

Australian Early Development Census 2012 Summary Report

November 2013



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Since 2002, the Australian Government has worked in partnership with eminent child health research institutes, Centre for Community Child Health, Royal Children's Hospital, Melbourne, and the Telethon Kids Institute, Perth to deliver the Australian Early Development Index programme to communities nationwide. On 1 July 2014, the Australian Early Development Index (AEDI) programme became known as the Australian Early Development Census (AEDC), and was launched through a new website www.aedc.gov.au. The Australian Government continues to work with its partners, and with state and territory governments to implement the AEDC.

This product is based on the materials developed by the Centre for Community Child Health, Royal Children's Hospital, Melbourne, and the Australian Government Department of Education has been granted permission to adapt for its use.

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This publication provides the summary results from the 2012 Australian Early Development Index (AEDI) data collection, including comparative data from the 2009 and 2012 collections.

Update – November 2013

The 2012 Summary Report was initially released on April 2013. This update (November 2013) includes an analysis of AEDI results by the 2011 Australian Bureau of Statistics' (ABS) Index of Relative Socio-economic Disadvantage (IRSD) for AEDI local communities. This data was not available at the time of the original publication.

Introduction and background

The Australian Early Development Census (AEDC) is a census of children that measures how children are developing as they enter school. Information from the AEDC helps communities to know how their children are faring.

The results provide communities around Australia with information about local children across five domains of early childhood development covering:

- physical health and wellbeing
- social competence
- emotional maturity
- language and cognitive skills (school-based)
- communication skills and general knowledge.

The results from the AEDC will help communities, governments and policy-makers pinpoint the types of services, resources and support required to help shape the future and wellbeing of Australian children.

In 2014, the Australian Early Development Index (AEDI) was renamed the AEDC to clearly recognise the fact that the Australian version of the Early Development Instrument is used as a population-based measure of child development. The AEDC is still based on a teacher-completed Instrument across five developmental domains.

The AEDI was completed nationwide for the first time in 2009, with a second collection undertaken in 2012. Additional information on the AEDC is available online at www.aedc.gov.au/about-the-aedc.

Key findings

- In both 2009 and 2012, the majority of Australian children are doing well on each of the five AEDC developmental domains.
- In 2012, approximately, one in five Australian children (22.0 per cent) are developmentally vulnerable on one or more domain/s, an improvement compared with 23.6 per cent in 2009.
- One in 10 children (10.8 per cent) are developmentally vulnerable on two or more domains in 2012, an improvement compared with 11.8 per cent in 2009.
- Data from the 2009 and 2012 collections show that the majority of Australian Indigenous children are developmentally on track on each of the five AEDC developmental domains but they are more likely to be developmentally vulnerable than non-Indigenous children.

This publication provides the summary results from the 2012 AEDI data collection and national comparative data for the 2009 and 2012 collections.

In addition to this report, the 2012 AEDI results are reported through a suite of community level profiles, available online at www.aedc.gov.au/resources/reports.

AEDC data collection

Teachers complete the research Instrument, similar to a questionnaire, which is made up of approximately 100 questions, for each child in their class based on their observations and knowledge of each child, the child is not present. Each of the five AEDC domains has a corresponding set of questions from the Instrument. Data is collected for individual children and reported at a group level (national, state/territory or community).

AEDC score

Responses from the Instrument are added together to determine an AEDC domain score. Up to five AEDC domain scores are calculated for each individual child. To determine whether an individual domain score is 'on track', 'developmentally at risk' or 'developmentally vulnerable', national 'cut-offs' were established during the first national AEDI data collection in 2009. To create the national 'cut-offs' in 2009, all the children's domain scores were ranked from the lowest to highest score. Scores ranked in the lowest 10 per cent were classified as developmentally 'vulnerable'. Scores ranked between 10 per cent and 25 per cent were classified as 'developmentally at risk'. Scores ranked in the highest 75 per cent were classified as developmentally 'on track'. These national cut-offs will continue to be applied in future data collections providing a baseline to track children's developmental outcomes across Australia over time.

How the AEDC results are reported

AEDC results are presented as the number and proportion of children who are, 'on track', 'developmentally at risk' and 'developmentally vulnerable'.

About the result benchmarks

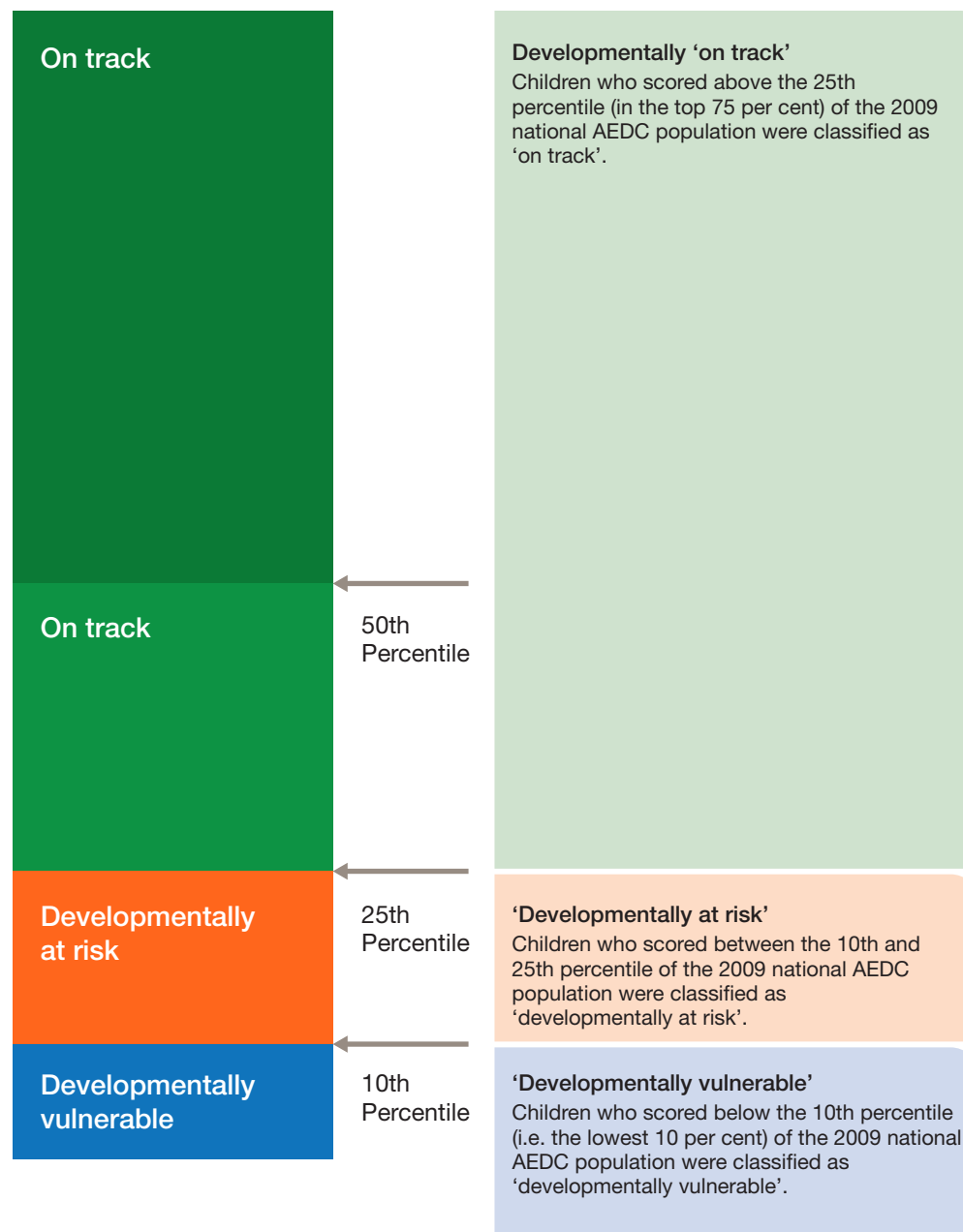
For each of the five AEDC domains, children receive a score between 0 and 10, where 10 is the highest score possible.

In 2009, when the first AEDC was undertaken, a series of benchmarks was established. Children falling below the 10th percentile were considered 'developmentally vulnerable', children falling between the 10th and 25th percentile were considered 'developmentally at risk' and all other children were considered to be 'on track'.

The benchmarks set in 2009 provide a reference point for which later AEDC results can be compared. For example: in the 2012 AEDC only 6.8% of children were considered to be developmentally vulnerable on the Language and Cognitive Development domain, using the benchmarks established in 2009.

Figure 1 – How the baseline was established.

For the 2012 data collection, and onwards, comparisons of increased or decreased developmental vulnerability are measured against the score established in 2009.



2012 results – key findings

In the 2012 data collection, information was collected on 289,973 Australian children representing 96.5 per cent of children in their first year of full-time schooling. The key findings include:

- The majority of Australian children are doing well on each of the five developmental domains.
- Overall in Australia, 22.0 per cent of Australian children are developmentally vulnerable on one or more domain/s.
- Overall in Australia, 10.8 per cent of Australian children are developmentally vulnerable on two or more domains.
- In 2012, females are less likely to be developmentally vulnerable on one or more domains compared with males. However, males showed a greater change (2.0 percentage points) over their 2009 results when compared with females (1.1 percentage points).
- The majority of Aboriginal and Torres Strait Islander children are developmentally on track on each of the five developmental domains. However Indigenous children are more than twice as likely to be developmentally vulnerable than non-Indigenous children.
- There are children in Australia who only speak English, but are reported as not proficient in English. These children are more likely to be developmentally vulnerable on all the AEDC domains.

- Children who reside in very remote Australia are more likely to be developmentally vulnerable.
- Close to half (44.5 per cent) of children in very remote communities are developmentally vulnerable, compared to around one-fifth (21.1 per cent) of children from major cities.
- Children living in the most socio-economically disadvantaged Australian communities are more likely to be developmentally vulnerable on each of the AEDC domains.
 - 31.7 per cent of children living in the most socio-economically disadvantaged Australian communities are developmentally vulnerable on one or more of the AEDI domain/s, compared with 15.2 per cent of children in the least disadvantaged communities.
 - 17.4 per cent of children living in the most socio-economically disadvantaged Australian communities are developmentally vulnerable on two or more of the domains, compared with 6.5 per cent of children in the least disadvantaged communities.

2012 collection – results

The following table reports on the proportion of children who are developmentally vulnerable on one or more developmental domain/s. It also reports on the proportion of children who are developmentally vulnerable on two or more developmental domains (who are considered to be at particularly high-risk developmentally).

Table 1 – Proportion of children developmentally vulnerable on one or more domain/s, 2012^{1,2}

Characteristic	Number of children	Developmentally vulnerable on one or more domain/s (%)	Number of children	Developmentally vulnerable on two or more domains (%)
Overall				
Australia 0	272,282	22.0	273,275	10.8
Sex				
Male	137,119	28.2	137,620	14.8
Female	135,163	15.7	135,655	6.8
Indigenous				
Indigenous	14,011	43.2	14,011	26.0
Non-indigenous	258,271	20.9	259,264	10.0

Table continues on next page.

Table 1 – Continued

Characteristic	Number of children	Developmentally vulnerable on one or more domain/s (%)	Number of children	Developmentally vulnerable on two or more domains (%)
Language diversity				
LBOTE ³	52,107	29.5	52,277	14.6
Proficient in English ⁴	45,370	20.0	45,579	8.3
Not proficient in English ⁵	6,661	93.7	6,608	58.0
English only	220,175	20.2	220,998	9.9
Proficient in English	213,116	17.9	213,930	7.9
Not proficient in English	6,837	93.7	6,810	72.3
Geographic diversity⁶				
Major Cities of Australia	187,838	21.1	188,536	10.1
Inner Regional Australia	50,946	22.4	51,132	11.2
Outer Regional Australia	26,234	24.9	26,315	13.1
Remote Australia	4,441	26.0	4,460	13.5
Very Remote Australia	2,823	44.5	2,832	28.0
State/Territory				
New South Wales	88,921	19.9	89,260	9.2
Victoria	63,584	19.5	63,889	9.5
Queensland	57,994	26.2	58,107	13.8
Western Australia	30,631	23.0	30,770	11.2
South Australia	17,355	23.7	17,399	12.2
Tasmania	6,086	21.5	6,104	10.1
Australian Capital Territory	4,594	22.0	4,616	9.8
Northern Territory	3,117	35.5	3,130	20.9
Relative socio-economic disadvantage of communities where children live⁷				
Quintile 1 (most disadvantaged)	50,748	31.7	50,883	17.4
Quintile 2	51,068	24.8	51,180	12.4
Quintile 3	53,240	21.5	53,439	10.4
Quintile 4	55,516	18.6	55,793	8.5
Quintile 5 (least disadvantaged)	61,231	15.2	61,495	6.5

Note: the footnote numbers in this table refer to the Technical Notes on page 24.

Domains results

The majority of children are doing well on each of the five developmental domains of the AEDC. However, there are children who are developmentally vulnerable as they enter school.



Physical health and wellbeing domain

This domain measures children’s physical readiness for the school day, physical independence and gross and fine motor skills.

Table 2.1 – Physical health and wellbeing categories, including a description of developmentally vulnerable and ontrack.

Category	Children developmentally vulnerable	Children on track
Physical readiness for school day	Have at least sometimes experienced coming unprepared for school by being dressed inappropriately, coming to school hungry or tired.	Never or almost never experienced being dressed inappropriately for school activities, and do not come to school late, hungry or tired.
Physical independence	Range from those who have not developed one of the three skills (independence, handedness, co-ordination), to those who have not developed any of these skills.	Are independent regarding their own needs, have an established hand preference and are well coordinated.
Gross and fine motor skills	Range from those who have an average ability to perform skills requiring gross and fine motor competence and good or average overall energy levels, to those who have poor fine and gross motor skills, poor overall energy levels and physical skills.	Have an excellent ability to physically tackle the school day and have excellent or good gross and fine motor skills.

Key results from the physical health and wellbeing domain include:

- Boys are 1.8 times more likely than girls to be developmentally vulnerable (11.9 per cent of males compared with 6.7 per cent of females).
- Indigenous children are 2.3 times more likely to be developmentally vulnerable than non- Indigenous children (20.4 per cent and 8.7 per cent respectively).
- Children with a Language Background Other Than English (LBOTE) are slightly more likely than other children to be developmentally vulnerable (9.9 per cent compared with 9.2 per cent).
- Children living in very remote Australia are 2.4 times more likely to be developmentally vulnerable than children living in major cities (20.7 per cent and 8.6 per cent respectively).
- Children living in the most socio-economically disadvantaged Australian communities are more than twice as likely to be developmentally vulnerable on the physical health and wellbeing domain than those from the least disadvantaged communities (14.0 per cent compared with 6.0 per cent).

Table 2.2 – Proportion of children developmentally vulnerable, developmentally at risk, and on track by physical health and wellbeing domain, 2012^{1,2}

Characteristic	Number of children	Developmentally vulnerable (Below the 10th percentile – %)	Developmentally at risk (Between the 10th and 25th percentile – %)	On track (Between the 25th and 50th percentile – %)	On track (Above the 50th percentile – %)
Overall					
Australia	273,922	9.3	13.4	19.5	57.8
Sex					
Male	138,001	11.9	14.6	22.0	51.5
Female	135,921	6.7	12.1	17.0	64.2
Indigenous					
Indigenous	14,052	20.4	17.0	22.2	40.4
Non-indigenous	259,870	8.7	13.2	19.4	58.7
Language diversity					
LBOTE ³	52,471	9.9	13.7	19.2	57.1
Proficient in English ⁴	45,685	7.1	12.5	19.1	61.3
Not proficient in English ⁵	6,664	29.5	21.9	20.2	28.4
English only	221,451	9.2	13.3	19.6	58.0
Proficient in English	214,276	7.8	13.0	19.7	59.5
Not proficient in English	6,830	51.5	22.2	16.6	9.7
Geographic diversity⁶					
Major Cities of Australia	188,977	8.6	13.1	19.1	59.2
Inner Regional Australia	51,226	10.0	14.2	20.3	55.5
Outer Regional Australia	26,397	11.3	13.7	20.1	54.9
Remote Australia	4,468	11.2	13.5	20.9	54.4
Very Remote Australia	2,854	20.7	15.7	22.8	40.8
Relative socio-economic disadvantage of communities where children live⁷					
Quintile 1 (most disadvantaged)	51,040	14.0	15.6	20.3	50.0
Quintile 2	51,305	10.7	14.6	20.4	54.4
Quintile 3	53,558	8.9	13.3	19.7	58.1
Quintile 4	55,945	7.8	12.9	18.9	60.4
Quintile 5 (least disadvantaged)	61,586	6.0	11.0	18.5	64.5

Note: the footnote numbers in this table refer to the Technical Notes on page 24.

Social competence domain

This domain measures children’s overall social competence, responsibility and respect, approaches to learning and readiness to explore new things.

Table 3.1 – Social competence categories, including a description of developmentally vulnerable and ontrack.

Category	Children developmentally vulnerable	Children on track
Overall social competence	Have average to poor overall social skills, low self-confidence and are rarely able to play with various children and interact cooperatively.	Have excellent or good overall social development, very good ability to get along with other children and play with various children, usually cooperative and self-confident.
Responsibility and respect	Only sometimes or never accept responsibility for actions, show respect for others and for property, demonstrate self-control, and are rarely able to follow rules and take care of materials.	Always or most of the time show respect for others, and for property, follow rules and take care of materials, accept responsibility for actions, and show self-control.
Approaches to learning	Only sometimes or never work neatly and independently, are rarely able to solve problems, follow class routines and do not easily adjust to changes in routines.	Always or most of the time work neatly, independently, and solve problems, follow instructions and class routines, easily adjust to changes.
Readiness to explore new things	Only sometimes or never show curiosity about the world, and are rarely eager to explore new books, toys or unfamiliar objects and games.	Are curious about the surrounding world, and are eager to explore new books, toys or unfamiliar objects and games.

Key results from the social competence domain include:

- Boys are 2.2 times more likely than girls to be developmentally vulnerable (12.7 per cent of boys compared with 5.8 per cent of girls).
- The smallest difference between Indigenous and non-Indigenous children is on the social competence domain, where Indigenous children are 2.1 times more likely to be developmentally vulnerable as non-Indigenous children (18.7 per cent and 8.8 per cent respectively).
- Children with LBOTE status who are proficient in English are less likely to be developmentally vulnerable than children who only speak English (7.8 per cent compared with 8.8 per cent).
- The 12.7 per cent of children with LBOTE status who are not proficient in English are 4.5 times more likely to be developmentally vulnerable than LBOTE children who are proficient in English (34.8 per cent compared with 7.8 per cent).
- Children living in very remote Australia are 2.1 times more likely to be developmentally vulnerable on one or more domains than children living in major cities (18.7 per cent and 8.9 per cent respectively).
- Children living in the most socio-economically disadvantaged Australian communities are more than twice as likely to be developmentally vulnerable on the social competence domain than those from the least disadvantaged communities (13.6 per cent compared with 6.3 per cent).

Table 3.2 - Proportion of children developmentally vulnerable, developmentally at risk, and on track by social competence domain, 2012^{1,2}

Characteristic	Number of children	Developmentally vulnerable (Below the 10th percentile – %)	Developmentally at risk (Between the 10th and 25th percentile – %)	On track (Between the 25th and 50th percentile – %)	On track (Above the 50th percentile – %)
Overall					
Australia	273,534	9.3	14.3	21.9	54.6
Sex					
Male	137,817	12.7	17.8	23.6	45.9
Female	135,717	5.8	10.7	20.1	63.3
Indigenous					
Indigenous	14,041	18.7	20.7	23.0	37.7
Non-indigenous	259,493	8.8	13.9	21.8	55.5
Language diversity					
LBOTE ³	52,383	11.2	15.5	22.8	50.5
Proficient in English ⁴	45,642	7.8	13.9	22.7	55.7
Not proficient in English ⁵	6,640	34.8	27.0	23.7	14.5
English only	221,151	8.8	14.0	21.7	55.5
Proficient in English	214,022	7.6	13.6	21.7	57.1
Not proficient in English	6,825	45.2	26.6	19.4	8.7
Geographic diversity⁶					
Major Cities of Australia	188,710	8.9	13.7	21.7	55.6
Inner Regional Australia	51,173	9.1	15.2	22.5	53.3
Outer Regional Australia	26,338	10.9	15.2	21.7	52.1
Remote Australia	4,466	10.7	16.0	22.6	50.7
Very Remote Australia	2,847	18.7	21.5	22.3	37.5
Relative socio-economic disadvantage of communities where children live⁷					
Quintile 1 (most disadvantaged)	50,994	13.6	17.3	22.7	46.3
Quintile 2	51,238	10.6	15.3	22.3	51.8
Quintile 3	53,495	9.0	14.2	21.8	55.0
Quintile 4	55,809	7.7	13.2	21.8	57.3
Quintile 5 (least disadvantaged)	61,511	6.3	11.8	21.0	60.9

Note: the footnote numbers in this table refer to the Technical Notes on page 24.

Emotional maturity domain

This domain measures children’s pro-social and helping behaviour, anxious and fearful behaviour, aggressive behaviour and hyperactivity and inattention.

Table 4.1 – Emotional maturity categories, including a description of developmentally vulnerable and ontrack.

Category	Children developmentally vulnerable	Children on track
Pro-social and helping behaviour	Never or almost never show most of the helping behaviours including helping someone hurt, sick or upset, offering to help spontaneously, and inviting others to join in.	Often show helping behaviours including helping someone hurt, sick or upset, offering to help spontaneously, and inviting others to join in.
Anxious and fearful behaviour	Often show most of the anxious behaviours; they could be worried, unhappy, nervous, sad or excessively shy, indecisive; and they can be upset when left at school.	Rarely or never show anxious behaviours, are happy, and able to enjoy school, and are comfortable being left at school.
Aggressive behaviour	Often show most of the aggressive behaviours; they get into physical fights, kick or bite others, take other people’s things, are disobedient or have temper tantrums.	Rarely or never show aggressive behaviours and do not use aggression as a means of solving a conflict, do not have temper tantrums, and are not mean to others.
Hyperactivity and inattention	Often show most of the hyperactive behaviours; they could be restless, distractible, impulsive, they fidget and have difficulty settling to activities.	Never show hyperactive behaviours and are able to concentrate, settle to chosen activities, wait their turn, and most of the time think before doing something.

Key results from the emotional maturity domain include:

- The greatest difference between male and female children is on the emotional maturity domain, where boys are 3.5 times more likely than girls to be developmentally vulnerable (11.8 per cent of boys compared with 3.4 per cent of girls).
- Indigenous children are 2.2 times more likely to be developmentally vulnerable than non- Indigenous children (15.6 per cent and 7.2 per cent respectively).
- Children with LBOTE status who are proficient in English are less likely to be developmentally vulnerable than both the LBOTE children who are not proficient in English (6.0 per cent compared with 21.1 per cent) and the children who only speak English (6.0 per cent and 7.6 per cent respectively).
- Children living in very remote Australia are 2.6 times more likely to be developmentally vulnerable on one or more domains than children in major cities (18.6 per cent and 7.2 per cent respectively).
- Children living in the most socio-economically disadvantaged Australian communities are about twice as likely to be developmentally vulnerable on the emotional maturity domain than those from the least disadvantaged communities (10.9 per cent compared with 5.5 per cent).

Table 4.2 – Proportion of children developmentally vulnerable, developmentally at risk, and on track by emotional maturity domain, 2012^{1,2}

Characteristic	Number of children	Developmentally vulnerable (Below the 10th percentile – %)	Developmentally at risk (Between the 10th and 25th percentile – %)	On track (Between the 25th and 50th percentile – %)	On track (Above the 50th percentile – %)
Overall					
Australia	272,682	7.6	14.2	24.2	53.9
Sex					
Male	137,205	11.8	18.6	26.0	43.6
Female	135,477	3.4	9.8	22.5	64.3
Indigenous					
Indigenous	13,981	15.6	19.7	24.9	39.7
Non-indigenous	258,701	7.2	13.9	24.2	54.6
Language diversity					
LBOTE ³	52,039	7.9	16.2	26.4	49.5
Proficient in English ⁴	45,350	6.0	14.0	26.3	53.7
Not proficient in English ⁵	6,562	21.1	30.9	27.0	21.0
English only	220,643	7.6	13.8	23.7	54.9
Proficient in English	213,362	6.9	13.2	23.7	56.2
Not proficient in English	6,777	30.3	29.6	23.9	16.2
Geographic diversity⁶					
Major Cities of Australia	187,952	7.2	13.8	24.4	54.7
Inner Regional Australia	51,166	8.2	14.7	23.8	53.3
Outer Regional Australia	26,326	8.7	15.5	24.5	51.3
Remote Australia	4,449	8.7	15.6	23.7	52.0
Very Remote Australia	2,789	18.6	19.5	23.7	38.2
Relative socio-economic disadvantage of communities where children live⁷					
Quintile 1 (most disadvantaged)	50,735	10.9	16.9	25.0	47.2
Quintile 2	51,132	8.5	15.0	24.7	51.8
Quintile 3	53,301	7.4	14.5	24.3	53.9
Quintile 4	55,699	6.5	13.2	24.1	56.1
Quintile 5 (least disadvantaged)	61,338	5.5	12.0	23.4	59.1

Note: the footnote numbers in this table refer to the Technical Notes on page 24.

Language and cognitive skills (school-based) domain

This domain measures children’s basic literacy, interest in literacy, numeracy and memory, advanced literacy and basic numeracy. This domain mainly reflects teachers’ scores for children’s language and cognitive skills based on those necessary for school (with English as the language of instruction) and does not necessarily reflect children’s proficiency in their home language.

Table 5.1 – Language and cognitive skills categories, including a description of developmentally vulnerable and ontrack.

Category	Children developmentally vulnerable	Children on track
Basic literacy	Do not have most of the basic literacy skills; they have problems with identifying letters or attaching sounds to them, rhyming, may not know the writing directions and how to write their own name.	Have all the basic literacy skills including how to handle a book, are able to identify some letters and attach sounds to some letters, show awareness of rhyming words, know the writing directions, and are able to write their own name.
Interest in literacy/numeracy and memory	May not show interest in books and reading, or maths and number games, or both, and may have difficulty remembering things.	Show interest in books and reading, maths and numbers, and have no difficulty with remembering things.
Advanced literacy	Have only up to one of the advanced literacy skills; cannot read or write simple words or sentences, and rarely write voluntarily.	Have at least half of the advanced literacy skills such as reading simple words or sentences, and writing simple words or sentences.
Basic numeracy	Have marked difficulty with numbers, cannot count, compare or recognise numbers, may not be able to name all the shapes and may have difficulty with time concepts.	Have all the basic numeracy skills and can count to 20, recognise shapes and numbers, compare numbers, sort and classify, use one-to-one correspondence, and understand simple time concepts.

Key results from the language and cognitive skills domain include:

- The smallest difference between males and females is on the language and cognitive skills domain, where boys are 1.7 times more likely to be developmentally vulnerable than girls (8.5 per cent of boys and 5.1 per cent of girls).
- The greatest difference between Indigenous and non-Indigenous children is on the language and cognitive skills domain, where Indigenous children are 3.8 times more likely to be developmentally vulnerable than non-Indigenous children (22.4 per cent and 5.9 per cent).
- Children with LBOTE status who are proficient in English are more likely to be developmentally vulnerable (5.7 per cent) compared with children who only speak English and are proficient in English (4.8 per cent).
- Three per cent of children who only speak English are not proficient in English and almost half of these children are developmentally vulnerable (47.7 per cent).
- Children living in very remote Australia are 4.4 times more likely to be developmentally vulnerable on one or more domains than children in major cities (26.0 per cent and 5.9 per cent respectively).
- Children living in the most socio-economically disadvantaged Australian communities are more than three times as likely to be developmentally vulnerable on the language and cognitive skills domain than those from the least disadvantaged communities (12.0 per cent compared with 3.3 per cent).

Table 5.2 – Proportion of children developmentally vulnerable, developmentally at risk, and on track by language and cognitive skills domain, 2012^{1,2}

Characteristic	Number of children	Developmentally vulnerable (Below the 10th percentile – %)	Developmentally at risk (Between the 10th and 25th percentile – %)	On track (Between the 25th and 50th percentile – %)	On track (Above the 50th percentile – %)
Overall					
Australia	273,896	6.8	10.6	21.7	60.9
Sex					
Male	137,986	8.5	12.5	23.6	55.4
Female	135,910	5.1	8.7	19.8	66.5
Indigenous					
Indigenous	14,017	22.4	19.5	24.0	34.0
Non-indigenous	259,879	5.9	10.1	21.6	62.3
Language diversity					
LBOTE ³	52,423	9.6	12.5	22.2	55.7
Proficient in English ⁴	45,666	5.7	10.4	22.1	61.8
Not proficient in English ⁵	6,624	36.7	26.8	22.8	13.6
English only	221,473	6.1	10.2	21.6	62.1
Proficient in English	214,143	4.8	9.7	21.7	63.8
Not proficient in English	6,808	47.7	24.6	17.8	9.9
Geographic diversity⁶					
Major Cities of Australia	188,944	5.9	10.0	21.5	62.7
Inner Regional Australia	51,279	7.4	11.3	21.2	60.2
Outer Regional Australia	26,367	9.3	12.7	23.5	54.6
Remote Australia	4,457	11.9	14.1	26.3	47.7
Very Remote Australia	2,849	26.0	18.3	24.6	31.1
Relative socio-economic disadvantage of communities where children live⁷					
Quintile 1 (most disadvantaged)	50,992	12.0	14.3	22.9	50.8
Quintile 2	51,311	8.1	12.1	22.9	57.0
Quintile 3	53,536	6.6	10.8	22.1	60.5
Quintile 4	56,002	4.8	9.1	21.2	65.0
Quintile 5 (least disadvantaged)	61,567	3.3	7.6	19.9	69.2

Note: the footnote numbers in this table refer to the Technical Notes on page 24.

Communication skills and general knowledge domain

This domain measures children’s communication skills and general knowledge. This is based on teachers’ observations of broad developmental competencies and skills as measured in the school context. Children with LBOTE status may be proficient in their home languages.

Table 6.1 – Communication skills and general knowledge categories, including a description of developmentally vulnerable and ontrack.

Category	Children developmentally vulnerable	Children on track
Communication skills and general knowledge	Range from being average to very poor in effective communication, may have difficulty in participating in games involving the use of language, may be difficult to understand and/or have difficulty in understanding others and may show little general knowledge.	Have excellent or very good communication skills and can communicate easily and effectively, can participate in story-telling or imaginative play, articulate clearly and show adequate general knowledge.

Key results from the communication skills and general knowledge domain include:

- Boys are 1.7 times more likely than girls to be developmentally vulnerable (11.3 per cent of boys compared with 6.6 per cent of girls).
- Indigenous children are 2.4 times more likely to be developmentally vulnerable than non- Indigenous children (19.9 per cent and 8.4 per cent respectively).
- Children with LBOTE status who are proficient in English are more likely to be developmentally vulnerable than children who only speak English and are proficient in English (7.5 per cent compared with 4.1 per cent).
- The majority of children (more than 90 per cent) who are not proficient in English are developmentally vulnerable.
- Children living in very remote Australia are 2.2 times more likely to be developmentally vulnerable on one or more domains than children living in major cities (19.3 per cent and 8.8 per cent respectively).
- Children living in the most socio-economically disadvantaged Australian communities are almost three times as likely to be developmentally vulnerable on the communication skills and general knowledge domain than those from the least disadvantaged communities (14.8 per cent compared with 5.1 per cent).

Table 6.2 – Proportion of children developmentally vulnerable, developmentally at risk, and on track by communication and general knowledge domain, 2012^{1,2}

Characteristic	Number of children	Developmentally vulnerable (Below the 10th percentile – %)	Developmentally at risk (Between the 10th and 25th percentile – %)	On track (Between the 25th and 50th percentile – %)	On track (Above the 50th percentile – %)
Overall					
Australia	273,855	9.0	16.3	18.7	56.0
Sex					
Male	137,959	11.3	18.7	20.1	49.9
Female	135,896	6.6	13.9	17.2	62.3
Indigenous					
Indigenous	14,057	19.9	22.5	22.0	35.6
Non-indigenous	259,798	8.4	16.0	18.5	57.2
Language diversity					
LBOTE ³	52,443	18.2	20.9	20.1	40.7
Proficient in English ⁴	45,707	7.5	22.9	22.9	46.7
Not proficient in English ⁵	6,658	91.9	6.9	1.2	0.0
English only	221,412	6.8	15.2	18.4	59.7
Proficient in English	214,331	4.1	15.4	18.9	61.6
Not proficient in English	6,840	91.3	7.6	1.1	0.0
Geographic diversity⁶					
Major Cities of Australia	188,895	8.8	16.0	18.4	56.8
Inner Regional Australia	51,249	8.3	17.0	18.9	55.8
Outer Regional Australia	26,381	9.9	16.5	19.9	53.6
Remote Australia	4,466	9.0	17.8	20.6	52.6
Very Remote Australia	2,864	19.3	19.2	22.3	39.2
Relative socio-economic disadvantage of communities where children live⁷					
Quintile 1 (most disadvantaged)	51,047	14.8	19.8	20.2	45.2
Quintile 2	51,287	10.2	18.1	19.1	52.6
Quintile 3	53,524	8.8	16.1	18.9	56.1
Quintile 4	55,931	6.8	15.3	18.2	59.7
Quintile 5 (least disadvantaged)	61,577	5.1	12.9	17.4	64.5

Note: the footnote numbers in this table refer to the Technical Notes on page 24.



2009–2012 comparative results – key findings

Table 7 reports the proportion of children developmentally vulnerable on one or more domains in 2009 and 2012. The final column indicates whether there has been an improvement (decrease in developmental vulnerability), decline (increase in developmental vulnerability) or no change and whether this change is significant.

- Approximately one in five (22.0 per cent) children enrolled in their first year of full-time school are developmentally vulnerable on one or more domains in 2012, an improvement on the 2009 result (23.6 per cent vulnerable).
- In 2012, girls (15.7 per cent) are less likely to be developmentally vulnerable on one or more domains compared with boys (28.2 per cent). However, boys showed a greater improvement (2.0 percentage points) over their 2009 results when compared with girls (1.1 percentage points improvement).
- A little more than four in 10 (43.2 per cent) Indigenous children are developmentally vulnerable on one or more domains in 2012, compared with close to five in 10 (47.4 per cent) in 2009.
- The proportion of children developmentally vulnerable on one or more domain decreased from 2009 to 2012 across all remoteness classifications. The largest proportional improvement was seen in Remote Australia (29.5 per cent in 2009, 26.0 per cent in 2012)
- In 2009 there was a higher proportion of children developmentally vulnerable on one or more domains (32.0 per cent) living in the most socio-economically disadvantaged Australian communities than in 2012 (31.7 per cent)
- Nationally, there are a lower proportion of children developmentally vulnerable across each of the five developmental domains in 2012 compared with 2009 except in the physical health and wellbeing domain, which remained unchanged at 9.3 per cent.
- The language and cognitive development domain showed the largest proportional change nationally across each of the five developmental domains between 2012 and 2009.
- The largest proportional improvement for Indigenous children between 2012 and 2009 was on the language and cognitive development domain.

Table 7 – Proportion of children developmentally vulnerable by selected characteristics, 2009 and 2012¹

Characteristic	2009 Number of children	2009 Developmentally vulnerable on one or more domain/s (%)	2012 Number of children	2012 Developmentally vulnerable on one or more domain/s (%)	Comparative result ⁸
Overall					
Australia	246,421	23.6	272,282	22.0	▲
Sex					
Male	124,249	30.2	137,119	28.2	▲
Female	122,172	16.8	135,163	15.7	▲
Indigenous					
Indigenous	11,190	47.4	14,011	43.2	▲
Non-indigenous	235,231	22.4	258,271	20.9	▲
Language diversity					
LBOTE ³	43,853	32.2	52,107	29.5	▲
Proficient in English ⁴	37,435	21.8	45,370	20.0	■
Not proficient in English ⁵	6,334	93.7	6,661	93.7	△
English only	202,568	21.7	220,175	20.2	▲
Proficient in English	195,958	19.3	213,116	17.9	▲
Not proficient in English	6,482	93.8	6,837	93.7	▲
State/Territory					
New South Wales	82,710	21.3	88,921	19.9	▲
Victoria	57,277	20.3	63,584	19.5	▲
Queensland	52,603	29.6	57,994	26.2	▲
Western Australia	26,052	24.7	30,631	23.0	▲
South Australia	15,009	22.8	17,355	23.7	▲
Tasmania	5,699	21.8	6,086	21.5	△
Australian Capital Territory	4,180	22.2	4,594	22.0	△
Northern Territory	2,865	38.7	3,117	35.5	▲

Table continues on next page.

Table 7 – Continued

Characteristic	2009 Number of children	2009 Developmentally vulnerable on one or more domain/s (%)	2012 Number of children	2012 Developmentally vulnerable on one or more domain/s (%)	Comparative result ⁸
Geographic Diversity⁶					
Major Cities of Australia	163,938	22.5	187,838	21.1	▲
Inner Regional Australia	51,629	23.6	50,946	22.4	▲
Outer Regional Australia	23,623	26.8	26,234	24.9	▲
Remote Australia	4,557	29.5	4,441	26.0	▲
Very Remote Australia	2,648	47.1	2,823	44.5	▲
Relative socio-economic disadvantage of communities where children live⁷					
Quintile 1 (most disadvantaged)	52,087	32.0	50,748	31.7	▲
Quintile 2	44,510	25.5	51,068	24.8	▲
Quintile 3	42,388	23.5	53,240	21.5	▲
Quintile 4	44,147	20.5	55,516	18.6	▲
Quintile 5 (least disadvantaged)	60,130	16.2	61,231	15.2	▲

Comparative Results Key for Table 7		
Improvement	Significant decrease in vulnerability	▲
Improvement	Decrease in vulnerability but not significant	△
Decline	Significant increase in vulnerability	▼
Decline	Increase in vulnerability but not significant	▽
No change	No change in vulnerability	■

Note: the footnote numbers in this table refer to the Technical notes on page 24.

The following table shows the proportion of children developmentally vulnerable across each of the five developmental domains in 2009 and 2012. A lower number in 2012, compared with 2009, means there has been a decrease in the proportion of children developmentally vulnerable.

Table 8 – Proportion of children developmentally vulnerable by AEDC domain, Indigenous status, age, language diversity and relative disadvantage, 2009 and 2012^{1,2}

Characteristic	Physical health and wellbeing (%) – 2009	Physical health and wellbeing (%) – 2012	Social competence (%) – 2009	Social competence (%) – 2012	Emotional maturity (%) – 2009	Emotional maturity (%) – 2012	Language and cognitive development (%) – 2009	Language and cognitive development (%) – 2012	Communication and general knowledge (%) – 2009	Communication and general knowledge (%) – 2012
Overall										
Australia	9.3	9.3	9.5	9.3	8.9	7.6	8.9	6.8	9.2	9.0
Sex										
Male	11.8	11.9	13.0	12.7	13.5	11.8	11.3	8.5	11.7	11.3
Female	6.8	6.7	5.9	5.8	4.2	3.4	6.4	5.1	6.6	6.6
Indigenous										
Indigenous	21.9	20.4	20.2	18.7	17.1	15.6	28.6	22.4	21.3	19.9
Non-indigenous	8.7	8.7	9.0	8.8	8.5	7.2	7.9	5.9	8.6	8.4
Language diversity										
LBOTE ³	10.6	9.9	11.8	11.2	9.5	7.9	12.4	9.6	20.0	18.2
Proficient in English ⁴	7.4	7.1	7.9	7.8	7.2	6.0	7.5	5.7	7.9	7.5
Not proficient in English ⁵	29.2	29.5	35.0	34.8	23.3	21.1	41.2	36.7	91.3	91.9
English only	9.1	9.2	9.0	8.8	8.7	7.6	8.1	6.1	6.8	6.8
Proficient in English	7.7	7.8	7.8	7.6	7.9	6.9	6.6	4.8	4.1	4.1
Not proficient in English	50.0	51.5	45.5	45.2	34.1	30.3	53.5	47.7	90.3	91.3
Geographic Diversity⁶										
Major Cities of Australia	8.6	8.6	9.0	8.9	8.3	7.2	12.9	5.9	9.2	8.8
Inner Regional Australia	9.6	10.0	9.6	9.1	9.3	8.2	14.9	7.4	8.1	8.3
Outer Regional Australia	11.6	11.3	11.0	10.9	10.1	8.7	17.6	9.3	9.5	9.9
Remote Australia	12.4	11.2	11.8	10.7	11.8	8.7	19.0	11.9	10.1	9.0
Very Remote Australia	22.8	20.7	20.4	18.7	19.5	18.6	23.2	26.0	22.9	19.3

Table continues on next page.

Table 8 – Continued

Characteristic	Physical health and wellbeing (%) – 2009	Physical health and wellbeing (%) – 2012	Social competence (%) – 2009	Social competence (%) – 2012	Emotional maturity (%) – 2009	Emotional maturity (%) – 2012	Language and cognitive development (%) – 2009	Language and cognitive development (%) – 2012	Communication and general knowledge (%) – 2009	Communication and general knowledge (%) – 2012
Relative socio-economic disadvantage of communities where children live ⁷										
Quintile 1 (most disadvantaged)	13.2	14.0	13.2	13.6	11.8	10.9	13.9	12.0	14.1	14.8
Quintile 2	10.2	10.7	10.4	10.6	9.6	8.5	10.0	8.1	10.1	10.2
Quintile 3	8.9	8.9	9.4	9.0	9.0	7.4	8.5	6.6	8.9	8.8
Quintile 4	7.8	7.8	8.2	7.7	7.6	6.5	6.9	4.8	7.3	6.8
Quintile 5 (least disadvantaged)	6.1	6.0	6.2	6.3	6.3	5.5	4.7	3.3	5.4	5.1

Note: the footnote numbers in this table refer to the Technical Notes on page 24.

Influencing factors

A range of factors have an impact on the AEDC results including, age of the child at the time the Instrument was completed and the availability and take-up of services such as health, allied health, early childhood education, child care and parenting support. Across jurisdictions, the availability and take-up of these types of services varies.

Age

The mean age of the children at the time the Instrument was completed was 5 years and 7 months, however this varied marginally in different states and territories, reflecting differences in starting ages for children in their first year of full-time schooling.

A breakdown of the mean age of children surveyed by state and territory is provided in Table 9.

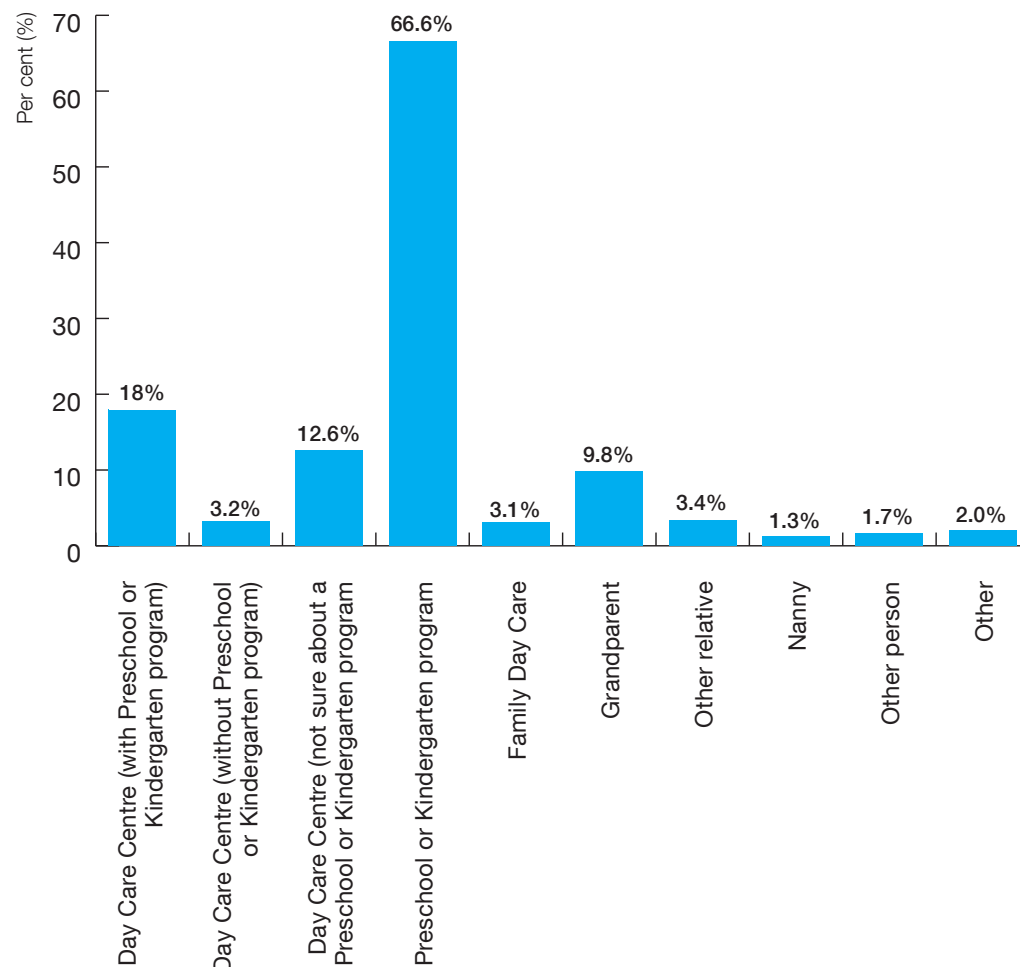
Non-parental education and care

Teachers were asked to record children's experiences in the year before entering full-time school. Overall 249,273 (94.8 per cent) children are reported to have experienced some form of regular non-parental early childhood education and/or care in the year before entering full-time school (such as family day care, preschool or kindergarten, or care by a grandparent). There are 13,575 (5.2 per cent) children reported as having been in parental care only.

Table 9 – Age by state/territory (2012)

State/Territory	Mean age
New South Wales	5 years 7 months
Victoria	5 years 9 months
Queensland	5 years 6 months
Western Australia	5 years 5 months
South Australia	5 years 8 months
Tasmania	5 years 11 months
Australian Capital Territory	5 years 8 months
Northern Territory	5 years 5 months
Australia	5 years 7 months

Figure 3 – Non-parental early childhood education and/or care experiences before first year of full-time schooling^{9,10} (2012)



See Technical Notes on page 24.

Technical Notes

1. Information about children with special needs is not included in the AEDI domain results tables because of the already identified substantial developmental needs of this group. However, teachers complete background information on children with special needs to enable communities to be responsive to all children in their community.
2. Figures in all tables may not add up to 100 per cent due to rounding.
3. Language Background Other Than English (LBOTE) - The subsets of these categories do not equal the total because teachers have selected the 'Don't know' response.
4. Proficient in English refers to what is expected of the average monolingual English speaker in a similar phase of development.
5. Children from Language Backgrounds Other Than English may be proficient in their home languages.
6. In 2011 the ABS changed its geographical classification to the Australian Statistical Geography Standard on which the 2012 AEDI remoteness classification was based, from the Australian Standard Geographical Classification on which the 2009 AEDI remoteness classification was based. Additionally, while children in the 2012 collection were assigned to remoteness categories based on their home address children in the 2009 AEDI were assigned to remoteness categories based on their home suburb and postcode as the full address was not collected. Therefore caution should be taken when comparing the 2009 and 2012 AEDI results at a remoteness level.
7. In 2009 the AEDI dataset was not mapped to the ABS IRSD for the Northern Territory, therefore caution should be taken when comparing, for relative disadvantage, the 2009 and 2012 AEDI results at a National level.
8. The difference between the proportion vulnerable in 2009 and 2012 is statistically significant if it exceeds the critical difference. See Comparative Results fact sheet for further information at www.aedc.gov.au.
9. For 27,125 children, the form of early education or care before entering full-time school was not known or not reported by the teacher.
10. The total across all categories exceeds 100 per cent as teachers may have nominated more than one form of non-parental early childhood education and/or care type for a child.

Definition of terms

Additional or special needs

The child required special assistance because of chronic medical, physical, or intellectually disabling conditions (e.g. Autism, Cerebral palsy, Down syndrome), based on a medical diagnosis.

AEDC cut-offs

National AEDC cut-offs were established during the first national data collection in 2009 to determine whether an individual domain score was classified as on track, developmentally at risk or developmentally vulnerable. These cut-offs will remain the same for future collections.

To create the national AEDI cut-offs in 2009, all the children's AEDI domain scores were ranked from the lowest to highest score.

- Scores ranked in the lowest 10 per cent were classified as developmentally vulnerable.
- Scores ranked between 10 per cent and 25 per cent were classified as developmentally at risk.
- Scores ranked in the highest 75 per cent were classified as developmentally on track.

Australian Early Development Census (AEDC)

In 2014, the Australian Early Development Index (AEDI) was renamed the Australian Early Development Census (AEDC) to clearly recognise the fact that the Australian version of the Early Development Instrument is used as a population-based measure of child development. The AEDC is still based on a teacher-completed Instrument across five developmental domains.

Australian Early Development Index (AEDI)

The AEDI (now called the AEDC) was a population measure of young children's development based on a teacher-completed Australian version of the Early Development Instrument across five developmental domains.

Developmentally at risk

The cut-off for an AEDC score to represent 'developmentally at risk' uses the baseline cut-offs from the 2009 AEDI data collection. In 2009 children who scored between the 10th and the 25th percentile of the national population were classified as 'developmentally at risk'.

Developmentally on track

The cut-off for an AEDC score to represent on track uses the baseline cut-offs from the 2009 AEDI data collection. In 2009 children who scored above the 25th percentile (in the top 75 per cent) of the national population were classified as on track.

Developmentally vulnerable

The cut-off for an AEDC score to represent vulnerable is based on the results from the 2009 AEDI data collection. In 2009 children who scored below the 10th percentile (in the lowest 10 per cent) of the national population were classified as vulnerable.

Developmentally vulnerable on one or more domain/s

The percentage of children in the community who have at least one or more AEDC domain score/s below the 10th percentile.

Developmentally vulnerable on two or more domains

The percentage of children in the community who have at least two or more AEDC domain scores below the 10th percentile.

Index of Relative Socio-economic Disadvantage (IRSD)

Socio-Economic Indexes for Areas (SEIFA) were developed by the Australian Bureau of Statistics (ABS). They are a set of measures, derived from Census information, that summarise different aspects of socio-economic conditions in an area. The Index for Relative Socio-Economic Disadvantage (IRSD), which is used in AEDC results, looks at Census information that reflect disadvantage such as low income, low educational attainment, high unemployment, and jobs in relatively unskilled occupations.

A low score indicates relatively greater disadvantage in general. For example, an area could have a low score if there are (among other things):

- many households with low income, many people with no qualifications, or many people in low-skilled occupations.

A high score indicates a relative lack of disadvantage in general. For example, an area may have a high score if there are (among other things):

- few households with low incomes, few people with no qualifications or in low skilled occupations.

Every geographical area in Australia is given a SEIFA IRSD score that ranks the 'disadvantage' of an area, compared with other areas in Australia. The AEDI Local Communities were matched to ABS geography and the SEIFA scores for the local community of the child's residence were added to the AEDI dataset.

Using SEIFA scores for all local communities in Australia, quintiles (equal 20 per cent ranges) were calculated for these local communities. Children's local community of residence as recorded in the AEDI was ranked according to the SEIFA quintile to allow for comparisons. The lowest quintile (Quintile 1) represents the most disadvantaged; the highest quintile (Quintile 5) represents the least disadvantaged.

It should be noted that IRSD scores are not available for all local communities. In 2012 there were 505 children living in local communities that did not receive an IRSD score, in 2009 this number was 3,426, which is mainly due to Northern Territory local communities not receiving IRSD scores.

For information on comparing SEIFA across time please refer to the ABS technical paper Socio Economic Indexes for Areas (SEIFA) (cat. Number 2033.0.55.001)

Language Background Other Than English (LBOTE)

For the AEDC, children are considered LBOTE if they speak a language other than English at home and/or have English as a Second Language (ESL) status.

Proficient in English

Proficient in English refers to what is expected of the average monolingual English speaker in a similar phase of development. For the AEDC, children are considered proficient in English if teachers answered average or good/very good to the question: 'How would you rate this child's ability to use language effectively in English?'

This question refers to the child's effective use of appropriate words and expressions at appropriate times, and the child's contribution to conversations. Effective use can be defined as using language that is sufficient to convey the desired message. Only basic grammatical concepts need to be adhered to, so long as the meaning is clear. Teachers were asked specifically to consider English language skills.

Remoteness Structure

The Remoteness Structure is a geographic classification designed by the ABS that divides Australia into broad geographic regions that share common characteristics of remoteness. In 2011 the ABS changed the remoteness structure to the Australian Statistical Geography Standard (ASGS), from the Australian Standard Geographical Classification (ASGC). The same principles were used to construct the 2011 remoteness structure as were used to construct the 2006 remoteness structure with the primary difference being the base geographic region.

Remoteness Areas of Australia:

- Major Cities – relatively unrestricted accessibility to a wide range of goods and services and opportunities for social interaction.
- Inner Regional – some restrictions to accessibility of some goods, services and opportunities for social interaction.
- Outer Regional – significantly restricted accessibility of goods, services and opportunities for social interaction.
- Remote / Very Remote – very restricted accessibility of goods, services and opportunities for social interaction.

Research Instrument

A teacher-completed questionnaire that consists of approximately 100 questions measuring the five developmental domains.

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