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## 4 School education

This chapter focuses on performance information — equity, effectiveness and efficiency — for government funded school education in Australia. Reporting relates to government funding only, not to the full cost to the community of providing school education. Descriptive information and performance indicators are variously reported for:

- government primary and secondary schools
- non-government primary and secondary schools
- school education as a whole (government plus non-government primary and secondary schools).

Schooling aims to provide education for all young people. The main purposes of school education are to assist students in:

- attaining knowledge, skills and understanding in key learning areas
- developing their talents, capacities, self-confidence, self-esteem and respect for others
- developing their capacity to contribute to Australia's social, cultural and economic development.

### **Indigenous data in the school education chapter**

The school education chapter in the *Report on Government Services 2009* (2009 Report) contains the following data items on Indigenous people:

- student attendance rate, for Indigenous students in Government schools
- the number of full time students (and as a proportion of all students) in government, non-government and all schools, 2007
- apparent retention rates from year 7 or 8 to year 10 of full time secondary students, all schools, 2007
- apparent retention rates from year 10 to year 12 of full time secondary students, by school type, 2007
- proportion of students achieving the years 3, 5 and 7 reading benchmark, 2007

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- proportion of students achieving the years 3, 5 and 7 writing benchmark, 2007
  - proportion of students achieving the years 3, 5 and 7 numeracy benchmark, 2007.

Data have also been provided for the first time for Indigenous learning outcomes by geolocation by state and territory (for 2006 and 2007). (National level data for 2005 were included in the 2008 Report.)

The school education attachment contains additional data relating to Indigenous people including:

- proportion of years 6 and 10 students achieving at or above the proficient standard in civics and citizenship performance, 2005
- proportion of 15 year old secondary students achieving level 3 or above in the overall reading literacy scale, by equity group — 2000, 2003 and 2006
- proportion of 15 year old secondary students achieving level 3 or above in the overall mathematical literacy scale, by equity group — 2003 and 2006
- proportion of 15 year old secondary students achieving at or above the OECD mean for scientific literacy (2000 and 2003) and problem solving (2003), by equity group
- proportion of 15 year old students achieving level 3 or above in the overall scientific literacy scale, by equity group, 2006
- proportion of 15 year old students achieving at or above the OECD mean for problem solving, by equity group, 2003
- apparent retention rates from year 7 or 8 to year 10 of full time secondary students, by school type, 2003–2007
- student attendance rates, government schools, by Indigenous status, 2007
- student attendance rates, independent schools, by Indigenous status, 2007
- student attendance rates, Catholic schools, by Indigenous status, 2007
- apparent retention rates from year 7 or 8 to year 10 of full time secondary students, by school type, 2003–2007
- information on Australian Government spending on Indigenous specific programs.

Throughout the chapter, the following definition is used for an Indigenous student:

“A student of Aboriginal or Torres Strait Islander origin who identifies as being an Aboriginal or Torres Strait Islander or from an Aboriginal and Torres Strait Islander background.”

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Administrative processes for determining Indigenous status vary across jurisdictions.

### *Attachment tables*

Attachment tables for data within the school education chapter of this compendium are contained in attachment 4A of the compendium. These tables are identified in references throughout this chapter by an 'A' suffix (for example, table 4A.3 is table 3 in the school education attachment). As the data are directly sourced from the 2009 Report, the compendium also notes where the original table, figure or text in the 2009 Report can be found. For example, where the compendium refers to '2009 Report, p. 4.15' this is page 15 of chapter 4 of the 2009 Report, and '2009 Report, table 4A.2' is attachment table 2 of attachment 4A of the 2009 Report.

### **Indigenous full-time students, 2007**

Certain groups of students, including Indigenous students, have been identified as having special needs in school education. Government schools provide education for a high proportion of students from special needs groups. In 2007, 86.5 per cent of Indigenous students attended government schools (table 4A.2).

This chapter reports on the proportions of Indigenous students, LBOTE students, students with disabilities and students who are geographically remote. Further information on student body mix in government, non-government and all schools is in 2009 Report, tables 4A.25–27. Care needs to be taken in interpreting this information because some definitions of special needs students differ across states and territories.

The proportion of full time Indigenous students in schools varies greatly across jurisdictions (table 4.1). Table 4A.2 provides additional information on Indigenous enrolments.

In all jurisdictions, the proportion of full time Indigenous students was higher in government schools than in non-government schools. Nationally, the proportion of full time Indigenous students was 5.6 per cent for government schools and 1.7 per cent for non-government schools in 2007 (table 4.1).

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Table 4.1 **Indigenous students as a proportion of all students, 2007<sup>a</sup>**

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>	<i>Aust</i>
Government schools	5.1	1.4	7.8	8.2	4.6	7.6	2.6	43.4	5.6
Non-government schools	1.3	0.3	2.6	3.1	1.0	3.0	1.1	29.6	1.7
<b>All schools</b>	<b>3.9</b>	<b>1.0</b>	<b>6.2</b>	<b>6.5</b>	<b>3.3</b>	<b>6.3</b>	<b>2.0</b>	<b>40.0</b>	<b>4.3</b>

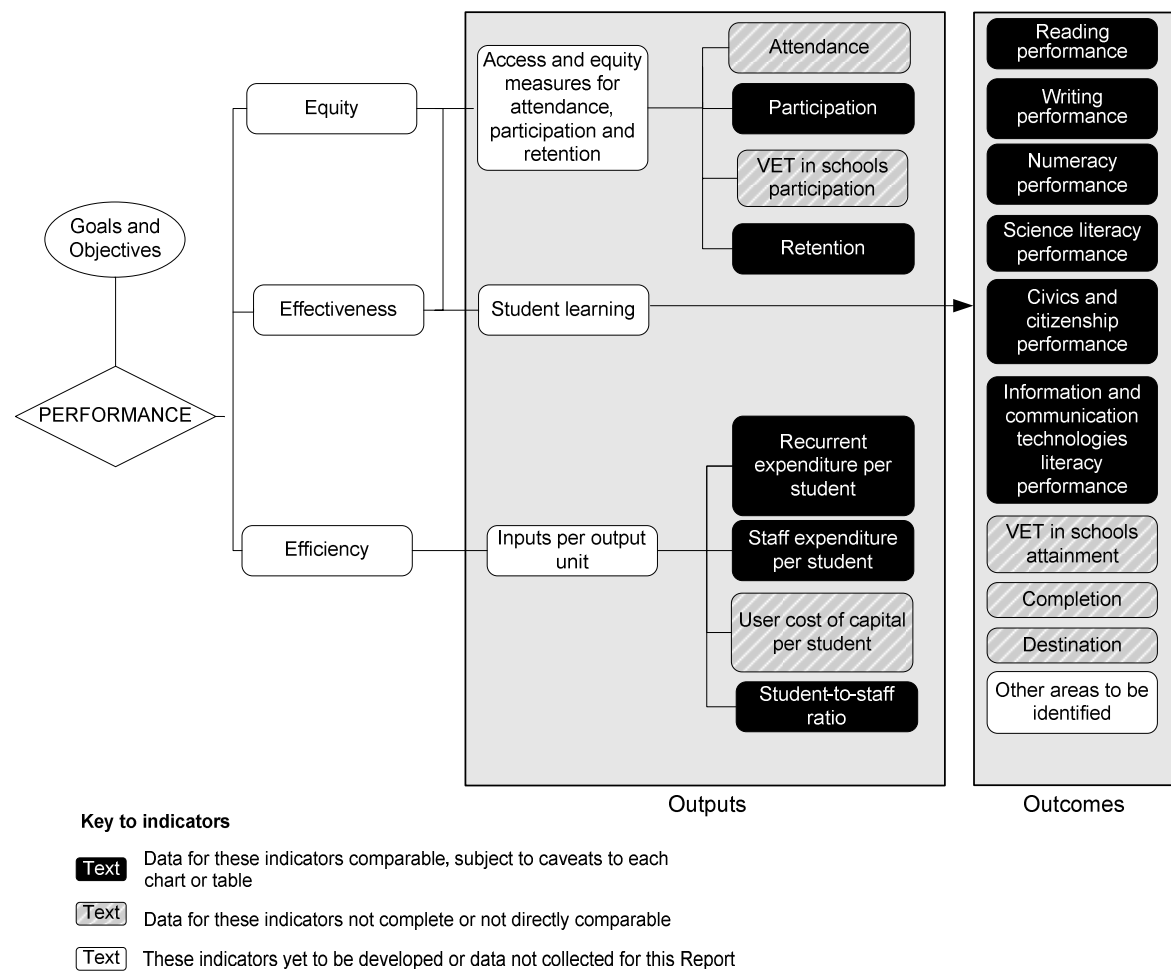
<sup>a</sup> Absolute numbers of Indigenous and all full time students.

Source: ABS (2008) *Schools Australia 2007*, Cat. No. 4221.0; table 4A.2; 2009 Report, table 4.5, p. 4.11.

## **Framework of performance indicators**

Data for Indigenous people are reported for a subset of the performance indicators for school education in the 2009 Report. It is important to interpret these data in the context of the broader performance indicator framework outlined in figure 4.1. The performance indicator framework shows which data are comparable in the 2009 Report. For data that are not considered directly comparable, the text includes relevant caveats and supporting commentary.

Figure 4.1 Performance indicators for school education



Source: 2009 Report, figure 4.4, p. 4.19.

## Outputs

Outputs are the actual services delivered (while outcomes are the impact of these services on the status of an individual or group) (see 2009 Report, chapter 1, section 1.5).

### *Equity and effectiveness*

Access and equity measures for school education attendance, participation and retention, and VET in schools participation, are reported.

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## *Attendance*

‘Attendance’ is an indicator of governments’ objective to develop fully the talents and capacities of young people through equitable access to education and learning. National and international research confirms a link between attendance and student achievement, although the factors influencing attendance and achievement are numerous and interrelated in complex ways. Attendance rates for special needs groups are an indication of the equity of access to school education (box 4.1).

### **Box 4.1 Attendance**

‘Attendance’ (school attendance rate) is defined as the number of actual full time equivalent ‘student days attended’ over the collection period as a percentage of the total number of possible student days attended over the collection period.

Holding other factors equal, a high student attendance rate is desirable.

Student attendance is to be measured over a single consistent time period (the first semester) for all schools. However, currently the measure is transitional, with most jurisdictions providing government schools data for the first semester, whereas non-government schools are providing data for the last 20 days in May.

Data on student attendance are collected for each state and territory by:

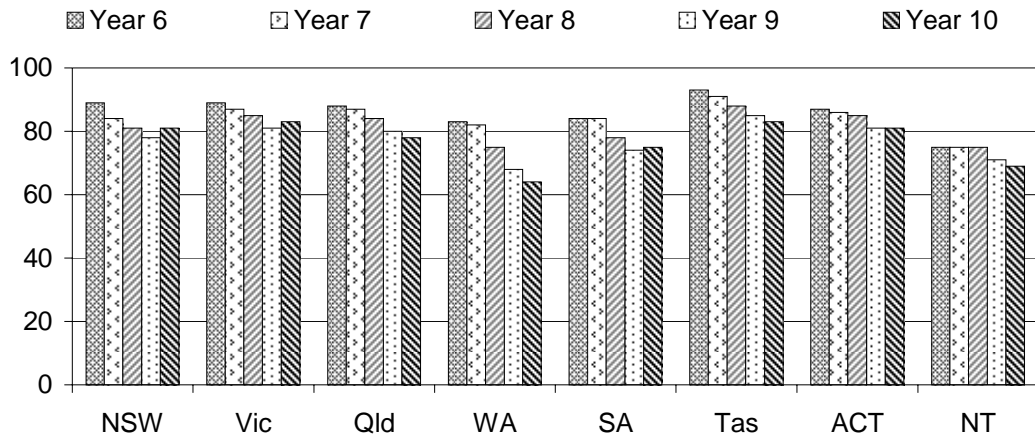
- school sector (government, Catholic and independent)
- sex
- year level (1–10)
- Indigenous status (Indigenous and non-Indigenous students).

Data for this indicator are not directly comparable.

In government schools, non-Indigenous students had higher attendance rates than Indigenous students across all year levels in all jurisdictions (figure 4.2 and table 4A.73). However, the percentage point differences varied across states and territories. A similar pattern to the government schools was observed for non-government schools (independent and Catholic schools) in most jurisdictions (tables 4A.74 and 4A.75).

Care should be exercised in relation to the data for Indigenous students, particularly in some jurisdictions and in the non-government sectors, due to small population sizes.

Figure 4.2 Student attendance rate, government schools, Indigenous students, 2007<sup>a</sup>



<sup>a</sup> See source for detailed explanatory notes regarding data.

Source: MCEETYA (2009) *National Report on Schooling in Australia 2007: Participation, attainment and attendance chapter*, table 4A.73; 2009 Report, figure 4.6, p. 4.22.

### Retention

‘Retention’ to the final years of schooling is an indicator of governments’ objective that all students have access to high quality education and training necessary to enable the completion of school education to year 12 or its equivalent (box 4.2).

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## Box 4.2 Retention

'Retention' (apparent retention rate) is defined as the number of full time school students in a designated level/year of education as a percentage of their respective cohort group (which is either at the commencement of their secondary schooling — at year 7 or 8 — or at year 10). Data are reported for:

- the proportion of students commencing secondary school at year 7 or 8 and continuing to year 10
- the proportion of students commencing secondary school at year 7 or 8 and continuing to year 12
- the proportion of year 10 students continuing to year 12.

The term 'apparent' is used because the indicator is derived from total numbers of students in each of the relevant year levels, rather than by tracking the retention of individual students. Data are reported for all students, Indigenous and non-Indigenous students, and for students in government and non-government schools.

Holding other factors constant, a higher or increasing apparent retention rate suggests that a large number of students are continuing to participate in school education, which is likely to result in improved educational outcomes.

This indicator does not include part time students or provide information on students who pursue year 12 (or equivalent qualifications) through non-school pathways.

Care needs be taken in interpretation because the apparent retention rate does not take account of factors such as:

- students repeating a year of education or returning to education after a period of absence
- movement or migration of students between school sectors, between states/territories and between countries
- the impact of full fee paying overseas students.

Data for this indicator are comparable.

Apparent retention rates, from the commencement of secondary school at year 7 or 8 (see 2009 Report, figure 4.1 which shows the differences across jurisdictions) to year 10, for all students in most jurisdictions were 98–100 per cent in 2007, with a national rate of 99.1 (figure 4.3). High rates are to be expected because normal year level progression means students in year 10 are generally of an age at which schooling is compulsory.

Retention rates for Indigenous students provide one measure of the equity of access to schooling. Retention rates to year 10 for Indigenous students were lower than those for all students in most jurisdictions. The national retention rate for

Indigenous students was 90.5 per cent, or 8.6 percentage points lower than that for all students.

Figure 4.3 **Apparent retention rate from year 7 or 8 to year 10, full time secondary students, all schools, 2007<sup>a, b, c, d</sup>**



<sup>a</sup> Apparent retention rates are affected by factors that vary across jurisdictions. For this reason, variations in apparent retention rates over time within jurisdictions may be more useful than comparisons across jurisdictions. <sup>b</sup> Retention rates can exceed 100 per cent for a variety of reasons, including student transfers between jurisdictions. <sup>c</sup> The standard apparent retention rate calculation excludes part time students, which has implications for the interpretation of results for all jurisdictions, but particularly for SA, Tasmania and the NT where there are high proportions of part time students in government schools (2009 Report, table 4.4, p. 4.10). <sup>d</sup> Ungraded students are not included in the calculation of apparent retention rates. This exclusion has particular implications for the NT, where 10.9 per cent of Indigenous secondary students were ungraded (compared with an average of 4.2 per cent for the rest of Australia), in 2007, and this should be considered when interpreting the data.

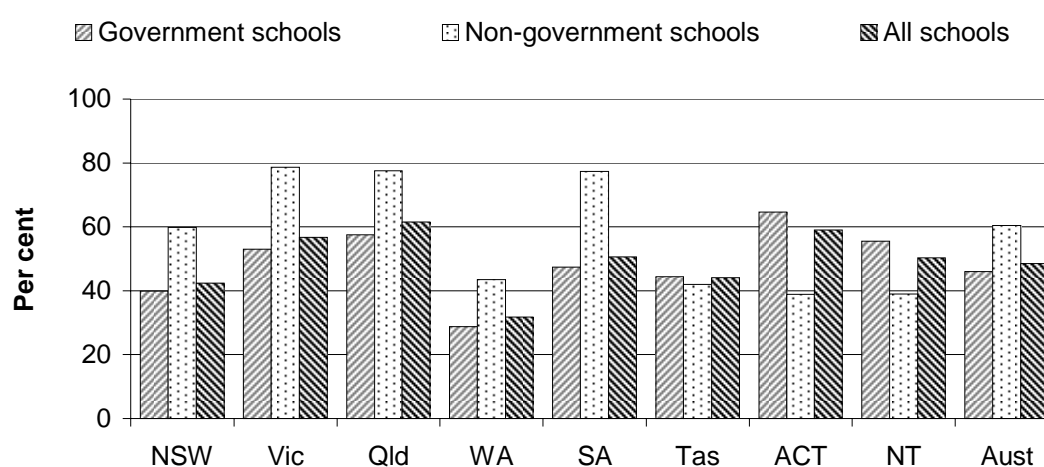
Source: ABS (2008) *Schools Australia 2007*, Cat. No. 4221.0; table 4A.72; 2009 Report, figure 4.8, p. 4.26.

The apparent rate of retention from year 10 to year 12 has been derived by expressing the number of full time school students enrolled in year 12 in 2007 as a proportion of the number of full time school students enrolled in year 10 in 2005.

For government and non-government schools, apparent rates of retention from year 10 to year 12 for Indigenous students in 2007 varied across jurisdictions, but were consistently lower than rates for all students (2009 Report, figure 4.9 and figure 4.4). In interpreting this indicator, note that nationally 9.5 per cent of Indigenous students left school before year 10 (figure 4.3) — compared to 0.9 per cent of all students — so are not included in the base year for retention from year 10 to year 12. This baseline varies across jurisdictions. Further, Indigenous students as a proportion of all students was 5.6 per cent in government schools compared with 1.7 per cent in non-government schools and some jurisdictions have very low numbers of Indigenous students (table 4A.2).

Nationally, Indigenous retention from year 10 to year 12 for all schools in 2007 was 48.5 per cent (figure 4.4), compared to 75.6 per cent for all students. However, Indigenous retention from year 10 to year 12 for all schools has risen in the past five years from 45.7 per cent in 2003 to 48.5 per cent in 2007, with the gap in year 10 to year 12 retention rates between Indigenous students and all students decreasing from 31.2 percentage points in 2003 to 27.1 percentage points in 2007 (table 4A.72).

Figure 4.4 **Apparent retention rates from year 10 to year 12, Indigenous full time secondary students, 2007<sup>a, b, c</sup>**



<sup>a</sup> Apparent retention rates are affected by factors that vary across jurisdictions. For this reason, variations in apparent retention rates over time within jurisdictions may be more useful than comparisons across jurisdictions. <sup>b</sup> The standard apparent retention rate calculation excludes part time students, which has implications for the interpretation of results for all jurisdictions, but particularly for SA, Tasmania and the NT where there are high proportions of part time students in government schools (2009 Report, table 4.4, p. 4.10). <sup>c</sup> Ungraded students are not included in the calculation of apparent retention rates. This exclusion has particular implications for the NT, where 10.9 per cent of Indigenous secondary students are ungraded (compared with an average of 4.2 per cent for the rest of Australia), in 2007, and this should be considered when interpreting the data.

Source: ABS (2008) *Schools Australia 2007*, Cat. No. 4221.0; table 4A.69; 2009 Report, figure 4.10, p. 4.28.

Some historical data for apparent retention rates for Indigenous students are included in tables 4A.70–72.

## Outcomes

Outcomes are the impact of services on the status of an individual or group (while outputs are the actual services delivered) (see 2009 Report, chapter 1, section 1.5).

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### *Nationally comparable learning outcomes*

‘Reading performance’, ‘writing performance’, ‘numeracy performance’, ‘science literacy performance’ and ‘civics and citizenship performance’ have been identified as indicators of learning outcomes, and are able to be reported for Indigenous students (boxes 4.3–4.7).

To assist with making comparisons between jurisdictions, 95 per cent confidence intervals are presented in charts. For more information on interpreting learning outcomes data please refer to pp. 4.39–40 in the 2009 Report.

State and Territory data are also available for the first time by Indigenous status and geolocation for 2006 and 2007, and are included in this Report. This complements the national Indigenous learning outcomes by geolocation presented in the 2008 Report. Limitations of national learning outcomes data are detailed in the 2004 Report on Government Services (box 3.1, pages 3.36-7).

### *Reading performance*

‘Reading performance’ is an indicator of governments’ objective that all students should attain the skills of English literacy, such that every student should be able to read, write, spell and communicate at an appropriate level. It is an indicator of students’ achievement in a key learning area of school education (box 4.3).

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### Box 4.3 Reading performance

'Reading performance' is defined by two measures:

*Percentage of students achieving at or above the national reading benchmark:* The proportion of assessed years 3, 5 and 7 students who achieve at or above the national reading benchmark for a given year, reported by sex, Indigenous status, language backgrounds other than English (LBOTE), socioeconomic status and geolocation. The benchmarks describe nationally agreed minimum acceptable standards for reading performance at years 3, 5 and 7.

Up to and including 2007, student performance has been measured by annual State and Territory-based testing programs which were equated through a national process designed to allow comparable reporting against the benchmarks. Commencing in 2008, common national tests in literacy and numeracy were held for all students at years 3, 5, 7 and 9. These tests replaced the former State and Territory-based assessments.

*Percentage of students achieving at or above the proficient standard on the OECD PISA combined reading scale in a triennial international assessment:* The proportion of assessed 15 year old students who achieve at or above the proficient standard (agreed by the MCEETYA to be level 3) on the OECD PISA combined reading scale for a given year, reported by sex, Indigenous status, socioeconomic status and geolocation.

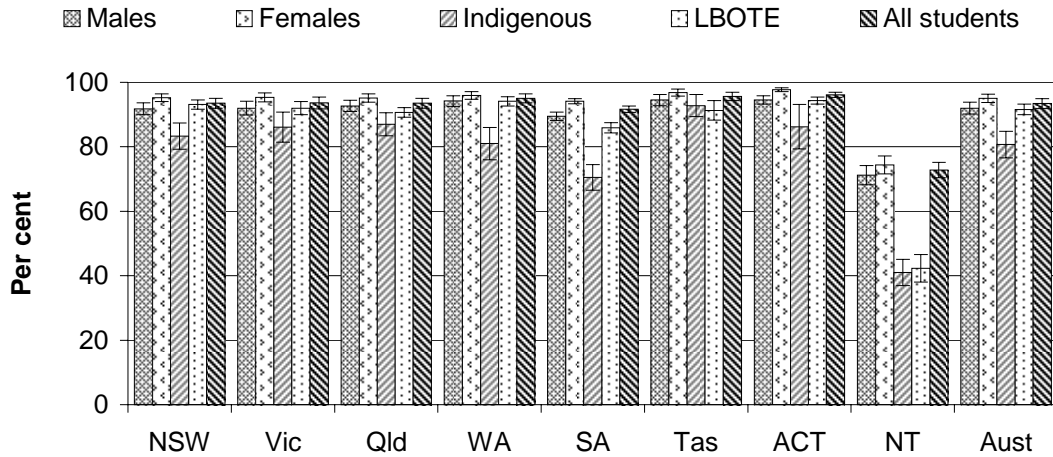
A high or increasing proportion of students achieving the reading benchmark/proficient standard is desirable.

Data for this indicator are comparable.

Nationally, the proportion of assessed year 3 students who achieved the reading benchmark in 2007 was 91.9–94.9 per cent. The national proportion of Indigenous students who achieved the year 3 reading benchmark in 2007 was 76.6–84.8 per cent (figure 4.5).

The proportion of assessed year 5 students who achieved the reading benchmark in 2007 was 87.6–90.8 per cent nationally. The national proportion of Indigenous students who achieved the year 5 reading benchmark in 2007 was 63.4–71.8 per cent (figure 4.6).

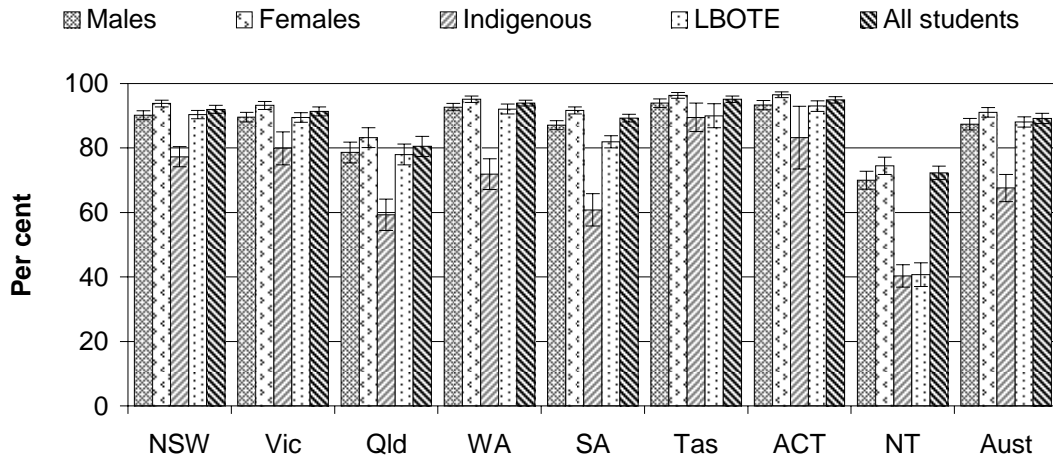
Figure 4.5 Proportion of year 3 students achieving the reading benchmark, by equity group, 2007<sup>a, b</sup>



<sup>a</sup> Error bars represent the 95 per cent confidence interval associated with each point estimate. <sup>b</sup> For further information and caveats see table 4A.49 and 2009 Report, table 4A.84.

Source: MCEETYA (2008) *National Report on Schooling in Australia 2007*; table 4A.45; 2009 Report, figure 4.20, p. 4.42.

Figure 4.6 Proportion of year 5 students achieving the reading benchmark, by equity group, 2007<sup>a, b</sup>

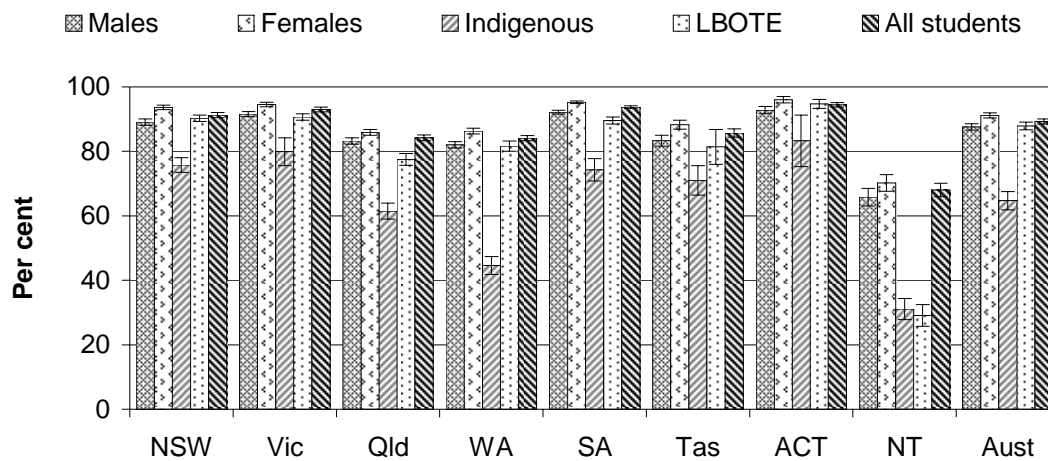


<sup>a</sup> Error bars represent the 95 per cent confidence interval associated with each point estimate. <sup>b</sup> For further information and caveats see table 4A.49 and 2009 Report, table 4A.84.

Source: MCEETYA (2008) *National Report on Schooling in Australia 2007*; table 4A.46; 2009 Report, figure 4.22, p. 4.43.

The proportion of assessed year 7 students who achieved the reading benchmark in 2007 was 88.5–90.1 per cent nationally. The national proportion of Indigenous students who achieved the year 7 reading benchmark in 2007 was 61.9–67.5 per cent (figure 4.7).

Figure 4.7 **Proportion of year 7 students achieving the reading benchmark, by equity group, 2007<sup>a, b</sup>**

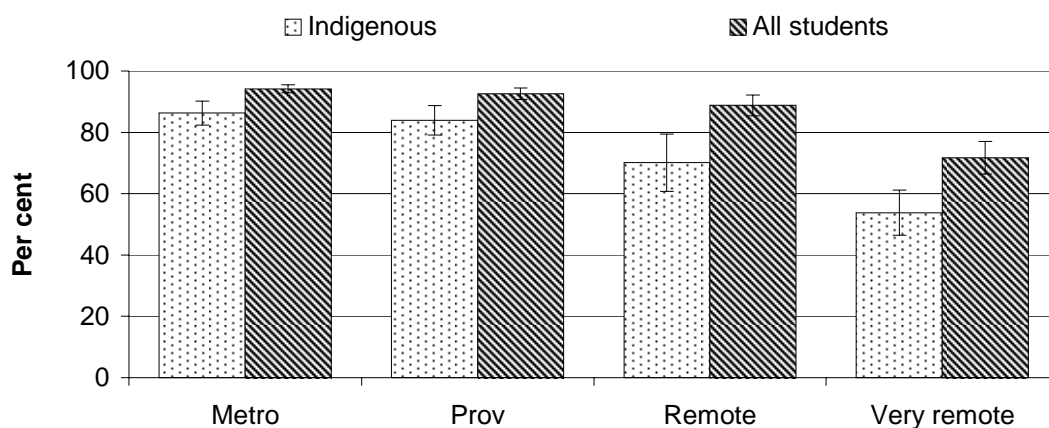


<sup>a</sup> Error bars represent the 95 per cent confidence interval associated with each point estimate. <sup>b</sup> For further information and caveats see tables 4A.48 and 2009 Report, table 4A.84.

Source: MCEETYA (2008) *National Report on Schooling in Australia 2007*, table 4A.47; 2009 Report, figure 4.24, p. 4.45.

For all categories of remoteness across years 3, 5 and 7, the reading outcomes for Indigenous students were lower than those for all students. As with all students, outcomes for Indigenous students declined as remoteness increased — furthermore the gap in learning outcomes between Indigenous students and all students increased as the degree of remoteness increased (figure 4.8).

Figure 4.8 National proportion of year 3 students achieving the reading benchmark, by Indigenous status and geolocation, 2007<sup>a, b, c</sup>



<sup>a</sup> Error bars represent the 95 per cent confidence interval associated with each point estimate. <sup>b</sup> Data for year 3 students are shown and may not be representative of students in years 5 and 7 which are detailed in table 4A.48. <sup>c</sup> Insufficient or no students in an area of geographic classification are not included.

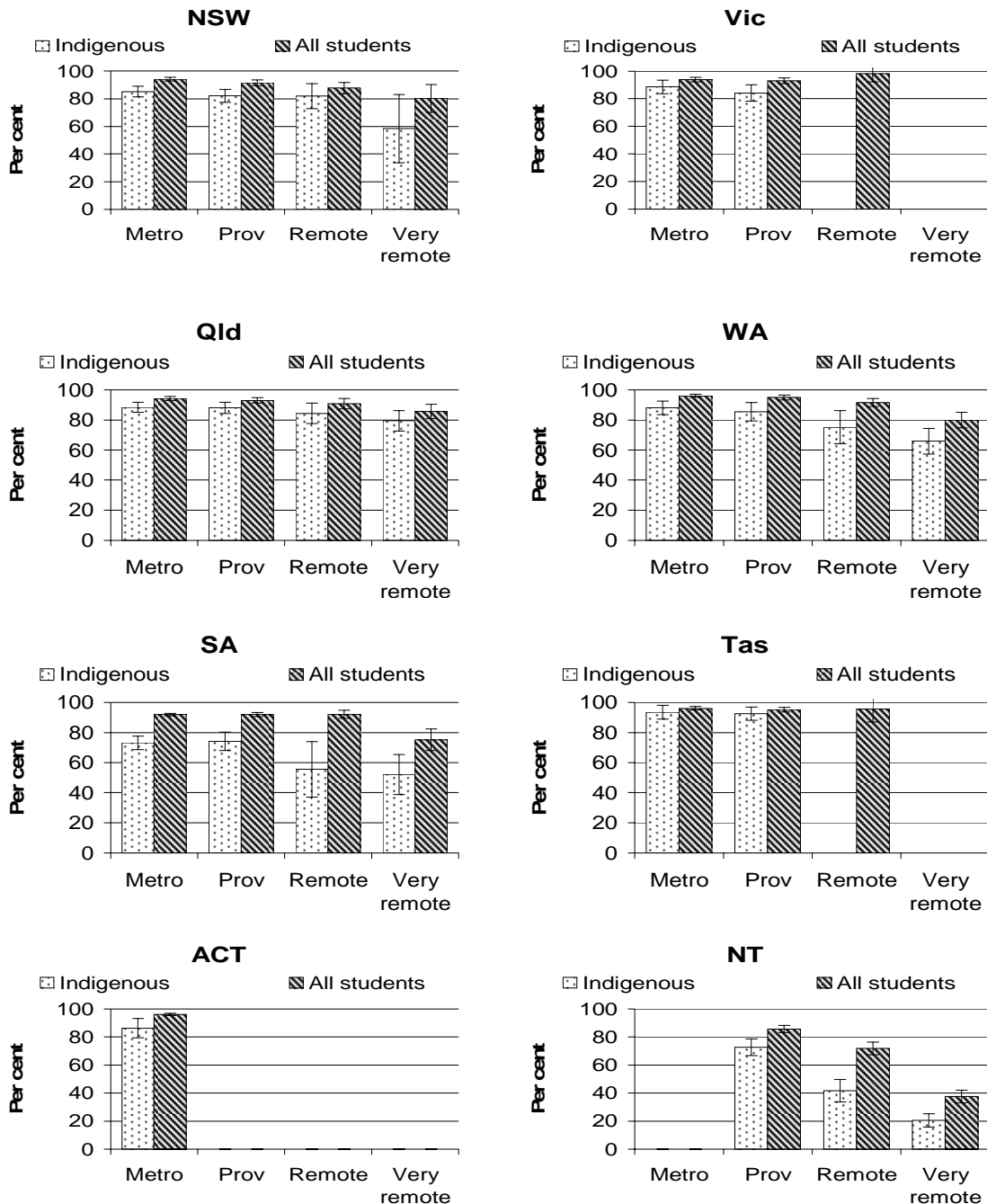
Source: MCEETYA (2008) *National Report on Schooling in Australia 2007*; table 4A.48; 2009 Report, figure 4.25, p. 4.46.

Nationally, the proportion of assessed Indigenous students who achieved the reading benchmark by geolocation in 2007 was:

- 82.4–90.2 per cent for Indigenous year 3 students in metropolitan areas, no different to the proportion for provincial students (79.1–88.7 per cent), but above the proportion for remote students (60.8–79.4 per cent) and very remote students (46.4–61.2 per cent) (figure 4.8)
- 69.4–79.6 per cent for Indigenous year 5 students in metropolitan areas, no different to the proportion for provincial students (65.6–77.0 per cent), but above the proportion for remote students (46.2–65.0 per cent) and very remote students (25.1–40.1 per cent) (table 4A.48)
- 69.0–75.8 per cent for Indigenous year 7 students in metropolitan areas, no different to the proportion of provincial students (65.5–73.1 per cent), but above the proportion for remote students (39.0–55.0 per cent) and very remote students (19.3–31.5 per cent) (table 4A.48).

State and Territory results are presented for year 3 reading literacy (by Indigenous status and geolocation) in figure 4.9 (results for years 5 and 7 reading literacy are in table 4A.48). Relatively large confidence intervals mean it is difficult to draw conclusions from these data. However, the general pattern in jurisdictions appears similar to the national results.

Figure 4.9 Proportion of year 3 students achieving the reading benchmark, by Indigenous status and geolocation, 2007<sup>a, b, c</sup>



<sup>a</sup> Error bars represent the 95 per cent confidence intervals associated with each point estimate. <sup>b</sup> Geolocation data are based on the MCEETYA Schools Geographic Location Classification and represent school location. <sup>c</sup> There are no very remote areas in Victoria. There are no provincial, remote or very remote areas in the ACT. There is no metropolitan zone in the NT.

Source: MCEETYA (2008) *National Report on Schooling in Australia 2007*; table 4A.48; 2009 Report, figure 4.26, p. 4.47.

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### *Writing performance*

‘Writing performance’ is an indicator of governments’ objective that all students should attain the skills of English literacy; such that every student should be able to read, write, spell and communicate at an appropriate level. It is an indicator of students’ achievement in a key learning area of school education (box 4.4).

#### **Box 4.4 Writing performance**

‘Writing performance’ is defined as the proportion of assessed years 3, 5 and 7 students who achieve at or above the national writing benchmark for a given year, reported by sex, Indigenous status, LBOTE, socioeconomic status and geolocation. The benchmarks describe nationally agreed minimum acceptable standards for writing performance at years 3, 5 and 7.

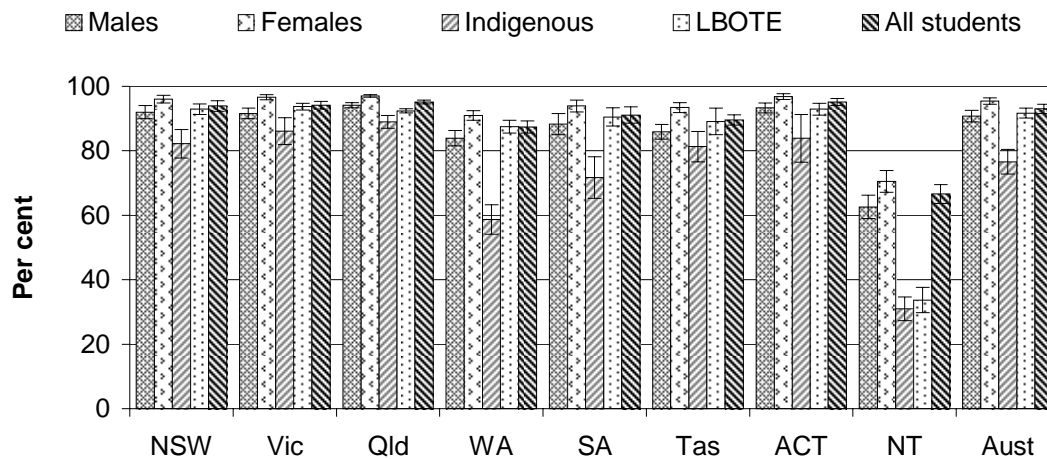
Up to and including 2007, student performance has been measured by annual State and Territory-based testing programs which were equated through a national process designed to allow comparable reporting against the benchmarks. Commencing in 2008, common national tests in literacy and numeracy were held for all students at years 3, 5, 7 and 9. These tests replaced the former State and Territory-based assessments.

A high or increasing proportion of students achieving the writing benchmark is desirable.

Data for this indicator are comparable.

Nationally, the proportion of assessed year 3 students who achieved the writing benchmark in 2007 was 91.6–94.4 per cent. The national proportion of Indigenous students who achieved the year 3 writing benchmark in 2007 was 72.8–80.4 per cent (figure 4.10).

Figure 4.10 Proportion of year 3 students achieving the writing benchmark, by equity group, 2007<sup>a, b</sup>

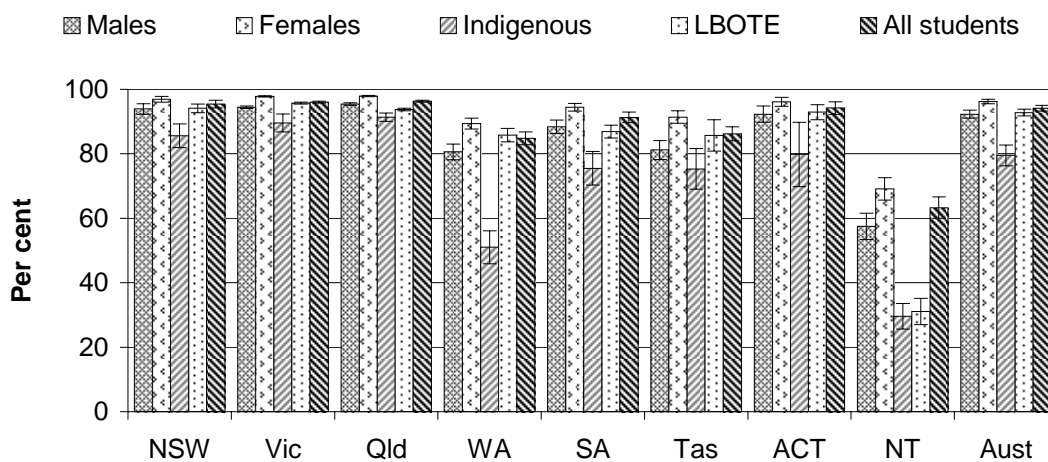


<sup>a</sup> Error bars represent the 95 per cent confidence interval associated with each point estimate. <sup>b</sup> For further information and caveats see table 4A.54 and 2009 Report, table 4A.90.

Source: MCEETYA (2008) *National Report on Schooling in Australia 2007*; table 4A.50; 2009 Report, figure 4.28, p. 4.50.

Nationally, the proportion of assessed year 5 students who achieved the writing benchmark by geolocation in 2007 was 93.2–95.0 per cent. The national proportion of Indigenous students who achieved the year 5 writing benchmark in 2007 was 76.3–82.7 per cent (figure 4.11).

Figure 4.11 Proportion of year 5 students achieving the writing benchmark, by equity group, 2007<sup>a, b</sup>

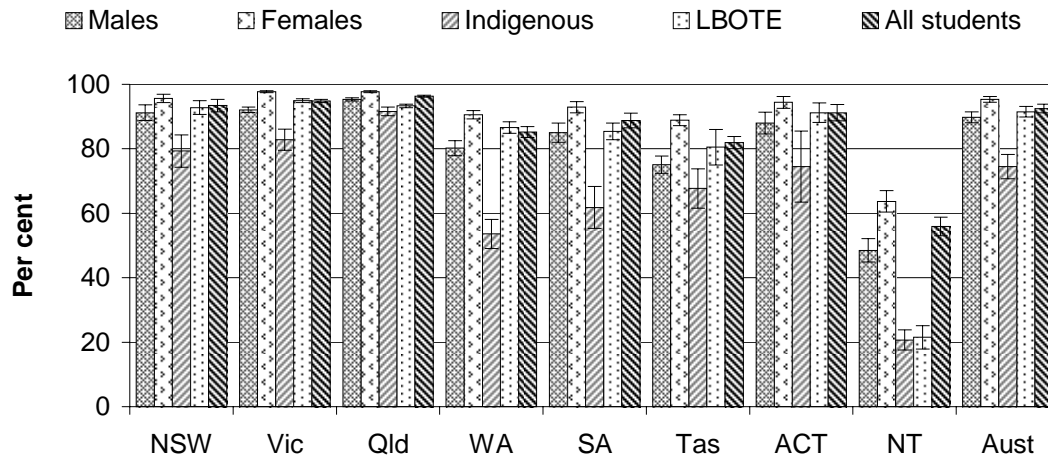


<sup>a</sup> Error bars represent the 95 per cent confidence interval associated with each point estimate. <sup>b</sup> For further information and caveats see table 4A.54 and 2009 Report, table 4A.90.

Source: MCEETYA (2008) *National Report on Schooling in Australia 2007*; table 4A.51; 2009 Report, figure 4.30, p. 4.51.

Nationally, the proportion of assessed year 7 students who achieved the writing benchmark in 2007 was 91.2–93.8 per cent. The national proportion of Indigenous students who achieved the year 7 writing benchmark in 2007 was 70.7–78.3 per cent (figure 4.12).

**Figure 4.12 Proportion of year 7 students achieving the writing benchmark, by equity group, 2007<sup>a, b</sup>**

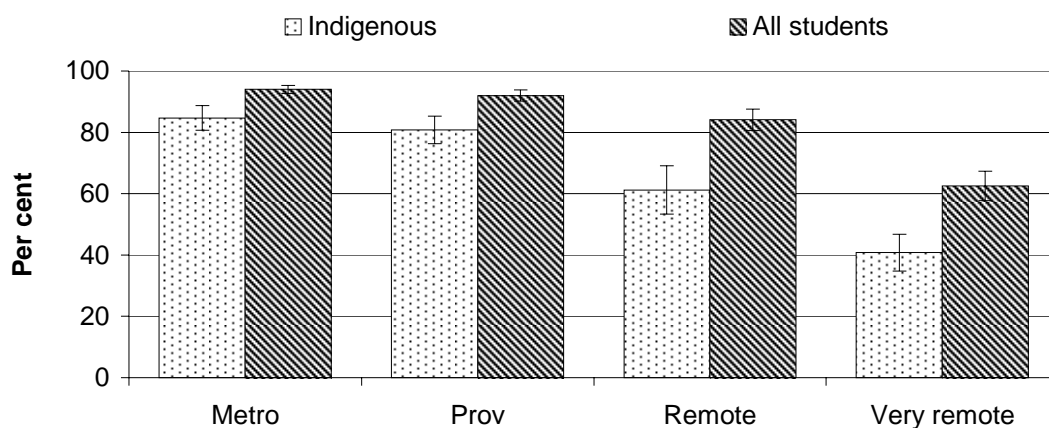


<sup>a</sup> Error bars represent the 95 per cent confidence interval associated with each point estimate. <sup>b</sup> For further information and caveats see table 4A.54 and 2009 Report, table 4A.90.

Source: MCEETYA (2008) *National Report on Schooling in Australia 2007*; table 4A.52; 2009 Report, figure 4.32, p. 4.52.

National data on the proportion of assessed Indigenous students who achieved the writing benchmark by geolocation in 2007 are presented in figure 4.13.

Figure 4.13 National proportion of year 3 students achieving the writing benchmark, by Indigenous status and geolocation, 2007a, b



**a** Error bars represent the 95 per cent confidence interval associated with each point estimate. **b** Data for year 3 students are shown and may not be representative of students in years 5 and 7 which are detailed in table 4A.50.

Source: MCEETYA (2008) *National Report on Schooling in Australia 2007*; table 4A.53; 2009 Report, figure 4.33, p. 4.53.

For all categories of remoteness across years 3, 5 and 7, the writing outcomes for Indigenous students were lower than those for all students. As with all students, outcomes for Indigenous students declined as remoteness increased — furthermore the gap in learning outcomes between Indigenous students and all students increased as the degree of remoteness increased.

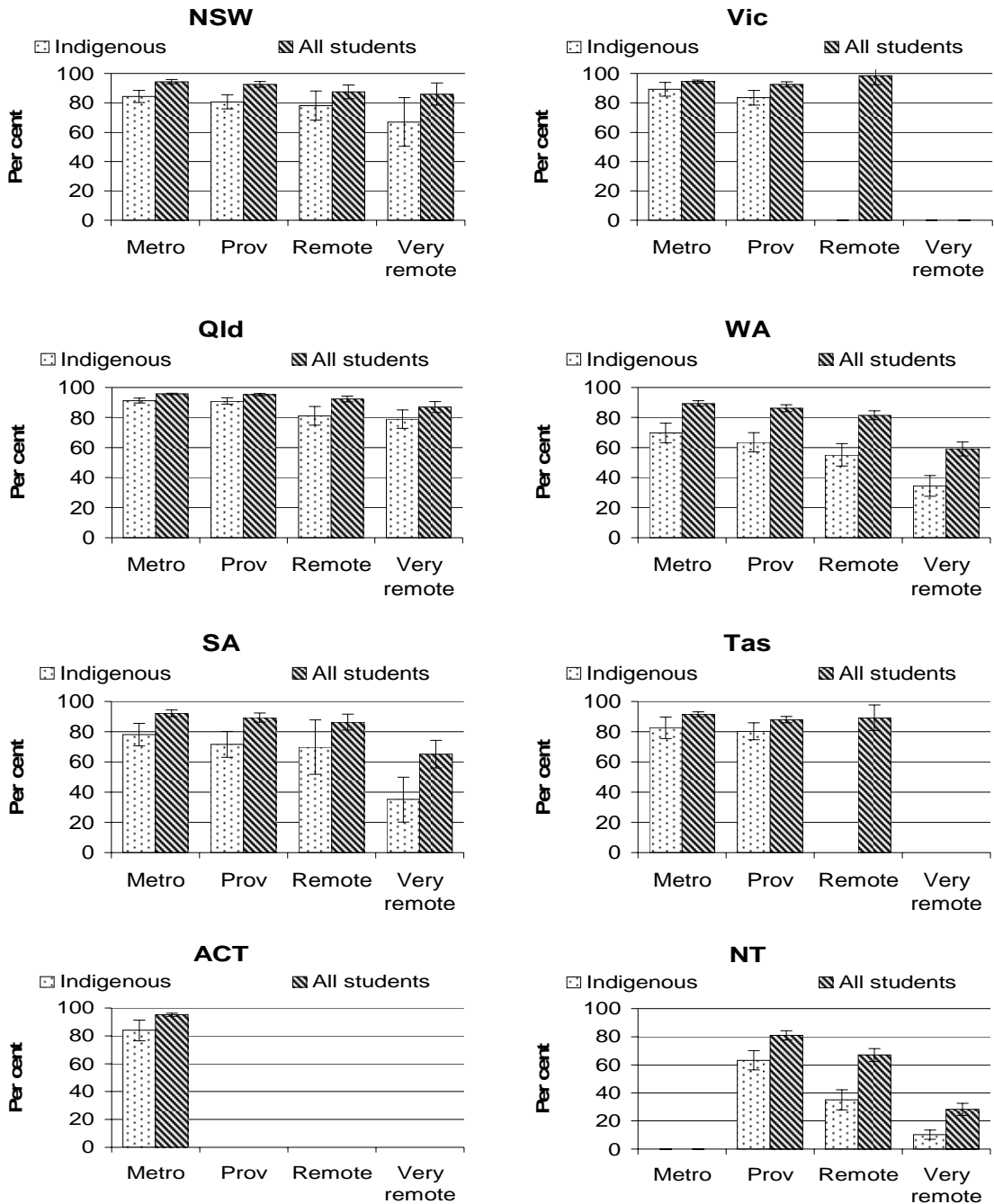
Nationally, the proportion of assessed Indigenous students who achieved the writing benchmark by geolocation in 2007 was:

- 80.7–88.7 per cent for Indigenous year 3 students in metropolitan areas, no different to the proportion for provincial students (76.3–85.3 per cent), but above the proportion for remote students (53.3–69.1 per cent) and very remote students (34.8–46.8 per cent) (figure 4.13)
- 82.4–93.8 per cent for Indigenous year 5 students in metropolitan areas, no different to the proportion for provincial students (76.4–89.4 per cent), but above the proportion for remote students (51.0–74.6 per cent) and very remote students (34.5–46.3 per cent) (table 4A.53)
- 79.2–87.4 per cent for Indigenous year 7 students in metropolitan areas, no different to the proportion of provincial students (72.6–82.4 per cent), but above the proportion for remote students (44.5–61.1 per cent) and very remote students (33.5–43.1 per cent) (table 4A.53).

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State and territory Indigenous results are presented for year 3 writing literacy in figure 4.14 (results for years 5 and 7 writing literacy are in table 4A.53). Relatively large confidence intervals mean it is difficult to draw conclusions from these data. However, the general pattern in jurisdictions appears similar to the national results.

Figure 4.14 Proportion of year 3 students achieving the writing benchmark, by Indigenous status and geolocation, 2007<sup>a, b, c</sup>



**a** Error bars represent the 95 per cent confidence intervals associated with each point estimate. **b** Geolocation data are based on the MCEETYA Schools Geographic Location Classification and represent school location. **c** There are no very remote areas in Victoria. There are no provincial, remote or very remote areas in the ACT. There is no metropolitan zone in the NT.

Source: MCEETYA (2008) *National Report on Schooling in Australia 2007*; table 4A.53; 2009 Report, figure 4.34, p. 4.55.

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## *Numeracy performance*

'Numeracy performance' (including mathematical literacy) is an indicator of governments' objective that all students should attain the skills of numeracy. It is an indicator of students' achievement in a key learning area of school education (box 4.5).

### **Box 4.5 Numeracy performance**

'Numeracy performance' (or mathematical literacy) performance is defined by three measures:

*Percentage of students achieving at or above the national numeracy benchmark:* The proportion of assessed years 3, 5 and 7 students who achieve at or above the national numeracy benchmark for a given year, reported by sex, Indigenous status, LBOTE, socioeconomic status and geolocation. The benchmarks describe nationally agreed minimum acceptable standards for numeracy performance at years 3, 5 and 7.

Up to and including 2007, student performance has been measured by annual State and Territory-based testing programs which were equated through a national process designed to allow comparable reporting against the benchmarks. Commencing in 2008, common national tests in literacy and numeracy were held for all students at years 3, 5, 7 and 9. These tests replaced the former State and Territory-based assessments.

*Percentage of students achieving at or above the proficient standard on the OECD PISA combined mathematical literacy scale in a triennial assessment:* The proportion of assessed 15 year old students who achieve at or above the proficient standard (agreed by the MCEETYA to be level 3) on the OECD PISA combined mathematical literacy scale for a given year, reported by sex, Indigenous status, socioeconomic status and geolocation.

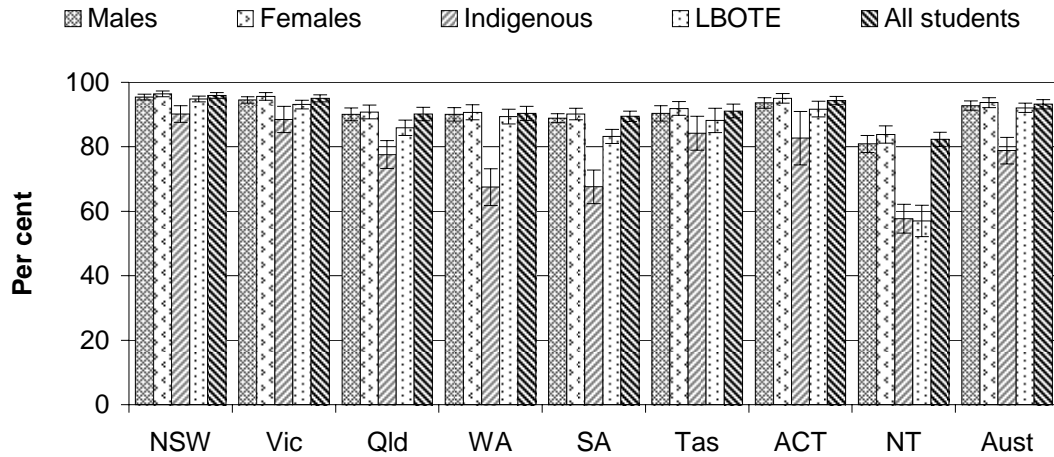
*Percentage of students achieving at or above the proficient standard on the TIMSS mathematical literacy scale in a quadrennial assessment:* The proportion of assessed year 4 and year 8 students who achieve at or above the proficient standard on the TIMSS mathematical literacy scale for a given year. A national standard has yet to be developed for this measure.

A high or increasing proportion of students achieving the numeracy benchmark/mathematical literacy proficient standard is desirable.

Data for this indicator are comparable.

Nationally, the proportion of assessed year 3 students who achieved the numeracy benchmark in 2007 was 91.8–94.6 per cent. The national proportion of Indigenous students who achieved the year 3 numeracy benchmark in 2007 was 74.7–82.9 per cent (figure 4.15).

Figure 4.15 Proportion of year 3 students achieving the numeracy benchmark, by equity group, 2007<sup>a, b</sup>

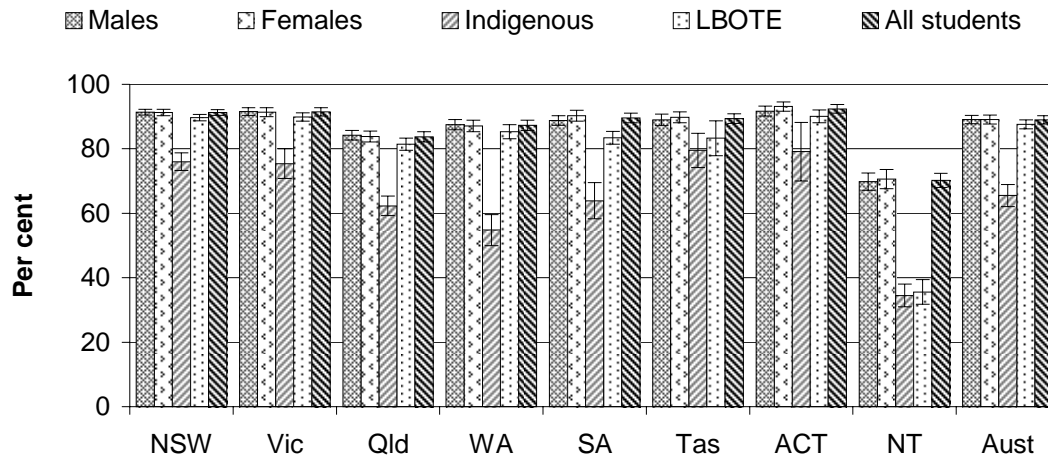


<sup>a</sup> Error bars represent the 95 per cent confidence interval associated with each point estimate. <sup>b</sup> For further information and caveats see table 4A.59 and 2009 Report, table 4A.96.

Source: MCEETYA (2008) *National Report on Schooling in Australia 2007*; table 4A.55; 2009 Report, figure 4.36, p. 4.58.

Nationally, the proportion of assessed year 5 students who achieved the numeracy benchmark in 2007 was 87.7–90.3 per cent. The national proportion of Indigenous students who achieved the year 5 numeracy benchmark in 2007 was 62.1–68.9 per cent (figure 4.16).

**Figure 4.16 Proportion of year 5 students achieving the numeracy benchmark, by equity group, 2007<sup>a, b</sup>**

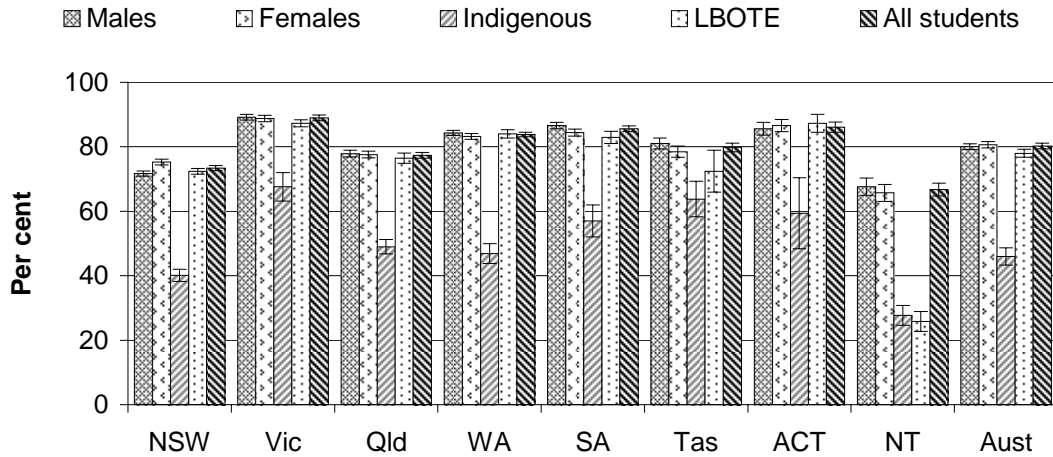


<sup>a</sup> Error bars represent the 95 per cent confidence interval associated with each point estimate. <sup>b</sup> For further information and caveats see table 4A.59 and 2009 Report, table 4A.96.

Source: MCEETYA (2008) *National Report on Schooling in Australia 2007*, table 4A.56; 2009 Report, figure 4.38, p. 4.59.

Nationally, the proportion of assessed year 7 students who achieved the numeracy benchmark in 2007 was 79.3–81.1 per cent. The national proportion of Indigenous students who achieved the year 7 numeracy benchmark in 2007 was 43.3–48.7 per cent (figure 4.17).

**Figure 4.17 Proportion of year 7 students achieving the numeracy benchmark, by equity group, 2007<sup>a, b</sup>**

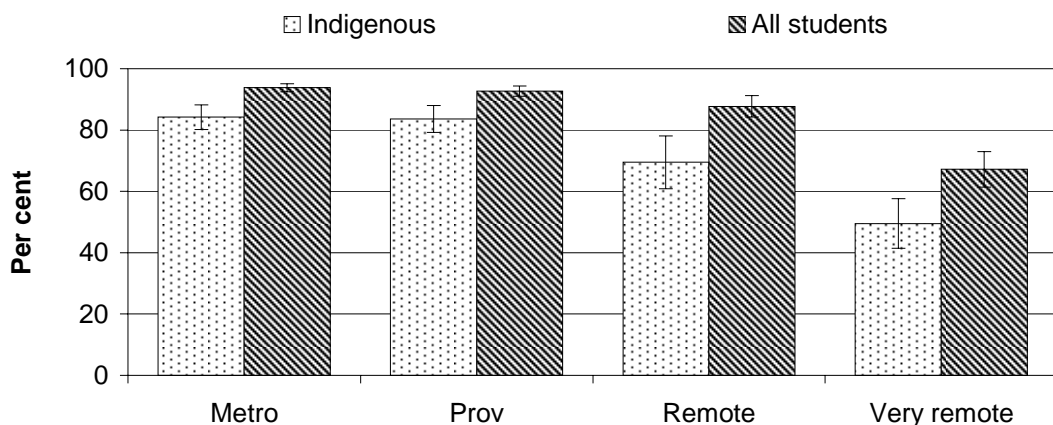


<sup>a</sup> Error bars represent the 95 per cent confidence interval associated with each point estimate. <sup>b</sup> For further information and caveats see table 4A.59 and 2009 Report, table 4A.96.

Source: MCEETYA (2008) *National Report on Schooling in Australia 2007*; table 4A.57; 2009 Report, figure 4.40, p. 4.61.

National data on the proportion of assessed Indigenous students who achieved the numeracy benchmark by geolocation in 2007 are presented in figure 4.18.

**Figure 4.18 National proportion of year 3 students achieving the numeracy benchmark, by Indigenous status and geolocation, 2007<sup>a, b</sup>**



<sup>a</sup> Error bars represent the 95 per cent confidence interval associated with each point estimate. <sup>b</sup> Data for year 3 students are shown and may not be representative of students in years 5 and 7 which are detailed in table 4A.58.

Source: MCEETYA (2008) *National Report on Schooling in Australia 2007*; table 4A.58; 2009 Report, figure 4.41, p. 4.62.

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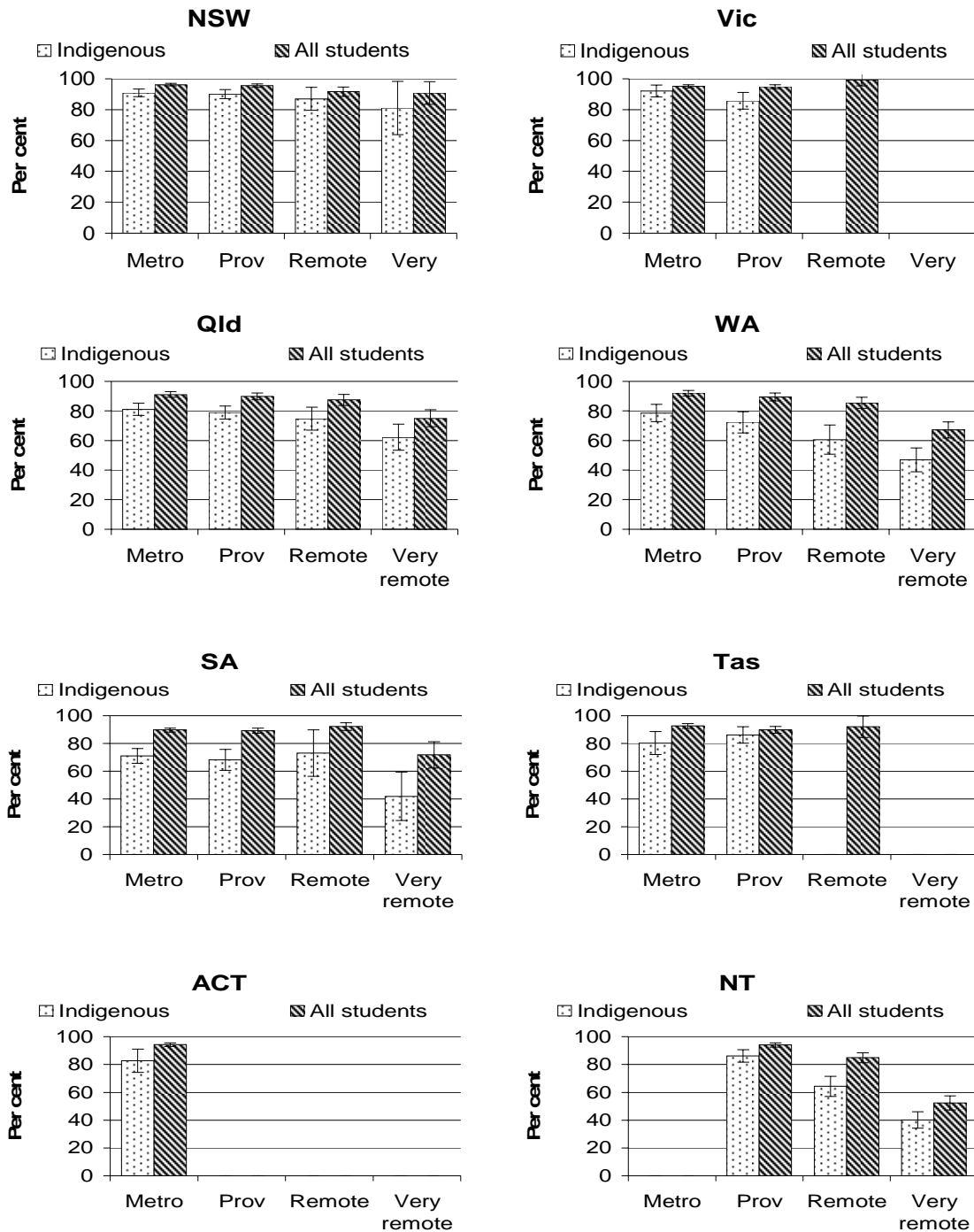
For all categories of remoteness across years 3, 5 and 7, the numeracy outcomes for Indigenous students were lower than those for all students. As with all students, outcomes for Indigenous students declined as remoteness increased — furthermore the gap in learning outcomes between Indigenous students and all students increased as the degree of remoteness increased.

Nationally, the proportion of assessed Indigenous students who achieved the numeracy benchmark in 2007 was:

- 80.2–88.2 per cent for Indigenous year 3 students in metropolitan areas, no different to the proportion for provincial students (79.2–88.0 per cent), but above the proportion for remote students (60.9–78.1 per cent) and very remote students (41.4–57.6 per cent) (figure 4.18)
- 69.6–77.6 per cent for Indigenous year 5 students in metropolitan areas, no different to the proportion for provincial students (65.6–74.6 per cent), but above the proportion for remote students (40.9–58.3 per cent) and very remote students (21.3–33.1 per cent) (table 4A.58)
- 48.2–55.2 per cent for Indigenous year 7 students in metropolitan areas, no different to the proportion of provincial students (45.0–53.0 per cent), but above the proportion for remote students (28.2–43.2 per cent) and very remote students (13.7–24.1 per cent) (table 4A.58).

State and Territory results are presented for year 3 numeracy outcomes in figure 4.19 (results for years 5 and 7 numeracy outcomes are in table 4A.58). Relatively large confidence intervals mean it is difficult to draw conclusions from these data. However, the general pattern in jurisdictions appears similar to the national results.

Figure 4.19 Proportion of year 3 students achieving the numeracy benchmark, by Indigenous status and geolocation, 2007<sup>a, b, c</sup>



<sup>a</sup> Error bars represent the 95 per cent confidence intervals associated with each point estimate. <sup>b</sup> Geolocation data are based on the MCEETYA Schools Geographic Location Classification and represent school location. <sup>c</sup> There are no very remote areas in Victoria. There are no provincial, remote or very remote areas in the ACT. There is no metropolitan zone in the NT.

Source: MCEETYA (2008) *National Report on Schooling in Australia 2007*; table 4A.58; 2009 Report, figure 4.42, p. 4.64.

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## Science literacy performance

‘Science literacy performance’ is an indicator of governments’ objective that all students should attain high standards of knowledge, skill and understanding in agreed key learning areas (box 4.6).

### Box 4.6 Science literacy performance

‘Science literacy performance’ is defined by three measures:

- *Percentage of students achieving at or above the proficient standard on the scientific literacy scale:* This is the proportion of assessed year 6 students who achieve at or above the proficient standard for scientific literacy, reported by sex, Indigenous status, and geolocation for 2003 and 2006 (and for LBOTE and socioeconomic status for 2003). The proficient standard for performance in scientific literacy is set at proficiency level 3.2 (of levels 1 to 4 or above) for year 6 (MCEETYA 2004, 2008a). This is a challenging but reasonable level of performance where to be regarded as having reached the proficient standard, students need to demonstrate more than the minimal or elementary skills expected of a student at that year level (MCEETYA Performance Measurement and Reporting Taskforce (PMRT) unpublished).
- *Percentage of students achieving at or above the proficient standard on the OECD PISA combined scientific literacy scale in a triennial international assessment:* This is the proportion of assessed 15 year old students who achieve at or above the proficient standard on the OECD PISA combined scientific literacy scale for a given year, reported by sex, Indigenous status, socioeconomic status and geolocation. A national standard has yet to be developed for this measure.
- *Percentage of students achieving at or above the proficient standard on the TIMSS science literacy scale in a quadrennial assessment:* This is the proportion of assessed year 4 and year 8 students who achieve at or above the proficient standard on the TIMSS science literacy scale for a given year. A national standard has yet to be developed for this measure.

A high or increasing proportion of students achieving at or above the scientific literacy benchmark/proficient standard is desirable.

Data for this indicator are comparable.

The National Assessment Program — Science Literacy, Year 6 assessment measures the scientific literacy of a sample of students and is conducted triennially. It was first conducted in 2003, and for a second time in 2006. Results from the 2003 national science literacy sample assessment were discussed in detail in the 2006 Report (SCRGSP 2006, pages 3.59–62), with available rescaled data (based on the 2006 sample) presented in tables 4A.98–100 of the 2009 Report. Results from the 2006 national science literacy sample assessment are reported below.

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Year 6 scientific literacy 2006 results are reported as the proportion of Australian students from the sampled students (year 6 enrolled in participating schools) who achieved at the proficient standard or above. Nationally, 52.2–56.4 per cent of participating year 6 students achieved at the proficient standard or above in scientific literacy (down from 58.4–60.4 per cent in 2003) (2009 Report, table 4A.98). The national proportion of students who achieved at the proficient standard or above in scientific literacy was 15.5–35.5 per cent for Indigenous students in 2006 (table 4A.60).

Scientific literacy was a domain tested in the PISA 2006 survey. In PISA 2006 the proportion of 15 year old students who achieved at level 3 or above in scientific literacy was 28.7–39.9 per cent for Indigenous students, compared with 65.3–68.7 per cent for all Australian students (table 4A.66).

### *Civics and citizenship performance*

‘Civics and citizenship performance’ is an indicator of governments’ objective that students be active and informed citizens with an understanding and appreciation of Australia’s system of government and civic life (box 4.7).

#### **Box 4.7 Civics and citizenship performance**

‘Civics and citizenship performance’ is defined as the percentage of students that achieve at or above the proficient standard on the civics and citizenship scale in a triennial assessment. This is the proportion of sampled year 6 and year 10 students that achieve at or above the proficient standard in civic knowledge and understanding, reported by sex, Indigenous status, LBOTE, socioeconomic status and geolocation.

The proficient standard for performance in civics and citizenship is set at proficiency level 2 for year 6, and at level 3 for year 10 (of levels 1 to 5) (MCEETYA 2006). This is a challenging but reasonable level of performance where to be regarded as having reached the proficient standard, students need to demonstrate more than the minimal or elementary skills expected of a student at that year level (PMRT unpublished).

A high proportion of students achieving at or above the applicable proficient standard in civics and citizenship performance is desirable.

Data for this indicator are comparable.

The National Assessment Program — Civics and Citizenship, Years 6 and 10 assessment measures the civics and citizenship performance of a sample of students and is conducted triennially (MCEETYA 2006). It was conducted for the first time in 2004 and again in 2007. Results from the 2004 national civics and citizenship sample assessment were discussed in detail in the 2007 Report (SCRGSP 2007,

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pages 3.56–59), with data reproduced in table 4A.61 in this Compendium and tables 4A.101-102 of the 2009 Report. Results from the 2007 national civics and citizenship sample assessment were not available in time for inclusion in this Report, and will be included in the 2010 Report.

## **Future directions in performance reporting**

### *Nationally comparable reporting of learning outcomes*

#### *Enhanced literacy and numeracy measures*

The *National Summary Report* was released on 12 September 2008 (MCEETYA 2008b). Results from a second report with more detailed information (including disaggregation by Indigenous status and geolocation) will be included in the 2010 Report.

#### *Nationally consistent definitions*

Nationally consistent definitions of student background characteristics have been adopted for nationally comparable reporting on students' educational achievement and outcomes. Ministers have endorsed standard definitions of sex, Indigenous status, socioeconomic background, language background and geographic location.

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## Attachment tables

Attachment tables for data within this chapter are contained in the attachment to the compendium. These tables are identified in references throughout this chapter by an 'A' suffix (for example, table 4A.3 is table 3 in the school education attachment). The tables included in the attachment are listed below.

<b>Table 4A.1</b>	Australian Government specific purpose payments for schools, 2006-07
<b>Table 4A.2</b>	Indigenous full time students, 2007
<b>Table 4A.3</b>	Student body mix, government schools (per cent)
<b>Table 4A.4</b>	Student body mix, non-government schools (per cent)
<b>Table 4A.5</b>	Student body mix, all schools (per cent)
<b>Table 4A.6</b>	Proportion of year 3 students who achieved the reading benchmark, 2004 (per cent)
<b>Table 4A.7</b>	Proportion of year 5 students who achieved the reading benchmark, 2004 (per cent)
<b>Table 4A.8</b>	Proportion of year 7 students who achieved the reading benchmark, 2004 (per cent)
<b>Table 4A.9</b>	Exemptions, absences and participation of equity groups in reading testing, 2004 (per cent)
<b>Table 4A.10</b>	Proportion of year 3 students who achieved the writing benchmark, 2004 (per cent)
<b>Table 4A.11</b>	Proportion of year 5 students who achieved the writing benchmark, 2004 (per cent)
<b>Table 4A.12</b>	Proportion of year 7 students who achieved the writing benchmark, 2004 (per cent)
<b>Table 4A.13</b>	Exemptions, absences and participation of equity groups in writing testing, 2004 (per cent)
<b>Table 4A.14</b>	Proportion of year 3 students who achieved the numeracy benchmark, 2004 (per cent)
<b>Table 4A.15</b>	Proportion of year 5 students who achieved the numeracy benchmark, 2004 (per cent)
<b>Table 4A.16</b>	Proportion of year 7 students who achieved the numeracy benchmark, 2004 (per cent)
<b>Table 4A.17</b>	Exemptions, absences and participation of equity groups in numeracy testing, 2004 (per cent)
<b>Table 4A.18</b>	Proportion of year 3 students who achieved the reading benchmark, 2005 (per cent)
<b>Table 4A.19</b>	Proportion of year 5 students who achieved the reading benchmark, 2005 (per cent)
<b>Table 4A.20</b>	Proportion of year 7 students who achieved the reading benchmark, 2005 (per cent)

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<b>Table 4A.21</b>	Exemptions, absences and participation by equity group in reading testing, 2005 (per cent)
<b>Table 4A.22</b>	Proportion of year 3 students who achieved the writing benchmark, 2005 (per cent)
<b>Table 4A.23</b>	Proportion of year 5 students who achieved the writing benchmark, 2005 (per cent)
<b>Table 4A.24</b>	Proportion of year 7 students who achieved the writing benchmark, 2005 (per cent)
<b>Table 4A.25</b>	Exemptions, absences and participation by equity group in writing testing, 2005 (per cent)
<b>Table 4A.26</b>	Proportion of year 3 students who achieved the numeracy benchmark, 2005 (per cent)
<b>Table 4A.27</b>	Proportion of year 5 students who achieved the numeracy benchmark, 2005 (per cent)
<b>Table 4A.28</b>	Proportion of year 7 students who achieved the numeracy benchmark, 2005 (per cent)
<b>Table 4A.29</b>	Exemptions, absences and participation by equity group in numeracy testing, 2005 (per cent)
<b>Table 4A.30</b>	Proportion of year 3 students who achieved the reading benchmark, 2006 (per cent)
<b>Table 4A.31</b>	Proportion of year 5 students who achieved the reading benchmark, 2006 (per cent)
<b>Table 4A.32</b>	Proportion of year 7 students who achieved the reading benchmark, 2006 (per cent)
<b>Table 4A.33</b>	Proportion of year 3, 5 and 7 students achieving the reading benchmark, by Indigenous status and geolocation, 2006 (per cent)
<b>Table 4A.34</b>	Exemptions, absences and participation by equity group in reading testing, 2006 (per cent)
<b>Table 4A.35</b>	Proportion of year 3 students who achieved the writing benchmark, 2006 (per cent)
<b>Table 4A.36</b>	Proportion of year 5 students who achieved the writing benchmark, 2006 (per cent)
<b>Table 4A.37</b>	Proportion of year 7 students who achieved the writing benchmark, 2006 (per cent)
<b>Table 4A.38</b>	Proportion of year 3, 5 and 7 students achieving the writing benchmark, by Indigenous status and geolocation, 2006 (per cent)
<b>Table 4A.39</b>	Exemptions, absences and participation by equity group in writing testing, 2006 (per cent)
<b>Table 4A.40</b>	Proportion of year 3 students who achieved the numeracy benchmark, 2006 (per cent)
<b>Table 4A.41</b>	Proportion of year 5 students who achieved the numeracy benchmark, 2006 (per cent)
<b>Table 4A.42</b>	Proportion of year 7 students who achieved the numeracy benchmark, 2006 (per cent)
<b>Table 4A.43</b>	Proportion of year 3, 5 and 7 students achieving the numeracy benchmark, by Indigenous status and geolocation, 2006 (per cent)

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<b>Table 4A.44</b>	Exemptions, absences and participation by equity group in numeracy testing, 2006 (per cent)
<b>Table 4A.45</b>	Proportion of year 3 students who achieved the reading benchmark, 2007 (per cent)
<b>Table 4A.46</b>	Proportion of year 5 students who achieved the reading benchmark, 2007 (per cent)
<b>Table 4A.47</b>	Proportion of year 7 students who achieved the reading benchmark, 2007 (per cent)
<b>Table 4A.48</b>	Proportion of year 3, 5 and 7 students achieving the reading benchmark, by Indigenous status and geolocation, 2007 (per cent)
<b>Table 4A.49</b>	Exemptions, absences and participation by equity group in reading testing, 2007 (per cent)
<b>Table 4A.50</b>	Proportion of year 3 students who achieved the writing benchmark, 2007 (per cent)
<b>Table 4A.51</b>	Proportion of year 5 students who achieved the writing benchmark, 2007 (per cent)
<b>Table 4A.52</b>	Proportion of year 7 students who achieved the writing benchmark, 2007 (per cent)
<b>Table 4A.53</b>	Proportion of year 3, 5 and 7 students achieving the writing benchmark, by Indigenous status and geolocation, 2007 (per cent)
<b>Table 4A.54</b>	Exemptions, absences and participation by equity group in writing testing, 2007 (per cent)
<b>Table 4A.55</b>	Proportion of year 3 students who achieved the numeracy benchmark, 2007 (per cent)
<b>Table 4A.56</b>	Proportion of year 5 students who achieved the numeracy benchmark, 2007 (per cent)
<b>Table 4A.57</b>	Proportion of year 7 students who achieved the numeracy benchmark, 2007 (per cent)
<b>Table 4A.58</b>	Proportion of year 3, 5 and 7 students achieving the numeracy benchmark, by Indigenous status and geolocation, 2007 (per cent)
<b>Table 4A.59</b>	Exemptions, absences and participation by equity group in numeracy testing, 2007 (per cent)
<b>Table 4A.60</b>	Proportion of year 6 students achieving at or above the proficient standard in science literacy, by equity group (per cent)
<b>Table 4A.61</b>	Proportion of years 6 and 10 students achieving at or above the proficient standard in civics and citizenship performance, by equity group, Australia, 2004 (per cent)
<b>Table 4A.62</b>	Proportion of years 6 and 10 students achieving at or above the proficient standard in information and communication technology literacy performance, by equity group, Australia, 2005 (per cent)
<b>Table 4A.63</b>	Proportion of 15 year old students achieving level 3 or above in the overall reading literacy scale, by equity group (per cent)
<b>Table 4A.64</b>	Proportion of 15 year old students achieving level 3 or above in the overall mathematical literacy scale, by equity group (per cent)

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<b>Table 4A.65</b>	Proportion of 15 year old students achieving at or above the OECD mean for scientific literacy, by equity group (per cent)
<b>Table 4A.66</b>	Proportion of 15 year old students achieving level 3 or above in the overall scientific literacy scale, by equity group, 2006 (per cent)
<b>Table 4A.67</b>	Proportion of 15 year old students achieving at or above the OECD mean for problem solving, by equity group, 2003 (per cent)
<b>Table 4A.68</b>	Apparent retention rates of full time secondary students to years 10–12, 2007 (per cent)
<b>Table 4A.69</b>	Apparent retention rates of secondary students from years 10–12, 2007 (per cent)
<b>Table 4A.70</b>	Apparent retention rates of full time secondary students, government schools (per cent)
<b>Table 4A.71</b>	Apparent retention rates of full time secondary students, non-government schools (per cent)
<b>Table 4A.72</b>	Apparent retention rates of full time secondary students, all schools (per cent)
<b>Table 4A.73</b>	Student attendance rates, government schools, by Indigenous status, 2007 (per cent)
<b>Table 4A.74</b>	Student attendance rates, independent schools, by Indigenous status, 2007 (per cent)
<b>Table 4A.75</b>	Student attendance rates, Catholic schools, by Indigenous status, 2007 (per cent)

## References

- MCEETYA (Ministerial Council on Education, Employment, Training and Youth Affairs) 2004, *National Year 6 Science Assessment Report 2003*, Melbourne.
- 2006, *National Assessment Program Civics and Citizenship Years 6 and 10 Report 2004*, Melbourne.
- 2008a, *National Assessment Program – Science Literacy Year 6 Report, 2006*, Melbourne.
- 2008b, *2008 National Assessment Program Literacy and Numeracy, NAPLAN summary report: Achievement in reading, writing, language conventions and numeracy*, Melbourne.
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