

# 20 Preschool education

Many Australian children have access to early education before commencing school through formal early learning programs which can be provided either in a child care centre or preschool education setting. Preschool is a planned education and developmental program for children in the year (or in some jurisdictions, two years) before they begin full-time primary education. Children attending preschool are usually aged 4 or 5 years of age. A qualified early childhood teacher, who has completed a degree in education, plans the program and is usually supported by a teacher assistant (AEU 2004). Importantly, the term 'preschool', as used in this section, encompasses a number of learning environments, including formal learning programs in long day care centres, not just state-based preschools.

There are many studies which show significant benefits for children who access quality preschool programs, including better intellectual development and independence, sociability and concentration. Research also shows that participation in a preschool program promotes cognitive development in the short-term and prepares children to succeed in school (Boocock cited in Foley et al. 1999; Sylva et al. 2004).

Preschool programs may be an especially positive force in the lives of children from disadvantaged families where children may not be receiving ample stimulation from the home environment. In these cases preschool attendance may narrow existing achievement gaps. Overseas studies such as the longitudinal High/Scope Perry Preschool Study in the USA have also demonstrated the wider family, social and economic benefits of preschool (Schweinhart 2004). The High/Scope Perry Preschool Study is a continuing scientific experiment that has identified the short- and long-term benefits of a high-quality preschool education program for children living in poverty. Results from the study demonstrated that children receiving the quality early

**'Children who access quality preschool programs develop better intellectually and become independent and sociable'**

learning program had better intellectual and social development than those who did not receive a preschool program, with the benefits shown to extend throughout adulthood. At age 40, children who had participated in the program had better economic performance, reduced commission of crime in adulthood and better educational outcomes than their peers.

## How many children go to preschool?

Due to the varied nature of children's services throughout Australia, it is difficult to estimate the proportion of children who participate in formal learning programs in the year/years prior to Year 1 at school. Preschool has various names across Australia (e.g. preschool, kindergarten, child parent centres). In addition, while most children access these programs at 4 years of age, some states have provisions for children to access preschool when they are aged 3 years.

At present, no comprehensive nationally comparable collection of information on preschool services exists in Australia. For example, data from the 2001 ABS Census of Population and Housing show that around 56% of 4 year old children attended preschool, while estimates from the Report on Government Services are much higher (up to 85%). To provide a national picture of child care and preschool service provision in Australia, the AIHW is currently working towards implementing a national minimum data set about children's services. A National Minimum Data Set (NMDS) creates an agreed set of nationally significant data items (or questions) that will be collected in all Australian jurisdictions on a regular basis utilising an agreed and consistent collection method.

In the meantime, data from ABS 2002 Child Care Survey provide important information about early childhood education. An estimate of the proportion of 4 year old children attending preschool programs is presented in Table 20.1.

- In June 2002 approximately 59% of children aged 4 years attended preschool.
- In addition, 25.1% of children aged 4 years attended long day care. Many long day care centres offer educational preschool programs for children in this age group.

**Table 20.1:** Preschool and long day care participation among 4 year old children (per cent)

	Type of care		Total ('000)
	Preschool	Long day care	
June 1993	56.6	11.8	174.8
March 1996	45.9	14.0	154.4
June 1999	49.2	21.7	186.1
June 2002	59.0	25.1	195.8

Source: ABS 2002 Child Care Survey.

- The participation rate for long day care more than doubled between June 1993 and June 2002 from 12% to over 25%. By comparison, the participation rate for preschool was relatively constant over the same period.

### Do all children access preschool programs equally?

Importantly, not all children have equal access to preschool programs and early education. For example, there is evidence that children in rural and remote areas of Australia and Aboriginal and Torres Strait Islander children are less likely to attend preschool than other Australian children. In some cases, services in Indigenous or remote areas do not exist, while in others transport or distance may be a significant barrier to attendance. Data from the 2001 ABS Census of Population and Housing show the total number of Indigenous Australian children attending preschool across Australia in 2001 (Table 20.2).

**Table 20.2:** Preschool participation rate for children aged 4 years, by Indigenous status and across remoteness areas, 2001 (per cent)

Remoteness area	Indigenous Aust children	Other Aust children	Total
Major cities	49.4	58.2	57.7
Inner Regional	46.4	54.5	53.9
Outer Regional	47.5	53.8	53.0
Remote	47.1	58.8	56.6
Very Remote	36.0	51.8	42.6
<b>Australia</b>	<b>45.9</b>	<b>56.9</b>	<b>56.1</b>

Source: ABS 2004b.

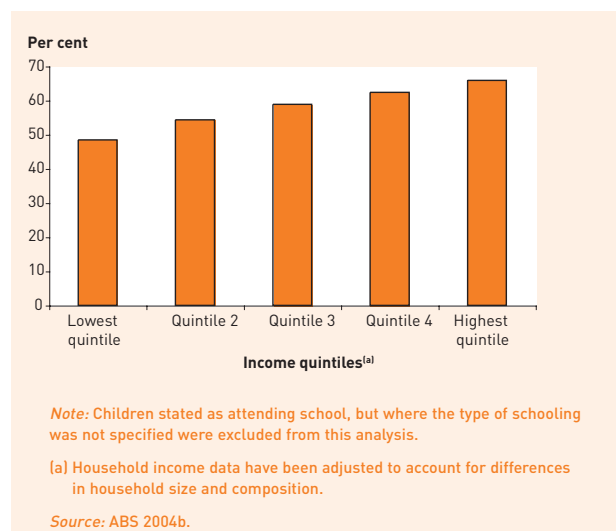
### Indicator

#### • Proportion of children aged 3–4 years enrolled at preschool.

- There were marked differences in preschool participation across different regions. For example, the participation rate in Major Cities was nearly 58% compared with 43% in Very Remote parts of Australia.
- For all regions, the participation rate of Indigenous children was lower than the rate for other Australian children. Overall, the rate of participation in preschool for Indigenous children was 46% compared with 57% for other Australian children.

There is also evidence that children with certain family characteristics are also less likely than other Australian children to attend preschool. These include children from non-English-speaking backgrounds, children with no employed parent, or parents without a post-school qualification (ABS 2004b). More data from the Australian census also show the relationship between household income and preschool attendance (Figure 20.1).

**Figure 20.1:** Preschool participation rate for children aged 4 years, by household income, 2001



- The preschool participation rate among children living in households with the highest incomes (65.9%) was 1.4 times greater than the rate in households with the lowest incomes (48.5%).

# 21 Literacy and numeracy

## 'Poor literacy and numeracy skills are a predictor for early school leaving'

Proficiency in reading, writing and mathematics is essential for day-to-day living, for further educational opportunities and for employment prospects. The aim of education is to assist children in developing these skills so that they may participate fully and productively within society. Early school experiences are particularly important as these can have a lasting impact on a person's attitude to education and training and confidence in their learning abilities (Frigo et al. 2003). A negative start in the education system may result in children falling further behind their peers as their schooling progresses.

As the number of low-skilled jobs in the employment market decreases, the importance of educational qualifications is increasing. Students who fail to complete school have restricted employment opportunities and are more likely to experience extended periods of unemployment than Year 12 graduates (Lamb et al. 2000). One predictor of early school leaving is poor literacy and numeracy skills (House of Representatives 2002). In general, literacy levels are high among school students in Australia. In a recent international study of reading, mathematical and scientific literacy among school students, Australian students had a mean score significantly higher than the mean score for all OECD students (OECD 2004). However, this study also found a large variation in the performance of students within Australia, suggesting the education system may not be meeting the needs of all students equally.

### Indicator

- **Percentages of children in Years 3, 5 and 7 meeting national literacy (reading & writing) and numeracy benchmarks.**

## What factors contribute to higher levels of literacy and numeracy?

A number of factors are associated with children's level of literacy and numeracy skills. These factors include children's home environment, their rapport with the school environment and their attitudes to reading and mathematics. For example, children who read for pleasure on a daily basis perform better in literacy tests than those who read for pleasure less frequently, and children who see themselves as capable of doing well in mathematics achieve better results than other children (OECD 2004; Zammit et al. 2002).

Factors within a child's home environment associated with literacy and numeracy levels include the number of books in the home, the amount of time parents spend discussing books with their child, the highest qualification level of a parent, and the presence of study aids, such as a desk, computer and dictionary (Zammit et al. 2002).

Children's engagement with the school environment—in connecting with concepts of learning and the school community—is also associated with educational achievements. Children who express positive feelings towards school and actively participate in school activities are more likely to have higher educational aspirations and grades and to stay at school till completion (Fullarton 2002). It is suggested that high rates of absenteeism, truancy and academic failure among some children may be symptoms of student disengagement (Mellor & Corrigan 2004).

## National literacy and numeracy benchmarks

The Ministerial Council on Education, Employment, Training and Youth Affairs (MCEETYA) has established national benchmarks for reading, writing and numeracy for Years 3, 5 and 7 students. A benchmark is a nationally agreed minimum standard without which a student has difficulty in progressing at school. The majority of students met these benchmarks in 2001, though gender differences were evident in the results (Table 21.1).

**Table 21.1:** Students in Years 3 and 5 meeting national reading, writing and numeracy benchmarks, 1999–2001 (per cent)

School year		Reading			Writing			Numeracy		
		1999	2000	2001	1999	2000	2001	1999	2000	2001
Year 3	Boys	87.9	90.9	88.4	90.0	87.4	86.4	n.a.	92.7	93.7
	Girls	92.0	94.3	92.3	93.9	92.6	92.7	n.a.	92.8	94.3
Year 5	Boys	83.4	85.2	87.8	91.4	90.2	91.9	n.a.	89.4	89.5
	Girls	88.4	89.6	92.0	95.4	94.9	96.2	n.a.	89.8	89.8

n.a. Not available.

Source: MCEETYA 2001.

- In 2001, 92% of girls and 88% of boys in Years 3 and 5 met the national reading benchmark. The national writing benchmark was met by 92% of girls and 86% of boys.
- From 1999 to 2001 the percentage of girls meeting national reading and writing benchmarks was consistently higher than for boys in both Year 3 and Year 5.
- A greater percentage of Year 3 students met the national numeracy benchmark than Year 5 students in both 2000 and 2001. In 2001, over 93% of Year 3 students met the benchmark, compared with just under 90% of Year 5 students.

### Differences among population groups

While literacy and numeracy levels are generally high among Australian children, some groups of students appear to be at a disadvantage. Indigenous children, boys, children in remote areas, and children from low socioeconomic backgrounds often do not achieve the same educational outcomes as other Australian children and are more likely to leave school early (Hunter & Schwab 2003; Lamb et al. 2000).

There are a variety of factors that may lead to under-achievement among these children, including social, cultural and language differences, differences in family and community attitudes to schooling and proximity to schools. Higher rates of absenteeism among these students may also contribute to their under-achievement as they receive fewer hours of instruction than their peers (Rothman

2001). However, as previously mentioned, absenteeism is sometimes viewed as a symptom of disengagement rather than a cause of failure and higher rates of absenteeism among particular groups in Australian schools may reflect something in the school, home or social environment which is causing disengagement among these students.

The lower achievement of Indigenous Australian students compared to other Australian students is apparent in Australia's results in two recent international student assessments: the OECD's Programme for International Student Assessment (PISA) 2003 which assessed the reading, mathematical and scientific literacy skills and the problem solving skills of 15 year old students and the Trends in International Mathematics and Science Study (TIMSS) 2002–03 which assessed Year 4 and Year 8 students in mathematics and science (Tables 21.2 and 21.3).

In all areas of both assessments, the average achievement of Indigenous Australian students is considerably below the average achievement of other Australian students and, in most cases, significantly below the international averages (Thomson & Fleming 2004a, 2004b).

A higher proportion of Indigenous students compared with other Australian students are also not meeting the minimum standards of the national benchmarks (Table 21.4).

- While 90% of Years 3 and 5 students met the national reading benchmark in 2001, only 72% of Indigenous Australian Year 3 students and 67% of Indigenous Australian Year 5 did so.

**Table 21.2:** Mean scores in the Trends in International Mathematics and Science Study (TIMSS) 2002–03 Assessment of Mathematics and Science, Year 4 and Year 8 students

	Mathematics		Science	
	Year 4	Year 8	Year 4	Year 8
<b>Australia</b>	<b>499</b>	<b>505</b>	<b>521</b>	<b>527</b>
Indigenous children	427	440	450	469
Other children	503	508	526	530
<b>International average</b>	<b>495</b>	<b>467</b>	<b>489</b>	<b>474</b>

Source: Thomson & Fleming 2004a, 2004b.

**Table 21.3:** Mean scores in the OECD Programme for International Student Assessment (PISA) 2003 Assessment Domains, by Indigenous status, 15 year old students

	Mathematical literacy	Reading literacy	Scientific literacy	Problem solving
<b>Australia</b>	<b>524</b>	<b>525</b>	<b>525</b>	<b>530</b>
Indigenous children	440	444	434	453
Other children	526	527	527	532
<b>International average</b>	<b>500</b>	<b>494</b>	<b>500</b>	<b>500</b>

Source: Thomson et al. 2004.

**Table 21.4:** Students in Years 3 and 5 meeting national reading, writing and numeracy benchmarks, by Indigenous status, 1999–2001 (per cent)

Sex and age group		Reading			Writing			Numeracy		
		1999	2000	2001	1999	2000	2001	1999	2000	2001
Year 3	Indigenous	73.4	76.9	72.0	66.9	65.0	67.8	n.a.	73.7	80.2
	All students	89.7	92.5	90.3	91.9	90.0	89.5	n.a.	92.7	93.9
Year 5	Indigenous	58.6	62.0	66.9	74.6	74.3	79.9	n.a.	62.8	63.2
	All students	85.6	87.4	89.8	93.0	92.5	94.0	n.a.	89.6	89.6

n.a. Not available.

Source: MCEETYA 2001.

- From 1999 to 2001, the proportion of Indigenous Australian students meeting the national writing benchmark was lower than the national rate. In 2001, the rates for Indigenous students in Years 3 and 5 were 68% and 80% respectively. This compares with national rates of 89.5% for Year 3 students and 94.0% for Year 5 students.
- The rates for Indigenous Australian students in Years 3 and 5 meeting the national numeracy benchmark in 2000 and 2001 were considerably lower than the national rates. In 2001, 80% of Indigenous Year 3 students and 63% of Indigenous Year 5 students met the benchmark. This compares with national rates of 94% for Year 3 students and 90% for Year 5 students.

## 22 Children and crime

During childhood, some young people will have an encounter with the criminal justice system. Fortunately, most episodes of juvenile offending behaviour are relatively minor and transient in nature, confined to one-off events (Carcach & Leverett 1999). A very small proportion of children have more serious interaction with the juvenile justice system leading to outcomes such as community service orders or sentences involving detention in custody. It is these children who are most vulnerable to continued and more serious offending later in life (Makkai & Payne 2003).

Some evidence points to an overall increase in the incidence of juvenile crime. The 1990s saw increased involvement by juveniles in offences 'against the person' as well as an increase in young females committing offences (Mukherjee et al. 1997). However, the limited data currently available in Australia make it difficult to determine trends over time.

This section examines the small number of children up to 14 years who are detained in juvenile detention each year as well as outlining some of the factors that can lead to crime. Importantly, these data do not adequately describe the extent of young people's involvement with violence, crime and juvenile justice in Australia. National data are currently available on the number of young people held in juvenile justice detention centres, either on remand or who have been sentenced. But this group of children represents only a small proportion of juveniles supervised by juvenile justice departments and an even smaller proportion of those who are dealt with by the juvenile justice system as a whole. Indeed, on 30 June 2002, between 7% and 17% of juvenile justice clients aged between 10 and 17 years were in custody, with the remainder subject to supervision in the community (SCRGSP 2004).

States and territories are implementing a new national data collection that will include young offenders who are on supervised community-based orders as well as in juvenile justice detention centres. This important new collection will provide information on the broad characteristics of juvenile justice clients and the way in which they move through the juvenile justice system (AIHW 2004f).

### Understanding juvenile crime

A broad developmental perspective can help us understand some of the reasons why crime occurs (NCP 1999). The cumulation of life events and experiences and the way in which physical and social environments impact on a child's life provide important clues about their likely involvement in offending behaviour either as a juvenile or later in adulthood. For example research shows that young people with a history of juvenile offending are more likely to have existing mental health problems (Kessler 2002; Vermeiren 2003), to have been maltreated as children (Stewart et al. 2002) and to have substance dependencies (Wei et al. 2003).

The likelihood that a child will commit an offence is also inextricably associated with personal and social environments. Risk factors for involvement in juvenile crime include family factors, intelligence and school performance, truancy, the influence of delinquent peers, poverty and unemployment, and substance misuse (Weatherburn 2001).

Family factors can include a lack of parental supervision, parental rejection, lack of parental involvement with the child, and the inconsistent application of discipline. Other social environment risk factors include low family socioeconomic status, parental and sibling criminality, child abuse and neglect, and youth homelessness.

### Indicator

- **Rate of children aged 10–14 years who are in detention in juvenile justice facilities.**

While the proportion of children in juvenile detention is very small, this particular group is vulnerable to a number of poor outcomes. In an Australian study of incarcerated male adult offenders, Makkai and Payne (2003) found that juvenile detention is a clear marker for the early onset and persistence into both criminal careers and drug use. Another study which followed a cohort of juvenile offenders from 1994–95 found that over half had been imprisoned at least once by 2002 (Lynch et al. 2003). Although every state and territory has its own juvenile justice legislation, the legislation is similar across Australia. The basic emphasis of juvenile justice in all jurisdictions in Australia is on diversion of young people from court where appropriate, incarceration as a last resort, the victim's rights, the acceptance of responsibility by the offender for his or her behaviour, and community safety. When sentencing young people, the courts must consider how to minimise re-offending and the integration of juveniles back into the community, at the same time ensuring that youth who commit offences are appropriately penalised (AIHW: Broadbent 2001).

**'A small proportion of children have serious interactions with the juvenile justice system leading to sentences involving detention in custody. These children are most vulnerable to continued and more serious offending later in life'**

### Statistics on juvenile offending

Each state and territory in Australia submits a quarterly count of juveniles in correctional institutions to the Australian Institute of Criminology to produce a detention rate for the whole of Australia. The detention rate for young people aged 10–14 years in Australia between 1990 and 2003 is shown in Figure 22.1. As mentioned earlier in this section, data will soon be available that will give a more complete picture of children's involvement with all aspects of the juvenile justice system.

**Figure 22.1:** Children aged 10–14 years in juvenile correctional institutions (sentenced and unsentenced) at 30 June each year, 1990–2003 (rate per 100,000 children)



- The detention rate for young people aged 10–14 years tended to decline over the period 1990–2003, from 9.5 per 100,000 (117) to 6.2 per 100,000 (85).

Between 1990 and 2003, the rates for 10–14 year old boys and girls both decreased by 35%. For boys, this change was from 15.6 per 100,000 to 10.2, while for girls, the change was from 3.0 per 100,000 to 1.9.

In 2003, boys had rates of juvenile detention more than five times those of girls.

In general, older children are detained at higher rates than younger children. For example, in 2003, children under 12 years of age were detained at a rate of 0.4 per 100,000, while for 12 year olds the rate was 2.9 per 100,000. For 13 year olds, the rate was 6.2 per 100,000, and for 14 year olds, the rate was 21.6 per 100,000.

### Aboriginal and Torres Strait Islander detainees

During the period from 2000 to 2002, Indigenous Australian children between 10 and 14 years of age were detained at around 30 times the rate of other Australian children. State and territory information indicates that Indigenous children are not only over-represented in juvenile detention centres (Figure 22.2), but are also over-represented among those charged by the police, those facing court, and those placed on community-based orders (AIHW: Broadbent 2001).

**Figure 22.2:** Indigenous children and other Australian children aged 10–14 years in juvenile correctional institutions (sentenced and unsentenced) at 30 June each year, 2000–02 (rate per 100,000 children)

