
4 School education

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Attachment tables

Attachment tables are identified in references throughout this Indigenous Compendium by an 'A' suffix (for example, in this chapter, table 4A.3). As the data are directly sourced from the 2011 Report, the Compendium also notes where the original table, figure or text in the 2011 Report can be found. For example, where the Compendium refers to '2011 Report, p. 4.15', this is page 15 of chapter 4 of the 2011 Report, and '2011 Report, table 4A.2' is table 2 of attachment 4A of the 2011 Report. A full list of attachment tables is provided at the end of this chapter, and the attachment tables are available from the Review website at www.pc.gov.au/gsp.

The School education chapter (chapter 4) in the *Report on Government Services 2011* (2011 Report) reports on the performance of government funded school education in Australia. Data are reported for Indigenous people for a subset of the performance indicators reported in that chapter — those data are compiled and presented here. 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 2011 Report contains the following data items for Indigenous people:

- number and proportion of full time students
- student attendance rate, government schools
- proportion of children aged 6–15 years enrolled in school
- apparent retention rate from year 7 or 8 to year 10
- apparent retention rate from year 7 or 8 to year 12
- apparent retention rate from year 10 to year 12
- participation in NAPLAN testing
- reading performance
- writing performance
- numeracy performance
- science literacy performance
- civics and citizenship performance
- information and communication technologies literacy performance
- year 10 or above completion rate.

Indigenous full time students, 2009

The number and proportion of full time Indigenous students varies greatly across jurisdictions (table 4.1). 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 5.9 per cent in government schools and 1.9 per cent in non-government schools in 2009 (table 4.1).

Table 4.1 Indigenous full time students, 2009

	<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>
Indigenous full time students (000) ^a									
Government schools	40.5	8.1	39.4	19.2	8.0	4.7	1.0	12.3	133.3
Non-government schools	5.9	1.1	6.8	3.6	1.0	0.7	0.3	2.9	22.2
All schools	46.5	9.2	46.1	22.8	9.0	5.4	1.3	15.2	155.5
Indigenous full time students as a proportion of all full time students (%)									
Government schools	5.5	1.5	8.1	8.2	4.9	8.2	3.0	43.2	5.9
Non-government schools	1.6	0.4	2.9	2.9	1.1	3.1	1.0	29.0	1.9
All schools	4.2	1.1	6.4	6.4	3.6	6.7	2.1	39.5	4.5

^a Students counted as Indigenous are those who have identified as being of Indigenous origin. It is possible that the number of Indigenous students may be under-represented in some jurisdictions.

Source: ABS (2010) *Schools Australia 2009*, Cat. no. 4221.0; table 4A.2; 2011 Report, table 4.5, p. 4.11.

Framework of performance indicators

The School education performance indicator framework outlined in figure 4.1 identifies the principal school education activity areas considered in the 2011 Report. Data for Indigenous people are reported for a subset of the performance indicators and are presented here. It is important to interpret these data in the context of the broader performance indicator framework. The framework shows which data are comparable. For data that are not considered directly comparable, the text includes relevant caveats and supporting commentary.

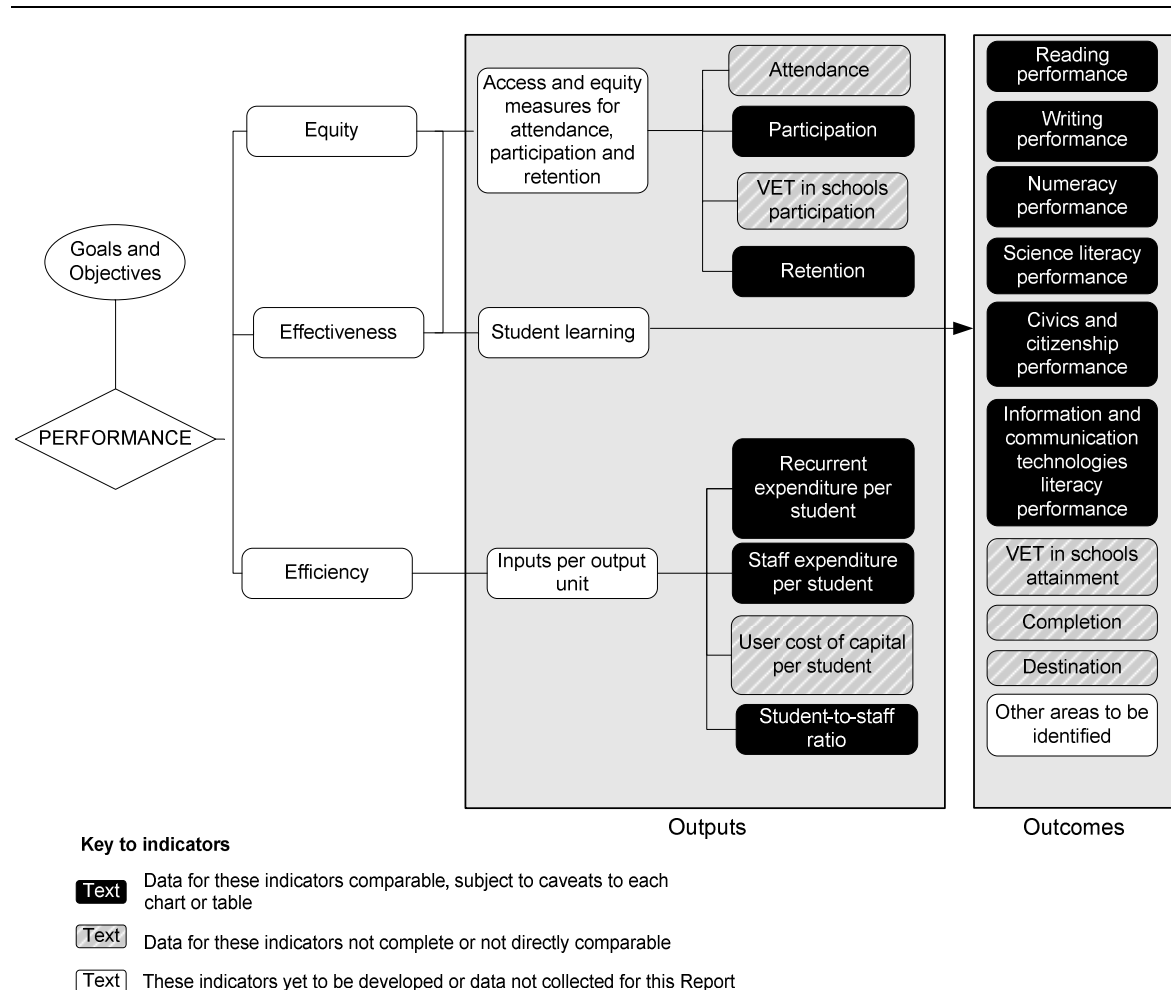
Indicator boxes presented throughout the chapter provide information about the reported indicators. As these are sourced directly from the 2011 Report, they might include references to data not reported for Indigenous people and therefore not included in this Compendium.

The Report's statistical appendix contains data that may assist in interpreting the performance indicators presented in this chapter. These data cover a range of demographic and geographic characteristics, including age profile, geographic distribution of the population, income levels, education levels, tenure of dwellings and cultural heritage (including Indigenous and ethnic status) (appendix A).

Care should be taken in interpreting these performance indicators, a number of interrelated factors affect the results, including characteristics of students (for example, student engagement and connectedness, length of time spent in schooling, demographic and socio-economic characteristics, [including remoteness and Indigenous status]).

COAG has agreed six National Agreements to enhance accountability to the public for the outcomes achieved or outputs delivered by a range of government services, (see 2011 Report, chapter 1 for more detail on reforms to federal financial relations). The National Education Agreement (NEA) covers the area of school education, and education and training indicators in the National Indigenous Reform Agreement (NIRA) establish specific outcomes for reducing the level of disadvantage experienced by Indigenous Australians. The agreements include sets of performance indicators, for which the Steering Committee collates annual performance information for analysis by the COAG Reform Council (CRC). Revisions have been made to the performance indicators reported in this chapter to align with developments in reporting for the performance indicators in the National Agreements.

Figure 4.1 Performance indicators for school education



Source: 2011 Report, figure 4.4, p. 4.16.

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.

It is intended to measure student attendance 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 provide data over a period including 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).

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.

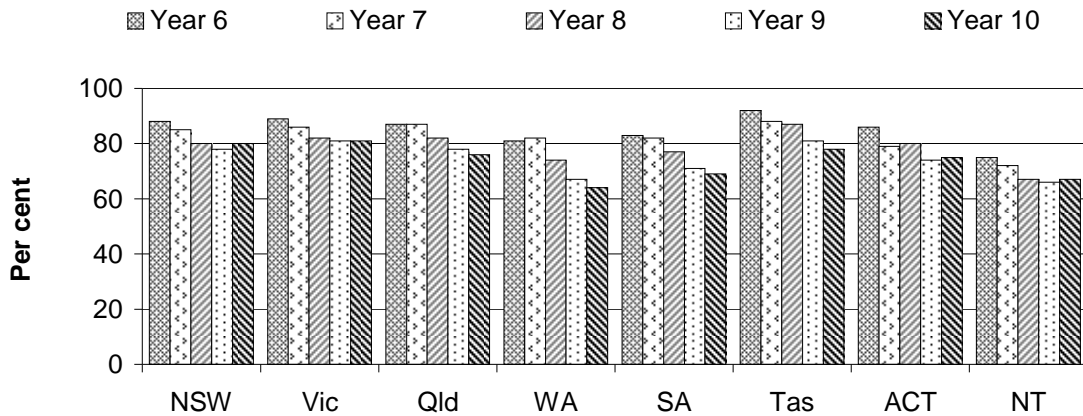
Data for this indicator are not directly comparable.

Data quality information for this indicator is at www.pc.gov.au/gsp/reports/rogs/2011

School attendance is measured in a specific collection period during the school year (see box 4.1 for details), and results may not be representative of school attendance throughout the school year.

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.84). The differences varied across states and territories, although attendance rates for non-Indigenous students were similar across all jurisdictions. A similar pattern to the government schools was observed for non-government schools (independent and Catholic schools) in most jurisdictions (tables 4A.85 and 4A.86).

Figure 4.2 **Student attendance rate, government schools, Indigenous students, 2009**



Source: ACARA (unpublished); table 4A.84; 2011 Report, figure 4.6, p. 4.20.

Participation

‘Participation’ is an indicator of governments’ objective to develop fully the talents and capacities of young people through participation in secondary schooling, to enable all students to have access to the high quality education necessary to enable completion of school education to year 12 or its equivalent (box 4.2).

Box 4.2 Participation

'Participation' (school education participation rate) is defined by two measures:

- the total number of children aged 6–15 years and enrolled in school (full time and part time enrolments) as a proportion of the estimated resident population of the same age, reported by Indigenous status
- the number of full time and part time school students of a particular age expressed as a proportion of the estimated resident population of the same age, for each year for 14–19 year olds.

Participation rates are reported nationally and by State/Territory.

Holding other factors constant, a higher or increasing participation rate suggests an improvement in educational outcomes through greater access to school education. Participation rates in school education need to be interpreted with care because rates are influenced by jurisdictional differences in age/grade structures, and the participation rate is an age-based rate. The rate is comparable over time within a jurisdiction, but may not be directly comparable across jurisdictions where there are differences in the age/grade structure.

This indicator does not provide information on young people who develop their talents and capacities through other options for delivering post-compulsory education and training — for example, work-based training and enrolment in technical and further education (TAFE) delivered programs. A broader participation indicator that accounts for some of these factors is reported in the 'Early childhood, education and training preface'.

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

Data for this indicator are comparable.

Data quality information for this indicator is at www.pc.gov.au/gsp/reports/rogs/2011

Proportion of children aged 6–15 years enrolled in school

Nationally, 98.8 per cent of children aged 6–15 years were enrolled (either full or part time) in schools in 2009. Nationally, the enrolment rate for Indigenous children was 100.2 per cent compared with 98.8 per cent for non-Indigenous children. These rates also varied across jurisdictions (figure 4.3). These proportions are determined using the number of students educated in the jurisdiction divided by the estimated residential population for the jurisdiction, for the age group. Proportions that exceed 100 per cent (including Indigenous proportions) may reflect disparities between the sources of data which may provide varying counts or, may reflect students residing in one jurisdiction enrolling in schools in another jurisdiction.

Figure 4.3 Proportion of children aged 6–15 years enrolled in school, by Indigenous status, 2009^{a, b, c}



^a In the absence of population estimates by Indigenous status for inter-censal years, non-Indigenous population figures are calculated by subtracting projections of the Indigenous population from estimates of the total population. ^b See footnotes to table 4A.78 for further information on derivations of population figures. ^c Some students' Indigenous status is not stated and are included in the data for 'non-Indigenous students', and 'all students'. Consequently, the number of Indigenous students counted in the Indigenous rates may be under-represented in some jurisdictions.

Source: ABS (unpublished) *Schools Australia 2009*, Cat. no. 4221.0; ABS (unpublished) *Population by age and sex, Australian states and territories, June 2009*, Cat. no. 3201.0; ABS (unpublished) *Experimental estimates and projections, Aboriginal and Torres Strait Islander Australians 1991-2021*, Cat. no. 3238.0; table 4A.78; 2011 Report, figure 4.7, 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 4.3).

Box 4.3 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 (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.

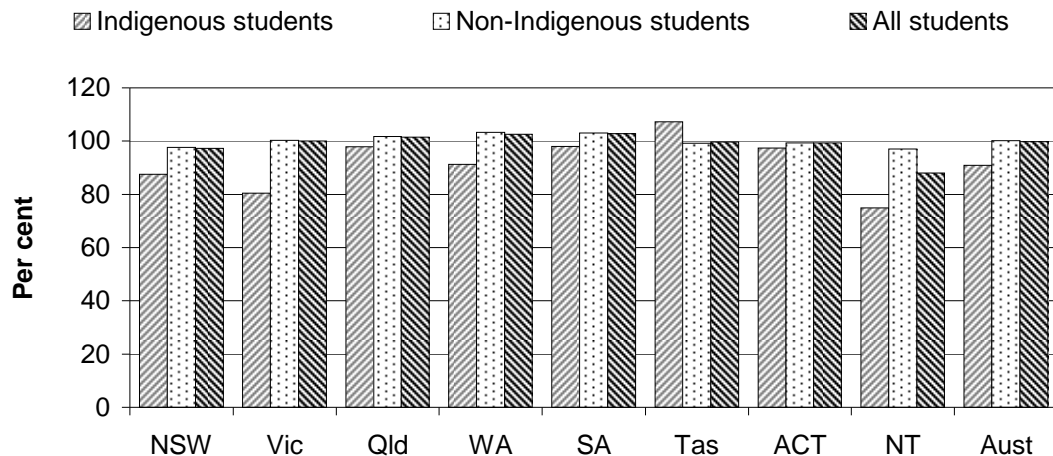
Data quality information for this indicator is at www.pc.gov.au/gsp/reports/rogs/2011

Apparent retention rates, from the commencement of secondary school at year 7 or 8 to year 10, for all students in most jurisdictions were 97–103 per cent in 2009, with a national rate of 99.8 per cent (figure 4.4). 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 non-Indigenous students and all students in most jurisdictions. The national retention rate for Indigenous students was 90.9 per cent, 9.2 percentage

points lower than that for non-Indigenous students and 8.9 percentage points lower than that for all students (figure 4.4).

Figure 4.4 Apparent retention rate from year 7 or 8 to year 10, full time secondary students, all schools, 2009^{a, b, c, d, e}



^a 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. ^b Retention rates can exceed 100 per cent for a variety of reasons, including student transfers between jurisdictions. ^c The standard apparent retention rate calculation excludes part time students, which has implications for the interpretation of results for all jurisdictions (2011 Report, table 4.4). ^d Ungraded students are not included in the calculation of apparent retention rates. ^e Some students' Indigenous status is not stated. Students for whom Indigenous status is not stated are not included in the data for 'Non-Indigenous students', but are included in the data for 'All students'. Consequently, the number of Indigenous students counted in the Indigenous rates may be under-represented in some jurisdictions.

Source: ABS (2010) *Schools Australia 2009*, Cat. no. 4221.0; table 4A.79; 2011 Report, figure 4.10, p. 4.27.

The national apparent retention rate, from the commencement of secondary school at year 7 or 8 to year 12, for all full time students was 73.4 per cent in 2001, rising to 75.3 per cent in 2005 and 76.0 per cent in 2009 (2011 Report, figure 4.12). Data by Indigenous status are in table 4A.80. Data for government schools and non-government schools are in tables 4A.81 and 4A.82.

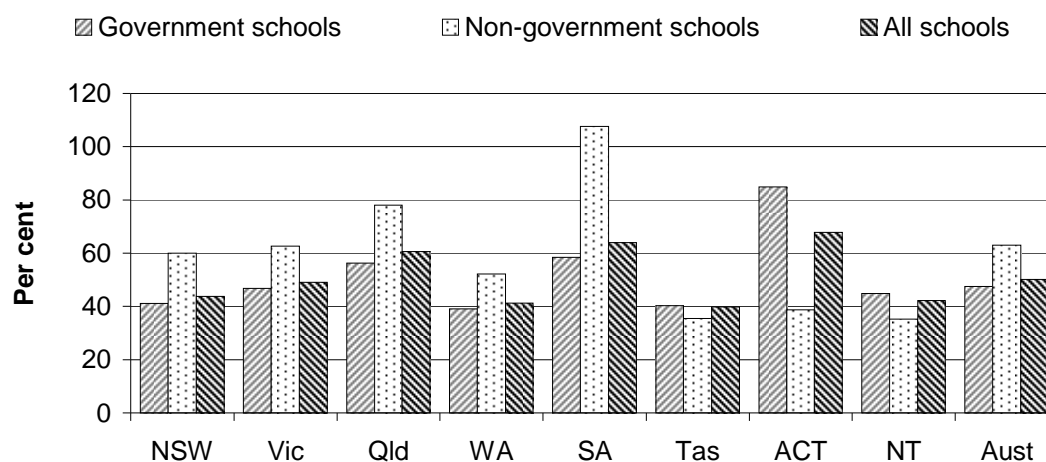
The apparent rate of retention from year 10 to year 12 has been derived by expressing the number of full time school students enrolled in year 12 in 2009 as a proportion of the number of full time school students enrolled in year 10 in 2007.

For government and non-government schools, apparent rates of retention from year 10 to year 12 for Indigenous students in 2009 varied across jurisdictions (figure 4.5), but were consistently lower than rates for all students (2011 Report, figure 4.13). In interpreting this indicator, note that nationally 9.1 per cent of Indigenous students left school before year 10 (figure 4.4) — compared with

0.2 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 made up 5.9 per cent of all students in government schools compared with 1.9 per cent in non-government schools and some jurisdictions have very low numbers of Indigenous students (table 4.1).

Nationally, Indigenous retention from year 10 to year 12 for all schools in 2009 was 50.1 per cent (figure 4.5), compared with 76.7 per cent for all students and 77.7 per cent for non-Indigenous students. However, Indigenous retention from year 10 to year 12 for all schools has risen from 43.6 per cent in 2001 to 45.3 per cent in 2005 and 50.1 per cent in 2009, with the gap in year 10 to year 12 retention rates between Indigenous students and all students decreasing from 31.8 percentage points in 2001 to 31.2 percentage points in 2005 and 26.6 percentage points in 2009 (table 4A.80). Table 4A.80 also includes data for non-Indigenous students.

Figure 4.5 Apparent retention rates from year 10 to year 12, Indigenous full time secondary students, 2009^{a, b, c, d}



^a 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. ^b The standard apparent retention rate calculation excludes part time students, which has implications for the interpretation of results for all jurisdictions (2011 Report, table 4.4). ^c Ungraded students are not included in the calculation of apparent retention rates. ^d Some students' Indigenous status is not stated. Consequently, the number of Indigenous students counted in these rates may be under-represented in some jurisdictions.

Source: ABS (2010) *Schools Australia 2009*, Cat. no. 4221.0; tables 4A.80–82; 2011 Report, figure 4.14, p. 4.31.

Nationally comparable learning outcomes

‘Reading performance’, ‘writing performance’, ‘numeracy performance’, ‘science literacy performance’, ‘civics and citizenship performance’, and ‘information and communication technologies literacy performance’ have been identified as indicators of learning outcomes and are discussed in this section. The outcomes for completion rates are discussed in the following section.

Years 3, 5, 7 and 9 nationally comparable NAPLAN national minimum standard learning outcomes data for reading, writing and numeracy performance for 2009, including data by Indigenous status and geolocation, are reported. This Report also includes NAPLAN mean scale scores and outcomes by achievement levels for 2009 (tables 4A.6–15 for reading performance, tables 4A.28–37 for writing performance and tables 4A.50–59 for numeracy performance). Data comparing a range of outcomes for 2008 and 2009 are included in tables 4A.18–27 (reading performance), tables 4A.40–49 (writing performance) and tables 4A.62–71 (numeracy performance).

In addition to the annual national literacy and numeracy assessments, triennial national sample assessments are undertaken on a rotating basis. Triennial year 6 science literacy performance data for 2006 and 2009 are reported for Indigenous and non-Indigenous students in table 4A.72. Triennial year 6 and year 10 civics and citizenship performance data for 2004 and 2007 are reported by Indigenous status in table 4A.73. Triennial year 6 and year 10 information and communication technologies literacy performance data for 2005 and 2008 are reported by Indigenous status in table 4A.74.

The PISA provides learning outcomes data for 15 year olds in three core assessment domains: reading literacy, mathematical literacy and scientific literacy. In 2009, almost 470 000 students from 65 countries and economies participated in the PISA assessment. From Australia this included over 14 251 students from 353 schools. Reading literacy was the major domain tested in the PISA 2009 cycle.

Participation in NAPLAN testing

Participating populations in NAPLAN testing are reported as the number of assessed, exempt and absent and withdrawn students in years 3, 5, 7 and 9.

Assessed students include all students who attempt the test. Exempt students are students with a language background other than English, who arrived from overseas less than a year before the test, or students with significant intellectual and/or functional disabilities unable to access the test/s within the guidelines for

accommodation. Other students are absent or withdrawn. Holding other factors constant, a higher or increasing proportion of assessed students in NAPLAN testing suggests an improvement in that aspect of educational participation.

The proportion of assessed and exempt students in years 3, 5, 7 and 9 as a percentage of the total numbers of students in years 3, 5, 7 and 9, for reading, writing and numeracy in 2009 are in tables 4A.16, 4A.38 and 4A.60 respectively. In all domains and year levels, the proportion of all students and non-Indigenous students participating in NAPLAN testing (assessed and exempt students) exceeded the proportion of Indigenous students participating. Year 3 student participation in assessment for all students in 2009 was 96.4 per cent for reading, 96.4 per cent for writing and 96.0 per cent for numeracy. For Indigenous students, the year 3 participation rates were 91.6 per cent for reading, 91.9 per cent for writing and 90.3 per cent for numeracy. For non-Indigenous students, the participation rates were 96.8 per cent for reading, 96.8 per cent for writing and 96.4 per cent for numeracy. These results varied across jurisdictions (tables 4A.17, 4A.39 and 4A.61). Participation rate data for 2008 were included in the 2010 Report.

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 4.4).

Box 4.4 Reading performance

'Reading performance' is defined by three measures:

- Percentage of students achieving at or above the national minimum standard in reading: the proportion of years 3, 5, 7 and 9 students who achieve at or above the reading national minimum standard for a given year, reported by sex, Indigenous status, LBOTE, socioeconomic status and geolocation (2011 Report, section 4.2 identifies the profile of equity groups in each State and Territory). Students whose results are in the national minimum standard band have typically demonstrated only the basic elements of literacy and numeracy for the year level. In addition, a range of outcomes by achievement levels (which are combinations of the achievement bands in NAPLAN testing) is reported by Indigenous status.
- The mean scale score achieved in NAPLAN testing for reading, reported by Indigenous status. The range of the common national scale for years 3, 5, 7 and 9 is 0 to 1000.

In relation to the two measures above:

- Commencing in 2008, common national tests in literacy and numeracy were held for all students at years 3, 5, 7 and 9. These tests replace the former State and Territory-based assessments and report national minimum standards, representing a break in the time series. This Report includes the annual outcomes of 2008 and 2009 NAPLAN testing programs only. Results of State and Territory-based testing programs up to and including 2007 are available in the 2009 Report (and previous issues).
- This report also includes a time series for 2008 and 2009 outcomes for reading data for the proportion of students at or above the national minimum standard and mean scale score measures and for outcomes by achievement levels. These data are comparable across these two years.
- 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 MCEECDYA to be level 3) on the OECD PISA combined reading scale for a given year, reported nationally by sex, Indigenous status, socioeconomic status and geolocation.

A high or increasing proportion of students achieving at or above the national minimum standard or proficient standard in reading is desirable. A high or increasing mean scale score is desirable.

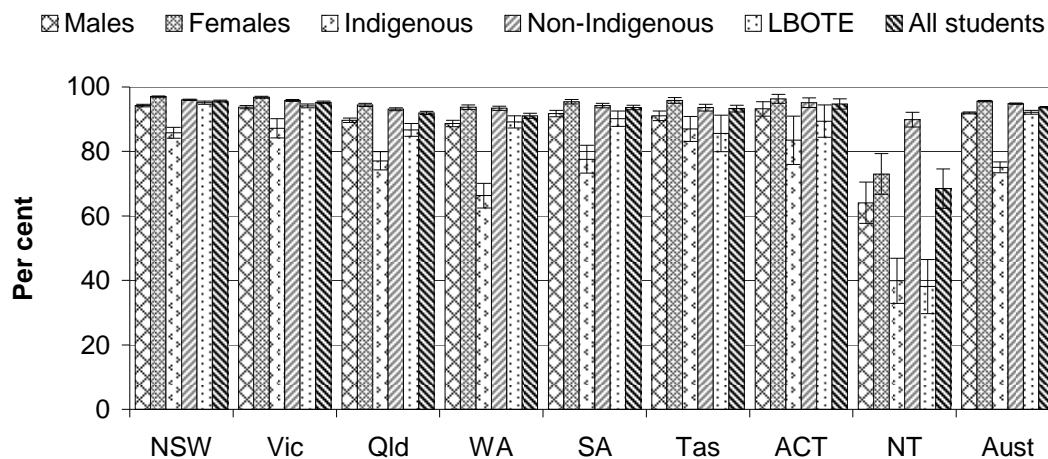
Data for this indicator are comparable.

Data quality information for NAPLAN outcome measures for this indicator is at www.pc.gov.au/gsp/reports/rogs/2011. DQI for other measures is under development.

The proportion of year 3 students who achieved at or above the reading national minimum standard in 2009 was 93.5–93.9 per cent nationally. The national

proportion of Indigenous students who achieved at or above the year 3 reading national minimum standard in 2009 was 73.4–76.8 per cent, compared to 94.6–95.0 per cent for non-Indigenous students (figure 4.6).

Figure 4.6 Proportion of year 3 students achieving at or above the reading national minimum standard, by equity group, 2009^{a, b}

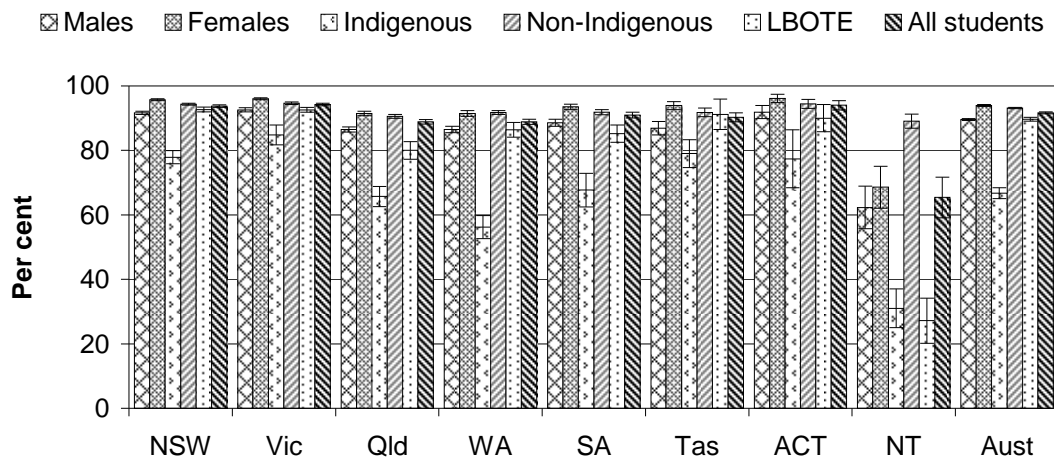


^a Error bars represent the 95 per cent confidence interval associated with each point estimate. ^b For further information and caveats see table 4A.6.

Source: MCEECDYA (2009 and unpublished) *2009 National Assessment Program — Literacy and Numeracy: Achievement in Reading, Writing, Language Conventions and Numeracy*; table 4A.6; 2011 Report, figure 4.24, p. 4.48.

The proportion of year 5 students who achieved at or above the reading national minimum standard in 2009 was 91.4–92.0 per cent nationally. The proportion of Indigenous students who achieved at or above the year 5 reading national minimum standard in 2009 was 65.0–68.4 per cent, compared to 92.9–93.3 per cent for non-Indigenous students (figure 4.7).

Figure 4.7 **Proportion of year 5 students achieving at or above the reading national minimum standard, by equity group, 2009^{a, b}**

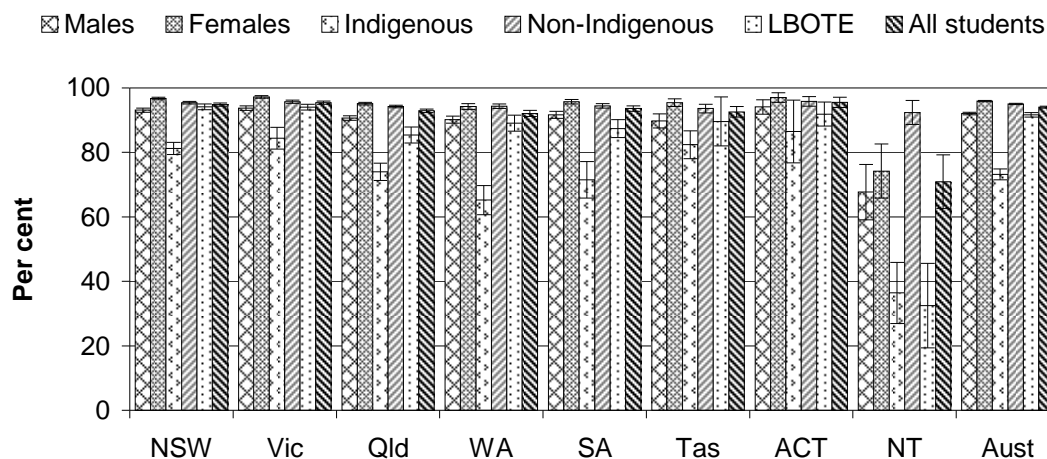


^a Error bars represent the 95 per cent confidence interval associated with each point estimate. ^b For further information and caveats see table 4A.7.

Source: MCEECDYA (2009 and unpublished) *2009 National Assessment Program — Literacy and Numeracy: Achievement in Reading, Writing, Language Conventions and Numeracy*, table 4A.7; 2011 Report, figure 4.25, p. 4.49.

The proportion of year 7 students who achieved at or above the reading national minimum standard in 2009 was 93.7–94.3 per cent nationally. The proportion of Indigenous students by equity group who achieved at or above the year 7 reading national minimum standard in 2009 was 71.5–74.9 per cent, compared to 94.8–95.2 per cent for non-Indigenous students (figure 4.8).

Figure 4.8 Proportion of year 7 students achieving at or above the reading national minimum standard, by equity group, 2009^{a, b}

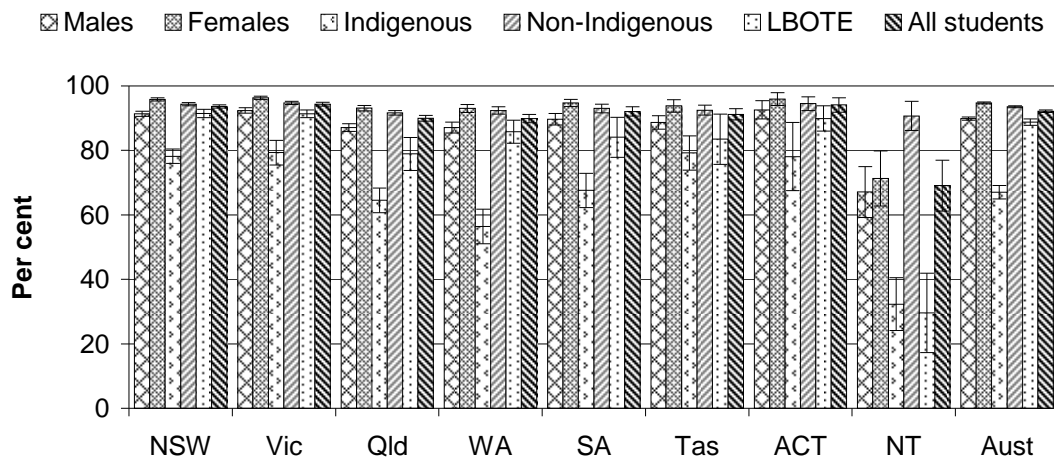


^a Error bars represent the 95 per cent confidence interval associated with each point estimate. ^b For further information and caveats see table 4A.8.

Source: MCEECDYA (2009 and unpublished) *2009 National Assessment Program — Literacy and Numeracy: Achievement in Reading, Writing, Language Conventions and Numeracy*; table 4A.8; 2011 Report, figure 4.26, p. 4.50.

The proportion of year 9 students who achieved at or above the reading national minimum standard in 2009 was 91.8–92.6 per cent nationally. The proportion of Indigenous students by equity group who achieved at or above the year 9 reading national minimum standard in 2009 was 64.9–69.1 per cent, compared to 93.2–93.8 per cent for non-Indigenous students (figure 4.9).

Figure 4.9 **Proportion of year 9 students achieving at or above the reading national minimum standard, by equity group, 2009^{a, b}**

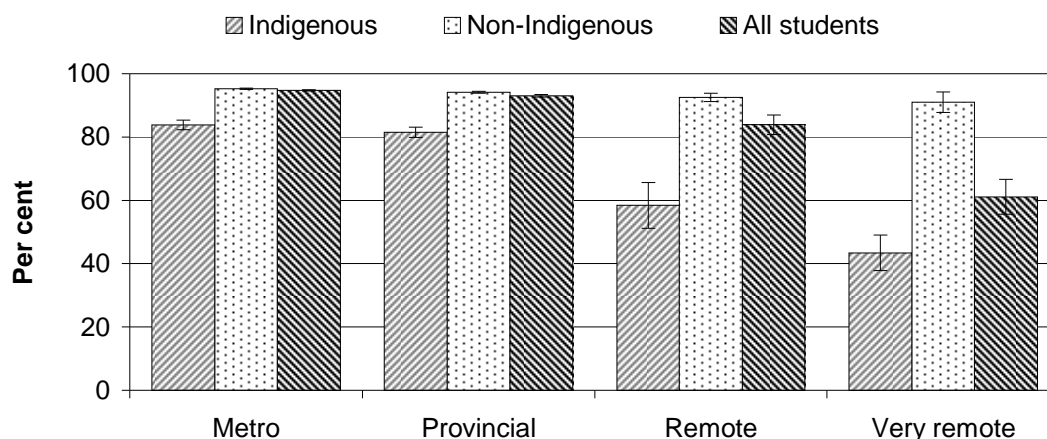


^a Error bars represent the 95 per cent confidence interval associated with each point estimate. ^b For further information and caveats see table 4A.9.

Source: MCEECDYA (2009 and unpublished) *2009 National Assessment Program — Literacy and Numeracy: Achievement in Reading, Writing, Language Conventions and Numeracy*, table 4A.9; 2011 Report, figure 4.27, p. 4.51.

For all geolocation categories across years 3, 5, 7 and 9, the reading outcomes nationally for Indigenous students were lower than those for non-Indigenous students and all students. Nationally, outcomes for Indigenous students generally declined as remoteness increased — furthermore, the gap in learning outcomes between Indigenous students and non-Indigenous students, and between Indigenous students and all students, was generally greater in remote and very remote areas than in metropolitan and provincial areas (figure 4.10).

Figure 4.10 National proportion of year 3 students achieving at or above the reading national minimum standard, by Indigenous status and geolocation, 2009^{a, b, c}



^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, 7 and 9 which are detailed in table 4A.10. ^c Insufficient or no students in an area of geographic classification are not included.

Source: MCEECDYA (2009 and unpublished) *2009 National Assessment Program — Literacy and Numeracy: Achievement in Reading, Writing, Language Conventions and Numeracy*, table 4A.10; 2011 Report, figure 4.28, p. 4.52.

Nationally, the proportion of Indigenous students who achieved at or above the reading national minimum standard by geolocation in 2009 was:

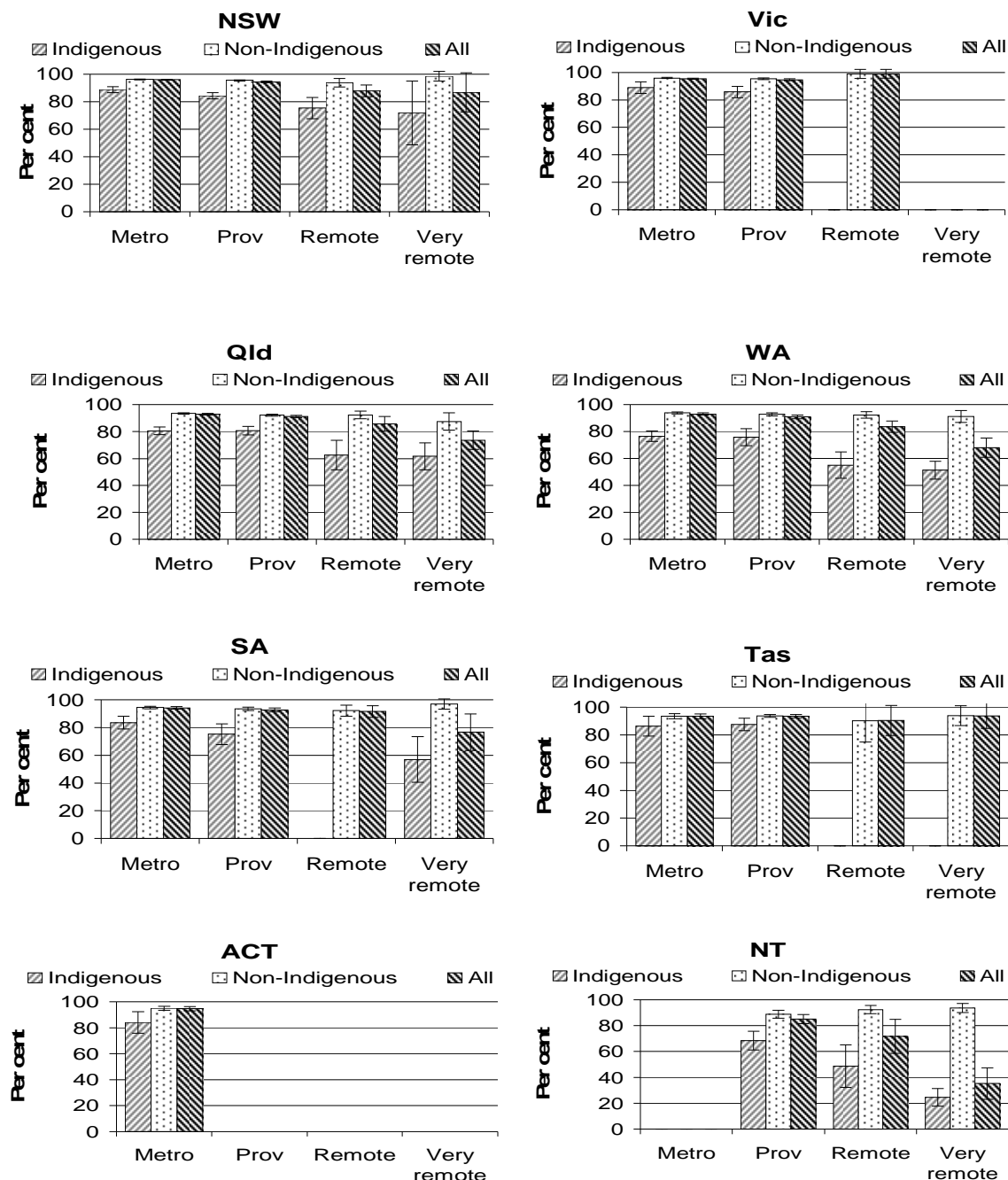
- 82.3–85.3 per cent for Indigenous year 3 students in metropolitan areas, no different to the proportion for provincial students (79.9–83.1 per cent). The proportion for remote students (51.2–65.6 per cent) was higher than for very remote students (37.8–49.0 per cent) (figure 4.10)
- 74.9–78.5 per cent for Indigenous year 5 students in metropolitan areas, no different to the proportion for provincial students (72.0–75.6 per cent). The proportion for remote students (41.2–53.4 per cent) was higher than for very remote students (22.2–30.6 per cent) (table 4A.10)
- 81.3–84.3 per cent for Indigenous year 7 students in metropolitan areas, higher than the proportion of provincial students (75.8–79.6 per cent). The proportion for remote students (46.5–61.7 per cent) was higher than for very remote students (27.0–37.6 per cent) (table 4A.10)
- 71.2–77.0 per cent for Indigenous year 9 students in metropolitan areas, no different to the proportion of provincial students (68.3–74.1 per cent). The proportion for remote students (42.0–57.8 per cent) was higher than for very remote students (20.7–31.7 per cent) (table 4A.10).

The proportion of non-Indigenous students who achieved at or above the national minimum standard in each year level for reading, by geolocation is included in table 4A.10.

State and Territory results are presented for year 3 reading performance (by Indigenous status and geolocation) in figure 4.11 (results for years 5, 7 and 9 reading literacy are in table 4A.10). Due to relatively large confidence intervals it is difficult to draw conclusions from these data. The general pattern in jurisdictions, however, appears similar to the national results.

Proportions of exempt, absent and withdrawn, and assessed students in NAPLAN reading assessment, by Indigenous status are included in table 4A.16. National data on achievement at or above the national minimum standard for reading by socio-economic status are provided in 2011 Report, table 4A.43.

Figure 4.11 Proportion of year 3 students achieving at or above the reading national minimum standard, by Indigenous status and geolocation, 2009^{a, b, c, d}



^a Error bars represent the 95 per cent confidence intervals associated with each point estimate. ^b Geolocation data are based on the MCEECDYA Schools Geographic Location Classification and represent school location. ^c There are no very remote areas in Victoria. There are no remote or very remote areas in the ACT. There is no metropolitan zone in the NT. ^d Data are not published for provincial areas in the ACT, remote areas for Indigenous students in Victoria, South Australia and Tasmania and for Indigenous students in very remote areas in Tasmania.

Source: MCEECDYA (2009 and unpublished) 2009 National Assessment Program — Literacy and Numeracy: Achievement in Reading, Writing, Language Conventions and Numeracy; table 4A.10; 2011 Report, figure 4.29, p. 4.54.

Achievement levels for reading

Nationally, the proportions of all year 3 students for reading in 2009 by achievement level were:

- at or below the national minimum standard — 17.1–17.9 per cent for all students (48.6–52.2 per cent for Indigenous students and 15.2–16.0 per cent for non-Indigenous students)
- in medium levels (defined as two NAPLAN performance bands above the minimum standard for the year level) — 40.5–41.1 per cent for all students (35.7–38.7 per cent for Indigenous students and 40.8–41.4 per cent for non-Indigenous students)
- in high levels (defined as the top two NAPLAN performance bands) — 41.3–42.3 per cent for all students (11.6–13.2 per cent for Indigenous students and 42.9–43.9 per cent for non-Indigenous students) (table 4A.11).

Nationally, the proportions of all year 5 students for reading in 2009 by achievement level were:

- at or below the national minimum standard — 20.8–21.6 per cent for all students (55.6–58.6 per cent for Indigenous students and 18.9–19.7 per cent for non-Indigenous students)
- in medium levels (defined as two NAPLAN performance bands above the minimum standard for the year level) — 45.5–46.1 per cent for all students (33.1–35.7 per cent for Indigenous students and 46.1–46.7 per cent for non-Indigenous students)
- in high levels (defined as the top two NAPLAN performance bands) — 32.6–33.6 per cent for all students (7.9–9.1 per cent for Indigenous students and 33.8–34.8 per cent for non-Indigenous students) (table 4A.12).

Nationally, the proportions of all year 7 students for reading in 2009 by achievement level were:

- at or below the national minimum standard — 18.7–19.7 per cent for all students (52.6–56.0 per cent for Indigenous students and 17.0–18.0 per cent for non-Indigenous students)
- in medium levels (defined as two NAPLAN performance bands above the minimum standard for the year level) — 52.6–53.6 per cent for all students (37.9–40.7 per cent for Indigenous students and 53.4–54.4 per cent for non-Indigenous students)

-
- in high levels (defined as the top two NAPLAN performance bands) — 26.8–28.4 per cent for all students (5.6–7.0 per cent for Indigenous students and 27.8–29.4 per cent for non-Indigenous students) (table 4A.13).

Nationally, the proportions of all year 9 students for reading in 2009 by achievement level were:

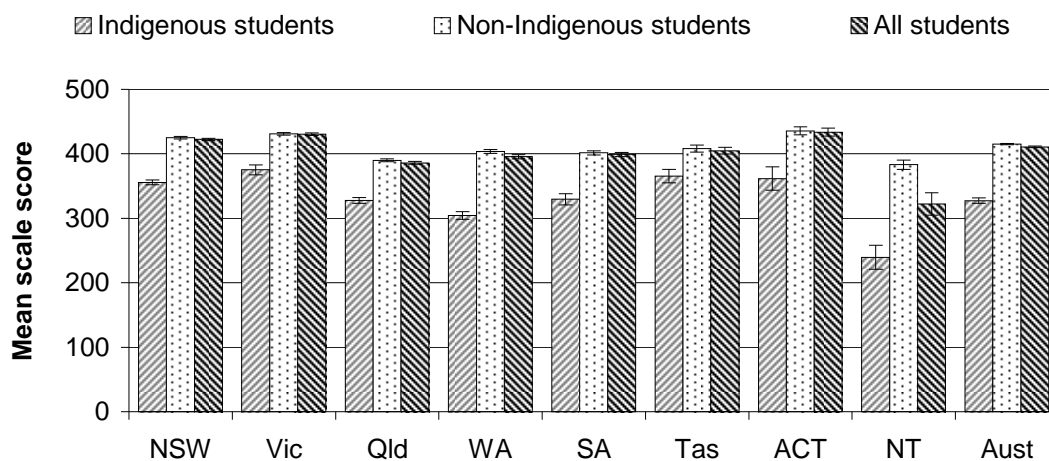
- at or below the national minimum standard — 22.6–24.0 per cent for all students (59.1–62.5 per cent for Indigenous students and 20.7–22.1 per cent for non-Indigenous students)
- in medium levels (defined as two NAPLAN performance bands above the minimum standard for the year level) — 55.1–56.1 per cent for all students (33.7–36.7 per cent for Indigenous students and 56.1–57.1 per cent for non-Indigenous students)
- in high levels (defined as the top two NAPLAN performance bands) — 20.4–21.8 per cent for all students (3.5–4.5 per cent for Indigenous students and 21.1–22.7 per cent for non-Indigenous students) (table 4A.14).

These outcomes varied across jurisdictions. Tables 4A.11–14 also include the proportions of Indigenous students who achieved below, and at, the national minimum standard for reading at each year level.

Mean scale scores

Nationally, the mean scale score for year 3 reading in 2009 for all students was 409.6–412.0. The mean scale score for Indigenous students was 323.2–331.6 and for non-Indigenous students was 413.9–416.1 (figure 4.12). These mean scale scores varied across jurisdictions.

Figure 4.12 Mean scale scores for year 3 students for reading, 2009^{a, b}



^a Error bars represent the 95 per cent confidence interval associated with each point estimate. ^b For further information and caveats see table 4A.15.

Source: MCEECDYA (2009 and unpublished) *2009 National Assessment Program — Literacy and Numeracy: Achievement in Reading, Writing, Language Conventions and Numeracy*; table 4A.15; 2011 Report, figure 4.30, p. 4.57.

Nationally, the mean scale score for year 5 reading in 2009 for all students was 492.8–495.0. The mean scale score for Indigenous students was 410.9–417.9 and for non-Indigenous students was 497.1–499.1 (table 4A.15). These mean scale scores varied across jurisdictions.

Nationally, the mean scale score for year 7 reading in 2009 for all students was 539.7–542.5. The mean scale score for Indigenous students was 470.1–476.3 and for non-Indigenous students was 543.1–545.7 (table 4A.15). These mean scale scores varied across jurisdictions.

Nationally, the mean scale score for year 9 reading in 2009 for all students was 579.0–582.0. The mean scale score for Indigenous students was 506.2–514.2 and for non-Indigenous students was 582.4–585.2 (table 4A.15). These mean scale scores varied across jurisdictions.

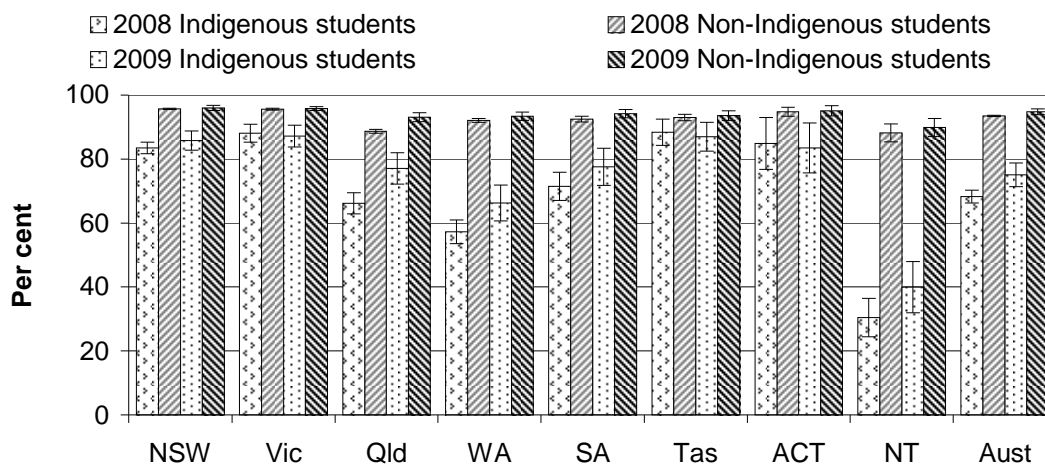
Time series analysis of NAPLAN reading outcomes

The 95 per cent confidence intervals for NAPLAN data in time series analysis may differ from those presented in single year analysis. The 2009 confidence intervals for time series analysis are equated with 2008 data to enable a true comparison of the extent of statistical differences observed.

The proportions of year 3 students achieving at or above the national minimum standard for reading were 91.8–92.4 and 92.7–94.7 in 2008 and 2009 respectively, a statistically significant improvement. These proportions varied across jurisdictions (2011 Report, figure 4.31).

The proportions of Indigenous year 3 students achieving at or above the national minimum standard for reading were 66.3–70.3 per cent and 71.4–78.8 per cent in 2008 and 2009 respectively, a statistically significant improvement. The proportions of non-Indigenous year 3 students achieving the national minimum standard were 93.3–93.7 per cent and 93.9–95.7 per cent in 2008 and 2009 respectively, a statistically significant improvement. These proportions varied across jurisdictions (figure 4.13).

Figure 4.13 Proportion of year 3 students achieving at or above the reading national minimum standard, by Indigenous status^{a, b, c}



^a Error bars represent the 95 per cent confidence interval associated with each point estimate. ^b Confidence intervals in this figure for 2009 are equated to 2008 data to which they are compared and may differ from those in figure 4.6. ^c For further information and caveats see table 4A.18.

Source: MCEETYA (2008) *2008 National Assessment Program — Literacy and Numeracy: Achievement in Reading, Writing, Language Conventions and Numeracy*; MCEECDYA (2009 and unpublished) *2009 National Assessment Program — Literacy and Numeracy: Achievement in Reading, Writing, Language Conventions and Numeracy*; table 4A.18; 2011 Report, figure 4.32, p. 4.59.

Outcomes for year 3 reading for 2008 and 2009 by Indigenous status and geolocation are included in table 4A.22.

Outcomes by achievement levels for year 3 reading for 2008 and 2009, by Indigenous status are included in table 4A.23.

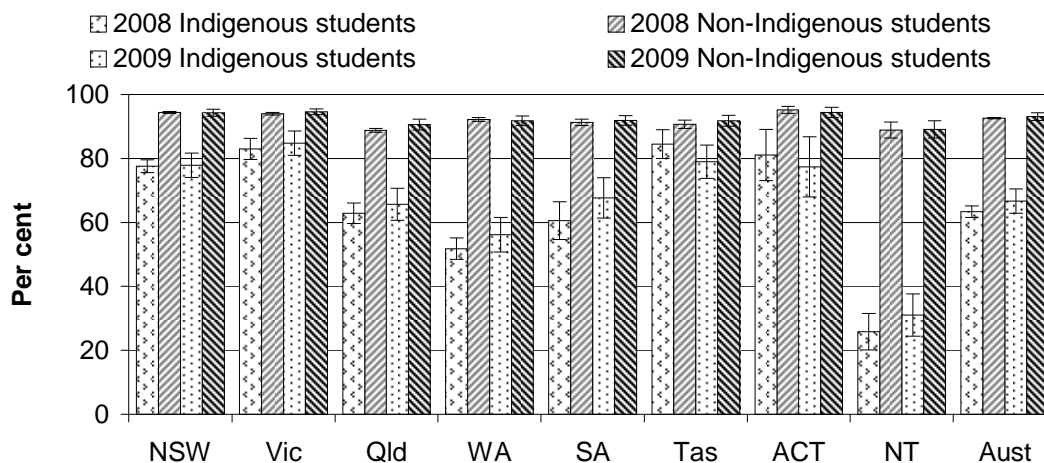
The mean scale scores for reading of year 3 students were 399.3–401.7 and 403.1–418.5 in 2008 and 2009 respectively, a statistically significant improvement. These mean scale scores varied across jurisdictions (2011 Report, figure 4.33).

The mean scale scores of Indigenous year 3 students for reading were 308.8–318.6 and 318.7–336.1 in 2008 and 2009 respectively, a statistically significant improvement, and for non-Indigenous year 3 students were 403.9–406.1 and 407.3–422.7 in 2008 and 2009 respectively, a statistically significant improvement. These proportions varied across jurisdictions (table 4A.27).

The proportions of year 5 students achieving at or above the national minimum standard for reading were 90.7–91.3 per cent and 90.4–93.0 per cent in 2008 and 2009 respectively, not a statistically significant improvement. These proportions varied across jurisdictions (2011 Report, figure 4.34).

The proportions of Indigenous year 5 students achieving at or above the national minimum standard for reading were 61.6–65.2 per cent and 62.9–70.5 per cent in 2008 and 2009 respectively, not a statistically significant improvement. The proportions of non-Indigenous year 5 students achieving the national minimum standard were 92.4–92.8 per cent and 91.9–94.3 per cent in 2008 and 2009 respectively, not a statistically significant improvement. These proportions varied across jurisdictions (figure 4.14).

Figure 4.14 Proportion of year 5 students achieving at or above the reading national minimum standard, by Indigenous status^{a, b, c}



^a Error bars represent the 95 per cent confidence interval associated with each point estimate. ^b Confidence intervals in this figure for 2009 are equated to 2008 data to which they are compared and may differ from those in figure 4.7. ^c For further information and caveats see table 4A.19.

Source: MCEETYA (2008) *2008 National Assessment Program — Literacy and Numeracy: Achievement in Reading, Writing, Language Conventions and Numeracy*; MCEECDYA (2009 and unpublished) *2009 National Assessment Program — Literacy and Numeracy: Achievement in Reading, Writing, Language Conventions and Numeracy*; table 4A.19; 2011 Report, figure 4.35, p. 4.62.

Outcomes for year 5 reading for 2008 and 2009 by Indigenous status and geolocation are included in table 4A.22.

Outcomes by achievement levels for year 5 reading for 2008 and 2009, by Indigenous status are included in table 4A.24.

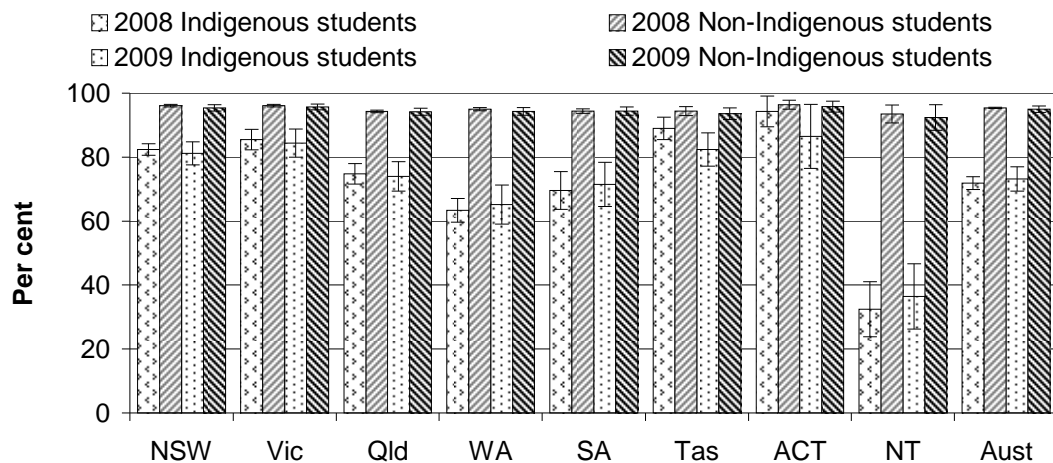
The mean scale scores for reading of year 5 students were 483.3–485.5 and 486.4–501.4 in 2008 and 2009 respectively, a statistically significant improvement. These mean scale scores varied across jurisdictions (2011 Report, figure 4.36).

The mean scale scores of Indigenous year 5 students for reading were 399.3–407.5 and 406.2–422.6 in 2008 and 2009 respectively, not a statistically significant improvement, and for non-Indigenous year 5 students were 487.7–489.7 and 490.6–505.6 in 2008 and 2009 respectively, a statistically significant improvement. These proportions varied across jurisdictions (table 4A.27).

The proportions of year 7 students achieving at or above the national minimum standard for reading were 93.9–94.5 per cent and 92.9–95.1 per cent in 2008 and 2009 respectively, not a statistically significant improvement. These proportions varied across jurisdictions (2011 Report, figure 4.37).

The proportions of Indigenous year 7 students achieving at or above the national minimum standard for reading were 69.9–73.9 per cent and 69.4–77.0 per cent in 2008 and 2009 respectively, not a statistically significant improvement. The proportions of non-Indigenous year 7 students achieving the national minimum standard were 95.2–95.6 per cent and 94.0–96.0 per cent in 2008 and 2009 respectively, not a statistically significant improvement. These proportions varied across jurisdictions (figure 4.15).

Figure 4.15 Proportion of year 7 students achieving at or above the reading national minimum standard, by Indigenous status^{a, b, c}



^a Error bars represent the 95 per cent confidence interval associated with each point estimate. ^b Confidence intervals in this figure for 2009 are equated to 2008 data to which they are compared and may differ from those in figure 4.8. ^c For further information and caveats see table 4A.20.

Source: MCEETYA (2008) *2008 National Assessment Program — Literacy and Numeracy: Achievement in Reading, Writing, Language Conventions and Numeracy*; MCEECDYA (2009 and unpublished) *2009 National Assessment Program — Literacy and Numeracy: Achievement in Reading, Writing, Language Conventions and Numeracy*; table 4A.20; 2011 Report, figure 4.38, p. 4.65.

Outcomes for year 7 reading for 2008 and 2009 by Indigenous status and geolocation are included in table 4A.22.

Outcomes by achievement levels for year 7 reading for 2008 and 2009, by Indigenous status are included in table 4A.25.

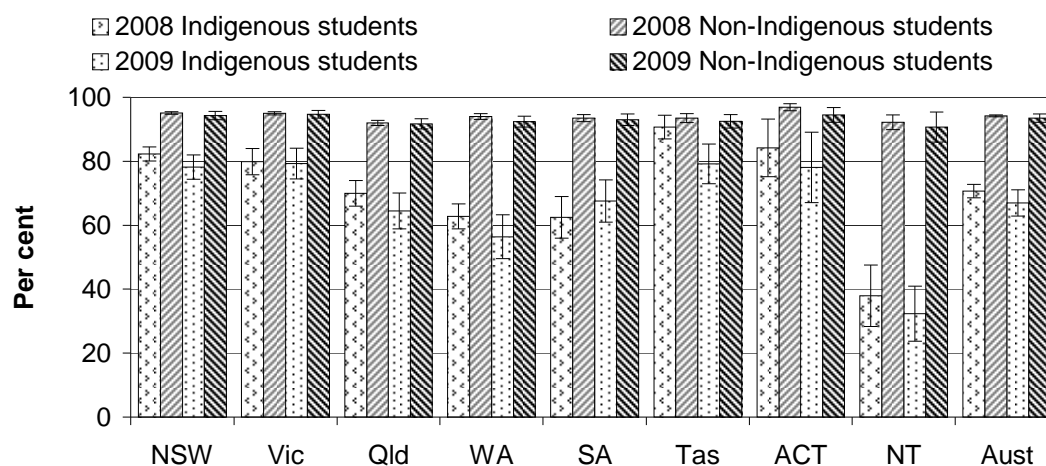
The mean scale scores for reading of year 7 students were 535.1–537.9 and 534.2–548.0 in 2008 and 2009 respectively, not a statistically significant improvement. These mean scale scores varied across jurisdictions (2011 Report, figure 4.39).

The mean scale scores of Indigenous year 7 students for reading were 462.3–470.7 and 465.8–480.6 in 2008 and 2009 respectively, not a statistically significant improvement, and for non-Indigenous year 7 students were 538.9–541.5 and 537.5–551.3 in 2008 and 2009 respectively, not a statistically significant improvement. These proportions varied across jurisdictions (table 4A.27).

The proportions of year 9 students achieving at or above the national minimum standard for reading were 92.5–93.3 per cent and 90.8–93.6 per cent in 2008 and 2009 respectively, not a statistically significant improvement. These proportions varied across jurisdictions (2011 Report, figure 4.40).

The proportions of Indigenous year 9 students achieving at or above the national minimum standard for reading were 68.6–72.8 per cent and 62.9–71.1 per cent in 2008 and 2009 respectively, not a statistically significant improvement. The proportions of non-Indigenous year 9 students achieving the national minimum standard were 93.9–94.5 per cent and 92.2–94.8 per cent in 2008 and 2009 respectively, not a statistically significant improvement. These proportions varied across jurisdictions (figure 4.16).

Figure 4.16 Proportion of year 9 students achieving at or above the reading national minimum standard, by Indigenous status^{a, b, c}



^a Error bars represent the 95 per cent confidence interval associated with each point estimate. ^b Confidence intervals in this figure for 2009 are equated to 2008 data to which they are compared and may differ from those in figure 4.9. ^c For further information and caveats see table 4A.21.

Source: MCEETYA (2008) *2008 National Assessment Program — Literacy and Numeracy: Achievement in Reading, Writing, Language Conventions and Numeracy*; MCEECDYA (2009 and unpublished) *2009 National Assessment Program — Literacy and Numeracy: Achievement in Reading, Writing, Language Conventions and Numeracy*; table 4A.21; 2011 Report, figure 4.41, p. 4.68.

Outcomes for year 9 reading for 2008 and 2009 by Indigenous status and geolocation are included in table 4A.22.

Outcomes by achievement levels for year 9 reading for 2008 and 2009, by Indigenous status are included in table 4A.26.

The mean scale scores for reading of year 9 students were 576.5–579.5 and 573.1–587.9 in 2008 and 2009 respectively, not a statistically significant improvement. These mean scale scores varied across jurisdictions (2011 Report, figure 4.42).

The mean scale scores of Indigenous year 9 students for reading were 509.2–518.4 and 501.9–518.5 in 2008 and 2009 respectively, not a statistically significant improvement, and for non-Indigenous year 9 students were 579.8–582.8 and 576.4–591.2 in 2008 and 2009 respectively, not a statistically significant improvement. These proportions varied across jurisdictions (table 4A.27).

PISA data

Reading literacy was the major domain tested in the PISA 2000 and 2009 surveys. PISA reading surveys may be compared with the 2000 survey. In PISA 2009 the proportion of Australian 15 year old students who achieved at level 3 or above in reading literacy nationally was 63.5–67.1 per cent. The proportion of Indigenous students who achieved level 3 or above for reading literacy was 29.3–40.1 per cent, compared with 64.6–68.0 per cent for non-Indigenous students (table 4A.75). These outcomes varied across jurisdictions. Data comparing outcomes for PISA surveys for the reading domain in 2000, 2003, 2006 and 2009 are in table 4A.75.

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 4.5).

Box 4.5 Writing performance

'Writing performance' is defined by two measures:

- Percentage of students achieving at or above the national minimum standard in writing: the proportion of years 3, 5, 7 and 9 students who achieve at or above the writing national minimum standard for a given year, reported by sex, Indigenous status, LBOTE, socioeconomic status and geolocation (2011 Report, section 4.2 identifies the profile of equity groups in each State and Territory). Students whose results are in the national minimum standard band have typically demonstrated only the basic elements of literacy and numeracy for the year level. In addition, a range of outcomes by achievement levels (which are combinations of the achievement bands in NAPLAN testing) is also recorded by Indigenous status.
- The mean scale score achieved in NAPLAN testing for writing, reported by Indigenous status. The range of the common national scale for years 3, 5, 7 and 9 is 0 to 1000.

Commencing in 2008, common national tests in literacy and numeracy were held for all students at years 3, 5, 7 and 9. These tests replace the former State and Territory-based assessments and report national minimum standards, representing a break in the time series. This Report includes the annual outcomes of 2008 and 2009 NAPLAN testing programs only. Results of State and Territory-based testing programs up to and including 2007 are available in the 2009 Report (and previous issues).

This report also includes a time series for 2008 and 2009 outcomes for writing data for the proportion of students at or above the national minimum standard and mean scale score measures and for outcomes by achievement levels. These data are comparable across these two years.

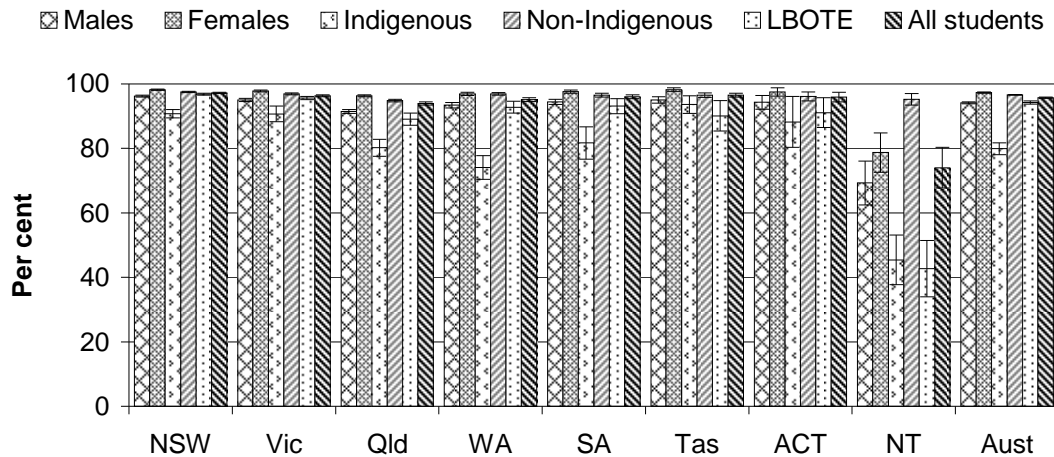
A high or increasing proportion of students achieving at or above the national minimum standard or proficient standard in writing is desirable. A high or increasing mean scale score is desirable.

Data for this indicator are comparable.

Data quality information for this indicator is at www.pc.gov.au/gsp/reports/rogs/2011.

Nationally, the proportion of year 3 students who achieved at or above the writing national minimum standard in 2009 was 95.5–95.9 per cent. The national proportion of Indigenous students who achieved at or above the year 3 writing national minimum standard in 2009 was 78.1–81.7 per cent, compared to 96.5–96.7 per cent for non-Indigenous students (figure 4.17).

Figure 4.17 **Proportion of year 3 students achieving at or above the writing national minimum standard, by equity group, 2009^{a, b}**

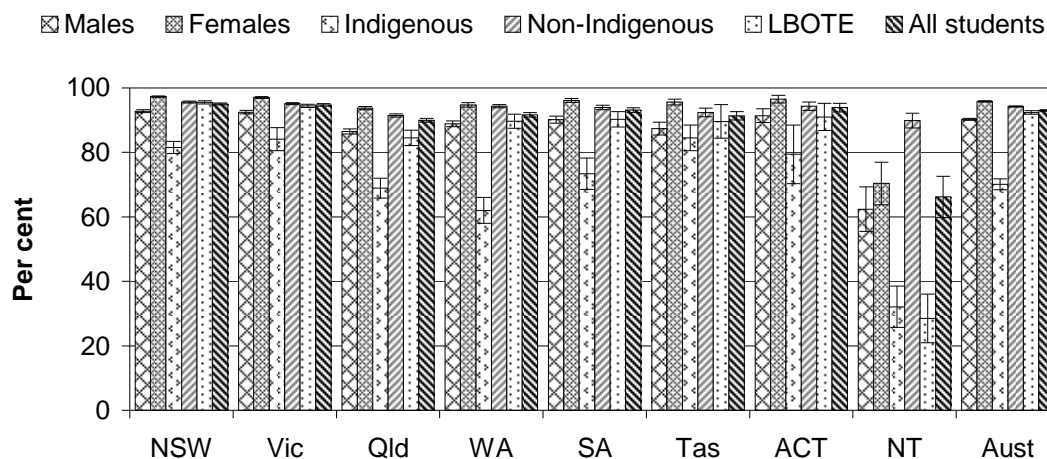


^a Error bars represent the 95 per cent confidence interval associated with each point estimate. ^b For further information and caveats see table 4A.28.

Source: MCEECDYA (2009 and unpublished) *2009 National Assessment Program — Literacy and Numeracy: Achievement in Reading, Writing, Language Conventions and Numeracy*; table 4A.28; 2011 Report, figure 4.44, p. 4.72.

Nationally, the proportion of year 5 students who achieved at or above the writing national minimum standard in 2009 was 92.8–93.2 per cent. The national proportion of Indigenous students who achieved at or above the year 5 writing national minimum standard in 2009 was 68.4–71.8 per cent, compared to 94.0–94.4 per cent for non-Indigenous students (figure 4.18).

Figure 4.18 Proportion of year 5 students achieving at or above the writing national minimum standard, by equity group, 2009^{a, b}

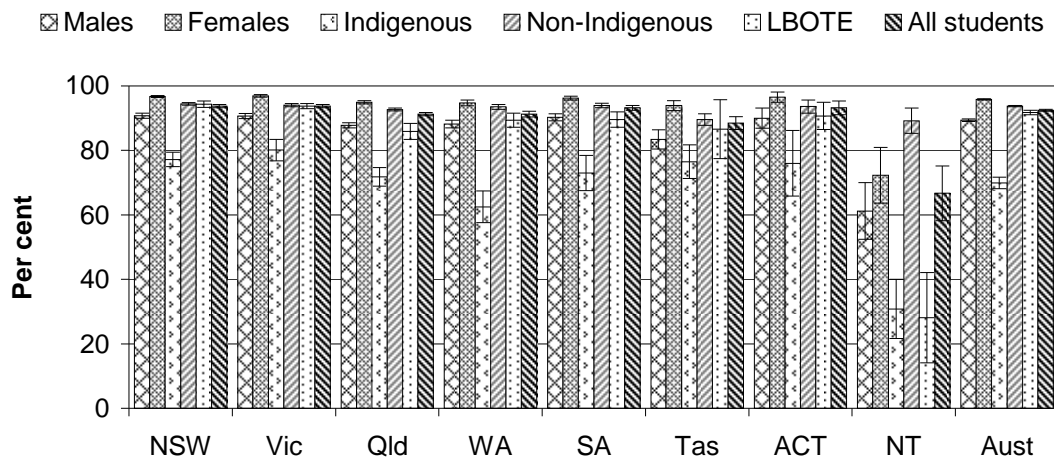


^a Error bars represent the 95 per cent confidence interval associated with each point estimate. ^b For further information and caveats see table 4A.29.

Source: MCEECDYA (2009 and unpublished) *2009 National Assessment Program — Literacy and Numeracy: Achievement in Reading, Writing, Language Conventions and Numeracy*; table 4A.29; 2011 Report, figure 4.45, p. 4.73.

Nationally, the proportion of year 7 students who achieved at or above the writing national minimum standard in 2009 was 92.2–92.8 per cent. The national proportion of Indigenous students who achieved at or above the year 7 writing national minimum standard in 2009 was 68.1–71.7 per cent, compared to 93.5–93.9 per cent for non-Indigenous students (figure 4.19).

Figure 4.19 **Proportion of year 7 students achieving at or above the writing national minimum standard, by equity group, 2009^{a, b}**

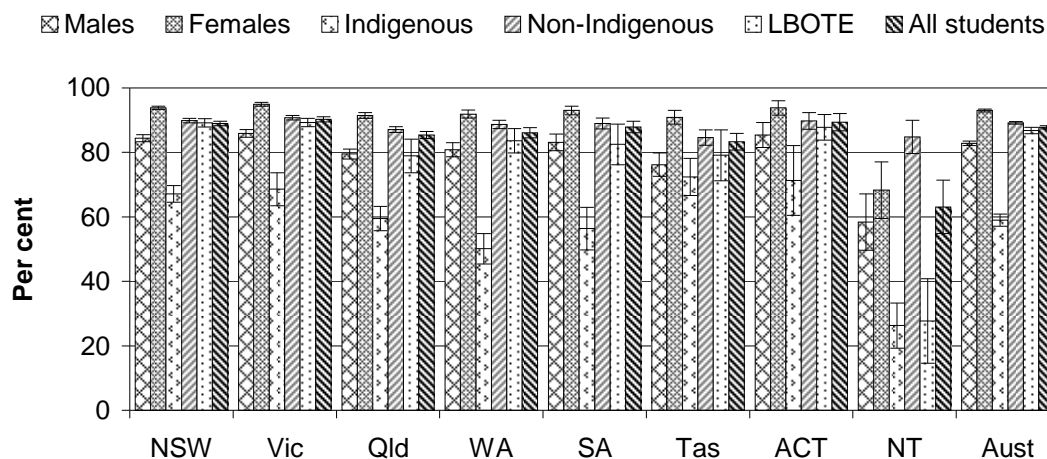


^a Error bars represent the 95 per cent confidence interval associated with each point estimate. ^b For further information and caveats see table 4A.30.

Source: MCEECDYA (2009 and unpublished) *2009 National Assessment Program — Literacy and Numeracy: Achievement in Reading, Writing, Language Conventions and Numeracy*; table 4A.30; 2011 Report, figure 4.46, p. 4.74.

Nationally, the proportion of year 9 students who achieved at or above the writing national minimum standard in 2009 was 87.3–88.3 per cent. The national proportion of Indigenous students who achieved at or above the year 9 writing national minimum standard in 2009 was 57.1–60.9 per cent, compared to 88.8–89.6 per cent for non-Indigenous students (figure 4.20).

Figure 4.20 Proportion of year 9 students achieving at or above the writing national minimum standard, by equity group, 2009^{a, b}

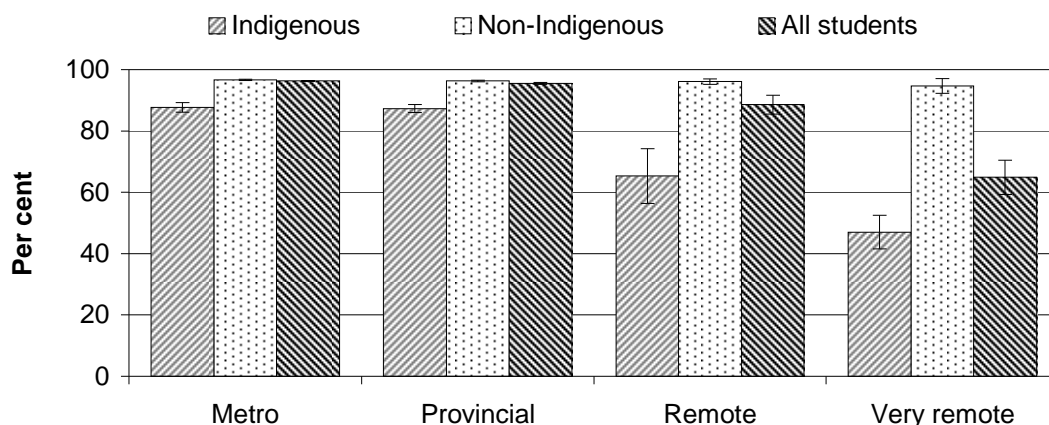


^a Error bars represent the 95 per cent confidence interval associated with each point estimate. ^b For further information and caveats see table 4A.31.

Source: MCEECDYA (2009 and unpublished) *2009 National Assessment Program — Literacy and Numeracy: Achievement in Reading, Writing, Language Conventions and Numeracy*; table 4A.31; 2011 Report, figure 4.47, p. 4.75.

For all geolocation categories across years 3, 5, 7 and 9, the writing outcomes nationally for Indigenous students were lower than those for non-Indigenous students and all students. Nationally, outcomes for Indigenous students generally declined as remoteness increased — furthermore, the gap in learning outcomes between Indigenous students and non-Indigenous students, and between Indigenous students and all students, was generally greater in remote and very remote areas than in metropolitan and provincial areas (figure 4.21).

Figure 4.21 National proportion of year 3 students achieving at or above the writing national minimum standard, by Indigenous status and geolocation, 2009^{a, 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, 7 and 9 which are detailed in table 4A.32.

Source: MCEECDYA (2009 and unpublished) *2009 National Assessment Program — Literacy and Numeracy: Achievement in Reading, Writing, Language Conventions and Numeracy*; table 4A.32; 2011 Report, figure 4.48, p. 4.76.

Nationally, the proportion of Indigenous students who achieved at or above the writing national minimum standard by geolocation in 2009 was:

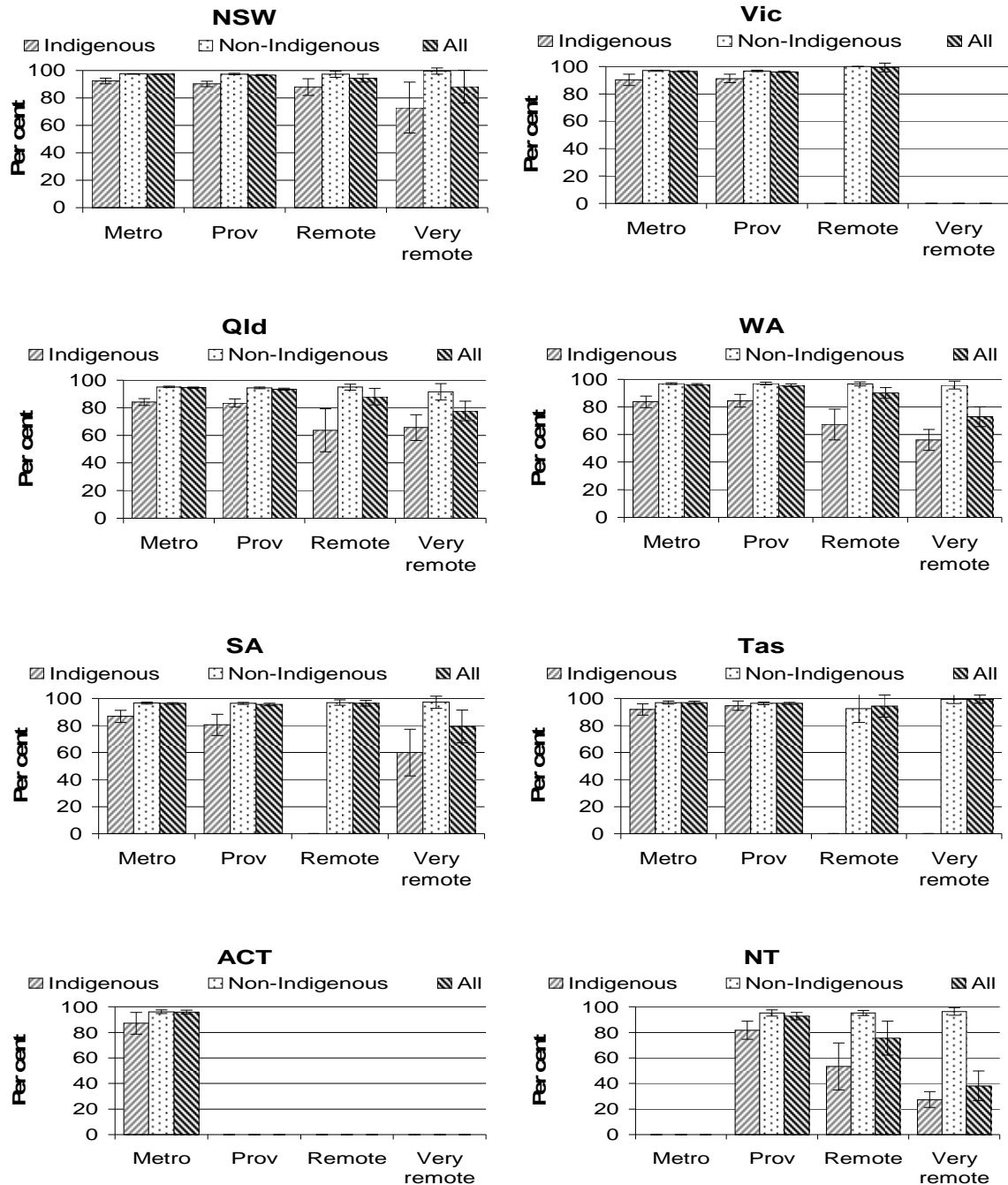
- 86.1–89.3 per cent for Indigenous year 3 students in metropolitan areas, no different to the proportion for provincial students (86.0–88.6 per cent). The proportion for remote students (54.4–74.2 per cent) was higher than for very remote students (41.5–52.5 per cent) (figure 4.21)
- 78.7–81.9 per cent for Indigenous year 5 students in metropolitan areas, higher than the proportion for provincial students (74.8–78.4 per cent), remote students (45.8–61.2 per cent) and very remote students (24.4–34.6 per cent) (table 4A.32)
- 78.2–81.2 per cent for Indigenous year 7 students in metropolitan areas, higher than the proportion of provincial students (72.4–76.2 per cent), remote students (41.6–57.4 per cent) and very remote students (23.3–35.7 per cent) (table 4A.32)
- 64.4–70.4 per cent for Indigenous year 9 students in metropolitan areas, no different to the proportion of provincial students (59.2–64.4 per cent), remote students (31.0–45.6 per cent) and very remote students (15.6–27.2 per cent) (table 4A.32).

The proportion of non-Indigenous students who achieved at or above the national minimum standard in each year level for writing, by geolocation is included in table 4A.32.

State and Territory results are presented for year 3 writing literacy in figure 4.22 (results for years 5, 7 and 9 writing literacy are in table 4A.32). 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.

Proportions of exempt, absent and withdrawn and assessed students in NAPLAN writing assessment, by Indigenous status are included in table 4A.38. National data on achievement of the national minimum standard for writing by socio-economic status are provided in 2011 Report, table 4A.66.

Figure 4.22 Proportion of year 3 students achieving at or above the writing national minimum standard, by Indigenous status and geolocation, 2009^{a, b, c, d}



^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 remote or very remote areas in the ACT. There is no metropolitan zone in the NT. ^d Data are not published for provincial areas in the ACT, remote areas for Indigenous students in Victoria, South Australia and Tasmania and for Indigenous students in very remote areas in Tasmania.

Source: MCEECDYA (2009 and unpublished) 2009 National Assessment Program — Literacy and Numeracy: Achievement in Reading, Writing, Language Conventions and Numeracy; table 4A.32; 2011 Report, figure 4.49, p. 4.78.

Achievement levels for writing

Nationally, the proportions of all year 3 students for writing in 2009 by achievement level were:

- at or below the national minimum standard — 10.3–10.9 per cent for all students (37.5–41.1 per cent for Indigenous students and 8.8–9.4 per cent for non-Indigenous students)
- in medium levels (defined as two NAPLAN performance bands above the minimum standard for the year level) — 44.5–45.3 per cent for all students (44.8–47.8 per cent for Indigenous students and 44.5–45.3 per cent for non-Indigenous students)
- in high levels (defined as the top two NAPLAN performance bands) — 43.9–45.1 per cent for all students (13.6–15.4 per cent for Indigenous students and 45.6–46.6 per cent for non-Indigenous students) (table 4A.33).

Nationally, the proportions of all year 5 students for writing in 2009 by achievement level were:

- at or below the national minimum standard — 18.2–19.0 per cent for all students (50.8–54.0 per cent for Indigenous students and 16.4–17.2 per cent for non-Indigenous students)
- in medium levels (defined as two NAPLAN performance bands above the minimum standard for the year level) — 57.2–57.8 per cent for all students (40.6–43.6 per cent for Indigenous students and 58.1–58.7 per cent for non-Indigenous students)
- in high levels (defined as the top two NAPLAN performance bands) — 23.5–24.3 per cent for all students (4.9–6.1 per cent for Indigenous students and 24.4–25.2 per cent for non-Indigenous students) (table 4A.34).

Nationally, the proportion of all year 7 students for writing in 2009 by achievement level were:

- at or below the national minimum standard — 21.0–22.0 per cent for all students (53.3–56.7 per cent for Indigenous students and 19.3–20.3 per cent for non-Indigenous students)
- in medium levels (defined as two NAPLAN performance bands above the minimum standard for the year level) — 55.1–55.9 per cent for all students (38.1–41.3 per cent for Indigenous students and 55.8–56.6 per cent for non-Indigenous students)

-
- in high levels (defined as the top two NAPLAN performance bands) — 22.5–23.7 per cent (4.8–6.0 per cent for Indigenous students and 23.3–24.5 per cent for non-Indigenous students) (table 4A.35).

Nationally, the proportions of all year 9 students for writing in 2009 by achievement level were:

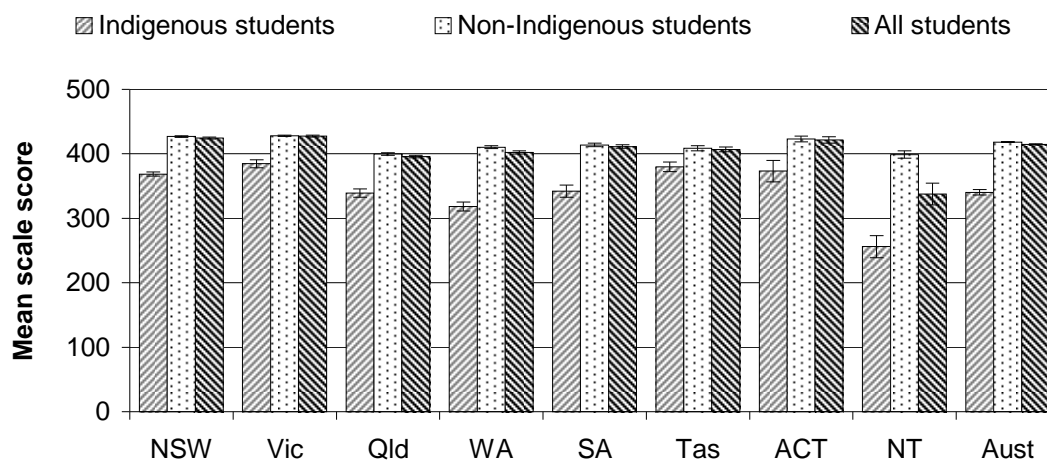
- at or below the national minimum standard — 30.5–32.1 per cent for all students (65.7–68.9 per cent for Indigenous students and 28.8–30.2 per cent for non-Indigenous students)
- in medium levels (defined as two NAPLAN performance bands above the minimum standard for the year level) — 48.6–49.4 per cent for all students (27.5–30.3 per cent for Indigenous students and 49.5–50.3 per cent for non-Indigenous students)
- in high levels (defined as the top two NAPLAN performance bands) — 19.0–20.4 per cent for all students (3.4–4.4 per cent for Indigenous students and 19.8–21.2 per cent for non-Indigenous students) (table 4A.36).

These outcomes varied across jurisdictions. Tables 4A.33–36 also include the proportions of Indigenous students who achieved below, and at, the national minimum standard for writing at each year level.

Mean scale scores

Nationally, the mean scale score for year 3 writing in 2009 for all students was 413.6–415.4. The mean scale score for Indigenous students was 336.0–344.4 and for non-Indigenous students was 417.5–419.1. These mean scale scores varied across jurisdictions (figure 4.23).

Figure 4.23 Mean scale scores for year 3 students for writing, 2009^{a, b}



^a Error bars represent the 95 per cent confidence interval associated with each point estimate. ^b For further information and caveats see table 4A.37.

Source: MCEECDYA (2009 and unpublished) *2009 National Assessment Program — Literacy and Numeracy: Achievement in Reading, Writing, Language Conventions and Numeracy*; table 4A.37; 2011 Report, figure 4.50, p. 4.81.

Nationally, the mean scale score for year 5 writing in 2009 for all students was 483.8–485.6. The mean scale score for Indigenous students was 408.4–415.8 and for non-Indigenous students was 487.7–489.3 (table 4A.37). These mean scale scores varied across jurisdictions.

Nationally, the mean scale score for year 7 writing in 2009 for all students was 531.1–533.7. The mean scale score for Indigenous students was 456.1–464.3 and for non-Indigenous students was 534.7–537.3 (table 4A.37). These mean scale scores varied across jurisdictions.

Nationally, the mean scale score for year 9 writing in 2009 for all students was 567.2–570.6. The mean scale score for Indigenous students was 483.5–493.3 and for non-Indigenous students was 571.2–574.4 (table 4A.37). These mean scale scores varied across jurisdictions.

Time series analysis of NAPLAN outcome for ‘writing performance’

This compendium contains time series data for NAPLAN outcomes for ‘writing performance’ for 2008 and 2009 (tables 4A.40–49). These data include proportions of each year level meeting the national minimum standard, by Indigenous status and geolocation; achievement bands by Indigenous status; and mean scale scores by Indigenous status.

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 4.6).

Box 4.6 Numeracy performance

‘Numeracy performance’ is defined by four measures:

- Percentage of students achieving at or above the national minimum standard in numeracy: the proportion of years 3, 5, 7 and 9 students who achieve at or above the numeracy national minimum standard for a given year, reported by sex, Indigenous status, LBOTE, socioeconomic status and geolocation (2011 Report, section 4.2 identifies the profile of equity groups in each State and Territory). Students whose results are in the national minimum standard band have typically demonstrated only the basic elements of literacy and numeracy for the year level. In addition, a range of outcomes by achievement levels (which are combinations of the achievement bands in NAPLAN testing) is also recorded by Indigenous status.
- The mean scale score achieved in NAPLAN testing for numeracy, reported by Indigenous status. The range of the common national scale for years 3, 5, 7 and 9 is 0 to 1000.

In relation to the two measures above:

- Commencing in 2008, common national tests in literacy and numeracy were held for all students at years 3, 5, 7 and 9. These tests replace the former State and Territory-based assessments and report national minimum standards, representing a break in the time series. The 2011 Report includes the annual outcomes of 2008 and 2009 NAPLAN testing programs only. Results of State and Territory-based testing programs up to and including 2007 are available in the 2009 Report (and previous issues).
- The 2011 Report also includes a time series for 2008 and 2009 outcomes for numeracy data for the proportion of students at or above the national minimum standard and mean scale score measures and for outcomes by achievement levels. These data are comparable across these two years.
- Percentage of students achieving at or above the proficient standard on the OECD PISA combined mathematical literacy 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 MCEECDYA to be level 3) on the OECD PISA combined mathematical literacy scale for a given year, also reported nationally by sex, Indigenous status, socioeconomic status and geolocation.

(Continued next page)

Box 4.6 (continued)

- 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 of level 3 has been agreed for this measure.

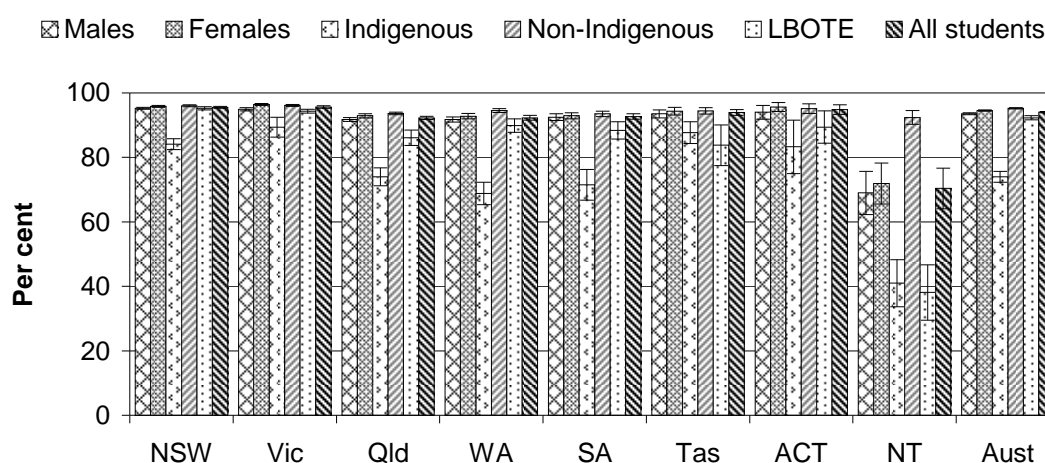
A high or increasing proportion of students achieving at or above the national minimum standard or proficient standard in numeracy is desirable. A high or increasing mean scale score is desirable.

Data for this indicator are comparable.

Data quality information for NAPLAN outcome measures for this indicator is at www.pc.gov.au/gsp/reports/rogs/2011. DQI for other measures is under development.

Nationally, the proportion of assessed year 3 students who achieved at or above the numeracy national minimum standard in 2009 was 93.8–94.2 per cent. The national proportion of Indigenous students who achieved at or above the year 3 numeracy national minimum standard in 2009 was 72.3–75.7 per cent, compared to 95.0–95.4 per cent for non-Indigenous students (figure 4.24).

Figure 4.24 Proportion of year 3 students achieving at or above the numeracy national minimum standard, by equity group, 2009^{a, b}

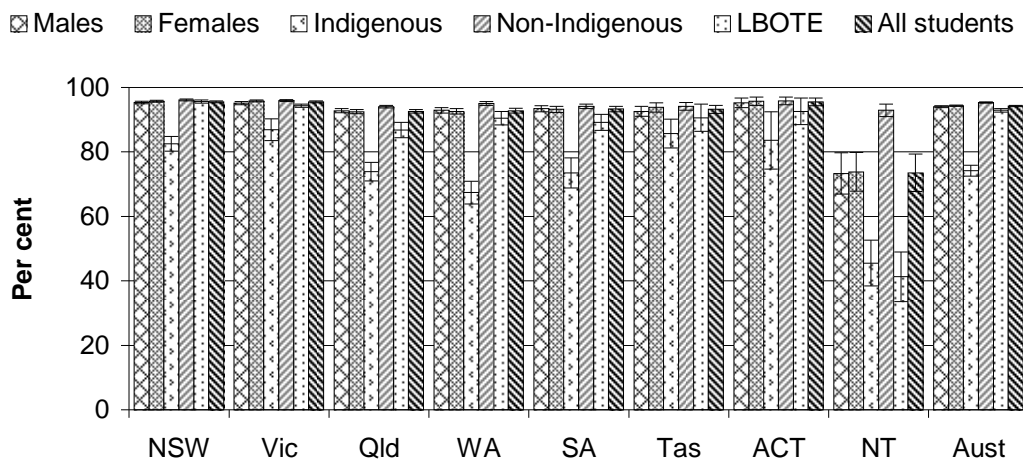


^a Error bars represent the 95 per cent confidence interval associated with each point estimate. ^b For further information and caveats see table 4A.50.

Source: MCEECDYA (2009 and unpublished) *2009 National Assessment Program — Literacy and Numeracy: Achievement in Reading, Writing, Language Conventions and Numeracy*; table 4A.50; 2011 Report, figure 4.51, p. 4.84.

Nationally, the proportion of assessed year 5 students who achieved at or above the numeracy national minimum standard in 2009 was 94.0–94.4 per cent. The national proportion of Indigenous students who achieved at or above the year 5 numeracy national minimum standard in 2009 was 72.5–75.9 per cent, compared to 95.1–95.5 per cent for non-Indigenous students (figure 4.25).

Figure 4.25 Proportion of year 5 students achieving at or above the numeracy national minimum standard, by equity group, 2009^{a, b}

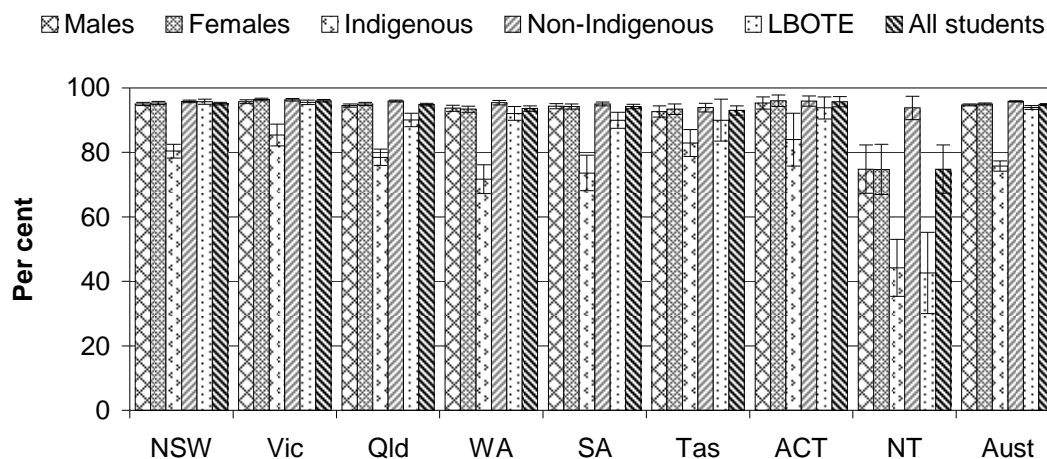


^a Error bars represent the 95 per cent confidence interval associated with each point estimate. ^b For further information and caveats see table 4A.51.

Source: MCEECDYA (2009 and unpublished) *2009 National Assessment Program — Literacy and Numeracy: Achievement in Reading, Writing, Language Conventions and Numeracy*; table 4A.51; 2011 Report, figure 4.52, p. 4.85.

Nationally, the proportion of assessed year 7 students who achieved at or above the numeracy national minimum standard in 2009 was 94.5–95.1 per cent. The proportion of Indigenous students who achieved at or above the year 7 numeracy national minimum standard in 2008 was 74.2–77.4 per cent, compared to 95.6–96.0 per cent for non-Indigenous students (figure 4.26).

Figure 4.26 Proportion of year 7 students achieving at or above the numeracy national minimum standard, by equity group, 2009^{a, b}

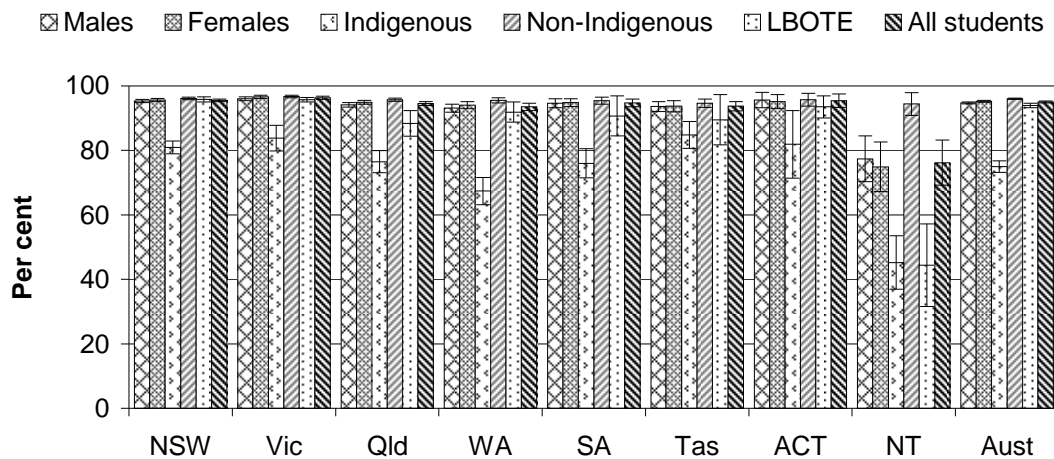


^a Error bars represent the 95 per cent confidence interval associated with each point estimate. ^b For further information and caveats see table 4A.52.

Source: MCEECDYA (2009 and unpublished) *2009 National Assessment Program — Literacy and Numeracy: Achievement in Reading, Writing, Language Conventions and Numeracy*; table 4A.52; 2011 Report, figure 4.53, p. 4.86.

Nationally, the proportion of assessed year 9 students who achieved at or above the numeracy national minimum standard in 2009 was 94.7–95.3 per cent. The proportion of Indigenous students who achieved at or above the year 9 numeracy national minimum standard in 2009 was 73.2–76.8 per cent, compared to 95.8–96.2 per cent for non-Indigenous students (figure 4.27).

Figure 4.27 **Proportion of year 9 students achieving at or above the numeracy national minimum standard, by equity group, 2009^{a, b}**

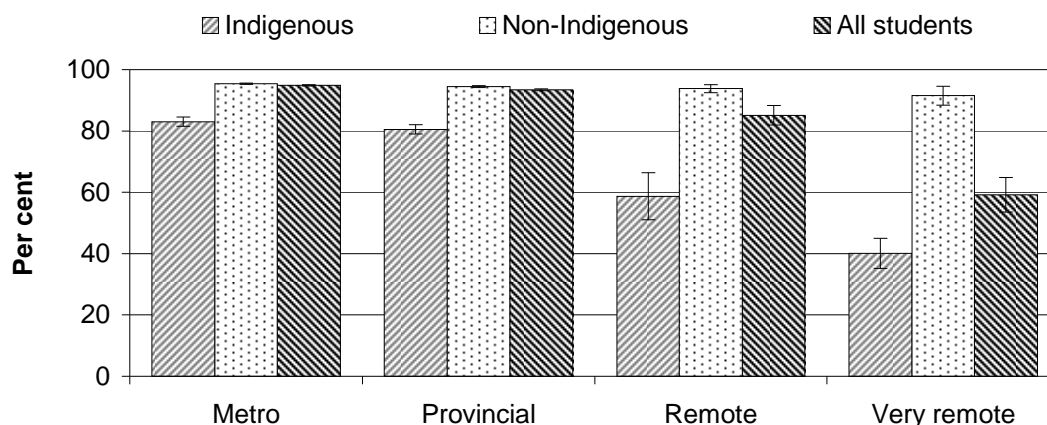


^a Error bars represent the 95 per cent confidence interval associated with each point estimate. ^b For further information and caveats see table 4A.53.

Source: MCEECDYA (2009 and unpublished) *2009 National Assessment Program — Literacy and Numeracy: Achievement in Reading, Writing, Language Conventions and Numeracy*; table 4A.53; 2011 Report, figure 4.54, p. 4.87.

For all geolocation categories across years 3, 5, 7 and 9, the numeracy outcomes nationally for Indigenous students were lower than those for non-Indigenous students and all students. Nationally, outcomes for Indigenous students generally declined as remoteness increased — furthermore, the gap in learning outcomes between Indigenous students and non-Indigenous students, and between Indigenous students and all students, was generally greater in remote and very remote areas than in metropolitan and provincial areas (figure 4.28).

Figure 4.28 National proportion of year 3 students achieving at or above the numeracy national minimum standard, by Indigenous status and geolocation, 2009^{a, 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, 7 and 9 which are detailed in table 4A.54.

Source: MCEECDYA (2009 and unpublished) *2009 National Assessment Program — Literacy and Numeracy: Achievement in Reading, Writing, Language Conventions and Numeracy*, table 4A.54; 2011 Report, figure 4.55, p. 4.88.

Nationally, the proportion of assessed Indigenous students who achieved at or above the numeracy national minimum standard in 2009 was:

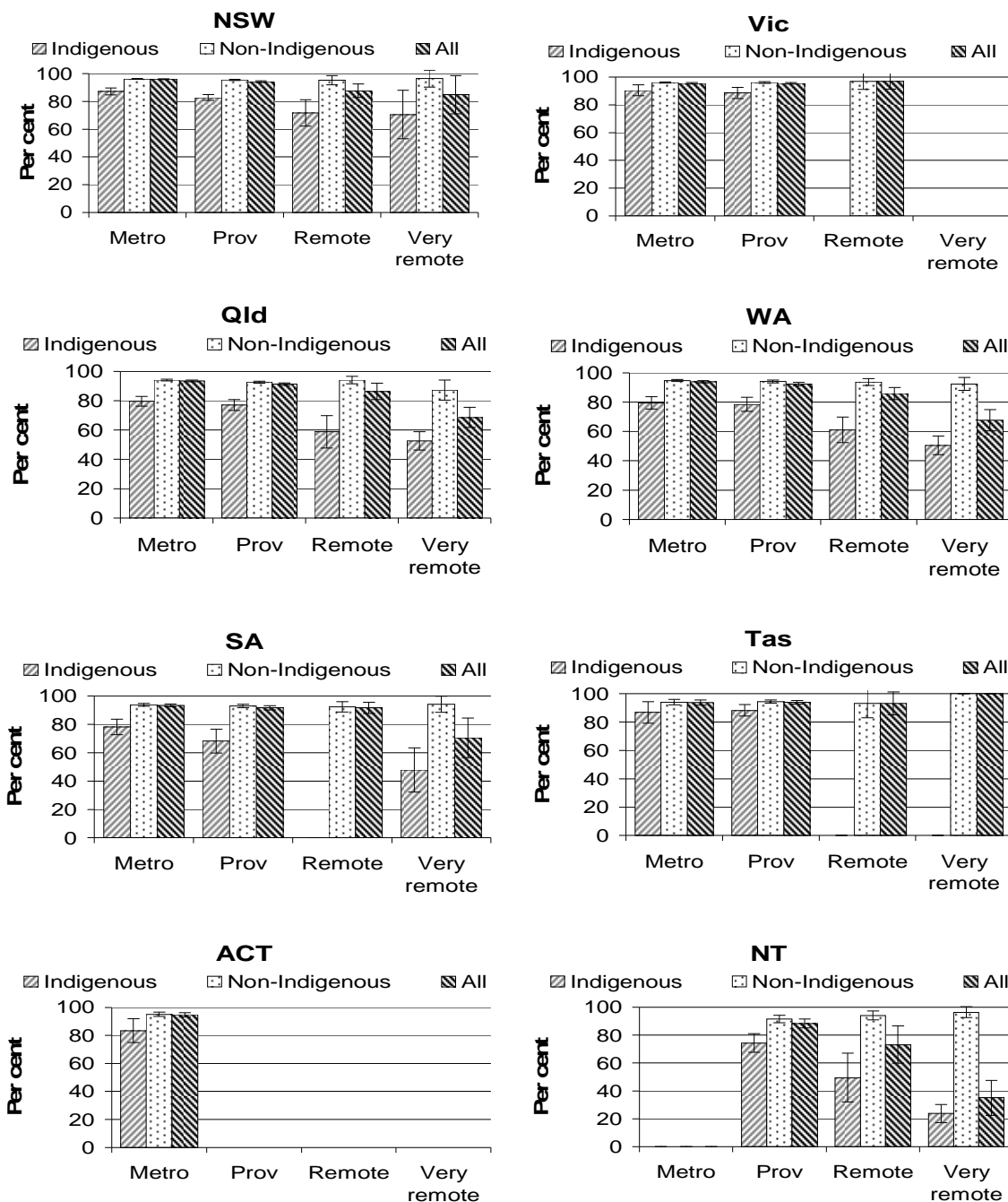
- 81.5–84.5 per cent for Indigenous year 3 students in metropolitan areas, no different to the proportion for provincial students (79.0–82.0 per cent). The proportion for remote students (51.0–66.4 per cent) was higher than for very remote students (35.2–45.0 per cent) (figure 4.28)
- 81.7–84.7 per cent for Indigenous year 5 students in metropolitan areas, no different to the proportion for provincial students (77.8–81.8 per cent). The proportion for remote students (50.8–63.8 per cent) was higher than for very remote students (35.4–45.2 per cent) (table 4A.54)
- 82.2–85.2 per cent for Indigenous year 7 students in metropolitan areas, higher than the proportion of provincial students (77.7–81.7 per cent), remote students (51.6–65.8 per cent) and very remote students (36.5–48.1 per cent) (table 4A.54)
- 78.3–83.1 per cent for Indigenous year 9 students in metropolitan areas, no different to the proportion of provincial students (76.4–81.2 per cent). The proportion for remote students (51.8–68.2 per cent) was higher than for very remote students (34.4–47.4 per cent) (table 4A.54).

The proportion of non-Indigenous students who achieved the national minimum standard in each year level for numeracy, by geolocation is included in table 4A.54.

State and Territory results are presented for year 3 numeracy outcomes in figure 4.29 (results for years 5, 7 and 9 numeracy outcomes are in table 4A.54). 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.

Proportions of exempt, absent and withdrawn, and assessed students in NAPLAN writing assessment, by Indigenous status are included in table 4A.60. National data on achievement of the national minimum standard for numeracy by socio-economic status are provided in 2011 Report, table 4A.89.

Figure 4.29 Proportion of year 3 students achieving at or above the numeracy national minimum standard, by Indigenous status and geolocation, 2009^{a, b, c, d}



^a Error bars represent the 95 per cent confidence intervals associated with each point estimate. ^b Geolocation data are based on the MCEECDYA Schools Geographic Location Classification and represent school location. ^c There are no very remote areas in Victoria. There are no remote or very remote areas in the ACT. There is no metropolitan zone in the NT. ^d Data are not published for provincial areas in the ACT, remote areas for Indigenous students in Victoria, South Australia and Tasmania and for Indigenous students in very remote areas in Tasmania.

Source: MCEECDYA (2009 and unpublished) 2009 National Assessment Program — Literacy and Numeracy: Achievement in Reading, Writing, Language Conventions and Numeracy, table 4A.54; 2011 Report, figure 4.56, p. 4.90.

Achievement levels for numeracy

Nationally, the proportions of all year 3 students for numeracy in 2009 by achievement level were:

- at or below the national minimum standard — 17.4–18.2 per cent for all students (50.6–54.0 per cent for Indigenous students and 15.6–16.4 per cent for non-Indigenous students)
- in medium levels (defined as two NAPLAN performance bands above the minimum standard for the year level) — 49.2–50.0 per cent for all students (38.2–41.0 per cent for Indigenous students and 49.9–50.7 per cent for non-Indigenous students)
- in high levels (defined as the top two NAPLAN performance bands) — 32.0–33.0 per cent for all students (7.4–8.8 per cent for Indigenous students and 33.3–34.3 per cent for non-Indigenous students) (table 4A.55).

Nationally, the proportions of all year 5 students for numeracy in 2009 by achievement level were:

- at or below the national minimum standard — 19.2–20.0 per cent for all students (53.3–56.7 per cent for Indigenous students and 17.3–18.1 per cent for non-Indigenous students)
- in medium levels (defined as two NAPLAN performance bands above the minimum standard for the year level) — 55.3–56.1 per cent for all students (38.5–41.5 per cent for Indigenous students and 56.2–57.0 per cent for non-Indigenous students)
- in high levels (defined as the top two NAPLAN performance bands) — 24.2–25.2 per cent for all students (4.6–5.6 per cent for Indigenous students and 25.3–26.3 per cent for non-Indigenous students) (table 4A.56).

Nationally, the proportions of all year 7 students for numeracy in 2009 by achievement level were:

- at or below the national minimum standard — 18.1–19.1 per cent for all students (53.1–56.5 per cent for Indigenous students and 16.4–17.4 per cent for non-Indigenous students)
- in medium levels (defined as two NAPLAN performance bands above the minimum standard for the year level) — 53.1–54.1 per cent for all students (38.3–41.1 per cent for Indigenous students and 53.8–54.8 per cent for non-Indigenous students)

-
- in high levels (defined as the top two NAPLAN performance bands) — 26.9–28.5 per cent for all students (4.8–6.0 per cent for Indigenous students and 28.0–29.6 per cent for non-Indigenous students) (table 4A.57).

Nationally, the proportions of all year 9 students for numeracy in 2009 by achievement level were:

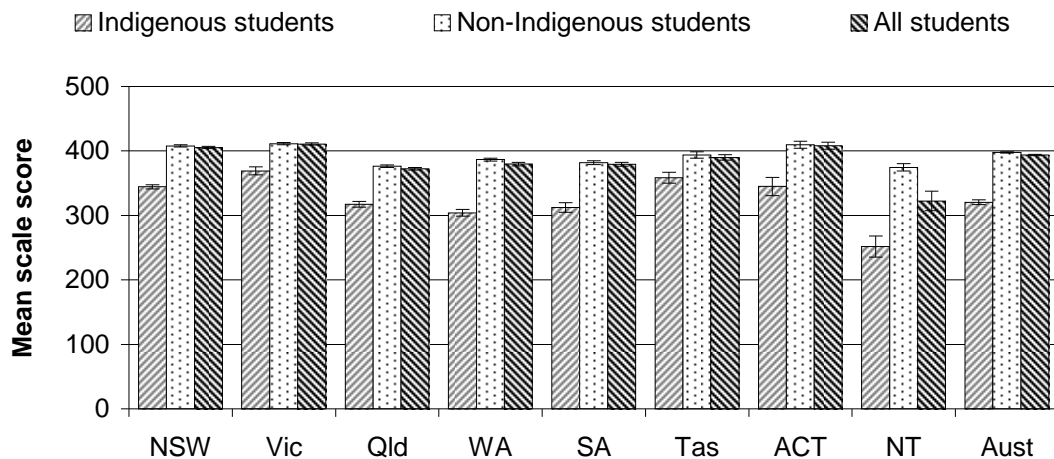
- at or below the national minimum standard — 19.1–20.5 per cent for all students (56.5–59.9 per cent for Indigenous students and 17.3–18.5 per cent for non-Indigenous students)
- in medium levels (defined as two NAPLAN performance bands above the minimum standard for the year level) — 55.8–57.0 per cent for all students (32.1–34.3 per cent for Indigenous students and 56.8–58.0 per cent for non-Indigenous students)
- in high levels (defined as the top two NAPLAN performance bands) — 22.9–24.7 per cent for all students (3.3–4.3 per cent for Indigenous students and 23.8–25.6 per cent for non-Indigenous students) (table 4A.58).

These outcomes varied across jurisdictions. Tables 4A.55–58 also include the proportions of Indigenous students who achieved below, and at, the national minimum standard for numeracy at each year level.

Mean scale scores

Nationally, the mean scale score for year 3 numeracy in 2009 for all students was 392.9–394.9. The mean scale score for Indigenous students was 316.9–324.1 and for non-Indigenous students was 396.7–398.7 (figure 4.30). These mean scale scores varied across jurisdictions.

Figure 4.30 **Mean scale scores for year 3 students for numeracy, 2009^{a, b}**



^a Error bars represent the 95 per cent confidence interval associated with each point estimate. ^b For further information and caveats see table 4A.59.

Source: MCEECDYA (2009 and unpublished) *2009 National Assessment Program — Literacy and Numeracy: Achievement in Reading, Writing, Language Conventions and Numeracy*; table 4A.59; 2011 Report, figure 4.57, p. 4.93.

Nationally, the mean scale score for year 5 numeracy in 2009 for all students was 485.8–487.8. The mean scale score for Indigenous students was 417.8–423.2 and for non-Indigenous students was 489.3–491.3 (table 4A.59). These mean scale scores varied across jurisdictions.

Nationally, the mean scale score for year 7 numeracy in 2009 for all students was 542.0–545.2. The mean scale score for Indigenous students was 471.7–477.1 and for non-Indigenous students was 545.4–548.6 (table 4A.59). These mean scale scores varied across jurisdictions.

Nationally, the mean scale score for year 9 numeracy in 2009 for all students was 587.4–590.8. The mean scale score for Indigenous students was 517.2–523.2 and for non-Indigenous students was 590.7–594.1 (table 4A.59). These mean scale scores varied across jurisdictions.

Time series analysis of NAPLAN outcome for ‘numeracy performance’

This report contains time series data for NAPLAN outcomes for ‘numeracy performance’ for 2008 and 2009 (tables 4A.62–71). These data include proportions of each year level meeting the national minimum standard, by equity group; Indigenous status and geolocation; achievement bands by Indigenous status; and

mean scale scores by Indigenous status. Confidence intervals for time series data for the year 2009 in the time series analysis will differ from those included in the 2009 analysis above, as the confidence intervals in the time series analysis are equated to the base year (2008).

PISA data

Mathematical literacy was the major domain tested in the PISA 2003 survey. Subsequent PISA surveys for mathematical literacy may be compared with the 2003 survey. In PISA 2009 the proportion of Australian 15 year old students who achieved at level 3 or above in mathematical literacy was 62.0–65.8 per cent. The proportion of Indigenous students who achieved level 3 or above for mathematical literacy was 29.5–39.5 per cent, compared with 62.9–66.7 per cent for non-Indigenous students (table 4A.76). These outcomes varied across jurisdictions. Data comparing outcomes for PISA surveys for the mathematical literacy domain in 2003, 2006 and 2009 are in table 4A.76.

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 4.7).

Box 4.7 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, by jurisdiction. These data are also reported by sex, Indigenous status, and geolocation for 2006 and 2009, and by LBOTE status for 2009. 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. 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 (ACARA 2010a).

(Continued next page)

Box 4.7 (continued)

- 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 nationally by sex, Indigenous status, socioeconomic status and geolocation. A national standard of level 3 has been agreed 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 of level 3 has been agreed for this measure.

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

Data for this indicator are comparable.

Data quality information for this indicator is under development.

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 subsequently in 2006 and 2009. Results from the 2009 national science literacy sample assessment are reported below. Detailed results from the 2006 assessment appear in the 2009 and 2010 Reports, along with rescaled data from 2003. Data from the 2003 assessment were included in detail in the 2006 Report.

Data from the 2003 assessment cannot be compared directly with 2006 and 2009 data. New baseline data were established in 2006 when a more robust test design was implemented. This involved the inclusion of more test items to provide better coverage of the assessment domain and better discrimination between students. The sampling frame was also expanded to include students from remote schools. Since the 2009 results have been aligned specifically to the 2006 baseline data, only comparisons between the 2006 and 2009 results are valid.

Year 6 scientific literacy 2009 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, 49.7–54.1 per cent of participating year 6 students achieved at the proficient standard or above in scientific literacy. The national proportion of Indigenous students who achieved at the proficient standard or above in scientific literacy in 2009 was

13.6–25.6 per cent, compared to 51.6–56.2 per cent for non-Indigenous students (table 4A.72).

PISA data

Scientific literacy was the major domain tested in the PISA 2006 survey. Subsequent PISA surveys for scientific literacy may be compared with the 2006 survey. In PISA 2009, the proportion of Australian 15 year old students who achieved at level 3 or above in scientific literacy was 65.8–69.2 per cent. The proportion of Indigenous students who achieved level 3 or above was 32.4–43.2 per cent, compared with 66.8–70.2 per cent for non-Indigenous students (table 4A.77). These outcomes varied across jurisdictions. Data comparing outcomes for PISA surveys for the science literacy domain in 2006 and 2009 are in tables 4A.77.

Civics and citizenship performance

‘Civics and citizenship performance’ is an indicator of governments’ objective that all students be active and informed citizens with an understanding and appreciation of Australia’s system of government and civic life (box 4.8).

Box 4.8 Civics and citizenship performance

'Civics and citizenship performance' is defined as the proportion of sampled year 6 and year 10 students achieving at or above the proficient standard in civic knowledge and understanding, reported by sex, Indigenous status, LBOTE status and geolocation (national data only for subgroups).

The proficient standard for civics and citizenship performance is set at proficiency level 2 for year 6, and at level 3 for year 10, (of levels 1 to 5). Proficiency standards represent points on the proficiency scale that represent a 'challenging but reasonable' expectation for typical Year 6 and 10 students to have reached by the end of each of those years of study. Thus the students need to demonstrate more than minimal or elementary skills to be regarded as having reached the standard appropriate to their year level. A proficient standard is not the same as a national minimum standard because the latter refers to the basic level needed to function at that year level whereas the former refers to what is expected of a student at that year level (MCEETYA 2009).

Holding other factors equal, 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.

Data quality information for this indicator is under development.

The National Years 6 and 10 Civics and Citizenship Assessment was conducted for the first time in 2004, and is conducted triennially. Results from the 2010 assessment are expected to be available for the 2012 Report. The 2007 sample was drawn from all states and territories and both government and non-government schools participated. In 2007, 7059 year 6 students from 349 government and non-government schools and 5506 year 10 students from 269 government and non-government schools participated in the national civics and citizenship assessment (MCEETYA 2009).

Nationally, the proportion of participating students who achieved at the proficient standard or above in civics and citizenship performance in 2007 was 50.6–56.2 per cent for year 6 students and 38.9–44.1 per cent for year 10 students (table 4A.73).

The national proportion of year 6 Indigenous students who achieved at the proficient standard or above in civics and citizenship performance in 2007 was 12.4–40.0 per cent, lower than the proportion for non-Indigenous students (50.6–56.8 per cent) (table 4A.73). The national proportion of year 10 Indigenous students who achieved at the proficient standard or above in civics and citizenship performance in 2007 was 10.4–26.6 per cent, lower than the proportion for non-Indigenous students (39.7–44.9 per cent) (table 4A.73).

Information and communication technologies literacy performance

'Information and communication technologies literacy performance' is an indicator of governments' objective that when students leave school, they should be confident, creative and productive users of new technologies, particularly information and communication technologies, and understand the impact of those technologies on society (box 4.9).

Box 4.9 Information and communication technologies literacy performance

'Information and communication technologies (ICT) literacy performance' is defined as the proportion of sampled year 6 and year 10 students achieving at or above the proficient standard in ICT knowledge and understanding, reported by sex, Indigenous status, LBOTE status and geolocation (national data only for subgroups).

The proficient standard for ICT literacy performance is set at proficiency level 3 for year 6 students, and at proficiency level 4 for year 10 students (of levels 1 to 6). This is a 'challenging but reasonable' level of performance (MCEECDYA 2010) where students need to demonstrate more than minimal or elementary skills expected of a student at that year level to be regarded as having reached the proficient standard.

A high proportion of students achieving at or above the applicable proficient standard in ICT literacy performance is desirable.

Data for this indicator are comparable.

Data quality information for this indicator is under development.

The proficient standard for ICT literacy differs from the literacy and numeracy national minimum standards which describe the nationally agreed minimum acceptable standard for performance in that domain.

Student performance in ICT literacy is measured by a national sample assessment program resulting in comparable reporting against the standard. Performance in ICT literacy can be affected by socioeconomic circumstances, age, length of time spent in schooling, LBOTE and Indigenous status.

The National Assessment Program — Information and Communication Technologies (ICT) Years 6 and 10 assessment measures the ICT literacy of a sample of students and was conducted for the first time in 2005, and again in 2008. It will continue to be conducted triennially. The sample was drawn from all states and territories and both government and non-government schools participated. In 2008, 5604 year 6 students and 5322 year 10 students from 299 primary and

292 secondary schools across states and territories, participated in the national ICT assessment (MCEECDYA 2010).

National data on 2005 and 2008 ICT literacy performance by Indigenous status are contained in table 4A.74.

Completion

‘Completion’ is an indicator of governments’ objectives that all students have access to high quality education and training to year 12 or equivalent, that provides clear and recognised pathways to further education, training and employment (box 4.10).

Box 4.10 Completion

‘Completion’ (completion rate) is defined by two measures:

- the number of students who meet the requirements of a year 12 certificate or equivalent expressed as a percentage of the estimated potential year 12 population. The estimated potential year 12 population is an estimate of a single year age group which could have attended year 12 that year, calculated as the estimated resident population aged 15–19 divided by five. The completion rate is reported by socioeconomic status, geolocation and sex.
 - The criteria for obtaining a year 12 or equivalent certificate vary across jurisdictions. The aggregation of all postcode locations into three socioeconomic status categories — high, medium and low deciles — means there may be significant variation within the categories. Low deciles, for example, will include locations ranging from those of extreme disadvantage to those of moderate disadvantage.
 - Data for this measure are not directly comparable.
- the number of people aged 17–19 years who have completed year 10 or above, divided by the total population aged 17–19 years. Data are reported for all students, Indigenous students and non-Indigenous students.
 - Data for this measure are comparable.

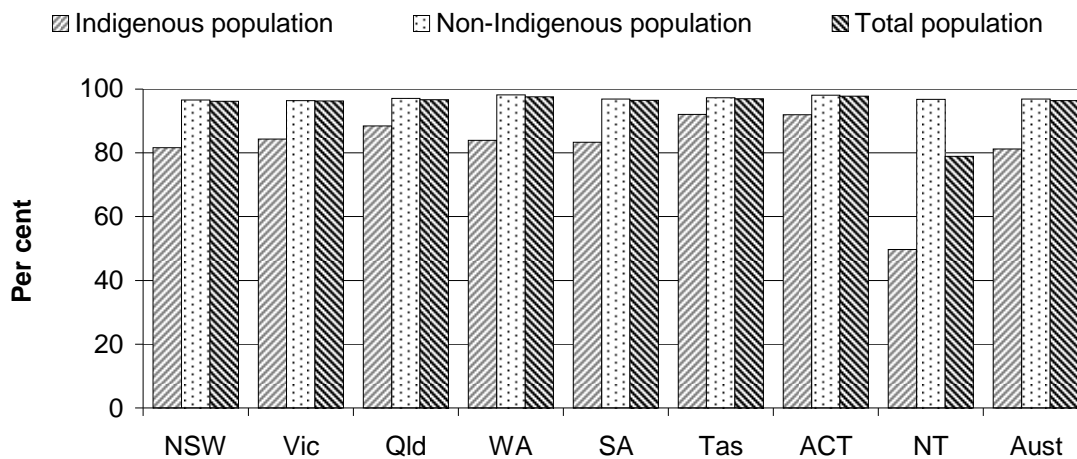
Holding other factors constant, a higher or increasing completion rate suggests an improvement in educational outcomes.

Data quality information for this indicator in relation to the year 12 completions measure is at www.pc.gov.au/gsp/reports/rogs/2011. DQI for the year 10 completions measure is under development.

Year 10 or above completion rate

The proportion of the 17–19 year old population who had completed year 10 or above in 2006 was 96.4 per cent nationally. Completion rates for the non-Indigenous population were higher than the Indigenous population nationally (96.9 per cent and 81.2 per cent respectively) and across all jurisdictions (figure 4.31). These rates varied across jurisdictions.

Figure 4.31 Proportion of 17–19 year old population having completed year 10 or above, by Indigenous status, 2006^{a, b, c, d, e}



^a Australia includes 'Other Territories' ^b Persons aged 17–19 years who have identified as having attained year 10 or above (includes Certificate I/II nfd, but excludes Certificate I, Certificate nfd and persons whose level of non-school qualification could not be determined). Ungraded students are excluded. ^c Total population of all persons aged 17–19 years, excluding persons whose highest year of school completed was not stated. ^d 'Total population' includes those for whom Indigenous status is unknown. ^e The school commencing age varies across jurisdictions, and may impact on the proportions presented in this table. For more detail, see 2011 Report, section 4.1 of the School education chapter.

Source: ABS (unpublished) 2006 Census of Population and Housing; table 4A.83; 2011 Report, figure 4.67, p. 4.112.

The Early childhood, education and training (ECET) preface in this compendium includes data relating to the proportion of the 20–24 and 20–64 year old populations having attained at least a year 12 or equivalent or AQF Certificate II, by Indigenous status (table BA.2).

Future directions in performance reporting

Nationally comparable reporting of learning outcomes

The National Summary Report of results from the 2010 NAPLAN was released on 10 September 2010 (ACARA 2010b). Results from a second report with more detailed information (including disaggregation by Indigenous status and geolocation) will be included in the 2012 Report.

Nationally consistent definitions

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

Definitions of key terms and indicators

Apparent retention rates

The number of full time students in a designated year of schooling, expressed as a percentage of their respective cohort group at an earlier base year. For example, the year 12 retention rate is calculated by dividing the total number of full time students in year 12 in the target year by the total number of full time students in year 10 two years before the target year.

Full time student

A person who satisfies the definition of a student and undertakes a workload equivalent to, or greater than, that usually undertaken by a student of that year level. The definition of full time student varies across jurisdictions.

Geographic classification

Geographic categorisation is based on the agreed MCEECDYA Geographic Location Classification which, at the highest level, divides Australia into three zones (the metropolitan, provincial and remote zones). A further disaggregation comprises five categories: metropolitan and provincial zones each subdivided into two categories, and the remote zone. Further subdivisions of the two provincial zone categories and the remote zone category provide additional, more detailed, classification options. When data permit, a separate very remote zone can be reported along with the metropolitan, provincial and remote zones, as follows.

A. Metropolitan zone

- Mainland State capital city regions (Statistical Divisions (SDs)): Sydney, Melbourne, Brisbane, Adelaide and Perth SDs.
- Major urban Statistical Districts (100 000 or more population): ACT–Queanbeyan, Cairns, Gold Coast–Tweed, Geelong, Hobart, Newcastle, Sunshine Coast, Townsville, Wollongong.

B. Provincial zone (non-remote)

- Provincial city Statistical Districts plus Darwin SD.
 - Provincial city statistical districts and Darwin statistical division (50 000–99 999 population): Albury–Wodonga, Ballarat, Bathurst–Orange, Burnie–Devonport, Bundaberg, Bendigo, Darwin, Launceston, La Trobe Valley, Mackay, Rockhampton, Toowoomba, Wagga Wagga.
 - Provincial City Statistical Districts (25 000–49 999 population): Bunbury, Coffs Harbour, Dubbo, Geraldton, Gladstone, Shepparton, Hervey Bay, Kalgoorlie–Boulder, Lismore, Mandurah, Mildura, Nowra–Bomaderry, Port Macquarie, Tamworth, Warrnambool.
- Other provincial areas (CD ARIA Plus score ≤ 5.92)
 - Inner provincial areas (CD ARIA Plus score ≤ 2.4)
 - Outer provincial areas (CD ARIA Plus score > 2.4 and ≤ 5.92)

C. Remote zone

- Remote zone (CD ARIA Plus score > 5.92)
 - Remote areas (CD ARIA Plus score > 5.92 and ≤ 10.53)
 - Very remote areas (CD ARIA Plus score > 10.53)

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. Administrative processes for

	determining Indigenous status vary across jurisdictions. For NAPLAN data, a student is considered to be 'Indigenous' if he or she identifies as being of Aboriginal and/or Torres Strait Islander origin.
Language background other than English (LBOTE) student	A status that is determined by administrative processes that vary across jurisdictions. For NAPLAN data, a student is considered to be 'LBOTE' if either the student or parents/guardians speak a language other than English at home.
Part time student	A student undertaking a workload that is less than that specified as being full time in the jurisdiction
Participation rate	The number of full time and part time school students of a particular age (as at 1 July), expressed as a proportion of the estimated resident population of the same age (as at 30 June).
Potential year 12 population	An estimate of a single-year age group that could have participated in year 12 that year, defined as the estimated resident population aged 15–19 years, divided by 5.
Science literacy	Science literacy and scientific literacy: the application of broad conceptual understandings of science to make sense of the world, understand natural phenomena, and interpret media reports about scientific issues. It also includes asking investigable questions, conducting investigations, collecting and interpreting data and making decisions.
Socioeconomic status	As identified in footnotes to specific tables.
Student	A person who is formally (officially) enrolled or registered at a school, and is also active in a primary, secondary or special education program at that school. Students at special schools are allocated to primary and secondary on the basis of their actual grade (if assigned); whether or not they are receiving primary or secondary curriculum instruction; or, as a last resort, whether they are of primary or secondary school age.
Student, primary	A student in primary education, which covers pre-year 1 to year 6 in NSW, Victoria, Tasmania, ACT and the NT, pre-year 1 to year 7 in Qld, WA and SA.
Student, secondary	A student in secondary education, which commences at year 7 in NSW, Victoria, Tasmania, ACT and the NT, and at year 8 in Queensland, WA, and SA.
Ungraded student	A student in ungraded classes who cannot readily be allocated to a year of education. These students are included as either ungraded primary or ungraded secondary, according to the typical age level in each jurisdiction.

List of 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 a '4A' suffix (for example, table 4A.3 is table 3 in the School education attachment). Attachment tables are on the Review website (www.pc.gov.au/gsp).

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References

- ACARA (Australian Curriculum and Assessment Reporting Authority), 2010a, *National Assessment Program — Science Literacy Year 6 Report, 2009*, Sydney.
- ACARA 2010b, National Summary Report: Achievement in Reading, Writing, Language Conventions and Numeracy 2010 www.naplan.edu.au/verve/_resources/NAPLAN_2010_Summary_Report.pdf (accessed 14 December 2010).
- MCEECDYA (Ministerial Council on Education, Early Childhood Development and Youth Affairs) 2010, *National Assessment Program ICT Literacy Years 6 and 10 Report 2008*, Melbourne.
- MCEETYA (Ministerial Council on Education, Employment, Training and Youth Affairs) 2009, *National Assessment Program Civics and Citizenship Years 6 and 10 Report 2007*, Melbourne.