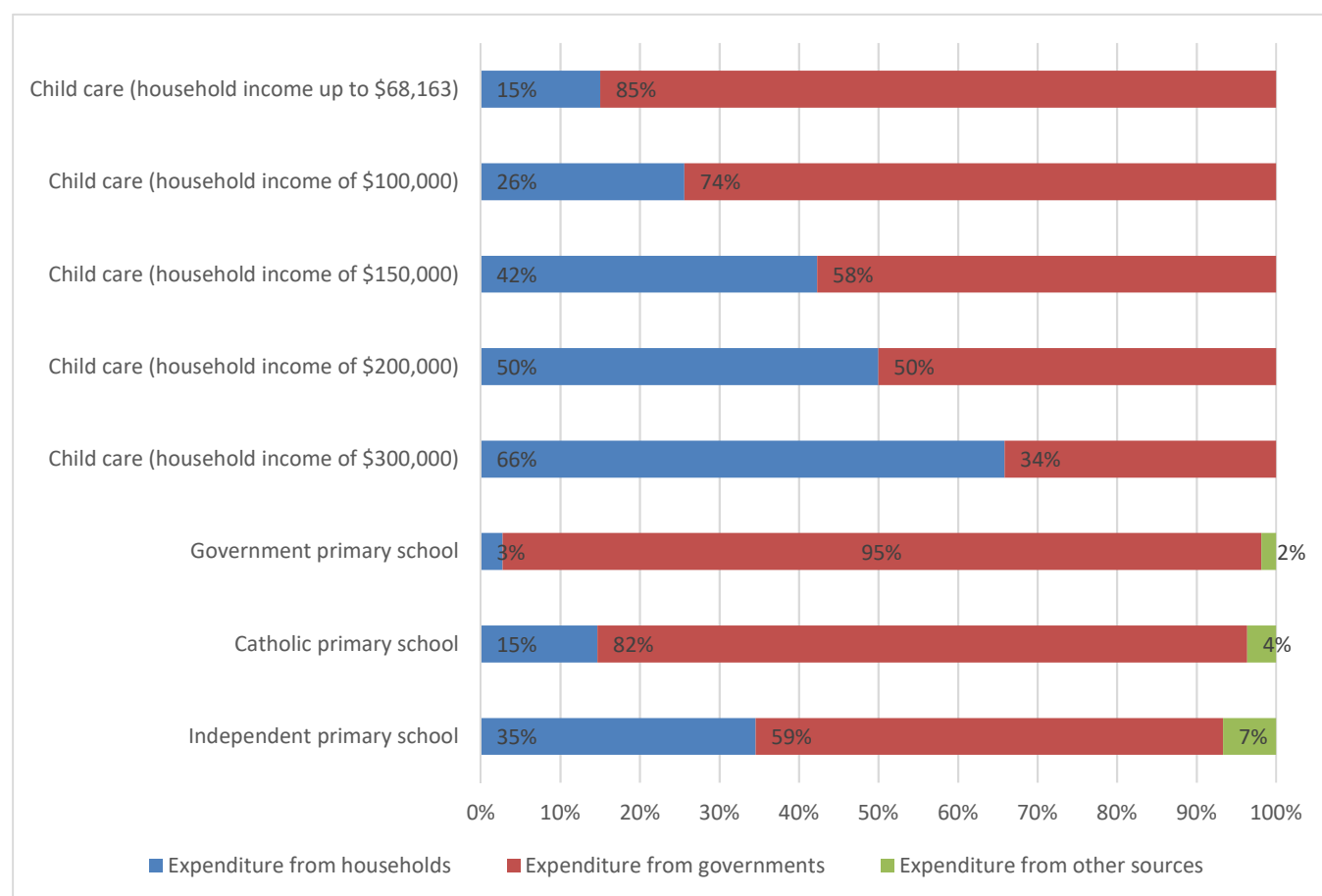
Note: Estimated per hour income for a student enrolled at a government primary school is calculated by dividing reported yearly gross income per student by attendance of 1,300 hours (6.5 hours a day, five days a week, 40 weeks of the year).

This graph shows that the average real cost of using long day care has risen steadily since 2011. It also shows that, based on certain assumptions, the average cost of ECEC on a per hour basis remains below the estimated per hour income received by government primary schools for a student. Given that staffing costs for ECEC may be expected to be significantly higher than in primary schools (for example, 24 babies in ECEC would require six educators and multiple rooms, while 24 primary school children only require one teacher in some states), this apparent equivalence raises questions about relative investment in each sector.

Figure 3 estimates per child costs and does not specify the origin of the income. Another way to compare per child costs of ECEC with the primary school sector is to compare out-of-pocket costs and total government support as a percentage of total income received per child. This is a better way to compare the relative contributions of households and government.

Figure 4 shows the relative share of investment in child care and primary schools from households, government and other sources. Child care contributions are organised according to different levels of household income as household income affects the amount of government subsidies. Relative contributions in the primary school sector use averages in the government, Catholic and independent sectors as reported by ACARA (2019).

Figure 4: Share of total per child and per student income for child care and primary school sector by contributor type



Source: Commonwealth DET (2019b), ACARA (2019)

Note: Primary school data are drawn from figures pertaining to 2017. The “Expenditure from other sources” category refers to income received from sources such as interest on bank accounts, profits from asset sales, and fund-raising activity.

Figure 4 shows that on average, governments contribute a much higher proportion of total investment in the primary school sector compared to the child care sector. This means that households have a greater role in covering the costs of child care compared to the costs of a child attending a primary school. Indeed, most families who use child care on a regular basis are likely to save money when their child moves from child care to primary school, regardless of household income. Figure 4 also shows that in many instances, governments are making a greater contribution to the share of costs for children attending Catholic and independent schools than to children in child care.

It is also possible to compare the average annual government investment per child between child care and primary school sectors. This comparison helps ascertain the difference between how much the average primary school student receives in government support, compared to a child in long day care who attends for a similar amount of time as a primary school student attends school over one year. In order to do this, average government support for children in long day care is annualised using similar assumptions as in Figure 3. This means that the figures in Table 3 assume a child is enrolled in long day care for 6.5 hours a day, five days per week, 40 weeks of the year, which is 1,300 hours over one year.

Table 3: Average annual government support per primary school student and child using long day care for 1,300 hours per year

Service type	Average annual government expenditure per child for primary school (actual) and child care (equivalised estimate)	Average annual household contribution per child for primary school (actual) and child care (equivalised estimate)
Child care (household income up to \$68,163)	\$10,332	\$1,823
Child care (household income of \$100,000)	\$9,042	\$3,113
Child care (household income of \$150,000)	\$7,016	\$5,139
Child care (household income of \$170,000) ²	\$6,205	\$5,949
Child care (household income of \$200,000)	\$6,078	\$6,078
Child care (household income of \$300,000)	\$4,151	\$8,004
Government primary school	\$11,794	\$336
Catholic primary school	\$10,595	\$1,900
Independent primary school	\$9,833	\$5,782

Source: Commonwealth DET (2019b), ACARA (2019)

Table 3 shows that governments are providing much greater support to primary school students than to children in child care in comparable situations. On average, governments provide more support to children enrolled at Catholic primary schools than to children in child care in comparable situations, regardless of household income. These figures also suggest that on average, and when equivalising attendance to enable a comparison, students enrolled in all schools receive more in government support than the majority of children in child care.

This table also shows that with two adults each earning the average annual full time wage of approximately \$85,000 (ABS, 2019b), the out-of-pocket costs for child care are more than the average fees for Catholic and independent primary schools.

² Full-time adult average weekly ordinary time earnings in May 2019 was \$1,633.80, which equates to approximately \$170,000 in a household with two adults working full time (ABS, 2019b).

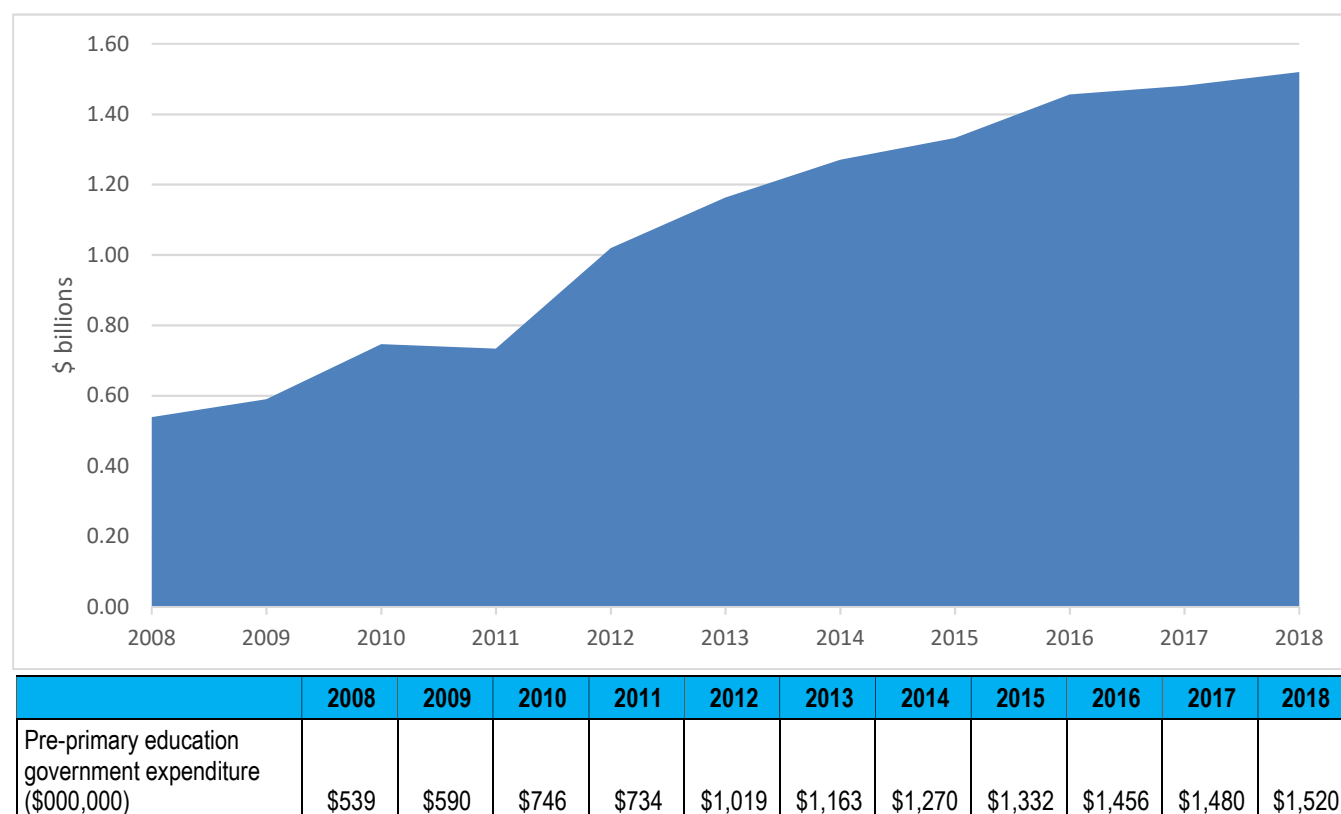
How much do Australian governments invest in education provision in ECEC?

The growth in government investment has been stronger in ECEC services that are classified as ‘education’ for funding purposes.

Since the introduction of the National Quality Framework, all ECEC services are recognised as providing both education and care to young children. Yet despite this recognition, ECEC funding arrangements still distinguish between historic classifications of two service types – child care (including long day care, family day care and OSHC) and preschool. This reflects historic distinctiveness in funding arrangements for preschools, which have a long history of receiving direct government funding, rather than support through parent subsidies. Preschools have also been more likely to be regarded as a public good worthy of government funding (Jackson, 2018), than a private good to be funded by families.

Generally speaking, only preschool delivery is counted as expenditure on education and training in government reporting. As Figure 5 shows, preschool expenditure has grown rapidly since 2011. This growth is primarily due to the 2009 National Partnership Agreement on Early Childhood Education, which aimed to ensure that ‘all children have access to a quality early childhood education program in the year before they go to full time school’ (O’Connell, Fox, Hinz, & Cole, 2016, p. 24). Most states and territories subsidise a second year of preschool for children from disadvantaged backgrounds, which has also contributed to this growth.

Figure 5: Pre-primary education government expenditure (2018 dollars)



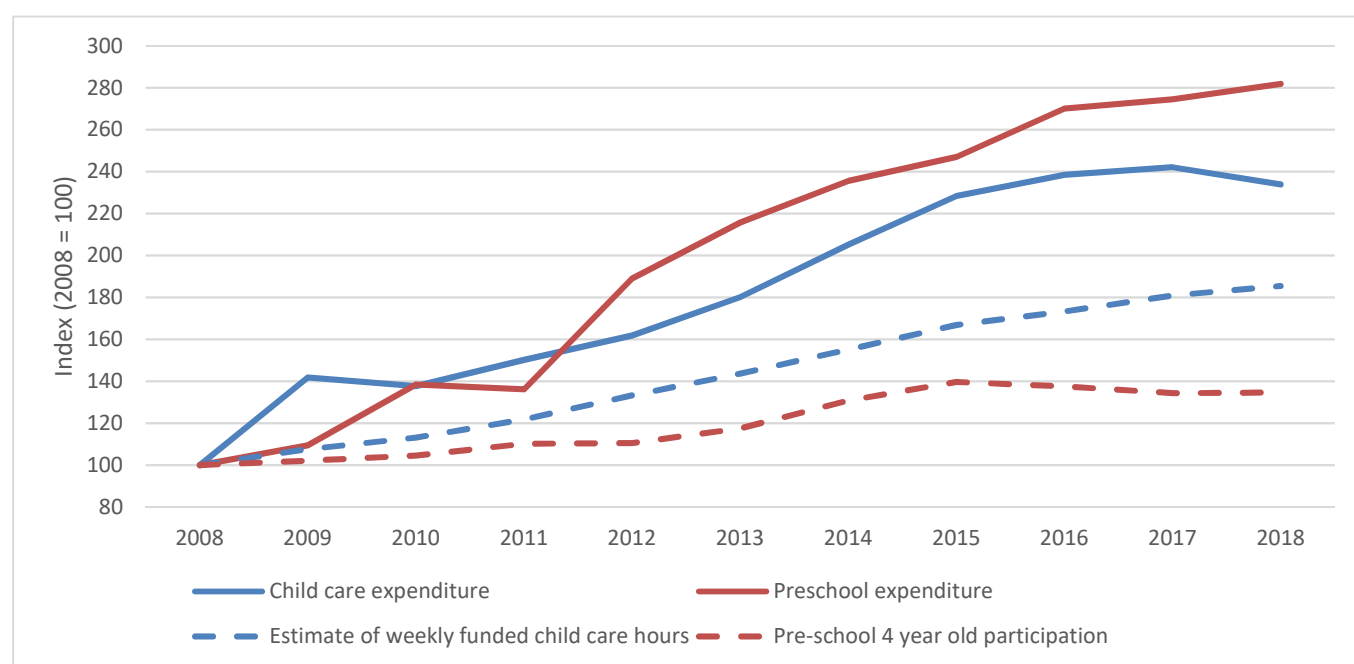
Source: ABS (unpublished)

The classification of preschools as ‘education and training’ for the purposes of reporting reflects the past situation where only preschools were required to focus on children’s learning. Current regulations for ECEC also require child care services (long day care, family day care, and OSHC) to be staffed by qualified educators, and deliver play-based learning programs consistent with a government-approved curriculum framework. Both preschool and other ECEC services are subject to the same regulatory assessments for the quality of their educational program and practice, including intentional teaching and assessment of learning.

While the classification of services may seem inconsequential, it can influence how governments prioritise their investment. Figure 6 revisits some of the data from Figure 2, which explored how much of the government increase in ECEC funding can be explained by increased participation.

Figure 6 shows the proportional increase in government funding for preschool and child care services and also participation indicators for both child care and preschool. Collection methods for participation in preschool have undergone a number of changes over the past decade and in order to allow the best comparison, the indicator used for preschool participation is, where possible, restricted to four-year-olds only.

Figure 6: ECEC investment and key participation indicators (proportion of 2008 rates), by type of ECEC service



	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Child care expenditure (2018 \$000,000)	\$3,291	\$4,665	\$4,532	\$4,944	\$5,327	\$5,929	\$6,752	\$7,519	\$7,848	\$7,968	\$7,698
Preschool expenditure (2018 \$000,000)	\$539	\$590	\$746	\$734	\$1,019	\$1,163	\$1,270	\$1,332	\$1,456	\$1,480	\$1,520
Pre-school 4 year old participation	203,968	208,183	213,446	224,699	225,586	239,663	266,980	284,907	280,646	274,114	274,574
Estimate of weekly funded child care hours (000,000)	19.86	21.37	22.47	24.21	26.48	28.52	30.79	33.15	34.42	35.94	36.83

Source: Productivity Commission (2011, 2013, 2016, 2019), ABS (2019a)

Note: Preschool participation data prior to 2012 uses figures published by the Productivity Commission and may include some 3 and 5 year olds enrolled at preschool.

Figure 6 shows that investment in preschool is increasing at a faster rate than investment in child care. This is in contrast to participation rates, where overall participation in child care seems to be increasing at a faster rate than participation in preschool.

This suggests that, on a proportional basis, governments have been more willing to increase investment in preschool compared to child care, beyond meeting the additional costs of participation. There may be many reasons for this. One is that preschool is a much smaller part of the ECEC sector than child care which means it is cheaper for governments to invest in. Another reason may be because of the 2009 National Partnership Agreement on Early Childhood Education, which set certain targets for universal access that led to an increase in funding in preschool services.

It may also be possible to attribute some of the discrepancy between the rates of increase in investment between preschool and child care to the classification of preschool as 'education and training'. Government funding of education and training is often viewed as an investment which results in returns such as higher productivity, more engaged citizens and greater wellbeing. These perspectives work their way into policy rationales and the justification for increased government funding.

There is strong evidence of the benefits of investing in child care and there is an emerging literature forming regarding the wider return on investment associated with child care provision in an Australian context (Teager, Fox, & Stafford, 2019; The Front Project, 2019). Viewing child care as primarily an education and training service, as opposed to one which has 'a primary focus on allowing parental workforce participation' (Baxter et al., 2019, p. 5), may result in a better understanding of the benefits of greater public investment in child care.

Implications for future ECEC policy

In terms of expenditure, ECEC is the fastest growing component of Australia's education system. The evidence base on the importance of ECEC to a range of health, social and economic outcomes has grown significantly over the past two decades (Pascoe & Brennan, 2017). Governments at all levels have responded with major policy reform in ECEC since 2009, and major increases in investment to gain anticipated returns (The Front Project, 2019).

The analysis in this report points to four promising areas for ECEC funding reform:

1. Greater transparency and certainty in government investment

Despite extensive reform over the past decade, the ECEC system remains characterised by high levels of funding complexity, and lack of transparency. Calculating real per child investment in ECEC is far more complex than it is for schools, which means real change in the sector's funding profile is obscured. Standardised methods of controlling data for participation (including increases in children attending, as well as increases in hours) would be a step towards transparency in how much governments invest in their youngest citizens.

Volatility has also been a feature of the ECEC sector over the past ten years, with the growth and collapse of a number of major providers. Alongside market instability, the Australian Government's contribution to preschool continues to be renewed on an annual basis, which stands in contrast to the longer-term commitments in other sectors. For providers, certainty means being confident of having access to a stable stream of income in order to invest in resources, including qualified staff that result in quality ECEC provision. For parents and carers, certainty means having the confidence that reliable, high-quality and affordable ECEC is available regardless of where they live, or a family's particular circumstances.

2. Funding to lift quality and maximise return on investment

Government investment in ECEC quality is essential to ensuring that the growing number of children who attend ECEC services can reap the benefits for their learning and development. Participation in low-quality ECEC offers no benefit other than enabling parental workforce participation, and may in fact do harm (Australian Institute of Health and Welfare, 2015). The comparison with primary school per student funding in this report suggests that estimated total per child investment in ECEC in Australia currently does not match even the base level of government investment in primary school students; and other analysis focused on preschool only has estimated the difference as much larger (The Front Project, 2019). This suggests governments are prioritising funding to primary school, despite evidence of the greater return on investment in quality ECEC services.

Our analysis also suggests that classification of ECEC services matters for how governments invest in each part of the sector. Where the objective of ECEC services is framed as education, as it is in preschools, governments appear to be more willing to invest more to increase quality, not just respond to participation. Reclassifying all ECEC services as education and training may therefore help to stimulate more consistent investment in quality from all levels of government, to improve early learning across all parts of Australia's ECEC sector.

3. Better data collection and transparency in private investment

Our analysis suggests that ECEC is the component of the Australian education system that has the highest proportion of private contributions. For instance, in the school sector, contributions from non-government sources account for approximately 20% of all revenue (ACARA, 2019). The analysis in this report suggests that private expenditure accounts for somewhere between 29-42% of total investment in the ECEC sector. These costs place a significant financial burden on many families, which is difficult to measure accurately.

Several states and territories have committed to increasing preschool subsidies, which is likely to reduce costs to families and increase participation in preschool in those jurisdictions. At the same time, out-of-pocket costs for families will persist and evidence shows these costs are increasing at a rate above inflation (Ruppanner, 2019). This is of particular concern given recent research highlighting detrimental impacts of this reform on some disadvantaged and vulnerable families (Baxter et al., 2019), whose children may have the most to gain from the benefits of participation in quality ECEC programs.

The complexity of the ECEC funding system can also be difficult for families to navigate. Families may be eligible for numerous subsidies, and research shows that understanding of the system and ability to navigate it is often limited (Baxter et al., 2019). In comparison, systems operating in other countries are much more straightforward. In England, for example, all three- and four-year-olds have a free annual entitlement to childcare, and only pay for services above that entitlement. In Germany, children attend kindergarten from the age of three to the age of six, and fees are low and means-tested. In Sweden, children from the age of one are guaranteed publicly-funded ECEC. These models may be beyond Australia's current ECEC investment, but show what is possible when there is a public commitment to transparency and access.

Appendix A: Notes on the data

All data have been adjusted for inflation using the General Government Final Consumption Expenditure (GGFCE) price deflator published in the Report on Government Services by the Productivity Commission (2019). All figures in this report have been adjusted using the GGFCE price index below.

Table 4: GGFCE deflator index

Nominal dollars (year)	GGFCE price deflator (2018 = 100)
2008	79.2
2009	83.0
2010	86.3
2011	89.9
2012	92.7
2013	93.9
2014	95.5
2015	96.7
2016	98.0
2017	99.1
2018	100.0

Financial figures for this report are drawn from data published by the Productivity Commission and unpublished data provided to the Mitchell Institute by the Australian Bureau of Statistics (ABS).

Financial figures relating to ECEC are for expenditure only.

Preschool expenditure includes Commonwealth expenditure under the series of National Partnership Agreements on Universal Access to Early Childhood Education, and state and territory expenditure, but excludes expenditure on Family Assistance benefits for the Child Care Benefit/Child Care Rebate where children attend preschool within a childcare setting. Preschool expenditure does not include expenditure identified as being for capital (including capital transfers).

Expenditure data for child care can include administration expenditure, other expenditure on service provision and financial support to families. These data include payments to families receiving Child Care Benefit (CCB) for formal services.

Glossary

Term	Description
Child Care Benefit	The Child Care Benefit (CCB) was an income tested payment from the Australian government and was usually paid directly to approved child care services to reduce the fees that eligible families pay. The CCB was replaced by the Child Care Subsidy in 2018.
Child Care Rebates	The Child Care Rebate (CCR) was a non-means tested payment that provided additional assistance for families using approved child care. Child Care Rebate provided up to 50% per cent of a family's out-of-pocket child care expenses (after Child Care Benefit was deducted) to a maximum of \$7,613 per child per year. To be eligible for the rebate, parents were required to have had some work, training or study related commitments during the week, although there was no minimum number of hours of such activity required. The CCR was replaced by the Child Care Subsidy in 2018.
Child care services	Services provided to children aged 0–12 years including: long day care; family day care; outside school hours care (OSHC); occasional care; and other care.
Child Care Subsidy	The main form of financial support provided by the Australian Government, paid to services as an offset to the fee otherwise payable by parents. The Child Care Subsidy began in 2018 and replaced the CCR and CCB.
ECEC	Early childhood, education and care. ECEC services provide one or more of either child care services or preschool services.
Long day care	Services aimed primarily at 0–5 year olds that are provided in a centre, usually by a mix of qualified and other staff by educators holding (or working towards) degrees or vocational qualifications. Education, care and recreational programs are provided based on the developmental needs, interests and experience of each child. In some jurisdictions, primary school children may also receive care before and after school, and during school vacations. Some long day care centres may also provide preschool and kindergarten services (i.e. a preschool program) and OSHC. Long day care services may operate from stand-alone or shared premises, including on school grounds. (Productivity Commission, 2019)
Outside school hours care	Services that provide care for school aged children before school, after school, during school holidays, and on pupil free days. OSHC may use stand-alone facilities, share school

	buildings and grounds and/or share facilities such as community halls. (Productivity Commission, 2019)
Per student gross income	Amount of recurrent income received by a school on a per student basis from the Australian Government and state and territory governments, plus gross income from fees, charges, parent contributions and other private sources.
Preschool services	Services that deliver a preschool program. A 'preschool program' is a structured, play-based learning program, delivered by a qualified teacher, aimed at children in the year or two before they commence full time schooling.

References

- ABS. (2019a). *4240.0 - Preschool Education, Australia, 2012-2018*. Commonwealth of Australia. Retrieved from <https://www.abs.gov.au/ausstats/abs@.nsf/mf/4240.0>.
- ABS. (2019b). *6302.0 - Average Weekly Earnings, Australia, May 2019*. Canberra: Commonwealth of Australia Retrieved from <https://www.abs.gov.au/ausstats/abs@.nsf/mf/6302.0?opendocument&ref=HPKI>.
- ACARA. (2019). *School income and capital expenditure for government and non-government schools*. Retrieved from [https://www.acara.edu.au/reporting/national-report-on-schooling-in-australia-data-portal/school-funding/school-income-and-capital-expenditure-for-government-and-non-government-schools-\(calendar-year\)#/View3](https://www.acara.edu.au/reporting/national-report-on-schooling-in-australia-data-portal/school-funding/school-income-and-capital-expenditure-for-government-and-non-government-schools-(calendar-year)#/View3).
- ACECQA. (2019). *NQF snapshot Q3 2019*. Sydney: Australian Children's Education & Care Quality Authority Retrieved from https://www.acecqa.gov.au/sites/default/files/2019-11/NQFSnapshot_Q32019.pdf.
- Australian Institute of Health and Welfare. (2015). *Literature review of the impact of early childhood education and care on learning and development: Working paper*. (Cat. no. CWS 53). Canberra. Retrieved from <https://www.aihw.gov.au/getmedia/321201fca0c-4c20-9582-7c3dc5c9d1b9/19438.pdf.aspx?inline=true>.
- Baxter, J., Budinski, M., Carroll, M., Hand, K., Rogers, C., & Smart, J. (2019). *Child care package evaluation: early monitoring report*. Melbourne: Australian Institute of Family Studies.
- Commonwealth DET. (2014). *Annual report 2013-14*. Canberra: Commonwealth of Australia. Retrieved from <https://docs.education.gov.au/node/36569>.
- Commonwealth DET. (2015). *Annual report 2014-15*. Canberra: Commonwealth of Australia. Retrieved from https://docs.education.gov.au/system/files/doc/other/ed15-0093_dept_of_ed_2014-15_annual_report_acc.pdf.
- Commonwealth DET. (2016). *Annual report 2015-16*. Canberra: Commonwealth of Australia. Retrieved from https://docs.education.gov.au/system/files/doc/other/education_annual_report_2016_final.pdf.
- Commonwealth DET. (2017). *Annual report 2016-17*. Canberra: Commonwealth of Australia. Retrieved from https://docs.education.gov.au/system/files/doc/other/education_annual_report_2016-17_0.pdf.
- Commonwealth DET. (2018a). *Annual report 2017-18*. Canberra: Commonwealth of Australia. Retrieved from https://docs.education.gov.au/system/files/doc/other/education_and_training_annual_report_2017-18_0.pdf.
- Commonwealth DET. (2018b). *Early childhood and child care reports*. Canberra: Department of Education. Retrieved from <https://www.education.gov.au/early-childhood-and-child-care-reports>.

- Commonwealth DET. (2019a). *Child Care Subsidy rates from 1 July 2019*. Canberra: Commonwealth of Australia. Retrieved from https://docs.education.gov.au/system/files/doc/other/factsheet_indexed_ccs_rates_2019-2020_1.pdf.
- Commonwealth DET. (2019b). *Early childhood and child care reports*. Canberra: Commonwealth of Australia. Retrieved from <https://www.education.gov.au/early-childhood-and-child-care-reports>.
- Commonwealth DET. (2019c). *Portfolio budget statements 2019–20 budget related paper No. 1.5*. Canberra: Commonwealth of Australia Retrieved from https://docs.education.gov.au/system/files/doc/other/education_and_training_portfolio_budget_statements_2019-20.pdf.
- DEEWR. (2010). *Annual report 2009-10*. Canberra: Commonwealth of Australia. Retrieved from https://docs.education.gov.au/system/files/doc/other/annual_report_200910_part_1.pdf.
- DEEWR. (2011). *Annual report 2010-11*. Canberra: Commonwealth of Australia. Retrieved from https://docs.education.gov.au/system/files/doc/other/annual_report_201011.pdf.
- DEEWR. (2012). *Annual report 2011-12*. Canberra: Commonwealth of Australia. Retrieved from https://docs-edu.govcms.gov.au/system/files/doc/other/deewrannualreport_2011_12_fullversion.pdf.
- DEEWR. (2013). *Annual report 2012-13*. Canberra: Commonwealth of Australia. Retrieved from https://docs.education.gov.au/system/files/doc/other/deewr_annual_report_2012-13.pdf.
- Ireland, J. (2019, 11 August). 'Strong rebound': Childcare costs on the rise again. *The Age*.
- Jackson, J. (2018). *Towards inclusive workforce development: Socio-economic diversity in the Australian early childhood workforce and its implications for practice*. (Doctoral thesis), Victoria University.
- O'Connell, M., Fox, S., Hinz, B., & Cole, H. (2016). *Quality early education for all*. Melbourne: Mitchell Institute. Retrieved from <http://www.mitchellinstitute.org.au/wp-content/uploads/2016/04/Quality-Early-Education-for-All-FINAL.pdf>.
- Pascoe, S., & Brennan, D. (2017). *Lifting our game*. Melbourne. Retrieved from <https://www.education.vic.gov.au/Documents/about/research/LiftingOurGame.PDF>.
- Productivity Commission. (2011). *Report on Government Services*. Retrieved from <https://www.pc.gov.au/research/ongoing/report-on-government-services/2011>.
- Productivity Commission. (2013). *Report on Government Services*. Retrieved from <https://www.pc.gov.au/research/ongoing/report-on-government-services/2013>.
- Productivity Commission. (2015). *Report on Government Services*. Retrieved from <https://www.pc.gov.au/research/ongoing/report-on-government-services/2015>.
- Productivity Commission. (2016). *Report on Government Services*. Retrieved from <https://www.pc.gov.au/research/ongoing/report-on-government-services/2016>.

- Productivity Commission. (2019). *Report on Government Services*. Retrieved from <https://www.pc.gov.au/research/ongoing/report-on-government-services/2019>.
- Ruppanner, L. (2019, 30 July). HILDA findings on Australian families' experience of childcare should be a call-to-arms for government. *The Conversation*. Retrieved from <https://theconversation.com/hilda-findings-on-australian-families-experience-of-childcare-should-be-a-call-to-arms-for-government-120417>
- Teager, W., Fox, S., & Stafford, N. (2019). *How Australia can invest early and return more: a new look at the \$15b cost and opportunity*. Retrieved from https://www.thefrontproject.org.au/images/downloads/THE_COST_OF_LATE_INTERVENTION/Technical_Report-How_Australia_can_invest_in_children_and_return_more.pdf.
- The Front Project. (2019). *A smart investment for a smarter Australia: : Economic analysis of universal early childhood education in the year before school in Australia*. Melbourne: PWC Retrieved from https://www.thefrontproject.org.au/images/downloads/ECO_ANALYSIS_Full_Report.pdf.
- Victorian DET. (2020). *School policy: school hours*. Melbourne: Department of Education Retrieved from <https://www.education.vic.gov.au/school/principals/spag/management/Pages/hours.aspx>.
- Wilkins, R., Laß, I., Butterworth, P., & Vera-Toscano, E. (2019). *The Household, Income and Labour Dynamics in Australia survey: selected findings from waves 1 to 17*. Melbourne: Melbourne Institute.



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