



University of
South Australia

Playgroups post pandemic, a snapshot of playgroup attendance and child development from 2012 to 2021

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Foreword

On behalf of Playgroup Australia, I am delighted to announce the release of the *Playgroups post pandemic, a snapshot of playgroup attendance and child development from 2012 to 2021* report. This report is the latest in a series commissioned by Playgroup Australia exploring the impacts of playgroup attendance on childhood development outcomes for children in Australia.

Conducted by the University of South Australia, this comprehensive report reviews and expands upon a previous report commissioned by Playgroup Australia in 2019 to include 2021 AEDC data. It examines the relationship between playgroup attendance and associated protection against developmental vulnerability and the positive impact playgroup attendance has on developmental domains.

This report affirms that children who engage in playgroups demonstrate improved probability of having highly developed strengths on the Multiple Strengths Indicator (62.2% for playgroup attendees vs. 49.7% for non-attendees), and almost half the risk of experiencing developmental vulnerability.

Furthermore, when compared to the effect of other forms of Early Childhood Education and Care, attending playgroups increases the likelihood of being on track across all 5 domains by 47%. This effect is greater than that offered by daycare attendance and only marginally lower than preschool attendance.

This report contributes to an expanding field of research, including previous studies commissioned by Playgroup Australia, and underscores clear and significant benefits associated with playgroup attendance. Of note is the impact in lower socioeconomic areas which highlights playgroup as a vital tool in promoting educational equity and inclusion.

Emphasizing the importance of community involvement, research demonstrates playgroups not only aid in child development but also support parent wellbeing and strengthen community ties. This reinforces the value of collaborative efforts in fostering a nurturing environment for children.

Notably, playgroup attendance remains strongest in rural and remote communities, where thin markets present a challenge for other ECEC services to establish and flourish. Playgroups emerge from within a community to meet community needs and ensure accessibility for the community. They play an important role in leveling the playing field when it comes to geographic disadvantage and educational outcomes.

Family life in 2024 presents a multitude of competing priorities which create barriers to playgroup participation yet, despite declining attendance numbers, the positive outcomes of playgroup attendance have remained stable over time. This stability and its ongoing impact in communities enables policy makers to recognise the value in working with Playgroup Australia to help reduce barriers and support the developmental outcomes of Australia's children.

I would like to thank University of South Australia for this thorough analysis and am excited about the discourse it will create. As we add this report to Playgroup Australia's growing body of research, we encourage policymakers to collaborate with us in nurturing playgroup programs nationwide and supporting families to participate.

Our shared commitment is crucial in ensuring every child in Australia has access to enriching, supportive early learning experiences.



Chair
Playgroup Australia

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Executive Summary

In modern society, the need for communities to support child development was stressed in 2000 when a landmark book, titled *Neurons to Neighborhoods*, laid out the importance of early childhood development over the entire life course^[1]. The book was based on extensive empirical evidence on the architecture of human brain development and emphasised that the changing circumstances in which families are raising children in modern society demands communities to work together to support children and families, with consequent benefits to humanity^[1].

It is now well recognised that healthy child development is an enabler of future human capability allowing children to reach maturity, and contribute to economic, social and civic life^[2]. Numerous studies show that a child's early life has significant life-long consequences^[3]. Both cognitive and non-cognitive skills at school entry have been shown to predict literacy and numeracy skills throughout school^[4], with subsequent school success predictive of future educational attainment, higher income, and better wellbeing over the life course^[5].

Child development is shaped by the dynamic interplay between biology and experience, with children being active participants in their own advancement. Children's relationships with adults and other children are the fundamental building blocks of development that can either have lifelong negative or positive impact. In Australia, striking disparities in child development are easily quantifiable by five years of age and these are strongly associated with socioeconomic position and are highly predictive of academic success and wellbeing in our country^[4, 6-8].

Yet, during these most important years of life, Australia deploys the least amount of public funding for social service supports compared to later ages. As important as it is, Child Care is essentially a private agreement between the family and the Centre, primarily aimed at enabling parents to re-enter the workforce. Other services for young children include disparate activity-based offerings, for example, gymboree, baby yoga and swimming. Within this context, playgroups are the only service offering that provide support to families *and* children aimed at enhancing child development.

Playgroups are generally informal gatherings where young children, typically aged from birth to five years, engage in play and social activities while accompanied by a parent, caregiver, or family member. These groups are often community-based and can be found in various settings such as community centers, churches, schools or even private homes. Mainly due to the informal and flexible nature of playgroup, along with numerous disparate service providers, there is little research to quantify their impact on children's development.

Commissioned by Playgroup Australia, this report utilises data from the Australian Early Development Census (AEDC) undertaken in 2021 to estimate the impact of playgroup attendance on child development outcomes. Further this report compares these results to previous AEDC data collections to identify trends over time, and in particular, changes in playgroup attendance by jurisdiction. The results are comprehensive, exploring outcomes for each of the developmental domains, Physical Health and Wellbeing, Social Competence, Emotional Maturity, Language and Cognitive Skills (School-Based), and Communication Skills and General Knowledge captured by the AEDC, as well as composite indexes to determine playgroup impact on developmental vulnerabilities and developmental strengths.

Overall, the results are consistent with previous reports showing that children who attend playgroup are more likely to have stronger developmental outcomes compared to those that don't attend.

Indeed, children who attend playgroup are 47% more likely to be developmentally on track compared to those who don't.

Further, for those children residing in poorer socioeconomic areas, the magnitude of the positive impact of attending playgroup is greater than those from wealthier neighbourhoods. This indicates that supporting playgroup attendance is a good policy decision to enhance equity in Australia, however the rates of playgroup attendance continue to decline. So, despite evidence to indicate that playgroups have a positive impact on child development and the fact that they are relatively inexpensive compared to other services within the early years sector, fewer families are attending playgroups.

Of particular interest within the results are the great differences found by jurisdiction, both in attendance rates as well as impact on development. These differences indicate that improving both playgroup attendance rates and quality are feasible, despite societal secular trends such as parents entering the workforce earlier, making it harder to commit time for playgroups. For example, in NSW playgroup attendance sits just above 20%, whereas attendance in Tasmania sits around 70%. In terms of impact on development Tasmania also shows large positive effects, followed by South Australia, Victoria and Queensland.

Such jurisdictional differences help us to reflect on government and community supports for playgroups and how these may also impact greater quality for families and children. For example, in Tasmania, the Department of Education, Children and Young People deliver Launch into Learning playgroups (LiL). This program is for children aged from birth to five years, is free to access with weekly sessions guided by an early years trained teacher, and available at every government Primary School in Tasmania. Our federal and all state and territory governments actively support playgroups to some degree, however they differ greatly in the level of funding, the funding mechanism and their strategic intent (e.g., may be targeted to specific geographies or populations groups). It would be of value to undertake a service mapping exercise to gain a deeper understanding of the reach and quality of playgroups across the country to provide further hypotheses as to why such large differences in attendance and the impact of playgroups across the jurisdictions are found.

One concern highlighted in this report is the fact that for 65% of children, teachers reported that they didn't know if the child had attended a playgroup or not. Indeed the "don't know" responses from teachers for all items related to the child's Early Child Education and Care (ECEC) arrangements are disappointing. One recommendation to education systems across our nation is to improve their enrolment records to better capture this information from parents. As government, communities and parents significantly increase their investment in the ECEC sector it would be prudent to better collect information about children's early childhood ECEC experiences to better evaluate their impact on child development outcomes as measure by the AEDC.

In conclusion, this report significantly reinforces the understanding of playgroups' value in Australia, especially for children from disadvantaged backgrounds. Despite their widespread impact, policymakers have often overlooked playgroups as a key element in promoting national wellbeing. The jurisdictional differences highlighted in this report calls for deeper consideration. It is imperative to address the ongoing decline in playgroup participation, raise community awareness about the benefits of playgroups, and continually improve their quality. Doing so is essential to support the development of the upcoming generations of children and their families, ensuring a stronger, healthier future for our nation.

Introduction

Background

Play has been shown to be an important factor in child development^[9-11], so important that it has been recognised by the *United Nations High Commission for Human Rights* as a basic right of every child^[12]. Playgroups are one of the many options for Australian families to provide early childhood development opportunities to their children through play in an affordable setting. What happens within a playgroup varies from playgroup to playgroup, dependant on the families, the organisers, and the children, but the primary formulae remain consistent, a playgroup is a safe space for families to bring their young children to socialise, play, and learn together in a supporting environment. Attending playgroups goes beyond just the child, it provides caregivers with opportunities to enhance social connections, parenting abilities, and understanding of child development thus promoting a holistic approach to child development through community^[13-17].

Although playgroups are widely used in Australia and abroad, due to its relatively informal nature there is minimal literature exploring its quantitative impacts on child development over time^[16]. Thus, Playgroup Australia has commissioned the University of South Australia to develop this report taking advantage of the Australian Early Development Census (AEDC), a population census of children in their first year of full-time school^[18]. This report serves as an update to previous iterations commissioned by Playgroup Australia, the most recent published in 2019^[19]. As the AEDC-program has now released data from the 2021 AEDC^[16], we update the previous report and extend it with the latest findings on how playgroup attendance has changed, as well as how playgroup attendance effects child development in terms of vulnerabilities and strengths. Further to previous reports we also estimate the effect of playgroups on child development across jurisdictions.

Previous Findings

The most recent report published in 2019 showcased data from 2012, 2015, and 2018 AEDC data collections. The previous reports findings are briefly summarised here:

Trends and changes over time:

1. **Playgroup Attendance Trends:** In 2018, 36.4% of children nationwide had attended a playgroup before starting school, a slight increase from the 2015 AEDC cohort. This suggests that over 112,000 children attended playgroup between their birth in 2012-13 and starting school in 2018.
2. **Regional Variations:** Playgroup attendance rates varied across jurisdictions, ranging from 26.8% in New South Wales to 71.1% in Tasmania. Notably, attendance increased in most jurisdictions, with significant growth in the Northern Territory.
3. **Attendance in Remote Areas:** Playgroup attendance rates were highest among children living in remote and very remote Australia, with a considerable increase over time, especially in New South Wales and the Northern Territory.
4. **Socioeconomic Factors:** Although lower in socioeconomically disadvantaged areas, the gap in playgroup attendance rates between the most and least disadvantaged communities narrowed between 2015 and 2018.
5. **Diverse Populations:** Attendance rates among children with an Aboriginal and Torres Strait Islander background, those with a language background other than English, and children

born in non-English speaking countries increased over time, reaching 1 in 4 children nationwide in 2018.

Developmental Benefits:

1. Overall Impact: The benefits of playgroup were observed across all developmental domains for children in the 2018 AEDC cohort. The largest differences in developmental outcomes for those who attended playgroup versus those that didn't were seen in Communication Skills and General Knowledge, and Language and Cognitive Skills (School-Based).
2. Reduced Developmental Vulnerability: Nationally, children who did not attend playgroup had 1.71 times greater odds of being developmentally vulnerable on one or more AEDC domains compared to those who attended, after adjusting for background characteristics.
3. Positive Association Across Backgrounds: The positive association between playgroup attendance and development was consistent for children from various backgrounds, with adjusted odds ratios ranging from 1.38 to 2.06 for different minority-population groups in 2018.
4. Jurisdictional Variations: The relationship between playgroup attendance and child development varied between jurisdictions, suggesting that examining these differences could provide insights into maximizing the benefits of playgroups.

In summary, prior analyses focused on playgroup attendance and its impact on early childhood development across Australia. The study found an increase in playgroup attendance, particularly in remote areas and among diverse populations, including children with an Aboriginal and Torres Strait Islander background and those from non-English speaking backgrounds. It highlighted the developmental benefits of attending playgroups, showing that children who participated were less likely to be developmentally vulnerable in developmental domains, especially in communication skills and general knowledge. The positive impact of playgroup attendance was consistent across various backgrounds, and the report indicated that understanding the differences in playgroup impact across jurisdictions could provide valuable insights for maximizing its benefits.

Changing Contexts

Since the publication of the previous report the landscape around Early Childhood Education and Care (ECEC) have changed significantly. Through jurisdictional policy changes it could be said the paradigm is slowly shifting toward system level offerings of ECEC at a universal level. Within Victoria, rollout of universally funded Three-Year-Old Kindergarten started in 2022 and will continue to expand over the next 10 years. NSW commenced 3 year old preschool in 2023 and South Australia recently completed a Royal Commission into ECEC which recommended implementing universal 3-year-old preschool from 2026. Other jurisdictions while not rolling out universal access are addressing issues such as quality, cost, equitable access, and infrastructure. Greater supports for families access to childcare have additionally been recommended in the recent Productivity Commissions draft report released in November titled: A path to universal early childhood education and care. Playgroups are therefore sitting within a highly dynamic and changing environment. As such, while previous reports have shown the benefits of playgroups on developmental vulnerability, it is continually necessary to show the continued benefits playgroups given the changing contexts in this this evolving space.

Changing Literature

A recent literature review completed recently for the South Australian Royal Commission into ECEC concluded that there was still considerable debate over evidence of the ideal amount of exposure to

ECEC by child age, if those ECEC services should be implemented universally or for targeted populations, and what implementation modalities were preferential for child development^[20]. While always known as important, there has been an increased understanding and recognition of ECECs importance which has directly resulted in some of the policy changes discussed above. Academic research is starting to shift from simply evaluating the impact of access and availability towards quality factors such as parental engagement, technology, and curriculum and pedagogical impacts. Discussions of inclusivity and diversity persist, particularly with regard for children with special needs as well as children from culturally and linguistically diverse family environments.

For Playgroups specifically, research has shown beneficial social and educational outcomes for both children and adult caregivers^[21]. However, the quality of evidence is primarily limited to qualitative or quasi-experimental studies only. In comparison to other ECEC modalities, the research into playgroups is not as expansive especially in terms of quality aspects, likely due to the informal structure of playgroups. Future work to address process and structural quality aspects of playgroups, while difficult due to the varied nature, would be beneficial to address.

Aims of report

The primary aim of this report is to assess whether the changing trends found in the previous report were sustained through to 2021, and to explore whether the relationship between playgroup attendance and developmental outcomes has changed. More formally the aims can be summarised as follows:

1. To explore changes in playgroup attendance for children between 2012, 2015, 2018, and 2021 across Australia overall, as well as within specific jurisdictions and sub-groups of children, including:
 - 1.1 Children living in different states/territories of Australia
 - 1.2 Children living in major cities, regional and remote areas of Australia
 - 1.3 Children living in areas of high and low socioeconomic disadvantage
 - 1.4 Children with different demographic characteristics (e.g. gender, Aboriginal and Torres Strait Islander background, country of birth, language background)
2. To explore the relationship between playgroup attendance and child development in the 2021 AEDC cohort and contrast this with findings from 2012, 2015, and 2018 census collections, again for Australia overall, as well as within specific jurisdictions and sub-groups of children, including:
 - 2.1 Children living in different states/territories of Australia
 - 2.2 Children living in major cities, regional and remote areas of Australia
 - 2.3 Children living in areas of high and low socioeconomic disadvantage
 - 2.4 Children with different demographic characteristics (e.g. gender, Aboriginal and Torres Strait Islander background, country of birth, language background)
3. To investigate and understand the extent to which attending playgroups influences or contributes to various aspects of children's development to find the holistic value Playgroup attendance brings to the child.

Method

Research Questions

For aims 1 and 2, we largely replicate the analyses described in the previous report but expand to include the 2021 census year. Explained briefly:

1. How many children are attending playgroups across Australia, and how has this changed over time?

Using data from the 2021 AEDC collection, we estimate the number and percentage of children attending playgroup nationally and in each jurisdiction, further disaggregated by geographical remoteness, socioeconomic disadvantage, demographics including gender, Indigenous background, and culturally and linguistically diverse indicators. We compare this across previous AEDC cohorts to show how attendance has trended over time across these different equity groups.

2. What is the relationship between playgroup attendance and children's development, and has this changed between 2012, 2015, 2018, and 2021 cohorts.

To explore the relationship between playgroup attendance and children's development, we replicated previous analysis investigating the association between playgroup attendance prior to full-time school and children's development at school entry. In previous analysis, sociodemographic information about the child and the community in which they lived were used to adjust for differences between children who did and did not attend playgroup that might influence their development outcomes. Additionally, the analysis explored if the relationship differed across jurisdictions, levels of geographical remoteness, socioeconomic disadvantage, as well as children's demographic characteristics. These results were then compared to those observed in the 2012, 2015, and 2018 AEDC cohorts to determine if there were any changes in the relationship between playgroup attendance and children's development over time.

3. What is the holistic value of Playgroup attendance to children across Australia, in different jurisdictions, and across various equity groups.

To answer this research question, we change our focus from developmental vulnerabilities to positive developmental attributes gained through playgroup attendance. We focus on outcomes of multiple strengths, an indicator used within the AEDC to show the number of strengths the child has based on each item measured. We further compare and contrast Playgroups against other ECEC modalities within this strengths-based analyses to show the comparative benefit.

The Australian Early Development Census

The Australian Early Development Census (AEDC) is a triennial, nationwide census measuring young Australian children in their first year of full-time school. The census has been collecting data nationally since 2009, and the latest data wave collected was in 2021. Each collection yields a complete *snapshot* of the state of child development across Australia, and considered over time, any changes in child development outcomes can be observed. Community level results and information about the AEDC is available publicly online (www.aedc.gov.au). The AEDC measures 5 core developmental domains made up of approximately 100 individual items comprehensively capturing aspects of holistic development as shown in Figure 1. The AEDC is completed by the teacher of the child, at which point information is also collected on the context of each child's background, such as care and education prior to school, home language, and country of birth.

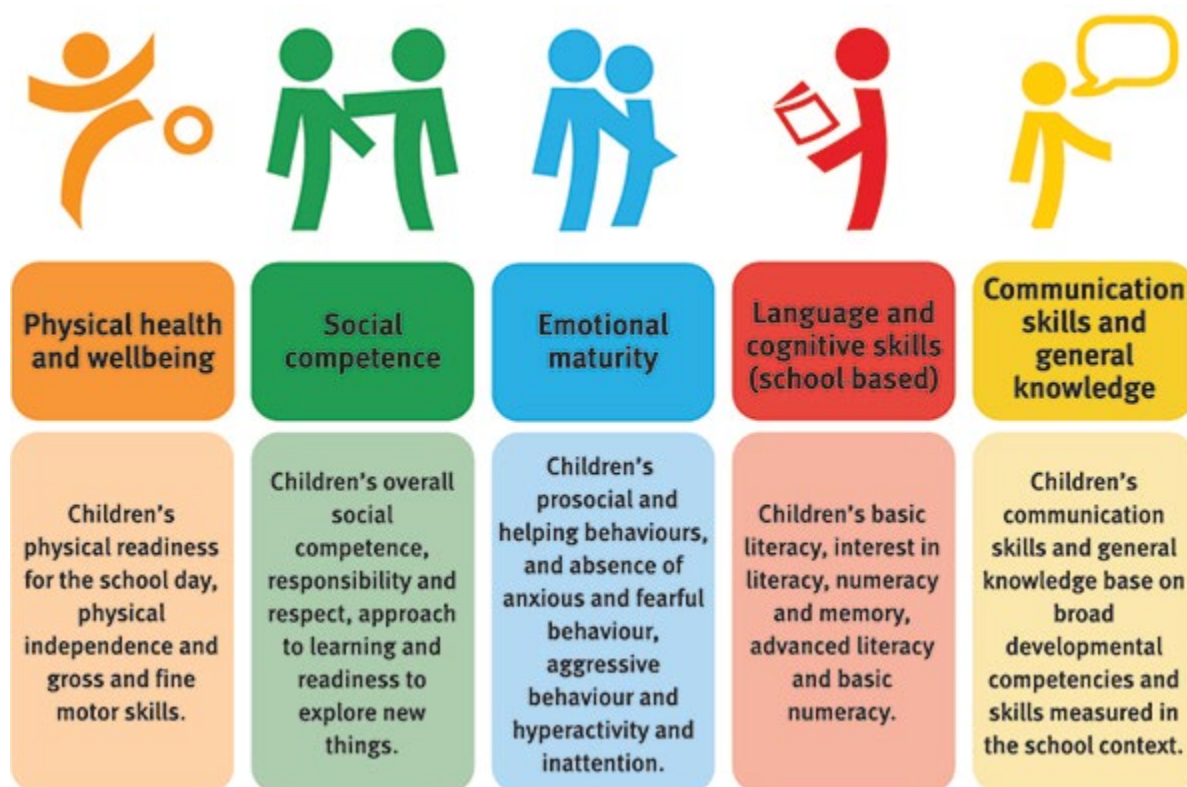


Figure 1: Developmental domains measured in the AEDC

Core to the AEDC, responses for each item are combined to create the child's domain score. This score is then compiled and ordered against the total sample across the country to establish the national 'cut-offs'. The AEDC 2009 collection created the baseline where scores ranked in the lowest 10th percentile are classified as *developmentally vulnerable*, scores between the 10th and 25th percentile are *developmentally at risk*, and scores ranked above the 25th percentile are classified as *developmentally on track*. All AEDC data collections are referenced back to the baseline set in 2009.

In addition to the AEDC's data collection, the dataset is linked to the Australian Bureau of Statistic's (ABS) Socio-Economic Indexes for Areas (SEIFA) indicator. SEIFA collates national population census data to construct a measure of relative economic disadvantage based on area statistics including average income levels, levels of education, unemployment, access to services, and occupations. By linking this at the lowest level geographically possible based on the child's home address, each child is able to be categorised into an estimate of their relative socioeconomic disadvantage categorised into quintile 1 (most disadvantaged) to quintile 5 (least disadvantaged)^[22]. The child's address is also used to link into the Australian Standard Geographical Standard (ASGS) Remoteness Areas, which separates the child's location into major cities, inner regional, outer regional, remote Australia, and Very Remote Australia^[23]. As ABS and ASGS data are continually updated, the newest AEDC data release applies the latest SEIFA and ASGS Remoteness categories retrospectively to all children which may result in slight departures from previous results within the replication analyses.

Playgroup Attendance Across Australia – Patterns and Trends

National and jurisdictional playgroup attendance

Since the 2012 AEDC, teachers have been asked whether children had attended playgroup prior to commencing full-time school. This indicator of playgroup attendance forms the backbone of the entire analysis within this report. Table 1 shows teacher's responses to this question from 2012 through to 2021. A large majority of teachers respond 'don't know' to the child's prior playgroup attendance, and this figure has been increasing at a 1-2% rate per data wave, increasing from 59% in 2012, to 65% in 2021.

Across jurisdictions, the number of teachers not knowing the child's prior playgroup attendance ranged from 43% in Tasmania, to 79% in the ACT. Comparing 2018 to 2021 data years, ACT and Tasmania both had drops in the number of 'don't know' responses, whereas other jurisdictions either saw similar rates, or slight increases. Large variations in the 'don't know' response across jurisdictions are likely due to school transition practices, teacher engagement with parents and the details captured (or not) on school enrolment forms.

Another option is for teachers to leave the item blank instead of filling in 'don't know', yet this is seldom done in 2021 and previous cohorts. As per the previous reporting of playgroup attendance, we take the view that by filling in 'don't know' as a response the teacher has answered the question to the best of their knowledge of the child. Critically, this allows us to draw inference from the valid 'yes' and 'no' responses only as we can trust that these are credible (particularly the no responses). From that logic we then extrapolate the actual credible number of playgroup attendees across the whole sample.

Discounting the 'don't know' responses, Table 2 shows playgroup attendance between 'yes, no' responses only. Valid responses have slowly decreased over the collection years, from near 120,000 in 2012 to approximately 107,000 in 2021. The proportion of attendees has also gradually decreased nationally from 36% in 2018 to 32% in 2021. Between the jurisdictions, South Australia and Tasmania had the highest attendance rates (50% and 70% respectively) in 2021, whereas the lowest were seen in New South Wales (21%), the ACT (27%) and Queensland (29%). Jurisdictional differences may be accounted for by different availability of playgroup programs and different providers. For instance, in Tasmania playgroups are provided through the Launch into Learning program which has existed since 2007 and delivered by primary schools.

Figure 2 visualises the proportion of valid 'yes' responses across jurisdictions and over time. Across all jurisdictions and nationally it is clear that there is a decline in attendance rates from 2018 to 2021. When we consider the impact of COVID-19 and pandemic policies, it may help explain this decrease in attendance, however we would also expect to see larger jurisdictional differences in states and territories where pandemic policies had greater impact such as in Victoria. Yet within the data jurisdictions such as Western Australia, South Australia, Northern Territory, and New South Wales which were affected by COVID policies to a much less scale than Victoria we see similar rates of decline. For most jurisdictions, the percentage of children attending are at their lowest levels since the AEDC began a decade prior.

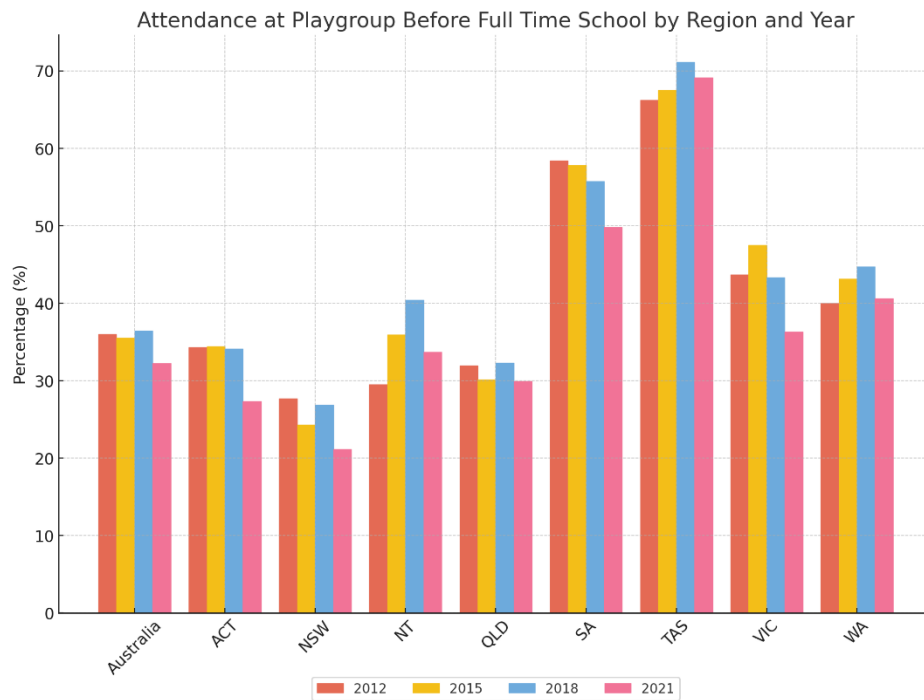


Figure 2 Playgroup attendance across jurisdictions over 2012, 2015, 2018, and 2021 AEDC cohorts

Taking the valid responses and extrapolating into the full AEDC cohort, we create an estimate of what attendance numbers would look like if the entire sample had a valid response which is shown in table 3. Along with the drop in playgroup attendance as noted above, the estimate of the number of children attending playgroups across the entire sample has dropped significantly from 112,000 in 2018 to 98,000 in 2021. It is worth noting that the total sample in 2021 is slightly smaller than in previous years also contributing to this smaller number. Jurisdictionally, the number of estimated attendees follows the downward trend, with the ACT falling from 1,953 estimated in 2018 to 1,584 estimated in 2021. In NSW it fell from 26,269 estimated in 2018 to 20,202 estimated in 2021.

Table 1 Playgroup attendance for 2012, 2015, 2018, and 2021 AEDC cohorts

	Did the child attend playgroup before entering full time school?											
	2012			2015			2018			2021		
	Yes n (%)	No n (%)	Don't Know n (%)	Yes n (%)	No n (%)	Don't Know n (%)	Yes n (%)	No n (%)	Don't Know n (%)	Yes n (%)	No n (%)	Don't Know n (%)
Australia	42,952 (14.9)	76,293 (26.4)	169,342 (58.7)	40,743 (13.5)	73,999 (24.6)	186,250 (61.9)	41,310 (13.4)	72,133 (23.4)	194,503 (63.2)	34,495 (11.3)	72,526 (23.9)	196,911 (64.8)
ACT	516 (10.6)	987 (20.3)	3,365 (69.1)	369 (6.8)	703 (13.0)	4,327 (80.1)	322 (5.6)	623 (10.9)	4,768 (83.5)	327 (5.6)	870 (15.0)	4,594 (79.3)
NSW	10,483 (11.1)	27,429 (29.1)	56,324 (59.8)	9,318 (9.7)	29,078 (30.3)	57,558 (60.0)	9,374 (9.6)	25,558 (26.1)	62,855 (64.3)	6,583 (6.9)	24,555 (25.7)	64,396 (67.4)
NT	447 (13.4)	1,069 (32.1)	1,815 (54.5)	485 (14.1)	866 (25.2)	2,087 (60.7)	533 (15.9)	786 (23.5)	2,028 (60.6)	409 (12.8)	805 (25.2)	1,984 (62.0)
QLD	9,957 (16.2)	21,300 (34.7)	30,040 (49.0)	8,716 (13.4)	20,253 (31.2)	35,956 (55.4)	10,606 (16.4)	22,198 (34.4)	31,716 (49.2)	9,410 (14.5)	22,029 (34.0)	33,300 (51.4)
SA	3,114 (16.7)	2,214 (11.8)	13,365 (71.5)	2,946 (15.0)	2,150 (11.0)	14,502 (74.0)	2,620 (13.0)	2,085 (10.3)	15,512 (76.7)	2,542 (12.6)	2,561 (12.7)	15,073 (74.7)
TAS	2,133 (33.3)	1,087 (16.9)	3,195 (49.8)	2,247 (35.0)	1,083 (16.9)	3,082 (48.1)	2,204 (35.9)	896 (14.6)	3,032 (49.4)	2,321 (39.1)	1,037 (17.5)	2,577 (43.4)
VIC	10,530 (15.5)	13,560 (20.0)	43,654 (64.4)	9,988 (14.0)	11,056 (15.4)	50,543 (70.6)	8,404 (11.1)	11,020 (14.5)	56,626 (74.5)	6,203 (8.5)	10,875 (14.8)	56,183 (76.7)
WA	5,772 (18.0)	8,647 (27.0)	17,584 (54.9)	6,674 (19.8)	8,810 (26.2)	18,195 (54.0)	7,247 (21.2)	8,967 (26.2)	17,966 (52.6)	6,700 (19.0)	9,794 (27.7)	18,804 (53.3)

Note – data on playgroup attendance were missing for 1,386 children in 2012, 1,011 in 2015, 1,007 in 2018, and 1,083 in 2021.

Table 2 Playgroup attendance for 2012, 2015, 2018, and 2021, yes no responses only

	Did the child attend playgroup before entering full time school?											
	2012			2015			2018			2021		
	Yes n (%)	No n (%)	Total n (%)	Yes n (%)	No n (%)	Total n (%)	Yes n (%)	No n (%)	Total n (%)	Yes n (%)	No n (%)	Total n (%)
Australia	42,952 (36.0)	76,293 (64.0)	119,245 (100)	40,743 (35.5)	73,999 (64.5)	114,742 (100)	41,310 (36.4)	72,133 (63.6)	113,443 (100)	34,495 (32.2)	72,526 (67.8)	107,021 (100)
ACT	516 (34.3)	987 (65.7)	1,503 (100)	369 (34.4)	703 (65.6)	1,072 (100)	322 (34.1)	623 (65.9)	945 (100)	327 (27.3)	870 (72.7)	1,197 (100)
NSW	10,483 (27.7)	27,429 (72.3)	37,912 (100)	9,318 (24.3)	29,078 (75.7)	38,396 (100)	9,374 (26.8)	25,558 (73.2)	34,932 (100)	6,583 (21.1)	24,555 (78.9)	31,138 (100)
NT	447 (29.5)	1,069 (70.5)	1,516 (100)	485 (35.9)	866 (64.1)	1,351 (100)	533 (40.4)	786 (59.6)	1,319 (100)	409 (33.7)	805 (66.3)	1,214 (100)
QLD	9,957 (31.9)	21,300 (68.1)	31,257 (100)	8,716 (30.1)	20,253 (69.9)	28,969 (100)	10,606 (32.3)	22,198 (67.7)	32,804 (100)	9,410 (29.9)	22,029 (70.1)	31,439 (100)
SA	3,114 (58.4)	2,214 (41.6)	5,328 (100)	2,946 (57.8)	2,150 (42.2)	5,096 (100)	2,620 (55.7)	2,085 (44.3)	4,705 (100)	2,542 (49.8)	2,561 (50.2)	5,103 (100)
TAS	2,133 (66.2)	1,087 (33.8)	3,220 (100)	2,247 (67.5)	1,083 (32.5)	3,330 (100)	2,204 (71.1)	896 (28.9)	3,100 (100)	2,321 (69.1)	1,037 (30.9)	3,358 (100)
VIC	10,530 (43.7)	13,560 (56.3)	24,090 (100)	9,988 (47.5)	11,056 (52.5)	21,044 (100)	8,404 (43.3)	11,020 (56.7)	19,424 (100)	6,203 (36.3)	10,875 (63.7)	17,078 (100)
WA	5,772 (40.0)	8,647 (60.0)	14,419 (100)	6,674 (43.1)	8,810 (56.9)	15,484 (100)	7,247 (44.7)	8,967 (55.3)	16,214 (100)	6,700 (40.6)	9,794 (59.4)	16,494 (100)

Note – Children were excluded where information on playgroup attendance was missing or the teacher responded "don't know"

Table 3 Estimates of the number of children who attended playgroup prior to school

	2012			2015			2018			2021		
	# children in AEDC cohort	% attending playgroup	Estimated # attending playgroup	# children in AEDC cohort	% attending playgroup	Estimated # attending playgroup	# children in AEDC cohort	% attending playgroup	Estimated # attending playgroup	# children in AEDC cohort	% attending playgroup	Estimated # attending playgroup
Australia	289,973	36.0	104,390	302,003	35.5	107,211	308,953	36.4	112,459	305,015	32.2	98,215
ACT	4,898	34.3	1,680	5,415	34.4	1,863	5,727	34.1	1,953	5,803	27.3	1,584
NSW	94,572	27.7	26,196	96,156	24.3	23,366	98,020	26.8	26,269	95,744	21.1	20,202
NT	3,470	29.5	1,024	3,582	35.9	1,286	3,438	40.4	1,389	3,314	33.7	1,117
QLD	61,593	31.9	19,648	65,200	30.1	19,625	64,700	32.3	20,898	64,983	29.9	19,430
SA	18,921	58.4	11,050	19,669	57.8	11,369	20,303	55.7	11,309	20,251	49.8	10,085
TAS	6,430	66.2	4,257	6,425	67.5	4,337	6,151	71.1	4,373	5,988	69.1	4,138
VIC	67,931	43.7	29,686	71,737	47.5	34,075	76,245	43.3	33,014	73,492	36.3	26,678
WA	32,158	40.0	12,863	33,819	43.1	14,576	34,369	44.7	15,363	35,440	40.6	14,389

Table 4 Playgroup attendance for 2012, 2015, 2018, and 2021 AEDC cohorts by ASGS remoteness categories

	2012			2015			2018			2021		
	Yes n (%)	No n (%)	Total n (%)	Yes n (%)	No n (%)	Total n (%)	Yes n (%)	No n (%)	Total n (%)	Yes n (%)	No n (%)	Total n (%)
Australia	42,952 (36.0)	76,293 (64.0)	119,245 (100)	40,743 (35.5)	73,999 (64.5)	114,742 (100)	41,310 (36.4)	72,133 (63.6)	113,443 (100)	34,495 (32.2)	72,526 (67.8)	107,021 (100)
Major Cities of Australia	26,652 (34.6)	50,454 (65.4)	77,106 (100)	25,192 (33.9)	49,022 (66.1)	74,214 (100)	25,731 (34.4)	49,063 (65.6)	74,794 (100)	20,808 (29.6)	49,408 (70.4)	70,216 (100)
Inner Regional Australia	9,272 (38.3)	14,923 (61.7)	24,195 (100)	8,766 (37.6)	14,522 (62.4)	23,288 (100)	8,956 (39.5)	13,708 (60.5)	22,664 (100)	7,521 (35.4)	13,711 (64.6)	21,232 (100)
Outer Regional Australia	5,330 (39.3)	8,235 (60.7)	13,565 (100)	5,003 (38.2)	8,082 (61.8)	13,085 (100)	4,789 (39.6)	7,299 (60.4)	12,088 (100)	4,573 (38.6)	7,260 (61.4)	11,833 (100)
Remote Australia	991 (40.8)	1,435 (59.2)	2,426 (100)	982 (44.5)	1,224 (55.5)	2,206 (100.0)	1,036 (48.4)	1,104 (51.6)	2,140 (100.0)	933 (43.5)	1,213 (56.5)	2,146 (100.0)
Very Remote Australia	707 (36.2)	1,246 (63.8)	1,953 (100)	800 (41.0)	1,149 (59.0)	1,949 (100.0)	798 (45.4)	959 (54.6)	1,757 (100.0)	660 (41.4)	934 (58.6)	1,594 (100.0)

Playgroup attendance in metropolitan, regional, and remote areas of Australia

Playgroups operate in all sorts of contexts around the country, from small country towns to large urban centres. As such it is important to gauge the make-up of playgroups within these different area categories and explore how this has changed over time. As mentioned within the measures, AEDC reports area via the ASGS remoteness categories.

Table 4 and Figure 3 report attendance rates within categories of geographical remoteness. Coinciding with the decrease in playgroup attendance overall, in 2021 a similar drop in attendance was observed across nearly all categories of remoteness. These drops are within the 3-5% range for all remoteness categories aside from *Outer Regional* where attendance rates are largely in line with previous cohorts. In terms of attendance between location categories, little has changed from 2018 where *remote* and *very remote* have the largest proportion of attendees at 43% and 41% respectively, while these categories have seen major increases from 2012 to 2018, the drop in 2021 brings it back to 2015 levels within these remoteness categories. Major cities remain the geographical region where the lowest attendance rates are found, possibly due to the availability of differing ECEC modalities and/or differing family work arrangements. While the high levels of playgroup attendance rates in the *remote* and *very remote* regions is encouraging, as with the previous report it is important to note that overall, the number of children living in these areas is low, making up just 4,500 of the 107,000 responses.

It is important to note these categories of geographic remoteness vary across different jurisdictions, the makeup of which can be found in Appendix A.

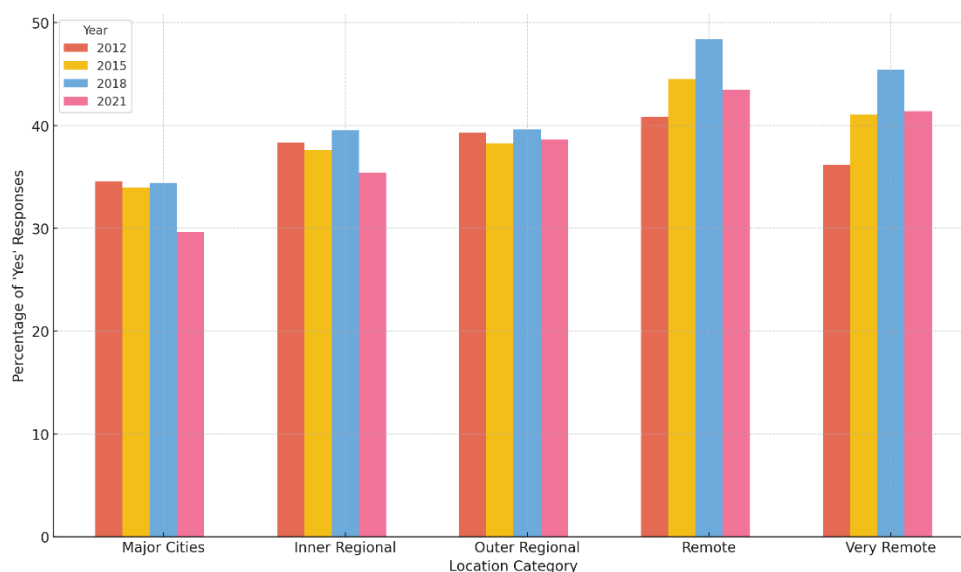


Figure 3 Playgroup attendance rates by geographical remoteness across 2012, 2015, 2018, and 2021 AEDC cohorts

Playgroup attendance rates in areas of high and low socioeconomic disadvantage

Attending community playgroups, while being among the most budget-friendly option for family activities, can present challenges for families with constrained financial resources or limited transportation access. In addition to these economic and logistical hurdles, studies have shown that there are several non-monetary obstacles that might hinder participation in playgroups. These challenges could be linked to a family's socioeconomic status. For instance, obtaining information about playgroups can be a barrier for some, transport may also be difficult, while others might feel

out of place or unable to blend in with the existing group dynamics due to perceived differences with other families^[24].

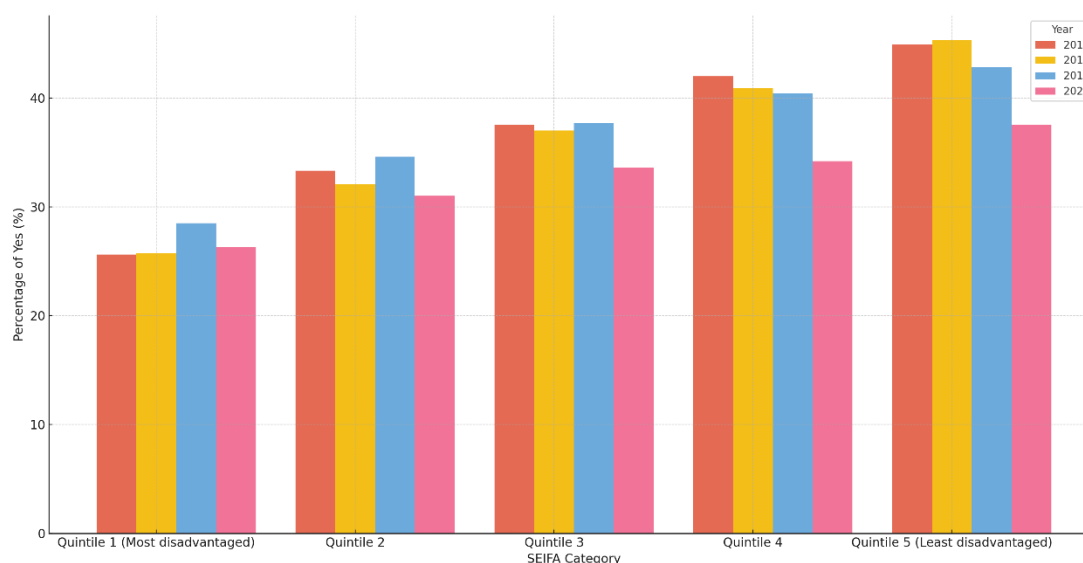


Figure 4 Playgroup attendance rates by SEIFA across 2012, 2015, 2018, and 2021 AEDC cohorts

To explore the effect of socioeconomic factors on playgroup attendance, we utilise the ABS SEIFA indicator which draws on socioeconomic indicators within the area where the child lives. SEIFA is reported within 5 categories from *quintile 1 (most disadvantaged)* to *quintile 5 (least disadvantaged)*, and as mentioned previously due to the retrospective update of SEIFA categories within the AEDC data, numbers may differ slightly from previously reported figures. The results from this analysis are found in Table 5 and Figure 4. As can be seen, the clear socioeconomic gradient found within previous analyses is retained within the 2021 cohort, with 26% attending in the most disadvantaged compared to 37.5% attending in the least disadvantaged.

The trend observed in the 2018 reported that attendance rates were increasing in the most disadvantaged, and decreasing in the least disadvantaged, however in the latest cohort attendance rates have dropped to their lowest since the AEDC was collected in all quintiles except for the most disadvantaged communities. Encouragingly, attendance rates of playgroups for children in the most disadvantaged category are relatively stable, discouragingly, while the slope of the socioeconomic gradient is becoming flatter, it is not due to an increase in attendance rates of the most disadvantaged.

Demographic characteristics of children by playgroup attendance rates

So far, we have explored attendance rates over large categorical splits at macro levels, starting from factors such as jurisdiction, remoteness, and socioeconomic category. We now shift our focus of attendance rates onto more child and family driven factors, including sex, Indigenous background, country of birth, and language backgrounds other than English. Within previous results the 2018 data indicated persistent gender differences in playgroup attendance rates prior to school commencement, with girls showing approximately 2% higher attendance rates than boys. Children with an Indigenous background were found to be less likely to attend playgroups before starting school in comparison to non-Indigenous children, however, there has been a positive trend of

increasing attendance rates over time. Specifically, the proportion of Indigenous children attending playgroup has grown from 1 in 5 in 2012 to over 1 in 4 in 2018.

The previous report showed that children born in English speaking countries outside of Australia had the highest attendance rates. Children born in non-English speaking countries had lower attendance rates, yet there has been a notable increase in their participation between 2015 and 2018. Additionally, children who only spoke English were more inclined to attend playgroups compared to children with a non-English language background. However, there was a significant rise in attendance rates among children from non-English speaking backgrounds, moving from 1 in 5 in 2012 to 1 in 4 in the 2018 cohort.

Exploring the latest data (Table 6), disregarding the drop in overall attendance rates, similar trends persist following from the previous report. Between sex, girls are slightly more likely to attend than boys (33% vs 31%). Children from Aboriginal and Torres Strait Islander backgrounds are still much less likely to attend (24% vs 33%). Children in other English-speaking countries now are more likely to attend than children born in Australia as compared to 2018, however children in non-English speaking countries are still least likely to attend. Children from families of non-English speaking backgrounds are still much less likely to attend (23% vs 35%). Overall, aside from the general fall in attendance rates across all categories, there does not seem to be any significant change in demographic make-up of playgroup attendees. A visual representation of the demographic make up of attendees can be seen in Figure 5.

The demographic tables are replicated for each jurisdiction in Appendix B.

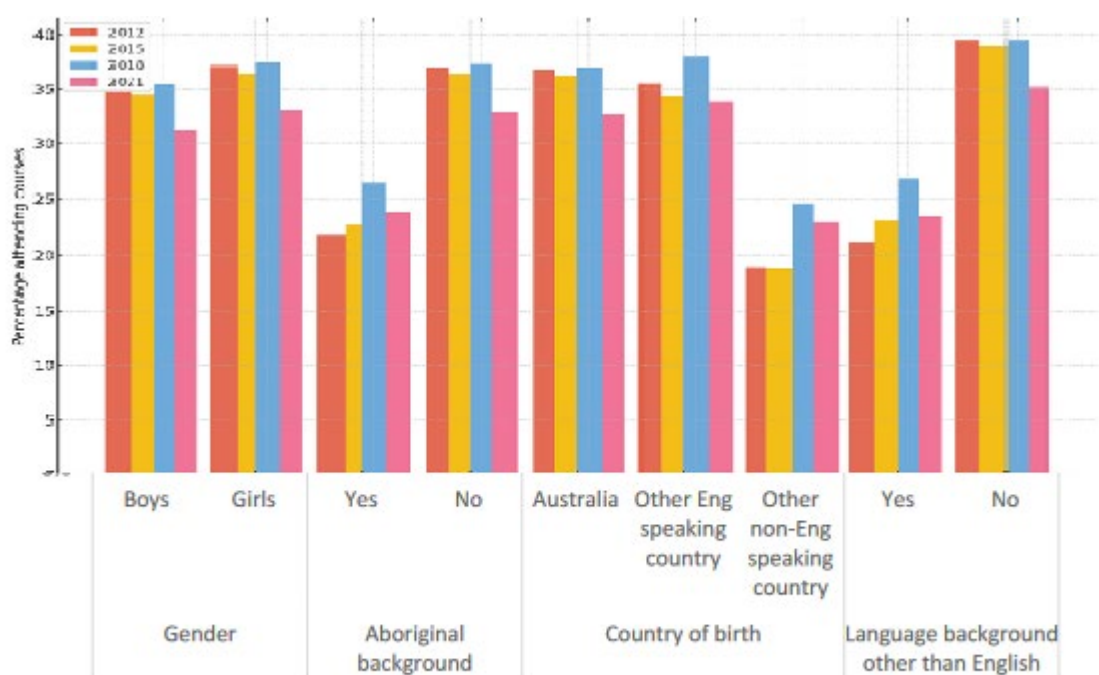


Figure 5 Playgroup attendance by children's individual demographic characteristics across 2012, 2015, 2018, and 2021 AEDC cohorts

Table 5 Playgroup attendance rates for 2012, 2015, 2018, and 2021 AEDC cohorts by SEIFA

	2012			2015			2018			2021		
	Yes n (%)	No n (%)	Total n (%)	Yes n (%)	No n (%)	Total n (%)	Yes n (%)	No n (%)	Total n (%)	Yes n (%)	No n (%)	Total n (%)
Quintile 1	7,259 (25.6)	21,062 (74.4)	28,321 (100)	7,072 (25.7)	20,436 (74.3)	27,508 (100)	7,323 (28.5)	18,405 (71.5)	25,728 (100)	6,222 (26.3)	17,446 (73.7)	23,668 (100)
Quintile 2	7,994 (33.3)	16,026 (66.7)	24,020 (100)	7,470 (32.1)	15,774 (67.9)	23,244 (100)	8,039 (34.6)	15,164 (65.4)	23,203 (100)	6,750 (31.0)	15,007 (69.0)	21,757 (100)
Quintile 3	8,574 (37.5)	14,272 (62.5)	22,846 (100)	8,213 (37.0)	13,973 (63.0)	22,186 (100)	8,476 (37.7)	13,977 (62.3)	22,453 (100)	7,183 (33.6)	14,196 (66.4)	21,379 (100)
Quintile 4	9,109 (42.0)	12,558 (58.0)	21,667 (100)	8,519 (40.9)	12,319 (59.1)	20,838 (100)	8,847 (40.4)	13,047 (59.6)	21,894 (100)	7,323 (34.2)	14,077 (65.8)	21,400 (100)
Quintile 5	9,923 (44.9)	12,173 (55.1)	22,096 (100)	9,402 (45.3)	11,340 (54.7)	20,742 (100)	8,535 (42.8)	11,403 (57.2)	19,938 (100)	6,908 (37.5)	11,524 (62.5)	18,432 (100)

Table 6 Playgroup attendance by demographic characteristics

	2012		2015		2018		2021	
	Yes n (%)	No n (%)	Yes n (%)	No n (%)	Yes n (%)	No n (%)	Yes n (%)	No n (%)
Australia	42,952 (36.0)	76,293 (64.0)	40,743 (35.5)	73,999 (64.5)	41,310 (36.4)	72,133 (63.6)	34,495 (32.2)	72,526 (67.8)
Gender								
Male	21,590 (35.0)	40,125 (65.0)	20,380 (34.5)	38,639 (65.5)	20,869 (35.5)	37,989 (64.5)	17,320 (31.3)	37,984 (68.7)
Female	21,362 (37.1)	36,168 (62.9)	20,363 (36.5)	35,360 (63.5)	20,441 (37.4)	34,144 (62.6)	17,175 (33.2)	34,542 (66.8)
Aboriginal and Torres Strait Islander background								
No	41,285 (37.0)	70,273 (63.0)	38,859 (36.5)	67,522 (63.5)	38,957 (37.3)	65,569 (62.7)	32,304 (33.0)	65,459 (67.0)
Yes	1,667 (21.7)	6,020 (78.3)	1,884 (22.5)	6,477 (77.5)	2,337 (26.4)	6,526 (73.6)	2,191 (23.7)	7,067 (76.3)
Country of Birth								
Australia	40,744 (36.8)	70,094 (63.2)	38,700 (36.3)	67,874 (63.7)	39,031 (37.0)	66,323 (63.0)	32,835 (32.7)	67,672 (67.3)
Other Country	900 (19.0)	3,836 (81.0)	886 (18.9)	3,797 (81.1)	1,413 (24.5)	4,359 (75.5)	1,015 (22.8)	3,435 (77.2)
Other English Speaking Country	1,305 (35.6)	2,361 (64.4)	1,077 (34.3)	2,067 (65.7)	791 (37.9)	1,296 (62.1)	531 (34.0)	1,029 (66.0)
Language background other than English								
No	38,244 (39.5)	58,597 (60.5)	35,202 (38.9)	55,372 (61.1)	34,000 (39.5)	52,075 (60.5)	28,155 (35.2)	51,815 (64.8)
Yes	4,708 (21.0)	17,696 (79.0)	5,541 (22.9)	18,627 (77.1)	7,310 (26.7)	20,058 (73.3)	6,340 (23.4)	20,711 (76.6)

Summary

Playgroup attendance has shifted significantly from 2018 to 2021, with a decrease in overall attendance rates in all states and jurisdictions. It is likely that some of this shift was due to the impact of COVID-19 and relevant policy changes between collections. Moreover, through disaggregation to different equity groups this drop in attendance rates persists across most sub-population groups.

Key points

- Playgroup attendance rates has dropped from 36.4% to 32.2%, resulting in an estimated decrease of 15,000 playgroup attendees between these two cohorts.
- South Australia and Tasmania continue to have the highest proportion of children attending playgroups, however South Australia has continued in a downward trend with 4 consecutive cohorts reporting decreases in attendance rates. Tasmania sees its first fall in attendance since 2012. Other jurisdictions see significant drops in attendance, in particular ACT, NSW, NT, and Victoria.
- Attendance rates in remote and very remote locations remains higher than regional and major urban centres. All remoteness categories aside from *outer regional* see a decrease in attendance rates from 2018 to 2021.
- The gap in attendance rates between *most disadvantaged* and *least disadvantaged* socioeconomic categories has narrowed, however this is not due to an increase in attendees at the *most disadvantaged* level which has remained relatively stable, but rather a large decrease in attendance rates from the 3rd SEIFA quintile upward to the *least disadvantaged* socioeconomic category.
- The drop in playgroup attendance rates does not seem to have differed depending on demographic factors at the family and child level. Girls are still more likely to attend than boys, as are children not from Aboriginal and Torres Strait Islander backgrounds and children not from English speaking backgrounds.

The Relationship Between Playgroup Attendance and Child Development

Developmental vulnerability amongst children who did and did not attend playgroups

Developmental vulnerability within the AEDC is defined as being in the bottom 10th percentile on any of the five AEDC domains. On each domain it is possible to be developmentally vulnerable, at risk or on-track. Table 7 shows the frequency and percentage of children with developmental vulnerability on the five AEDC domains, and summary indicators which indicate vulnerability on either 1, or 2 or more domains. It is important to note that these figures only account for children with reported playgroup attendance and does not include children with teachers who indicated *don't know* to playgroup attendance. Additionally, this is shown graphically in Figure 6. As we can see, children who attend playgroup continue to be much less likely to be developmentally vulnerable on any of the domains, and this has remained stable through the 2021 cohort. Overall, the proportion of developmentally vulnerable children seems to have increased slightly for *Physical Health and Wellbeing*, *Emotional Maturity*, and *Language and Cognitive Skills (School-Based)*. Considering the summary indicators, the proportion of children who are developmentally vulnerable on one or more domains have continued to increase over time. Crucially, the increase in developmental vulnerability does not seem to impact the reduced risk based on playgroup attendance.

Table 7 Developmental vulnerability on AEDC domains by playgroup attendance

	2012		2015		2018		2021	
	Yes n (%)	No n (%)	Yes n (%)	No n (%)	Yes n (%)	No n (%)	Yes n (%)	No n (%)
Australia	42,952 (36.0)	76,293 (64.0)	40,743 (35.5)	73,999 (64.5)	41,310 (36.4)	72,133 (63.6)	34,495 (32.2)	72,526 (67.8)
Physical Health and Wellbeing	2,772 (6.8)	8,849 (12.3)	2,881 (7.4)	9,075 (12.9)	3,026 (7.7)	8,974 (13.1)	2,540 (7.8)	9,309 (13.6)
Social Competence	2,625 (6.4)	8,538 (11.9)	2,760 (7.1)	9,221 (13.2)	2,841 (7.2)	8,793 (12.8)	2,288 (7.0)	8,791 (12.9)
Emotional Maturity	2,309 (5.7)	6,897 (9.6)	2,556 (6.6)	7,589 (10.9)	2,663 (6.8)	7,427 (10.9)	2,290 (7.0)	7,538 (11.1)
Language and Cognitive Skills (school-based)	1,507 (3.7)	7,284 (10.1)	1,534 (3.9)	6,899 (9.8)	1,669 (4.2)	6,974 (10.2)	1,539 (4.7)	7,529 (11.0)
Communication Skills and General Knowledge	2,075 (5.1)	8,885 (12.3)	2,042 (5.2)	8,655 (12.3)	2,155 (5.5)	8,072 (11.8)	1,769 (5.4)	8,183 (12.0)
Developmentally Vulnerable on 1 or more domains	6,402 (15.8)	19,761 (27.5)	6,464 (16.6)	19,575 (28.0)	6,624 (16.8)	18,861 (27.6)	5,667 (17.3)	19,205 (28.2)
Developmentally Vulnerable on 2 or more domains	2,823 (6.9)	10,589 (14.7)	2,918 (7.5)	10,921 (15.6)	3,191 (8.1)	10,451 (15.3)	2,639 (8.1)	10,943 (16.0)

Note – number of valid cases will be slightly lower than total n as number of valid responses varies across domains/indicators

The previous report came to a conclusion that the increased developmental vulnerability for playgroup attendees on the *social competence* and *emotional maturity* domains was due to the increase in attendance rates in more socioeconomically disadvantaged children, however through the latest wave of data the proportion of playgroup attendees who are developmentally vulnerable on *social competence* has decreased, and increased for playgroup non-attendees. Children who do not attend playgroup have a more than 1 in 4 chance of being developmentally vulnerable on 1 or more domains, whereas this is nearly halved to 1 in 8 who do attend playgroup.

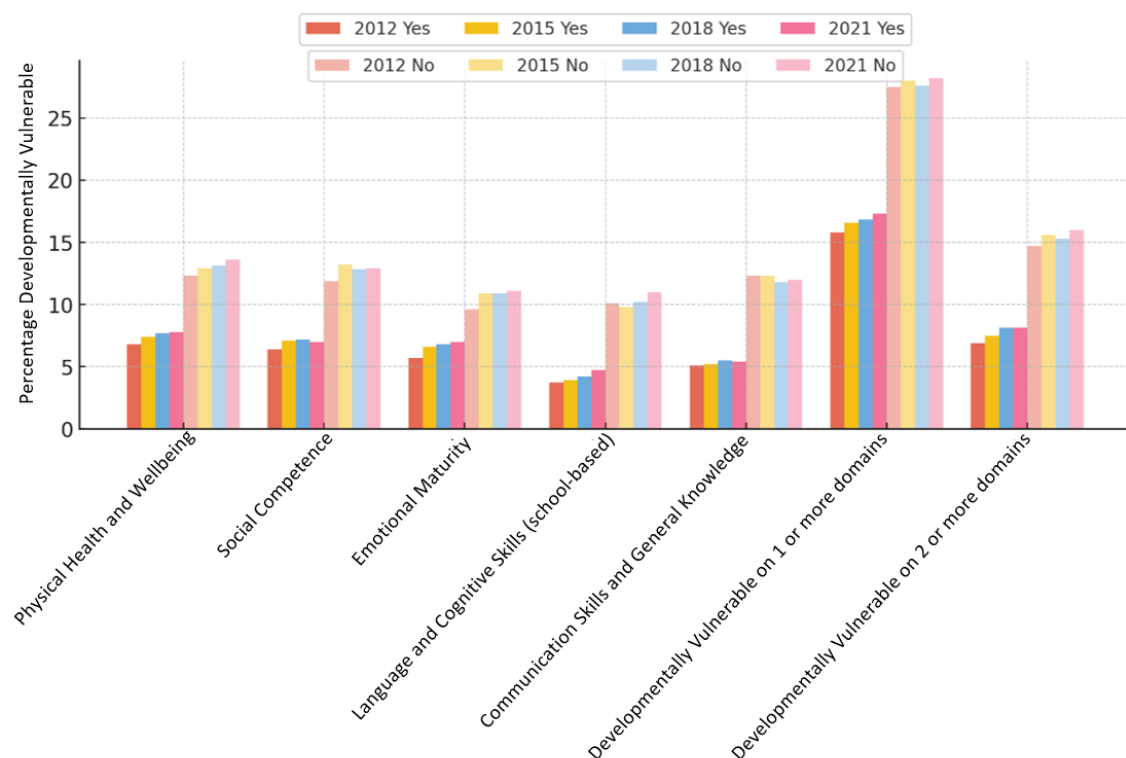


Figure 6 Developmental vulnerability on AEDC domains by year and playgroup attendance

The relationship between playgroup attendance and child development

As we are aware of significant imbalances between playgroup attendance and child development due to socioeconomic, gender, and other demographic variables the analyses herein are presented as modelled results. Modelling outcomes of child development, either vulnerabilities or strengths, allows adjustment for various demographic elements that we know to be intertwined with our outcomes. This allows us to single out and focus on only the point of interest, in this case, the impact of playgroup attendance on child development while controlling for demographic factors. Furthermore, we are able to stratify these models by collection years, essentially allowing us to compare trends and changes in modelled relationships between years. Modelled effect sizes are considered meaningful if 95% confidence intervals do not cross the critical value of 1.

Table 9 presents modelled results of playgroup attendance and AEDC, specifically, being vulnerable on 1 or more domains, by year separately. Included adjustments are made for gender, Aboriginal and Torres Strait Islander status, Country of Birth, Language Background other Than English, Remoteness category, and SEIFA quintile. Results are presented in Odds Ratios and are interpreted as the increased odds as compared to the reference group. Odds Ratios (OR) that are larger than one indicates increased odds, and less than one indicates decreased odds. Within the models, holding all other variables constant, not attending playgroups is associated with 1.73 times the odds of having at least one developmental vulnerability. This relationship has been largely stable over the years, with each year being within each other years 95% confidence range.

The relationship between playgroup attendance and child development across different population groups

To make inference on how different equity groups differ according to playgroup attendance, stratified models of each equity group is modelled separately to find the relative change in effect for that equity group. Stratification effectively reduces the sample to only those of the stratified, for example,

when looking at stratified models of gender, separate models of boys and girls are done separately to gauge how the effect of playgroup attendance differs between genders. A quick way to discern whether the difference between subgroups is meaningful is to assess whether the 95% confidence intervals overlap between the two estimates.

Stratified models are reported in Table 10. On gender, the odds of developmental vulnerability are higher for boys who do not attend playgroup compared to girls (OR 1.81 vs OR 1.67 respectively), however when looking at the 95% confidence intervals in 2021 they overlap between genders. This was not the case in 2018 and 2012 suggesting inconsistent gender differences. Nonetheless, in all collections aside from 2015, the results indicate that attending playgroups has a greater positive impact for boys. For children from Aboriginal and Torres Strait Islander backgrounds, there is seemingly higher risk of developmental vulnerability for Aboriginal and Torres Strait Islander children who do not attend playgroups, and seemingly this difference is getting wider over time. However, when looking at the confidence intervals the overlap indicates we cannot be certain this is the case. The relative relationship between categories of country of birth has remained stable over time, with playgroup attendance protective of developmental vulnerabilities regardless of background.

The odds of developmental vulnerability for children not attending playgroup was greatly increased in regional areas compared to urban, in particular, outer regional and remote Australia. This relationship has remained stable over time, with children living in outer regional, remote, and very remote Australia having nearly twice the odds of developmental vulnerabilities if they did not attend playgroups. When viewed within quintiles of SEIFA, the odds of developmental vulnerability increased as socioeconomic advantage decreased for children not attending playgroup. This suggests that it is the most disadvantaged children who gain the most benefit from attending playgroups.

[The relationship between playgroup attendance and child development across different jurisdictions](#)

The final frame of analyses we focus on is jurisdictional differences in playgroup attendance on developmental vulnerability. To do this, we run models of playgroup attendance on developmental vulnerability on one or more AEDC domain stratified by jurisdiction, while still adjusting for all other demographic confounders. Results differ slightly from previously reported estimates due to the retrospective adjustment to area boundaries.

The results of these models are shown in Table 8. In 2021, statistically meaningful OR are found in all jurisdictions aside from ACT and NT, where ACT is on the cusp of a meaningful estimate. The highest OR, or alternatively where playgroup attendance is most protective of developmental vulnerability is in SA and Tasmania, in both jurisdictions not attending playgroups more than doubles the risk of one or more developmental vulnerabilities. Across jurisdictions there has been minimal variation over time, in most cases estimates fall within 95% confidence intervals of previous years. Of note, OR in NT has dropped to its lowest level in 4 iterations, likewise protective effects of developmental vulnerability has also seen slight falls in ACT, VIC, and WA. Framing back to previous sections, higher benefits seen in SA and Tasmania align with the relatively higher percentage of overall attendees in those jurisdictions. The relative effect sizes over time can also be visualised in Figure 7 via a coefficient plot which shows each estimate at each year for each jurisdiction.

We also note that effect sizes for Tasmania have been consistently higher than most other jurisdictions and this continues into the 2021 cohort. Unique to Tasmania is the Launching into Learning (LIL) program which formalised a playgroup service to 0-5 year old Tasmanian children at a universal level. Specifically, the program is run by a teacher trained in the early years and is available at all government public primary schools across the state. The large effect sizes we see within our

results for Tasmanian children is in line with evaluations done on LIL in the past finding improved academic achievement for children participating in LIL, and further promotes enhancing quality playgroup programs^[25]. In all jurisdictions the state and territory playgroup associations support playgroups along with varying levels of support from government departments and community organisations. Playgroup coverage and implementation varies dramatically across jurisdictions.

Pertinent to the varying jurisdictional differences of playgroup offerings, there is no data collected on playgroup quality or playgroup type making it difficult to make inference on how these may affect child development later on, nor are we aware of any attempt to develop frameworks or quality checks cross-jurisdictionally to ensure consistent delivery.

Table 8 Relationship between playgroup attendance and developmental vulnerability on one or more AEDC domains in each jurisdiction

	2012			2015			2018			2021		
ACT	1.31	(0.99- 1.74)		1.56	(1.10- 2.23)	*	1.5	(1.07- 2.12)	*	1.37	(1.00- 1.88)	
NSW	1.49	(1.40- 1.59)	**	1.56	(1.46- 1.67)	**	1.38	(1.29- 1.47)	**	1.57	(1.46- 1.70)	**
NT	1.72	(1.29- 2.29)	**	1.34	(1.01- 1.78)	*	1.45	(1.08- 1.94)	*	1.21	(0.89- 1.65)	
QLD	1.71	(1.61- 1.82)	**	1.62	(1.52- 1.73)	**	1.72	(1.62- 1.82)	**	1.77	(1.66- 1.89)	**
SA	1.97	(1.70- 2.29)	**	1.67	(1.44- 1.93)	**	2.13	(1.83- 2.47)	**	2.15	(1.87- 2.47)	**
TAS	2.73	(2.26- 3.30)	**	2.58	(2.15- 3.11)	**	2.05	(1.69- 2.50)	**	2.27	(1.89- 2.72)	**
VIC	1.81	(1.68- 1.94)	**	1.83	(1.69- 1.97)	**	1.99	(1.84- 2.16)	**	1.85	(1.70- 2.02)	**
WA	1.92	(1.75- 2.11)	**	1.82	(1.66- 1.99)	**	1.79	(1.64- 1.96)	**	1.65	(1.52- 1.80)	**

OR = odds ratio, CI = confidence interval, * = $p < .05$, ** = $p < .001$. Results presented here may differ slightly from those presented previously due to retrospective adjustment of boundaries used in SEIFA and ASGS remoteness

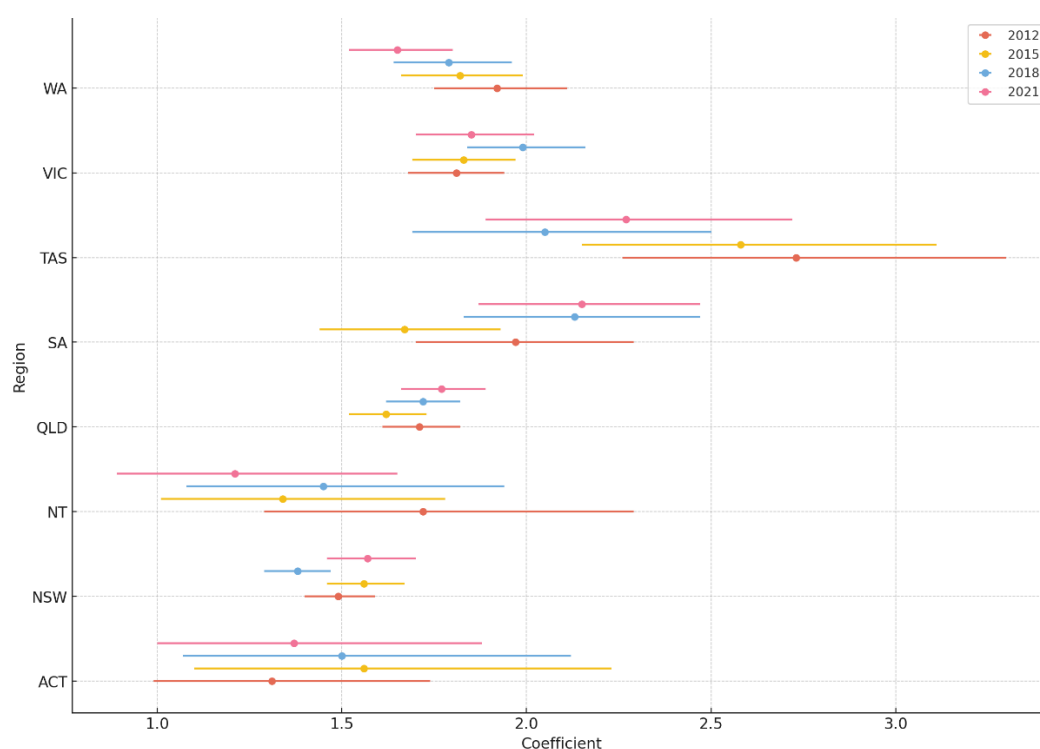


Figure 7 Effect sizes of playgroup attendance on developmental vulnerability by jurisdiction and AEDC cohort year

Table 9 Relationship between playgroup attendance and developmental vulnerability on one or more AEDC domains

	2012			2015			2018			2021		
	OR	95% CI		OR	95% CI		OR	95% CI		OR	95% CI	
Playgroup attendance												
Yes	ref			ref			ref			ref		
No	1.72	(1.67- 1.78)	**	1.68	(1.63- 1.74)	**	1.69	(1.64- 1.75)	**	1.73	(1.67- 1.79)	**
Gender												
Male	ref			ref			ref			ref		
Female	0.46	(0.45- 0.47)	**	0.44	(0.43- 0.46)	**	0.46	(0.45- 0.48)	**	0.46	(0.45- 0.48)	**
Aboriginal and Torres Strait Islander background												
No	ref			ref			ref			ref		
Yes	2.21	(2.09- 2.34)	**	2.30	(2.18- 2.43)	**	2.20	(2.09- 2.32)	**	2.27	(2.16- 2.39)	**
Country of Birth												
Australia	ref			ref			ref			ref		
Other Country	1.34	(1.25- 1.44)	**	1.34	(1.25- 1.44)	**	1.39	(1.30- 1.48)	**	1.20	(1.12- 1.29)	**
Other English Speaking Country	1.03	(0.95- 1.13)	**	1.07	(0.97- 1.17)		1.16	(1.04- 1.29)	**	1.12	(0.99- 1.27)	
Unknown	1.00	(1.09- 1.45)	**	1.30	(1.02- 1.66)	*	1.34	(0.95- 1.88)		1.22	(1.00- 1.49)	
Language background other than English												
No	ref			ref			ref			ref		
Yes	1.36	(1.31- 1.41)	**	1.29	(1.24- 1.34)	**	1.23	(1.19- 1.28)	**	1.21	(1.17- 1.26)	**
Remoteness												
Major Cities of Australia	ref			ref			ref			ref		
Inner Regional Australia	1.01	(0.97- 1.05)	**	1.03	(0.99- 1.07)		1.04	(1.00- 1.09)	*	1.07	(1.03- 1.11)	**
Outer Regional Australia	1.03	(0.98- 1.07)		1.02	(0.97- 1.07)		0.94	(0.89- 0.99)	*	1.06	(1.01- 1.11)	*
Remote Australia	0.94	(0.85- 1.04)		1.16	(1.05- 1.29)	**	0.96	(0.86- 1.07)		1.05	(0.95- 1.17)	
Very Remote Australia	1.42	(1.27- 1.58)	**	1.72	(1.55- 1.92)	**	1.79	(1.60- 2.00)	**	1.52	(1.35- 1.71)	**
SEIFA Category												
Quintile 1 (most disadvantaged)	ref			ref			ref			ref		
Quintile 2	0.71	(0.68- 0.74)	**	0.74	(0.71- 0.77)	**	0.71	(0.68- 0.74)	**	0.74	(0.71- 0.77)	**
Quintile 3	0.60	(0.57- 0.62)	**	0.61	(0.59- 0.64)	**	0.59	(0.57- 0.62)	**	0.59	(0.56- 0.61)	**
Quintile 4	0.50	(0.48- 0.53)	**	0.52	(0.49- 0.54)	**	0.51	(0.49- 0.54)	**	0.50	(0.48- 0.53)	**
Quintile 5 (least disadvantaged)	0.40	(0.38- 0.42)	**	0.43	(0.41- 0.45)	**	0.40	(0.38- 0.42)	**	0.41	(0.39- 0.43)	**
Intercept	0.39	(0.37- 0.41)	**	0.40	(0.38- 0.42)	**	0.40	(0.38- 0.42)	**	0.41	(0.39- 0.43)	**

OR = odds ratio, CI = confidence interval, * = $p < .05$, ** = $p < .001$. Results presented here may differ slightly from those presented previously due to retrospective adjustment of boundaries used in SEIFA and ASGS remoteness

Table 10 Relationship between playgroup attendance and developmental vulnerability on one or more AEDC domain stratified by different population groups

	2012			2015			2018			2021		
	OR	95% CI		OR	95% CI		OR	95% CI		OR	95% CI	
Playgroup attendance												
Yes	1.00			1.00			1.00			1.00		
No	1.72	(1.67- 1.78)	**	1.68	(1.63- 1.74)	**	1.69	(1.64- 1.75)	**	1.73	(1.67- 1.79)	**
Gender												
Male	1.66	(1.59- 1.73)	**	1.68	(1.61- 1.76)	**	1.62	(1.56- 1.69)	**	1.67	(1.60- 1.75)	**
Female	1.84	(1.74- 1.94)	**	1.68	(1.59- 1.77)	**	1.81	(1.72- 1.91)	**	1.81	(1.71- 1.92)	**
Aboriginal and Torres Strait Islander background												
No	1.72	(1.66- 1.78)	**	1.69	(1.63- 1.75)	**	1.69	(1.63- 1.74)	**	1.71	(1.65- 1.77)	**
Yes	1.77	(1.56- 2.00)	**	1.66	(1.47- 1.86)	**	1.80	(1.62- 2.00)	**	1.89	(1.70- 2.11)	**
Country of Birth												
Australia	1.74	(1.68- 1.80)	**	1.67	(1.62- 1.73)	**	1.70	(1.64- 1.76)	**	1.73	(1.66- 1.79)	**
Other Country	1.54	(1.29- 1.84)	**	1.76	(1.47- 2.11)	**	1.53	(1.32- 1.76)	**	1.65	(1.39- 1.97)	**
Other English Speaking Country	1.34	(1.11- 1.62)	**	1.86	(1.51- 2.30)	**	1.72	(1.35- 2.18)	**	1.91	(1.43- 2.56)	**
Language background other than English												
No	1.76	(1.70- 1.83)	**	1.71	(1.65- 1.78)	**	1.74	(1.68- 1.81)	**	1.75	(1.68- 1.82)	**
Yes	1.54	(1.42- 1.67)	**	1.58	(1.46- 1.70)	**	1.56	(1.46- 1.67)	**	1.66	(1.54- 1.79)	**
Remoteness												
Major Cities of Australia	1.59	(1.52- 1.66)	**	1.60	(1.53- 1.67)	**	1.60	(1.54- 1.67)	**	1.61	(1.54- 1.68)	**
Inner Regional Australia	1.99	(1.86- 2.14)	**	1.81	(1.68- 1.94)	**	1.83	(1.71- 1.97)	**	1.86	(1.73- 2.00)	**
Outer Regional Australia	2.03	(1.86- 2.23)	**	2.00	(1.82- 2.19)	**	1.92	(1.75- 2.12)	**	2.02	(1.83- 2.22)	**
Remote Australia	1.52	(1.21- 1.89)	**	1.87	(1.50- 2.33)	**	1.99	(1.58- 2.50)	**	1.96	(1.55- 2.47)	**
Very Remote Australia	1.52	(1.21- 1.91)	**	1.21	(0.97- 1.51)		1.66	(1.32- 2.08)	**	1.83	(1.44- 2.33)	**
SEIFA Category												
Quintile 1	1.81	(1.70- 1.94)	**	1.78	(1.67- 1.90)	**	1.80	(1.68- 1.92)	**	1.84	(1.72- 1.97)	**
Quintile 2	1.88	(1.75- 2.02)	**	1.79	(1.67- 1.93)	**	1.78	(1.66- 1.91)	**	1.89	(1.76- 2.04)	**
Quintile 3	1.79	(1.66- 1.93)	**	1.61	(1.49- 1.73)	**	1.73	(1.60- 1.86)	**	1.76	(1.63- 1.91)	**
Quintile 4	1.61	(1.49- 1.74)	**	1.66	(1.53- 1.79)	**	1.67	(1.55- 1.80)	**	1.64	(1.51- 1.78)	**
Quintile 5	1.44	(1.33- 1.56)	**	1.51	(1.39- 1.64)	**	1.39	(1.27- 1.51)	**	1.40	(1.28- 1.53)	**

OR = odds ratio, CI = confidence interval, * = $p < .05$, ** = $p < .001$. Results presented here may differ slightly from those presented previously due to retrospective adjustment of boundaries used in SEIFA and ASGS remoteness. All stratified models are adjusted for remaining demographic confounders.

Summary

The benefits of playgroup attendance on reducing risk of developmental vulnerability as measured within the AEDC remain consistent with what was reported in the previous report. Namely, there is a clear reduction in the proportion of children with developmental vulnerabilities who attend playgroups than those who do not. As the relationship between playgroup attendance and child development remains even after adjustment for various confounding factors such as socioeconomic status, gender, and language and cultural background, it can be said that there is significant strength in playgroup attendance as a protective factor against developmental vulnerability regardless of the child or family's cultural and socioeconomic background.

Key points

- Playgroup attendance remains protective of developmental vulnerability both within the raw data, and in modelled results adjusted for confounders. The odds of having one or more developmental vulnerabilities increases by 1.73 times in children that do not attend playgroups.
- The relationship between playgroup attendance and developmental vulnerability has remained stable over time, even with the decrease in playgroup attendees, and the overall increase in observations of developmental vulnerability.
- Playgroups continue to reduce the risk of developmental vulnerability for children in the least advantaged socioeconomic categories, as well as children in outer regional and remote areas, oftentimes reducing the odds of developmental vulnerability by half.
- Cross jurisdictionally, playgroup attendance remains one of the most protective factors of developmental vulnerability. For jurisdictions where playgroup attendance is high and where there is more systemic support for delivery such as Tasmania and South Australia, not attending doubles the odds of having one or more developmental vulnerabilities. Less benefit was found in other jurisdictions, but attendance was still protective of developmental vulnerability.

Positive Aspects of Playgroup Attendance – A holistic view

On track on five and Multiple Strength Indicators by playgroup attendance

So far we have explored the make up of playgroup attendance in Australia and within different subgroups, and explored the increase in risk of developmental vulnerability for children who do not attend playgroups. We further conduct an analysis utilising the positive indicators within the AEDC, the *developmentally on track on 5 domains* (OT5) indicator, and the *Multiple Strengths Indicator* (MSI). Both of these items were derived within the AEDC to track positive indicators of child development, shifting the view that AEDC was a measure of vulnerability only.

The OT5 indicator measures the percentage of children developmentally on track on all 5 domains, within the AEDC being developmentally on track is considered as being above the 25th percentile of responses within that domain. Being on track on all five domains is a very strong indicator of the child's school readiness and developmental capabilities.

The MSI measures the child's developmental strengths and is based on the number of 'strengths' the child has at school entry. MSI utilises information from all items captured through the AEDC to create a count of the child's strengths, this count is then categorised as *highly developed strengths* (28 – 39 strengths), *well developed strengths* (19-27 strengths), and *emerging strengths* (0-18 strengths).

Table 12 shows the breakdown of MSI and OT5, and as can be seen generally half of the children in the sample fall within the highest category of MSI. The remaining half of the sample is generally split evenly between well developed strengths (medium) and emerging strengths (low). Generally, slightly more than half of the sample is on track on all five domains. When splitting by playgroup attendance, there is a clear advantage to children who attend playgroups, in 2021, 62.2% of playgroup attendees were in the high category of MSI as compared to non-attendees (49.7%). Crucially, the medium category remains similar between attendance and non-attendees, however the low category has a higher proportion of non-attendees than attendees. This suggests playgroup attendance may result in a strong upward shift within the indicator. Similar results are seen in the OT5 indicator, with a 50/50 split for non-attendees, and a 40/60 split favouring playgroup attendees. For both OT5 and MSI, the relationship between attendance and positive outcomes seems to have remained relatively stable over time.

Similar to modelling in previous sections, we model the outcome of OT5 and MSI. To do this we reverse the reference of playgroup attendance to show the added benefit that attendance brings by estimating the *risk* the child has of being in a higher developmental category within OT5 and MSI. To show the holistic value of playgroup attendance compared to other forms of ECEC, we also include attendance to preschool and day care in the model to compare how each effects developmental strengths.

The results of these models are shown in Table 12. Through the adjustment of other ECEC modalities, we make the assumption that they are independent of each other, that is to say that the model assumes attending one ECEC modality has no effect on attending another modality. Focussing just within the 2021 frame, we can see after adjustment for all confounders and other modalities, attending playgroups increases the odds of being on track on five domains by 47%. When compared to other modalities, this is slightly lower than preschool (OR 1.79) which sees very strong effects, and higher than day care (OR 0.95) where we see worse outcomes for attendees. It is worth noting at this point that attendance to these modalities is asked specifically for the year before the child starts school.

To assess MSI a slightly different modelling technique is required due to the structure of the measure – i.e. three separate categories of low, medium, and high rather than a binary outcome. Here we conduct multinomial logistic regression to estimate odds ratios for comparisons against two categories, low vs medium, and low vs high. The first, low vs medium MSI is presented in the top half of the model, and low vs high in the bottom half. Results of this model are presented in Table 13. Similar to the model of OT5, we see that playgroup attendance has significant benefit in terms of multiple strengths, the odds of being in medium compared to low increases by 41% and by 77% from low to high. Compared to other modalities, playgroups has a similar effect to preschool for medium strengths, and has a slightly lower impact than preschool for the high strengths category. Preschool attendance results in more than double the odds in the latter category. Similar effects to the OT5 model are found where children attending day care tend to do worse, as well as similar effects for Aboriginal and Torres Strait Islander children, and children from culturally and linguistically diverse backgrounds. The social gradient is very strong for low to high MSI categories, where children from advantaged backgrounds have more than 2.5 times the odds of being in the high category than children from the least advantaged areas. Over time, these effects do not seem to have changed.

Overall, there seems to be evidence that playgroup attendance increases the likelihood of having multiple developmental strengths, as well as increases the odds of being on track on all five domains. As such, with a frame of reference to the previous sections, the benefits of playgroups are not limited to being protective of developmental vulnerabilities, but also in developing strengths and capabilities that will be sustained through the child's life course.

Table 11 Categories of Multiple Strengths Indicators and Developmentally On track on all five domains by playgroup attendance

	2012				2015				2018				2021			
	Playgroup attendance		Playgroup attendance		Playgroup attendance		Playgroup attendance		Playgroup attendance		Playgroup attendance		Playgroup attendance		Playgroup attendance	
	Yes n (%)	No n (%)	Yes n (%)	No n (%)	Yes n (%)	No n (%)	Yes n (%)	No n (%)	Yes n (%)	No n (%)	Yes n (%)	No n (%)	Yes n (%)	No n (%)	Yes n (%)	No n (%)
Australia	42,952	(36.0)	76,293	(64.0)	40,743	(35.5)	73,999	(64.5)	41,310	(36.4)	72,133	(63.6)	34,495	(32.2)	72,526	(67.8)
Multiple Strengths Indicators (Category)																
Low	6,438	(15.8)	19,487	(27.1)	6,271	(16.1)	19,078	(27.2)	6,290	(16.0)	17,924	(26.2)	5,399	(16.5)	18,657	(27.3)
Medium	8,265	(20.3)	16,823	(23.4)	8,087	(20.8)	16,005	(22.8)	8,048	(20.4)	15,187	(22.2)	6,992	(21.4)	15,672	(22.9)
High	26,032	(63.9)	35,637	(49.5)	24,607	(63.2)	35,027	(50.0)	25,083	(63.6)	35,423	(51.7)	20,353	(62.2)	33,971	(49.7)
On track on all five domains																
No	15,452	(38.0)	37,642	(52.4)	15,120	(38.9)	36,130	(51.6)	15,132	(38.4)	34,735	(50.7)	12,745	(39.0)	35,165	(51.5)
Yes	25,168	(62.0)	34,239	(47.6)	23,769	(61.1)	33,925	(48.4)	24,245	(61.6)	33,735	(49.3)	19,976	(61.0)	33,107	(48.5)

Table 12 Relationship between playgroup attendance and developmentally on track on all five domains for 2012, 2015, 2018, and 2021 AEDC cohorts

	2012			2015			2018			2021		
	OR	95% CI	stars	OR	95% CI	stars	OR	95% CI	stars	OR	95% CI	stars
Playgroup attendance												
Yes	1.49	(1.45- 1.53)	**	1.4	(1.36- 1.43)	**	1.43	(1.39- 1.47)	**	1.47	(1.43- 1.52)	**
Preschool												
Yes	1.78	(1.71- 1.85)	**	1.73	(1.67- 1.79)	**	1.79	(1.72- 1.87)	**	1.79	(1.71- 1.86)	**
Daycare												
Yes	0.88	(0.85- 0.90)	**	0.91	(0.89- 0.94)	**	0.92	(0.90- 0.95)	**	0.95	(0.92- 0.98)	**
Gender												
Female	2.08	(2.03- 2.14)	**	2.14	(2.09- 2.20)	**	2.07	(2.02- 2.12)	**	2.09	(2.04- 2.14)	**
Aboriginal and Torres Strait Islander background												
Yes	0.49	(0.46- 0.51)	**	0.47	(0.45- 0.50)	**	0.48	(0.46- 0.51)	**	0.48	(0.46- 0.51)	**
Country of Birth												
Other Country	0.79	(0.74- 0.84)	**	0.79	(0.73- 0.84)	**	0.75	(0.70- 0.79)	**	0.9	(0.84- 0.96)	**
Other English Speaking Country	0.97	(0.90- 1.04)		0.99	(0.92- 1.07)		0.99	(0.90- 1.09)		0.95	(0.85- 1.05)	
Language background other than English												
Yes	0.78	(0.75- 0.80)	**	0.81	(0.78- 0.84)	**	0.84	(0.81- 0.87)	**	0.84	(0.81- 0.87)	**
Geographical Remoteness												
Inner Regional Australia	0.96	(0.93- 0.99)	**	0.96	(0.93- 0.99)	**	0.95	(0.92- 0.98)	**	0.94	(0.91- 0.97)	**
Outer Regional Australia	0.99	(0.95- 1.03)		0.99	(0.95- 1.03)		1.07	(1.03- 1.12)	**	0.95	(0.91- 0.99)	*
Remote Australia	0.98	(0.90- 1.08)		0.91	(0.83- 1.00)	*	1.1	(1.00- 1.21)	*	0.99	(0.90- 1.09)	
Very Remote Australia	0.66	(0.59- 0.74)	**	0.63	(0.56- 0.70)	**	0.6	(0.54- 0.68)	**	0.71	(0.63- 0.80)	**
SEIFA Category												
2	1.3	(1.26- 1.35)	**	1.26	(1.21- 1.31)	**	1.35	(1.30- 1.41)	**	1.28	(1.23- 1.33)	**
3	1.44	(1.39- 1.50)	**	1.42	(1.37- 1.48)	**	1.52	(1.46- 1.58)	**	1.54	(1.48- 1.61)	**
4	1.67	(1.60- 1.74)	**	1.62	(1.55- 1.68)	**	1.7	(1.63- 1.77)	**	1.72	(1.65- 1.79)	**
5	1.96	(1.88- 2.05)	**	1.88	(1.80- 1.96)	**	1.99	(1.91- 2.08)	**	2.02	(1.93- 2.11)	**

OR = odds ratio, CI = confidence interval, * = $p < .05$, ** = $p < .001$.

Table 13 Multinomial Logistic Regression of Multiple Strength Indicator by Playgroup Attendance and Year

	2012			2015			2018			2021		
	OR	95% CI	stars	OR	95% CI	stars	OR	95% CI	stars	OR	95% CI	stars
Medium												
Playgroup attendance												
Yes	1.32	(1.27- 1.37)	**	1.37	(1.32- 1.43)	**	1.37	(1.31- 1.42)	**	1.41	(1.35- 1.48)	**
Preschool												
Yes	1.48	(1.41- 1.56)	**	1.47	(1.40- 1.55)	**	1.54	(1.46- 1.62)	**	1.49	(1.42- 1.58)	**
Daycare												
Yes	0.86	(0.83- 0.90)	**	0.92	(0.88- 0.96)	**	0.95	(0.91- 0.99)	*	0.97	(0.93- 1.01)	
Gender												
Female	1.55	(1.49- 1.60)	**	1.58	(1.52- 1.64)	**	1.52	(1.47- 1.58)	**	1.57	(1.51- 1.63)	**
Aboriginal and Torres Strait Islander background												
Yes	0.67	(0.62- 0.71)	**	0.63	(0.58- 0.67)	**	0.69	(0.65- 0.74)	**	0.62	(0.58- 0.66)	**
Country of Birth												
Other Country	1.03	(0.94- 1.12)		0.98	(0.90- 1.07)		0.98	(0.90- 1.06)		0.89	(0.82- 0.98)	*
Other English Speaking Country	0.91	(0.82- 1.01)		0.97	(0.87- 1.08)		1.09	(0.95- 1.24)		0.98	(0.84- 1.15)	
Language background other than English												
Yes	0.9	(0.86- 0.95)	**	0.9	(0.86- 0.94)	**	0.9	(0.86- 0.95)	**	0.95	(0.90- 0.99)	*
Geographical Remoteness												
Inner Regional Australia	1.03	(0.98- 1.08)		1.01	(0.96- 1.06)		0.98	(0.93- 1.03)		0.98	(0.94- 1.03)	
Outer Regional Australia	0.97	(0.91- 1.02)		1.01	(0.95- 1.07)		1.05	(0.98- 1.11)		0.98	(0.92- 1.04)	
Remote Australia	0.93	(0.83- 1.05)		0.86	(0.76- 0.97)	*	1.06	(0.93- 1.21)		0.92	(0.81- 1.05)	
Very Remote Australia	0.79	(0.69- 0.90)	**	0.65	(0.57- 0.74)	**	0.59	(0.51- 0.67)	**	0.65	(0.57- 0.76)	**
SEIFA Category												
2	1.2	(1.14- 1.26)	**	1.15	(1.10- 1.22)	**	1.22	(1.16- 1.29)	**	1.2	(1.14- 1.27)	**
3	1.31	(1.24- 1.38)	**	1.26	(1.19- 1.33)	**	1.32	(1.25- 1.40)	**	1.33	(1.25- 1.40)	**
4	1.43	(1.35- 1.51)	**	1.34	(1.26- 1.42)	**	1.45	(1.36- 1.53)	**	1.48	(1.40- 1.57)	**
5	1.63	(1.53- 1.73)	**	1.57	(1.48- 1.67)	**	1.67	(1.57- 1.78)	**	1.66	(1.56- 1.77)	**
High												
Playgroup attendance												
Yes	1.76	(1.70- 1.82)	**	1.7	(1.64- 1.76)	**	1.68	(1.63- 1.74)	**	1.77	(1.71- 1.84)	**
Preschool												
Yes	2.16	(2.06- 2.26)	**	2	(1.92- 2.09)	**	2.06	(1.97- 2.16)	**	2.03	(1.93- 2.13)	**
Daycare												
Yes	0.76	(0.74- 0.79)	**	0.84	(0.81- 0.87)	**	0.9	(0.87- 0.93)	**	0.9	(0.87- 0.94)	**
Gender												
Female	2.66	(2.57- 2.74)	**	2.7	(2.62- 2.79)	**	2.6	(2.52- 2.68)	**	2.68	(2.59- 2.76)	**
Aboriginal and Torres Strait Islander background												
Yes	0.45	(0.42- 0.48)	**	0.42	(0.40- 0.45)	**	0.43	(0.41- 0.46)	**	0.44	(0.41- 0.46)	**
Country of Birth												

Other Country	0.82	(0.76- 0.89)	**	0.82	(0.76- 0.89)	**	0.81	(0.76- 0.87)	**	0.89	(0.82- 0.96)	**
Other English Speaking Country	0.94	(0.86- 1.02)		0.94	(0.86- 1.04)		0.97	(0.86- 1.09)		0.95	(0.83- 1.09)	
Language background other than English												
Yes	0.75	(0.71- 0.78)	**	0.76	(0.72- 0.79)	**	0.78	(0.75- 0.81)	**	0.76	(0.73- 0.79)	**
Geographical Remoteness												
Inner Regional Australia	1.02	(0.98- 1.06)		1.02	(0.98- 1.06)		0.97	(0.93- 1.01)		0.97	(0.93- 1.01)	
Outer Regional Australia	0.95	(0.91- 1.00)		1	(0.95- 1.05)		1.07	(1.01- 1.13)	*	0.92	(0.87- 0.97)	**
Remote Australia	0.85	(0.76- 0.95)	**	0.78	(0.70- 0.87)	**	1.08	(0.96- 1.21)		0.9	(0.80- 1.01)	
Very Remote Australia	0.6	(0.53- 0.68)	**	0.49	(0.43- 0.55)	**	0.48	(0.42- 0.54)	**	0.56	(0.50- 0.64)	**
SEIFA Category												
2	1.4	(1.33- 1.46)	**	1.34	(1.28- 1.41)	**	1.43	(1.36- 1.49)	**	1.31	(1.25- 1.37)	**
3	1.61	(1.54- 1.69)	**	1.57	(1.50- 1.65)	**	1.66	(1.58- 1.74)	**	1.7	(1.62- 1.78)	**
4	1.88	(1.79- 1.98)	**	1.83	(1.74- 1.92)	**	1.95	(1.86- 2.05)	**	1.98	(1.88- 2.08)	**
5	2.37	(2.24- 2.49)	**	2.36	(2.23- 2.49)	**	2.49	(2.36- 2.63)	**	2.48	(2.35- 2.63)	**

OR = odds ratio, CI = confidence interval, * = $p < .05$, ** = $p < .001$.

Conclusion

Playgroup attendance has continued to fall since the last reporting of results utilising the AEDC data. Whether due to COVID-19, or other policy changes since 2018, in all jurisdictions the proportion of children attending playgroups has reduced. When looking at who are the children who did attend, there was little difference from previous years with children from Tasmania and SA recording the highest attendance rates, as well as children from remote and very remote communities. The gradient between socioeconomic area and attendance rates continues to be found, but the gradient is flattening. However, this is as a result of attendance rates for the least advantaged remaining stable through 2021 and decreasing significantly for the most advantaged. Attendance is still most likely for females, children not of Aboriginal and Torres Strait Islander backgrounds, and children from English speaking backgrounds.

Developmental vulnerability has increased slightly over time while playgroups attendance has also decreased, yet playgroups remains one of the strongest protectors against developmental vulnerability within Australian children. For certain subgroups, such as children from the least advantaged socioeconomic communities and children from outer regional and remote areas, the odds of developmental vulnerability are halved by attending playgroups. Playgroup attendance seems to have the best protective effects in jurisdictions where playgroup attendance is high, such as South Australia and Tasmania.

Finally, there is very strong evidence that playgroup attendance increases the likelihood of having developmental strengths as measured by being on track on all five domains, and the multiple strengths indicator. In terms of equivalence, the size of the effect is slightly lower than attending formal preschool and much more beneficial than day care. Given the lower cost barrier to entry for playgroups, and the added benefit to parents and families, it suggests that there is incredible economic value in the existence of playgroups across the country in not only reducing risk of developmental vulnerability, but also increasing the strengths of children in preparation for school.

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Appendix 1

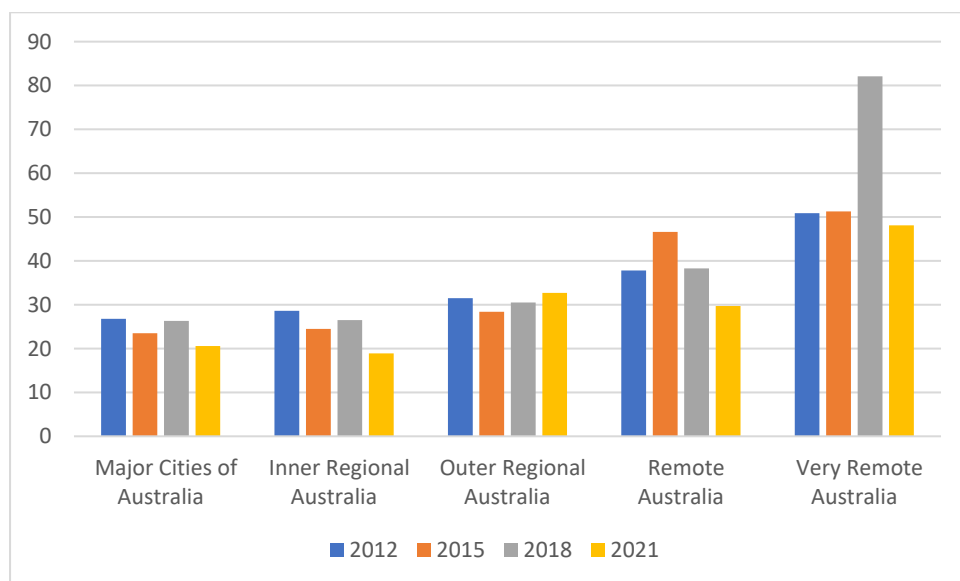


Figure 8: Percent of children attending Playgroups residing within the different geographical regional categories in NSW for each AEDC year.

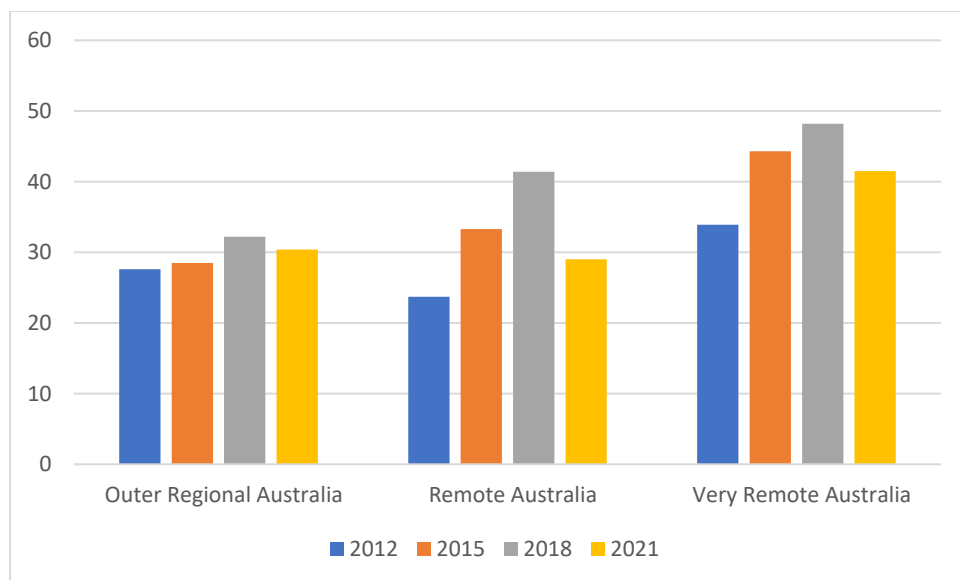


Figure 9: Percent of children attending Playgroups residing within the different geographical regional categories in NT for each AEDC year.

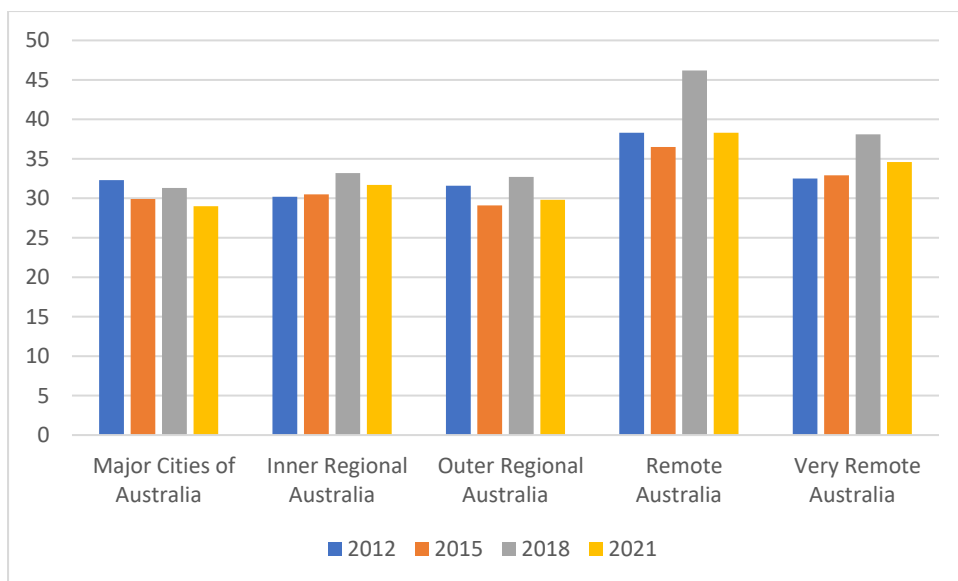


Figure 10: Percent of children attending Playgroups residing within the different geographical regional categories in QLD for each AEDC year.

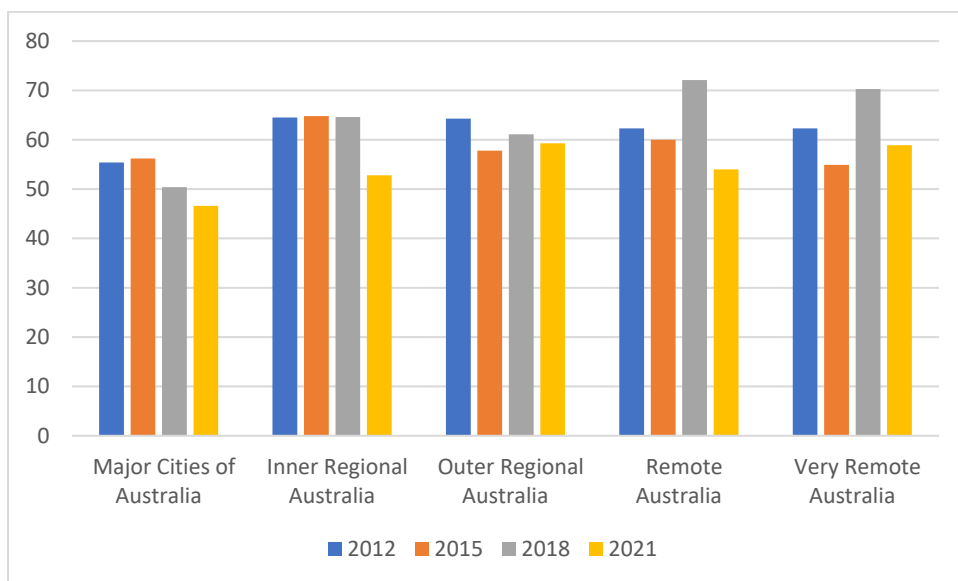


Figure 11: Percent of children attending Playgroups residing within the different geographical regional categories in SA for each AEDC year.

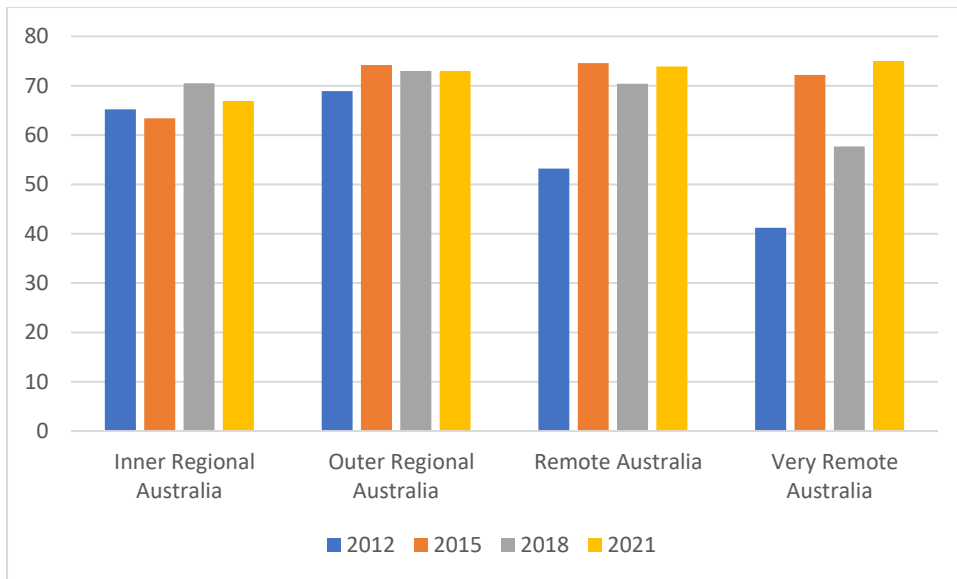


Figure 12: Percent of children attending Playgroups residing within the different geographical regional categories in Tasmania for each AEDC year.

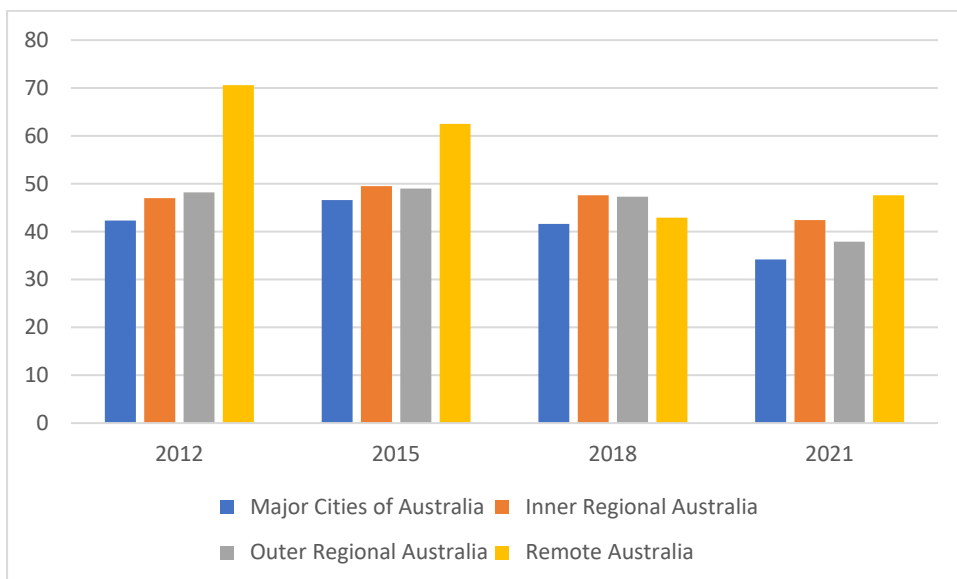


Figure 13: Percent of children attending Playgroups residing within the different geographical regional categories in Victoria for each AEDC year.

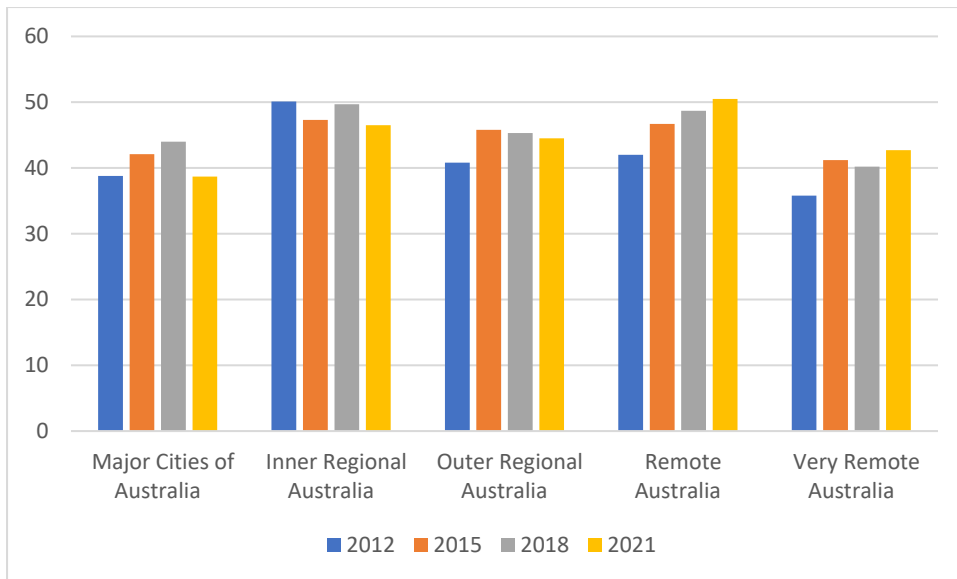


Figure 14: Percent of children attending Playgroups residing within the different geographical regional categories in WA for each AEDC year.

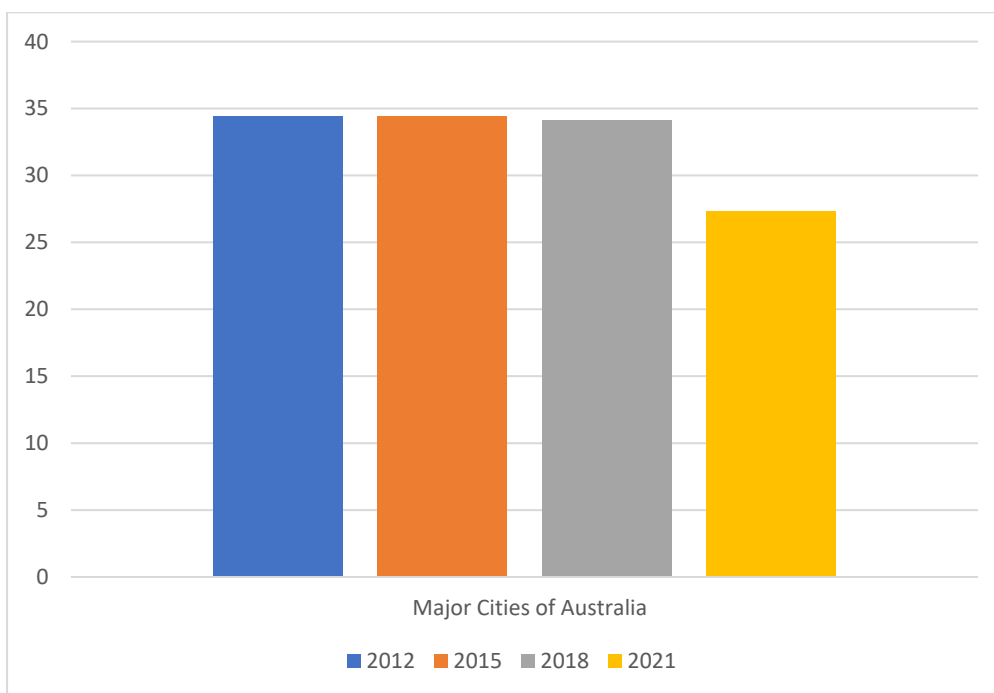


Figure 15: Percent of children attending Playgroups residing within the different geographical regional categories in ACT for each AEDC year.

Appendix 2

Table 14: Playgroup attendance by the social and demographic characteristics of children residing in the ACT

		Year															
		2012				2015				2018				2021			
		Playgroup attendance				Playgroup attendance				Playgroup attendance				Playgroup attendance			
		Yes		No		Yes		No		Yes		No		Yes		No	
Australia		42952	(36.0)	76293	(64.0)	40743	(35.5)	73999	(64.5)	41310	(36.4)	72133	(63.6)	34495	(32.2)	72526	(67.8)
State																	
ACT		516	(34.3)	987	(65.7)	369	(34.4)	703	(65.6)	322	(34.1)	623	(65.9)	327	(27.3)	870	(72.7)
Gender																	
Male		268	(34.1)	517	(65.9)	184	(34.1)	356	(65.9)	170	(33.8)	333	(66.2)	151	(25.6)	439	(74.4)
Female		248	(34.5)	470	(65.5)	185	(34.8)	347	(65.2)	152	(34.4)	290	(65.6)	176	(29.0)	431	(71.0)
Aboriginal and Torres Strait Islander background																	
No		506	(34.5)	959	(65.5)	359	(34.5)	683	(65.5)	304	(35.1)	561	(64.9)	320	(27.5)	843	(72.5)
Yes				28	(73.7)			20	(66.7)			24	(88.9)			27	(79.4)
Country of Birth																	
Australia		482	(35.8)	863	(64.2)	346	(36.1)	612	(63.9)	288	(35.3)	528	(64.7)	300	(27.4)	793	(72.6)
Other Country				88	(88.0)			62	(88.6)			48	(78.7)	20	(25.0)	60	(75.0)
Other English Speaking Country		22	(37.9)	36	(62.1)			27	(65.9)							16	(72.7)
Language background other than English																	
No		459	(38.0)	748	(62.0)	327	(38.9)	513	(61.1)	260	(37.4)	435	(62.6)	233	(27.2)	625	(72.8)
Yes		57	(19.3)	239	(80.7)	42	(18.1)	190	(81.9)	62	(24.8)	188	(75.2)	94	(27.7)	245	(72.3)
Remoteness																	
Major Cities of Australia		515	(34.4)	984	(65.6)	368	(34.4)	701	(65.6)	322	(34.1)	623	(65.9)	326	(27.3)	866	(72.7)
Inner Regional Australia																	
SEIFA Category																	
Quintile 1																	
Quintile 2		26	(31.7)	56	(68.3)	19	(27.5)	50	(72.5)	22	(34.9)	41	(65.1)	19	(29.7)	45	(70.3)
Quintile 3		93	(33.6)	184	(66.4)	50	(28.2)	127	(71.8)	42	(29.4)	101	(70.6)	48	(26.4)	134	(73.6)
Quintile 4		153	(35.7)	275	(64.3)	87	(39.7)	132	(60.3)	92	(35.4)	168	(64.6)	78	(26.4)	218	(73.6)
Quintile 5		237	(33.9)	463	(66.1)	197	(36.6)	341	(63.4)	162	(35.1)	299	(64.9)	154	(27.2)	413	(72.8)

Due to cell sizes with <15 observations, some cells have been intentionally left blank.

Table 15: Playgroup attendance by the social and demographic characteristics of children residing in NSW

		Year															
		2012				2015				2018				2021			
		Playgroup attendance		Playgroup attendance		Playgroup attendance		Playgroup attendance		Playgroup attendance		Playgroup attendance		Playgroup attendance		Playgroup attendance	
		Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
Australia		42952	(36.0)	76293	(64.0)	40743	(35.5)	73999	(64.5)	41310	(36.4)	72133	(63.6)	34495	(32.2)	72526	(67.8)
State																	
	NSW	10483	(27.7)	27429	(72.3)	9318	(24.3)	29078	(75.7)	9374	(26.8)	25558	(73.2)	6583	(21.1)	24555	(78.9)
	Gender																
	Male	5278	(27.0)	14257	(73.0)	4720	(23.9)	15049	(76.1)	4762	(26.2)	13393	(73.8)	3301	(20.5)	12778	(79.5)
	Female	5205	(28.3)	13172	(71.7)	4598	(24.7)	14029	(75.3)	4612	(27.5)	12165	(72.5)	3282	(21.8)	11777	(78.2)
Aboriginal and Torres Strait Islander background																	
	No	10029	(28.2)	25543	(71.8)	8906	(24.9)	26876	(75.1)	8785	(27.3)	23429	(72.7)	6140	(21.6)	22272	(78.4)
	Yes	454	(19.4)	1886	(80.6)	412	(15.8)	2202	(84.2)	588	(21.6)	2129	(78.4)	443	(16.3)	2283	(83.7)
Country of Birth																	
	Australia	10021	(28.1)	25651	(71.9)	8834	(24.7)	26980	(75.3)	8833	(27.3)	23518	(72.7)	6242	(21.5)	22804	(78.5)
	Other Country	236	(16.1)	1228	(83.9)	243	(14.4)	1449	(85.6)	372	(18.2)	1670	(81.8)	262	(15.2)	1465	(84.8)
	Other English Speaking Country	226	(29.1)	550	(70.9)	221	(27.7)	576	(72.3)	148	(30.1)	344	(69.9)	79	(22.1)	279	(77.9)
Language background other than English																	
	No	8894	(31.5)	19297	(68.5)	7551	(27.2)	20199	(72.8)	7278	(29.9)	17023	(70.1)	4883	(23.4)	16027	(76.6)
	Yes	1589	(16.3)	8132	(83.7)	1767	(16.6)	8879	(83.4)	2096	(19.7)	8535	(80.3)	1700	(16.6)	8528	(83.4)
Remoteness																	
	Major Cities of Australia	7166	(26.8)	19571	(73.2)	6510	(23.5)	21219	(76.5)	6686	(26.3)	18723	(73.7)	4668	(20.6)	18016	(79.4)
	Inner Regional Australia	2245	(28.6)	5616	(71.4)	1782	(24.5)	5494	(75.5)	1756	(26.5)	4880	(73.5)	1167	(18.9)	5007	(81.1)
	Outer Regional	938	(31.5)	2040	(68.5)	869	(28.4)	2193	(71.6)	789	(30.5)	1801	(69.5)	669	(32.7)	1377	(67.3)
	Remote Australia	107	(37.8)	176	(62.2)	117	(46.6)	134	(53.4)	88	(38.3)	142	(61.7)	54	(29.7)	128	(70.3)
	Very Remote Australia	27	(50.9)	26	(49.1)	40	(51.3)	38	(48.7)	55	(82.1)			25	(48.1)	27	(51.9)
SEIFA Category																	
	Quintile 1	1943	(18.9)	8363	(81.1)	1857	(18.1)	8406	(81.9)	2045	(22.8)	6936	(77.2)	1304	(16.1)	6788	(83.9)
	Quintile 2	1927	(25.1)	5745	(74.9)	1576	(20.9)	5962	(79.1)	1728	(24.7)	5264	(75.3)	1236	(20.1)	4909	(79.9)
	Quintile 3	1738	(27.2)	4652	(72.8)	1476	(22.7)	5012	(77.3)	1542	(26.2)	4343	(73.8)	1076	(21.1)	4035	(78.9)
	Quintile 4	1893	(32.9)	3856	(67.1)	1652	(27.1)	4448	(72.9)	1607	(27.7)	4184	(72.3)	1213	(22.0)	4311	(78.0)
	Quintile 5	2969	(38.4)	4761	(61.6)	2748	(34.5)	5220	(65.5)	2442	(33.8)	4787	(66.2)	1732	(28.2)	4418	(71.8)

Due to cell sizes with <15 observations, some cells have been intentionally left blank.

Table 16: Playgroup attendance by the social and demographic characteristics of children residing in the NT

		Year													
		2012		2015		2018		2021							
		Playgroup attendance		Playgroup attendance		Playgroup attendance		Playgroup attendance							
		Yes	No	Yes	No	Yes	No	Yes	No						
Australia		42952 (36.0)	76293 (64.0)	40743 (35.5)	73999 (64.5)	41310 (36.4)	72133 (63.6)	34495 (32.2)	72526 (67.8)						
State															
NT		447 (29.5)	1069 (70.5)	485 (35.9)	866 (64.1)	533 (40.4)	786 (59.6)	409 (33.7)	805 (66.3)						
Gender															
Male		206 (25.7)	596 (74.3)	257 (36.0)	456 (64.0)	251 (38.0)	409 (62.0)	199 (31.3)	437 (68.7)						
Female		241 (33.8)	473 (66.2)	228 (35.7)	410 (64.3)	282 (42.8)	377 (57.2)	210 (36.3)	368 (63.7)						
Aboriginal and Torres Strait Islander background															
No		232 (33.2)	467 (66.8)	211 (35.3)	387 (64.7)	244 (40.2)	363 (59.8)	213 (35.0)	396 (65.0)						
Yes		215 (26.3)	602 (73.7)	274 (36.4)	479 (63.6)	289 (40.6)	423 (59.4)	196 (32.4)	409 (67.6)						
Country of Birth															
Australia		431 (30.4)	989 (69.6)	474 (36.9)	812 (63.1)	523 (41.5)	737 (58.5)	397 (34.6)	751 (65.4)						
Other Country			64 (87.7)		41 (91.1)		41 (89.1)		46 (83.6)						
Other English Speaking Country															
Language background other than English															
No		235 (33.2)	472 (66.8)	211 (34.3)	405 (65.7)	240 (41.0)	345 (59.0)	215 (37.4)	360 (62.6)						
Yes		212 (26.2)	597 (73.8)	274 (37.3)	461 (62.7)	293 (39.9)	441 (60.1)	194 (30.4)	445 (69.6)						
Remoteness															
Major Cities of Australia															
Inner Regional Australia															
Outer Regional		161 (27.6)	422 (72.4)	147 (28.5)	368 (71.5)	168 (32.2)	354 (67.8)	170 (30.4)	390 (69.6)						
Remote Australia		70 (23.7)	225 (76.3)	98 (33.3)	196 (66.7)	116 (41.4)	164 (58.6)	75 (29.0)	184 (71.0)						
Very Remote Australia		216 (33.9)	422 (66.1)	240 (44.3)	302 (55.7)	249 (48.2)	268 (51.8)	164 (41.5)	231 (58.5)						
SEIFA Category															
Quintile 1		197 (29.5)	470 (70.5)	259 (42.4)	352 (57.6)	270 (45.0)	330 (55.0)	175 (38.0)	285 (62.0)						
Quintile 2		59 (33.3)	118 (66.7)	51 (27.0)	138 (73.0)	52 (32.5)	108 (67.5)	36 (26.5)	100 (73.5)						
Quintile 3		56 (25.5)	164 (74.5)	58 (30.2)	134 (69.8)	79 (39.3)	122 (60.7)	58 (30.9)	130 (69.1)						
Quintile 4		70 (26.2)	197 (73.8)	55 (30.7)	124 (69.3)	63 (34.6)	119 (65.4)	59 (27.8)	153 (72.2)						
Quintile 5		63 (39.1)	98 (60.9)	57 (35.4)	104 (64.6)	63 (39.6)	96 (60.4)	76 (36.9)	130 (63.1)						

Due to cell sizes with <15 observations, some cells have been intentionally left blank.

Table 17: Playgroup attendance by the social and demographic characteristics of children residing in QLD

		Year															
		2012				2015				2018				2021			
		Playgroup attendance		Playgroup attendance		Playgroup attendance		Playgroup attendance									
		Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No				
Australia		42952	(36.0)	76293	(64.0)	40743	(35.5)	73999	(64.5)	41310	(36.4)	72133	(63.6)	34495	(32.2)	72526	(67.8)
State																	
QLD		9957	(31.9)	21300	(68.1)	8716	(30.1)	20253	(69.9)	10606	(32.3)	22198	(67.7)	9410	(29.9)	22029	(70.1)
Gender																	
Male		5052	(30.9)	11290	(69.1)	4344	(29.2)	10543	(70.8)	5397	(31.4)	11767	(68.6)	4774	(29.3)	11522	(70.7)
Female		4905	(32.9)	10010	(67.1)	4372	(31.0)	9710	(69.0)	5209	(33.3)	10431	(66.7)	4636	(30.6)	10507	(69.4)
Aboriginal and Torres Strait Islander background																	
No		9465	(32.8)	19373	(67.2)	8193	(31.2)	18096	(68.8)	9910	(33.4)	19777	(66.6)	8706	(31.0)	19382	(69.0)
Yes		492	(20.3)	1927	(79.7)	523	(19.5)	2157	(80.5)	696	(22.3)	2421	(77.7)	704	(21.0)	2647	(79.0)
Country of Birth																	
Australia		9264	(32.0)	19662	(68.0)	8257	(30.4)	18890	(69.6)	9986	(32.4)	20881	(67.6)	8946	(30.0)	20874	(70.0)
Other Country		208	(21.6)	753	(78.4)	163	(20.7)	625	(79.3)	329	(28.6)	820	(71.4)	275	(26.3)	770	(73.7)
Other English Speaking Country		484	(35.4)	884	(64.6)	284	(29.6)	675	(70.4)	276	(37.5)	460	(62.5)	189	(33.4)	377	(66.6)
Language background other than English																	
No		9203	(33.1)	18612	(66.9)	7877	(31.2)	17378	(68.8)	9061	(33.2)	18248	(66.8)	8000	(30.7)	18044	(69.3)
Yes		754	(21.9)	2688	(78.1)	839	(22.6)	2875	(77.4)	1545	(28.1)	3950	(71.9)	1410	(26.1)	3985	(73.9)
Remoteness																	
Major Cities of Australia		5752	(32.3)	12046	(67.7)	4742	(29.9)	11131	(70.1)	6032	(31.3)	13247	(68.7)	5432	(29.0)	13326	(71.0)
Inner Regional Australia		2108	(30.2)	4875	(69.8)	2095	(30.5)	4780	(69.5)	2481	(33.2)	4992	(66.8)	2067	(31.7)	4453	(68.3)
Outer Regional		1640	(31.6)	3554	(68.4)	1454	(29.1)	3544	(70.9)	1617	(32.7)	3323	(67.3)	1497	(29.8)	3534	(70.2)
Remote Australia		267	(38.3)	431	(61.7)	232	(36.5)	404	(63.5)	296	(46.2)	344	(53.8)	237	(38.3)	382	(61.7)
Very Remote Australia		190	(32.5)	394	(67.5)	193	(32.9)	394	(67.1)	180	(38.1)	292	(61.9)	177	(34.6)	334	(65.4)
SEIFA Category																	
Quintile 1		1761	(23.4)	5761	(76.6)	1646	(23.0)	5508	(77.0)	1910	(25.2)	5677	(74.8)	1732	(25.7)	5017	(74.3)
Quintile 2		1959	(29.2)	4739	(70.8)	1825	(28.5)	4570	(71.5)	2278	(31.6)	4942	(68.4)	2005	(28.4)	5050	(71.6)
Quintile 3		2042	(33.4)	4064	(66.6)	1868	(32.2)	3941	(67.8)	2273	(33.6)	4498	(66.4)	2077	(31.4)	4540	(68.6)
Quintile 4		2199	(37.4)	3678	(62.6)	1819	(33.3)	3641	(66.7)	2322	(36.0)	4132	(64.0)	1960	(31.4)	4280	(68.6)
Quintile 5		1965	(39.7)	2984	(60.3)	1543	(37.6)	2557	(62.4)	1802	(38.2)	2910	(61.8)	1600	(34.3)	3059	(65.7)

Due to cell sizes with <15 observations, some cells have been intentionally left blank.

Table 18: Playgroup attendance by the social and demographic characteristics of children residing in SA

		Year															
		2012				2015				2018				2021			
		Playgroup attendance		Playgroup attendance		Playgroup attendance		Playgroup attendance									
		Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No				
Australia		42952	(36.0)	76293	(64.0)	40743	(35.5)	73999	(64.5)	41310	(36.4)	72133	(63.6)	34495	(32.2)	72526	(67.8)
State																	
SA		3114	(58.4)	2214	(41.6)	2946	(57.8)	2150	(42.2)	2620	(55.7)	2085	(44.3)	2542	(49.8)	2561	(50.2)
Gender																	
Male		1534	(56.9)	1160	(43.1)	1472	(56.1)	1154	(43.9)	1342	(54.2)	1134	(45.8)	1288	(48.9)	1348	(51.1)
Female		1580	(60.0)	1054	(40.0)	1474	(59.7)	996	(40.3)	1278	(57.3)	951	(42.7)	1254	(50.8)	1213	(49.2)
Aboriginal and Torres Strait Islander background																	
No		3016	(59.6)	2045	(40.4)	2864	(59.3)	1963	(40.7)	2496	(56.5)	1921	(43.5)	2410	(50.6)	2354	(49.4)
Yes		98	(36.7)	169	(63.3)	82	(30.5)	187	(69.5)	124	(43.1)	164	(56.9)	132	(38.9)	207	(61.1)
Country of Birth																	
Australia		2998	(60.8)	1933	(39.2)	2851	(59.6)	1931	(40.4)	2546	(57.5)	1879	(42.5)	2429	(50.7)	2362	(49.3)
Other Country		51	(17.8)	236	(82.2)	38	(16.8)	188	(83.2)	47	(20.2)	186	(79.8)	88	(33.8)	172	(66.2)
Other English Speaking Country		65	(59.1)	45	(40.9)	54	(71.1)	22	(28.9)	27	(62.8)	16	(37.2)	25	(49.0)	26	(51.0)
Language background other than English																	
No		2844	(63.4)	1640	(36.6)	2636	(61.9)	1620	(38.1)	2258	(59.4)	1544	(40.6)	2173	(53.8)	1866	(46.2)
Yes		270	(32.0)	574	(68.0)	310	(36.9)	530	(63.1)	362	(40.1)	541	(59.9)	369	(34.7)	695	(65.3)
Remoteness																	
Major Cities of Australia		1902	(55.4)	1531	(44.6)	1811	(56.2)	1411	(43.8)	1467	(50.4)	1441	(49.6)	1541	(46.6)	1768	(53.4)
Inner Regional Australia		438	(64.5)	241	(35.5)	461	(64.8)	250	(35.2)	486	(64.6)	266	(35.4)	398	(52.8)	356	(47.2)
Outer Regional		538	(64.3)	299	(35.7)	465	(57.8)	340	(42.2)	471	(61.1)	300	(38.9)	416	(59.3)	286	(40.7)
Remote Australia		165	(62.3)	100	(37.7)	147	(60.0)	98	(40.0)	132	(72.1)	51	(27.9)	134	(54.0)	114	(46.0)
Very Remote Australia		71	(62.3)	43	(37.7)	62	(54.9)	51	(45.1)	64	(70.3)	27	(29.7)	53	(58.9)	37	(41.1)
SEIFA Category																	
Quintile 1		589	(44.6)	733	(55.4)	565	(41.8)	786	(58.2)	511	(40.5)	750	(59.5)	542	(41.7)	757	(58.3)
Quintile 2		759	(58.1)	548	(41.9)	718	(58.8)	503	(41.2)	665	(56.0)	523	(44.0)	630	(50.7)	612	(49.3)
Quintile 3		650	(62.0)	398	(38.0)	656	(64.0)	369	(36.0)	578	(61.3)	365	(38.7)	559	(50.8)	541	(49.2)
Quintile 4		669	(65.6)	351	(34.4)	609	(66.6)	305	(33.4)	549	(65.3)	292	(34.7)	508	(55.0)	415	(45.0)
Quintile 5		436	(71.0)	178	(29.0)	391	(68.5)	180	(31.5)	316	(67.4)	153	(32.6)	300	(56.4)	232	(43.6)

Due to cell sizes with <15 observations, some cells have been intentionally left blank.

Table 19: Playgroup attendance by the social and demographic characteristics of children residing in Tasmania

		Year															
		2012				2015				2018				2021			
		Playgroup attendance		Playgroup attendance		Playgroup attendance		Playgroup attendance									
		Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No				
Australia		42952	(36.0)	76293	(64.0)	40743	(35.5)	73999	(64.5)	41310	(36.4)	72133	(63.6)	34495	(32.2)	72526	(67.8)
State																	
Tasmania		2133	(66.2)	1087	(33.8)	2247	(67.5)	1083	(32.5)	2204	(71.1)	896	(28.9)	2321	(69.1)	1037	(30.9)
Gender																	
Male		1077	(64.1)	602	(35.9)	1115	(65.2)	595	(34.8)	1082	(68.8)	490	(31.2)	1178	(68.0)	555	(32.0)
Female		1056	(68.5)	485	(31.5)	1132	(69.9)	488	(30.1)	1122	(73.4)	406	(26.6)	1143	(70.3)	482	(29.7)
Aboriginal and Torres Strait Islander background																	
No		2006	(67.3)	975	(32.7)	2046	(68.1)	958	(31.9)	2019	(71.7)	798	(28.3)	2082	(70.0)	891	(30.0)
Yes		127	(53.1)	112	(46.9)	201	(61.7)	125	(38.3)	185	(65.4)	98	(34.6)	239	(62.1)	146	(37.9)
Country of Birth																	
Australia		2085	(66.8)	1035	(33.2)	2210	(68.1)	1033	(31.9)	2129	(71.7)	840	(28.3)	2225	(69.4)	980	(30.6)
Other Country		23	(34.8)	43	(65.2)	23	(36.5)	40	(63.5)	32	(40.5)	47	(59.5)	32	(47.8)	35	(52.2)
Other English Speaking Country		25	(73.5)							42	(82.4)			40	(70.2)	17	(29.8)
Language background other than English																	
No		2079	(66.9)	1027	(33.1)	2181	(68.6)	997	(31.4)	2112	(72.2)	814	(27.8)	2196	(69.9)	944	(30.1)
Yes		54	(47.4)	60	(52.6)	66	(43.4)	86	(56.6)	92	(52.9)	82	(47.1)	125	(57.3)	93	(42.7)
Remoteness																	
Major Cities of Australia																	
Inner Regional Australia		1318	(65.2)	702	(34.8)	1320	(63.4)	761	(36.6)	1506	(70.5)	630	(29.5)	1435	(66.9)	711	(33.1)
Outer Regional		783	(68.9)	353	(31.1)	861	(74.2)	299	(25.8)	645	(73.0)	239	(27.0)	834	(73.0)	308	(27.0)
Remote Australia		25	(53.2)	22	(46.8)	53	(74.6)	18	(25.4)	38	(70.4)	16	(29.6)	34	(73.9)		
Very Remote Australia														18	(75.0)		
SEIFA Category																	
Quintile 1		725	(60.8)	468	(39.2)	768	(63.0)	451	(37.0)	658	(64.1)	368	(35.9)	789	(65.0)	425	(35.0)
Quintile 2		573	(72.9)	213	(27.1)	648	(72.3)	248	(27.7)	577	(74.1)	202	(25.9)	614	(72.5)	233	(27.5)
Quintile 3		451	(65.7)	235	(34.3)	480	(69.0)	216	(31.0)	505	(72.6)	191	(27.4)	532	(70.7)	221	(29.3)
Quintile 4		255	(71.0)	104	(29.0)	204	(65.2)	109	(34.8)	280	(78.4)	77	(21.6)	238	(71.0)	97	(29.0)
Quintile 5		124	(67.8)	59	(32.2)	146	(71.9)	57	(28.1)	177	(76.0)	56	(24.0)	144	(71.3)	58	(28.7)

Due to cell sizes with <15 observations, some cells have been intentionally left blank.

Table 20: Playgroup attendance by the social and demographic characteristics of children residing in Victoria

		Year															
		2012				2015				2018				2021			
		Playgroup attendance		Playgroup attendance		Playgroup attendance		Playgroup attendance									
		Yes	No	Yes	No	Yes	No	Yes	No	Yes	No						
Australia		42952	(36.0)	76293	(64.0)	40743	(35.5)	73999	(64.5)	41310	(36.4)	72133	(63.6)	34495	(32.2)	72526	(67.8)
State																	
	Victoria	10530	(43.7)	13560	(56.3)	9988	(47.5)	11056	(52.5)	8404	(43.3)	11020	(56.7)	6203	(36.3)	10875	(63.7)
	Gender																
	Male	5282	(42.5)	7158	(57.5)	4985	(46.1)	5835	(53.9)	4199	(42.0)	5793	(58.0)	3109	(35.2)	5711	(64.8)
	Female	5248	(45.0)	6402	(55.0)	5003	(48.9)	5221	(51.1)	4205	(44.6)	5227	(55.4)	3094	(37.5)	5164	(62.5)
Aboriginal and Torres Strait Islander background																	
	No	10422	(44.0)	13282	(56.0)	9868	(47.9)	10739	(52.1)	8276	(43.6)	10697	(56.4)	6086	(36.6)	10545	(63.4)
	Yes	108	(28.0)	278	(72.0)	120	(27.5)	317	(72.5)	128	(28.4)	323	(71.6)	117	(26.2)	330	(73.8)
Country of Birth																	
	Australia	10083	(45.0)	12339	(55.0)	9564	(49.2)	9868	(50.8)	7945	(44.8)	9802	(55.2)	5954	(37.5)	9910	(62.5)
	Other Country	231	(21.0)	869	(79.0)	222	(20.7)	848	(79.3)	333	(25.9)	951	(74.1)	109	(19.4)	452	(80.6)
	Other English Speaking Country	216	(38.0)	352	(62.0)	175	(39.1)	273	(60.9)	110	(31.9)	235	(68.1)	51	(25.9)	146	(74.1)
Language background other than English																	
	No	9259	(48.2)	9968	(51.8)	8621	(53.0)	7653	(47.0)	6916	(48.3)	7412	(51.7)	5194	(41.9)	7205	(58.1)
	Yes	1271	(26.1)	3592	(73.9)	1367	(28.7)	3403	(71.3)	1488	(29.2)	3608	(70.8)	1009	(21.6)	3670	(78.4)
Remoteness																	
	Major Cities of Australia	7270	(42.3)	9926	(57.7)	6935	(46.6)	7936	(53.4)	5864	(41.6)	8217	(58.4)	4133	(34.2)	7966	(65.8)
	Inner Regional Australia	2516	(47.0)	2842	(53.0)	2397	(49.5)	2444	(50.5)	2037	(47.6)	2241	(52.4)	1714	(42.4)	2331	(57.6)
	Outer Regional	732	(48.2)	787	(51.8)	641	(49.0)	667	(51.0)	497	(47.3)	554	(52.7)	346	(37.9)	567	(62.1)
	Remote Australia																
	Very Remote Australia																
SEIFA Category																	
	Quintile 1	1401	(28.7)	3475	(71.3)	1255	(28.6)	3136	(71.4)	1114	(29.3)	2685	(70.7)	834	(24.7)	2549	(75.3)
	Quintile 2	1793	(39.5)	2742	(60.5)	1618	(40.2)	2411	(59.8)	1422	(38.6)	2263	(61.4)	1115	(33.2)	2245	(66.8)
	Quintile 3	2379	(46.7)	2718	(53.3)	2200	(49.0)	2288	(51.0)	1908	(43.8)	2446	(56.2)	1394	(36.1)	2472	(63.9)
	Quintile 4	2482	(50.1)	2473	(49.9)	2444	(56.5)	1882	(43.5)	2097	(49.5)	2142	(50.5)	1450	(41.0)	2086	(59.0)
	Quintile 5	2446	(53.5)	2127	(46.5)	2467	(64.9)	1333	(35.1)	1855	(55.6)	1479	(44.4)	1405	(48.2)	1509	(51.8)

Due to cell sizes with <15 observations, some cells have been intentionally left blank.

Table 21: Playgroup attendance by the social and demographic characteristics of children residing in WA

		Year															
		2012		2015		2018		2021									
		Playgroup attendance		Playgroup attendance		Playgroup attendance		Playgroup attendance									
		Yes	No	Yes	No	Yes	No	Yes	No								
Australia		42952	(36.0)	76293	(64.0)	40743	(35.5)	73999	(64.5)	41310	(36.4)	72133	(63.6)	34495	(32.2)	72526	(67.8)
State																	
WA		5772	(40.0)	8647	(60.0)	6674	(43.1)	8810	(56.9)	7247	(44.7)	8967	(55.3)	6700	(40.6)	9794	(59.4)
Gender																	
Male		2893	(38.9)	4545	(61.1)	3303	(41.5)	4651	(58.5)	3666	(44.0)	4670	(56.0)	3320	(39.0)	5194	(61.0)
Female		2879	(41.2)	4102	(58.8)	3371	(44.8)	4159	(55.2)	3581	(45.5)	4297	(54.5)	3380	(42.4)	4600	(57.6)
Aboriginal and Torres Strait Islander background																	
No		5609	(42.4)	7629	(57.6)	6412	(45.1)	7820	(54.9)	6923	(46.3)	8023	(53.7)	6347	(42.0)	8776	(58.0)
Yes		163	(13.8)	1018	(86.2)	262	(20.9)	990	(79.1)	324	(25.6)	944	(74.4)	353	(25.7)	1018	(74.3)
Country of Birth																	
Australia		5380	(41.4)	7622	(58.6)	6164	(44.3)	7748	(55.7)	6781	(45.5)	8138	(54.5)	6342	(40.8)	9198	(59.2)
Other Country		130	(19.0)	555	(81.0)	185	(25.4)	544	(74.6)	282	(32.1)	596	(67.9)	220	(33.6)	435	(66.4)
Other English Speaking Country		260	(35.6)	470	(64.4)	308	(39.3)	475	(60.7)	178	(45.2)	216	(54.8)	138	(46.2)	161	(53.8)
Language background other than English																	
No		5271	(43.5)	6833	(56.5)	5798	(46.7)	6607	(53.3)	5875	(48.4)	6254	(51.6)	5261	(43.8)	6744	(56.2)
Yes		501	(21.6)	1814	(78.4)	876	(28.5)	2203	(71.5)	1372	(33.6)	2713	(66.4)	1439	(32.1)	3050	(67.9)
Remoteness																	
Major Cities of Australia		4047	(38.8)	6396	(61.2)	4826	(42.1)	6624	(57.9)	5360	(44.0)	6812	(56.0)	4708	(38.7)	7466	(61.3)
Inner Regional Australia		646	(50.1)	644	(49.9)	710	(47.3)	791	(52.7)	690	(49.7)	699	(50.3)	739	(46.5)	849	(53.5)
Outer Regional		538	(40.8)	780	(59.2)	566	(45.8)	671	(54.2)	602	(45.3)	728	(54.7)	641	(44.5)	798	(55.5)
Remote Australia		345	(42.0)	476	(58.0)	320	(46.7)	365	(53.3)	360	(48.7)	379	(51.3)	389	(50.5)	382	(49.5)
Very Remote Australia		196	(35.8)	351	(64.2)	252	(41.2)	359	(58.8)	235	(40.2)	349	(59.8)	223	(42.7)	299	(57.3)
SEIFA Category																	
Quintile 1		637	(26.3)	1785	(73.7)	721	(28.7)	1791	(71.3)	812	(33.0)	1649	(67.0)	843	(34.3)	1616	(65.7)
Quintile 2		898	(32.5)	1865	(67.5)	1015	(34.9)	1892	(65.1)	1295	(41.6)	1821	(58.4)	1095	(37.7)	1813	(62.3)
Quintile 3		1165	(38.6)	1857	(61.4)	1425	(43.0)	1886	(57.0)	1549	(44.8)	1911	(55.2)	1439	(40.4)	2123	(59.6)
Quintile 4		1388	(46.1)	1624	(53.9)	1649	(49.6)	1678	(50.4)	1837	(48.7)	1933	(51.3)	1817	(41.9)	2517	(58.1)
Quintile 5		1683	(52.8)	1503	(47.2)	1853	(54.5)	1548	(45.5)	1718	(51.4)	1623	(48.6)	1497	(46.8)	1705	(53.2)

Due to cell sizes with <15 observations, some cells have been intentionally left blank.