



Review of the National School Reform Agreement

Interim report

This is an interim report prepared for further public consultation and input. The Commission will finalise its report after these processes have taken place.

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The Productivity Commission

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An appropriate reference for this publication is:
Productivity Commission 2022, *Review of the National School Reform Agreement*, Interim Report, Canberra, September

Publication enquiries:
Media, Publications and Web | phone 03 9653 2244 | email publications@pc.gov.au

Opportunity for comment

The Commission thanks all participants for their contribution to the review and now seeks additional input for the final report.

You are invited to examine this interim report and comment on it by written submission to the Productivity Commission, preferably in electronic format, by 21 October.

Further information on how to provide a submission is included on the study website:

www.pc.gov.au/inquiries/current/school-agreement

The Commission will hold further discussions with participants and prepare a final report after further submissions have been received. The Commission will forward the final report to Government in December 2022.

Commissioners

For the purposes of this review the Commissioners are:

Michael Brennan	Presiding Commissioner
Malcolm Roberts	Commissioner
Natalie Siegel-Brown	Commissioner

Terms of reference

I, Josh Frydenberg, Treasurer, pursuant to Parts 2 and 4 of the *Productivity Commission Act 1998*, hereby request that the Productivity Commission undertake a review of the National School Reform Agreement.

Background

The National School Reform Agreement (NSRA) is a joint agreement between the Commonwealth, states and territories to lift student outcomes across Australian schools. The NSRA outlines a set of strategic reforms in areas where national collaboration will have the greatest impact, builds on current national reform efforts, complements state and territory leadership and supports local implementation. Ongoing implementation of these shared commitments remains a condition of funding under the *Australian Education Act 2013* (Cth) (Act).

The objective of the NSRA is that Australian schooling provides a high quality and equitable education for all students. The NSRA sets out long-term national outcomes for school education in Australia and national targets and sub-outcomes to track progress. To achieve these outcomes, the NSRA sets out three reform directions which are supported by eight national policy initiatives as well as bilateral agreements specific to each state and territory.

The Measurement Framework for Schooling in Australia, including the schedule of key performance measures, provides the basis for Australian education ministers to report to the community on the performance of schooling, in accordance with the Education Goals for Young Australians as expressed in the *Alice Springs (Mparntwe) Education Declaration*.

Scope of the review

In undertaking the review, the Commission should assess, as required under section 29 of the National School Reform Agreement:

1. the appropriateness of the National Measurement Framework for Schooling in Australia in measuring progress towards achieving the outcomes of the NSRA.
2. the effectiveness and appropriateness of the National Policy Initiatives outlined in Part 3 of the NSRA, recognising that national reform takes time to implement and mature, and for the effects of nationally coordinated reform efforts to materialise.

In the context of the National Measurement Framework for Schooling in Australia, consideration should be given to current and planned measures and data projects, and their application, utility and relevance to NSRA outcomes.

Section 30 of the NSRA expressly provides that the review will not include any assessment of compliance with section 22A of the Act.

Process

The Productivity Commission should consult broadly and extensively, including with all parties to the NSRA as well as the Catholic and independent school sectors, and key education entities such as the Australian Curriculum, Assessment and Reporting Authority, the Australian Institute for Teaching and School Leadership, the Australian Education Research Organisation and Education Services Australia.

As managers of the largest school systems, states and territories will have broad and deep insights into the impacts of the National Policy Initiatives and National Measurement Framework on students, schools and systems. In recognition of the role of states and territories, appropriate weight should be given to their feedback.

The Commission should provide a final report no later than 31 December 2022 to allow time for the review's findings to inform the development of the next national agreement. The Commission will present the findings of the review to Education Ministers prior to publication. Within the scope set out above and at Section 29 of the NSRA, the final report should include recommendations to inform the design of the next intergovernmental school reform agreement and improvements to the National Measurement Framework for Schooling in Australia.

The Hon Josh Frydenberg MP

Treasurer

[Received 7 April 2022]

Disclosure of interests

The *Productivity Commission Act 1998* specifies that where Commissioners have or acquire interests, pecuniary or otherwise, that could conflict with the proper performance of their functions they must disclose those interests.

Commissioner Siegel-Brown advised that she is a board director of Aged and Disability Advocacy Australia and a member of Queensland's Path to Treaty Independent Interim Body.

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Foreword

The Australian, State and Territory Governments share responsibility for school education and have a long history of working together to build the national institutions, systems and tools that support better student outcomes.

This review considers the most recent focus for collaborative reform efforts, the National School Reform Agreement (NSRA). The Commission has been asked to assess the effectiveness and appropriateness of the National Policy Initiatives included in the agreement, and the appropriateness of the National Measurement Framework for Schooling in Australia in measuring progress towards outcomes. Importantly, the Commission has also been asked to make recommendations to inform the design of the next intergovernmental school reform agreement.

This interim report presents the Commission's initial analysis of progress on national reform efforts, and assessment of performance reporting and accountability arrangements. It also identifies potential reform options for a successor agreement. In doing so, the Commission has focussed on factors that influence student outcomes that are amenable to intergovernmental collaboration. This report's primary purpose is to elicit additional stakeholder feedback, noting the clear expectations about broad and extensive stakeholder engagement set out in the terms of reference, and the strong interest in this important area of government service delivery.

The Commission will be calling for responses by 21 October and will be preparing a final report for consideration by Ministers by 31 December 2022.

The Commission has benefited from engagement with students, teachers, school leaders, unions, representatives from the Catholic and Independent school sectors, academics and officials from the Australian, State and Territory Governments, as well as key education entities such as the Australian Curriculum, Assessment and Reporting Authority, the Australian Institute for Teaching and School Leadership, the Australian Education Research Organisation and Education Services Australia. The Commission would particularly like to thank those young people who took time out of their busy learning schedules to share their experiences of school, including over the past few challenging years.

Overview

Key points

- * **This review examines Governments' initiatives to lift student outcomes under the National School Reform Agreement (NSRA).**
 - The Commission has been asked to assess the appropriateness and effectiveness of the national reform initiatives in the NSRA and to make recommendations for the design of the next agreement.
 - Public interest in schools reform has increased over the life of the NSRA, spurred in part by concerns that, despite the large increase in public funding since 2018, student outcomes have stagnated.
- * **Although some initiatives have been delivered, others appear stalled.**
 - Governments appear to have lost their collective commitment to delivering a national unique student identifier (USI) and the formative assessment tool.
 - Despite mounting concerns about teacher shortages, little progress seems to have been made in developing the data and evidence needed for an effective national workforce strategy.
- * **Realising the ambitions of the NSRA will require Governments to resolve some thorny issues:**
 - agreeing on the design and privacy protections of the USI. If parties cannot deliver a national USI, they should, at a minimum, explain why the project has failed
 - developing the national online formative assessment tool in a way that allows jurisdictions to adapt it to their specific needs and preferences (including integrating content and features from existing state-based tools)
 - developing a national model of the teacher workforce to identify future risks and guide workforce planning.
- * **The next intergovernmental agreement should focus on a small number of reforms that will directly lift student outcomes. Governments should select reforms that are best delivered through a co-ordinated national approach to help sustain long-term commitment by all parties. Contenders include:**
 - enabling quality teaching: Governments need to create the time, support and resources for effective teaching. Priorities could include reducing high workloads and out-of-field teaching, professional development at critical points (such as induction and support for early career teachers) and fostering best practice teaching through networks, collaboration and technology
 - making minimum standards the minimum: all jurisdictions need to find effective ways to assist the 5 to 9 per cent of students struggling to meet minimum standards
 - tailored strategies for students from each priority equity cohort. Many students in the NSRA's priority equity cohorts and students in other cohorts (such as students in out-of-home care or with English as an additional language or dialect) face significant challenges. New approaches, developed and implemented in consultation with students, parents and communities, are needed
 - supporting wellbeing to support learning. Many children and young people suffer from poor wellbeing because of experiences in and outside their schools. Schools and teachers need more support to help students overcome these circumstances and achieve their potential.
- * **Addressing these challenges will require a mix of co-ordinated national effort and flexible state-based programs tailored to individual and local needs. Jurisdictions' need for flexibility should be recognised but tied to more transparency and accountability for results. The next agreement should be tight in its commitments and its reporting of performance, but not bind Governments to one-size-fits-all solutions.**
 - The community could reasonably expect to see an improvement in student outcomes over the course of the next five years — funding will remain at all-time highs, current initiatives will have had time to mature, and a new generation of reforms will be underway.

What's this review about?

Almost four years ago, on the back of a \$319 billion funding deal¹, the Commonwealth, States and Territories struck an agreement on national reforms to lift education outcomes — the National School Reform Agreement (NSRA).

The NSRA's overarching objective is for Australian schools to provide a high quality and equitable education for all students. To lift outcomes in student achievement, attainment and engagement, the NSRA outlines three reform directions, supported by eight National Policy Initiatives (NPIs) and bilateral agreements between the Commonwealth and each State and Territory Government (figure 1). Implementing the reform initiatives is a condition of Commonwealth funding.²

The Commission has been asked to:

- assess the effectiveness and appropriateness of the current NPIs under the NSRA³
- assess the appropriateness of the Measurement Framework for Schooling in measuring progress towards achieving the outcomes of the NSRA and
- make recommendations to inform the design of the next intergovernmental school reform agreement and to improve the National Measurement Framework.⁴

Funding is outside the scope of the Commission's Review.

In undertaking this review, the Commission is consulting widely, and taking account of important context.

- The NSRA will run until December 2023, and some NPIs are not yet complete.
- The current reforms under the NSRA do not represent all of the collaborative intergovernmental activity on education in Australia. Conversely, the concepts behind a number of the reforms are also being progressed through individual jurisdictions using their own approaches.
- The education landscape has changed — COVID-19 and recent natural disasters have disrupted education systems but also revealed their resilience and opportunities for innovation.
- While much can be done within education systems to lift student outcomes and make them more equitable, some barriers to education, such as secure housing tenure, are beyond the capacity of schools to address. The Commission has focused on factors that can operate 'within the school gates'.
- There can be a substantial gap between high-level policy discourse and classroom practice. Several stakeholders have identified a lack of clear visibility about what occurs in the classroom. Equally, stakeholders have pointed out the remoteness of policy discussions from the lived experience of teachers and school leaders.

¹ As part of its Quality Schools arrangements, the Australian Government moved to a consistent, needs-based school funding model for all Australian students and committed to increasing funding for schools from \$18.7 billion in 2018 to an estimated \$33 billion in 2029, bringing total funding to an estimated \$318.9 billion over 2018 to 2029.

² The *Australian Education Act 2013* (Cth.) section 22. The Australian Education Act was amended on 23 June 2017 to give effect to the Quality Schools package.

³ Under Section 29 of the NSRA, parties agreed that an independent review would be commissioned on behalf of the Education Council to assess 'the effectiveness of the national policy initiatives' and 'the appropriateness of the National Measurement Framework for Schooling in measuring progress towards achieving the outcomes of this Agreement'. This review fulfils that commitment.

⁴ The Measurement Framework for Schooling underpins the National Report on Schooling in Australia and informs other reports including the Report on Government Services released by the Productivity Commission.

Figure 1 – Snapshot of the National School Reform Agreement (2019-2023)^a

Aims for Australian schooling to provide a high-quality and equitable education for all students		
Sets out 3 outcomes... <ul style="list-style-type: none"> Achievement Attainment Engagement 	... to be assessed against 7 performance indicators ... <ul style="list-style-type: none"> 5 Achievement 1 Attainment 1 Engagement 	... and 3 existing COAG targets <ul style="list-style-type: none"> Lift educational attainment by 2031 (two targets, one applies for Aboriginal and Torres Strait Islander students) Lift international standing by 2025 
Specifies three reform directions ...		
Supporting students, student learning and student achievement	Supporting teaching, school leadership and school improvement	Enhancing the national evidence base
... to be progressed through national and state-specific initiatives ...		
Parties agreed to 8 National Policy Initiatives <ul style="list-style-type: none"> Progressed by all jurisdictions Concentrated on ‘key enablers’ Building on existing national and state-based reforms 	And state-specific bilateral agreements <ul style="list-style-type: none"> Outlining local initiatives Including reforms to lift outcomes for priority equity cohorts 	
... with reporting and public transparency to give the community confidence		
Parties agreed to report on implementation ... <ul style="list-style-type: none"> Annual public reports on national initiatives Annual reports on state-specific initiatives 	... and progress towards meeting targets ... <ul style="list-style-type: none"> Reported under COAG arrangements (National Measurement Framework) 	... and an independent review <ul style="list-style-type: none"> To assess effectiveness of National Policy Initiatives and appropriateness of National Measurement Framework

a. On 11 December 2020, Education Ministers agreed to amend the Council of Australian Governments (COAG) targets to reflect the adoption of the updated national target for school education endorsed by State and Territory First Ministers through the National Agreement on Closing the Gap. On 29 May 2020, National Cabinet agreed to the formation of the National Federation Reform Council and the abolition of COAG. The targets are still in effect.

To identify reforms that could be included in the next agreement, the Commission has followed a two-step approach. The Commission has reviewed the latest research and consulted with a wide range of

stakeholders to identify the factors that matter most to creating high-quality and high-equity education in Australia. The Commission then assessed which of those factors lend themselves to collaborative solutions through an intergovernmental agreement.

How have national reforms fared?

Many National Policy Initiatives focus on enablers rather than achieving outcomes

The NPIs concentrate reform effort on ‘key enablers that drive improvement in educational outcomes’.⁵ In simple terms, this means providing teachers, school leaders, and policy makers with resources to make well informed interventions.

The outputs associated with different NPIs include (figure 2):

- **national tools** to gauge and share information on student progress (the online formative assessment initiative (OFAI) and the unique student identifier (USI))
- **national reviews** to identify and realise opportunities for national collaboration on teacher workforce needs and senior secondary pathways into work, further education and training
- **national accreditation standards** to promote consistent quality in graduate teaching (strengthening initial teacher education (ITE) accreditation)
- **a new national institution** to generate and communicate evidence-based advice on best practice to teachers, schools and policy makers
- **national data projects** to improve national data quality, consistency and collection.

⁵ NSRA, s. 43(c).

Figure 2 – Progress implementing National Policy Initiatives

Expected outputs and implementation status as reported by Education Council

National Initiative	Expected outputs	Complete?
 <p>Online Formative Assessment Initiative</p>	<p>Progressively make available existing and new learning progressions and formative assessment capability for agreed Australian Curriculum learning areas and general capabilities, from 2022.</p> <p>Progressively develop and release nationally available online on-demand formative assessment resources (aligned to learning progressions) from 2022.</p>	
 <p>Senior secondary pathways review</p>	<p>Education Council to have implemented, or be progressing, agreed recommendations (for any national initiatives to strengthen student pathways) by end of the Agreement.</p>	
 <p>Teacher workforce review</p>	<p>Education Council to have implemented a national teacher workforce strategy to respond to teacher workforce needs of the future and support decision making of teacher employers and ITE providers.</p>	
 <p>Initial Teacher Education accreditation</p>	<p>Commence national quality assurance activities in cooperation with all jurisdictional authorities from January 2019.</p> <p>States and Territories ensure that accredited initial teacher education programs require... final-year teaching performance assessment prior to graduation.</p>	
 <p>Unique Student Identifier</p>	<p>Schools and systems to progressively work to create a national Unique Student Identifier for each student from 2021.</p>	
 <p>Evidence institute</p>	<p>The national evidence institute commences operations from 2020, and develops and implements a national research and evidence plan.</p>	
 <p>Improving national data quality</p>	<p>Education Council considers strategic opportunities to enhance the national evidence base including options for measures of child development status at school entry, student learning gain, general capabilities, post-school destination information, attainment, retention, wellbeing, and post-school outcomes, over life of the Agreement.</p>	

 = Partly

Progress on some of the initiatives that would make the most difference has been disappointing

So far, the NPIs have likely had little impact on Australian students' academic achievement, educational attainment and skill acquisition.⁶

Many outputs from the NPIs are yet to be delivered, including two of the more significant NPI outputs (the OFAI and the USI) (figure 2). Of the NPIs that have been delivered, the institute charged with providing evidence-based advice — the Australian Education Research Organisation (AERO) — is just beginning its work; Governments are still to clarify many details regarding if and how they will act upon the national reviews of senior secondary pathways and teacher workforce needs; and new standards governing ITE providers have been in place for a little more than two years.

If the NSRA is to have any chance of fulfilling its ambitious targets and outcomes, the Commonwealth, States and Territories will need to resolve some key issues.

The USI and OFAI are stalled

The USI and OFAI would provide much needed tools to better understand student progress.

- The USI would provide insights on a student's progress, the factors that influence the paths they take, and the outcomes they achieve. As the Department of Education New South Wales (sub. 12, p. 13) observed: '... the USI has the potential to provide a new, unique and rich data source to inform policy in a way which was never possible before.'
- The OFAI would enable teachers to assess a student's knowledge, skills and understanding, identify next steps in learning, and track progress over time. Given the significant variation in student achievement in any given year level — spanning, on average, as much as 4 years of learning in numeracy within individual schools and about 6 years across all schools — the OFAI would help teachers tailor their teaching to a student's level of knowledge and understanding.⁷ Importantly, the OFAI would provide time-poor teachers with recommended teaching strategies and quality-checked digital resources aligned with the national curriculum.

But both NPIs have stalled. Already more than 13 years in the making, disagreements about data use have hindered progress of the USI.⁸ And the value proposition of a national OFAI has diminished as some jurisdictions have pressed ahead with local (albeit typically less comprehensive) solutions, while others await a national solution.

Fulfilling their commitments to deliver these two key initiatives will require Governments to:

- confirm that a USI remains a priority, which can and should be developed through intergovernmental co-operation. Governments will also need to resolve their differences over data and privacy. If parties cannot deliver a national USI, they should, at a minimum, explain to the public why the project has failed (especially as USIs are already in use in higher education and vocational education and training)

⁶ Attachment A reports performance of the Australian school systems against the sub outcomes specified in the NSRA since the NSRA commenced in 2018.

⁷ For example, for NAPLAN numeracy, a year 7 student performing at the bottom 10th percentile in a school will on average perform lower than the mean year 5 student. And a year 7 student performing at the top 10th percentile in a school will on average perform greater than the mean year 9 student. A larger spread was found in reading scores within individual schools across all year levels (for example, up to 6 years on average for year 5 students). The variation in NAPLAN results across the whole school system was greater than the average variation found within a school. Results are based on 2021 data.

⁸ Governments committed to introducing a national USI as far back as 2009 (MCEETYA 2009, p. 19).

- develop a flexible version of the national online formative assessment tool that allows jurisdictions to adapt the tool to their needs and preferences (including integrating content and features from existing state-based tools). Parties should consider assigning responsibility for completing the OFAI to a single entity capable of delivering the tool quickly at least cost.

A systematic approach to predicting and identifying workforce imbalances is still lacking

According to the Education Council, the narrative on *National Initiatives to Support Teaching and School Leadership* and the workforce strategy *Teaching Futures: A National Teacher Workforce Strategy for Australia* together fulfil Governments' commitments to review teacher workforce needs. The former identifies principles 'to guide Education Ministers in commissioning work', while the latter 'highlights opportunities for potential future efforts'.⁹ Neither provide the resources required by school systems and ITE providers to identify and plan for future workforce needs.

Current and emerging national workforce pressures require more systematic treatment to predict future teacher workforce imbalances. As part of their *National Action Plan on Teacher Shortage*, Education Ministers recently agreed to develop and publish teacher workforce projections, disaggregated at a regional level and by subject specialisation, along with nationally consistent data on teacher demand. This improved labour supply and demand data should support the development of a national teacher labour market model, which could be used to predict teacher demand and supply.

Significant investments in the national evidence base have been made, but gaps remain

A strong national education evidence base would help policy makers, school leaders and teachers make informed decisions about the policies, programs and classroom practices that would lift student outcomes. AERO was created under the auspices of the NSRA to help build such an evidence base to inform practices and policies.

One area where AERO and others could help advance the education evidence frontier is providing insights into the teaching strategies deployed in Australian classrooms and their effectiveness. Research has shown that classroom interactions are a key factor for effective learning. But both policy makers and researchers say too little is known about what happens in classrooms and how inputs (teachers, pedagogy, learning materials) affect student outcomes.

The Commission is seeking feedback on options for gleaning a better understanding of what occurs in the classroom, including the extent to which evidence-based practices are adopted. The Commission is also seeking views regarding whether the current education and research evidence base sufficiently incorporates Aboriginal and Torres Strait Islander cultural and community perspectives and Aboriginal knowledge.

⁹ AITSL 2021, p. 38; Education Council 2020, p. 1

What should be the focus of the next agreement?

Many of the policy initiatives, including the USI and OFAI, form part of a longer-term investment in the national institutions, systems and tools to help improve student outcomes.¹⁰ Once these initiatives are complete (or their fate resolved), the key pieces of the national education architecture will largely be in place.

The next reform agreement is an opportunity to change tack to focus directly on lifting student outcomes, improving equity, and enhancing student wellbeing.

The next agreement should concentrate on pervasive challenges

The Commission has identified four overarching and interrelated policy challenges facing Australia's school systems.

- Constraints on the effectiveness of teachers and leaders arising from such factors as:
 - teacher shortages in some places and in key subjects
 - high workloads for teachers and principals
 - limited opportunities to develop and share best practice
 - lack of career pathways for mid-ranking teachers and principals.
- A lack of equity in student outcomes. This has several dimensions:
 - a core of students who do not meet minimum standards
 - significant and persistent gaps in outcomes for many students in the NSRA's priority equity cohorts
 - gaps in outcomes for students in other cohorts facing disadvantage
 - a lack of recognition of the unique educational ambitions for particular cohorts and their families.
- Poor student wellbeing.
- The capacity of the education sector to adapt to changing contexts and needs.

These challenges are plausible future priorities for intergovernmental collaboration.

- All jurisdictions face these challenges.
- Each has a proven, material impact on student outcomes.
- With the exception of the final challenge, Governments have already recognised the value of national collaboration to address the issues.¹¹

Improving teaching

Teacher effectiveness is the single most influential 'in-school' factor for student outcomes.¹² Teacher effectiveness is determined by both teacher quality (the attributes of an individual teacher) and quality teaching (effective teaching practices). A key issue for policy makers, schools and the public generally has been how to improve teacher effectiveness, and given its links to this goal, address teacher shortages (box 1).

Some stakeholders have stressed the importance of attracting 'the best and brightest' to teaching, especially school-leavers with high tertiary admissions rankings (ATARs). This is a natural response to concerns that

¹⁰ These include the national curriculum, national testing regime (NAPLAN), national data collections, reporting frameworks, teaching standards and institutions such as ACARA and AITSL.

¹¹ COAG (2018); DSS (2021a); DESE (2020b); Education Council (2015); DET (2018); Coalition of Aboriginal and Torres Strait Islander Peak Organisations and All Australian Governments (2020); Education Council (2020c); NCCD (2020).

¹² Commission analysis suggests a one standard deviation increase in the effectiveness of an average teacher would raise average lifetime earnings of the classroom by several hundreds of thousands of dollars each year.

some teaching graduates may lack necessary academic skills. However, fewer than one in five students enter ITE on the basis of their ATAR, and there is mixed research on whether high school performance is a good predictor of subsequent teaching performance. Requiring minimum ATARs for prospective teachers can also give rise to unintended consequences, resulting in some potentially good teachers being excluded from ITE courses, with flow on effects for workforce diversity and shortages.

For these reasons, some stakeholders have suggested that lifting the quality of ITE courses would be more effective than expensive scholarships to raise the 'quality' of ITE candidates. Improving the quality of ITE courses should be a permanent priority. But improving the standard of ITE will take time to improve the quality of teaching across all Australian schools. Other initiatives could be implemented to support teachers during the critical first three to five years of their careers when they face the most challenging adjustments (especially if employed at so-called 'hard-to-staff' schools) and are at higher risk of early exit from the profession. Australia has relatively high use of mentoring for teachers by OECD standards. Nonetheless, evidence suggests that more than one-third of early career teachers surveyed, say that they do not receive induction training and mentoring. The Commission is seeking feedback on whether measures to address this could form the basis for a new NPI in the next intergovernmental agreement.

In addition to supporting new entrants to the profession, focusing on factors such as teacher workload, and developing and sharing best practice, would target the around 300 000 teachers already in the classroom. This would also help to address teacher shortages — some of these same factors weigh heavily in teacher attraction and retention decisions.

Box 1 – Evidence of teacher and school leader shortages

Gauging the extent of teacher shortages is difficult.

Over the past decade, in the aggregate, the teacher workforce has grown more quickly than the student population, particularly in primary schools, where student-teacher ratios are lower than a decade ago. In secondary schools, student-teacher ratios are relatively unchanged.

However, several stakeholders raised concerns about teacher shortages, including that existing shortages had been exacerbated by COVID-19.

A lack of timely data makes it difficult to assess, but shortages appear concentrated in particular subject areas and locations, or can manifest as a lack of workforce diversity.

Rates of out-of-field teaching point to significant shortages in secondary subjects such as maths, science, technology and English. In 2018, almost one-quarter of surveyed teachers teaching mathematics had limited or no training in the subject; a trend echoed in science (18 per cent), design and technology (30 per cent), languages other than English (29 per cent) and English (18 per cent).

There continue to be longstanding shortages in regional, rural and remote areas. School principals report greater difficulty finding staff and higher rates of out-of-field teaching.

There is also a shortage of teachers qualified to teach particular student cohorts. For example, close to one-third of teachers who teach special education have no specialised training. Shortages can also result in a lack of workforce diversity; for example, Aboriginal and Torres Strait Islander teachers are underrepresented in schools, making up only 3 per cent of the Australian teaching workforce.

Box 1 – Evidence of teacher and school leader shortages

Some stakeholders suggested that many of the factors that have contributed to localised shortages will likely continue over time. These include growing school enrolments, a drop in the number of people enrolling in teaching degrees, and an ageing workforce. But gauging the extent of future shortages is also difficult. Estimates of future shortages are contingent on assumptions, including about how teachers are deployed across tasks and schools, rates of teacher attrition, and the ratio of students to teachers. Estimates of shortages are particularly sensitive to the latter.

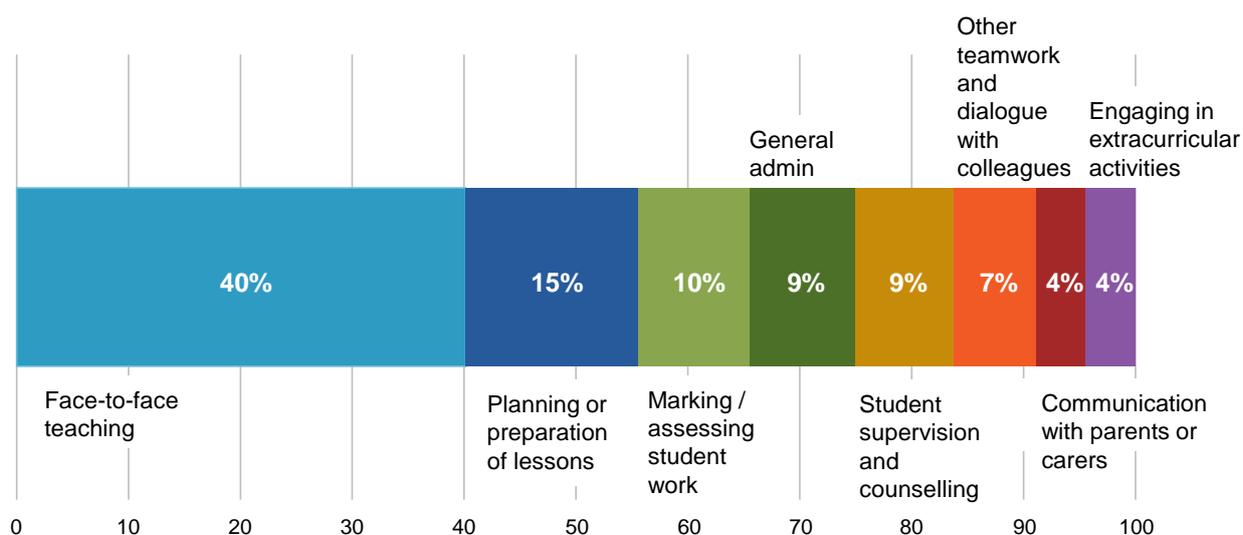
With the pipeline of school leaders largely drawn from the teaching workforce, some worry that ‘[t]oday’s teacher crisis will be tomorrow’s leadership crisis’ (Grant 2022). In some areas, pressures are already evident, with stakeholders pointing to challenges attracting and retaining school leaders in regional, rural and remote areas.

Teachers are shouldering more workload

Teachers’ workload is high and increasing. Teachers typically spend most of their time on teaching, lesson planning, marking and general administration (figure 3). The most recent domestic surveys suggest that full-time teachers work between 44 to 57 hours a week during term time. Reported working hours are similar for primary and secondary teachers, and early career teachers, and even higher for Aboriginal and Torres Strait Islander teachers. International measures suggest secondary teacher hours are rising, up from about 43 hours in 2013 to 45 hours in 2018. Teachers typically spend most of their time on teaching, lesson planning, marking and general administration (figure 3).

Figure 3 – Teachers typically spend most of their time teaching, lesson planning, marking and on general administration^a

Average proportion of weekly hours spent on teaching tasks by full-time teachers in 2018



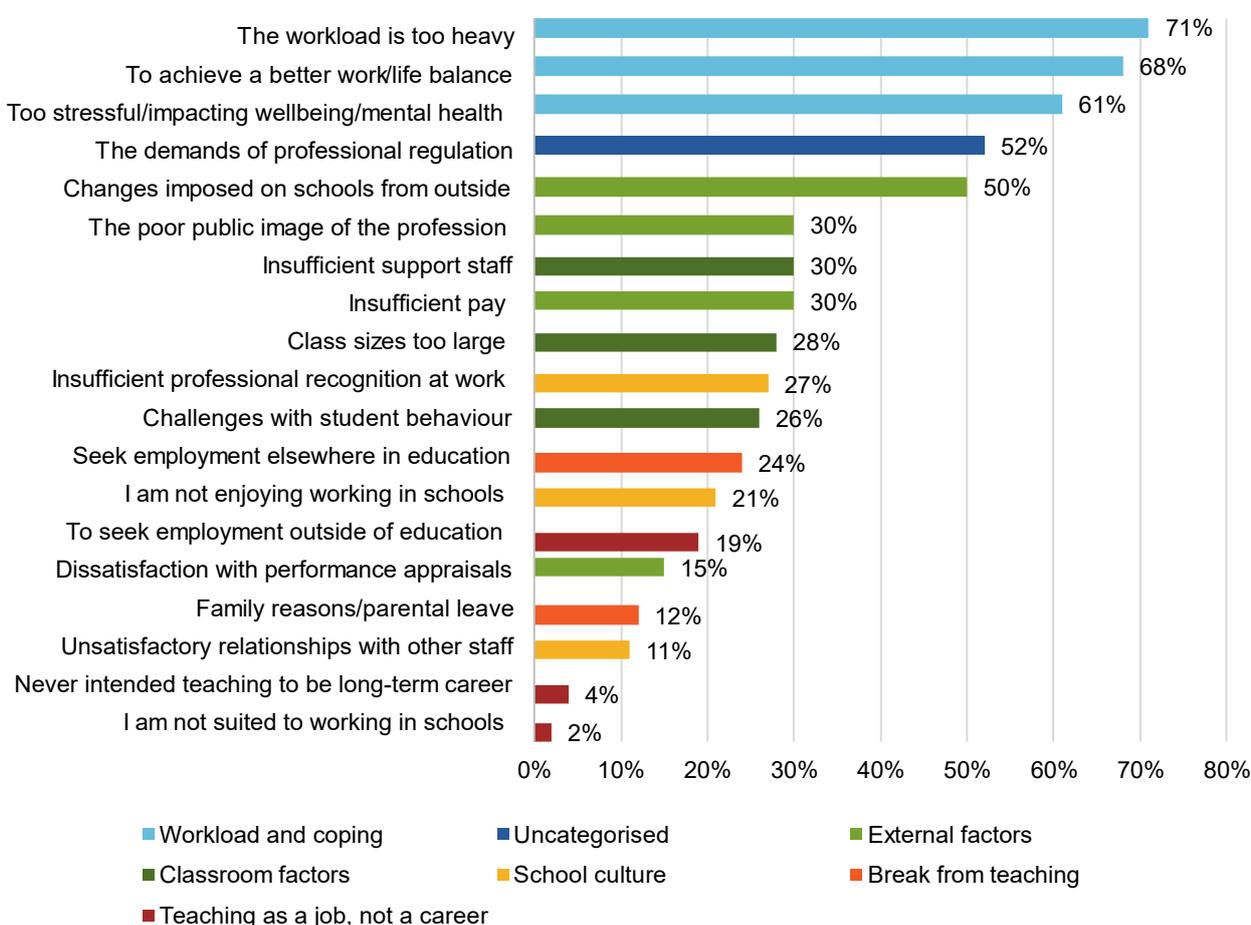
a. Based on a survey of teachers from New South Wales, Northern Territory and South Australia in 2018. The sample of survey respondents varies by task. The sample was not sufficient to consider part-time work under 16 hours a week. Only includes full-time school teachers.

Source: Commission analysis based on AITSL (2021a, pp. 67–70).

Reducing teacher workloads would not only improve teacher effectiveness — by increasing the time teachers have to prepare for lessons and undertake professional development — it would help reduce shortages. High workload is the main factor behind teachers’ intention to leave the profession (figure 4).¹³ More manageable workloads might also encourage former teachers to return to the profession — survey estimates suggest that 11 per cent of registered teachers are not working in education, although teacher registration data in some jurisdictions point to a much larger number.

About two-thirds of Australian principals also cite heavy workload (along with ‘level of responsibility’ in their job) as a factor limiting their effectiveness, with recent surveys suggesting that they work just over 61 hours per week.

Figure 4 – Reasons for considering leaving^a



a. 3 216 survey respondents from New South Wales, Northern Territory and South Australia.

Source: AITSL (2021c, p. 108).

Reducing low-value tasks and effectively deploying teachers’ assistants could help ease the burden

While, on average, Australian teachers work more hours than their international counterparts, they spend less time teaching, both in terms of absolute hours and as a proportion of their working week. Instead, they spend more time on general administration, such as communication, paperwork and other clerical duties. At just over

¹³ While intentions data do not necessarily correlate with attrition, they can be a good barometer of current perceptions and the mindset in a group.

5 hours a week, this is the fifth highest number of hours in the OECD. Principals spend an even greater share of their time (more than one-third of their worked hours) dealing with administrative matters, along with leadership tasks and meetings, while just 5 per cent is spent on professional learning for school staff.

At the same time that teacher (and principal) workload is increasing, the number of teaching assistants and other support staff has grown to just over 129 000 in 2021. The remit of teaching assistants is broad — working under the direction of teachers to support students (especially those with special needs) and helping with day-to-day running of the classroom, including administrative tasks. When used effectively and supported well, teaching assistants can make a difference to the learning outcomes of students, but it is unclear how they are being deployed.

Most jurisdictions, systems and sectors in Australia have some process underway to reduce the administrative compliance impact in their schools. And Education Ministers recently agreed that jurisdictions and non-government systems would 'provide information on actions they are taking' to free teachers up to focus on planning, collaborating and teaching (2022, p. 3).

But more concerted efforts are required. There is a strong case for the Australian, State and Territory Governments, in consultation with teachers and school leaders, to reduce low-value tasks, and find ways to more effectively use teaching assistants. The Commission is seeking feedback on whether this could form the basis for a new NPI in the next intergovernmental agreement.

Fostering expertise would improve teaching

AERO has observed that 'we are not effectively utilising our best teachers ... our existing teacher career paths do not systematically build, recognise and deploy teaching expertise ... to create a quality teaching workforce' (sub. 6, pp. 11-12).

Initiatives, such as Highly Accomplished and Lead Teachers (HALTs), are intended to address this gap. In addition to career pathways, they provide an opportunity for highly skilled teachers to share their expertise with others. But progress towards developing and recognising highly accomplished and/or lead teachers has been slow, in part due to intensive application processes. Since the introduction of HALT certifications in 2012, only 0.3 per cent of the workforce (about 1000 teachers) have become certified. And some contend that the communities of practice envisaged have failed to emerge, with many certified teachers saying they have too little time or opportunity to lead the development of others in their school.¹⁴ If so, there is a risk that HALT certifications become more a costly credential than a catalyst for better deployment of skilled teachers.

Processes to build, recognise and deploy teaching expertise can take many forms. Like HALT, Master Teachers and Instructional Leaders are also intended to recognise high-performing teachers and support local communities of practice. Employed by high-performing school systems overseas, such as Singapore and Shanghai, Master Teachers are intended to be the pedagogical leaders in their subjects, working across a network of schools in their region to identify teacher needs, coordinate training, and connect schools with research. Unlike Master Teachers, who have no classroom load, Instructional Leaders split their time between classroom teaching and instructional leadership, working in their own schools to support and guide other teachers in specific subjects.

While they do not offer the same degree of recognition, Quality Teaching Rounds — where teachers work together in small groups to analyse and improve their practice — have been found to have significant positive effects on teaching quality and student academic achievement. Teachers who participate in Quality Teaching Rounds report experiencing enhanced morale, stronger individual and collective efficacy, and

¹⁴ See for example Goss and Sonnemann 2020, pp. 23–24 and AITSL 2019.

improved school culture. Quality Teaching Rounds do not require intensive application or certification processes, and so provide an accessible avenue for time-poor teachers to improve their practice.

These three models are not mutually exclusive — the next agreement is an opportunity for Governments to develop and support localised communities of practice across schools, regions and sectors. These should encompass accessible options for time-constrained teachers.

Ensuring a pipeline of future school leaders

School leaders are second only to teachers in terms of their importance for student outcomes. But school leadership roles are becoming more complex and demanding. Effectively preparing teachers aspiring to become future school leaders requires early identification and investment, but also risks removing effective teachers from the classroom. And some aspiring school leaders are shying away from leadership roles due to workload concerns, particularly at the principal level.

Effective leadership planning, including clearer, more systematic career pathways would help ensure a pipeline of future school leaders. The Commission is seeking feedback on potential career pathways for aspiring school leaders.

Flexible approaches are required to overcome teacher labour market challenges

As workforce pressures persist, and as workers become more ‘career mobile’, more flexible approaches will be needed to avoid future shortages.

Mid-career professionals could be an important pipeline for future teacher supply — particularly in certain subject areas and locations where rates of out-of-field teaching are higher (box 1). Recent surveys reveal up to four in 10 mid-career professionals would consider a career in teaching, with one in 10 planning a career change to become a teacher, and three in 10 open to the idea.

Mid-career professionals looking to make the switch are motivated by a range of factors, including the desire to make a social contribution. But they face significant switching costs, such as the time taken to undertake an ITE course (raised from a 12 month diploma to a 2 year Master’s degree in recent years) and loss of income while studying and building a new career. Greater reliance on accelerated postgraduate degrees to reduce the time required to study, and employment-based pathways, would make teaching a more attractive option for many professionals.

A recent review into quality Initial Teacher Education (2021, p. iv), concluded that, ‘for highly qualified candidates with strong subject knowledge, the Graduate Diploma might be sufficient preparation for teaching in secondary schools.’ The Commission invites feedback on options for streamlining pathways for mid-career entrants, especially people with skills in critical areas.

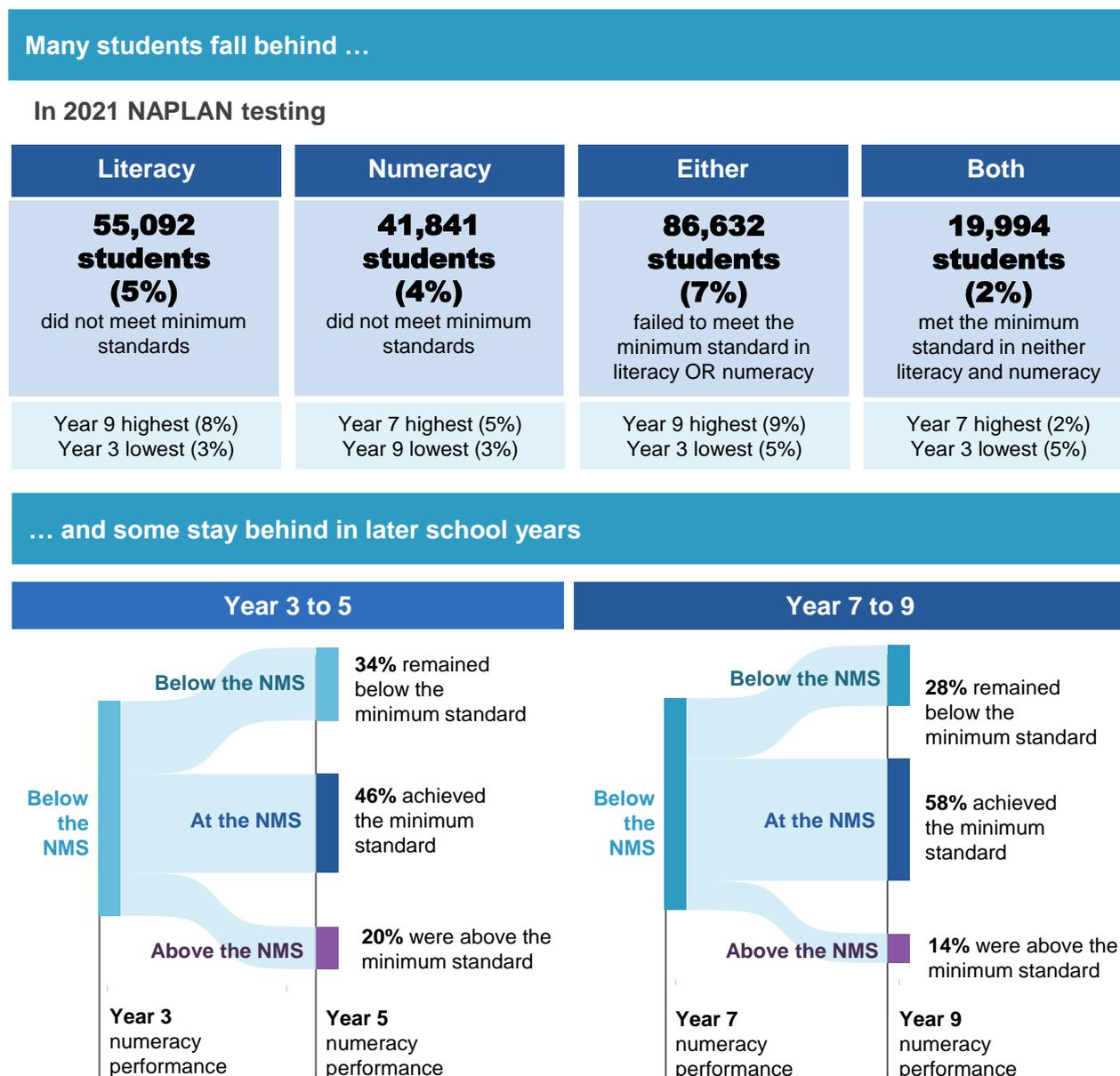
Tackling a lack of equity in student outcomes

Australia has long aspired to provide a high quality and equitable education for all students. But we persistently fall short of this ideal.

Many students do not meet minimum standards — often year after year

Each year, between 5 and 9 per cent of Australian students do not meet year-level expectations in either literacy or numeracy. About one-third of the students who do not meet minimum literacy standards in year 3 also do not meet minimum standards in year 5. Similar patterns are evident in numeracy and across years 7 and 9 (figure 5).

Figure 5 – Proportions of students meeting minimum standards in NAPLAN^a



a. NMS denotes National Minimum Standard. The bottom figure shows students who were below the national minimum standard in year 3 and whether they remained below, were at or above the national minimum standard in year 5. The same analysis was done for students between year 7 and year 9.

Source: Commission estimates based on NAPLAN de-identified student level data (2022).

The impact on these students can be demoralising, as the Australian Council for Educational Research observed:

[These students] tend to start each school year behind most of their age group and they are poorly equipped for the material they are about to be taught. Most struggle, and this is reflected in their poor performance on the year-level curriculum. Many students receive low grades year after year, reinforcing the message that they are not succeeding at school – or worse, that they are inherently poor learners. (Masters 2016, p. 1)

Tailored supports are needed for students who have fallen behind

One proven way to address gaps in learning outcomes is to have processes and structures within schools that identify when a student is starting to fall behind and intervene to support that student's performance.

Research suggests that targeted interventions are effective, particularly small group or one-to-one tuition. Intensive, targeted support allows the teacher to focus on the needs of a small number of learners, providing teaching that is closely matched to pupil understanding, and opportunities for greater levels of interaction and feedback. International evidence from two high performing nations shows that small group tuition can improve learning outcomes by about 4 months over one or two school terms.

Closer to home, targeted interventions have been shown to substantially improve educational attainment for students from low socioeconomic backgrounds.

Focusing on students who have fallen behind, and are at most risk of staying behind (particularly those in lower year levels), would be a good place to start. Commission analysis reveals students with parents with low levels of educational attainment and Aboriginal and Torres Strait Islander students are at higher risk of not catching up. The Commission seeks feedback on how such an approach, or other proven approaches, might be applied cost effectively in an Australian context.

Most students who do not meet national minimum standards are not from priority equity cohorts

Promoting equity is more than assisting students with low academic performance. A second, but related equity consideration is the significant and persistent gap in learning outcomes for some cohorts of students — often described as priority equity cohorts (Attachment A). The priority equity cohorts listed in the NSRA are Aboriginal and Torres Strait Islander students, students living in regional, rural and remote locations, students with a disability and students from educationally disadvantaged backgrounds.

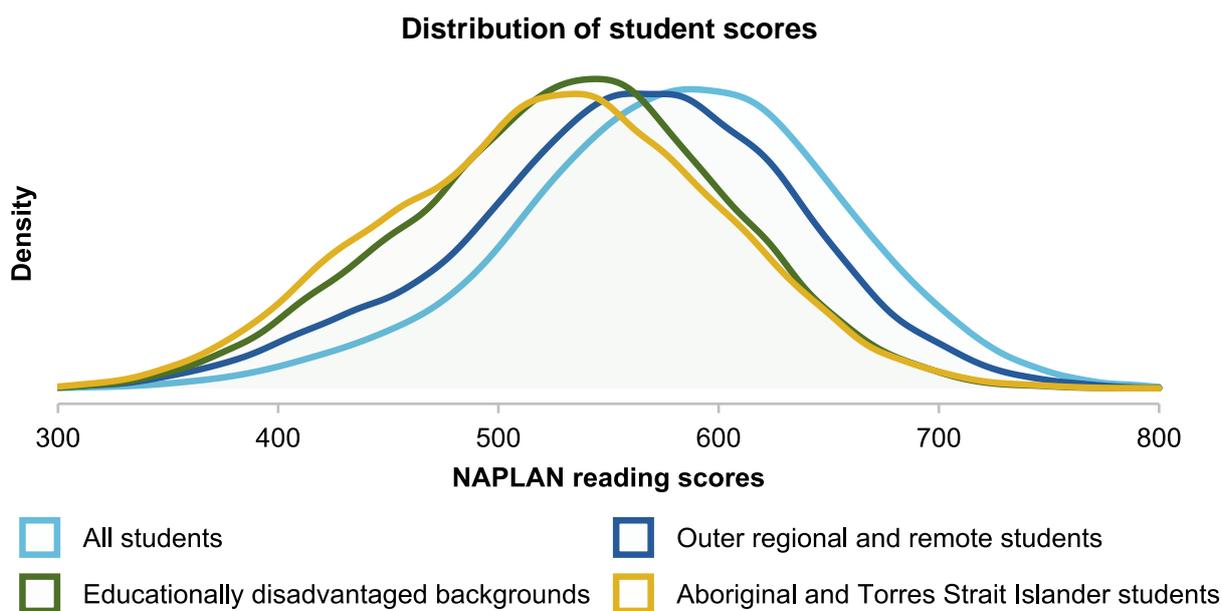
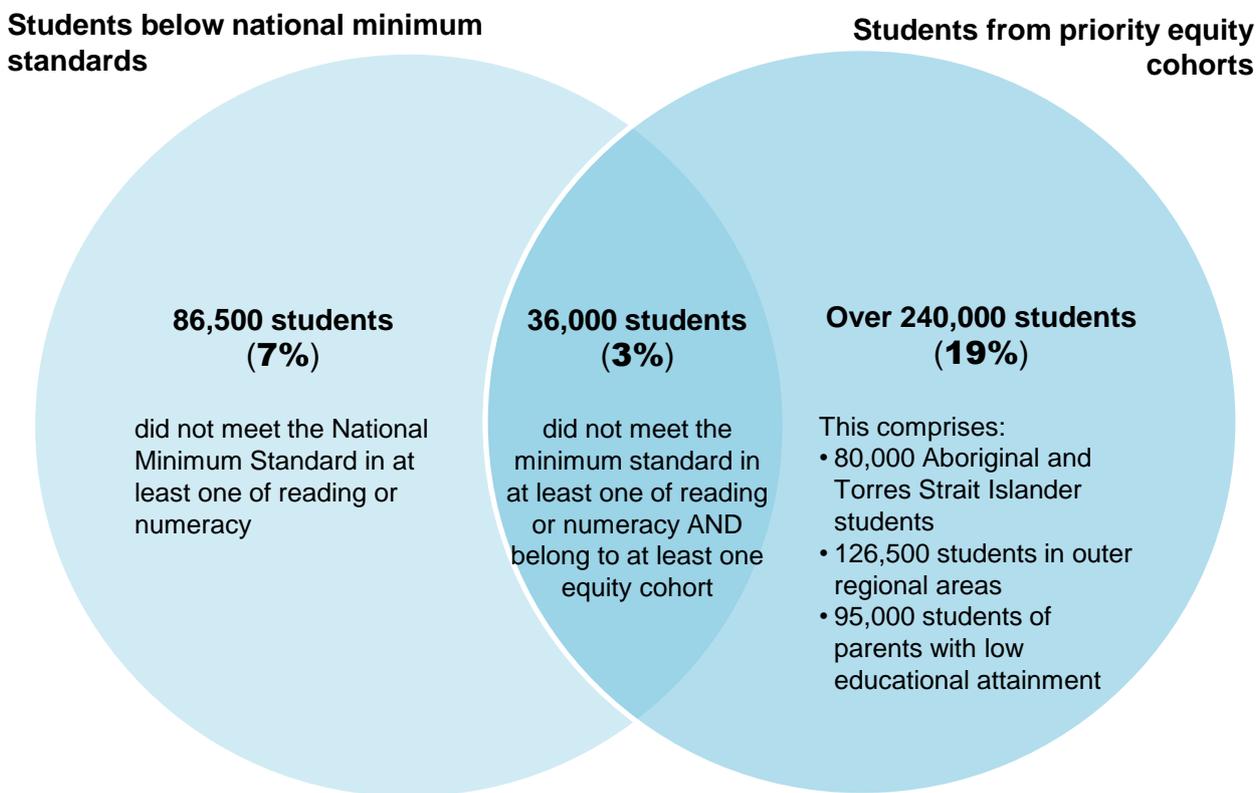
While students from priority equity cohorts are disproportionately represented among students who have fallen behind national minimum standards, most underperforming students do not belong to these cohorts (at least, not the equity cohorts identified in the NAPLAN data).¹⁵ And some 85 per cent of students who identify as belonging to a priority equity cohort, achieve at or above national minimum standards. Rather, gaps in outcomes exist at all levels of achievement — high and low (figure 6).

While the NSRA does not define equity, the Melbourne Declaration (and its successor, the Alice Springs (Mparntwe) Declaration) define equity at length. Definitions broadly reflect the values that school systems should strive to eliminate discrimination of all kinds and to ensure differences in educational outcomes associated with students' culture, disability, remoteness, or socioeconomic status are reduced or eliminated.

Promoting equity can be thought of as recognising that some students may have different educational needs and desired outcomes — including in relation to culture and language — and creating an education system that is able to adapt to these needs. However, outcome measures and feedback from stakeholders highlight that equity remains a key challenge for the Australian education system.

¹⁵ Students with disability are identified as a priority equity cohort in the NSRA, but NAPLAN performance data are not published for students with disability. As a consequence, the Commission was unable to include these students in its analysis.

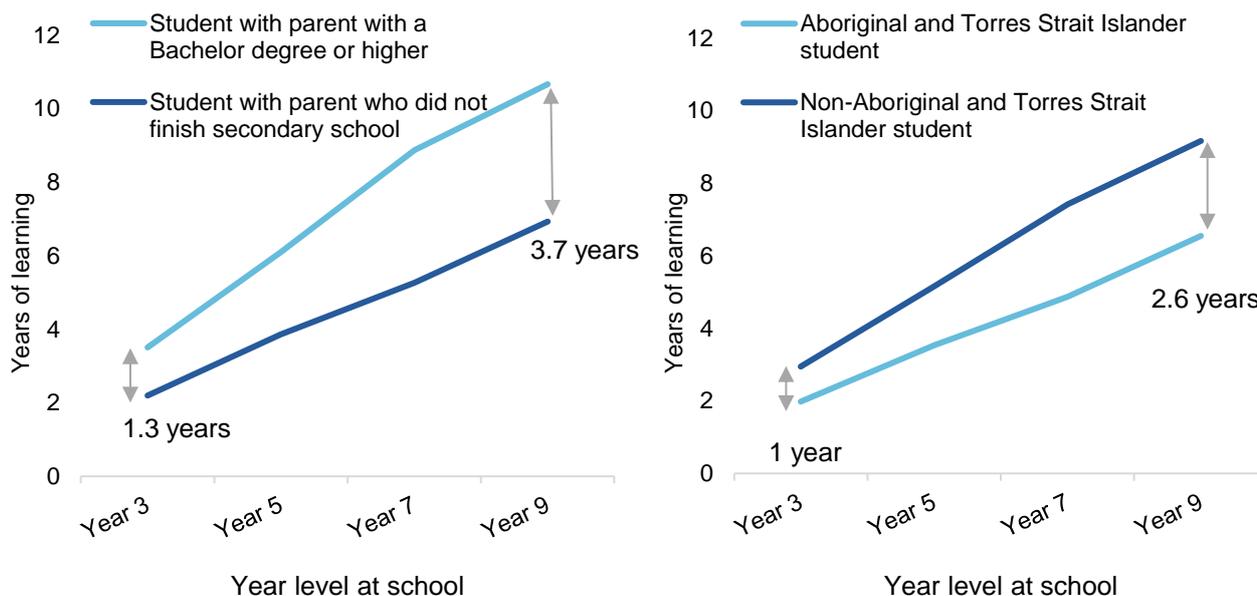
Figure 6 – The overlap between students below the national minimum standards and students from priority equity cohorts, years 3, 5, 7 and 9, 2021 (top), and the distribution of year 9 NAPLAN reading scores in 2021 (bottom)^a



a. Students with disability are identified as a priority equity cohort in the NSRA but NAPLAN performance data are not published for students with disability. Similar distribution results were found for NAPLAN numeracy scores in year 9. Source: Commission estimates based on NAPLAN de-identified student level data (2022).

Gaps in learning outcomes for students from priority equity cohorts have changed little over the past decade. Indeed, rather than narrowing, the gap in learning (expressed as the time it would take for students from priority equity cohorts to catch-up) widens as students progress through their schooling (figure 7).

Figure 7 – Gaps in years of progress widen as students progress through schooling
Difference in numeracy NAPLAN scores between students from equity cohorts and other students, expressed as equivalised years of learning



Source: Commission estimates based on NAPLAN de-identified student level data (2022).

A new, inclusive approach is needed for students from priority equity cohorts

The label ‘priority equity cohorts’ masks significant diversity in students’ learning needs and educational aspirations. This diversity reflects differences in their life experiences, the education outcomes they value, their learning and wellbeing outcomes, and the nature of adjustments and supports they may require.

Addressing the needs of these students relies on adopting a person-centred approach, which recognises that being in a priority equity cohort does not equate to disadvantage. Rather, it is the experiences of these students, both within and outside the education system that affects their educational achievement. The Indigenous Education Consultative Meeting observed:

[The] labelling of Aboriginal and Torres Strait Islander students and families as disadvantaged continues to play into a culture of deficit discourse and low expectations that stymie Aboriginal and Torres Strait Islander students’ ability to thrive in their education ... While Aboriginal and Torres Strait Islander students and communities face a range of complex and compounding circumstances that impact their educational engagement and outcomes, they are not inherently disadvantaged by being Indigenous. (sub. 52, p. 3)

Aboriginal and Torres Strait Islander students, families and communities

The importance of inclusive, person-centred approaches in responding to the distinct educational needs and aspirations of Aboriginal and Torres Strait Islander students was a recurring theme in consultations. The Commission has heard that some Aboriginal and Torres Strait Islander families and communities associate the education system with suppression of identity and language. Many stakeholders emphasised the importance of

culturally responsive pedagogies (which value and embrace Aboriginal and Torres Strait Islander languages and ways of learning) and a culturally responsive curriculum (which integrates Aboriginal knowledge, culture and history) in creating a sense of belonging and inclusion for Aboriginal and Torres Strait Islander students. During consultations, an Aboriginal young person highlighted the importance of ‘two-way’ learning:

A good education means getting everyone in the school to learn about Aboriginal culture, for non-Aboriginal people to learn about Aboriginal culture because we all live on Aboriginal land.

Designing policy in collaboration with the people it is intended to support allows for a deeper understanding of the issues certain students face and the policy responses that are most appropriate. Under the NSRA, State and Territory Governments are responsible for engaging with Aboriginal and Torres Strait Islander communities on the implementation of reforms. Since the NSRA’s inception, all Australian Governments, and the Coalition of Aboriginal and Torres Strait Islander Peak Organisations, agreed the 2020 Closing the Gap Agreement. This agreement focuses on shared decision making with Aboriginal and Torres Strait Islander people, representing a new way of working for Governments across all policy areas, including education.

Students with disability

Students with disability can face various barriers in accessing a high quality education that recognises their learning needs. A common concern raised by stakeholders is that some schools in Australia continue to use a ‘manage-and-discipline’ model, which can result in some students with disability being sanctioned instead of being given the behavioural supports they need, contributing to their disengagement from education. A 2019 survey of students with disability and their parents, conducted by Children and Young People with a Disability Australia, found that 14 per cent of participants had been suspended from school, almost one in five did not attend school full time, and one in ten had been refused enrolment.

Students with disability also related feeling discriminated against at school in the form of lowered expectations and lack of understanding and support for their learning aspirations. Students noted that these experiences often reduced their confidence in their ability to complete, and succeed in, their education.

A person-centred approach is key for addressing complex needs

There can be multiple factors that increase the challenges of providing high quality education for some students. Where these factors intersect, the effects can be compounding, further reinforcing the need for person-centred approaches. While the NSRA identifies distinct equity cohorts, about 20 per cent of students in priority equity cohorts belong to more than one cohort. As an example, Aboriginal and Torres Strait Islander children are more than twice as likely as non-Aboriginal and Torres Strait Islander children to have a disability.¹⁶ Some stakeholders observed that disability among Aboriginal and Torres Strait Islander students is not always picked up, and instead is treated as ‘misbehaviour’ and that these students are over-represented in school exclusions.

Families in regional, rural and remote areas can have limited choice in where and how they educate their children. Difficulties accessing education that meets student learning needs in remote areas can be particularly acute for students with disability and disproportionately affect Aboriginal and Torres Strait Islander students.

The Commission seeks feedback on whether ITE adequately equips teachers to identify and respond to the needs of students from priority equity cohorts. The Commission also invites feedback on whether more can be done to further embed the views of priority equity cohorts in national education policies and the merits of establishing a national Indigenous consultative body on education.

¹⁶ For children aged 0–14 years, based on the Survey of Disability, Ageing and Carers, Australia.

Priority equity cohorts do not capture all students experiencing educational disadvantage

There are some groups of students that could reasonably be included as a priority equity cohort in a new agreement.

- Students with English as an additional language or dialect often require specific support at school. This can include support to build English language skills to access the general curriculum¹⁷, as well as social, emotional and cultural support (as their social and cultural expectations can vary greatly).
- Children and young people living in out-of-home care are at greater risk of poorer educational outcomes than peers in the broader community. Young people in out-of-home care tend to move between care settings, and therefore schools. They are considerably less likely than their peers to attend school and engage with education. They typically require more intensive support from teachers and schools.¹⁸

Bilateral initiatives should give greater prominence to supporting outcomes for students from priority equity cohorts

Bilateral agreements were the intended vehicle for addressing equity issues.¹⁹ In practice, this has not always occurred. The NSRA does not appear to have spurred many new reforms to lift outcomes for students from priority equity cohorts. Many bilateral agreements fail to address each and all of the priority equity cohorts mentioned in the agreement. Where reforms are listed, there is often little information to show how proposed actions will contribute to desired outcomes. The result is minimal visibility on how jurisdictions are fulfilling their commitments.

There is a strong case for State and Territory Governments to continue to take the lead on implementing reforms to reduce barriers faced by students from priority equity cohorts — they are best placed to design initiatives that reflect local conditions and are tailored to meet their students' needs. However, a more systematic and transparent approach is required.

One approach for giving greater prominence to priority equity cohorts in the next agreement would be for parties to develop implementation plans that set out new and established reforms intended to improve outcomes for students from each priority equity cohort. In consultation with stakeholders, the parties could release plans that identify the desired outcomes and the data to be collected to track progress. This would provide a clearer picture of jurisdictions' efforts to achieve a high equity system.

Addressing poor student wellbeing

Many students experience poor wellbeing but there are no focused reforms to address this in the NSRA

Student wellbeing is both a desired outcome of schooling in its own right, as well as a vehicle to achieve improved learning outcomes — research shows wellbeing influences students' ability to engage and learn at school.

Students struggling with challenges to their wellbeing often have difficulty engaging at school. One study found that year 9 students who experienced feelings of depression scored 7 per cent worse than similar students in NAPLAN for literacy and numeracy. Another study found that students with persistent emotional or behavioural problems between years 3 and 7 fell a year behind in numeracy compared with their peers. This accords with research that suggests that poor wellbeing, and childhood trauma in particular, impacts a

¹⁷ It has been estimated over 600,000 EAL/D learners need English language support in schools throughout Australia.

¹⁸ As at 30 June 2021, there were about 46,200 children in out-of-home care across Australia.

¹⁹ Parties agreed that they would set out existing and/or new reforms to lift outcomes for students from priority equity cohorts, including Aboriginal and Torres Strait Islander students, students living in regional, rural and remote locations, students with a disability and students from educationally disadvantaged backgrounds (NSRA, s. 49 (c)).

child's memory and learning, compromising their ability to concentrate and negatively affecting social and teacher interactions at school.

A sizable proportion of children and young people experience major challenges to their social and emotional wellbeing. In 2014 (the most recent year for which data are available), one in five young people aged 11-17 reported having high levels of psychological distress, and 14 per cent of children aged 4 to 17 years reported experiencing an episode of mental illness during the year. Poor wellbeing can be particularly acute for children and young people experiencing child abuse and neglect, family violence and in out-of-home care.

Addressing poor wellbeing requires more than just generic wellbeing programs geared at students. For Aboriginal and Torres Strait Islander students, connection to country, spirituality, community and ancestry can be key protective factors in helping to manage wellbeing. Teachers and school leaders also need support and resources to identify and respond to students' wellbeing needs. While a student's wellbeing is often influenced by what is happening outside the school gates, poor wellbeing can be exacerbated, and trauma entrenched, by a lack of awareness on the part of teachers and school leaders.

While there was already growing recognition that school policy needs to focus on student wellbeing, the COVID-19 pandemic has brought concerns about student wellbeing into sharper focus. However, several reviews have highlighted that school wellbeing programs and policies often fail to provide teachers and students with the support and resources they need. Issues include overlapping policies and programs and schools choosing programs that lack a strong evidence base.

Student wellbeing should be included in the next agreement

The NSRA (s. 9) acknowledges that the 'wellbeing of all students is fundamental to successful education outcomes'. Yet, wellbeing is largely missing from the objectives, outcomes and reform actions in the NSRA. Elevating student wellbeing as an area of national priority and co-operation in a successor agreement, along with greater transparency on wellbeing outcomes, would encourage more effective support for students.

To allow jurisdictions to tailor responses to local needs and conditions, actions to support wellbeing are likely best pursued through bilateral initiatives (under the umbrella of a new intergovernmental agreement). But a greater focus on wellbeing might also provide opportunities for greater collaboration across Governments, portfolios and school sectors.

Improving the capacity of the education sector to adapt to changing contexts and needs

COVID-19 caused significant and ongoing disruption to the education system. It required schools, teachers, parents and students to rapidly adjust to new modes of learning — sourcing, implementing and adapting to a remote, online learning environment.

While the impact of the pandemic on student outcomes is not yet fully apparent, some clear policy implications have emerged. Beyond the immediate need of identifying and assisting students that may have fallen behind, COVID-19, along with a series of natural disasters, underscored the importance of school systems being able to adapt to changing contexts and needs. To be successful in this endeavour, schools and school systems will need to maintain a focus on innovation and improvement, supported by data, research and evidence. While the Commission does not propose that this form the basis of a new NPI, this report identifies some practical steps that jurisdictions can take to build these foundations. Encouraging continuous improvement and innovation in the education system is explored in more detail in the Commission's Productivity Inquiry.

How might intergovernmental co-operation need to adapt?

Making a real difference

A key challenge in lifting school performance is that policy deliberations — including as part of intergovernmental agreements — can be far removed from the daily realities of classrooms, teachers and students. A theme of this report is the need for the next NSRA to move beyond system architecture and drive real improvements on the ground. To be successful, the NSRA will need to close the distance between national policy making and classroom practice. Each should inform the other — with teachers and school leaders influencing policy, and evidence-based approaches gaining more traction in schools and classrooms.

Ultimately, schools are relied upon to implement NPIs in addition to other jurisdictional policies and reforms.

Greater implementation flexibility should be balanced by enhanced accountability and transparency

While national projects will continue to have a role in the next intergovernmental agreement, addressing some future reform priorities may require greater flexibility than the ‘one in, all in’ approach to NPIs under the NSRA. In some cases, the benefits of participating in multi-jurisdictional projects to achieve national reform priorities might differ across parties (for example, where some states and territories have already implemented local responses). In these instances, jurisdictions might have the choice of opting out of joint projects (while continuing to contribute to national reform directions through state-based projects) or to contribute to joint projects by sharing existing knowledge, so that other jurisdictions are not starting from scratch.

Where jurisdictional differences demand more tailored responses, bilateral initiatives might need to do more of the heavy lifting. But greater flexibility in implementation would need to be balanced by greater public transparency and accountability mechanisms. Lessons from implementing the NSRA suggest that these mechanisms are relatively weak.

Existing accountability mechanisms have limited effect and can give rise to perverse outcomes

The Australian Education Act allows the Commonwealth to withhold funding from States or Territories that do not implement agreed NSRA reforms. While intended to encourage the uptake of reforms, this seems to have created perverse incentives, as states seek to reduce funding risks. Apart from the USI, many of the milestones in the NSRA and bilateral agreements are highly caveated or provide little detail on what outputs parties have committed to deliver, let alone what outcomes they will achieve. And bilateral agreements often represent an audit of current measures (categorised under one of the three broad reform directions of the NSRA) rather than additional measures.²⁰

Perverse incentives aside, withholding funding would be a significant step for the Commonwealth and many stakeholders do not see the threat as credible, weakening its effectiveness as an accountability tool.

Annual progress updates for the NPIs and bilateral agreements, one of the main accountability mechanisms in the NSRA, also appear lacking. Performance is self-assessed and updates provide scant information on how outputs are contributing to intended outcomes, leaving stakeholders with little sense of their overall impact or success.

²⁰ For example, every jurisdiction’s agreement contains a commitment to continue work on the Nationally Consistent Collection of Data on School Students with Disability, a project already in train well before the NSRA.

The National Measurement Framework for Schooling does not provide a complete view of performance

The final and perhaps most important accountability mechanism is public performance reporting.²¹ The NSRA (s. 51) sets out public reporting arrangements intended to give ‘the community confidence that outcomes are being achieved and reforms to improve the quality and equity of Australia’s schooling systems are being implemented by all Parties’ (figure 1). But this too has shortcomings.

Arguably, some of the indicators in the NSRA lack the breadth to provide a good understanding of progress. Current indicators provide a limited view of student engagement and transitions to further study, training or work.

And the Measurement Framework (the chosen vehicle for measuring progress against the outcomes of the NSRA) does not reflect commitments to report on outcomes for students from priority equity cohorts. Despite some information being available²², the Measurement Framework and associated National Report on Schooling do not include many of the agreed measures for Aboriginal and Torres Strait Islander students, students living in regional, rural and remote locations, or students from educationally disadvantaged backgrounds. Accountability for outcomes for students with disability is particularly poor because of a lack of data.

Meaningful and transparent measures of progress are needed

Governments have several options for enhancing accountability and transparency under the next agreement. One model would be to require jurisdictions to include additional information in their bilateral agreements and associated progress reports so that it is clearer what outcomes are being pursued and whether they are being achieved. This could be set out in implementation plans, as described above.

Improving data quality and availability and fulfilling existing reporting commitments, by ensuring the Measurement Framework and National Report on Schooling disaggregate results by student cohort, would also go a long way to improving accountability. Governments have already signalled their willingness to consider opportunities to enhance and augment existing indicators in the Measurement Framework to provide a better understanding of progress.²³ Indicators for wellbeing, learning gain and post-school outcomes would provide a more complete view of performance.

²¹ Under the NSRA (s. 53(c)) parties agreed to ‘continuing public accountability on progress towards meeting targets through existing COAG performance reporting arrangements’. The National Measurement Framework for Schooling in Australia, including the schedule of key performance measures, provides the basis for Australian Education Ministers to report to the community on the performance of schooling (ACARA 2020).

²² Albeit with some diminution in data quality due to disaggregation and small sample sizes.

²³ Under the NSRA (s. 39) parties agreed to consider improvements to outcomes and sub-outcomes over time including enhancements to the existing performance measures and developing further performance measures reflecting priority areas.

Attachment A – system performance

Figure 8 – Recent performance against sub-outcomes^{a,b}

Progress across NSRA sub-outcomes between 2018 and 2021

Sub-outcomes	All students	Aboriginal and Torres Strait Islander students	Students in regional and remote areas	Students from educationally disadvantaged backgrounds
Lower the proportion of students in bottom two bands in the NAPLAN – reading				
Year 3	↑ +1.0 ppt	↑ +1.7 ppt	↑ +2.5 ppt	↑ +2.7 ppt
Year 5	↓ -1.8 ppt	↓ -6.3 ppt	↓ -1.5 ppt	↓ -4.9 ppt
Year 7	↓ -0.1 ppt	↓ -1.6 ppt	↑ +0.8 ppt	↑ +1.5 ppt
Year 9	↑ +5.0 ppt	↑ +4.8 ppt	↑ +5.9 ppt	↓ -0.1 ppt
Lower the proportion of students in bottom two bands in the NAPLAN – numeracy				
Year 3	↑ +1.3 ppt	↑ +2.7 ppt	↑ +2.6 ppt	↑ +3.2 ppt
Year 5	↑ +0.2 ppt	↑ +1.3 ppt	↑ +0.8 ppt	↓ -0.9 ppt
Year 7	↑ +2.1 ppt	↑ +5.4 ppt	↑ +3.4 ppt	↑ +2.5 ppt
Year 9	↑ +2.4 ppt	↑ +5.2 ppt	↑ +3.5 ppt	↑ +1.2 ppt
Increase the proportion of students in the top two bands in the NAPLAN – reading				
Year 3	↑ +2.1 ppt	↑ +3.3 ppt	↑ +1.2 ppt	↓ -0.3 ppt
Year 5	↑ +1.8 ppt	↑ +1.7 ppt	↑ +0.9 ppt	↑ +0.1 ppt
Year 7	↑ +0.9 ppt	↑ +0.7 ppt	↓ -0.4 ppt	↓ -0.1 ppt
Year 9	No change	↓ -0.1 ppt	↓ -1.0 ppt	↓ -0.6 ppt
Increase the proportion of students in the top two bands in the NAPLAN – numeracy				
Year 3	↓ -3.0 ppt	↓ -0.8 ppt	↓ -4.0 ppt	↓ -3.7 ppt
Year 5	↑ +1.7 ppt	↑ +0.4 ppt	↑ +0.9 ppt	↓ -0.9 ppt
Year 7	↑ +4.1 ppt	↑ +1.6 ppt	↑ +3.1 ppt	↑ +1.0 ppt
Year 9	↓ -4.1 ppt	↓ -1.8 ppt	↓ -3.9 ppt	↓ -2.7 ppt

Sub-outcomes	All students	Aboriginal and Torres Strait Islander students	Students in regional and remote areas	Students from educationally disadvantaged backgrounds
Lower the proportion of Australian students in the bottom levels for PISA tests (sample of 15-year olds)				
Note that PISA testing has not been undertaken since the introduction of the NSRA. This table shows the results from the most recent PISA test (in 2018), rather than the change in results.				
Reading	19.6%	43.0%	33.7%	31.2%
Maths	22.4%	48.4%	41.5%	36.6%
Science	18.9%	43.9%	34.1%	30.8%
Increase the proportion of students in the top levels of performance for PISA tests (sample of 15-year olds)				
Note that PISA testing has not been undertaken since the introduction of the NSRA. This table shows the results from the most recent PISA test (in 2018), rather than the change in results.				
Reading	13.0%	4.6%	9.1%	5.8%
Maths	10.5%	2.5%	5.1%	4.0%
Science	14.6%	2.6%	5.9%	3.9%
Reduce the gap in achievement between students from various socio-economic backgrounds in Australia's PISA educational performance compared to other countries and the OECD average (sample of 15-year olds)				
Reading	—	—	—	—
Maths	—	—	—	—
Science	—	—	—	—
Increase the proportion of students attending school 90 per cent or more of the time				
Foundation to year 10	-4.0 ppt	-7.4 ppt	-7.2 ppt	—
Increase the proportion of young people who completed year 12 or equivalent or gained a Certificate III or above				
18-24 year-olds	+0.6 ppt	—	+1.2 ppt	—
Legend	 Outcome improved (could be due to an increase or a decrease, depending on the sub-outcome)		 Outcome worsened (could be due to an increase or a decrease, depending on the sub-outcome)	
	 Data not collected			

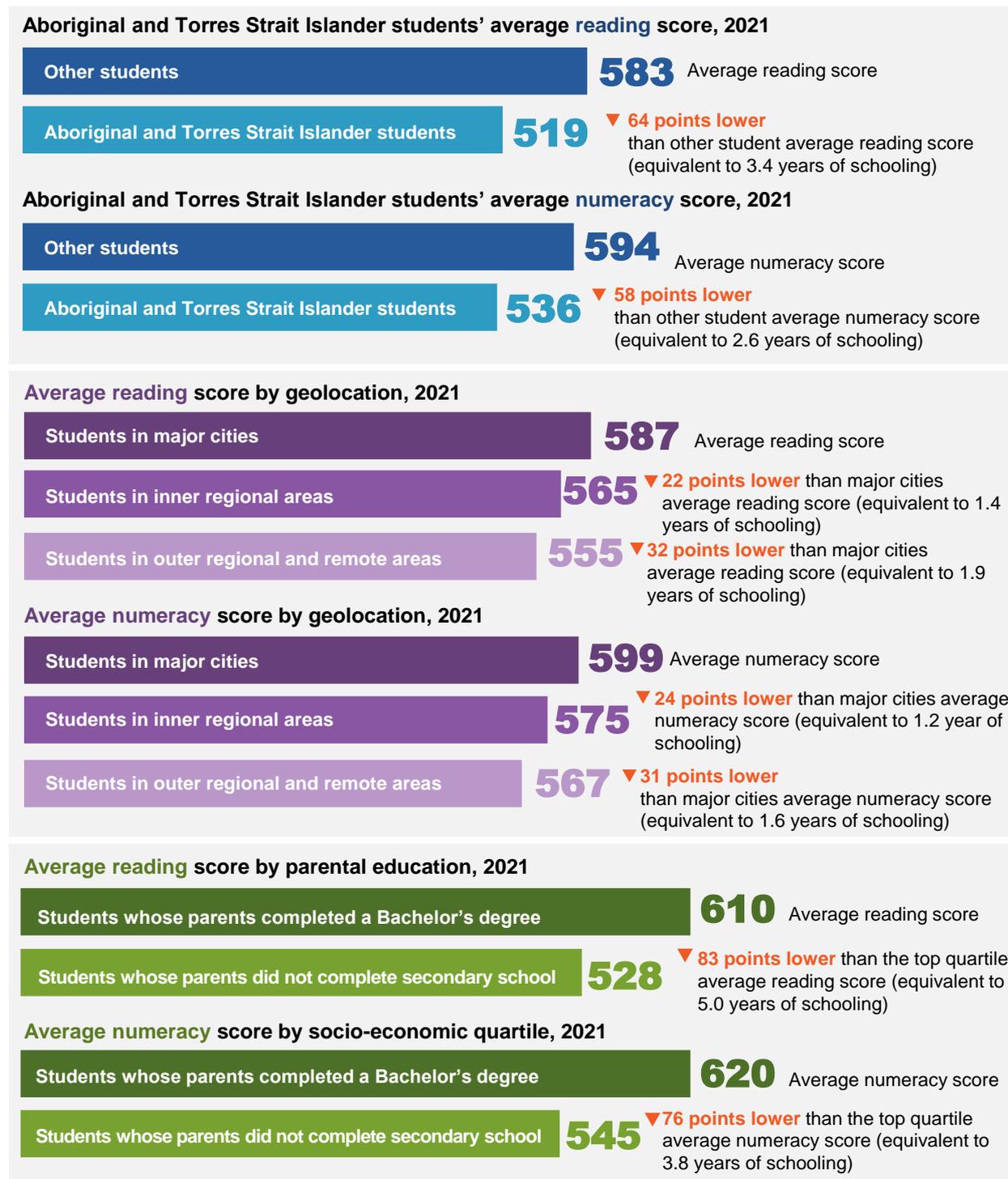
a. The NSRA commenced in 2019; so this figure illustrates the changes in outcomes since the NSRA was implemented.

b. The figure shows outcomes for students from three priority equity cohorts (Aboriginal and Torres Strait Islander students, students from regional and remote locations and students from an educationally disadvantaged background). As the latter is not defined in the NSRA, this is taken to mean students of parents without a year 12 (or equivalent) qualification for NAPLAN data, and students in the lowest socioeconomic quintile for PISA data. A fourth priority equity cohort — students with disability — has no data published so is not included in the table.

Sources: Commission estimates based on NAPLAN de-identified student data (2022); ACARA (2021); PC (2022).

Figure 9 – 2021 NAPLAN results by selected equity cohorts

Gaps in average test scores for students from equity cohorts, expressed in NAPLAN points and equivalised years of learning



Source: Commission estimates based on NAPLAN de-identified student data (2022).

Recommendations and findings

Chapter 1: About this review



Draft finding 1.1

Student achievement has stagnated, while attainment has improved and engagement has declined

Over the past decade, the performance of Australian school students in national and international assessments of literacy and numeracy has stagnated.

Although the proportion of students completing school has increased since 2015, the proportion attending school regularly has declined, with much of this decline predating COVID-19.



Draft finding 1.2

Persistent gaps in education outcomes for some student cohorts point to systemic problems

Australia has long aspired to provide a high quality and equitable education for all students.

Outcomes for Aboriginal and Torres Strait Islander students, students in outer regional and remote areas, and students with parents with low educational attainment are consistently below the outcomes of the broader student population.

Chapter 2: High-level assessment of the National Policy Initiatives



Information request 2.1

Realising the full potential of evidence-based research through the Australian Education Research Organisation

What steps could governments take to realise the full potential of evidence-based research through the Australian Education Research Organisation?



Draft finding 2.1

To date, the National Policy Initiatives have had little impact on Australian students' outcomes, with some initiatives stalled or incomplete

Some National Policy Initiatives have only recently delivered outputs, while others have stalled or fallen short.

- The design of the unique student identifier and the online formative assessment tool still need to be settled.
- The National Review Projects have not yet been followed by substantial national reforms.
 - There is no clear plan on how jurisdictions will implement the National Workforce Strategy to plan for future workforce needs.
 - It is equally unclear how aspects of the Senior Secondary Pathways Review will be progressed.
- National data projects have met with delays.
- The Australian Education Research Organisation is just beginning its work and will need to develop effective relationships and systems to realise its potential.



Draft recommendation 2.1

Parties to the National School Reform Agreement should fulfil their commitments to deliver key National Policy Initiatives

Recommended actions include:

- agreeing the design and privacy protections of a Unique Student Identifier (USI). If parties cannot deliver a national USI, they should, at a minimum, explain why they have been unable to do so
- developing the national online formative assessment tool in a way that enables jurisdictions to adapt the tool to their needs and preferences (including using content and features from their own formative assessment tools)
- developing a national model of the teacher workforce to support workforce planning.



Draft finding 2.2

The National School Reform Agreement has weaknesses that undermine its effectiveness in facilitating collective, national efforts to lift student outcomes

- Relying too much on NPIs that are a single solution to common issues has delayed reform outcomes.
- A lack of transparent, systematic, independent and meaningful reporting means there is little effective accountability.
- Outcomes do not adequately capture non-academic domains such as wellbeing.
- Insufficient prominence has been given to lifting outcomes for students from priority equity cohorts or a core of students who do not meet minimum standards.
- There is a poor connection between policy making and implementation in the classroom.

**Information request 2.2****Options for enhancing accountability in the next agreement**

The Commission is seeking stakeholder views on:

1. the benefits, costs and risks of proposed enhancements to accountability mechanisms for the next intergovernmental agreement, including:
 - a. jurisdictions specifying the outcomes that they expect to achieve (and related indicators) over the life of the agreement in public 'implementation plans' and reporting on progress annually. This would be in addition to identifying what measures they pursue in each priority reform area (as per current practice for bilateral agreements)
 - b. aligning the design of outcomes and indicators across jurisdictions to allow comparability
2. ways of ensuring groups representing school systems (Independent, Catholic), teachers, principals and students have effective input into policy formation (such as requiring jurisdictions to receive and publish input from affected parties as part of preparing implementation plans).

Chapter 3: Lifting outcomes for all students

**Draft finding 3.1****Many students have additional needs that do not directly relate to culture, disability or remoteness**

- A significant number of students do not meet minimum standards — often year after year. Around one third of students who do not meet national minimum literacy and numeracy standards in their early years of schooling do not meet national minimum standards in later school years.
- Most underperforming students do not belong to the priority cohorts named by the National School Reform Agreement. Around 85 per cent of these students do not belong to any of the priority equity cohorts identified in the National School Reform Agreement. Low educational performance needs a different approach.

**Information request 3.1****Intensive, targeted support for students who have fallen behind**

Would programs that provide intensive, targeted support to students who have fallen behind lend themselves to being a national policy initiative under the next intergovernmental agreement on schools?



Draft finding 3.2

Governments are yet to achieve outcomes for students who have specific educational needs related to their culture, their disability or remoteness, as set out in the National School Reform Agreement

- Gaps in learning outcomes for priority equity cohorts identified in the National School Reform Agreement have not closed.
- There can be multiple factors that increase the challenges of providing high quality education for some students. Where these factors intersect, the effects can be compounding.



Draft finding 3.3

Governments have failed to adequately demonstrate how reforms under the National School Reform Agreement are addressing specific educational needs related to students' culture, disability or remoteness

- There is significant diversity in students' learning needs and educational aspirations, both across and within cohorts, reflecting differences in their life experiences, the education outcomes they value, their learning and wellbeing outcomes, and the nature of adjustments and supports they may require.
- The National School Reform Agreement does not adequately include reform actions relating to students from the priority equity cohorts it names.
- Under the National School Reform Agreement, equity issues are to be addressed through the bilateral agreements between the Australian Government and each jurisdiction. However, these agreements often do not identify measures to lift outcomes for students from all priority equity cohorts or, if they do, provide little detail on how measures will lift outcomes, or report any progress being achieved.



Draft finding 3.4

The priority equity cohorts in the National School Reform Agreement do not capture all cohorts of students experiencing educational disadvantage

- There are some student cohorts not identified as a priority equity cohort in the National School Reform Agreement that face significant educational barriers.
- Children and young people living in out-of-home care face significant disruptions to their schooling and are considerably less likely than their peers to attend school and engage with education. By year 9, children in out-of-home care were four times more likely to be below the national minimum standard in reading, and six times more likely to be below the national minimum standard in numeracy, relative to the general population.
- Students who speak English as an additional language or dialect often require specific support to strengthen English language skills to access the general curriculum.



Information request 3.2
Priority equity cohorts for the next agreement

Are there student cohorts, not identified as a priority equity cohort in the current National School Reform Agreement, such as children in out-of-home care, that should be a priority in the next agreement? If so, which cohorts and why?



Draft finding 3.5
There are a range of educational barriers experienced by students from priority equity cohorts

- Compounding problems arise from equating Indigeneity with educational disadvantage.
- Cultural recognition by schools, and the value placed on Indigenous knowledges by them, are key in responding to the distinct educational needs and aspirations of Aboriginal and Torres Strait Islander students. Culturally responsive curriculum and pedagogies increase inclusion and engagement of Aboriginal and Torres Strait Islander students, and enrich the learning of non-Aboriginal and Torres Strait Islander students too.
- Indigenous knowledges, Aboriginal and Torres Strait Islander cultures, and how to include and empower students may be poorly understood by teachers and school leadership.
- There is now a mandate for consultation and shared decision-making in relation to the design of educational outcomes and sub-outcomes (and how they shape reform) under the Key Priority Reforms of the 2020 Closing the Gap Agreement.
- Children and young people with disability experience unique barriers to engagement and inclusion at school that affect wellbeing, engagement and school success.
- Initial Teacher Education may not sufficiently empower teachers to recognise and respond adequately to disability.
- Families in regional, rural and remote areas can have limited choice in where and how they educate their children.

Draft recommendation 3.1



Implementation plans, developed in consultation with affected groups, should be used to improve the transparency of reform actions and to hold parties to account for the outcomes they commit to achieve

In the next intergovernmental agreement, Australian, State and Territory Governments should ensure:

- there are reforms directly addressing the unique barriers and ambitions of students from priority equity cohorts
- bilateral agreements, developed in consultation with stakeholders, identify how jurisdictions will lift outcomes for students in each of the priority equity cohorts identified in the agreement, recognising their specific learning needs
- progress reporting contains sufficient information (and has sufficient oversight) to provide the public with confidence that measures to lift outcomes for students in priority equity cohorts are being implemented and achieving their intended outcomes.



Information request 3.3 Implementation plans

1. What would be the costs, benefits, and implementation issues associated with the Commission's proposed enhanced accountability mechanisms (draft recommendation 3.1) for bilateral agreements and associated reporting arrangements (in general and as they relate to students in priority equity cohorts)? What would be the costs and benefits of having people with lived experience involved in shared decision making in relation to reporting arrangements?
2. Are there ways parties could reduce the costs (for example, reporting burdens) and increase the benefits of implementation plans by integrating, aligning or linking them with existing government reporting processes (for example, reporting under Closing the Gap and Australia's Disability Strategy)?



Information request 3.4 Transparency of funding for students from priority equity cohorts

What would be the benefits, costs and risks of greater national reporting of schools funding and expenditure data to support transparency around state and territory efforts to lift outcomes for students from priority equity cohorts? If there is a case for providing such information, how could it be collected cost-effectively?

**Information request 3.5****Embedding the perspectives of priority equity cohorts in national education policy and institutions**

1. What specifically could be done to embed the views of priority equity cohorts in national education policies and institutions, including outcomes, targets and policy initiatives in the next intergovernmental agreement on school education?
2. What are the merits of establishing a national Indigenous consultative body on education? How might such a body be structured? If pursued, would this best occur through a successor national school reform agreement or some other avenue?
3. Does the current education and research evidence base capture a representative range of cultural and community perspectives, including those of Aboriginal and Torres Strait Islander students, teachers and researchers? If not, what actions could be taken to support this?

Chapter 4: Student wellbeing

**Draft finding 4.1****Many students experience poor wellbeing, but some do not receive effective support**

A significant proportion of children and young people experience poor social and emotional wellbeing. Poor wellbeing directly affects students' capacity to learn. Poor wellbeing can be particularly acute for students who experience challenges to engagement and inclusion at school, for example, children and young people in out-of-home care, those with disability and Aboriginal and Torres Strait Islander students.

While wellbeing is often influenced by factors outside the school gate, poor wellbeing can be exacerbated by responses from schools.

Australian, State and Territory Governments have implemented initiatives to support student wellbeing with varying degrees of success.

Successful support of student wellbeing relies on teacher education and the culture of school leadership.

**Draft recommendation 4.1****Governments should incorporate wellbeing in the next intergovernmental agreement**

In the next intergovernmental school reform agreement, the Australian, State and Territory Governments should:

- add improved student wellbeing as an outcome
- include local actions that would improve student wellbeing and indicators of progress in bilateral agreements or implementation plans
- collect data on student wellbeing from all schools to enable annual reporting on a national measure of student wellbeing.



Information request 4.1

Should there be National Policy Initiatives to improve student wellbeing?

1. Are there common steps that the Australian, State and Territory Governments could take in the next intergovernmental agreement to improve student wellbeing, or programs that could be implemented nationally?
2. Is knowledge in recognising and responding to poor wellbeing and trauma sufficiently covered in Initial Teacher Education and Teacher Performance Assessments? If not, how might this be improved?

Chapter 5: Supporting teachers



Draft finding 5.1

Improving teacher effectiveness is associated with large lifetime economic benefits for students

Improving the effectiveness of teaching would generate sizable lifetime benefits for students. Commission analysis suggests a one standard deviation increase in teacher effectiveness would raise average classroom lifetime earnings by several hundreds of thousands of dollars each year.



Information request 5.1

Teaching Performance Assessment

1. Does the Teaching Performance Assessment (TPA) process ensure pre-service teachers are sufficiently classroom ready?
2. Should TPAs meet a national minimum standard? If so, how might this be achieved?
3. Do TPAs ensure that pre-service teachers are well placed to respond to the needs of students from priority equity cohorts? If not, how might this be improved, and what trade-offs might this involve?



Information request 5.2

Induction and mentoring programs

Would measures for improving early career teachers' access to induction and mentoring programs lend themselves to being a national policy initiative under the next intergovernmental agreement on schools?



Information request 5.3 **The prevalence of teacher attrition**

1. Is teacher attrition more or less of a problem than in other professions?
2. Are the drivers of attrition amenable to government policy? How could government policy address high teacher attrition?
3. Do the drivers of attrition vary across the course of a teacher's career?



Draft finding 5.2 **There are local shortages of teachers and shortages of trained teachers in key subjects**

There are teacher shortages in regional, rural and remote areas, and in subjects such as mathematics, science, English and design and technology. There is also a lack of teachers from diverse backgrounds.

Factors such as changes in initial teacher education enrolment trends, an ageing workforce and growing student enrolments may contribute to teacher shortages in the future.

Improving labour demand and supply data collection and developing a national model of the teacher workforce, would help Governments better manage local shortages and out-of-field teaching.



Draft recommendation 5.1 **Governments should improve teacher workforce demand and supply data**

The Australian, State and Territory Governments should commit to continued development of the Australian Teacher Workforce Data initiative, with a priority placed on achieving full participation by all States and Territories. Governments should also improve workforce demand data. This data could be used to underpin the national model of the teacher workforce (draft recommendation 2.1).



Draft finding 5.3 **Teachers work long hours and their workload is increasing**

Australian teacher workload is greater than the OECD average. Australian teachers spend more time on non-teaching tasks, and less time on teaching tasks, than their international counterparts.

Teacher workload has increased over time. Many teachers cite heavy workload as a reason for wanting to leave the profession.

At the same time that teacher workload has been increasing, the number of teaching assistants and other support staff has grown.



Draft recommendation 5.2

Reducing teacher workload should be a focus of the next agreement

In the next agreement, the Australian, State and Territory Governments — in consultation with teachers and school leaders — should develop a new National Policy Initiative that commits all jurisdictions to undertake an assessment of teacher and principal time use. This could involve a four-step process, whereby Australian, State and Territory Governments:

- commit to an assessment of teacher and principal time use across school sectors, with a focus on identifying how teachers and principals spend their time, and what tasks they rate as low or high value
- specify how they will remove low-value tasks, duplicate tasks and regulatory inefficiencies
- specify how teaching assistants can be best deployed, including to reduce teacher workload
- monitor the compliance and administration burden on teachers and principals over time.



Information request 5.4

Teaching assistants and support staff

How are teaching assistants and support staff being deployed in schools and classrooms?

- What are the primary functions of teaching assistants and support staff in Australia?
- Could deployment and use of teaching assistants and support staff be improved to help reduce teacher workload? If so, should this be pursued through national collaboration?



Draft recommendation 5.3

Encouraging highly effective teachers and maximising their value

In the next agreement, the Australian, State and Territory Governments should work together, in consultation with teachers and school leaders, to:

- develop and support localised communities of practice across schools, regions and sectors. These should encompass accessible options for time-constrained teachers as well as subject specific options to support those teaching out-of-field
- ensure that Highly Accomplished and Lead Teachers are trained, and deployed as intended, to lift the quality of teaching across schools and sectors
- streamline processes for becoming a Highly Accomplished and Lead Teacher, including by recognising prior competencies.

**Information request 5.5**
Streamlining pathways into teaching

How can pathways into teaching for mid-career entrants, especially those with skills in critical areas, be streamlined?

- What are the costs and benefits of re-introducing one year graduate diplomas?
- What employment-based pathways could be explored?

**Information request 5.6**
Understanding what happens in the classroom

What (if any) systems do jurisdictions already have in place to understand what is being taught in classrooms, and how it is being taught? What are the options for obtaining more and better data on classroom practice in a way that minimises costs and administrative impost?

Chapter 6: School leadership

**Draft finding 6.1**
Improving school leadership can have large impacts on students' learning

School leaders are second only to teachers in fostering a positive learning environment. Improving the effectiveness of leaders, especially principals, would generate sizable benefits.

**Draft finding 6.2**
More planning is needed to ensure a sustainable supply of school leaders

Long lead times for teachers to move into leadership roles, and the emergent pressures on the current cohort of school leaders, underscore the importance of effective leadership planning to ensure a sustainable pipeline of future school leaders.



Information request 6.1
Fostering school leaders

1. Do principals have the resources, support and professional development opportunities required for their demanding roles?
2. Are policy efforts to identify and prepare potential leaders effective?
3. Are there alternative sources of school leaders, including from outside the teaching profession?
4. What are the relative merits of a nationally coordinated approach to supporting a pipeline of future school leaders?

Chapter 7: The National Measurement Framework



Draft finding 7.1
The Measurement Framework for Schooling in Australia is not appropriate for measuring progress on National School Reform Agreement outcomes

While reliable, and largely relevant, the Measurement Framework for Schooling in Australia is not a complete means of reporting progress on National School Reform Agreement outcomes. The visibility of Governments' progress against agreement outcomes is further diminished by the absence of a standalone report and the reliance on the broader *National Report on Schooling in Australia* and ACARA dashboard for performance reporting.



Information request 7.1
Standalone reporting against the National School Reform Agreement

Would a standalone report on progress against the National School Reform Agreement outcomes and sub-outcomes (separate to the *National Report on Schooling in Australia*) improve the accountability of Governments to the community?

**Draft recommendation 7.1****The performance reporting framework of the next agreement**

In the next intergovernmental school reform agreement, Australian, State and Territory Governments should:

- commit to public reporting on each outcome by jurisdiction for students with disability, Aboriginal and Torres Strait Islander students and students in regional, rural and remote areas
- add new sub-outcome measures for learning gain, post-school outcomes and the measure of student wellbeing proposed in draft recommendation 4.1
- update the NAPLAN sub-outcome measure to use proficiency standards rather than learning bands.

**Information request 7.2****Proposed sub-outcomes under the future agreement**

Do the identified outcomes, and proposed additional and modified sub-outcomes, reflect the aspirations of all Australian students, including those from Aboriginal and Torres Strait Islander backgrounds, students with a disability, and students from other priority equity cohorts (including students from equity cohorts not explicitly identified in the current agreement, such as those in out-of-home care, or who speak English as an Additional Language or Dialect)?

**Draft recommendation 7.2****Review of the Measurement Framework for Schooling in Australia**

ACARA's next review of the Measurement Framework for Schooling in Australia should:

- create a performance indicator framework aligned to National School Reform Agreement outcomes and sub-outcomes to which Key Performance Measures are mapped
- consider the inclusion of system performance Key Performance Measures relating to the teaching workforce
- consider the inclusion of additional contextual information relating to influences on learning based on Australian Early Development Census data and information on English language proficiency
- deliver improved reporting on outcomes for students from priority equity cohorts
- be undertaken in consultation with students, teachers and communities
- document remaining gaps.

The *National Report on Schooling in Australia* should be tabled annually in Parliament.

ACARA should work towards filling reporting gaps by exploring the use of State and Territory Government data that are comparable over time, even if it is not nationally complete or comparable across jurisdictions. Well established State and Territory Government surveys of students, parents and carers, and teachers should be given due consideration.

1. About this review

Key points

- ✳ **This review examines cooperative efforts between the Australian, State and Territory Governments to lift student outcomes**
 - It considers the extent to which National Policy Initiatives under the National School Reform Agreement (2018) are contributing to student outcomes and provides recommendations on the design of a new agreement.
- ✳ **Ensuring young people have a quality school education benefits both the individual and society more broadly**

People who complete secondary school on average:

 - have higher incomes and experience lower levels of unemployment
 - exhibit higher levels of civic engagement and trust
 - engage more in volunteering and healthy behaviours.
- ✳ **Despite a significant increase in funding for schools, the performance of Australian school students in national and international assessments of literacy and numeracy has stagnated over the past decade**
 - Results have not improved overall in either Australia's National Assessment Program — Literacy and Numeracy (NAPLAN) or the Organisation for Economic Co-operation and Development's (OECD) Programme for International Student Assessment (PISA).
- ✳ **Although the proportion of students completing school has increased, the proportion attending school regularly has declined**
 - Between 2015 and 2021, the share of students completing school increased from 87 to 90 per cent; while the school attendance level declined from 78 per cent to 71 per cent, with much of this decline occurring before COVID-19.
- ✳ **Persistent gaps in education outcomes for students in some cohorts point to systemic barriers**
 - Outcomes for Aboriginal and Torres Strait Islander students, students in outer regional and remote areas, and students with parents with low educational attainment are consistently below outcomes for the broader student population.

1.1 What has this review been asked to do?

The Australian, State and Territory Governments have a long history of collaborating on education — working together to build the national institutions, systems and tools to support better student outcomes.

The National School Reform Agreement (NSRA) (2018) — a joint agreement between the Australian, State and Territory Governments — sets out the most recent focus for collaborative reform efforts. The NSRA continues the work of its predecessor by establishing a reform agenda intended to contribute to a high quality and equitable education for all students (COAG 2018, s. 34). It sets out three targets for the school system, three outcomes of reform, and a series of sub-outcomes to track progress. To realise these outcomes, the NSRA sets out eight National Policy Initiatives (NPIs), nested within three reform directions (table 1.1).

The initiatives represent actions for the Australian, State and Territory Governments to jointly undertake in order to foster improvement in schools. Actions are intended to be focused in areas where national collaboration will have the greatest impact, build on current national reform efforts, complement State and Territory leadership in each jurisdiction and support local implementation (COAG 2018, s. 5).

In addition to the eight NPIs, each State and Territory has a bilateral agreement, setting out their actions to address outcomes for all students as well as students from priority equity cohorts. The bilateral agreements take into account the specific contexts, existing reform efforts and starting points for the relevant State or Territory (COAG 2018, s. 43).

Implementation of the eight NPIs, and the actions set out in the bilateral agreements, are a condition of Commonwealth funding to States and Territories. All parties agreed to implement the NPIs over the 5 years to December 2023.

Under the NSRA, parties committed to an independent review of the NPIs, reporting by the end of 2022.¹ This review fulfils that commitment.

Consistent with the review provisions in the NSRA, the Australian Government has asked the Commission to assess:

- the effectiveness and appropriateness of the National Policy Initiatives outlined in Part 3 of the NSRA, recognising that national reform takes time to implement and mature, and for the effects of nationally coordinated reform efforts to materialise
- the appropriateness of the National Measurement Framework for Schooling in Australia in measuring progress towards achieving the outcomes of the NSRA.

The Australian Government has also asked the Commission to make recommendations to inform the design of the next intergovernmental school reform agreement and to improve the National Measurement Framework.

In addition, on 7 April 2022, the Australian Government Minister for Regional Education wrote to the Commission to highlight aspects of the NSRA review that are particularly relevant to regional and remote students.

¹ NSRA, s. 29 and 31.

Table 1.1 – A summary of the NSRA

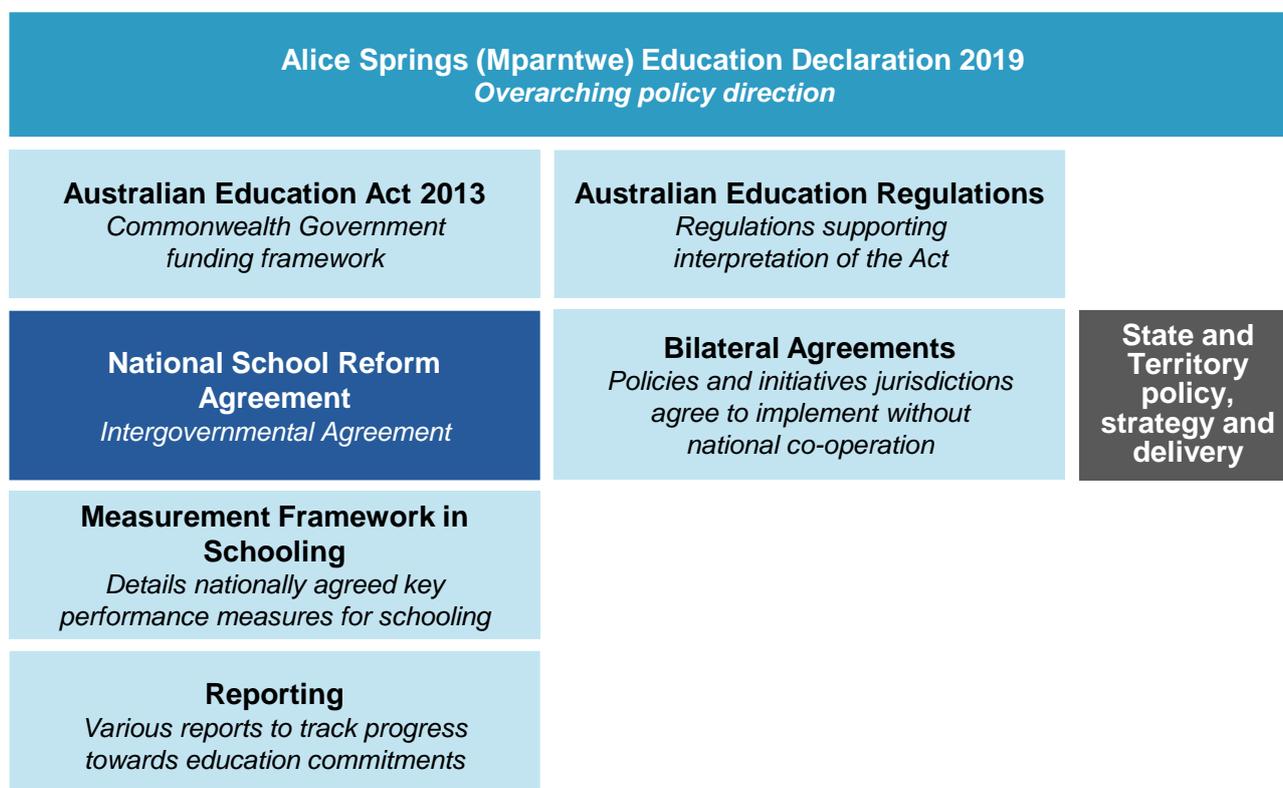
The NSRA comprises eight initiatives nested within three reform directions to guide the school reform agenda

Part 2 — objectives, outcomes targets and measures	Objective	Australian schooling provides a high quality and equitable education for all students		
	Targets	<p>Australia considered to be a high quality and high equity schooling system by international standards by 2025</p> <p>By 2031, increase the proportion of people (age 20-24) attaining Year 12 or equivalent qualification to 96 per cent</p> <p>By 2031, increase the proportion of Aboriginal and Torres Strait Islander people (age 20-24) attaining year 12 or equivalent qualification to 96 per cent</p>		
	Outcomes	Academic achievement improves for all students, including priority equity cohorts	All students are engaged in their schooling	Students gain the skills they need to transition to further study and/or work and life success
	Sub-outcomes	5 sub-outcomes	1 sub-outcome	1 sub-outcome
Part 3 — Reform Activity	Reform directions	Supporting students, student learning and student achievement	Supporting teaching, school leadership and school improvement	Enhancing the national evidence base
	National policy initiatives	<p>Enhance the Australian Curriculum to support teacher assessment of student attainment and growth against clear descriptors</p> <p>Assist teachers to monitor individual student progress and identify learning needs through an opt-in and on demand student learning assessment tools</p> <p>Review senior secondary pathways into work, further education and training</p>	<p>Reviewing teacher workforce needs of the future to attract and retain the best and brightest to the teaching profession and attract teachers to areas of need</p> <p>Strengthening the initial teacher education accreditation system</p>	<p>Implementing a national unique student identifier to support better understanding of student progression and improve the national evidence base</p> <p>Establish an independent national evidence institute to inform teacher practice, system improvement and policy development</p> <p>Improve national data quality, consistency and collection to improve the national evidence base and inform policy development</p>

The NSRA is only one part of the school regulatory and policy architecture (figure 1.1). While the NSRA is intended to work in harmony with the other components of the system, it is one of many policies and reform actions that contribute to overall system outcomes. This makes it difficult to isolate the NSRA's impact on system outcomes (chapter 2).

Figure 1.1 – The school regulatory and policy architecture

The NSRA is just one part of a broader school regulatory and policy architecture



1.2 Why do education outcomes matter?

Ensuring young people have a quality school education positions them to live fulfilling and productive lives and is central to Australia’s social and economic prosperity (COAG 2019, p. 4).

School education is linked to improved pay and job prospects ...

There is considerable evidence to suggest that completing high school improves young peoples’ earning and employment prospects (Deloitte Access Economics 2016; DESE 2019; Forbes, Barker and Turner 2010; Leigh 2008; Wilkins et al. 2021).

A 2019 Australian study found young people who complete secondary school have, on average, annual incomes 14 per cent higher and an unemployment rate 2.2 percentage points lower than people who do not complete secondary school (DESE 2019). A similar study, using Household Income and Labour Dynamics in Australia (HILDA) data (a household based longitudinal study), found that median wages when first entering the workforce were 35 per cent higher for people that had completed high school when compared with those who had not (Wilkins et al. 2021, p. 78).

People who perform well academically at school likely enjoy similar benefits. A study drawing on the longitudinal survey of Australian youth, which tracked a sample of over 10 000 students between the ages of

15 and 25², demonstrated that a student with higher mathematics scores, on average, will enjoy a wage premium³ and are more likely to be employed⁴, after controlling for prior learning ability (Deloitte Access Economics 2016, pp. 51, 56).

... increased productivity ...

The benefits of education extend beyond individuals' income and employment prospects. Recent international and Australian research lends some support for the existence of 'spillover effects', whereby educated individuals increase the productivity of their peers through interactions and knowledge sharing.

A cross-country analysis undertaken by the OECD found strong evidence that differences in cognitive skills (as measured by school test scores) lead to differences in economic growth between countries (Hanushek and Woessmann 2012, p. 26). In an Australian context, combining individual analysis with cross-country analysis, Deloitte Access Economics found that the benefits of increasing PISA scores for Australia exceeded the sum of benefits for individuals. This suggests there may be economic returns to education over and above the economic returns captured by the individual (Deloitte Access Economics 2016, p. xv).

Studies have also found workers with higher educational attainment (including, but not restricted to, workers who complete secondary school) are more likely to innovate, and those innovations spur technological progress and increase productivity across the economy (Deloitte Access Economics 2016; Hanushek and Woessmann 2012; Lamb and Huo 2017).

... and a range of other benefits

Completing secondary education also equips people to make more informed decisions, giving rise to a range of broader benefits (OECD 2010, p. 17). Research suggests that people who complete secondary education tend to exhibit higher levels of civic engagement and trust (DESE 2019), engage more in volunteering (OECD 2010) and healthy behaviours such as increased exercise and reduced incidence of smoking (DESE 2019), and are less likely to commit a crime (Lamb and Huo 2017).

1.3 What has been happening to student outcomes?

Trends in student outcomes can be grouped under four broad categories or domains — academic achievement, educational attainment, engagement and wellbeing (figure 1.2). In policy and academic literature, academic achievement (demonstration of learning and knowledge) and educational attainment (successful completion of secondary school) are generally seen as ends in themselves, whereas student engagement (being physically and emotionally present to learn) and wellbeing are variously seen as enablers of achievement and attainment, ends in themselves, or both (Centre for Education Statistics and Evaluation 2015, p. 2; OECD 2017, p. 1). In practice, there are complex interactions between all of these outcomes.

² The study included students from the Y03 cohort (students who were 15 years old in 2003) and the Y06 cohort (students who were 15 years old in 2006).

³ A 1 per cent increase in PISA scores is associated with a wage premium of 0.12 per cent.

⁴ A 1 per cent increase in PISA scores is associated with an increased likelihood of employment of 0.07 per cent.

Over the course of the past decade, student outcomes have largely stagnated.⁵ The lack of improvement in outcomes is notable given Ministers’ commitments to delivering a high quality and equitable education for all students, and a significant increase in investment over the past nine years.⁶

However, in more recent years, the absence of a significant change in outcomes has also been seen as an indicator of the resilience of the education system during a period of unprecedented disruption (chapter 2). The impacts of COVID-19 on student outcomes, including for student wellbeing (chapter 4), are yet to be fully understood, while the most recent NAPLAN results indicate little change to literacy and numeracy levels. The next round of NAPLAN results (with final results expected in late October 2022) will be critical in building our understanding.

Figure 1.2 – Domains to measure school system performance

There are four common domains of student outcomes



Academic achievement in literacy and numeracy has stagnated over the past decade

In Australia, academic achievement is typically measured using numeracy and literacy results from NAPLAN (a national assessment undertaken by year 3, 5, 7 and 9 students every year) and PISA (an international standardised test conducted every three years by the OECD for 15 year old students). Over the past decade or so, overall, Australian students’ results have not improved in either of these assessments.

PISA results have declined, but there is uncertainty associated with this result

Australian students’ average PISA results declined from 2009 to 2018 (figure 1.3) — the most recent year the OECD conducted the test. As one of the few measures that show declining (as opposed to stagnating)

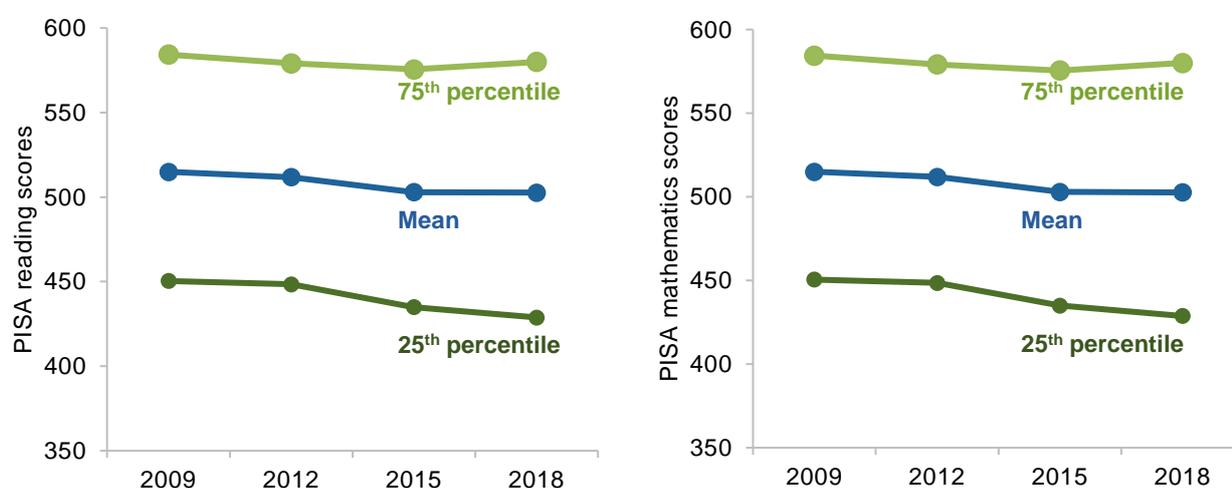
⁵ Caution is advised when using the analysis to make inferences about the effectiveness of NSRA, as many initiatives are in their infancy (chapter 2, appendix C), there are other factors that influence student outcomes (section 1.3) and many of the outcomes described below predate the NSRA (which was introduced in 2019).

⁶ NSRA s. 34. See also Goal 1 of The Education Goals for Young Australians — The Australian education system promotes excellence and equity.

academic outcomes, much has been made of these results. However, when interpreting Australia's PISA results, there are three important caveats to bear in mind.⁷

- As made clear by the OECD, the decline in results from 2015 and 2018 is not statistically significant for mathematics and reading — put simply, this means there is not sufficient evidence to suggest students' ability declined over this period.
- Looking further back at results from 2012 (the decline in results between 2012 and 2018 is statistically significant for mathematics and reading), part of the decline reflects changes in the composition of students sitting the test. As an example, in 2012, about 19 per cent of 15-year old students sitting the test were in Year 11; in 2018, this share dropped to only 7 per cent. That means about 12 per cent of students in the sample had an entire year less schooling than in previous samples. Adjusting for this reduces the extent of the decline by at least 25 per cent, and as high as 45 per cent (reading) and 30 per cent (mathematics) (Commission analysis).⁸
- Australia is one of a number of countries with declining PISA results. This raises a question of whether national curriculums are shifting away from the PISA assessment framework, making the PISA test more difficult for students in these countries (sometimes referred to as 'curriculum drift'). Preliminary analysis undertaken by the Commission shows that the decline in Australian students' scores since 2012 is matched by a decline in the OECD average. Relative to the OECD mean, there is no evidence of a statistically significant decline in the average scores of Australian students (after controlling for year-level and demographic characteristics of students sampled) (appendix B).

Figure 1.3 – Reading and mathematics PISA scores for Australian students^{a,b} 2009 to 2018



a. The chart shows the mean PISA score and the scores at the 25th and 75th percentile. **b.** The change in mean scores between 2015 and 2018 was not statistically significant.

Source: Thomson et. al. (2019).

⁷ These caveats affect average scores, the distribution of scores, and the share of students in the highest and lowest proficiency bands.

⁸ Compositional changes are particularly relevant in States, such as Queensland and Western Australia, where there have been changes to the school starting age.

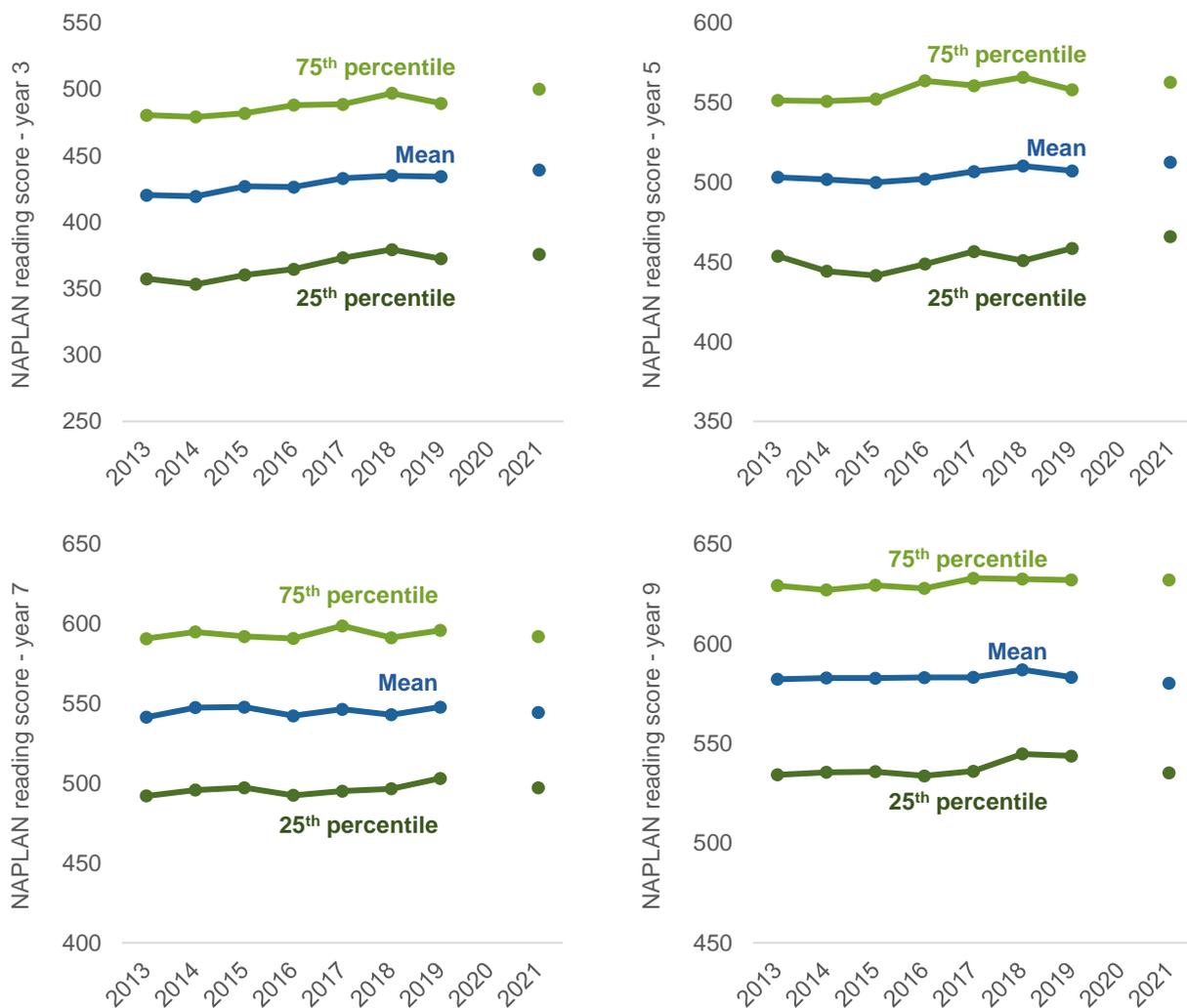
Notwithstanding the caveats set out above, PISA results are important for comparing education outcomes across countries, as well as different groups or ‘cohorts’ within countries.

NAPLAN results for all year levels have been flat

Since 2013, average NAPLAN scores were generally steady across all year levels, in both reading (figure 1.4) and numeracy (figure 1.5). Changes in scores among the highest- and lowest-performing students are also important in assessing system performance — in addition to depicting the mean figure 1.4 and figure 1.5 show the scores at the 25th and 75th percentile across year levels — and this too has been broadly steady.

Figure 1.4 – Reading NAPLAN scores since 2013, all year levels^{a,b}

NAPLAN reading results have been stagnant across all year levels

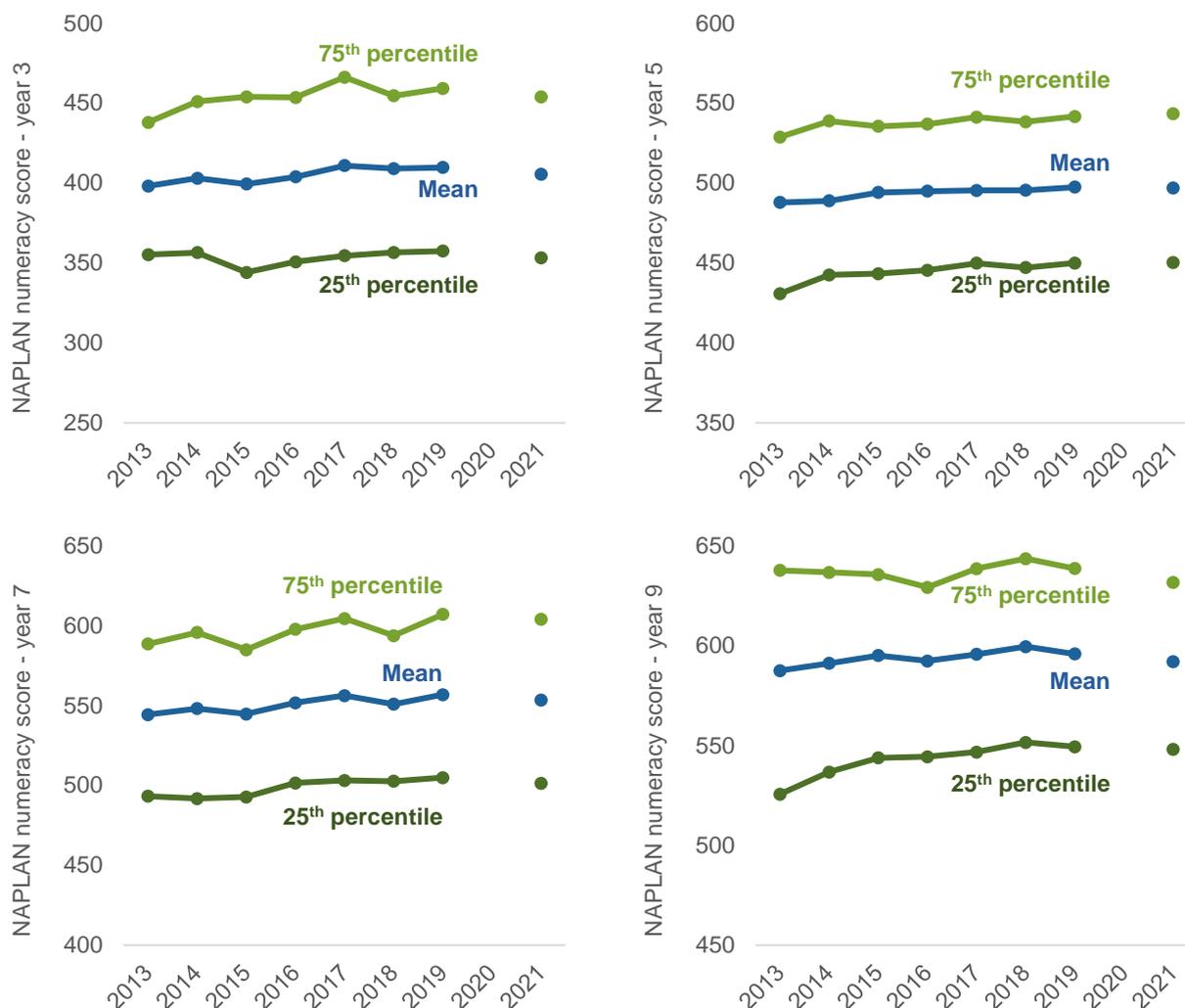


a. The chart shows the mean NAPLAN score and the scores at the 25th and 75th percentile. **b.** NAPLAN was not tested in 2020 due to the COVID-19 pandemic.

Source: Commission estimates, based on NAPLAN de-identified student-level data.

Figure 1.5 – Numeracy NAPLAN scores since 2013, all year levels^{a,b}

NAPLAN numeracy results have also been stagnant



a. The chart shows the mean NAPLAN score and the scores at the 25th and 75th percentile. **b.** NAPLAN was not tested in 2020 due to the COVID-19 pandemic.

Source: Commission estimates, based on NAPLAN de-identified student-level data.

The proportions of high and low performing students have remained relatively unchanged

Another way to assess student achievement outcomes is by looking at NAPLAN performance bands.

The performance bands represent increasingly challenging skills and correspond with increasingly higher scores on the NAPLAN scale. NAPLAN is divided into ten bands; Band 1 is the lowest and Band 10 is the highest level.

The performance bands allow for a national minimum standard. Students who are below the national minimum standard have not achieved the learning outcomes expected for their year level and are at risk of being unable to progress satisfactorily at school without targeted intervention. In 2021, 5 per cent of year 3 students did not meet the national minimal standard, increasing to 9 per cent for year 9 students.

Between 2013 to 2021, the proportion of students in the bottom and top bands of performance on NAPLAN remained consistent across all year levels (except for a rise in high-performing students in primary school). The proportion below the national minimum standard also remained stable.

Between 2013 to 2021, trends in NAPLAN literacy and numeracy scores at the student, sector and jurisdictional levels were consistent with the national trend. Results have not materially increased in either the government, Catholic or Independent sector, nor has there been significant improvement in any State or Territory that significantly deviates from the national trend.

Some students experience consistently lower outcomes, pointing to systemic barriers

To provide insights into the 'equity' of outcomes, national and international datasets disaggregate academic results for some cohorts of students more likely to experience educational barriers. For PISA, cohorts include 'provincial or remote', 'Indigenous' students, and students in the 'lowest socioeconomic quartile'. For NAPLAN the cohorts are students from 'outer regional and remote' areas, 'Aboriginal and Torres Strait Islander' students and students with 'parents with low educational attainment'.⁹ The 'equity' cohorts identified in the PISA and NAPLAN datasets are not exhaustive. Many other students also face barriers, such as students with disability, migrant and refugee students, students in out-of-home care and homeless young people (chapter 3). Outcomes data for these cohorts are generally lacking (chapter 7).

Both the PISA and NAPLAN results show that, over the past decade or so, there have been persistent and significant gaps in the education outcomes for some students, including those identified as 'priority equity cohorts' in the NSRA. Gaps in outcomes are most pronounced for students from a low socioeconomic background, followed by Aboriginal and Torres Strait Islander students:

- PISA results in 2018 show differences in outcomes of up to 3 years of schooling for low socioeconomic students and up to 2.5 years of schooling for Aboriginal and Torres Strait Islander students (figure 1.6)
- Commission analysis of 2021 NAPLAN results shows differences in outcomes of up to 5 years for students with parents with low educational attainment and differences in outcomes of up to 3 years for Aboriginal and Torres Strait Islander students (figure 1.7).

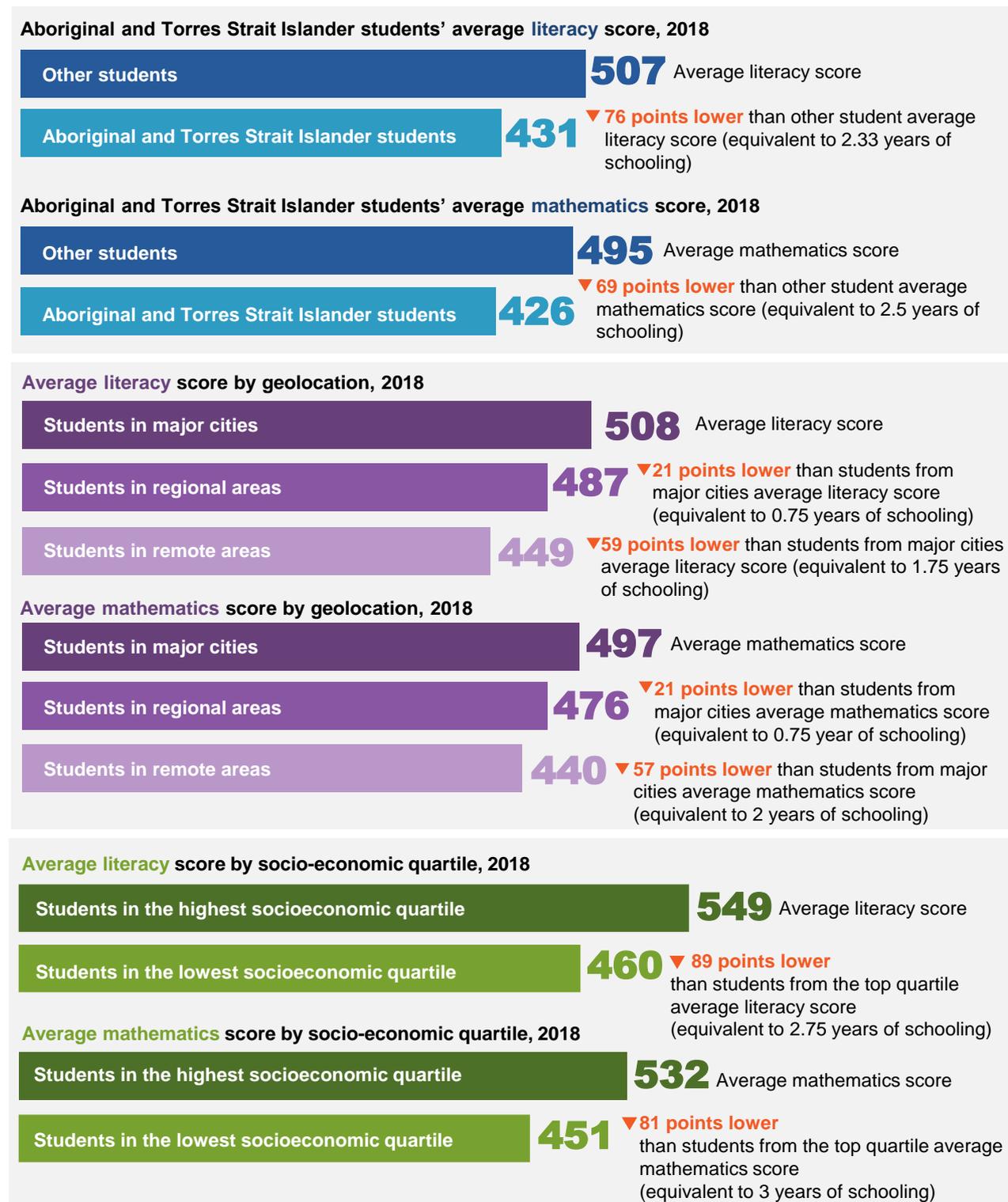
Students in equity cohorts were also disproportionately represented in the bottom two levels of NAPLAN performance. For example, in literacy the likelihood of:

- remote students being in the bottom two levels of performance compared with students in metropolitan areas was 2.5 times greater in year 3 and 1.6 times greater in year 9
- Aboriginal and Torres Strait Islander students being in the bottom two levels of performance compared with non-Aboriginal and Torres Strait Islander students was 3.6 times greater in year 3 and 2.4 times greater in year 9
- students with parents with low educational attainment being in the bottom two levels of performance compared with students of parents with high educational attainment was 7 times greater in year 3 and 4.3 times greater in year 9.
- It is not possible to draw insights about the academic performance of students with a disability from the PISA or NAPLAN data as neither report outcomes for this student cohort.

⁹ For this analysis, students with parents who did not complete secondary school are assumed to represent a cohort experiencing disadvantage.

Figure 1.6 – 2018 PISA results by selected equity cohorts

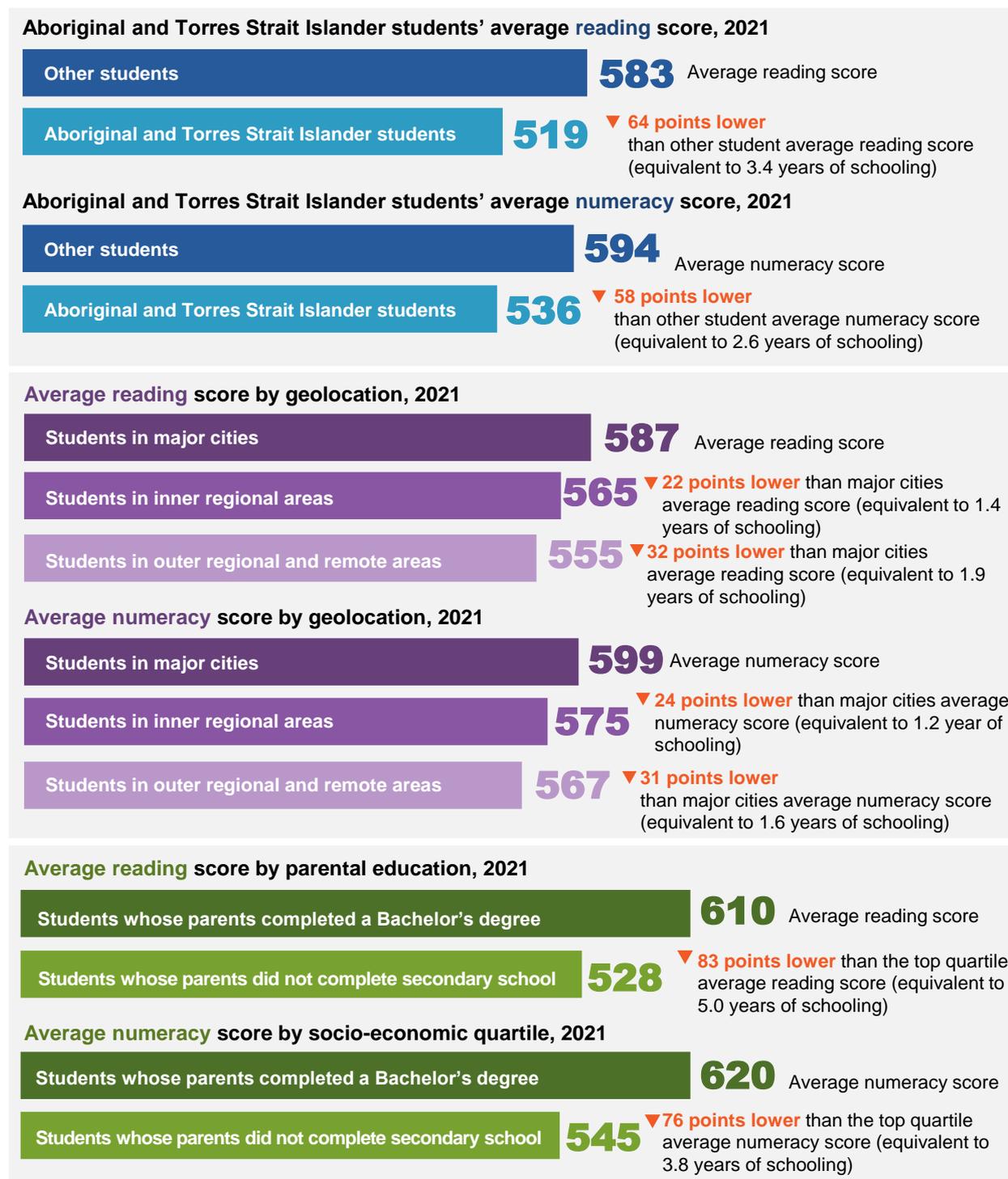
There are gaps in mean test scores for students in equity cohorts



Source: Thomson et al. (2019).

Figure 1.7 – Year 9 NAPLAN results, by selected equity cohorts, 2021

There are gaps in mean test scores for students in equity cohorts



Source: Commission estimates, based on NAPLAN de-identified student-level data.

The proportion of students completing school has steadily increased

An additional benchmark of educational attainment in schooling is whether a student completes secondary school or an equivalent qualification, or gains a Certificate III¹⁰ or above by the age of 24.

Measures of educational attainment are considered important as higher levels of attainment help students develop more skills, leading to higher rates of employment, higher productivity and higher lifetime earnings (section 1.2).

Between 2015 and 2021, the proportion of 20-24 year olds who completed year 12 or equivalent, or a Certificate III or above, increased by 3 percentage points to 90 per cent (PC 2022a). During this period, year 12 (or equivalent) completion rates for students in regional and remote areas were relatively constant at 79 per cent (PC 2022a). Equivalent attainment data are not available for Aboriginal and Torres Strait Islander students, students with disability, or students from low socioeconomic backgrounds (chapter 7). However, similar data from the Closing the Gap information repository shows that 62 per cent of 20-24 year old Aboriginal and Torres Strait Islanders completed year 12 (or equivalent) or Certificate III or above in 2016 (PC 2022b). Similar data from the Australian Institute of Health and Welfare show that, as at 2018, 68 per cent of 20-24 year olds with disability had completed year 12 or equivalent, compared with 85 per cent of 20-24 year olds without disability (AIHW 2022c).

But the proportion attending school regularly has fallen

Developing comprehensive measures of engagement involves conceptual and practical challenges.¹¹ Given these challenges, national and jurisdictional reporting tends to focus on aspects of engagement that can be measured by identifiable or observable behaviours, such as students' attendance rates and the proportion of students attending school regularly. For this reason, the measures of engagement presented should be seen as indicative, with other measures likely to be superior to the measures currently adopted (chapter 7).

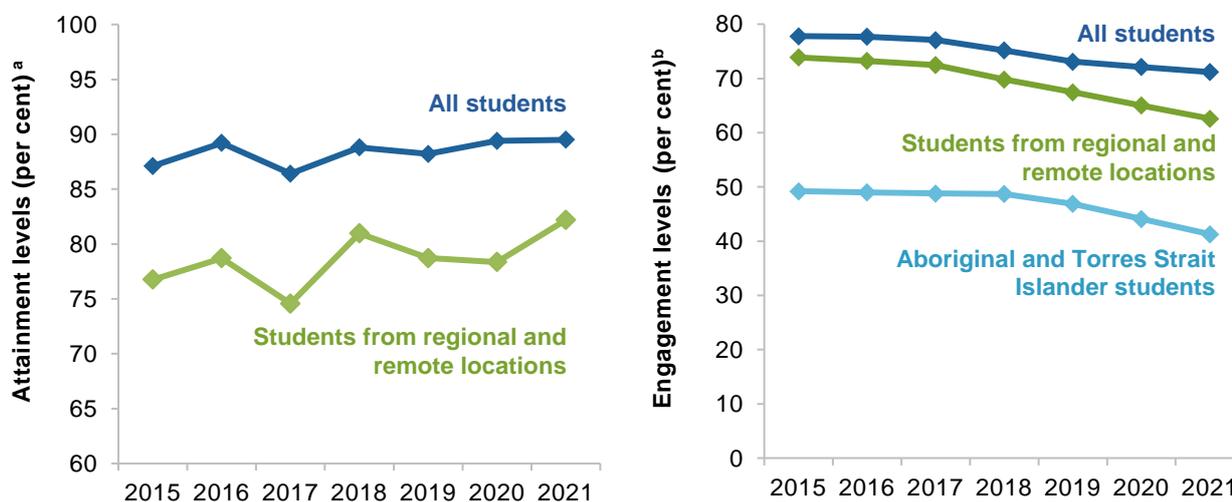
One readily identifiable measure of student engagement is the proportion of students attending school for at least 90 per cent of the time. In a continuation of a pre-COVID-19 trend, the proportion of students attending school for at least 90 per cent of the time nationally decreased from 78 per cent to 71 per cent between 2015 to 2021. Students in regional and remote areas (63 per cent in 2021) and Aboriginal and Torres Strait Islander students (41 per cent in 2021) had lower average attendance rates (figure 1.8).

¹⁰ A certificate III is generally offered at Vocational Education and Training (VET) providers, registered training organisation or private training provider. Graduates with a Certificate III will be able to apply a broad range of knowledge and skills in the workplace. Courses can take 1-2 years to complete, with some offering extended workplace learning options which can extend the time.

¹¹ Engagement can be thought of as comprising behavioural engagement (measured by identifiable or observable behaviours at school, such as participation in school activities or classroom behaviours, and by attendance, attainment and retention), emotional engagement (the emotional response to school or affective connections at school) and cognitive engagement (students' perceptions of intellectual challenge, effort or interest and motivation) (Fredricks, Blumenfeld and Paris 2004).

Figure 1.8 – Attainment and engagement rates since 2015

While attainment rates have been rising, engagement levels have been steadily declining



a. Attainment levels are measured as the proportion of 20-24 year olds who completed year 12 or equivalent, or a Certificate III or above. **b.** Engagement levels are measured as the proportion of students in years 1-10 that attend school at least 90 per cent of the time.

Source: Productivity Commission (2022a).



Draft finding 1.1

Student achievement has stagnated, while attainment has improved and engagement has declined

Over the past decade, the performance of Australian school students in national and international assessments of literacy and numeracy has stagnated.

Although the proportion of students completing school has increased since 2015, the proportion attending school regularly has declined, with much of this decline predating COVID-19.



Draft finding 1.2

Persistent gaps in education outcomes for some student cohorts point to systemic problems

Australia has long aspired to provide a high quality and equitable education for all students.

Outcomes for Aboriginal and Torres Strait Islander students, students in outer regional and remote areas, and students with parents with low educational attainment are consistently below the outcomes of the broader student population.

A significant proportion of students experience poor wellbeing

Wellbeing reflects how a person feels about themselves and their life, and is influenced by a range of factors. Student wellbeing is both a desired outcome of schooling in its own right, as well as a vehicle to achieve improved learning outcomes. Research shows a child’s wellbeing can strongly influence their ability to

engage and learn at school, and poor wellbeing — especially arising from childhood trauma — can hinder academic performance (chapter 4).

Evidence suggests that a sizable proportion of children and young people experience challenges to their social and emotional wellbeing, including at school. While some jurisdictions collect data on aspects of student wellbeing, nationally consistent measures of wellbeing are lacking (chapters 4 and 7). The limited data available show that as many as one in five students experience poor wellbeing.

- In 2021, results from the Australian Early Development Census show that 9.6 per cent of students in their first year of school were ‘vulnerable’, and 14.4 per cent were ‘at risk’, in the social competence domain. Further, 8.5 per cent of students were ‘vulnerable’, and 14.5 per cent were ‘at risk’, in the emotional maturity domain (DESE 2022a).
- In 2021, almost 7 per cent of all students required some form of adjustment for social-emotional support. This is up from just over 4 per cent in 2015 (ACARA 2021b).
- In 2018, 21 per cent of 15-year-old students reported that ‘other students make fun of me’ and 14 per cent reported that ‘other students left me out of things on purpose’ (Thomson et al. 2020, p. 70).

While wellbeing is cast more broadly than mental health (chapter 4), data on the prevalence of mental illness and use of mental health services and supports can provide insights into the wellbeing of Australian students:

- 14 per cent of Australian children aged 4 to 17 years had mental illness in the previous 12 months in 2014 (the latest year for which data are available) (Lawrence et al. 2015)
- the numbers of children aged 12 to 18 years accessing Medicare Benefits Scheme subsidised mental health services increased to over 14 per cent in 2020-21, up from just under 12 per cent in 2018-19 (SCRGSP 2022b).

Stakeholders, including principals, teachers and students themselves, have reported that the COVID-19 pandemic and recent natural disasters have served to worsen wellbeing outcomes for students. Improved wellbeing data are needed to build a better picture of student wellbeing (chapters 4 and 7).

1.4 What factors influence student outcomes?

Personal attributes and home environment strongly influence achievement

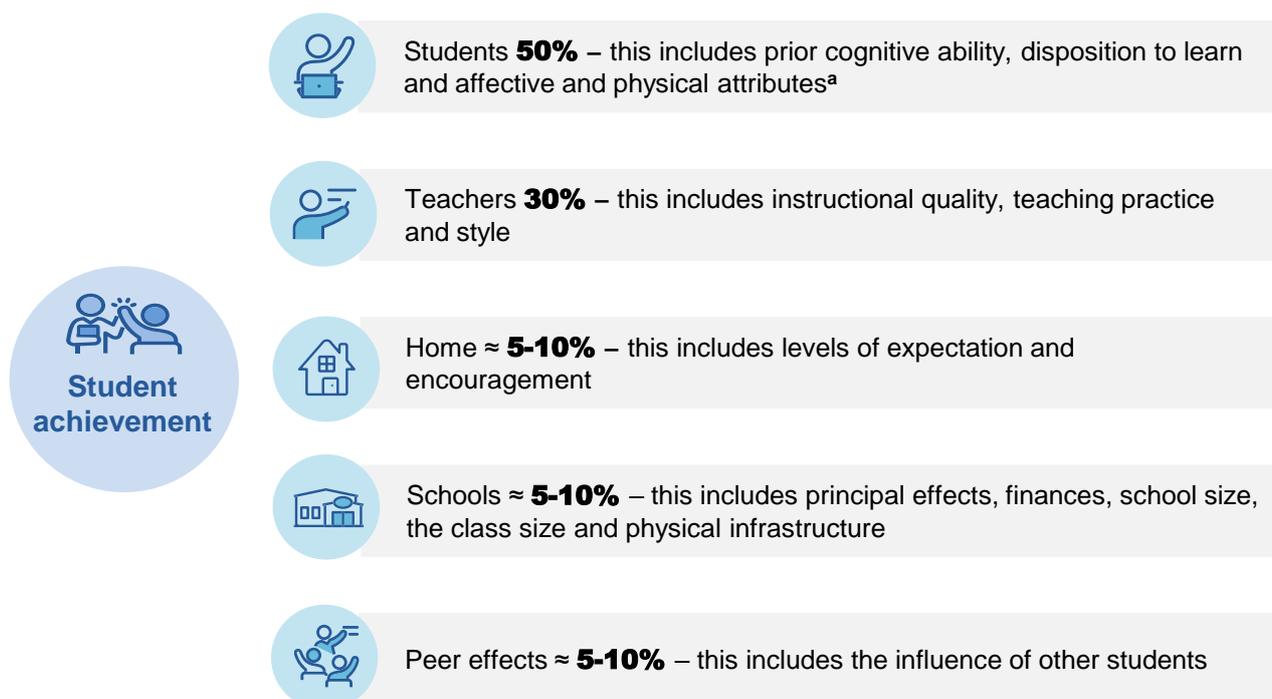
The trends in student outcomes described above are driven by a wide range of factors both inside and outside the school gate.

Researchers in Australia and overseas have sought to understand the drivers of student outcomes, with a view to informing policy design. Various studies have noted that students’ outcomes are a function of a range of factors, including their unique characteristics, their school characteristics and overall system factors (Deloitte Access Economics 2017b, p. 2; PC 2016a, p. 20).

In his influential work *Visual Learning*, Hattie (2003) estimated that a student’s unique characteristics have the largest influence on achievement (attributing most of the variance in student achievement to factors such as student ability and home environment) but noted schools and particularly teachers can make a big difference (attributing 30 per cent of variance in student achievement to teaching practice and

styles) (figure 1.9).¹² These findings consider factors influencing student outcomes overall, and may not be reflective of the experiences of students from specific cohorts, including those identified as priority equity cohorts under the NSRA.

Figure 1.9 – Variance in student achievement explained by different domains of influence
Achievement is driven by a range of factors inside and outside the school gate



a. These student and home level factors are affected by the child and family’s wellbeing, which are influenced by the family’s context and environment and broader policy settings.

Source: Productivity Commission, adapted from Hattie (2003).

1.5 What will be covered in this report?

In acquitting the terms of reference for this review, the Commission has assessed the effectiveness and appropriateness of the eight NPIs included in the NSRA, and identified future areas of focus, including areas where intergovernmental cooperation may need to adapt to support greater flexibility, accompanied by enhanced accountability and transparency (chapter 2). Each suggested area of focus — lifting outcomes for all students (chapter 3), student wellbeing (chapter 4), and supporting teaching and school leadership (chapters 5 and 6) — is discussed in subsequent chapters. Finally, the report considers the appropriateness of the National Measurement Framework for Schooling in Australia in measuring progress towards achieving the outcomes of the NSRA and makes recommendations for future improvements (chapter 7).

¹² The literature focuses on the schools’ role in explaining differences in educational achievement, but there are other outcomes schools work towards. There is little evidence on the schools’ influence on each outcome domain, but intuitively, it would be expected that the same factors will influence attainment, engagement and wellbeing outcomes (for example, home factors, such as high levels of encouragement from parents, will likely influence the likelihood of a student completing high school).

As part of this review, the Commission has consulted broadly and so far has met 43 stakeholder groups across all jurisdictions in Australia including State and Territory Governments (as the managers of their respective school systems), as well as non-government school sector representatives. The Commission also engaged with students, teachers, principals and parent representative groups, along with key Commonwealth education entities — the Australian Curriculum, Assessment and Reporting Authority (ACARA), the Australian Institute for Teaching and School Leadership (AITSL), Education Services Australia (ESA) and the Australian Education Research Organisation (AERO). A total of 53 submissions were received in response to the Call for Submissions and have informed this interim report. A full list of submissions received and parties consulted is available at appendix A. The Commission will consult further as it prepares its final report.

2. High-level assessment of the National Policy Initiatives

Key points

- ✳ **Almost four years after the National School Reform Agreement (NSRA) was signed, progress on the National Policy Initiatives (NPIs) has been mixed, at best.**
 - The design of the unique student identifier (USI) and the online formative assessment tool still need to be settled.
 - National reviews and some data projects have not lived up to expectations.
 - The Australian Education Research Organisation is still in its infancy.
- ✳ **With the NSRA expiring on 31 December 2023, parties should agree next steps for each NPI.**

Recommended actions include:

 - agreeing the design and privacy protections of a USI. If parties cannot deliver a national USI, they should, at a minimum, explain why they have been unable to do so
 - developing the national online formative assessment tool in a way that enables jurisdictions to adapt the tool to their needs (including using content and features from their own formative assessment tools)
 - developing a national model of the teacher workforce to support workforce planning.
- ✳ **The NSRA has weaknesses that undermine its effectiveness in facilitating collective, national efforts to lift student outcomes.**
 - Relying too much on NPIs that are a single solution to common issues has delayed reform outcomes.
 - A lack of transparent, systematic, and meaningful reporting means there is little effective accountability.
 - Outcomes do not adequately capture non-academic domains such as wellbeing.
 - Insufficient prominence has been given to lifting outcomes for students from priority equity cohorts.
 - There is a poor connection between policy making and implementation in the classroom.
- ✳ **The next intergovernmental agreement should be focused on a small number of reforms that will directly lift student outcomes.**
 - Contenders include reforms relating to enabling quality teaching; making minimum standards the minimum; tailored strategies to lift outcomes for priority equity cohorts and supporting student wellbeing.
- ✳ **Addressing these challenges will require a mix of co-ordinated national effort and flexible state-based programs that promote more inclusive approaches, tailored to individual and local needs, accompanied by increased transparency and accountability.**

As noted in the terms of reference for this review, national reform ‘takes time to implement and mature, and for the effects of nationally coordinated reform efforts to materialise.’ It has been less than four years since the Commonwealth, State and Territories signed the National School Reform Agreement (NSRA). During this time, the COVID-19 pandemic, and a series of natural disasters, have disrupted the lives of students, their families, teachers, school leaders, and government officials. Given these considerations, it is important not to rush to judgements about the effectiveness of the National Policy Initiatives (NPIs) and supporting reforms at the state and territory level and acknowledge the challenges that different parties have faced in implementing these initiatives. However, it is equally important to be candid about what is clearly not working in the implementation of the NPIs.

This chapter provides a high-level assessment of the effectiveness and appropriateness of the NPIs in the NSRA, as required by the terms of reference. It identifies potential barriers to the NPIs’ success in achieving the long-term outcomes of the NSRA (that is, lifting student achievement, educational attainment, engagement, and equity) and makes recommendations on how to address them, and maximise the value of the NPIs. It also identifies the implications that lessons from implementing the NSRA and new emerging priorities have for the design of the next intergovernmental school reform agreement.

2.1 Have the National Policy Initiatives contributed to better outcomes?

The National Policy Initiatives concentrate on ‘key enablers’

The NPIs concentrate reform effort on ‘key enablers that drive improvements in educational outcomes.’¹ In simple terms, this means providing teachers, school leaders and policy makers with resources to make well informed interventions (such as evidence-based research about how to create the best possible learning environment).

The outputs associated with different NPIs include:

- **national tools** to gauge and share information on student progress (the online formative assessment initiative (OFAI) and the unique student identifier (USI))
- **national reviews** to identify and realise opportunities for national collaboration on teacher workforce needs and senior secondary pathways into work, further education, and training²
- **national accreditation standards** to promote consistent quality in graduate teaching (strengthening initial teacher education (ITE) accreditation)
- **a new national institution** to generate and communicate evidence-based advice on best practice to teachers, schools, and policymakers
- **national data projects** to improve national data quality, consistency, and collection (figure 2.1).

The ideas behind some of these outputs had been around several years before the NSRA. For example, the Australian, state and territory governments first agreed to establish a USI in 2009 (MCEETYA 2009, pp. 18–19), with some work undertaken towards this before the NSRA (PC 2016b, p. 128).

¹ NSRA, s. 43(c).

² Hereafter, referred to as the senior secondary pathways review.

Figure 2.1 – Progress implementing National Policy Initiatives^a**Expected outputs and implementation status (as reported by Education Council)**

National Initiative	Expected outputs	Complete?
 <p>Online Formative Assessment Initiative</p>	<p>Progressively make available existing and new learning progressions and formative assessment capability for agreed Australian Curriculum learning areas and general capabilities, from 2022.</p> <p>Progressively develop and release nationally available online on-demand formative assessment resources (aligned to learning progressions) from 2022.</p>	
 <p>Senior secondary pathways review</p>	Education Council to have implemented, or be progressing, agreed recommendations (for any national initiatives to strengthen student pathways) by end of the Agreement.	
 <p>Teacher workforce review</p>	Education Council to have implemented a national teacher workforce strategy to respond to teacher workforce needs of the future and support decision making of teacher employers and ITE providers.	
 <p>Initial Teacher Education accreditation</p>	<p>Commence national quality assurance activities in cooperation with all jurisdictional authorities from January 2019.</p> <p>States and Territories ensure that accredited initial teacher education programs require... final-year teaching performance assessment prior to graduation.</p>	
 <p>Unique Student Identifier</p>	Schools and systems to progressively work to create a national Unique Student Identifier for each student from 2021.	
 <p>Evidence institute</p>	The national evidence institute commences operations from 2020, and develops and implements a national research and evidence plan.	
 <p>Improving national data quality</p>	Education Council considers strategic opportunities to enhance the national evidence base including options for measures of child development status at school entry, student learning gain, general capabilities, post-school destination information, attainment, retention, wellbeing, and post-school outcomes, over life of the Agreement.	

 = Partly

a. In 2020, the Education Council reported Teacher Futures: A National Teacher Workforce Strategy and National Initiatives to Support Teaching and School Leadership satisfied the final milestone for reviewing teacher workforce needs.

Sources: Education Council (2020d), DESE (2021a, 2021b, 2021c, 2021d, 2021e, 2021f, 2021g).

Progress on the initiatives that would make the most difference has been disappointing

So far, the NPIs have likely had little impact on Australian students' academic achievement, educational attainment and skill acquisition.

Some outputs from the NPIs are yet to be delivered, including two of the more significant NPI outputs (the OFAI and the USI) (figure 2.1). Of the NPIs that have been delivered, the institute charged with providing evidence-based advice — the Australian Education Research Organisation (AERO) — is in its infancy; governments are still to clarify many details regarding if and how they will act upon the national reviews of senior secondary pathways and teacher workforce needs; and new standards governing ITE providers have been in place for less than two years.³

If the NSRA is to have any chance of fulfilling its ambitious targets and outcomes, the Commonwealth, States and Territories will need to resolve some key issues.

The USI and OFAI are stalled

The OFAI and USI share several things in common. They are the two most significant NPI outputs that remain incomplete. They have either missed or are highly likely to miss their expected delivery date. They are technology focused and the apparent reasons they are incomplete are because parties have been unable to reach consensus on their design and because parties underestimated the design challenges involved. The Government of Western Australian (sub. 19, p. 13) observed that both initiatives:

Require careful consideration of a complex array of matters spanning potential federal and state legislative amendments, privacy, information and communications technology platforms, data governance and use, stakeholder engagement and acceptance, upfront and ongoing costs, and interfaces with existing school and system level procedures.

The New South Wales government (DoE NSW, sub. 12, p. 15) and Victorian government (sub. 31, p. 9) both highlighted the scale of information technology infrastructure work required to implement the USI.

The OFAI and USI would provide much needed tools to better understand student progress.

- The OFAI would enable teachers to assess a student's knowledge, skills and understanding, identify next steps in learning, and track progress over time. Given the significant variation in student achievement in any given year level — spanning, on average, as much as 4 years of learning in numeracy within individual schools and about 6 years across all schools — the OFAI would help teachers tailor their teaching to a student's level of knowledge and understanding.⁴ Importantly, the OFAI (at least as it is currently conceived) would provide time-poor teachers with recommended teaching strategies and quality-checked digital resources aligned with the national curriculum.

³ And thus, relate to a small proportion of the teacher workforce. For example, the Commission estimates that approximately 26 000 students completed ITE between 2019 and 2020 after the final-year teaching performance assessment (TPA) was introduced. Assuming all ITE completions entered the workforce, this represents approximately 9 per cent of the 2020 teacher workforce.

⁴ For example, based on 2021 data, for NAPLAN numeracy, a year 7 student performing at the bottom 10th percentile in a school will on average perform lower than the mean year 5 student. And a year 7 student performing at the top 10th percentile in a school will on average perform greater than the mean year 9 student. A larger spread was found in reading scores within individual schools across all year levels (for example, up to 6 years on average for year 5 students). The variation in NAPLAN results across the whole school system was greater than the average variation found within a school.

- At a population level, the USI could help to unlock research insights on students' progress, the factors that influence the paths they take, and the outcomes they achieve. As the NSW government observed: '... the USI has the potential to provide a new, unique and rich data source to inform policy in a way which was never possible before' (DoE NSW, sub. 12).⁵

But both NPIs have stalled. Already more than 13 years in the making, disagreements about data use and storage have stalled progress of the USI.⁶ Meanwhile, the value proposition of a national OFAI has diminished as some jurisdictions have pressed ahead with local (albeit typically less comprehensive) solutions, while others await a national solution.

Fulfilling their commitments to deliver these two key initiatives will require governments to:

- develop a flexible version of the national online formative assessment tool that allows jurisdictions to adapt the tool to their needs and preferences (including integrating content and features from existing state-based tools). Parties should consider assigning responsibility for completing the OFAI to a single entity capable of delivering the tool quickly at least cost.
- confirm that a USI remains a priority, which can and should be developed through intergovernmental cooperation. Governments will also need to resolve their differences over data use and privacy. If parties cannot deliver a national USI, they should, at a minimum, explain to the public why the project has failed (especially as USIs are already used in higher education and vocational education and training).

National reviews have so far not lived up to expectations

Although the Education Council has reported that parties have met the final milestones for the reviews of senior secondary pathways and teacher workforce needs, to date the reviews have not been followed by substantial national reforms.

It is unclear how the Senior Secondary Pathways Review will be progressed

The Senior Secondary Pathways Review has raised few potential areas for further national collaborations. In 2020, the Education Council agreed in principle to all 20 recommendations from the Senior Secondary Pathways Review. It concurrently announced plans to focus on a subset of recommendations — relating to literacy, numeracy and digital literacy, developing a sample Learner Profile, and agreeing on a common language for skills and capabilities — noting a significant amount of work being progressed across the education and skills sectors, and within states and territories, that will support the response to the review recommendations (Education Council 2020a, p. 1).⁷ However, the Victorian Government commented that its involvement with the NPI 'has been largely superseded' by its own senior secondary reform efforts. And in the case of student learner profiles, one of

⁵ The Smith Family (sub. 29, p. 7) maintains its own student-level, interjurisdictional, longitudinal dataset for students participating in its Learning for Life program — effectively a small-scale version of what a USI could enable at the national level — and pointed to it as an example of the 'missed opportunities' resulting from the slow progress on the USI. The data includes multiple student outcome measures and has been used to contribute to the education evidence base as well as for operating the program.

⁶ Governments committed to introducing a national USI as far back as 2009 (MCEETYA 2009, p. 19).

⁷ In some cases, multiple recommendations outline details of the same reform proposal.

the more substantial proposals,⁸ New South Wales has moved ahead unilaterally out of concern that the nationally coordinated work has not been progressing quickly enough⁹:

In a number of cases NSW has initiated its own response to education priorities to provide timely reform to meet the needs of NSW schools rather than waiting for national initiatives to be developed and agreed. ...

An example of this is the limited national progress on the proposed national learner profile ... Ministers decided in 2020 to develop a sample learner profile, however action since has been limited to approving funding to provide further advice to Ministers. Meanwhile, NSW has acted separately to develop its own learner profile, to ensure this important reform is delivered for NSW students in a timely manner. (DOE NSW, sub-12, p. 13)

Ideally, parties would agree on and publicly announce which of the remaining Review recommendations will involve further national cooperation to implement. They should put in place clear responsibilities for further evaluation and, where appropriate, implementation, tracking of progress and assessing impacts on student outcomes.¹⁰

A systematic approach to predicting and identifying workforce imbalances is still lacking

According to the Education Council, the *National Initiatives to Support Teaching and School Leadership* document and the workforce strategy *Teaching Futures: A National Teacher Workforce Strategy for Australia* together fulfil governments' commitments to review teacher workforce needs (Education Council 2020d, p. 6). The former identifies principles 'to guide Education Ministers in commissioning work', while the latter 'highlights opportunities for potential future efforts' (AITSL 2021b, p. 4; Education Council 2020c, p. 1). Neither provide the resources required by school systems and ITE providers to identify and plan for future workforce needs.¹¹

Current and emerging national workforce pressures require more systematic treatment to predict future teacher workforce imbalances. Education Ministers recently agreed to develop and publish teacher workforce projections, disaggregated at a regional level and by subject specialisation, along with using nationally consistent data on teacher demand as part of their *National Teacher Workforce Action Plan* (Education Ministers Meeting 2022, p. 3). This improved labour supply and demand data should support the development of a national teacher labour market model, which can be used to predict teacher demand and supply.

Progress with other NPIs to support teachers is mixed. While Government have met agreed milestones relating to ensuring accredited initial teacher education programs require final year Teacher Performance Assessment (TPA), as discussed in chapter 5, the Commission is seeking further information on options for increasing the quality and consistency of TPAs.

⁸ Learner Profiles are intended to be a form of document that 'demonstrate[s] the skills, capabilities and interests of students as they leave school' (Education Council 2020b, p. 48), with the aim of broadening the view of student achievement in senior secondary years beyond academic results and the Australian Tertiary Admission Rank.

⁹ Another of the main recommendation areas, on improving vocational education and training for secondary students, is being overseen outside of the Education Council under the Heads of Agreement for Skills Reform (DoE 2022).

¹⁰ The only official public information on the response to the Review is a restatement of the Education Council's 2020 announcement described above. It did not include details on how the specified priority recommendations would be progressed, or any information on the response to the remaining recommendations (DESE 2021e).

¹¹ The Workforce Strategy is not yet publicly available (AITSL, pers. comm., 12 August 2022). This assessment is based on the *Teaching Futures: Background Paper* (AITSL 2021b), noting that Ministers agreed that the Workforce Strategy would be 'published as a background paper' (Education Council 2020a).

Significant investments in the national evidence base have been made, but gaps remain

A strong national education evidence base can help policymakers, school leaders and teachers make informed decisions about the policies, programs and classroom practices that would lift student outcomes.

The Australian Education Research Organisation is just beginning its work

AERO was created under the auspices of the NSRA to help build the evidence base and was highlighted by many stakeholders as among the more significant achievements of the agreement to date.¹² Some identified specific issues and evidence gaps that AERO could help address.¹³

Based on consultation and analysis undertaken for this review, one area where AERO and others could help advance the education evidence frontier is providing insights into the teaching strategies deployed in Australian classrooms and their effectiveness. Research has shown that classroom interactions are a key factor for effective learning. But both policy makers and researchers say too little is known about what happens in classrooms and how inputs (teachers, pedagogy, learning materials) affect student outcomes (chapter 5).

International experience and stakeholder feedback suggests that realising the full potential of organisations like AERO can require addressing barriers to their effective operation. These barriers may include supply side barriers (those limiting AERO's ability to generate high quality, reliable and relevant advice)¹⁴ and user side barriers (those limiting the take up of AERO's advice by teachers and schools, such as lack of awareness)¹⁵ (figure 2.2).

Before recommending measures governments could take to realise the full potential of evidence-based research through AERO, the Commission wishes to better understand the significance of any barriers and the trade-offs and implementation issues associated with different solutions. In particular, the Commission is seeking feedback on options for gaining a better understanding of what occurs in the classroom, including the extent to which evidence-based practices are adopted. The Commission is also seeking views regarding whether the current education and research evidence base sufficiently captures a representative range of cultural and community perspectives, including those of Aboriginal and Torres Strait Islander students, teachers, and researchers (chapter 3).

¹² For example, Grattan Institute (sub. 5, p. 14); NRSB (sub 22, p. 1), DoE NSW (sub. 12, p. 12); The Smith Family (sub. 29, p. 5); NCEC (sub. 24, p. 7).

¹³ For example, the National School Resourcing Board (sub 22, p. 4) suggested that AERO's remit should be expanded to focus more on commissioning education randomised controlled trials (RCTs), following the example of the United Kingdom's Education Endowment Foundation; the Australian Association of Special Education, NSW Chapter suggested that AERO should include special education as one of its research priorities (AASE NSW, sub. 20, p. 4).

¹⁴ Organisations in other countries, such as the Education Endowment Fund in the United Kingdom, have faced similar challenges, particularly with regards to undertaking RCTs in schools. In the case of the Education Endowment Foundation, initial scepticism and concerns around the ethics of randomisation were overcome by dedicating resources to communicating the benefits of RCTs to schools and offering positive recognition and, in some cases, financial incentives (Edoald and Nevill 2021, p. 50).

¹⁵ The NSW Department of Education (DoE NSW, sub. 12, p. 12) noted a lack of awareness of AERO and its work among education stakeholders in the state, though this is most likely because AERO is so newly established.

Figure 2.2 – Potential barriers to the adoption of evidence-based advice

Supply side barriers	User side barriers
 <p>Affect ability to generate and translate evidence</p>	 <p>Affect take-up of advice by policymakers, schools and teachers</p>
<ul style="list-style-type: none"> • Lack of existing high-quality, relevant evidence to draw upon • High cost of conducting new research • Inability to access schools to conduct or research • Lack of data or feedback to validate effectiveness of advice • Inadequate consultation reduces relevance of advice 	<ul style="list-style-type: none"> • Lack of awareness • User inertia • Inability to differentiate from 'low quality' providers of advice • Lack of time for teachers to engage



Information request 2.1

Realising the full potential of evidence-based research through the Australian Education Research Organisation

What steps could governments take to realise the full potential of evidence-based research through the Australian Education Research Organisation?

National data projects have experienced delays

There is a lack of transparency regarding national data projects to enhance the national evidence base. While parties identified eight areas where the Education Council would consider strategic opportunities to enhance the national evidence base over the life of the agreement, with an additional project subsequently added, only two projects have been completed, one is on schedule, two are partially progressed with delays, and four are yet to be started (DESE 2021b, 2022c).

On 11 December 2019 Education Ministers approved a revised Measurement Framework for Schooling in Australia, which includes the NAPLAN proficiency standards in its key performance measures. ACARA is currently completing work on the proficiency standards and reporting will commence once education Ministers have approved the design.

There is still scope for future success

The Commission has recommended several actions to progress individual NPIs (figure 2.3). The most important of these relate to the USI, OFAI, and teacher workforce, as they have the greatest scope to influence student outcomes. In other cases, further information is being sought to clarify the materiality of issues and best way forward. Appendix C contains more information on the Commission’s assessment framework and assessments of individual NPIs.

Figure 2.3 – Summary assessment of NPI effectiveness and appropriateness^a**Implementation issues to resolve and recommended actions**

Policy initiatives	Issues to resolve	Recommended action
 <p>Online Formative Assessment Initiative</p>	<ul style="list-style-type: none"> • Technical challenges • Inconsistent vision of final output across jurisdictions • Perceived limited value to some jurisdictions • Concerns over impacts on teacher workloads in the early stages, as teachers are required to learn how to use the tool 	<ul style="list-style-type: none"> • Develop the national online formative assessment tool in a way that enables jurisdictions to adapt the tool to their needs and preferences (including using content and features from their own formative assessment tools)
 <p>Unique Student Identifier</p>	<ul style="list-style-type: none"> • Technical challenges (e.g. interoperability) • Uncertain costs and funding arrangements • Concerns about data privacy and use 	<ul style="list-style-type: none"> • Agree on the design and privacy protections of a USI. If parties cannot deliver a national USI, they should, at a minimum, explain why they have been unable to do so
 <p>Senior secondary pathways review</p>	<ul style="list-style-type: none"> • Uncertainty regarding how jurisdictions plan to progress recommendations from review and remain accountable • Limited State buy in to the national coordinated response to the review 	<ul style="list-style-type: none"> • Agree on and publicly announce which of the Review recommendations will involve further national cooperation to implement • Put in place clear responsibilities for further evaluation and where appropriate implementation, tracking of progress and assessing impacts on student outcomes
 <p>Teacher workforce review</p>	<ul style="list-style-type: none"> • There is no clear plan on how jurisdictions will implement the National Workforce Strategy to plan for future workforce needs 	<ul style="list-style-type: none"> • Develop a national model of the teacher workforce to support workforce planning
 <p>Initial teacher education accreditation</p>	<ul style="list-style-type: none"> • The quality and consistency of Teacher Performance Assessments implementation may be mixed 	<ul style="list-style-type: none"> • See information request 5.3
 <p>Improving national data quality</p>	<ul style="list-style-type: none"> • Lack of transparency regarding progress with data projects – infrequent reporting and little detail provided. 	<ul style="list-style-type: none"> • Roll out Proficiency Standards in 2023 as per revised schedule • Provide regular public updates on status of data projects
 <p>Evidence institute</p>	<ul style="list-style-type: none"> • Potential issues include barriers to generating evidence (access to schools, data) and user uptake (lack of user awareness, inertia) 	<ul style="list-style-type: none"> • See information request 2.1

a. Appendix C has more information on the Commission's assessment framework and assessments of individual NPIs.



Draft finding 2.1

To date, the National Policy Initiatives have had little impact on Australian students' outcomes, with some initiatives stalled or incomplete

Some National Policy Initiatives have only recently delivered outputs, while others have stalled or fallen short.

- The design of the unique student identifier and the online formative assessment tool still need to be settled.
- The National Review Projects have not yet been followed by substantial national reforms.
 - There is no clear plan on how jurisdictions will implement the National Workforce Strategy to plan for future workforce needs.
 - It is equally unclear how aspects of the Senior Secondary Pathways Review will be progressed.
- National data projects have met with delays.
- The Australian Education Research Organisation is just beginning its work and will need to develop effective relationships and systems to realise its potential.



Draft recommendation 2.1

Parties to the National School Reform Agreement should fulfil their commitments to deliver key National Policy Initiatives

Recommended actions include:

- agreeing the design and privacy protections of a Unique Student Identifier (USI). If parties cannot deliver a national USI, they should, at a minimum, explain why they have been unable to do so
- developing the national online formative assessment tool in a way that enables jurisdictions to adapt the tool to their needs and preferences (including using content and features from their own formative assessment tools)
- developing a national model of the teacher workforce to support workforce planning.

2.2 What should be the focus of the next agreement?

A lot has happened since the Commonwealth, States and Territories signed the NSRA in 2018. Not only have parties learnt important lessons from implementing NPIs, but new reform priorities have also emerged. The COVID-19 pandemic, along with natural disasters, has heightened existing challenges facing students, teachers and schools, and created some new ones. These lessons and developments have implications for the design of the next agreement.

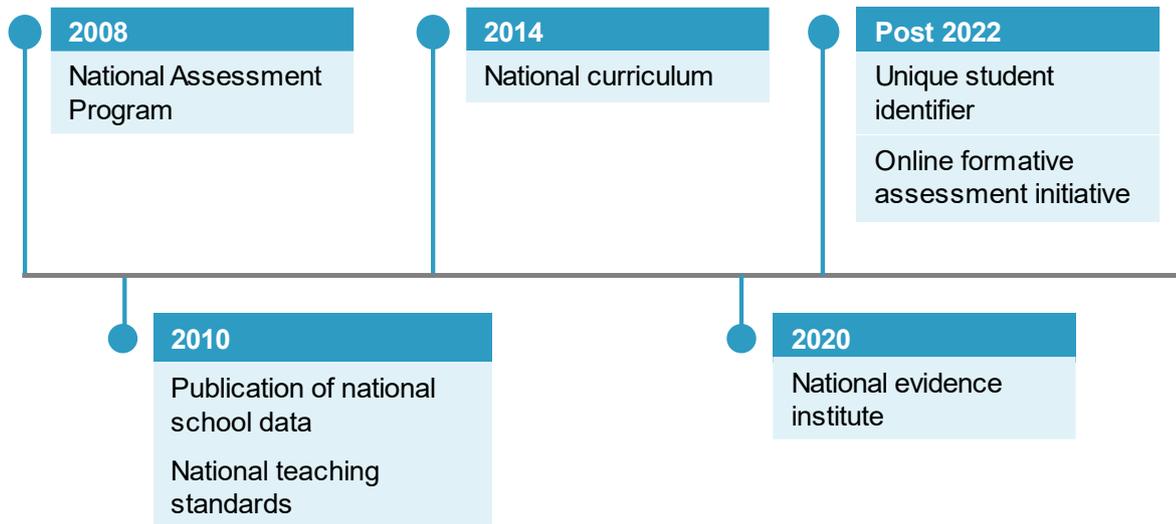
The next agreement should concentrate on pervasive challenges

Many of the NPIs form part of a longer-term investment in the national institutions, systems, and tools to help improve student outcomes. In particular, the AERO, the OFAI and the USI complement the national education architecture that has developed since 2008 and encompasses 'implementation of agreed national priorities most clearly in curriculum, national statistics and reporting, national testing and teaching standards'

(DPMC 2015, p. 24) (figure 2.4).¹⁶ Once these initiatives are complete (or their fate resolved), the key pieces of the national education architecture will largely be in place.

Figure 2.4 – Evolution of the national education architecture

2008 to present



Sources: ACARA (2010, 2016a); AITSL (2022a); DESE (2020c).

The next reform agreement is an opportunity to change tack to focus more directly on lifting student outcomes, improving equity, and enhancing student wellbeing.

The Commission has identified four overarching and interrelated policy challenges facing Australia's school system — increasing teacher effectiveness, tackling lack of equity, addressing poor student wellbeing, and improving the adaptiveness of the education system. The first three of these challenges are plausible future priorities for intergovernmental collaboration:

- All jurisdictions face these challenges.
- Each challenge has a proven, material impact on student outcomes.
- Governments have already recognised the value of national collaboration to address the issues.¹⁷

The next agreement needs to support teachers and school leaders to be their best

All jurisdictions face the challenge of setting policies which will support teachers and school leaders to deliver their best. Submissions to this review and survey evidence suggest high workloads, limited opportunities to develop and share best practice, and a lack of career pathways are major constraints on teacher and school leader effectiveness and may even discourage some people entering or staying in the profession. These constraints (along with other factors, such as limited labour substitutability and geographic mobility) contribute to mismatches in the supply and demand of teachers in different locations and subject areas. These mismatches are particularly pronounced in remote areas and in subjects such as mathematics, science and English.

Chapter 5 and 6 consider options to support teachers and school leaders to be their best.

¹⁶ These include the national curriculum, national testing regime (NAPLAN), national data collections, reporting frameworks, teaching standards and institutions such as ACARA and AITSL.

¹⁷ COAG (2018); DSS (2021a); DESE (2020b); Education Council (2015); DET (2018); Coalition of Aboriginal and Torres Strait Islander Peak Organisations and All Australian Governments (2020); (Education Council 2020c).

Lifting outcomes for all students — tackling a lack of equity

While the NSRA does not define equity, the Melbourne Declaration (and its successor, the Alice Springs (Mparntwe) Declaration) define equity at length. Definitions broadly reflect the values that school systems should strive to eliminate discrimination of all kinds and to ensure differences in educational outcomes associated with students' culture, disability, remoteness, or socioeconomic status are reduced or eliminated. Promoting equity is more than assisting students with low academic performance. Promoting equity can be thought of as recognising that some students may have different educational needs and desired outcomes — including in relation to culture and language — and creating an education system that is able to adapt to these needs. However, outcome measures and the feedback from stakeholders to this review demonstrated that equity remains a key challenge for the Australian education system.

Parties' commitments to supporting the achievement of students from priority equity cohorts, and equitable access to high quality education generally, are stated throughout the NSRA. However, the agreed sub-outcomes for students in priority equity cohorts have not been achieved. Under the NSRA, bilateral agreements are the agreed vehicle for setting out reforms to support priority equity cohorts, but these agreements can have significant gaps. For example, not all jurisdictions' agreements contain initiatives to lift outcomes for all priority equity cohorts.

Many participants to this review highlighted the need for intergovernmental collaboration on reform that directly targets equity in the next agreement. Issues include:

- a core of students who do not meet minimum standards
- significant and persistent gaps in outcomes for many students in the NSRA's priority equity cohorts
- gaps in outcomes for students in other cohorts facing disadvantages
- a lack of recognition of the unique educational ambitions for particular cohorts and their families.

Options for increasing the equity of student outcomes are explored in chapter 3.

Addressing poor student wellbeing

The preamble to the NSRA acknowledges that the 'wellbeing of all students is fundamental to successful education outcomes'. Yet, wellbeing is conspicuously absent from the objectives, outcomes, sub-outcomes, and reform activity in the agreement.

Research shows a child's wellbeing often strongly influences their ability to engage and learn at school, and poor wellbeing — especially arising from childhood trauma — can hinder academic performance. Evidence suggests that a sizable proportion of children and young people experience challenges to their social and emotional wellbeing, including at school. The COVID-19 pandemic and natural disasters have brought student wellbeing into sharper focus.

School wellbeing programs and policies often fail to provide teachers and students with access to the support and resources they need. Raising student wellbeing to a priority area for national cooperation could address some of these issues, such as by compelling consistent, evidence-based national focus and action on wellbeing across governments, portfolios and school sectors.

Chapter 4 highlights a number of options for enhancing the wellbeing of students.

Improving the capacity of the education sector to adapt to changing contexts and needs

COVID-19 caused significant and ongoing disruption to the education system. It required schools, teachers, parents and students to rapidly adjust to new modes of learning — sourcing, implementing and adapting to a remote, online learning environment.

While the impact of the pandemic on student outcomes is not fully apparent, some clear policy implications have emerged. Beyond the immediate need of identifying and assisting students that may have fallen behind, COVID-19, along with a series of natural disasters, underscored the importance of school systems being able to adapt to changing contexts and needs. To be successful in this endeavour, schools and school systems will need to maintain a focus on innovation and improvement, supported by data, research and evidence. While the Commission does not propose that this form the basis of a new NPI, this report identifies some practical steps that jurisdictions can take to build these foundations. Encouraging continuous improvement and innovation in the education system is explored in more detail in the Commission's Productivity Inquiry.

Greater implementation flexibility should be balanced by enhanced accountability and transparency

Under the NSRA, parties agreed to progress reform priorities through NPIs that 'have a robust and evidence-based rationale for how NPIs will directly or indirectly improve outcomes through national coordinated effort'.¹⁸ These national coordinated efforts have largely taken the form of joint national projects or reviews that aim to address specific policy needs (including enhancing the evidence base) (section 2.1).¹⁹

However, several stakeholders highlighted the challenges associated with joint national projects (including the cost of collaboration). Several stakeholders described collaboration on the NPIs as a drawn-out process in which it is difficult to make progress. Some emphasised the excessive level of consultation required, while others remarked on the lack of effective mechanisms to break deadlocks. For larger jurisdictions with the capacity to initiate or implement their own reforms, the value of participating in some national projects (such as the USI, the OFAI and projects stemming from recommendations of the senior secondary pathways review) has diminished over time. For smaller, less well-resourced jurisdictions, the national projects offer some value by filling existing policy and capacity gaps, but the extent of collaboration involved can divert their finite resources from other priorities.

Several stakeholders questioned whether the cases for some national joint projects were well conceived.²⁰ While many accepted the in-principle case for creating AERO (a single national entity for 'delivering into teachers' hands the practical results of this evidence and research'),²¹ for example, many questioned whether a single national approach (via the OFAI) was the most cost effective way of ensuring all teachers are able to undertake effective formative assessment and tailor teaching to student needs (section 2.1).²²

While national projects will continue to have a role in the next intergovernmental agreement, addressing some future reform priorities may require greater flexibility than the 'one in, all in' approach to NPIs under the NSRA.

¹⁸ NSRA, s. 43 (b).

¹⁹ Although ideas for the NPIs drew heavily on the recommendations of Gonski et al. (2018), NSRA parties agreed to resolve the details of each NPI through a series of process-oriented milestones at which point they would consider advice (such as on design options or recommendations of reviews) and make decisions on how to proceed.

²⁰ DoE NSW, sub. 12, p. 17; Victorian Government, sub. 31, p. 9; Queensland Government, sub. 53, p. 13.

²¹ Gonski et al. (2018, p. 104).

²² DoE NSW (sub. 12, p. 17); Government of Western Australia (sub. 19, p. 13); Victorian Government (sub. 31, p. 9); Northern Territory Government (sub. 42); DoE Tas (sub. 46, p. 2); Queensland Government (sub. 53, p. 12).

In some cases, the benefits of participating in multi-jurisdictional projects to achieve national reform priorities might differ across parties (for example, where some states and territories have already implemented local responses). In these instances, jurisdictions might have the choice of opting out of joint projects (while continuing to contribute to national reform directions through state-based projects) or to contribute to joint projects by sharing existing knowledge, so that other jurisdictions are not starting from nothing.

Where jurisdictional differences demand more tailored responses, bilateral initiatives might need to do more of the heavy lifting.²³ But greater flexibility in implementation would need to be balanced by greater public transparency and accountability mechanisms. Lessons from implementing the NSRA suggest that existing mechanisms are already relatively weak.

Existing accountability mechanisms have limited effect and can give rise to perverse outcomes

Part of the NSRA's purpose is to provide accountability for implementing agreed strategic reforms to lift student outcomes. The NSRA sets out public reporting and transparency arrangements that aim to give 'the community confidence that outcomes are being achieved and reforms to improve the quality and equity of Australia's schooling system are being implemented by all Parties.'²⁴ These arrangements comprise:

- performance reporting against agreed targets and outcomes²⁵
- annual reports on implementation progress against agreed milestones set out in the NSRA (for the NPIs) and bilateral agreements (for state-specific reform initiatives)
- publication of the report of the independent review (figure 2.5).

Under the *Australian Education Act 2013* (Cwlth.), the Commonwealth has the power to withdraw funding if a state or territory fails to implement the NSRA (chapter 1).

²³ Section 49 of NSRA notes bilateral agreements 'recognise that constitutional responsibility for school education rests with each State or Territory' and 'take into account the specific contexts, existing reform efforts and starting points for the relevant State or Territory' and are meant to 'set out existing and/or new reforms to lift outcomes for priority equity cohorts including Aboriginal and Torres Strait Islander students, students living in regional, rural and remote locations, students with a disability and students from educationally disadvantaged backgrounds, as agreed by Parties'.

²⁴ NSRA, s. 51.

²⁵ Under the NSRA parties agreed to "continuing public accountability on progress towards meeting targets through existing COAG performance reporting arrangements." The National Measurement Framework for Schooling in Australia, including the schedule of key performance measures, provides the basis for Australian Education Ministers to report to the community on the performance of schooling (ACARA 2020a). This includes monitoring progress towards achieving the outcomes of the National School Reform Agreement (Department of Education 2019a).

Figure 2.5 – Reporting and transparency mechanisms

National School Reform Agreement

Mechanism	Bilateral Agreements	National Policy Initiatives
Performance reporting arrangements	<ul style="list-style-type: none"> Progress towards meeting targets (and outcomes) 	
Annual report on implementation	<ul style="list-style-type: none"> Report against milestones (bilateral agreement) 	<ul style="list-style-type: none"> Report against milestones (schedule B) Using template (schedule D) 
End of term review	<ul style="list-style-type: none"> No explicit requirement in Agreement 	<ul style="list-style-type: none"> Publication of independent review on effectiveness 

In practice, the accountability provided by some of these mechanisms is limited.

The National Measurement Framework for schooling does not provide a complete view of performance

Public performance reporting via the National Measurement Framework is a key accountability mechanism for the NSRA but has a number of shortcomings. Arguably, some of the indicators in the NSRA lack the breadth to provide a good understanding of progress. Indicators provide a limited view of student engagement and transitions to further study, training, or work.

Also, the National Measurement Framework does not reflect commitments to report on outcomes for priority equity cohorts. Despite some information being available²⁶, the Measurement Framework and associated National Report on Schooling²⁷ do not include many of the agreed measures for Aboriginal and Torres Strait Islander students, students living in regional, rural, and remote locations or students from educationally disadvantaged backgrounds. Accountability for outcomes for students with disability is particularly poor because of a lack of data.

Public reporting on implementation lacks sufficient detail to assess initiative success

Annual progress updates for the NPIs and bilateral agreements, one of the main accountability mechanisms in the NSRA, also appear lacking. Performance is self-assessed and updates provide scant information on how outputs are contributing to intended outcomes, leaving stakeholders with little sense of their overall impact or success.

Tying Commonwealth funding to reforms has its limitations and drawbacks

The Australian Education Act allows the Australian Government to withhold funding from states or territories that do not implement agreed NSRA reforms. While intended to encourage the uptake of reforms, this seems

²⁶ Albeit with some diminution in data quality due to disaggregation and small sample sizes.

²⁷ The National Report on Schooling covers schooling contextual data, school funding data, schooling policies and priorities, and a discussion of Key Performance Measure results.

to have created perverse incentives, as states seek to reduce funding risks. Apart from the USI, many of the milestones in the NSRA and bilateral agreements are highly caveated or provide little detail on what outputs parties have committed to deliver, let alone what outcomes they will achieve. And bilateral agreements often represent an audit of current measures (categorised under one of the three broad reform directions of the NSRA) rather than additional measures.²⁸

Perverse incentives aside, withholding funding would be a significant step for the Commonwealth and many stakeholders do not see the threat as credible, weakening its effectiveness as an accountability tool.

Meaningful and transparent measures of progress are needed

Governments have several options for enhancing accountability and transparency under the next agreement. One model would be to require jurisdictions to include additional information in their bilateral agreements and associated progress reports so that it is clearer what outcomes are being pursued and whether they are being achieved.

This might involve requiring jurisdictions to develop 'implementation plans' and associated progress reporting (replacing the current bilateral agreement updates) that identify specific improvements in outcomes jurisdictions expect their nominated reforms to achieve over the term of the next agreement (for example, five years) and how they will measure success. The purpose of these measures would be to increase accountability through greater transparency. Each jurisdiction's performance in lifting outcomes would be much clearer compared with relying on national level performance reporting alone.

While there might be benefits in aligning outcomes and indicators across implementation plans, this would not be essential (particularly where there are concerns about additional reporting burdens). The main thing is that the outcomes and indicators are meaningful and specific enough to assess performance. Failure to meet specific key performance measures would not necessarily be evidence that a jurisdiction has failed to comply with the agreement.

The Commission is seeking further stakeholder input on the benefits, costs, and risks of proposed enhancements to accountability mechanisms (or better alternatives) for the next intergovernmental agreement. Subsequent chapters consider how this proposed approach might be applied to specific issues.

Improving data quality and availability and fulfilling existing reporting commitments by ensuring the Measurement Framework and National Report on Schooling disaggregate results by student cohort would also go a long way to improving accountability. Governments have already signalled their willingness to consider opportunities to enhance and augment existing indicators in the National Measurement Framework to provide a better understanding of progress.²⁹ Indicators for wellbeing, learning gain and post-school outcomes would provide a more complete view of performance.

Improvements in performance reporting are considered in more detail in chapter 7.

Concerns about lack of inclusivity and diversity of different perspectives in national school policy and institutions

During consultation, some stakeholders pointed out the remoteness of policy discussions from the lived experience of teachers and school leaders. Several participants went on to express concern that the

²⁸ For example, every jurisdiction's agreement contains a commitment to continue work on the Nationally Consistent Collection of Data on School Students with Disability, a project already in train well before the NSRA.

²⁹ Under the NSRA (s. 39) parties agreed to consider improvements to 'outcomes and sub-outcomes over time, including enhancements to the existing performance measures and developing further performance measures reflecting priority areas'.

processes for identifying, selecting, and implementing reform initiatives under the NSRA can fail to sufficiently reflect the views and perspectives of stakeholders representing non-government schools (Independent, Catholic), teachers, principals, parents, and students (including Aboriginal and Torres Strait Islander Students and students with a disability). Moreover, some felt the national educational institutions could better reflect the perspectives and aspirations of Aboriginal and Torres Strait Islander students, and students with disability, and the families and communities that support them.

Some stakeholders raised these issues in submissions. The Indigenous Education Consultative Meeting argued that engagement with Aboriginal and Torres Strait Islander stakeholders on state and territory initiatives had been insufficient and inadequate (IECM sub. 52, p. 8). And the Australian Professional Teachers Association argued that, in recent years, ‘classroom teachers have come to see that teacher voice is not valued in decision making’ (APTA sub. 50, pp. 3-4).

The Commission is seeking further input on ways of ensuring groups representing school systems (Independent, Catholic), teachers, principals and students have effective input into policy formation (such as requiring jurisdictions to receive and publish input from affected parties as part of preparing implementation plans). Chapter 3 includes more detailed questions on ways to embed the views of students from priority equity cohorts in national education policy and institutions.



Draft finding 2.2

The National School Reform Agreement has weaknesses that undermine its effectiveness in facilitating collective, national efforts to lift student outcomes

- Relying too much on NPIs that are a single solution to common issues has delayed reform outcomes.
- A lack of transparent, systematic, independent and meaningful reporting means there is little effective accountability.
- Outcomes do not adequately capture non-academic domains such as wellbeing.
- Insufficient prominence has been given to lifting outcomes for students from priority equity cohorts or a core of students who do not meet minimum standards.
- There is a poor connection between policy making and implementation in the classroom.



Information request 2.2

Options for enhancing accountability in the next agreement

The Commission is seeking stakeholder views on:

1. the benefits, costs and risks of proposed enhancements to accountability mechanisms for the next intergovernmental agreement, including:
 - a. jurisdictions specifying the outcomes that they expect to achieve (and related indicators) over the life of the agreement in public 'implementation plans' and reporting on progress annually. This would be in addition to identifying what measures they pursue in each priority reform area (as per current practice for bilateral agreements)
 - b. aligning the design of outcomes and indicators across jurisdictions to allow comparability
2. ways of ensuring groups representing school systems (Independent, Catholic), teachers, principals and students have effective input into policy formation (such as requiring jurisdictions to receive and publish input from affected parties as part of preparing implementation plans).

3. Lifting outcomes for all students

Key points

- ✳ **Promoting equity involves recognising that some students may have different educational needs and desired outcomes, and creating an education system that is able to adapt to these needs.**
 - Under the National School Reform Agreement (NSRA), parties recognised the importance of supporting students who belong to what they termed ‘priority equity cohorts’, which include Aboriginal and Torres Strait Islander students, students living in regional, rural and remote locations, and students with a disability.
- ✳ **Many students have needs that do not directly relate to culture, a disability or remoteness.**
 - A large number of students do not meet minimum standards — often year after year. Many of these students do not belong to the priority equity cohorts named in the NSRA.
 - Around one third of students who do not meet minimum literacy and numeracy standards in their early years of schooling do not meet minimum standards in later school years.
 - The Commission is seeking input on the merits of programs to support students who have fallen behind.
- ✳ **Students from priority equity cohorts can experience a range of educational barriers at school.**
 - A lack of cultural recognition by schools, and value placed on Indigenous knowledges by them, can diminish the inclusion, engagement and learning experiences of Aboriginal and Torres Strait Islander students.
 - Children and young people with disability face unique barriers to engagement and inclusion at school that affect their wellbeing, engagement and school success.
- ✳ **Governments are yet to achieve equitable outcomes for students from priority equity cohorts or demonstrate how the NSRA is addressing their needs.**
 - Gaps in learning outcomes for these students (at least those for whom data are reported) have not closed.
 - Bilateral agreements under the NSRA were intended to address the diverse needs of these students. However, these agreements fail to address each and all of the equity cohorts mentioned in the NSRA.
- ✳ **In the next agreement, implementation plans, developed in consultation with affected groups, should be used to improve the transparency of reform actions and to hold parties to account.**
- ✳ **The priority equity cohorts in the NSRA do not capture all cohorts of students experiencing educational disadvantage.**
 - Children and young people in out-of-home care are less likely to attend school and engage with education, while students who speak English as an additional language or dialect often require additional support.

3.1 What does equity in schooling mean?

Equity in schooling has different dimensions

'High equity' in education is a fundamental aspect of the National School Reform Agreement's (NSRA) overarching objective. This goal has been embodied in the past four *Declarations on Educational Goals for Young Australians* issued by State, Territory and Commonwealth Education Ministers, which span 40 years (COAG 2008a, 2019; MCEETYA 1989, 1999).

While the NSRA does not define 'equity', the Melbourne Declaration (and its successor) defines equity at length. Definitions reflect that school systems should strive to eliminate discrimination of all kinds and to ensure differences in educational outcomes associated with students' culture, disability, remoteness, or socioeconomic status are reduced or eliminated (COAG 2008a, pp. 7, 15, 2019, pp. 5, 17).

A key aspect of equity is recognising that some students may have different educational needs and desired outcomes

Promoting equity is more than assisting students with low academic performance. In the NSRA, parties recognised the importance of supporting the achievement of students who belong to what they termed 'priority equity cohorts', defined as comprising Aboriginal and Torres Strait Islander students, students living in regional, rural and remote locations, students with a disability and 'students from educationally disadvantaged backgrounds'.¹

Each year, many students from priority equity cohorts excel academically at school, yet may nonetheless be impeded from achieving their full potential. Indeed, Commission analysis reveals that while priority equity cohorts are disproportionately represented among students who have fallen below national minimum standards, most underperforming students do not belong to these cohorts (at least, not the equity cohorts identified in the National Assessment Program — Literacy and Numeracy (NAPLAN) data). And the large majority of students who identify as belonging to a priority equity cohort, achieve at or above national minimum standards.

Rather, promoting equity can be thought of as recognising that some students may have different educational needs and desired outcomes — including in relation to culture and language — and creating an education system that is able to adapt to these needs.

Equity, in its different forms, remains a key challenge for schooling systems across Australia

Outcome measures and feedback from stakeholders to this review demonstrate that equity remains a key challenge for schooling systems across Australia. Many participants to this review highlighted the need for intergovernmental collaboration on reforms that directly target equity in the next NSRA. Stakeholders also pointed to the need for increased transparency about how resources are deployed, and better tracking and reporting of outcomes.² Some stakeholders also raised concerns about insufficient resourcing for schools to address barriers faced by students from priority equity cohorts. However, this is outside the scope of this review.

¹ NSRA, s. 9.

² Queensland Advocacy for Inclusion, sub. 1; Australian Learning Lecture, sub. 2; Grattan Institute, sub. 5; Australian Parents Council, sub. 8; Molly Paterson, Jaai Parasnis, Michelle Rendall, sub. 9; Dr. John Halsey, sub. 10; The Australian Association of Special Education, NSW chapter, sub. 20; Speech Pathology Australia, sub. 11; Teachers' Work In Schools Research Group, sub. 16; Australian Association of Special Education, sub. 20; Professor Pasi

This chapter considers the extent to which Australia is achieving a high equity schooling system. In doing so, it considers two different aspects of equity. First the broad issue of students who do not meet the national minimum standards is examined (section 3.2). The chapter then examines the extent to which joint national reform efforts under the NSRA have contributed to ensuring all students have access to high quality education (section 3.3). Finally, the chapter considers the distinct barriers, needs and ambitions of students in priority equity cohorts, and what role the next intergovernmental agreement could play in achieving more equitable outcomes (section 3.4).

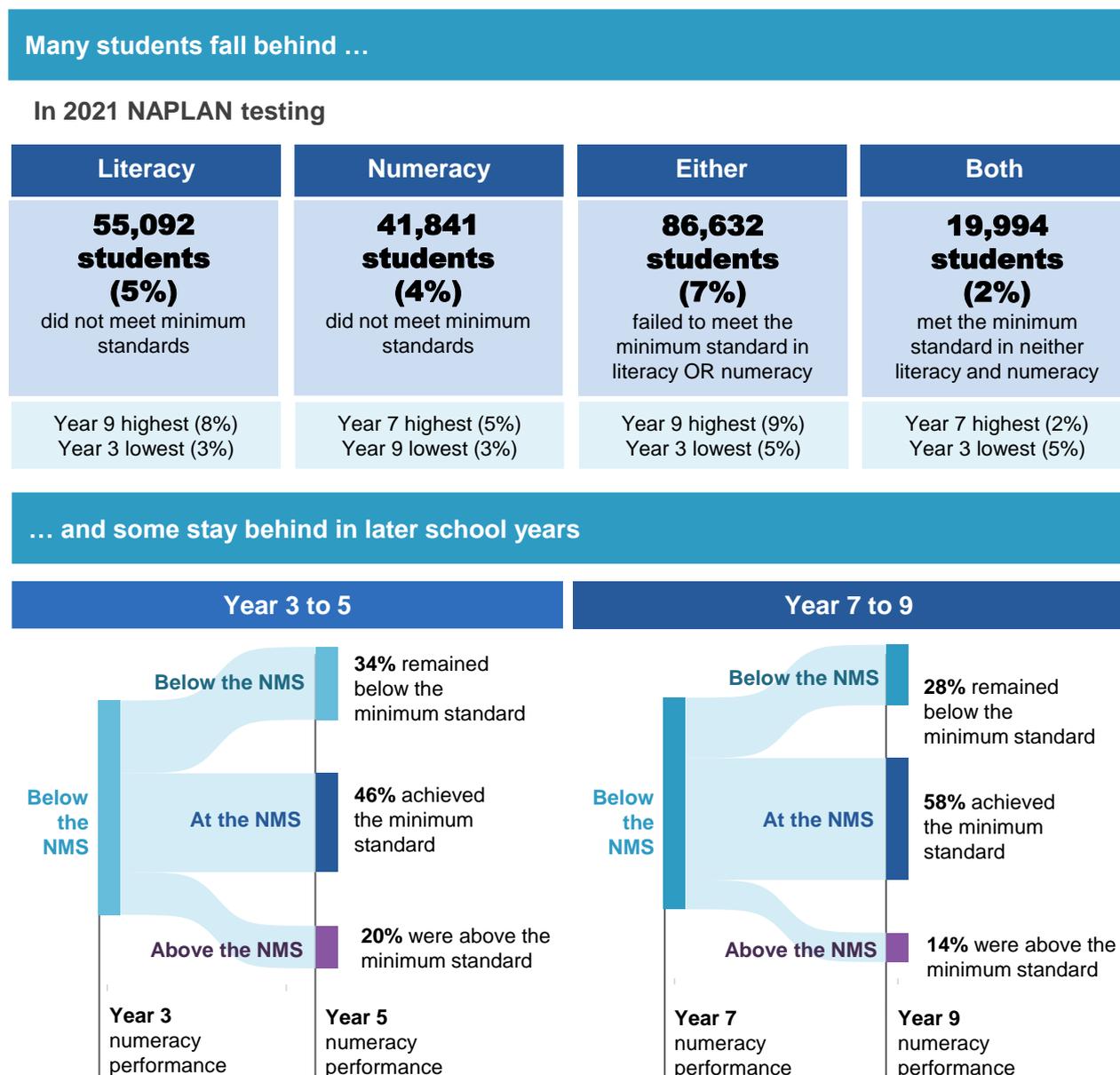
3.2 Is schooling ensuring all students are learning the basics in literacy and numeracy?

A significant number of students do not meet minimum standards — often year after year

One dimension of equity is for all students, regardless of their background, to receive a quality education. But each year, between 5 and 9 per cent of Australian students do not meet year-level expectations in either literacy or numeracy. Around one-third of the students who do not meet minimum literacy standards in year 3 do not meet minimum standards in year 5. Similar patterns are evident in numeracy, and between years 7 and 9 (figure 3.1).

Sahlberg and Trevor Cobbold, sub. 21; Centre for Educational Measurement and Assessment, sub. 28; The Smith Family, sub. 29; Learning Creates Australia, sub. 35; Australian Education Union, sub. 36; Australian Council of TESOL, sub. 37; Australian Primary Principals Association, sub. 48; Australian Council of State School Organisations, sub. 51.

Figure 3.1 – Proportions of students meeting minimum standards in NAPLAN



The bottom figure shows students who were below the national minimum standard in year 3 and whether they remained below, were at or were above the national minimum standard in year 5. The same analysis was done for students between year 7 and year 9.

Source: Commission estimates based on de-identified student level NAPLAN data.

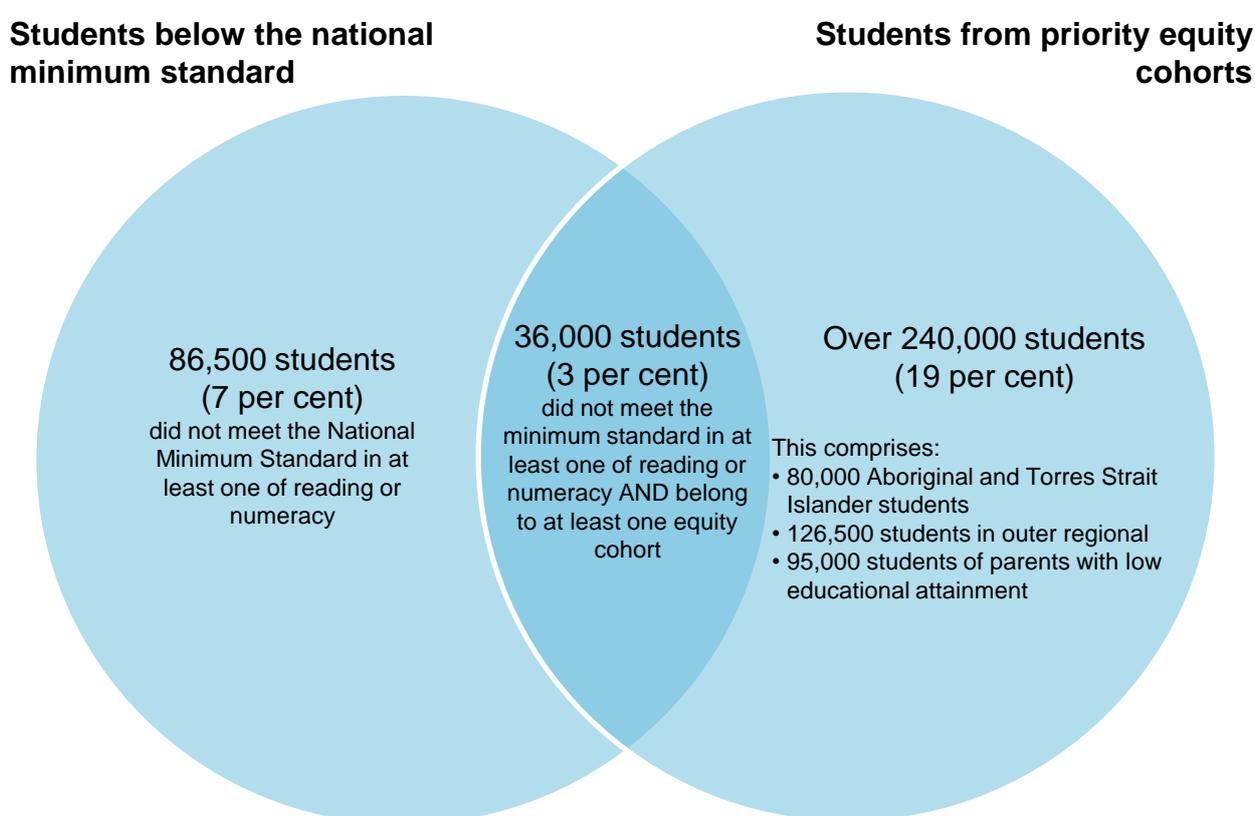
Over half of these students do not belong to the priority equity cohorts in the NSRA

While priority equity cohorts are disproportionately represented among students who have fallen behind national minimum standards, more than half of underperforming students do not belong to these cohorts (at

least, not the equity cohorts identified in the NAPLAN data) (figure 3.2).³ Falling below the national minimum standards means students are at risk of being unable to progress satisfactorily at school without targeted intervention. As the Australian Council for Educational Research (ACER) observed:

[These students] ... tend to start each school year behind most of their age group and are poorly equipped for the material they are about to be taught. Most struggle, and this is reflected in their poor performance on the year level curriculum. Many receive low grades year after year, reinforcing the message that they are not succeeding at school – or worse, that they are inherently poor learners (Masters 2016, p. 1).

Figure 3.2 – The overlap between students below the national minimum standard and students from equity cohorts, years 3, 5, 7 and 9, 2021^a



a. Students with disability are identified as a priority equity cohort in the NSRA but NAPLAN performance data is not published for students with disability.

Source: Commission estimates based on de-identified student level NAPLAN data.

Tailored supports for students who do not meet minimum standards could be the focus of reform efforts in a new agreement

One proven way to address gaps in learning outcomes is to have processes and structures within schools that identify when a student (irrespective of their background) is starting to fall behind and intervene to support that student's performance.

³ Students with disability are identified as a priority equity cohort in the NSRA, but NAPLAN performance data is not published for students with disability. As a consequence the Commission was unable to include these students in its analysis.

Research suggests that targeted interventions are effective, particularly small group or one-to-one tuition. Intensive, targeted support allows the teacher to focus on the needs of a small number of learners, providing teaching that is closely matched to pupil understanding and opportunities for greater levels of interaction and feedback. International evidence from two high performing nations — Finland and Singapore — shows that small group tuition can improve learning by around four months over one or two school terms (AERO, sub. 6, p. 13).

Closer to home, targeted interventions have been shown to improve educational attainment for students from low socioeconomic backgrounds (Behrendt, Barber and Graham 2019; The Smith Family 2021).

Focussing on students who have fallen behind, and are most at risk of staying behind (particularly those in lower year levels), would be a good place to start. Commission analysis reveals that students with parents with low levels of educational attainment and Aboriginal and Torres Strait Islander students are at higher risk of not catching up.

International experience suggests that the average cost of small group tuition is low.⁴ The costs to schools are largely based on additional salary costs and learning resources and, as a result, decrease as group size increases. The Commission is seeking feedback on how such an approach, or other proven approaches, might be applied cost-effectively in an Australian context.



Draft finding 3.1

Many students have additional needs that do not directly relate to culture, disability or remoteness

- A significant number of students do not meet minimum standards — often year after year. Around one third of students who do not meet national minimum literacy and numeracy standards in their early years of schooling do not meet national minimum standards in later school years.
- Most underperforming students do not belong to the priority cohorts named by the National School Reform Agreement. Around 85 per cent of these students do not belong to any of the priority equity cohorts identified in the National School Reform Agreement. Low educational performance needs a different approach.



Information request 3.1

Intensive, targeted support for students who have fallen behind

Would programs that provide intensive, targeted support to students who have fallen behind lend themselves to being a national policy initiative under the next intergovernmental agreement on schools?

⁴ In their Teaching and Learning Toolkit, Evidence for Learning (2021) rate small group tuition as a low-cost activity relative to other possible intervention.

3.3 Have governments addressed the learning needs of students belonging to priority equity cohorts?

The agreed outcomes for students in priority equity cohorts have not been achieved

Parties' commitments to supporting the achievement of priority equity cohorts, and equitable access to high quality education generally, run throughout the NSRA. Under the NSRA, parties agreed to the outcomes that 'academic achievement improves for all students, including priority equity cohorts', and that 'all students are engaged in their schooling'. The NSRA targets include to 'increase the proportion of Aboriginal and Torres Strait Islander people (age 20-24) attaining year 12 or equivalent qualification to 96 per cent' by 2031, and that 'Australia [is] considered to be a high quality and high equity schooling system by international standards by 2025'.⁵

So far, parties have failed to demonstrate that they are achieving the sub-outcomes for students from the priority equity cohorts that they committed to under the NSRA. For many sub-outcomes, across the domains of achievement, attainment and engagement, performance reporting via the *National Report on Schooling* does not include disaggregated results for students by priority equity cohort. And there is no national reporting of these results for students with disability due to a lack of data (chapter 7).

Where sub-outcomes are disaggregated for students by priority equity cohorts, most have not improved since 2018 (consistent with the sub-outcomes for all students) (figure 3.3). For example, the proportion of students in the bottom two bands of the NAPLAN has risen for students in most priority equity cohorts across all year levels since 2018. The proportion of students in the top two bands of NAPLAN performance has been mixed, with some improving and some worsening depending on the year-level and the subject. Engagement has fallen for students in those cohorts for which data are collected (consistent with engagement outcomes for all students). (Sub-outcomes measured by the Programme for International Student Assessment (PISA) have not been assessed as PISA has not been tested since the NSRA was introduced.)

But there have been some successes. Attainment has risen for students in regional and remote areas (from 81 per cent to 82 per cent), as has the proportion of students in top two bands of performance for reading in year 5 (for all priority equity cohorts) and in year 3 (for Aboriginal and Torres Strait Islander students and students in regional and remote areas).

However, determining whether equity has been achieved based on academic results alone can be misleading. It is important to acknowledge that NAPLAN is only one tool to measure educational achievement. Indeed, some stakeholders have suggested that NAPLAN results might not recognise the learning strengths of some students, such as students with English as an additional language or who are not familiar with Western 'cultural norms' (including Aboriginal and Torres Strait Islander children) (Freeman 2013).

⁵ NSRA, s. 35 (a). In December 2020, Education Ministers updated the NSRA targets to reflect the adoption of the updated national target for school education endorsed by State and Territory First Ministers through the National Agreement on Closing the Gap.

Figure 3.3 – Performance against sub-outcomes^{a,b}**Progress across NSRA sub-outcomes between 2018 and 2021**

Sub-outcomes	All students	Aboriginal and Torres Strait Islander students	Students in regional and remote areas	Students from educationally disadvantaged backgrounds
Lower the proportion of students in bottom two bands in the NAPLAN – reading				
Year 3	↑ +1.0 ppt	↑ +1.7 ppt	↑ +2.5 ppt	↑ +2.7 ppt
Year 5	↓ -1.8 ppt	↓ -6.3 ppt	↓ -1.5 ppt	↓ -4.9 ppt
Year 7	↓ -0.1 ppt	↓ -1.6 ppt	↑ +0.8 ppt	↑ +1.5 ppt
Year 9	↑ +5.0 ppt	↑ +4.8 ppt	↑ +5.9 ppt	↓ -0.1 ppt
Lower the proportion of students in bottom two bands in the NAPLAN – numeracy				
Year 3	↑ +1.3 ppt	↑ +2.7 ppt	↑ +2.6 ppt	↑ +3.2 ppt
Year 5	↑ +0.2 ppt	↑ +1.3 ppt	↑ +0.8 ppt	↓ -0.9 ppt
Year 7	↑ +2.1 ppt	↑ +5.4 ppt	↑ +3.4 ppt	↑ +2.5 ppt
Year 9	↑ +2.4 ppt	↑ +5.2 ppt	↑ +3.5 ppt	↑ +1.2 ppt
Increase the proportion of students in the top two bands in the NAPLAN – reading				
Year 3	↑ +2.1 ppt	↑ +3.3 ppt	↑ +1.2 ppt	↓ -0.3 ppt
Year 5	↑ +1.8 ppt	↑ +1.7 ppt	↑ +0.9 ppt	↑ +0.1 ppt
Year 7	↑ +0.9 ppt	↑ +0.7 ppt	↓ -0.4 ppt	↓ -0.1 ppt
Year 9	No change	↓ -0.1 ppt	↓ -1.0 ppt	↓ -0.6 ppt
Increase the proportion of students in the top two bands in the NAPLAN – numeracy				
Year 3	↓ -3.0 ppt	↓ -0.8 ppt	↓ -4.0 ppt	↓ -3.7 ppt
Year 5	↑ +1.7 ppt	↑ +0.4 ppt	↑ +0.9 ppt	↓ -0.9 ppt
Year 7	↑ +4.1 ppt	↑ +1.6 ppt	↑ +3.1 ppt	↑ +1.0 ppt
Year 9	↓ -4.1 ppt	↓ -1.8 ppt	↓ -3.9 ppt	↓ -2.7 ppt

Sub-outcomes	All students	Aboriginal and Torres Strait Islander students	Students in regional and remote areas	Students from educationally disadvantaged backgrounds
Lower the proportion of Australian students in the bottom levels for PISA tests (sample of 15-year olds)				
Note that PISA testing has not been undertaken since the introduction of the NSRA. This table shows the results from the most recent PISA test (in 2018), rather than the change in results.				
Reading	19.6%	43.0%	33.7%	31.2%
Maths	22.4%	48.4%	41.5%	36.6%
Science	18.9%	43.9%	34.1%	30.8%
Increase the proportion of students in the top levels of performance for PISA tests (sample of 15-year olds)				
Note that PISA testing has not been undertaken since the introduction of the NSRA. This table shows the results from the most recent PISA test (in 2018), rather than the change in results.				
Reading	13.0%	4.6%	9.1%	5.8%
Maths	10.5%	2.5%	5.1%	4.0%
Science	14.6%	2.6%	5.9%	3.9%
Reduce the gap in achievement between students from various socio-economic backgrounds in Australia's PISA educational performance compared to other countries and the OECD average (sample of 15-year olds)				
Reading	—	—	—	—
Maths	—	—	—	—
Science	—	—	—	—
Increase the proportion of students attending school 90 per cent or more of the time				
Foundation to year 10	-4.0 ppt	-7.4 ppt	-7.2 ppt	—
Increase the proportion of young people who completed year 12 or equivalent or gained a Certificate III or above				
18-24 year-olds	+0.6 ppt	—	+1.2 ppt	—
Legend	 Outcome improved (could be due to an increase or a decrease, depending on the sub-outcome)		 Outcome worsened (could be due to an increase or a decrease, depending on the sub-outcome)	
	 Data not collected			

a. This figure illustrates the changes in outcomes since the NSRA commenced in 2019. **b.** The figure shows outcomes for three priority equity cohorts (Aboriginal and Torres Strait Islander students, students from regional and remote locations, and students from an educationally disadvantaged background). As the latter is not defined in the NSRA, this is taken to mean students of parents without a year 12 (or equivalent) qualification for NAPLAN data and students in the lowest socioeconomic quintile for PISA data. No annual data is published for the fourth priority equity cohort (students with disability) so this is not included in the table.

Sources: Commission analysis of de-identified student NAPLAN data, ACARA (2021), Productivity Commission (2022a).

The gaps in learning outcomes for students in equity cohorts tend to widen over time

Productivity Commission analysis of NAPLAN achievement for students in priority equity cohorts underscores the persistent barriers these students face.

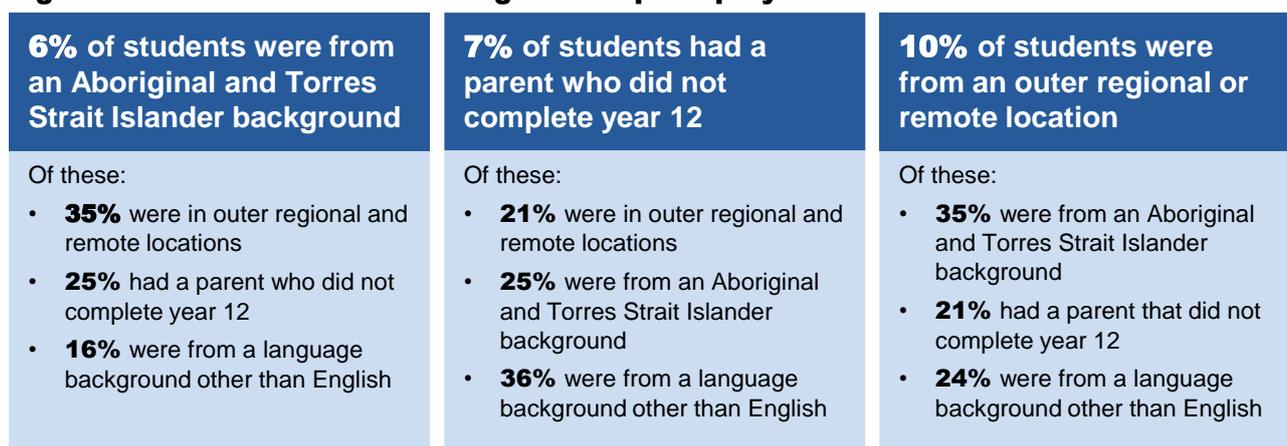
While there are gaps in learning outcomes (as set out in chapter 1), these gaps (expressed as the time it would take for the average student in a given priority equity cohort to catch-up to a student not in the priority equity cohort) tend to widen as students’ progress through school (figure 3.5).⁶ For example, in year 3 reading, Aboriginal and Torres Strait Islander students score, on average, 80 points less than non-Aboriginal and Torres Strait Islander students — a gap that would take the average year 3 student 1.3 years to close. By year 9, the gap in outcomes closes to 60 points, but this would take 3.4 years to bridge. Increasing gaps in outcomes between years 3 and 9 are also evident in numeracy, and in results for students in other priority equity cohorts, such as students in regional and remote areas, and students of parents with low educational attainment (appendix B).

Gaps in outcomes are magnified for some students

Students in priority equity cohorts are not homogenous. Indeed, the label ‘priority equity cohorts’ masks significant diversity in students’ learning outcomes and the nature of adjustments and supports they may require. There can be multiple factors that increase the challenges of providing high quality education for some students (figure 3.4). Where these factors intersect, the effects can be compounding.

As an example, the barriers faced by Aboriginal and Torres Strait Islander students can be compounded by remoteness: NAPLAN reading results for an Aboriginal and Torres Strait Islander student who lives in a remote area are 13 months behind the average results for Aboriginal and Torres Strait Islander students. Similarly, reading results for an Aboriginal and Torres Strait Islander student whose parents have a low educational attainment are 9 months behind the average results of Aboriginal and Torres Strait Islander students.

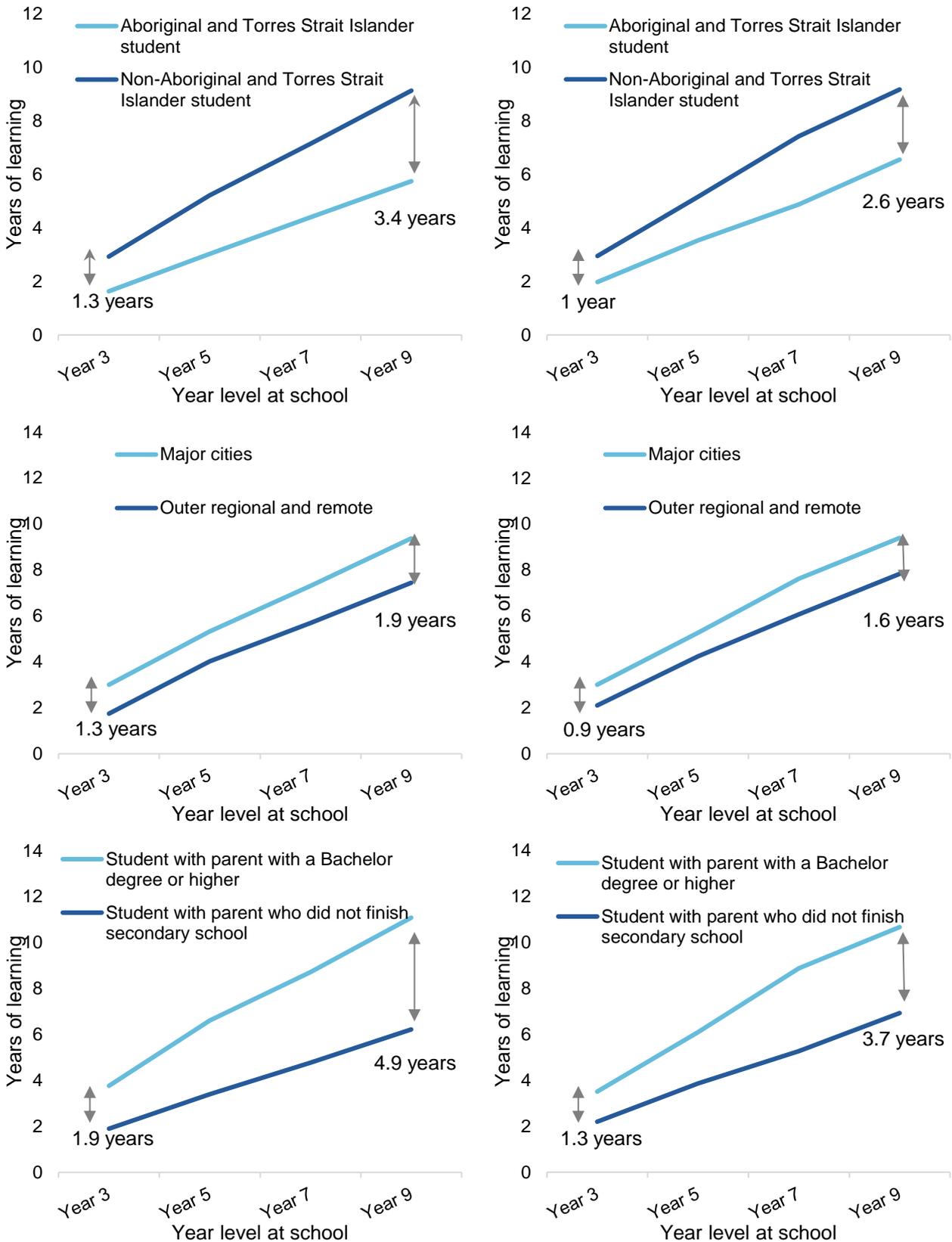
Figure 3.4 – Some students belong to multiple equity cohorts



Source: Commission analysis of de-identified student level NAPLAN data.

⁶ NAPLAN scores can be converted into a measure of how much a student has learnt in terms of years of learning. This enables analysis to consider the time it would take to bridge the gap in NAPLAN points between different students (appendix B).

Figure 3.5 – NAPLAN reading and numeracy, following a single cohort through school
Gap in scores, measured by the time taken to bridge the gap, widens over time



Source: Commission estimates of de-identified student level NAPLAN data.



Draft finding 3.2

Governments are yet to achieve outcomes for students who have specific educational needs related to their culture, their disability or remoteness, as set out in the National School Reform Agreement

- Gaps in learning outcomes for priority equity cohorts identified in the National School Reform Agreement have not closed.
- There can be multiple factors that increase the challenges of providing high quality education for some students. Where these factors intersect, the effects can be compounding.

Parties are yet to deliver the comprehensive reforms needed to support students in priority equity cohorts

The bilateral agreements lack coverage, additionality and specificity on actions for students in the named equity cohorts

Under the NSRA, bilateral agreements are the agreed vehicle for setting out reforms to support students in priority equity cohorts. In particular, it was agreed they would set out:

existing and/or new reforms to lift outcomes for priority equity cohorts including Aboriginal and Torres Strait Islander students, students living in regional, rural and remote locations, students with a disability and students from educationally disadvantaged backgrounds, as agreed by Parties (NSRA, s. 49)

This arrangement recognises that constitutional responsibility for school education rests with each State or Territory, each of which have their own regulatory frameworks, policies and priorities intended to maximise local students' educational outcomes. It also allows identified reforms to take into account the specific contexts, existing reform efforts and starting points for the relevant State or Territory.

However, many of the agreements fail to meet minimum expectations with regards to addressing outcomes for students in priority equity cohorts. In particular:

- **Many bilateral agreements fail to address each of the equity cohorts mentioned in the NSRA.** Not all 'equity cohorts' are represented in the bilateral agreements. These omissions mean there is no visibility, and therefore public transparency as to whether each jurisdiction is committing resources and actions towards supporting students experiencing educational barriers.⁷ For example, bilateral agreements for Queensland and the ACT do not detail reform action for students with disability, the bilateral agreement for Victoria does not outline actions for students in regional areas; while the bilateral agreement for South Australia does not provide actions for students with disability or students in regional and remote areas.
- **Many of the proposed measures are not 'additional'.** Desktop analysis and stakeholder engagement suggest that many of the actions and reforms in bilateral agreements linked to raising outcomes for students in equity cohorts were already underway before the NSRA was signed. Although the agreement expressly permits States and Territories to include existing reforms in bilateral agreements, that bilateral agreements include very few, if any examples of additional reforms seems antithetical to the purpose of the agreement.

⁷ This does not necessarily mean nothing is being done to support students from these cohorts. Consultations with stakeholders suggested that parties often do not report their full suite of reform activity in their bilateral agreements and there are a range of activities they undertake not provided in bilateral agreements which are targeted at supporting students from equity cohorts.

- **All bilateral agreements lack specificity.** The bilateral agreements commit to broad actions, without setting out the logical connection between the action and its intended outcomes. This lack of detail limits the extent to which parties could be held accountable for undertaking their committed actions. For example, New South Wales and Tasmania simply commit to ‘Meet the needs of students at risk of educational disadvantage (including students with disability, Aboriginal students, students with low English proficiency and students in rural and regional areas) through evidence-based pedagogy, quality teaching and leadership and innovation’, but do not identify the pedagogy or quality teaching practices they will adopt to meet the needs of students.⁸

Further, annual reports on the implementation of bilateral agreements lack detail on the extent to which initiatives are achieving their intended outcomes.

Under the NSRA, parties agreed that each State or Territory would report annually to the Commonwealth outlining progress towards implementing state-specific reform initiatives against agreed milestones. Along with other measures, the reports contribute to the broader function of giving ‘the community confidence that outcomes are being achieved and reforms to improve the quality and equity of Australia’s schooling system are being implemented by all Parties’.⁹

However, under current reporting arrangements, there is no clear line of sight regarding how state-specific reforms in bilateral agreements are contributing to improved outcomes at the local level for students in priority equity cohorts, and thereby contributing to shared national goals to lift outcomes.

General measures are less effective in responding to diverse needs

While bilateral agreements are the main intended vehicle for setting out reforms to support students in priority equity cohorts, the NSRA also sets out a series of National Policy Initiatives (NPIs) intended to lift the outcomes of all students.

However, as noted earlier, there is significant diversity in students’ learning needs, both across and within cohorts, reflecting differences in their life experiences, the education outcomes they value, their learning and wellbeing outcomes, and the nature of the adjustments and supports they may require.

A drawback of general measures designed to apply to all students is that they may be ineffective in meeting the more specific needs of some students (such as students from priority cohorts who find it difficult to engage in learning within the typical classroom setting). For example, although the Online Formative Assessment Initiative (OFAI) (chapter 2) provides a basis for promoting individualised learning by providing teachers with information of each student’s learning gain and suggested interventions, such advice may not be sufficiently targeted to the learning barriers some children face (such as failure to engage due to a lack of specialised support) or lack nuance (such as when advice is pitched at the ‘typical’ student). One participant observed:

A key barrier to the effectiveness of the NPIs is that they are ‘broad banded’ and largely universal in nature, and as such they are unlikely to be equally effective for all student cohorts. (Save the Children, sub. 23)

⁸ Western Australia state that ‘teachers make evidence-based decisions about the level of adjustment being provided for each student with disability, and the broad category of disability, to achieving quality teaching for all students’, but do not identify how they will help teachers make evidence based decision. The ACT state they will ‘implement the Cultural Integrity Continuum and Toolkit’ and Victoria will ‘introduce a Professional Practice Leader to support Koorie students’ literacy and numeracy’, but neither identify how the toolkit or Practice Leader will contribute to improved outcomes.

⁹ NSRA, s. 51. The reports also inform the assessment of whether the State or Territory has complied with the conditions for Commonwealth conditional of funding under the Act (that is, the State or Territory is party to national and bilateral agreements on school education reform and complies with them).



Draft finding 3.3

Governments have failed to adequately demonstrate how reforms under the National School Reform Agreement are addressing specific educational needs related to students' culture, disability or remoteness

- There is significant diversity in students' learning needs and educational aspirations, both across and within cohorts, reflecting differences in their life experiences, the education outcomes they value, their learning and wellbeing outcomes, and the nature of adjustments and supports they may require.
- The National School Reform Agreement does not adequately include reform actions relating to students from the priority equity cohorts it names.
- Under the National School Reform Agreement, equity issues are to be addressed through the bilateral agreements between the Australian Government and each jurisdiction. However, these agreements often do not identify measures to lift outcomes for students from all priority equity cohorts or, if they do, provide little detail on how measures will lift outcomes, or report any progress being achieved.

NSRA priority equity cohorts do not capture all cohorts experiencing educational disadvantage

There are also some student cohorts not identified as a priority equity cohorts in the NSRA that could reasonably be made a priority in the next agreement. Students who are learning English as an additional language or dialect (EAL/D) at school often require specific support. This includes support to build English language skills to access the general curriculum¹⁰, as well as high levels of social, emotional and cultural support (as their social and cultural expectations can vary greatly).

Children and young people living in out-of-home care can face particular barriers in education (Knight and Rossi 2018) and are at risk of poor wellbeing. The trauma of child abuse and neglect, compounded with removal and persistent dislocation can severely disrupt school attendance. Children and young people in out-of-home care tend to move between care settings, and therefore educational settings, so are at high risk of not receiving the same education as other students (Knight and Rossi 2018). One study found that children and young people living in out-of-home care aged 12 to 17 years, had attended, on average, 3.7 schools. Teachers and school leaders who do not recognise these challenges, can miss key opportunities to retain school engagement and may even exacerbate poor wellbeing (discussed in more detail in chapter 4).

Children and young people living in out-of-home care are considerably less likely than their peers to attend school and engage with education (Anglicare Victoria 2014). As a result, they are less likely to achieve the national benchmarks for reading and numeracy (Townsend et al. 2020). For example, a large-scale longitudinal study of children and young people living in out-of-home care found that by year 9, children in out-of-home care were four times more likely to be below the national minimum standard in reading, and six times more likely to be below the national minimum standard in numeracy, relative to the general population. They typically require more intensive support from teachers and schools to enable them to continue to avoid them falling through the cracks of the education system — 20 per cent of children in the study above reported they 'rarely or never' or only 'sometimes' understood the work in class.

¹⁰ It has been estimated over 600,000 EAL/D learners need English language support in schools throughout Australia.

During consultations, some young people in out-of-home care also highlighted the stigma that many students in out-of-home care face:

Telling friends that I was in care, it's setting you up to being picked on, those moments made me feel like I couldn't tell anyone and that I had to distance myself and that made me get picked on more. This made me not want to participate in class.

Children and young people in out-of-home care noted that the issue was worse for those who lived in residential care (as opposed to foster or kinship care):

I dropped out in grade 11 when I moved from foster care to resi. I was told resi was one step from juvie so I thought I must have been a horrible kid.

The specific barriers faced by children and young people in care at school will be the subject of a forthcoming Inquiry by the Victorian Commission for Children and Young People.

As at 30 June 2021, there were around 46 200 children in out-of-home care across Australia.



Draft finding 3.4

The priority equity cohorts in the National School Reform Agreement do not capture all cohorts of students experiencing educational disadvantage

- There are some student cohorts not identified as a priority equity cohort in the National School Reform Agreement that face significant educational barriers.
- Children and young people living in out-of-home care face significant disruptions to their schooling and are considerably less likely than their peers to attend school and engage with education. By year 9, children in out-of-home care were four times more likely to be below the national minimum standard in reading, and six times more likely to be below the national minimum standard in numeracy, relative to the general population.
- Students who speak English as an additional language or dialect often require specific support to strengthen English language skills to access the general curriculum.



Information request 3.2

Priority equity cohorts for the next agreement

Are there student cohorts, not identified as a priority equity cohort in the current National School Reform Agreement, such as children in out-of-home care, that should be a priority in the next agreement? If so, which cohorts and why?

3.4 What role could the next intergovernmental agreement play in addressing inequity in education?

Parties to the next intergovernmental agreement could promote high equity (and high quality) education for students in several ways. One is to implement general policy measures that aim to lift the quality of education provided to all students through the diffusion of knowledge on best practice approaches to

teaching and learning. However, as noted above, one drawback of general measures is that they may be ineffective in meeting the specific needs of some students.

Other options involve tailoring policies to address barriers faced by specific students or student cohorts. Different tailored policies can complement each other and general policies, by addressing different types of educational barriers.

A new tailored approach is needed for students from priority equity cohorts

Addressing the needs of students from priority equity cohorts requires adopting a person-centred approach, which recognises that being in a priority equity cohort does not, of itself, equate to disadvantage. Rather, it is the experiences of these students, both within and outside the education system that affects their educational achievement.

Reforms should directly tackle the barriers faced by students

Education systems that successfully engage and support students with diverse needs share some common features. How these features translate into practice will differ for students within and across cohorts. Stakeholders highlighted a number of areas where more could be done to embed these features in school policies, programs and practice.

Teachers, families, and students have a shared understanding of schooling success

Where teachers, families, and students have a shared understanding of schooling success, students are more likely to receive the support that they need.

One concern raised during this review was that conventional metrics of schooling success (such as those articulated in the NSRA) do not adequately reflect the aspirations of students belonging to some equity cohorts. For example, one stakeholder identified that success factors for a local community are not necessarily restricted to achievement in literacy and numeracy.

While [how the community sees success for students] might still include students attending school and achieving in literacy and numeracy, it may also include a range of other success factors that matter to the local community.¹¹

Another concern was discrimination in the form of lowered expectations of students from equity cohorts. A student with disability spoke of being discouraged from pursuing a particular post-school pathway because of their disability:

I wanted to do law, my teachers told me that I couldn't do it and they kept putting me down for my disability and the school ended up choosing my subjects for me because they wouldn't let me do the subjects that I wanted to. They weren't listening to what subjects I wanted to do.

The Commission also heard that low expectations can affect Aboriginal and Torres Strait Islander students, and problems arise from equating Indigeneity with educational disadvantage.

[The] labelling of Aboriginal and Torres Strait Islander students and families as disadvantaged continues to play into a culture of deficit discourse and low expectations that stymie Aboriginal and Torres Strait Islander students' ability to thrive in their education ... While Aboriginal and Torres Strait Islander students and communities face a range of complex and compounding

¹¹ Smarter Stronger Institute.

circumstances that impact their educational engagement and outcomes, they are not inherently disadvantaged by being Indigenous. (Indigenous Education Consultative Meeting, sub. 52)

The importance of setting high expectations for students and encouraging every student to grow, is borne out in research, and in the experiences of high-performing education systems (Gonski et al. 2018).

Stakeholders suggested these issues could be addressed through better engagement and communication with students, their families, and their communities.¹²

Parents and carers can exercise reasonable levels of choice regarding their child's education and have access to information to effectively inform this choice

Increased choice can support parents or carers to ensure their children have access to schooling that caters to their child's needs.

However, families in regional, rural and remote areas can have limited choice in where and how they educate their children. Some families have limited access to primary schooling within a reasonable distance and with suitable transportation options, and no access to secondary schooling apart from boarding school. Where local offerings are available, subject offerings can be limited and teachers do not always have the expertise required. For example, in remote locations, about 26 per cent of class groups were taught by an out-of-field teacher compared to 14 per cent in metropolitan locations in 2013 (Weldon 2016, p. 1). In some remote Aboriginal and Torres Strait Islander communities, a lack of options mean children are not able to live and be educated on their own Country. As O'Brien and Fogarty (2020, p. 55) note:

There are 78 remote or very remote communities in the NT without any secondary pathway. For families in these locations, securing a boarding place for a child relatively close to home is far from straightforward.

Improving the availability, accessibility and affordability of information and communication technology (ICT) for students and schools in regional and remote areas will help address many of these issues (Halsey 2018a). ICT provides students with greater access to teachers and subjects; likewise stakeholders identified that better ICT will allow students to remain on Country, while engaging in remote schooling. Innovative solutions, such as distance education (schooling predominantly online with limited face-to-face time), clustering (a means to group schools services to improve access to education and education services) and establishing boarding schools that are smaller, regional based and closer to home are all innovative solutions to improve choice and access for families (Halsey 2018a).

Parents and carers are supported to be actively engaged in their children's education so that the school and home environment jointly reinforce students' learning

Parents, carers and other family members have a significant influence on a student's success at school (Emerson et al. 2012). While particularly important in the early years of a child's learning development, parent and carer engagement remains important throughout a child's schooling.

However, some families can feel alienated and disengaged from their child's learning. For example, Aboriginal and Torres Strait Islander parents and communities report feeling alienated from schools, regularly discriminated against and reported distrusting schools as 'white' institutions.

More broadly, some stakeholders observed that their first interactions with their child's school occurred when they were called to the school 'when something had gone wrong'. As a result some parents were reluctant to

¹² Indigenous Education Consultative Meeting, sub. 52; ARACY, sub. 38.

engage with schools and share information about issues at home that may be impacting on their child's social and emotional wellbeing, and their capacity to learn.

Establishing strong relationships with parents and responding to parental concerns in a meaningful way can optimise support for students' educational efforts and aspirations (Sarra et al. 2018). Parents and carers bring with them a range of skills, knowledge and wisdom, many of which are specific to specific cultural groups. This expertise is valuable in helping to build culturally inclusive schools.

The influence of school leaders in building relationships, school culture and developing shared meaning and values is key in engaging with parents, families and communities (chapter 6). School leaders help shape school culture, which includes 'the physical and emotional safety of students, the orderliness of classrooms and public spaces, or the degree to which a school embraces and celebrates racial, ethnic, linguistic, or cultural diversity' (Halsey 2018b, pp. 39–40).

Schools adopt culturally responsive curriculum and pedagogies

Stakeholders have observed that some students do not see their identities, cultures, and knowledge systems reflected in what and how they are learning, which can impact engagement and learning outcomes.¹³

Culturally responsive pedagogies, which value and embrace all languages and perspectives, and a culturally responsive curriculum help students from all backgrounds feel safe, increases inclusion, engagement and enriches the learning of all students (Turner, Wilson and Wilks 2017).

Stakeholders underscored the importance of culturally responsive pedagogies (which value and embrace Aboriginal and Torres Strait Islander languages and ways of learning) and a culturally responsive curriculum (which integrates Aboriginal knowledge, culture and history) in creating a sense of belonging and inclusion for Aboriginal and Torres Strait Islander students.¹⁴ During a consultation, an Aboriginal young person highlighted the importance of 'two-way' learning (box 3.1):

A good education means getting everyone in the school to learn about Aboriginal culture, for non-Aboriginal people to learn about Aboriginal culture because we all live on Aboriginal land.

Culturally responsive pedagogy can also encompass bilingual education to ensure that students from culturally and linguistically diverse backgrounds are able to engage fully in learning.

Adopting a culturally responsive curriculum and pedagogy can improve a student's perception of their schooling, their ability to achieve, and subsequently, their actual academic outcomes (Krakouer 2015; Morrison et al. 2019). Studies also suggest that when quality bilingual or culturally appropriate instructional approaches (which support students speaking English as a second language) are adopted, family and community support for schooling and student engagement may increase (House of Representatives Standing Committee on Indigenous Affairs 2017; Silburn et al. 2011).

School systems across Australia widely acknowledge the need to implement culturally responsive pedagogy and curriculum through their strategies and policies to support Aboriginal and Torres Strait Islander students. Further embedding this through consistently engaging with the various Indigenous Education Consultation bodies across each jurisdiction, delivering training to improve teachers' cultural competency and providing learning materials to assist teachers deliver a culturally responsive curriculum are all actions jurisdictions should continue to take.

¹³ Indigenous Education Consultative Meeting, sub. 52.

¹⁴ Indigenous Education Consultative Meeting, sub. 52.

Box 3.1 – Two-way learning in west Arnhem Land

Two-way learning is an approach that combines education in Aboriginal and Torres Strait Islander culture and language with traditional Western learning. It aims to ensure that Aboriginal and Torres Strait Islander students are connected to their culture and Country while also equipping them with the capacity to succeed outside their community.

An example of where two-way learning is currently being applied is in two school campuses in west Arnhem Land, a remote region of the Northern Territory. The campuses serve the remote communities of Mayumi and Mamadawerre, and are both part of the Nawarddeken Academy, an independent school which delivers education for Aboriginal children.

Students at these campuses receive their education on their communities' Country, and do traditional activities on field trips such as learning about bush foods and local animals. These activities are complemented by education based on the mainstream curriculum.

The Academy has indicated that attendance at the campuses is well above the Northern Territory's average for remote schools, which suggests that two-way learning has the potential to increase engagement for Aboriginal students.

Source: Vivian (2022).

More effective and targeted training would better position teachers (and school leaders) to create culturally inclusive environments for Aboriginal and Torres Strait Islander students. As the IECM observed:

We recognise the importance of quality teaching; including the ability to see Aboriginal and Torres Strait Islander students as whole people and support their learning needs in a culturally responsive manner, based on high expectations approaches free from deficit discourse. This requires ongoing support of teachers as professionals to continually develop their capability in Indigenous education, both through improved Initial Teacher Education (ITE) and access to (and expectation of completing) effective and culturally appropriate ongoing professional development. (sub. 52, p. 3)

The Commission is seeking further information on options to improve teacher training in chapter 5.

School leadership adopts inclusive practices, teachers are trained in identifying and responding to diverse needs

Inclusive education involves adapting the environment and teaching approaches to ensure genuine and valued full participation of all children and young people. But this relies on teachers and school leaders recognising different learning styles and environments. As one participant in the National Youth Disability summit observed:

One thing that schools can do to help, to like be educated, is understanding what different learning environments can look like, so then they know how to best be accommodat[ing]. So, for some people paying attention and concentration might look like fidgeting, drawing or listening to some music. Some students learn in ways that are not typically taught and therefore teachers assume the kids are disengaged. (Children and Young People with Disability Australia (CYDA) 2020).

Inclusive cultures and practices are particularly important for students with a disability. Reflecting the multifaceted nature of students' needs, disability crosses many of the equity cohorts named by the NSRA.

The Australian, state, territory and local governments have committed to taking action to improve the lives of

people with disability under Australia's Disability Strategy 2021–2031 (box 3.2). Policy Priority Two of the Strategy relates specifically to schooling, and building capability in the delivery of inclusive education to improve educational outcomes for school students with disability. However, it is not clear how effectively education systems and school leadership have translated these policy priorities into practice.

Some stakeholders observed that many schools operate from a 'medical model of disability', as opposed to a 'social model of disability', effectively endorsed by governments under Australia's Disability Strategy. The social model views disability as resulting from barriers to inclusion in the community. In contrast, the medical model conceives disability as an impairment, for which the onus is on the individual to make adjustments for the community.

Box 3.2 – Australia's Disability Strategy

The Australian, state, territory and local governments have committed to taking action to improve the lives of people with disability under *Australia's Disability Strategy 2021–2031*.

One of the outcomes of the Strategy is that 'people with disability achieve their full potential through education and learning'. It specifies a number of policy priorities aimed at achieving this outcome, including ensuring that school systems enable children and young people with disability to participate free of bullying, harassment or exclusion. Policy priority two relates specifically to schooling: build capability in the delivery of inclusive education to improve educational outcomes for school students with disability.

States and territories have committed to specific actions to achieve the outcomes of the Strategy through Targeted Action Plans. These outline the steps governments will take in particular areas such as employment, community attitudes and early childhood, as well as associated timelines and indicators. There is currently no Targeted Action Plan for school education, though other plans include actions to be taken by school systems (for example, Tasmania committed to building educator capacity in inclusive practice over 2021–2024 in the Community Attitudes Targeted Action Plan) (DSS 2021b).

Reporting under the strategy includes yearly reports on Targeted Action Plans, a dashboard of high-level data on key outcomes of the Strategy (including education), updated each year, and Implementation Reports on progress against disability initiatives at all levels of government, produced every two years.

Source: Department of Social Services 2021.

Inclusion requires that unique needs and ambitions being understood. One young person felt that when disabilities are 'invisible' they are even more isolated.

There is a complete lack of awareness around disability at school and what this looks like for different students. Many disabilities are invisible. Unless you have a specific diagnosis, advocates and supports, you can be prejudiced in the way you are treated (young person consulted by the inquiry).

More effective and targeted training could better position teachers (and school leaders) to better identify and support the needs of students with a disability. One stakeholder noted that schools are not equipped to identify disabilities and students can often go through school not knowing they have a disability. Training would also help teachers manage challenging classroom situations. One reoccurring concern was that some

Australian schools use what can be described as a ‘manage-and-discipline’ model (Armstrong 2018). This model results in some students with disability (such as those with socio-emotional disability or neurodivergent background) being sanctioned instead of being given the behavioural supports they need, contributing to their disengagement from education (Sackville, Galbally and Mason 2021).

Data from one jurisdiction shows that students with disability received 14 per cent of all permanent exclusions in 2019, even though they account for only 4.5 per cent of all government school enrolments. Aboriginal and Torres Strait Islander students were similarly overrepresented in classroom exclusions. Making up 6.5 per cent of all expulsions in one jurisdiction, despite only making up only 2 per cent of student enrolments (Sullivan et al. 2020). While the 2019 South Australian inquiry into suspensions, exclusions, and expulsions, found that exclusions were being used for students with disability who were not provided reasonable adjustments necessary to prevent incidents that then led to their exclusion (Graham et al. 2020).

These statistics are limited to the number of children with *diagnosed* disability that have been expelled, so could be an underestimate. Stakeholders have cited instances where children were excluded due to behaviours arising from undiagnosed disability.

The review also heard that for Aboriginal and Torres Strait Islander children with disability living in rural and remote communities, the access to learning supports and reasonable adjustments at school is limited. This can mean children with disability need to move ‘off country’, away from their family, community and culture to attend schools in places with available supports. This can have an even more isolating impact for these children and young people.

Policies, programs and practices are informed by the people they are intended to support

Designing policy in collaboration with the people it is intended to support allows for a deeper understanding of the issues certain students face and policy responses that are most appropriate for those impacted by the issue.

A number of Aboriginal and Torres Strait Islander stakeholders expressed disappointment at the lack of visibility regarding engagement with Aboriginal and Torres Strait Islander educational consultative bodies and how it has contributed to reform. The need for consultation and shared decision-making with Aboriginal and Torres Strait Islander people in relation to the design of educational outcomes, and how they shape reform, is underscored by the Key Priority Reforms of the 2020 Closing the Gap. The Agreement aims to empower Aboriginal and Torres Strait Islander people to share decision-making with governments in respect of policies and programs that affect them (box 3.1).

Box 3.3 – National Agreement on Closing the Gap

The National Agreement on Closing the Gap is an agreement between all Australian governments and the Coalition of Aboriginal and Torres Strait Islander Peak Organisations, in which parties commit to actions to overcome inequalities between Aboriginal and Torres Strait Islander people and the broader Australian population. The Agreement focuses on shared decision making with Aboriginal and Torres Strait Islander people, representing a new way of working for governments.

Parties have committed to four Priority Reforms under the Agreement. They are:

- Strengthening and establishing formal partnerships that empower shared decision-making
- Building the Aboriginal and Torres Strait Islander community-controlled sector to deliver services

Box 3.3 – National Agreement on Closing the Gap

- Transforming government organisations so they are more inclusive of, and deliver better outcomes for, Aboriginal and Torres Strait Islander people
- Improving and sharing access to data and information to enable Aboriginal and Torres Strait Islander people to make informed decisions.

Parties have also committed to actions in specific areas such as school education. One of several outcomes under the Agreement is that 'Aboriginal and Torres Strait Islander students achieve their full learning potential'. The corresponding target (identical to the NSRA's Aboriginal and Torres Strait Islander attainment target) is to 'increase the proportion of Aboriginal and Torres Strait Islander people (age 20-24) attaining year 12 or equivalent qualification to 96 per cent [by 2031]'.

All jurisdictions have implementation plans which specify the actions they are taking or intend to take to achieve this and other targets (Coalition of Peaks and all Australian Governments 2020).



Draft finding 3.5

There are a range of educational barriers experienced by students from priority equity cohorts

- Compounding problems arise from equating Indigeneity with educational disadvantage.
- Cultural recognition by schools, and the value placed on Indigenous knowledges by them, are key in responding to the distinct educational needs and aspirations of Aboriginal and Torres Strait Islander students. Culturally responsive curriculum and pedagogies increase inclusion and engagement of Aboriginal and Torres Strait Islander students, and enrich the learning of non-Aboriginal and Torres Strait Islander students too.
- Indigenous knowledges, Aboriginal and Torres Strait Islander cultures, and how to include and empower students may be poorly understood by teachers and school leadership.
- There is now a mandate for consultation and shared decision-making in relation to the design of educational outcomes and sub-outcomes (and how they shape reform) under the Key Priority Reforms of the 2020 Closing the Gap Agreement.
- Children and young people with disability experience unique barriers to engagement and inclusion at school that affect wellbeing, engagement and school success.
- Initial Teacher Education may not sufficiently empower teachers to recognise and respond adequately to disability.
- Families in regional, rural and remote areas can have limited choice in where and how they educate their children.

Reforms will need to be tailored to local circumstances

Addressing many of the above barriers facing students in priority equity cohorts will require local responses as the relevant laws, policies and regulations governing school education (such as teacher training, assessment, and accreditation) reside with the States or Territories. Further, in many cases, State and Territories already have reforms underway and any additional reforms in this area will need to be integrated with existing efforts.

The Commonwealth, States and Territories have all committed to address systematic barriers to quality education for students with disability, Aboriginal and Torres Strait Islander students and students in regional and remote areas through various fora:

- under the National Agreement on Closing the Gap, the Commonwealth and states and territories have committed to reforms aimed at improving educational outcomes for Aboriginal and Torres Strait Islander children and young people (box 3.1)
- *Australia's Disability Strategy 2021–2031*, agreed by state and territory governments and the Commonwealth, sets out a plan to improve the lives of Australians with disability. It specifies a number of policy priorities for governments, several of which relate to education (box 3.2)
- the Independent Review into Regional, Rural and Remote Education made 11 recommendations to improve regional rural and remote education, all of which have been accepted by the Australian Government.

Enhanced transparency around state-specific reforms would support improved outcomes for students in priority equity cohorts

The public accountability and transparency arrangements under the NSRA have limitations that government will need to address in the next agreement to ensure public confidence. As outlined in chapter 2, there is a range of measures governments could take to enhance accountability under the next agreement, including: requiring jurisdictions, in consultation with those with lived experience, to develop 'implementation plans', and associated progress reporting (replacing the current bilateral agreement updates) that identify specific improvements in outcomes jurisdictions expect their nominated reforms to achieve over the term of the next agreement (for example, 5 years) and how they will measure success.

The purpose of these measures would be to increase accountability through greater transparency. Each jurisdictions' performance in lifting outcomes would be much clearer compared with relying on national level performance reporting alone. In this context, data could be used to guide progress as well as to measure it. As IECM cautioned:

reform action data [should] be treated in a more formative capacity to enable early and ongoing analysis of progress. The current NSRA presents lofty data items for reporting. How can we break this down into meaningful elements that can be measured and provide progressive insights into how we are tracking towards achieving the higher order goals? (sub. 52, p. 3)

Translation of data into a clear story of progress at regular intervals also enables equity cohorts to engage in constructive discussions with parties about whether proposed reforms and their implementation need to be adjusted or even re-thought. It aids the process of collaboration and shared decision-making envisaged under the National Agreement for Closing the Gap.

These changes would help address concerns about the limited accountability associated with the bilateral agreements and associated reporting arrangements under the NSRA. Parties would be required to systematically set out:

- the outcomes they are seeking to achieve for students in each of the priority cohorts (including short and longer term outcomes)
- the reforms initiatives they will pursue to achieve these outcomes (and, where relevant, how these are linked to commitments and obligations in other agreements)
- the theory of change (that is, the logic behind how the reforms will overcome barriers and achieve the outcome, such as adoption of inclusive teaching practices)
- how progress will be measured over time (which could include state-based or national indicators or both)

- identify how the perspectives of affected parties were incorporated into all of the above (to ensure they reflect the unique barriers, priorities, aspirations and lived experiences of students from particular student cohorts and involved stakeholders through the reform process).

This approach would give greater prominence to actions taken to support outcomes for students in priority equity cohorts in the next agreement, and help identify best practice approaches. At a minimum, the implementation plans should cover the existing priority equity cohorts identified in the current NSRA, as well as improving outcomes for students below the NAPLAN minimum standards. As under current arrangements, these could include new actions or existing actions (to recognise existing reform efforts). However, the list of actions should be a comprehensive account of major state-based actions directed at improving outcomes for the relevant student cohorts to provide a clearer picture of the overall effort toward providing a high equity schooling for specific students through tailored policy measures and interconnections between policies.

The Commission is seeking further stakeholder input on the benefits, costs and risks of proposed enhancements to accountability mechanisms (or better alternatives) for the next intergovernmental agreement.

Draft recommendation 3.1



Implementation plans, developed in consultation with affected groups, should be used to improve the transparency of reform actions and to hold parties to account for the outcomes they commit to achieve

In the next intergovernmental agreement, Australian, State and Territory Governments should ensure:

- there are reforms directly addressing the unique barriers and ambitions of students from priority equity cohorts
- bilateral agreements, developed in consultation with stakeholders, identify how jurisdictions will lift outcomes for students in each of the priority equity cohorts identified in the agreement, recognising their specific learning needs
- progress reporting contains sufficient information (and has sufficient oversight) to provide the public with confidence that measures to lift outcomes for students in priority equity cohorts are being implemented and achieving their intended outcomes.



Information request 3.3 Implementation plans

1. What would be the costs, benefits, and implementation issues associated with the Commission's proposed enhanced accountability mechanisms (draft recommendation 3.1) for bilateral agreements and associated reporting arrangements (in general and as they relate to students in priority equity cohorts)? What would be the costs and benefits of having people with lived experience involved in shared decision making in relation to reporting arrangements?
2. Are there ways parties could reduce the costs (for example, reporting burdens) and increase the benefits of implementation plans by integrating, aligning or linking them with existing government reporting processes (for example, reporting under Closing the Gap and Australia's Disability Strategy)?

Other matters relating to transparency, accountability and inclusiveness

Stakeholders have highlighted several other matters relating to transparency, accountability and inclusiveness as they relate to students from priority equity cohorts.

Not knowing where schools spend money limits transparency around actions to support students from priority equity cohorts

Another way that bilateral agreements could support transparency around jurisdictions' efforts to improve outcomes for students from priority equity cohorts is by facilitating the sharing of school-level financial data. This would provide a better line of sight on how schools are being funded and how they spend their resources – including the extra funding delivered via loadings for specific cohorts.

Currently, little information is made available on system and school level resource allocation. MySchool data, collated and reported by the Australian Curriculum Assessment and Reporting Authority (ACARA), includes income, capital expenditure and deductions for schools (ACARA 2022); however, it offers no insight into the funding of interventions being employed to lift student outcomes, including for priority cohorts.

Stakeholders highlighted the lack of transparency around how (and the extent to which) extra funds for students in priority cohorts – including Aboriginal and Torres Strait Islander Students, students in regional and remote areas and students with a disability – are used by jurisdictions and schools to support students in those cohorts. The Australian Council of State School Organisations (sub. 51, p. 6) argued that:

there is a need for greater accountability for commonwealth funding, it is currently inadequate. Whilst we acknowledge a suitable calculation for each of the loadings can be imprecise, there is a need for greater transparency.

And the National School Resourcing Board (NSRB), the independent agency that oversees the Commonwealth school funding model, noted that its capacity to evaluate regional loading settings has been limited by a lack of data from jurisdictions on what the loading funds are spent on (sub. 22, p. 5). To address this issue, the Board recommended that 'New bilaterals related to the new National School Reform Agreement should include clauses related to provision of data' (sub. 22, p. 7).

The Indigenous Education Consultative Meeting (IECM) (sub. 52, p. 5) argued that:

There is a significant lack of transparency and accountability in how the needs-based funding, including the Indigenous loading, are allocated and distributed down to a school level to support Aboriginal and Torres Strait Islander students.

To address this, the IECM recommended that jurisdictions commit to improving transparency about how funding intended for students from equity cohorts, such as Aboriginal and Torres Strait Islander Students, is used by schools to improve their outcomes (sub. 52, p. 6).

Sharing more detailed expenditure information could improve transparency around how jurisdictions are supporting students from priority equity cohorts. However, other considerations might include, for example, the potential for data collection to impose an administrative impost on schools.¹⁵

The Commission seeks further feedback on these issues.

¹⁵ This issue was raised by several jurisdictions, including NSW (sub. 12), the WA Government (sub. 19) and the Victorian Government (sub. 31).



Information request 3.4

Transparency of funding for students from priority equity cohorts

What would be the benefits, costs and risks of greater national reporting of schools funding and expenditure data to support transparency around state and territory efforts to lift outcomes for students from priority equity cohorts? If there is a case for providing such information, how could it be collected cost-effectively?

Further embedding the perspectives of priority equity cohorts in national education policy and institutions

During consultations, some participants questioned whether more could be done to further embed the views of priority equity cohorts in national education policies and institutions. Areas of interest included:

- whether there should be more explicit or stringent requirements regarding how parties take account of the views of priority equity cohorts when consulting on state-based and national policy initiatives in the next agreement, or on the agreement itself
- whether groups representing priority equity cohorts should be assigned explicit roles and responsibilities in the next agreement
- whether the governance structures and work programs of Commonwealth institutions responsible for advancing national education policies under the NSRA adequately incorporate the perspectives of priority equity cohorts.

For example, the IECM (sub. 52, p. 8) argued that engagement with Aboriginal and Torres Strait Islander communities in the implementation of national and state and territory reforms has 'not been achieved in a consistent way or to a suitable standard'. They recommended more 'early and ongoing engagement to enable strong partnerships and improved education outcomes' (IECM sub. 52, p. 8).

The Commission is inviting further feedback on these concerns and options for addressing them.



Information request 3.5

Embedding the perspectives of priority equity cohorts in national education policy and institutions

1. What specifically could be done to embed the views of priority equity cohorts in national education policies and institutions, including outcomes, targets and policy initiatives in the next intergovernmental agreement on school education?
2. What are the merits of establishing a national Indigenous consultative body on education? How might such a body be structured? If pursued, would this best occur through a successor national school reform agreement or some other avenue?
3. Does the current education and research evidence base capture a representative range of cultural and community perspectives, including those of Aboriginal and Torres Strait Islander students, teachers and researchers? If not, what actions could be taken to support this?

4. Student wellbeing

Key points

- ✳ **Student wellbeing is both a desired outcome of schooling in its own right, as well as a vehicle to achieve improved learning outcomes.**
 - Research shows a child’s wellbeing can strongly influence their ability to engage and learn at school, and poor wellbeing — especially arising from childhood trauma — can hinder academic performance
 - Evidence suggests that a sizable proportion of children and young people experience challenges to their social and emotional wellbeing, including at school
 - The COVID-19 pandemic and natural disasters have brought student wellbeing into sharper focus.
- ✳ **School wellbeing policies and programs often fail to provide teachers and students with access to the support and resources they need. Specific issues include:**
 - overlapping policies and programs and schools choosing programs that lack a strong evidence base
 - lack of teacher training to identify poor wellbeing, deliver the social and emotional learning curriculum, and understand the social and emotional development of their students
 - uneven supports and information for students, parents and teachers across schools
 - some schools not having clear wellbeing policies in place, resulting in incoherent pathways for support within schools and blurred responsibilities among various school staff.
- ✳ **But wellbeing is not ‘just programs’. Raising student wellbeing to a priority area for national cooperation could assist by:**
 - compelling consistent, evidence-based national focus and action on wellbeing across governments, portfolios and school sectors
 - increasing transparency about the outcomes being achieved across Australia and encouraging a greater focus on the effectiveness of the broad range of existing efforts by governments and schools
- ✳ **Parties to the next intergovernmental agreement on schools should explicitly address student wellbeing**
Specific actions could include:
 - including wellbeing as an outcome of the agreement
 - committing to developing, implementing and reporting on state-based reform actions that achieve meaningful improvement in wellbeing outcomes
 - investigating opportunities for multi-jurisdictional cooperative initiatives (such as on data development for reporting on a national student wellbeing measure)
 - developing a wellbeing measure for inclusion in the national performance reporting.

The preamble to the National School Reform Agreement (NSRA) acknowledges that the ‘wellbeing of all students is fundamental to successful education outcomes’¹. Yet, wellbeing is conspicuously absent from the objectives, outcomes, sub-outcomes, and reform activity in the NSRA.

There is growing recognition that school policy needs to focus on student wellbeing. This chapter outlines reasons why school policy should focus on student wellbeing (section 4.1), areas where current approaches are failing to provide teachers and students with the support they need (section 4.2) and how the next intergovernmental agreement might help improve student wellbeing (section 4.3).

4.1 Why focus on student wellbeing?

Wellbeing has a strong influence on engagement and learning

Wellbeing is about how a person feels about themselves and their life, and is influenced by a range of factors. According to Huppert (2009, p. 137), psychological wellbeing is ‘the combination of feeling good and functioning effectively’. It is related to the concept of mental health, which is ‘a state of mental well-being that enables people to cope with the stresses of life, realize their abilities, learn well and work well, and contribute to their community’ (WHO 2022). Save the Children (sub. 23, p. 2) observed that people tend to have higher wellbeing when they have a strong sense of optimism, confidence, awareness of own emotions, positive relationships with others, and the ability to work through difficulties and resolve conflict.

For children and young people, their experiences and relationships at school are often major influences on their wellbeing. For example, at school they have opportunities to develop skills (such as resilience, emotional awareness, ability to resolve conflicts) and social networks that support their wellbeing. Conversely, students may have experiences at school that adversely affect their wellbeing (such as bullying or social or classroom exclusion).

The effects also run in the other direction; poor wellbeing can negatively affect ability to learn, and social and teacher interactions at school. For example, experiences outside the school gate that affect wellbeing can have significant effects on children’s ability to engage and learn at school. Exposure to many extreme stressors in childhood such as neglect and violence can cause developmental delays, which affects their cognition, memory, and capacity to pay attention (Cook et al. 2003, p. 7; Emerging Minds 2020; Victorian Child Safety Commissioner 2007).

A number of stakeholders recognised wellbeing as important for both engaging students and raising educational outcomes for students suffering serious deficits in wellbeing. This was seen as particularly important for children and young people with experiences of child abuse and neglect, family violence or out-of-home care (Cook et al. 2003; van der Kolk 2007). The relationship between wellbeing and academic achievement was also underscored in consultations with children and young people. One young person, for example, stated that ‘a safe and comfortable environment makes it easiest to achieve goals, and the absence of such in certain circumstances does the opposite’.

The relationship between wellbeing and student outcomes has been borne out in a number of studies, which found that students struggling with challenges to their wellbeing often have difficulty engaging at school, while students with high social and emotional wellbeing tend to have higher levels of academic achievement and attainment (table 4.1). One study has suggested that the relationship is causal: Cárdenas et al. (2022, p. 3) used

¹ NSRA, s. 9.

machine learning to show that subjective wellbeing affects scores in National Assessment Program – Literacy and Numeracy (NAPLAN) 7 to 8 months later, after controlling for 40 different individual, family, and school factors.

While a student's wellbeing is often influenced by what is happening outside the school gates, poor wellbeing can be exacerbated, and trauma can be entrenched, by a failure to recognise communication of trauma through behaviour, and a lack of awareness by teachers and school leadership in how to respond to or support poor wellbeing, inside the school gates.

Addressing poor wellbeing — both as an outcome in and of itself, and as a vehicle to lift student outcomes — is about more than just 'wellbeing programs'. The implementation of trauma-informed culture, leadership and responses at schools have led to increased academic engagement and success in recovery (van der Kolk 2007). For Aboriginal and Torres Strait Islander students, wellbeing encompasses greater considerations; connection to country, spirituality, community and ancestry can be key protective factors in helping to manage wellbeing (Zubrick et al. 2010).

Table 4.1 – Australian Studies linking wellbeing to learning and engagement

Study	Domain	Finding
Cárdenas et al. (2022)	Achievement	Reducing self-reported depression in Year 8 by one standard deviation would increase Year 9 NAPLAN numeracy and reading scores by 7 per cent. Improving an average student's wellbeing by one standard deviation would increase their numeracy score by 5 per cent.
Goodsell et al. (2017)	Achievement	Students with mental illness scored lower than students with no mental illness in all NAPLAN test domains (grammar, reading, spelling, writing and numeracy) and all NAPLAN year levels (Years 3, 5, 7 and 9).
Lawrence et al. (2015)	Achievement	School performance across all year levels in Maths, English, Art and Sports and Science subjects was 'markedly poorer' for students with mental illness.
The Centre for Adolescent Health (2018)	Achievement	For Year 3 students, boys with conduct problems, peer problems or overall emotional and behavioural difficulties, scored lower on NAPLAN for reading. Emotional symptoms and overall emotional and behavioural difficulties were correlated with lower numeracy scores in boys. Girls with peer problems scored lower in numeracy.
Mundy et al. (2017)	Achievement	Over the four years from Year 3 to Year 7, students with persistent emotional or behaviour problems fell, on average, a year behind their peers in numeracy and students with persistently low subjective wellbeing fell eight months behind.
Zubrick et al. (2006)	Achievement	For Aboriginal children in Western Australia, clinically significant emotional or behavioural difficulties was a risk factor for low academic performance.
Mitchell et al. (2021)	Attainment	Young people under 18 who were hospitalised due to mental illness during 2005–2018 had approximately a three times higher risk of not completing high school compared with peers.
Noble and Wyatt (2008)	Attainment	Students with high levels of wellbeing are more likely to complete Year 12.
Goodsell et al. (2017)	Engagement	Students aged 11-17 with mental illness were less likely to have a good level of school connectedness and less likely to have a good level learning engagement than students with no mental illness.

Study	Domain	Finding
Lawrence et al. (2019)	Engagement	Students with mental illness had 42 per cent more days absent from school per year in Years 1-6, increasing to 118 per cent more in Years 7-10 and 115 per cent more in Years 11-12.
The Centre for Adolescent Health (2018)	Engagement	Persistent low wellbeing, emotional problems or behaviour problems in Years 3 to 5 increased the odds of disengagement in Year 7.
Zubrick et al. (2006)	Engagement	For Aboriginal children in WA, clinically significant emotional or behavioural difficulties (based on teacher survey responses) was a risk factor for poor school attendance.

Recognition of the importance of student wellbeing is growing

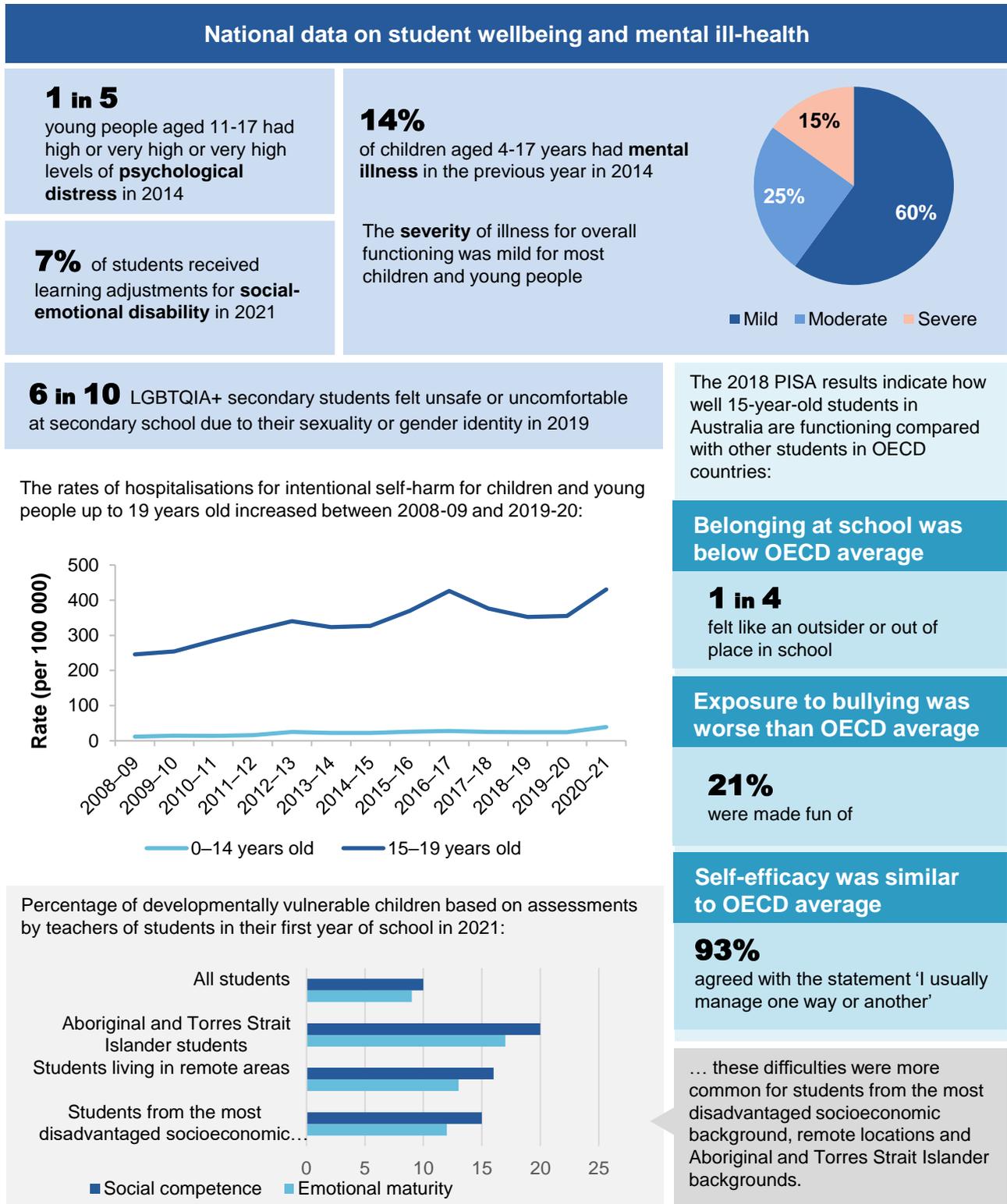
A sizable proportion of students experience wellbeing challenges

Evidence (including from national surveys of young people) suggests that a sizable proportion of Australian school students experience challenges to their social and emotional wellbeing, and this is more pronounced for some student cohorts (figure 4.1). Although 14 per cent of school-aged children and young people had mental illness in 2014, the prevalence was higher in boys (16 per cent) than girls (12 per cent), due mainly to their higher prevalence of ADHD (Lawrence et al. 2015, p. 25). However, the prevalence of depression is higher in girls than boys, and increases to 20 per cent of girls aged 16 to 17 years old (Lawrence et al. 2015, p. 97).

There are many determinants of a child's wellbeing, at the personal, family, school and community levels (figure 4.2). The Australian Research Alliance for Children and Youth (sub. 38, p. 8) noted that a child's wellbeing is a function of whether they are able to thrive, meaning 'to be loved, valued, and safe ... to be physically and mentally healthy; to be learning, participating; to have a positive sense of identity and culture; and to have material basics'.

Poor wellbeing can be particularly acute for students who experience challenges to engagement and inclusion at school, for example children and young people in out-of-home care, those with disability, and Aboriginal and Torres Strait Islander students. The Western Australian Aboriginal Child Health Survey found that 22 per cent of Aboriginal children were living in families that had experienced at least 7 major life stress events in the preceding 12 months, and that this was the strongest predictor of clinically significant emotional and behavioural difficulties in Aboriginal children (Zubrick et al. 2010, pp. 135–138). Where two or fewer stressful events had occurred, 15 per cent of Aboriginal children aged 4 to 11 years were at high risk of emotional or behavioural difficulties, increasing to 42 per cent for children in families experiencing at least 7 major life stress events (Zubrick et al. 2010, p. 135). A study of children in New South Wales demonstrated that greater levels of contact with the child protection system (including out-of-home care) before the age of 10 is associated with increased risk of mental health difficulties in middle childhood (O'Hare et al. 2021). In their submission, the National Mental Health Commission (NMHC) (sub. 26, p. 3) noted that groups including children with disability, children in out-of-home care and Aboriginal and Torres Strait Islander children are at increased risk of mental ill-health.

Figure 4.1 – National data on student wellbeing and mental ill-health



Sources: Lawrence et al. (2015, pp. 9, 30); ACARA (2022f); Hill et al. (2021, p. 15); Thomson et al. (2020, pp. 25, 118); AIHW (2022b); DESE (2022a, pp. 18, 31, 35, 42).

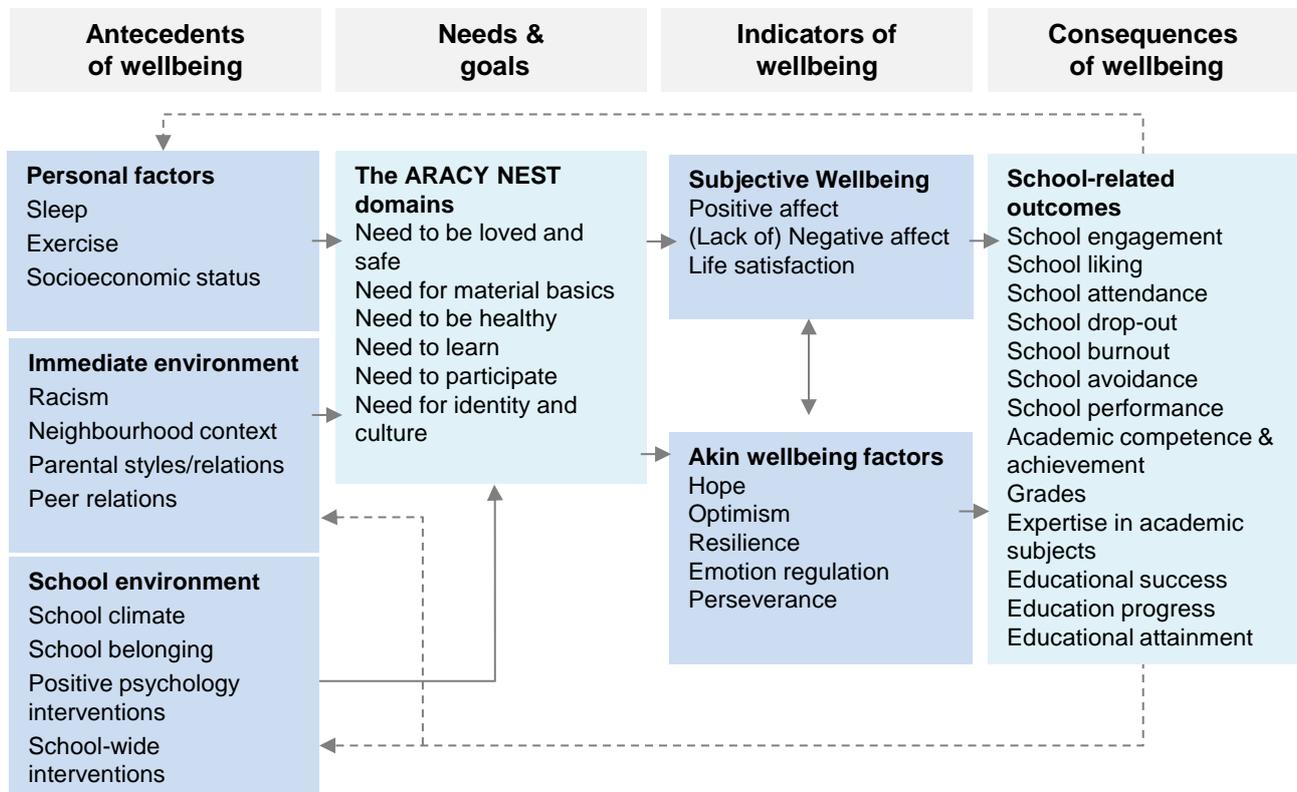
Policies and practices within the school gate can play an important role in promoting wellbeing, or inadvertently making things worse

There are a number of measures schools can take that have a positive impact on student wellbeing (section 4.2). However, poor wellbeing can also be exacerbated by what happens in schools, including how teachers and school staff respond to students experiencing challenges to their wellbeing. For example, many children’s experiences of trauma can cause them to behave disruptively at school. Sometimes teachers can respond with disciplinary actions (which can culminate in suspension or expulsion), where they are not aware a child’s behaviour is communicating trauma, and they are not adequately supported to engage more positively with children exhibiting challenging behaviours (Victorian Child Safety Commissioner 2007, p. 18).

The role of a teacher in identifying behaviour as a communication of poor wellbeing or distress, and reacting appropriately, was raised by children and young people consulted in this review, as a protective factor in students persisting with schooling. Similarly, the nexus of trust between teacher and student was also identified by young people as being important to their wellbeing and engagement at school. In some cases, students identified this as a ‘make-or-break’ consideration to their engagement and continued schooling.

Good teachers make all the difference for young people who have complex or difficult situations and needs. (young person consulted by the Review).

Figure 4.2 – Youth wellbeing, as a process



Source: based on Cárdenas et al. (2021).

A number of young people also suggested that school could play a role in teaching them how to navigate their own personal growth and individuality, and big transitions (for example, primary to high school).

So much more happens inside the school gates than just the academic learning, and no one teaches you how to deal with all the stuff that happens there, let alone life after school. (young person, Child Wise Youth Advisory Board).

Poor student wellbeing can also make teachers less effective

Student wellbeing affects the wellbeing and effectiveness of educators. In 2018, 24 per cent of Australian lower secondary teachers reported experiencing a lot of stress in their work — 25 per cent reported modifying lessons for students with special needs as a source of stress and 28 per cent reported maintaining classroom discipline as a source of stress (Thomson and Hillman 2020, p. 28). Hunter and Sonnemann (2022, p. 16) found that 74 per cent of teachers in 2021 reported that not enough support for struggling students with complex needs was a major issue affecting their time to prepare for effective teaching. For school leaders, the mental health issues of students was in the top four main sources of stress in 2019 and 2020 (See et al. 2022, p. 38). Improving the wellbeing of students would help reduce these pressures — chapter 5 discusses broader reforms to support teachers.

COVID-19 and natural disasters have brought the issue into sharper focus

In recent years, the effects of the COVID-19 pandemic on students' learning and home environments have brought the importance of supporting student wellbeing into sharper focus.²

Australian students have experienced significant population-wide adversity arising from the COVID-19 pandemic. This has put significant pressure on student wellbeing and engagement, which for many compounded existing pressures arising from direct exposure to major disasters such as the 2019-20 bushfires, complex disadvantage arising from intergenerational poverty and socio-economic exclusion, and other challenges (Save the Children, sub. 23, p. 3).

The long-term effects of the pandemic are not yet understood. The AIHW (2022a, p. 76) noted that psychological distress was increasing at higher rates in young people prior to the COVID-19 pandemic compared with after it. However, evidence is emerging that the COVID-19 pandemic and associated lockdowns have negatively affected the lives of many children and young people, and resulted in an increase in mental ill-health (box 4.1).

Box 4.1 – The effects of the COVID-19 pandemic on student wellbeing

Data from some state and territory governments suggest that the pandemic negatively affected student wellbeing. Students in South Australia and Tasmania generally reported lower levels of happiness and life satisfaction, and higher levels of sadness, worry and distress, in 2020 and 2021 compared with earlier years (SA Department for Education 2021b, p. 11; Tasmanian Department of Education 2021, pp. 13–14).

Although there is little other evidence on the effects of the pandemic on the wellbeing of school students specifically, some is emerging on the effects of COVID-19 on the mental health of children and young people generally.

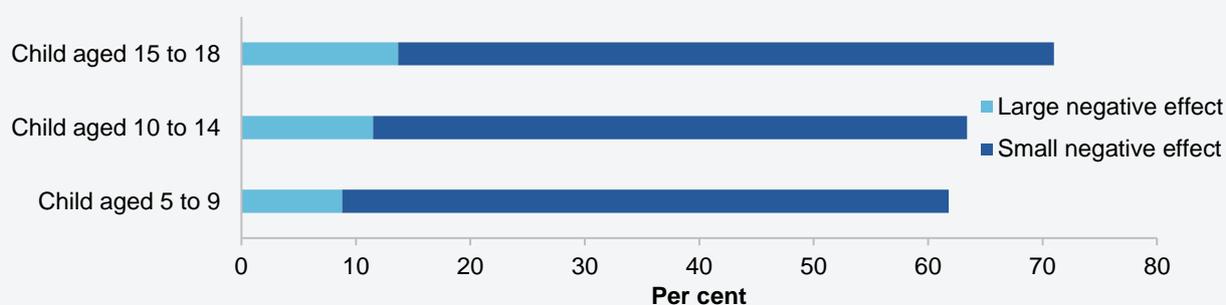
Mission Australia's Youth Survey, distributed to secondary schools across Australia each year, found that by 2021, one in two young people aged 15 to 19 years old reported that COVID-19 affected their mental

² AHISA, sub. 4; NCEC sub. 7; AITSL sub. 27; Pivot Professional Learning, sub. 33.

Box 4.1 – The effects of the COVID-19 pandemic on student wellbeing

health (Filia et al. 2022, p. 7). However, the data should be interpreted with caution as the survey is not designed to be nationally representative (for example, young people in Queensland made up almost a quarter of the sample in 2021 and there are a higher proportion of female respondents each year).

Biddle, Edwards and Gray (2021, p. 6) found that 61 per cent of parents and carers in August 2021 felt that the pandemic had negatively affected the mental health of their children aged between 2 and 18, and 10 per cent reported a large negative effect. The chart below (adapted from Biddle, Edwards and Gray 2021, p. 8) shows this data broken down by age band (for children aged 5 to 18):

Proportion of parents/carers reporting a negative effect from COVID-19 on their children's mental health by age bracket, August 2021

According to a Headspace (2020b, p. 2) survey of young people using their services, 74 per cent of respondents reported that their mental health worsened after the outbreak of COVID-19 and 77 per cent reported a negative impact on their work, study, or financial situation.

Save the Children (2022, pp. 13, 24, 37, 36) analysed data from a nationally representative online survey undertaken in November 2021 and other sources. They reported that the COVID-19 pandemic has been a source of uncertainty and instability, and put families under pressure (including by worsening the financial situation of 42 per cent of low income families). Analysis included that:

- over half the parents surveyed reported that COVID-19 has resulted in their children feeling angry or frustrated (61 per cent) or lonely (55 per cent). These percentages increased to 74 per cent and 67 per cent for families where any member had a disability
- 63 per cent of Aboriginal and Torres Strait Islander families reported that COVID-19 has resulted in their children feeling hopeless (this percentage was 37 per cent for all children).

4.2 How are governments supporting wellbeing in schools?**Governments have various policies to support student wellbeing**

The Australian, State and Territory Governments have policies and programs aimed at supporting the wellbeing of children and young people at school.

- Curricula (for example, the Australian Curriculum requires schools to include social and emotional learning from school entry to Year 10 across topics of personal, social and community health) (ACARA 2022e)

- Regulation (for example, the Disability Standards for Education 2005 require schools to provide reasonable adjustments for students with disability — including social emotional disability — to enable them to participate in education on the same basis as other students) (DESE 2020a)
- Professional accreditation (for example, the Australian Professional Standards for Teachers describe the capabilities of teachers, including that teachers know how to support students' wellbeing and safety) (AITSL 2022a)
- Funding of universal wellbeing promotion programs that provide classroom-based social and emotional skill-building programs, such as those that focus on anti-bullying
- Funding for schools and educators to maintain inclusive classrooms (for example, the Engaged Classrooms package provides \$7 million over three years for a range of actions to support student engagement and wellbeing, including for Aboriginal and Torres Strait Islander students and student with disability) (DESE 2022b)
- Funding of mental health prevention and early intervention programs and teacher training (for example, SAFEMinds provides training to educators to identify early signs of mental health concerns, implement school-based interventions and refer to other support services) (Headspace 2020a)
- Support for individual students (for example, Queensland's Student Wellbeing Package will fund a wellbeing professional, predominantly psychologists, for each state school to work as part of student support teams and contribute to whole-school approaches to supporting wellbeing) (Queensland Department of Education 2021)
- Provision of online information, resources and strategies for educators, students and parents (for example via the Student Wellbeing Hub) (Education Services Australia 2022)
- Office of the eSafety Commissioner, which works to reduce cyberbullying and improve children's safety online (Office of the eSafety Commissioner 2022).

The Australian Government has also developed a National Children's Mental Health and Wellbeing Strategy, which provides a framework for improving children's wellbeing and identifies a number of priority actions. These include actions school systems can take, such as introducing dedicated wellbeing staff and improving professional training for educators in relation to supporting struggling students (NMHC 2021).

Education Ministers committed at a national level to the Australian Student Wellbeing Framework (Education Council 2018). Its vision is that:

Australian schools are learning communities that promote student wellbeing, safety and positive relationships so that students can reach their full potential (Education Council 2018, p. 2).

The five key elements of the Framework are leadership, inclusion, student voice, partnerships and support. The Framework also includes guiding principles and effective practices to build and maintain 'safety, positive relationships and wellbeing' and 'a positive and inclusive learning environment' (Education Council 2018, p. 3).

Strategic plans and documents of Education Departments in each State and Territory include outcomes, priorities or goals relating to student wellbeing.³ Some of the documents describe how the goals will be achieved. For example, South Australia's plan included a focus on implementing and evaluating trauma-informed practice (SA

³ Specifically, the NSW Department of Education's Strategic Plan 2018-2022, Victorian Department of Education and Training's Strategic Plan 2021-25, Queensland Department of Education's Strategic Plan 2021–25, WA Department of Education's Strategic Outline, the SA Department for Education Strategic Plan Towards 2028, Tasmanian Department of Education Strategic Plan 2022-2024, ACT Government's Future of Education strategy and the NT Government's Education Engagement Strategy 2022-2031.

Department for Education 2021a, p. 9). The policies and practices that support the delivery of these goals for public schools are often set out in State and Territory Government wellbeing frameworks.⁴

The National School Reform Agreement reflects only part of the overall effort

Many national and state-based initiatives and programs relating to student wellbeing operate outside of the NSRA. The only National Policy Initiative (NPI) in the NSRA that refers to wellbeing is the national data projects NPI, under which parties agreed to consider opportunities to enhance measurement of wellbeing as one of several projects (appendix C).

The Student Wellbeing Data Project was endorsed by Education Ministers in June 2020 and is being led by the ACT Education Directorate (AITSL 2022c). Its objective is to support the development of a national approach to understanding and measuring student wellbeing (AITSL 2022c). The project has resulted in a measurement framework for deriving an indicator of subjective wellbeing (based on measures of positive affect, negative affect and life satisfaction), and an assessment of the extent to which each department for education collect these data from school students (Cárdenas et al. 2021).⁵

The NSRA explicitly states that other national initiatives (including those relating the wellbeing, such as work to combat bullying and cyberbullying) are not NPIs for the purposes of section 22 of the Act⁶ (that is, Commonwealth funding to State and Territories is not conditional on implementation of those initiatives).

Several jurisdictions (Western Australia, Victoria, Tasmania and Queensland) list reform initiatives relating to student wellbeing in their bilateral agreements.⁷ These include initiatives relating to professional development of teachers⁸, student and teacher support services⁹, and the provision of resources for parents, families and teachers.¹⁰ It is difficult to discern the extent the absence of student wellbeing initiatives in bilateral agreements reflects actual policy gaps, or jurisdictions electing not to list relevant initiatives. In some cases, jurisdictions identified initiatives relating to wellbeing that fall outside of the bilateral agreement in the introduction to the agreement as context.¹¹

⁴ Such as the NSW Wellbeing Framework for Schools, the Queensland (2018) Student Learning and Wellbeing Framework, South Australia's Wellbeing for Learning and Life Framework and Tasmania's Child and Student Wellbeing Strategy (Department for Education South Australia 2021; NSW Department of Education and Communities 2015; Queensland Department of Education 2018; Tasmanian Department of Education 2018).

⁵ As at July 2022, the Schools Policy Group had made recommendations in relation to the National Student Wellbeing Project for noting by the Australian Education Senior Officials Committee (ACT Education Directorate, pers. comm., 17 August 2022).

⁶ The NSRA (s. 48) stated that existing national initiatives would continue to progress through Education Council processes, but would not be NPIs for the purposes of section 22 of the Act. It explicitly noted these initiatives included, but are not limited to the Nationally Consistent Collection of Data on School Students with Disability, work to combat bullying and cyberbullying, and consideration of the recommendations of the Royal Commission into Institutional Responses to Child Sexual Abuse.

⁷ The bilateral agreements between each between the Commonwealth and each State or Territory contain initiatives for government and non-government school sectors related to the Agreement's reform directions (NSRA s. 49(a)).

⁸ For example, Western Australia has a program to 'Deliver professional learning to promote improved student health, well-being and engagement in schooling'.

⁹ For example, Queensland has a program to support student wellbeing in rural and remote areas.

¹⁰ For example, WA's action to publish guides and fact sheets for schools and their communities to reduce bullying and violence.

¹¹ New South Wales noted that it is 'committed to improving the educational outcomes and wellbeing of Aboriginal students' and that it has 'enacted new measures of, and support for, student wellbeing, including through the Tell Them From Me survey'. The Northern Territory noted the complexity of school education is compounded by the multidimensional needs of many of its children and that it has invested in a significant cross agency reform agenda, including \$1.1 billion to improve housing in remote communities over 10 years from 2017-18.

There are opportunities to improve how governments support wellbeing at school

Although governments have many programs to improve student wellbeing, some schools lack a clear plan, the guidance and capacity to implement it, and transparency about the outcomes being achieved.

Some teachers and students lack access to the support and resources they need

The Productivity Commission's 2020 national inquiry into mental health identified several weaknesses in current approaches to improving student wellbeing. These included:

- the large number of overlapping wellbeing policies and programs for schools (not all of which are evidenced-based), which has created a challenging and crowded space for principals and wellbeing leaders to navigate)
- not all teachers having the skills or training they needed to deliver across the breadth of the social and emotional learning curriculum or to understand the social and emotional development of children in their classrooms
- teachers feeling overloaded with the expectation that they solve and manage students' social and emotional issues in partnership with families
- supports and information for students, parents and teachers being uneven across schools, and variation in the quality of learning adjustments for children with social-emotional disability
- some schools not having clear wellbeing policies in place, resulting in incoherent pathways for support within schools and blurred responsibilities among various school staff (PC 2020a).

In relation to students with disability (including social-emotional disability), the review of the Disability Standards for Education 2005 found that some educators were unaware of their obligations to students with disability or did not know how to implement the Standards effectively (DESE 2020a). This was underscored by the Royal Commission into Violence, Abuse, Neglect and Exploitation of People with Disability (2021a).

State-based reviews have come to similar conclusions. The Royal Commission into Victoria's Mental Health System (the Victorian Royal Commission) (2021, p. 100) found that the implementation of mental health promotion programs in schools was 'patchy, limited by resource constraints, competing demands and inadequate teacher training' and that the range of mental health and wellbeing frameworks and initiatives caused 'some confusion for schools and an inconsistent application of efforts across Victoria'. In a submission to the Victorian Royal Commission, Prevention United (2019, p. 17) raised concerns about the evidence base underpinning wellbeing programs:

A few programs have been subject to multiple randomised controlled trials (RCTs), others have been evaluated through one or two RCTs, while many have been less well evaluated. Not all schools are giving preference to programs that are evidence-based. Furthermore, high quality implementation (i.e. program fidelity) and close monitoring of change are crucial but once again there appears to be wide variation in how well schools implement and monitor these programs.

An audit of the WA Department of Education's School Psychology Service (SPS) found that the SPS was highly valued by students but that there was a need for improved service planning, equity of access, information provision to school leaders, clarification about scope of service, and information to monitor effectiveness (Office of the Auditor General Western Australia 2022).

School leaders play an important role in addressing challenges to student wellbeing

Ensuring that schools create a culture that supports student wellbeing is an increasingly significant aspect of the role of school leaders, especially since the COVID-19 pandemic. School leaders determine to a large extent what their schools' responses and approaches to challenges to student wellbeing look like (chapter 6). This is reflected in the Australian Student Wellbeing Framework, which states that regularly monitoring and reviewing their school's capacity to address safety and wellbeing is one of the responsibilities of a school leader (Education Council 2018, p. 5). This issue is explored in more detail in chapter 6.

Governments are responding to these concerns but there is more to do

In the past few years, there have been three major reviews relating to mental health and wellbeing policies, including those affecting school-aged children. These include the national *Mental Health* inquiry, the National Children's Mental Health and Wellbeing Strategy and the Victorian Royal Commission. These reviews recommended a number of actions to improve arrangements. Governments have taken steps to address some of the recommendations.

The National Children's Mental Health and Wellbeing Strategy and the *Mental Health* inquiry both recommended the development of a national minimum dataset on student wellbeing for monitoring and evaluation (NMHC 2021, p. 87; PC 2020a, p. 7). As part of the 2022-23 Budget, the Australian Government (2022, p. 108) announced funding for a nationally consistent measurement of student wellbeing. (It is not clear how this work would utilise the analysis from the Student Wellbeing Data Project described above.)

Both projects also recommended actions for governments to:

- ensure all schools to have a wellbeing plan or strategy in place, addressing matters such as clear referral pathways within and beyond the school, and how schools plan to support their students' wellbeing
- provide funding for quality improvement activities identified in school wellbeing plans and require regular progress reporting against plans
- increase outreach to vulnerable students at risk of disengagement from education
- require professional learning for educators in relation to mental health (NMHC 2021; PC 2020a).

The Victorian Royal Commission and *Mental Health* inquiry both made recommendations that governments develop resources to guide and support schools' choices towards high-quality wellbeing programs.

- The *Mental Health* inquiry recommended that Governments develop guidelines for the accreditation of professional development courses and social and emotional learning programs offered to schools by external providers, and that state and territory governments would use the guidelines to accredit both types of programs (PC 2020a, p. 7). The Australian Government (2022, p. 108) announced funding for national guidelines for the accreditation of mental health and wellbeing programs in its 2022-23 Budget.
- The Victorian Royal Commission (2021, p. 104) recommended a digital platform for schools to navigate evidence-informed programs and initiatives that have been 'validated against a set of criteria'. In response, the Victorian Government announced the Schools Mental Health and Fund and Menu initiative, 'underpinned by an evidence-based menu of programs and initiatives across three tiers of intervention to enable schools to select programs, staff and resources' (Victorian Government, sub. 31, p. 7).

The *Mental Health* inquiry also recommended using the new national education evidence institute to develop the evidence base on social and emotional wellbeing (PC 2020a, p. 9).¹² The Australian Education Research Organisation (AERO) (sub. 6, p. 3) is investigating wellbeing is one of its seven priority research areas. And

¹² AERO had not yet been created when the final report of the *Mental Health* inquiry was published in November 2020.

parties to the National Mental Health and Suicide Prevention Agreement have agreed to work together with Education Ministers to identify and share best practice examples of mental health supports and suicide prevention across all education settings to encourage implementation of evidence-based approaches across jurisdictions (schedule A, s. 2a).

To ensure a national approach, the *Mental Health* inquiry also proposed including wellbeing as an outcome of the national school agreement, supported by targets (PC 2020a, p. 7). This proposal is discussed in detail in the next section.

Participants identified a broad range of areas for improvement

As part of this review, participants highlighted potential areas where governments could enhance current efforts to support wellbeing. These included providing teachers with training, time, and resources to identify signs of poor wellbeing and support students with mental ill-health or social-emotional disability¹³, enhancing and expediting the translation of evidence into practice¹⁴, and further work on mental health content in the Australian curriculum.¹⁵ There is also potential to utilise Teacher Performance Assessments to ensure teachers are entering the classroom well equipped to support student wellbeing.

Participants highlighted the impact these gaps have on young people. Queensland Advocacy for Inclusion (sub. 1, attach. A) stated that reasonable adjustments are lacking for some students with disability, such as students with autism and attention deficit hyperactivity disorder. The NMHC (sub. 26, p. 3) described how stigma and discrimination in relation to the disclosure of mental ill-health to teachers can negatively affect academic outcomes. And the Queensland Family and Child Commission (sub. 32, p. 2) noted the negative effects that disciplinary absences can have on student wellbeing, in addition to disconnecting them from supports provided by schools. As noted in chapter 3, school exclusions disproportionately affect students with disability and Aboriginal and Torres Strait Islander students.

Participants made a broad range of proposals for further action, such as:

- greater collaboration across portfolios (QNMU, sub. 30 p. 3; APC, sub. 8, p. 1; NMHC, sub. 26, p. 6; ARACY, sub. 38, p. 1; ACRT, sub. 40, p. 6)
- a review of the use of school disciplinary absences (QFCC, sub. 32)¹⁶
- greater funding for health and wellbeing initiatives (FPCA NSW, sub. 18, p. 13; Orygen sub. 13, p. 4)
- improvements to referral pathways from schools to services (Orygen sub. 13, p. 4; QNMU, sub. 30, p. 3)

¹³ Beyond Blue (sub. 25, p. 3) described its research, which found that teachers considered limited time and resources as the most prominent barrier to supporting students' wellbeing. Queensland Advocacy for Inclusion (sub. 1, attach. A, p. 10) considered that the absence of staff skilled in behaviour management techniques or other evidenced-based supports can lead to avoidable escalations of the child's behaviour, resulting in disciplinary measures such as a suspension, exclusion or the use of restrictive practices. Orygen (sub. 13, p. 4) stated that many students with preventable or existing mental ill-health are currently unidentified and unsupported, and that a national policy focus was needed to support students consistently and appropriately.

¹⁴ The Centre for Community Child Health (sub. 14, p. 5) noted that there is an opportunity to enhance and expedite the translation of evidence into practice and called for a broader policy response to build the capacity and capability of schools and teachers to respond to student health and wellbeing.

¹⁵ The National Catholic Education Commission (sub. 7, p. 7) called for a stronger focus on the 'increasing challenges of student mental health need', while also noting that further work was needed on consent, and mental health content in the Australian: Health and Physical Education curriculum.

¹⁶ Queensland Advocacy for Inclusion (sub. 1) also raised the issue of school disciplinary absences in their submission. They called for an inquiry into disciplinary absences in Queensland state schools, noting the disproportionate rate of such absences for Aboriginal and Torres Strait Islander students and students with disability.

- more mental health professionals in schools (QNMU, sub. 30, p. 2-3)
- strategies to build and strengthen partnerships with parents (NCEC sub. 7, p. 7; CSPA, sub. 24, p. 4)
- support for social and emotional learning programs that focus on educational transitions, noting that almost a third of students experienced a difficult or somewhat difficult transition to secondary education (Orygen sub. 13, pp. 3-4)
- a request by the NMHC (sub. 26, p. 5) to include a statement in the NSRA to recognise the potential that schools have to contribute to suicide prevention.

Some of the proposals align well with the evidence about what works to improve wellbeing in school settings. Research shows that school-based interventions can be effective but that there is 'no silver bullet' program that all schools should adopt (box 4.2). Evidence supports a combination of universal approaches and targeted support.

The important role schools play in providing services to support students wellbeing was emphasised in consultations with children and young people. One young person argued that:

Particularly during COVID-19, education can be quite taxing on mental health, and it is often schools that students will reach out to for support, which is why awareness, and a strong support system is essential in schools.

Others identified room for improvement in school systems. For example, one young person pointed to delays in accessing mental health services as a barrier to better student wellbeing:

One of the significant issues in my school regarding this is the long wait times for psychologist appointments, ranging from a few weeks to months, meaning that students struggling with their wellbeing are not getting the support they need from schools. This issue might be avoided if the psychologist spent more time in school rather than only three days a week.

Box 4.2 – Evidence supporting school-based interventions

The meta-analysis by Durlak et al. (2011) found that universal school-based interventions improve both social and emotional skills and school performance.

A rapid review of the evidence by Pearce et al. (2019) found that school-based prevention, early intervention and individual student interventions are effective in improving student behaviour and wellbeing (though they produce relatively small improvements).

A systematic review by Dix et al. (2020) revealed the types of programs that are relatively more effective at improving wellbeing and schooling outcomes in the Australian context. The review found that:

- interventions delivered by a school teacher with appropriate professional development and resources for students were more effective than those delivered by external professionals
- universal programs delivered to groups of 11 up to classroom size were more effective than targeted programs
- student belonging and engagement programs were more effective at lifting academic achievement
- social-emotional skills programs were more effective for promoting student wellbeing.



Draft finding 4.1

Many students experience poor wellbeing, but some do not receive effective support

A significant proportion of children and young people experience poor social and emotional wellbeing. Poor wellbeing directly affects students' capacity to learn. Poor wellbeing can be particularly acute for students who experience challenges to engagement and inclusion at school, for example, children and young people in out-of-home care, those with disability and Aboriginal and Torres Strait Islander students.

While wellbeing is often influenced by factors outside the school gate, poor wellbeing can be exacerbated by responses from schools.

Australian, State and Territory Governments have implemented initiatives to support student wellbeing with varying degrees of success.

Successful support of student wellbeing relies on teacher education and the culture of school leadership.

4.3 What role could the next intergovernmental agreement play in supporting wellbeing?

The next intergovernmental agreement on schools should explicitly address student wellbeing

One of the main functions of an intergovernmental agreement on schools (such as the NSRA) is to articulate a set of core outcomes that reflect a common understanding of what constitutes a successful school education. This in turn focuses government national reform efforts on the things that matter. These outcomes tend to be enduring and often outlast the life of specific intergovernmental agreements or policy reform initiatives¹⁷. For example, promoting high levels of school education attainment and proficiency in literacy and numeracy (achievement) have been mainstays in the past three education agreements. However, there is now clear evidence that poor wellbeing obstructs academic engagement and achievement, and therefore, the core objective of the agreement: high quality and high equity education.

Wellbeing should be included as an outcome of the agreement

The inclusion of student wellbeing as an outcome of the next intergovernmental agreement (alongside achievement, attainment and engagement) would reflect the growing sense that students should be able to cope with the various stresses of life in the course of their schooling. This is an important end in itself, and is consistent with government policy commitments such as the Alice Springs (Mparntwe) Declaration. It would also reflect the evidence laid out in this chapter that wellbeing allows students to achieve better academic results and engage more at school, and therefore contributes to other important outcomes.

Many participants supported making wellbeing a policy focus in the next agreement.¹⁸

¹⁷ Under the NSRA parties recognised that achieving the outcomes of this NSRA would require sustained reform effort the life of the NSRA.

¹⁸ NCEC sub. 7, p. 7; APC, sub. 8, p. 1; Orygen, sub. 13, p. 5; CCCH, sub. 14, p. 4; FPCA NSW, sub. 18, p. 13; NMHC, sub. 26, p. 6; AITSL, sub. 27, p. 19; QNMU, sub. 30, p. 2; ARACY, sub. 38, p. 1; Australian Child Rights Taskforce, sub. 40, p. 5.

Wellbeing, engagement and learning are the three pillars of a quality education ... [and] are inseparably interrelated. Each is a crucial outcome of schooling in its own right, and a necessary enabler for the others (Save the Children, sub. 23, p. 1).

Elevating wellbeing to be an outcome of the NSRA would provide a focal point for national efforts to lift student outcomes. In particular, it could encourage more effective and targeted policies and programs, at both the state and national level, by providing:

- a more comprehensive national picture of wellbeing
- greater public transparency and accountability regarding outcomes being achieved
- greater clarity on the roles and responsibilities of teachers, schools, school systems, and governments
- identification of common gaps in the evidence base.

One option is to adopt an outcome consistent with the vision agreed by Education Ministers under the Australian Student Wellbeing Framework. Based on this, the Commission proposes the following wording for the new outcome: 'Students experience wellbeing, safety and positive relationships at school'.

The following section considers specific changes to incorporate wellbeing in the next agreement. The proposals would be relevant to any successor agreement, regardless of whether potential changes to the design of the agreement described in chapter 2 are adopted or if the current agreement's structure is retained.

Governments should commit to specific actions to increase student wellbeing

Simply including student wellbeing as an outcome of the next intergovernmental agreement alone is unlikely to be sufficient to lift student outcomes — it would need to permeate all aspects of the agreement. Parties would need to agree to prioritise supporting wellbeing and commit to identifying and pursuing tangible measures. They would also need to refine existing public transparency and accountability arrangements, including adopting new performance reporting to track progress at the national level.

Government should update and enhance public transparency and accountability arrangements

The NSRA includes several public transparency and accountability mechanisms; comprising implementation progress reports, performance reporting and reviews. Chapter 2 highlighted that governments could enhance these in next intergovernmental agreement to better balance implementation flexibility and accountability. The following section considers specific additions to support wellbeing.

A national measure of wellbeing to help track performance

The NSRA sets out 'sub outcomes' to track progress against its outcomes over time. For example, parties agree to track progress against the outcome 'All students are engaged in their schooling' using 'Increase the proportion of students attending school 90 per cent or more of the time, including students from priority equity cohorts'. These sub outcomes or performance indicators are essentially a general health check on Australian school systems and complement more detailed reporting and reviews on specific initiatives to 'give the community confidence that outcomes are being achieved and reforms to improve the quality and equity of Australia's schooling system are being implemented by all Parties' (NSRA, s. 51). The National Report on Schooling in Australia and the Key Performance Measures for Schooling in Australia dashboard are the main tools used to report on the NSRA's sub-outcomes (chapter 7).

If parties were to include student wellbeing as an outcome of the next agreement (alongside achievement, attainment and engagement), including a national measure of wellbeing as part of performance reporting (to augment the existing sub-outcome indicators) would be a logical additional step. As there is no annual and national data collection available for this purpose, however, governments would potentially need to develop a new national dataset on student wellbeing.

Many participants in this review were supportive of governments developing a new wellbeing measure.¹⁹ Some argued that, in addition to providing a key accountability mechanism for the education system, a national wellbeing measure would have wider benefits, such as enhancing school policy and supports and affirming the role that schools have in supporting wellbeing.²⁰ Beyond Blue (sub. 25, p. 1-2) observed that:

Embedding children and young people's wellbeing in key accountability mechanisms across the education system will contribute to ensuring that student wellbeing is a sustained priority over the long term. ... Having nationally consistent wellbeing outcome measures will enable the education and mental health sectors to better support the mental health and wellbeing of children and young people in a strategic way and enable more effective early intervention.

However, others questioned the benefits of a new national measure. In many cases, policymakers and school administrators already have access to information on student wellbeing or engagement to inform system and school-level decision-making through state-based surveys²¹ or private providers.²² The NSW Department of Education (sub. 12, p. 24) warned that the existence of multiple different survey instruments 'presents a significant challenge for the development of a single national measure'.

Other concerns about a new national wellbeing measure included that it would likely impose an additional burden on schools for data collection²³, and risks data being used to produce league tables, similar to the existing issues that have been faced with NAPLAN data²⁴ and it may be premature because measurement of student wellbeing is still a dynamic research environment²⁵.

On balance, there is a strong in-principle case for developing a national wellbeing indicator (particularly in the event governments elect to include wellbeing as an outcome of the next intergovernmental agreement). Including a national wellbeing indicator of some kind in the performance framework would be essential for the framework to achieve its stated purpose, which is to 'give the community confidence outcomes are being achieved'. There is also a presumption that wellbeing would be reported for Aboriginal and Torres Strait Islander students, students living in regional, rural and remote locations, students with a disability and

¹⁹ Orygen, sub. 13, p. 5; NCEC, sub. 7 p. 8; CCCH, sub. 14, p. 6; Save the Children, sub. 23, p. 5; CSPA, sub. 24, p. 7; NMHC, p. 7, sub. 26; AITSL, sub. 27, p. 20; CEMA, sub. 28, p. 12; Pivot Professional Learning, sub. 33, p. 8; ARACY, sub. 38, p. 8; ACRT, sub. 40, p. 7.

²⁰ Centre for Community Child Health, sub. 14, p. 6.

²¹ State and Territory Government surveys of their public school students are often focused on student engagement but some include questions on student wellbeing, such as the Tell Them From Me survey run in New South Wales (NSW Department of Education, sub. 12, p. 24) and the Australian School Climate and School Identification Measurement Tool used in the ACT (ANU 2022). The Victoria government (sub. 31, p. 11) noted its definitions and measures of wellbeing are embedded in the Framework for Improving Student Outcomes, the Attitudes to School Survey, the Victorian Student Health and Wellbeing Survey, the Victorian Child Health and Wellbeing Survey, and the Victorian Child and Adolescent Monitoring System.

²² Presumably many of the non-government schools are also monitoring student wellbeing using one of the many tools on the market. Two such tools were described by participants to this review: Ei Pulse by the Australian Research Alliance for Children and Youth (sub. 38, p. 2) and the Wellbeing for Learning survey tool by Pivot Professional Learning (sub. 33, p. 5).

²³ NSW Department of Education (sub. 12, p. 24); Beyond Blue (sub. 25, p. 2).

²⁴ NSW Department of Education, sub. 12, p. 24.

²⁵ Victorian Government sub. 31, p. 11.

students from educationally disadvantaged backgrounds, respectively — given the general commitment under the NSRA to report ‘disaggregated outcomes by cohorts where available’.

Reporting wellbeing at the state level (in addition to nationally) would be consistent with current reporting by ACARA on academic achievement and attainment outcomes and, in the case of ‘equity cohorts’ would align with reform roles and responsibilities, under which States and Territories commit to new reforms to lift outcomes for students from priority equity cohorts in their bilateral agreements.²⁶

As with existing indicators in the performance framework, parties will need to make trade-offs between the benefits of a sophisticated wellbeing indicator and the costs and administrative impacts. If governments choose to commit to prioritising reforms to lift wellbeing, then reporting data with limitations is likely to be better than nothing at all. The NSRA itself recognises there will be opportunities to improve sub-outcomes over time, including enhancements to the existing performance measures and developing further performance measures reflecting priority areas.

It would also be premature to conclude developing a wellbeing indicator is ‘all too hard’ conceptually given that a measurement framework has been developed under the Student Wellbeing Data Project (which is yet to be considered by Education Ministers as at August 2022), and new funding announced in the 2022-23 Budget. Indeed, the development of a national wellbeing indicator could itself form a national project under the next agreement.

To reduce the data collection burden on schools, there would be benefits in adopting a flexible model that allows the use of existing data collections where appropriate. The Student Wellbeing Data Project identified that five out of the eight jurisdictions were collecting data on student wellbeing (at least either positive affect, negative affect or life satisfaction) and that in most cases these instruments were validated as high quality or had some evidence to support their validity (Cárdenas et al. 2021). The use of different but valid instruments from existing State and Territory Government surveys may enable reporting on changes to student wellbeing over time to commence (even if these data do not allow for comparisons to be made across jurisdictions).

The wellbeing measure outlined above need not be reported at the school level, so concerns about league tables at this level would not be relevant. Governments could appoint a data custodian for the national dataset on wellbeing, which would support teachers, schools, education authorities and governments to have safe and appropriate access to the data in a way that encourages reform. All schools would collect (and hopefully use) the data but whether or not they publish data at the school level should be a school decision.

Ensure accountability for implementing wellbeing initiatives and achieving outcomes

There are several ways that governments could designate wellbeing as a priority area for reform in the next agreement, including:

- adding a new priority reform area on student wellbeing, and/or
- including wellbeing as a specific sub-component of one or more of the existing reforms categories.²⁷

Whichever approach is taken, parties to the agreement would have a clear and unambiguous obligation to identify and implement measures addressing wellbeing alongside other reform priorities.

²⁶ Under the NSRA state-specific reforms outlined in bilateral agreements are the main vehicle for outlining ‘existing and/or new reforms to lift outcomes for priority equity cohorts’.

²⁷ The priorities in the current agreement are supporting students, student learning and student achievement; supporting teaching, school leadership and school improvement; and enhancing the national evidence base.

State and territory specific reforms addressing wellbeing

Given that states and territories oversee many of the policies and programs affecting student wellbeing having regard to their local context, a single national approach to addressing needs of students is unlikely to be effective. Rather, State and Territory Governments who know their students' needs could implement initiatives tailored to meet their students' needs via the bilateral agreements.

However, there is scope to improve the accountability arrangements for initiatives set out in bilateral agreements to give the community greater confidence that they are leading to meaningful outcomes for students (chapter 2). Options for addressing these weaknesses include requiring jurisdictions to develop implementation plans and associated progress reporting that identify specific improvements in outcomes that jurisdictions expect from the initiatives they nominate and over the term of the next agreement (information request 2.2).

As noted in chapter 2, the alignment of indicators across the various jurisdictions' implementation plans would not be essential (particularly where there are concerns about additional reporting burdens or inappropriate comparisons across jurisdictions). State and Territory-level indicators would depend on the initiatives pursued but could include, for example:

- measures of students' resilience, sense of belonging and their sense of safety, which are malleable factors that respond to school-based interventions (Pivot Professional Learning, sub. 33, p. 6)
- measures of outcomes for student sub-groups that may be the focus of reforms but are not identified in the NSRA performance reporting framework, such as children in child protection systems or LGBTIQ students
- a measure of the proportion of students who face school disciplinary absences
- quality indicators, such as percentage of teachers who have completed formal training in evidence-based social-emotional development programs (Restacking the Odds, sub. 41, attach 1, p. 11) or the percentage of schools with a wellbeing plan or strategy in place
- student, parent and teacher views on the effectiveness of programs and supports, such as the proportion of students who feel heard or that their teacher is interested in their wellbeing (SA Department for Education 2021b, p. 5).

National initiatives addressing wellbeing

While State and Territories would likely play the central role in reform efforts to lift wellbeing, there may be some areas that lend themselves to cooperative efforts or Commonwealth-only action. Some participants were cautious about the need for NPIs,²⁸ others supported NPIs on student wellbeing or noted that it was a policy area ripe for national collaboration.²⁹

The Association of Heads of Independent Schools (sub. 4) stated that the Australian Government is well-positioned to improve initial teacher education (ITE) in relation to student wellbeing through its role in setting the framework for accreditation of ITE courses. The Australian Institute for Teaching and School Leadership (AITSL) (pers. comm. 15 July 2022) suggested two options for operationalising the recommendations on this issue from the Mental Health inquiry (actions 5.3 and 5.4). Governments could request AITSL prepare a model outline of a unit on wellbeing for ITE providers to use (and for the accreditation panels to use as a resource when they audit ITE providers).³⁰ Alternatively, or in addition, knowledge expected of graduate teachers in relation to student wellbeing based on the Australian Professional Standards for Teachers could be demonstrated via the teaching performance assessment undertaken in the final year in initial teacher education courses.

²⁸ For example, the Association of Heads of Independent Schools (sub. 4, p. 7) identified building the capacity of schools to support student wellbeing as a policy area that could progress school education but qualified that they were not proposing it for a NPI.

²⁹ Save the Children, sub. 23, p. 4; Beyond Blue, sub. 25; p. 4; NMHC, sub. 26, p. 6; CCCH, sub. 14 pp. 5-6.

³⁰ For example, see the Sample Initial Teacher Education Program Outlines: Reading Instruction (AITSL 2020b).

The Commission is seeking further feedback from stakeholders on whether recognising and responding to poor wellbeing and trauma is sufficiently covered in Initial Teacher Education and Teacher Performance Assessments, and if not, how this might be improved.

Given that the Australian Government has a significant role in developing policies and funding programs aimed at improving wellbeing in schools (section 4.2), there may be benefit in it developing its own implementation plan under the next agreement, which articulates, among other things, how it will contribute to reforms efforts in a manner that recognises and aligns with state-based initiatives. For example, prior to coming to office, the current Australian Government committed to a one-off \$200 million Student Wellbeing Boost (for schools to spend flexibly to improve wellbeing) as well as \$10.5 million for a voluntary mental health check tool for primary school students (Australian Labor Party 2022).

Several wellbeing policies affecting students occur outside the education sector — for example, the development of care coordinators for children with complex needs (CCCH, sub. 14, p. 5). The National Mental Health and Suicide Prevention Agreement foreshadows cross portfolio collaboration, stating that Health Ministers will work together with Education Ministers to consider approaches to improve school aged children’s social and emotional wellbeing to inform the next agreement (schedule A, s. 2b).

The Australian Government’s implementation plan could provide visibility of existing and new measures to improve wellbeing, which would assist governments to coordinate their efforts and avoid duplication (both across levels of governments and across portfolios).

Beyond greater coordination of government efforts through bilateral agreements or implementation plans, there may be further scope for governments to collaborate to improve wellbeing through the next agreement. The Commission is seeking views on whether there are specific programs or actions related to student wellbeing that should be included as NPIs in the next intergovernmental agreement.



Draft recommendation 4.1

Governments should incorporate wellbeing in the next intergovernmental agreement

In the next intergovernmental school reform agreement, the Australian, State and Territory Governments should:

- add improved student wellbeing as an outcome
- include local actions that would improve student wellbeing and indicators of progress in bilateral agreements or implementation plans
- collect data on student wellbeing from all schools to enable annual reporting on a national measure of student wellbeing.



Information request 4.1

Should there be National Policy Initiatives to improve student wellbeing?

1. Are there common steps that the Australian, State and Territory Governments could take in the next intergovernmental agreement to improve student wellbeing, or programs that could be implemented nationally?



Information request 4.1

Should there be National Policy Initiatives to improve student wellbeing?

2. Is knowledge in recognising and responding to poor wellbeing and trauma sufficiently covered in Initial Teacher Education and Teacher Performance Assessments? If not, how might this be improved?

5. Supporting teachers

Key points

- ✳️ **Teachers act as mentors, experts and role models for future generations.**
 - Teacher effectiveness is the most important in-school factor driving student outcomes, including achievement, attainment, engagement and wellbeing.
 - Improving teacher effectiveness provides substantial benefits for the individual, society and the economy; particularly for students from priority equity cohorts.
- ✳️ **There is evidence of local teacher shortages.**
 - Gauging the extent of teacher shortages is difficult — while shortages can lead to teacher vacancies and less subject choice, more often, they result in increased workloads and more out-of-field teaching.
 - Evidence points to teacher shortages in regional, rural and remote areas, and subjects such as mathematics, science and English, as well as a lack of teachers from diverse backgrounds.
 - Improved data collection and a national teacher labour market model would allow for a systematic understanding of teacher shortages.
- ✳️ **Improving the attraction and retention of teachers calls for a range of responses.**
 - The quality of Initial Teacher Education is important for improving the classroom readiness of pre-service teachers. Early career support can help retain these teachers in the workforce.
 - Mid-career professionals could be an important pipeline for future teacher supply.
- ✳️ **High teacher workloads can reduce the quality of teaching, affect teacher wellbeing, exacerbate teacher shortages, and reduce the effect of policies aimed at improving teacher effectiveness.**
 - Teacher workload has increased over time. At the same time, the number of assistants and support staff has grown, but it is unclear how they are used in schools.
 - Policies to address teacher workload are warranted, this requires a better understanding of what low-value tasks can be reduced or discarded.
 - Governments, in consultation with teachers and school leaders, could commit to surveying teacher time use with the aim of reducing low-value tasks, duplicate tasks and regulatory inefficiencies, as well as identifying options for better deploying teaching assistants.
- ✳️ **Building, recognising and effectively deploying teaching expertise can enhance teacher effectiveness as well as helping overcome teacher labour market shortages.**
 - More effective outcomes could be achieved by better recognising highly accomplished teachers and expanding their reach, including by drawing on their skills to build localised communities of practice.

Teachers play an integral role in society; they act as mentors, experts and role models for future generations (AITSL 2020c). Teachers are the most important in-school factor driving student outcomes — including for achievement, attainment, engagement and wellbeing (AERO, sub. 6, pp. 4–5; AITSL, sub. 27, p. 6; Victorian Government, sub. 31, p. 6).

Reflecting their important role, enlisting, developing and maintaining a stable and effective supply of teachers has been central to education policy. This has led to a range of policies aimed at improving average teacher effectiveness (the ability of a teacher to affect student outcomes) in the workforce.

Many of these policies have focused on the individual teacher — be it attracting and retaining individuals with characteristics associated with high quality; requiring teachers to undergo professional development; or providing guidance on classroom practice.

But many other factors influence teacher effectiveness — extrinsic factors such as teacher shortages and high teacher workloads can reduce the ability of teachers to lift student outcomes.

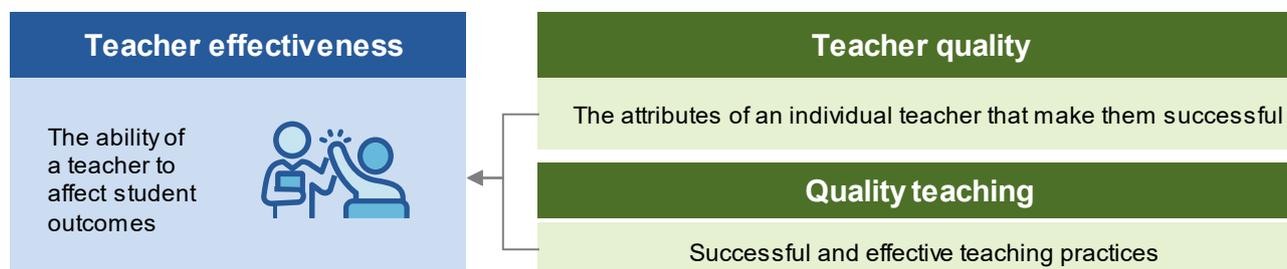
This chapter discusses the important role teachers play in society, the current and future issues facing the teaching profession, and potential policies that could better support teachers. Sections 5.1 and 5.2 outline the importance of teacher effectiveness and how teacher shortages can undermine this. Sections 5.3 and 5.4 make suggestions for new National Policy Initiatives to reduce teacher workloads, provide more attractive pathways into teaching, and create localised communities of best practice. Section 5.5 highlights the information gaps that remain at the classroom-level.

5.1 Teacher effectiveness — what is it, what drives it and why does it matter

Put simply, ‘teacher effectiveness’, refers to the ability of a teacher to affect student outcomes; be they in achievement, engagement, attainment or wellbeing (figure 5.1).

Teacher effectiveness is a combination of both ‘teacher quality’ and ‘quality teaching’. Teacher quality refers to the attributes of an individual teacher that makes them successful, while quality teaching refers to effective teaching practices (Belsito 2016, p. 28).

Figure 5.1 – Teacher effectiveness is a combination of teacher quality and quality teaching



Sources: Adapted from Belsito (2016, pp. 28–35); Naylor and Sayed (2014, pp. 3–4).

Teacher effectiveness is the most important in-school factor driving student outcomes

Student outcomes are driven by a range of factors both inside and outside the school, with teachers representing the most important in-school factor (AERO, sub. 6, pp. 4–5; AITSL, sub. 27, p. 6; Victorian Government, sub. 31, p. 6).

Studies that measure teacher effectiveness examine the additional learning gains that students achieve from having a certain teacher (appendix D). Evidence suggests that teachers account for between 30–40 per cent of the variation in student learning gain (Hattie 2003, p. 2; Ingvarson and Rowe 2008, p. 8) — no other in-school factor has a greater effect on student achievement (Hanushek 2011, p. 467).¹

Teacher effectiveness is driven by a range of factors

The factors that drive teacher effectiveness vary and can affect either ‘quality teaching’ and/or ‘teacher quality’ (figure 5.2).

Understanding the different drivers is important for policy development. For example, the Australian Education Research Organisation (AERO) (sub. 6, p. 5) noted that high-performing school systems such as Singapore, South Korea and Finland target both teacher quality and quality teaching in their recruitment and system strategies.

Evidence on which driver has the greatest effect on teacher effectiveness is contested. Measurable teacher characteristics such as experience, qualifications and test scores can sometimes explain little of the variation in student achievement (Burgess 2016, pp. 31–33; Rivkin, Hanushek and Kain 2005, p. 420). For example, there is wide variation in the quality of professional development and its effect on teacher effectiveness (Didion, Toste and Filderman 2019, p. 55). And evidence suggests early career classroom performance may be a better indicator of teacher effectiveness (Fahey 2022, pp. 31–32).

The factors that affect teacher effectiveness can be split into professional development, the school environment and government policy (Naylor and Sayed 2014, pp. 9–20).

- Professional development captures effective pre-service education and ongoing development that improves teacher effectiveness.
- The school environment captures school-level factors that can affect teacher classroom practices.
- Government policy captures how teacher effectiveness can be influenced by policy levers.

¹ These studies can be subject to selection bias from two important factors (Rivkin, Hanushek and Kain 2005, p. 424). First, families will generally choose the neighbourhood and schools their children attend. Second, principals and administrators will allocate students to classrooms. Therefore, without accurate information about how these decisions are made, estimations of student achievement could be biased. Even so, the breadth of evidence about teacher effectiveness is large and robust; and these factors do not change the underlying point that teachers are the most important in-school factor affecting student outcomes.

Figure 5.2 – Drivers affect teacher quality, quality teaching, or both

Category	Drivers	Effect
Professional development	Initial teacher education – preparing teachers for teaching.	Quality teaching
	Personal attributes – teachers have personal qualities that enhance their teaching. While each teacher is unique, some studies suggest that successful personal qualities could include: motivation, organisation and tolerance, or a teacher’s ability to be warm, social and enthusiastic towards students.	Teacher quality
	Teacher professional development – evidence is mixed on whether professional development affects student achievement. It can depend on what kind of training is on offer, its quality, intensity, duration and context.	Teacher quality
School environment	Teacher instructional and preparation time – instructional time and time to prepare for lessons are important for teacher effectiveness.	Quality teaching
	School-based management and community involvement – community involvement in schooling can positively affect teacher effectiveness. School leadership is also important. For example, the hiring and deployment of teachers by school leadership.	Teacher quality and quality teaching
	Classroom pedagogy and the national curriculum – can help improve teaching practices when teachers have time to implement changes.	Quality teaching
	Teacher workload and resources – increased teacher workloads can reduce the quality of teaching.	Quality teaching
Government policy	Teacher qualifications – there is a trade-off between setting teacher qualifications at a high enough level to ensure reasonable teacher quality, while taking into account teacher supply issues.	Teacher quality
	Teacher salaries – on balance, evidence suggests that teacher salaries can improve teaching quality by making teachers more motivated. However, the evidence is mixed on the magnitude of this effect and it can be context-specific, making it difficult to generalise the effect.	Quality teaching
	Teacher recruitment – recruiting the right people to become teachers and ensuring the workforce is sufficiently diverse.	Teacher quality
	Teacher accountability – monitoring and evaluating teachers can reduce absenteeism and ensure teachers are correctly applying their knowledge in the classroom.	Quality teaching
	Teacher shortages – shortages can impact teacher effectiveness through teaching out-of-field or higher workloads. Qualifications to become a teacher might also be lowered to alleviate shortages.	Teacher quality and quality teaching

Sources: Adapted from Belsito (2016, pp. 28–32); Hunter and Sonnemann (2022, p. 7); Naylor and Sayed (2014, pp. 9–19); Santiago (2002, pp. 20–21).

There is significant variation in teacher effectiveness

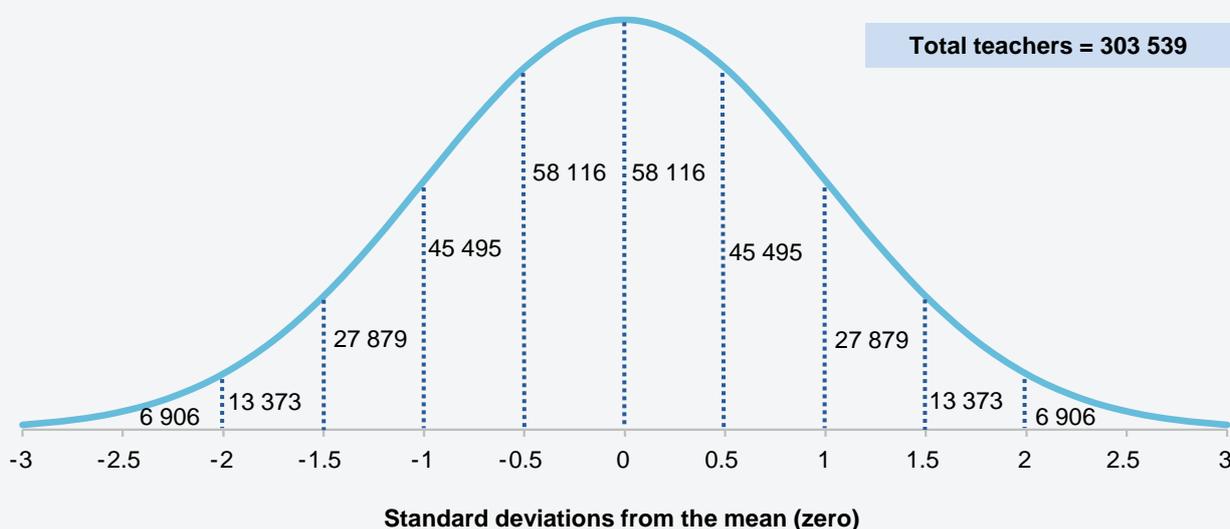
Reflecting the wide variety of factors that influence teacher effectiveness and the sheer number of teachers, there is a wide variation between the student learning gains attributed to an effective teacher and to a less effective teacher (Leigh 2010, p. 487; Rivkin, Hanushek and Kain 2005, p. 419) (box 5.1).

Box 5.1 Estimating teacher effectiveness in Australia

In academic studies, teacher effectiveness is often compared with ‘standard deviations’ from the mean, where the mean learning gain attributed to a teacher is standardised to zero (Appendix D). The figure below shows a stylised example for the Australian teacher workforce; plotted as a normal distribution of teacher effectiveness. For example, there were about 300 000 teaching staff in 2021 – about 50 000 of those teachers would be one standard deviation or more above the average teacher effectiveness.

Number of teachers, distributed by ‘assumed’ teacher effectiveness^a

Normal distribution of teacher effectiveness, mean standardised to zero



a. Teachers are assumed to be distributed across a normal distribution according to their ability to affect student outcomes, with the mean teacher effectiveness standardised to zero.

Source: ACARA (2022g).

Given its importance and variability, efforts to improve teacher effectiveness can provide significant benefits for students (AERO, sub. 6, pp. 11–12; Victorian Government, sub. 31, p. 11). International evidence suggests that moving a teacher at the 25th percentile to one at the 75th percentile of performers — no small feat — can increase learning gain by 3.7 and 3.8 months for an average student in primary school mathematics and reading in a given year (Lindsay, Grissom and Egalite 2021, p. 40).

Similarly, an Australian study, which examined year 3 to 7 students, found that moving teachers from the 25th to the 75th percentile could:

- increase learning gains by about one term of school for an average student in a given year
- close the average learning gap experienced by Aboriginal and Torres Strait Islander students in five years (Leigh 2010, p. 485).

The economic benefits of improving teacher effectiveness can be large

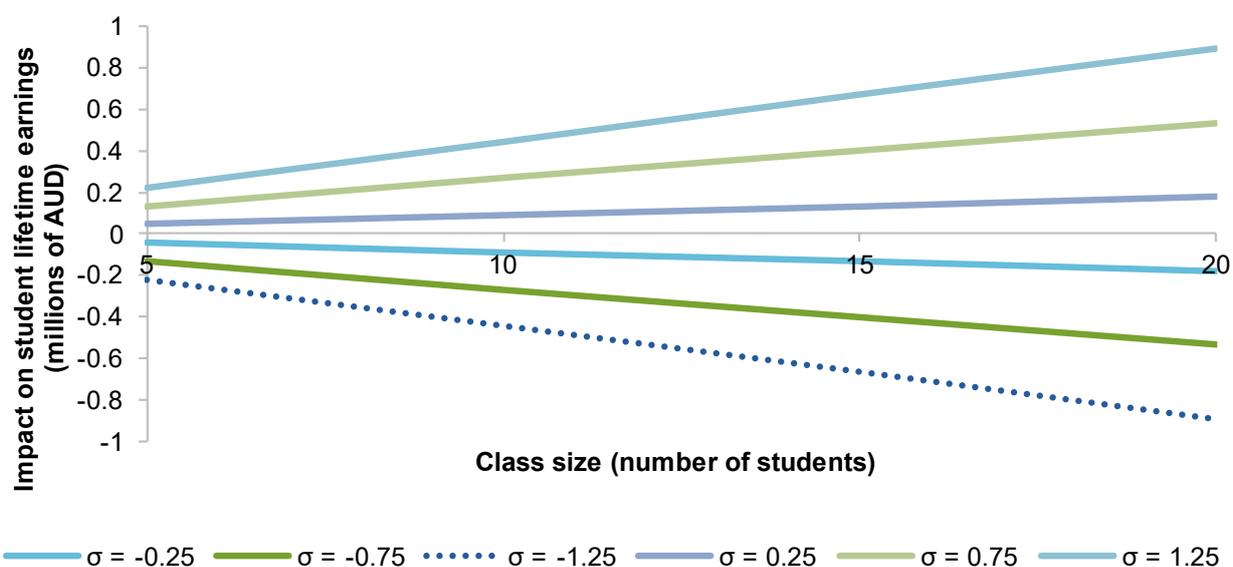
While it is generally recognised that teachers are the most important in-school factor driving student outcomes, the economic value that a teacher provides to society beyond student achievement is less understood. The Australian Institute for Teacher and School Leadership (AITSL) pointed to the importance of understanding and valuing the contribution of educators: ‘... [the] public reputation of the teaching profession must be increased so that the societal contribution of educators is valued and understood ...’ (sub. 27, p. 13). Most policy assessments of teacher effectiveness only examine how inputs might impact student achievement, and not on the economic value of improving teacher effectiveness (Hanushek 2011, p. 466). Ignoring the substantial benefits that teachers provide to society may lead to teachers feeling undervalued (section 5.4).

Improved student outcomes can provide substantial personal, economic and social benefits (PC 2012, p. 39). One study conducted by Hanushek (2011) estimated the marginal economic benefit of improving teacher effectiveness. The study focused on how improved educational outcomes from a teacher could increase a student’s net present value of lifetime earnings.

The Commission replicated Hanushek’s (2011) analysis for Australia using ABS income data (figure 5.3).

Figure 5.3 – The economic value of improved teacher effectiveness can be large, and scales in class size

Marginal annual economic value of teacher effectiveness, by class size^a



a. Teacher effectiveness (σ) is measured as standard deviations above (positive) and below (negative) the mean. Marginal annual economic value is given by $MEV = \delta * \sigma_T * (1 - \theta) * \phi * n * Y$, where the teacher fixed effect is δ ; standard deviation of teacher effectiveness $\sigma_T = 0.2$; prior learning depreciation $\theta = 0.3$; skills premium $\phi = 0.13$; class size n – variable; life-time earnings $Y = \$1.96$ million. Appendix D sets out the Commission’s analysis in more detail. Sources: Commission estimates based on ABS (Personal Income in Australia, December 2021, Table 4); Hanushek (2011).

The Commission found that a highly-effective teacher who is one standard deviation above the average teacher, instructing a classroom of 15 students, could increase the average lifetime earnings of the classroom by about \$530 000 each year; or about \$35 000 per student (appendix D). This effect increases with both class size and teacher effectiveness (σ). Similar results are obtained for principals: although the net learning gain per student is lower, effective principals benefit more students at once (chapter 6).

While an effective teacher can improve student lifetime earnings compared with the average, having a less effective teacher can reduce student life-time earnings compared with the average. Further, the effects on student lifetime earnings are cumulative: students that experience an effective teacher one year followed by an equally less effective teacher the next year will experience no net gains (Hanushek 2011, p. 473).



Draft finding 5.1

Improving teacher effectiveness is associated with large lifetime economic benefits for students

Improving the effectiveness of teaching would generate sizable lifetime benefits for students. Commission analysis suggests a one standard deviation increase in teacher effectiveness would raise average classroom lifetime earnings by several hundreds of thousands of dollars each year.

5.2 Shortages undermine teacher effectiveness

A stable and resilient supply of effective teachers is essential for maintaining and improving student outcomes. However, several inquiry participants raised concerns about teacher shortages; noting that they are both a driver and symptom of the challenges facing the teaching profession.^{2,3}

Identifying teacher shortages is not clear cut

While their effects can be keenly felt, gauging the extent of teacher shortages is difficult. The teacher workforce is segmented and teacher shortages can play out in different ways, leading to a lack of consensus on how best to measure shortages (Santiago 2002, p. 22).

The teacher labour market is segmented

Within the overall teacher labour market there are different segments. This can include segmentation by subject, geography, school level (primary versus secondary) or teacher background. Teacher substitution from one segment to another is often constrained by requisite skills (PC 2012, p. 65). In particular, there is limited substitutability between primary and secondary teachers, and subject-specific teachers (PC 2012, p. 65). The lack of substitutability means that shortages of teachers in some areas can occur alongside surpluses of teachers in other areas.

Teacher shortages do not always result in teaching vacancies

Teacher shortages do not always present as widespread vacancy problems or cancellation of classes (that is, *quantitative* shortages) (Santiago 2002, p. 21). More often than not, schools will find work arounds to ensure classrooms are staffed.

² ACTA, sub. 37, attach. 1, p. 14; AEU, sub. 36, p. 32; AITSL, sub. 27, p. 10; CSPA, sub 24, p. 6; DoE NT, sub. 42, pp. 5-6; DoE Tasmania, sub. 46, p. 3; DoE WA, sub. 19, p. 14; IEUA, sub. 15, p. 3; NCEC, sub. 7, pp. 5-6; P&C Federation NSW, sub. 18, p. 15; Pivot Professional Learning, sub. 33, attach. B, p. 1; Speech Pathology Australia, sub. 11, p. 4.

³ The issue of emerging shortages raised by inquiry participants are not limited to the teacher labour market. More broadly, labour markets in Australia are facing complex challenges resulting in widespread pressures. Treasury noted that '[w]hile the unemployment rate is at historic lows, a tight labour market has ... brought challenges including widespread and acute skill shortages' (The Treasury 2022, p. 1).

Teacher shortages can also give rise to 'hidden' effects (that is, *qualitative* shortages) that undermine teacher effectiveness (Santiago 2002, p. 22). This can include teachers teaching 'out-of-field' in subject areas they have not been formally trained for, and/or facing higher workloads to cover for shortages.⁴ As such, measures such as vacancy rates can sometimes underestimate the magnitude of teacher shortages (Santiago 2002, p. 22).

Teacher shortages can impose considerable costs

Teacher shortages can impose substantial costs on students, teachers and schools. In the case of quantitative teacher shortages, the cancellation of classes can reduce student subject choice or students may need to source replacement classes (Halsey 2018a, p. 74). In the case of qualitative teacher shortages, costs primarily arise due to reduced teacher effectiveness. This is because teachers with domain-specific expertise tend to be more effective, particularly in upper secondary school grades (Shah, Richardson and Watt 2020, p. 9). The negative impacts of out-of-field teaching on student learning are especially pronounced for students experiencing disadvantage (PC 2012, p. 95). Out-of-field teaching can also add stress to teachers (PC 2012, p. 96).

Evidence points to localised shortages

Put simply, a teacher shortage occurs when the demand for teachers exceeds the supply.⁵ A lack of timely data makes it difficult to assess, but teacher shortages appear to be concentrated in specific segments of the labour market, such as particular locations and subject areas, or can manifest as a lack of workforce diversity.

Shortages in regional, rural and remote areas remain a concern

There have been longstanding quantitative and qualitative teacher shortages in regional, rural and remote areas across states and territories (Paul 2022, p. 89; PC 2012, p. 92). The Independent Review into Regional, Rural and Remote Education found that:

Notwithstanding the efforts of governments and others over many decades, attracting and retaining teachers for [regional, rural and remote] schools continues to be one of the most persistent challenges on the education agenda. (Halsey 2018a, p. 38)

These sentiments were echoed by the Independent Education Union of Australia (sub. 15, p. 3), which noted:

... rural and remote schools face significant challenges in attracting and retaining qualified and experienced teachers ... [i]n addition, and out of necessity, the occurrence of teachers teaching out of their subject area is widespread.

The Commission previously found that the percentage of secondary school principals that had major or moderate difficulty finding staff was approximately 27 percentage points higher in remote than in metropolitan schools (PC 2012, p. 92). Recent studies have suggested that 'some rural schools also suffer from a lack of qualified staff ... particularly acute in certain subject areas and specialisations, such as science and special needs' (Echazarra and Radinger 2019, p. 36). Additionally, the proportion of secondary

⁴ The specific definition of out-of-field teaching varies in the literature in terms of how formal training in a subject area is defined. Definitions can include teachers who have not passed a subject-area exam and teachers who have not completed a set number of courses, or teaching certificate, or undergraduate or graduate major or minor in the field (Ingersoll 2019, p. 26). As out-of-field teaching statistics are inconsistent in their definition in Australia, the Commission has looked at a range of statistics based on different definitions to better understand the extent of the issue.

⁵ Teacher labour market shortages and surpluses can differ from general market imbalances as there are rigidities and limited substitutability between segments of the teacher labour market, which do not allow typical market forces to bring the market into equilibrium.

classes taught out-of-field was about 12 percentage points higher in remote than metropolitan locations in 2013 (Weldon 2016, p. 1). Inquiry participants have highlighted that these challenges continue to be experienced across school sectors (IEUA, sub. 15, p. 3; NCEC, sub. 7, p. 5), alongside recent reports of quantitative shortages (O’Flaherty 2022b).

Teacher shortages in regional, rural and remote areas can disproportionately affect students from priority equity cohorts. Students from low-parental education backgrounds and Aboriginal and Torres Strait Islander students are disproportionately represented in regional, rural and remote areas.

Shortages persist in subjects such as mathematics

There have been ongoing qualitative teacher shortages in secondary school subjects — including mathematics, science, technology and English — leading to out-of-field teaching. While the specific definition of out-of-field teaching varies, examining the qualifications of those teaching secondary subjects can give a sense of its prevalence. In 2018, in those jurisdictions for which data are publicly available, 24 per cent of secondary teachers surveyed teaching mathematics had no formal training in the subject they were teaching⁶; a trend echoed in science (18 per cent), design and technology (30 per cent), languages other than English (29 per cent) and English (18 per cent)⁷ (AITSL 2021a, p. 89).

Out-of-field teaching has been of particular concern for mathematics and science (NCEC, sub. 7, p. 6; PPL, sub. 33, attach. A, p. 1). The 2019 Teaching in Mathematics and Science Survey (TIMSS) showed that 23 per cent of Year 8 students were being taught by teachers who had not majored in either mathematics or mathematics education (Thomson et al. 2021, p. 49), while 9 per cent were taught by science teachers who had not majored in either science or science education (Thomson et al. 2021, p. 73). Furthermore, the 2015 Programme for International Student Assessment (PISA) results showed that of Year 10 teachers, 21 per cent of mathematics teachers and 6 per cent of science teachers were teaching out-of-field (Shah, Richardson and Watt 2020, p. 13). Additionally, 17 per cent of STEM teachers were teaching non-STEM subjects instead (Shah, Richardson and Watt 2020, p. 14). A more complete understanding of subject-based shortages is frustrated by limited data, including on the specialisation of initial teacher education (ITE) graduates (Paul 2022, p. 89).

In the short term, the costs of out-of-field teaching could be reduced through the use of technology and teacher training. Online teaching technology could be used to provide students access to subject-specific teachers. Also, facilitating teacher access to expert networks and communities of practice could help provide on-going subject-specific support and development (section 5.4). Policies could also seek to incentivise registered teachers who are not currently teaching back into the workforce.

Teaching out-of-field might be alleviated in the long-run by:

- improving the quality of ITE in those areas with critical shortages
- attracting candidates with background in areas of shortage into teaching
- relaxing mid-career barriers to entry for candidates with desired experience (section 5.4).⁸

The teaching workforce does not necessarily represent the population

There is also evidence of a shortage of teachers who are qualified to teach particular student cohorts. In the case of teachers of students with disability, in 2018 across New South Wales, South Australia and the

⁶ With up to 40 per cent teaching out-of-field when including those with training in subject content or pedagogy only.

⁷ In New South Wales, Northern Territory and South Australia.

⁸ Improving teacher labour demand and supply data collection, and developing a teacher labour market model, could also help better match labour demand for certain subjects with labour supply (draft recommendation 5.1 and 2.1).

Northern Territory, some 31 per cent of teachers who taught special education had no content and pedagogical training for it (AITSL 2021a, p. 89). The Australian Association of Special Education NSW similarly raised the 'lack of qualified special/inclusive educators in Australia' as a concern (sub. 20, p. 1). A lack of qualified teachers has also been raised as a concern for students learning English as an Additional Language or Dialect (ACTA, sub. 37, attach. 1, p. 13).

A shortage of teachers from diverse backgrounds can also affect student outcomes. For example, evidence suggests that Aboriginal and Torres Strait Islander staff can improve the cultural safety and outcomes for Aboriginal and Torres Strait Islander students (House of Representatives Standing Committee on Employment, Education and Training 2020, pp. 43, 44, 54). However, the proportion of Aboriginal and Torres Strait Islander people employed in the teacher workforce is below the proportion of Aboriginal and Torres Strait Islander people in the overall student population (AITSL 2021b, p. 24, 2022b, p. 19).⁹

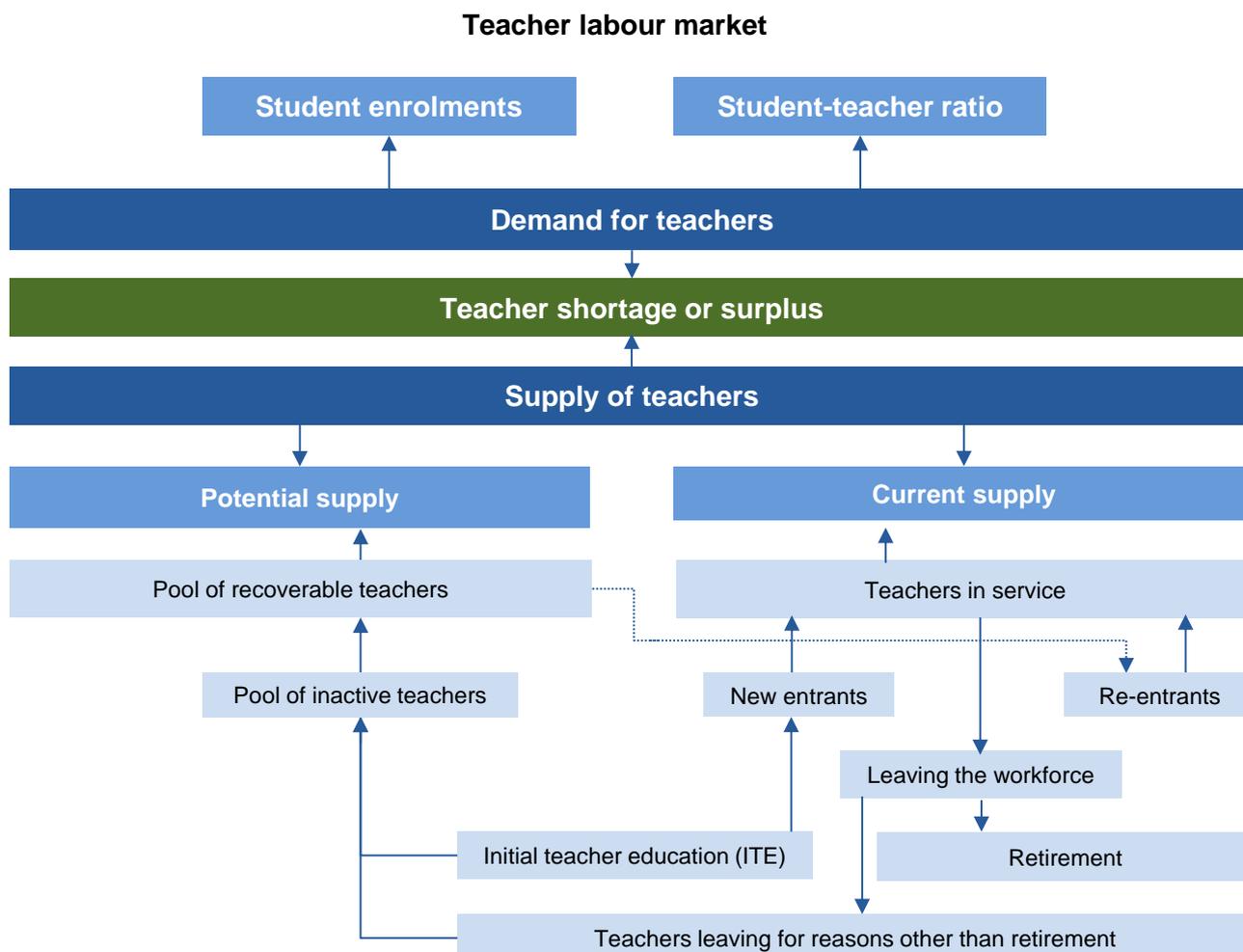
Inquiry participants also underscored the importance of cultural competency, cultural capability and the capacity to create cultural safety, in ensuring a safe learning environment where students experience inclusion and a sense of belonging, particularly for Aboriginal and Torres Strait Islander students (AEU, sub. 36, p. 13; AITSL, sub. 27, p. 19) (chapter 3).

Some factors that have contributed to teacher shortages may persist

The factors that drive teacher demand are relatively simple — such as the growth in the school-age population (Santiago 2002, p. 12). While teacher supply factors are more complex — they include drivers of workforce attraction and attrition, such as workload, career development or pay structures. Figure 5.4 shows a stylised example of the teacher labour market, and the interactions between teacher supply and demand.

⁹ As many Aboriginal and Torres Strait Islander communities are located in regional, rural and remote areas, they also face quantitative teacher shortages (PC 2012, p. 92).

Figure 5.4 – Teacher shortages and teacher effectiveness are determined by the labour market



Supply of teachers	Number of registered teachers who are willing to teach or are teaching	Leaving for reasons other than retirement	Outflow of teachers leaving before retirement
Current supply	Number of registered teachers teaching	ITE	Pre-service education and induction for teaching students
Potential supply	Number of registered teachers willing to teach	Retirement	Outflow of teachers leaving to retire
Re-entrants	Previous teachers returning to teach	Demand for teachers	Number of registered teachers required to meet student demand
New entrants	First time teachers	Student enrolments	Number of students registered for schooling
Recoverable teachers	Inactive but may return to teaching	Student-teacher ratio	Number of students per teaching staff
Inactive teachers	Qualified to teach but not teaching		

Source: Adapted from Dolton (2006, p. 1083).

Many of the factors that have contributed to localised shortages may persist, with some stakeholders suggesting they may become more pronounced:

Australia is facing a critical shortage of teachers due to a number of factors including growing school enrolments, a drop in the number of individuals enrolling in teaching degrees, an ageing workforce and a percentage of teachers leaving the profession to embark on different careers each year. (AITSL, sub. 27, p. 10)

Trends in ITE enrolments may affect long-term supply

Attracting the right people to the teaching profession is important for a number of reasons.

- Attracting highly effective teachers can improve student outcomes.
- Attracting the optimal amount of teachers into the right segments of the teaching market can alleviate some of the costs associated with teacher shortages (discussed above).
- Ensuring new entrants into the teaching market are representative of the population can be important for improving outcomes for students from priority equity cohorts (AITSL 2018, p. 8).

Some submissions highlighted that there were problems in attracting new entrants in the teaching workforce (AITSL, sub. 27, p. 10; P&C Federation, sub. 18, pp. 14–15). From 2015, data show that growth in ITE completions has been negative, and growth in ITE enrolments has slowed (figure 5.5).¹⁰

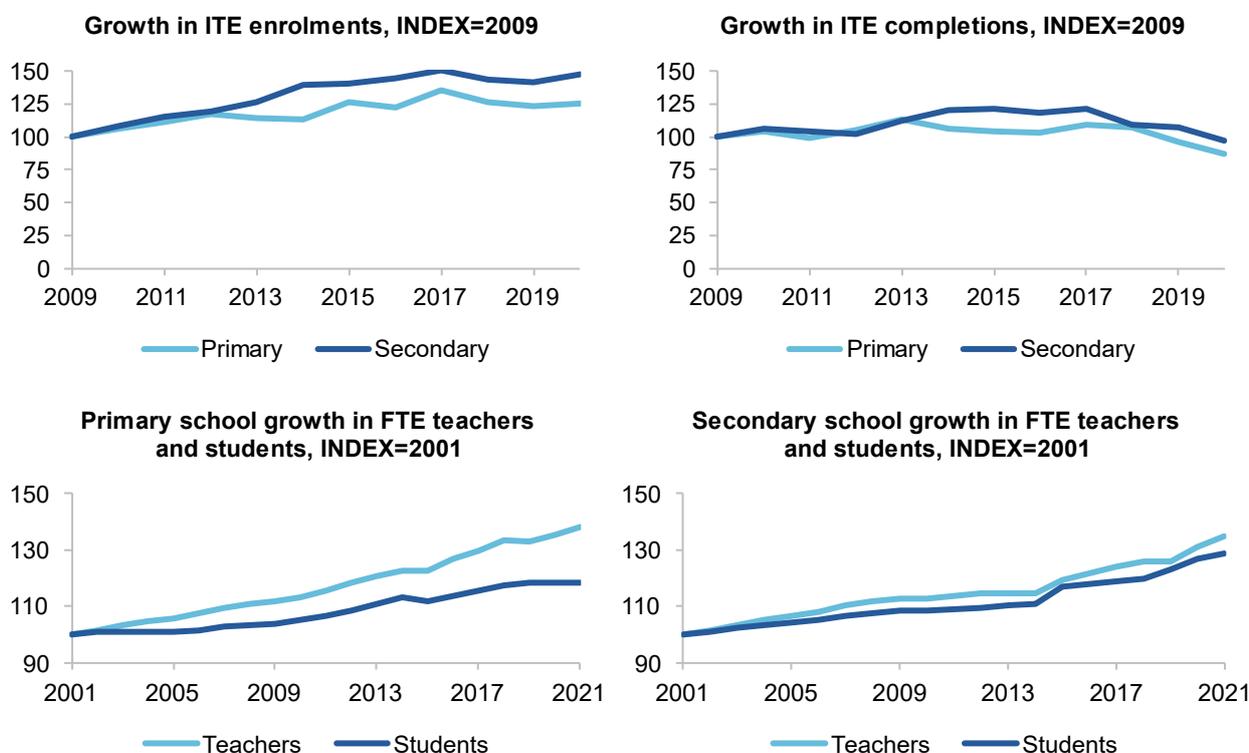
However, data on ITE completions only provide a partial picture. Teacher supply can be divided into two components — current and potential supply. The first comprises those working as teachers, while the second comprises registered teachers who are not teaching but can return to the profession (Dolton 2006, p. 1082). It is important to take re-entrants into account along with ITE completions, together they determine the growth of the teaching workforce as a whole.

Despite stagnating ITE enrolment growths, so far, growth in the supply of teachers appears to be matching student enrolments.¹¹ Data show that the growth rate of full time equivalent (FTE) teachers has been steady and outpaced FTE equivalent student enrolment growth from 2001 to 2021 (figure 5.5).

¹⁰ ITE enrolments are still at historically high levels, but the number of completions is fewer in 2020 than in 2009.

¹¹ Although this does not consider the changes in teacher workload and qualitative teacher shortages (discussed below).

Figure 5.5 – Although ITE completions have fallen, growth in the teaching workforce has kept pace with student enrolments



Sources: ACARA (2022g, 2022i, 2022h).

Intrinsic motivations tend to attract people to the teaching profession

Given the importance of teacher attraction for the future supply of teachers, it is important to understand what might be driving declines in ITE completions and slowing ITE enrolments.

People's motivation for joining the teaching profession are complex and driven by intrinsic and extrinsic factors (Whiteford, Kelly and Dawes 2021, pp. 1–2) (figure 5.6).¹² Intrinsic factors are the personal reasons why people choose to teach, such as desire and joy of teaching. Extrinsic factors are the motivations driven from the teaching environment, such as remuneration or the social status of the profession.

While motivations vary depending on the individual or market segment, the more commonly cited reasons for becoming a teacher include the joy of working with children, and the intellectual fulfilment of imparting knowledge, and making a contribution to society (Ashiedu and Scott-Ladd 2012, p. 25). Although extrinsic factors, such as job security and length of holidays, have also been linked to teacher attraction, they appear less influential. This was mirrored in a survey conducted by the Grattan Institute, which found that young high achievers believed the ability to 'make a difference' and to be intellectually challenged are the most important career attributes (2019, p. 18).

¹² Analysis in the literature is based on surveys of current teachers who decided to become teachers, and focuses less on the motivations of why people did not choose to become a teacher.

Figure 5.6 – Drivers of attraction to becoming a teacher

Intrinsic factors	<ul style="list-style-type: none"> • Genuinely liking and being with children • Fulfilling a dream or ambition • Having meaningful engagement with a subject area
Extrinsic factors	<ul style="list-style-type: none"> • Remuneration rewards • Employment opportunities • Working conditions including workload and non-pecuniary benefits • Social status • Job security

Source: Adapted from Gore et al. (2015, p. 11).

People's motivations for entering the teaching profession also depend on the stage of their career. Evidence on mid-career teacher entrants suggests that they are influenced by intrinsic factors, such as the desire to make a social contribution, as well as extrinsic factors, including the need for new employment opportunities (Bauer, Thomas and Sim 2017, pp. 186–187). These factors can differ by the age and industry background of mid-career professionals (Paul 2022, pp. 17–18).

Section 5.4 discusses pathways for mid-career professionals in more detail.

Is the quality of ITE candidates a concern?

In addition to declining ITE completions, there have been concerns that the quality of ITE entrants has fallen over recent years. AERO (sub. 6, p. 12) noted that the number of students aged 20 and under with an Australian Tertiary Admission Rank (ATAR) of 80 or more choosing teaching declined by a third between 2006 and 2019. Similarly, Grattan Institute (sub. 5, p. 9) submitted that teaching has become less attractive for high achievers from regional and low socio-economic areas.

Some commentary has focused on how to attract 'the best and brightest' to teaching by trying to attract school-leavers with high ATARs (Grattan Institute, sub. 5, p. 15; AERO, sub. 6, p. 12). This is a natural response to widespread concerns that some teaching graduates may lack necessary academic skills. However, test scores are not necessarily a strong predictor of teacher effectiveness (Fahey 2022, p. 30; Hanushek 2011, p. 468).¹³ More broadly, as Fahey observes:

While it's true there remain a relatively high number of low- and no-ATAR entrants to ITE degrees (as there has been since higher education statistics were first collected), there's no evidence that Australian teachers are at a relatively low academic standard (in terms of relative standing with other Australian adults) ... [c]ompared to other OECD countries, Australian teachers are sourced from a relatively high proportion of the adult population in terms of their literacy and numeracy capabilities. (2022, p. 30)

Requiring minimum ATARs for prospective teachers can also give rise to unintended consequences, resulting in some potentially good teachers being excluded from ITE courses; with flow on effects for workforce diversity and shortages. Further, fewer than one in five students entered ITE on the basis of their

¹³ One participant noted that the focus on ATARs may be misleading more generally: '[o]ur school system is geared to ATAR outcomes even if these are not sufficient indicators of a young person's potential to excel in further learning or work' (Learning Creates Australia, sub. 35, p. 2).

ATAR in 2016 (Goss and Sonnemann 2019, p. 14). The common entry points into ITE are through an undergraduate degree — either via a student’s ATAR or by transferring across from another university course — or a post-graduate degree, which does not require an ATAR (Goss and Sonnemann 2019, p. 12).

Is the quality of ITE courses a concern?

Rather than seeking to attract the ‘best and brightest’ into ITE, efforts could focus on improving the quality of ITE for all prospective teachers. High-quality ITE systems are important for ensuring teacher graduates are equipped with the skills and teaching practices they need to be successful in the classroom. Better delivery of ITE can also improve teacher retention and attrition (AEU, sub. 36, p. 39).

Recent reviews and inquiry participants both underscored the need to improve the quality and consistency of ITE services.¹⁴ The need to strengthen minimum standards for Teaching Performance Assessments (TPAs) (AITSL, sub. 27, p. 12; CIS, sub. 43, p. 45; Paul 2022, p. 60) has emerged as a particular concern.

TPAs help improve the classroom readiness of pre-service teachers by assessing core teacher capabilities, and are administered by ITE providers to their students in their final year of study. TPAs are approved by the teacher regulatory authorities (TRAs) in each state and territory, and so can vary across ITE providers and states and territories.¹⁵

Some inquiry participants raised concerns that the quality and consistency of TPA implementation is mixed, ‘with no requirement for periodic re-endorsement, no conditions for continuing approval and critically, no evidence that all TPAs meet a minimum common standard’ (AITSL, sub. 27, p. 11). The *Quality Initial Teacher Education Review* recommended:

... strengthening the TPAs by setting up a board with authority to approve TPAs and undertake national standard-setting, moderation and comparability. Higher education providers should only be allowed three attempts at a TPA. The two most widely used TPAs should be funded to support their efforts. (2022, p. iv)

Participants also underscored improving ITE to better equip teaching graduates with the skills and practices they need to teach students from priority equity cohorts (AASE NSW, sub. 20, p. 5; IECM, sub. 52, p. 3). Stakeholders representing the needs of students with disability and Aboriginal and Torres Strait Islander students observed:

With increasing numbers of students with disability attending their local school it is time to review the content of ‘inclusion’ units of study in Initial Teacher Training programs and of Post- Graduate Special Education/and or Inclusion programs to ensure that pre-service and specialist teachers are receiving adequate training in special education teaching practices that will lead to positive student outcomes. (AASE NSW, sub. 20, p. 5)¹⁶

[IECM] recognise the importance of quality teaching; including the ability to see Aboriginal and Torres Strait Islander students as whole people and support their learning needs in a culturally

¹⁴The Teacher Education Ministerial Advisory Group (TEMAG) 2015 review, and the Report of the Quality Initial Teacher Education 2022 Review outlined recommendations for better preparing pre service teacher in ITE. The recent Education Ministers’ Action Plan for teacher shortages also included a priority to strengthen ITE (Education Ministers Meeting 2022, p. 2).

¹⁵ There is also an expert advisory group (EAG) that advises ITE providers and TRAs on TPA design, but the authority to approve or reject TPAs ultimately lies with the TRAs.

¹⁶ The Royal Commission into Violence, Abuse, Neglect and Exploitation of People with Disability found that ‘educators do not always understand disability or know how to support students with disability’ (Royal Commission into Violence, Abuse, Neglect and Exploitation of People with Disability 2021b). It is also important that educators can identify disability so that it can be diagnosed early.

responsive manner, based on high expectations approaches free from deficit discourse. This requires ongoing support of teachers as professionals to continually develop their capability in Indigenous education, both through improved Initial Teacher Education (ITE) and access to (and expectation of completing) effective and culturally appropriate ongoing professional development. (IECM, sub. 52, p. 3)



Information request 5.1 Teaching Performance Assessment

1. Does the Teaching Performance Assessment (TPA) process ensure pre-service teachers are sufficiently classroom ready?
2. Should TPAs meet a national minimum standard? If so, how might this be achieved?
3. Do TPAs ensure that pre-service teachers are well placed to respond to the needs of students from priority equity cohorts? If not, how might this be improved, and what trade-offs might this involve?

Improving the quality of ITE courses should be a permanent priority. But improving the standard of ITE will take time to improve the quality of teaching across all Australian schools. Other initiatives could be implemented to support teachers during the critical first three to five years of their career when they are at a higher risk of early exit from the profession (AITSL 2021b, p. 20). Australia has relatively high use of mentoring for teachers by OECD standards (Fahey 2022, p. 32). Nonetheless, evidence suggests that more than one-third of early career teachers surveyed say that they do not receive induction training and mentoring (AITSL 2021a, p. 149). Teacher burnout and an ageing workforce may also contribute to higher rates of attrition.



Information request 5.2 Induction and mentoring programs

Would measures for improving early career teachers' access to induction and mentoring programs lend themselves to being a national policy initiative under the next intergovernmental agreement on schools?

High attrition can undermine teacher effectiveness

In broad terms, teacher attrition can be defined as qualified teachers leaving teaching, including to work in other professions.

Reducing high teacher attrition is important for several reasons. It can reduce the number of highly effective teachers exiting the workforce and so help alleviate teacher shortages. High turnover can also create instability in schools that can affect student achievement and impose recruitment costs. IEUA noted:

Students thrive on consistency in student-teacher relationship and the current exodus of teaching staff from the workforce threatens this. (sub. 15, p. 3)

However, not all teacher attrition is bad. For example, teachers might leave for personal or family reasons, and not because they have had a negative experience from teaching (Weldon 2018, p. 71). Teachers may also leave because of poor performance, or because they are not suited to the job. Further, attrition may be

driven by labour demand as the workforce becomes increasingly contract-based, or as teachers move out of the classroom and into leadership roles (chapter 6).

Estimates of teacher attrition vary significantly

Australian data on teacher attrition are limited and some is quite dated, making it difficult to draw conclusions about how many teachers are leaving the profession. For example, total annual teacher attrition has been previously estimated at 5.7 per cent nationally in 2014 (Australian Government 2014, p. 50) and 4.1 and 4.9 per cent in Victorian government primary and secondary schools respectively in 2020 (Vic DoE 2021, pp. 69, 105).¹⁷

Estimates of early teacher attrition (within the first five years of teaching) are much higher, ranging from 8 to 50 per cent (although these data are often based on overseas studies or anecdotal evidence, with the 50 per cent estimate being particularly dubious¹⁸) (AITSL 2015, p. 12; Mason and Matas 2015, p. 60; Weldon 2018, pp. 64–65). In Victorian Government schools, teacher attrition in the first, second, and third year of teaching was estimated to be 1, 6, and 9 per cent in 2020 respectively (Vic DoE 2021, pp. 53, 89). Weldon (2018, p. 72) noted:

The attrition rate of early career teachers in Australia is an issue, but not because it is worryingly high or an intractable problem of epidemic proportions. While these claims may be true there is currently no reliable evidence to support them. Therefore, the main issue is that the attrition rate in Australia is, in fact, not well established. It is unknown.

Although poor quality attrition data make it difficult to determine the magnitude of any current problem, changing factors could result in higher attrition in the future. Inquiry participants emphasised that COVID-19 could have a negative effect on teacher burnout and attrition (NCEC, sub. 7, p. 5; box 5.2). Further, AITSL (sub. 27, p. 10) noted that the ageing teacher workforce would contribute to higher future attrition.

Box 5.2 – The COVID-19 pandemic led to short-run teacher shortages

Short-run teacher shortages due to the COVID-19 pandemic have been reported across jurisdictions as teachers and school staff adhere to COVID-19 isolation policies — taking teachers out of classrooms and leading to school closures in some cases (Carey 2022; O’Flaherty 2022a; Smyrk and Moon 2022; Tucci 2022). Challenges facing teachers were also exacerbated by natural disasters including the 2020 bushfires and 2021 floods, with the Department of Education New South Wales stating:

The practical impact of bushfires, then COVID-19 and then floods cannot be overstated. (DoE NSW, sub. 12, p. 18)

There have also been concerns that COVID-19 has exacerbated long-run teacher shortages (Carabetta and Wilson 2022). For example, the significant changes to the teaching environment during the pandemic — such

¹⁷ Such data is often limited, based on a point in time, and do not take into account: teachers moving sectors; changes from part-time to full-time employment; or attrition via its various segments. The rate of attrition can also vary depending on the definition of attrition used.

¹⁸ Estimates of 50 per cent attrition are generally attributed to Gallant and Riley (2014) who find that ‘nearly half the graduating teachers’ in several countries including Australia ‘fill positions vacated by teachers who have left with less than five years’ experience ...’ (Weldon 2018, p. 65). Weldon noted that ‘[t]his is not the same as saying that 50 per cent of teachers leave within the first five years and none of the Australian references given ... provide evidence for such a figure’ (2018, p. 65).

Box 5.2 – The COVID-19 pandemic led to short-run teacher shortages

as the move to remote learning — have led to claims of increased workload as teachers adapted to teaching both online and face-to-face (Flack et al. 2020, p. 4). Accounts of poorer teacher wellbeing have also arisen including social isolation and low teacher morale (Flack et al. 2020, p. 4; Fray et al. 2022, p. 18).

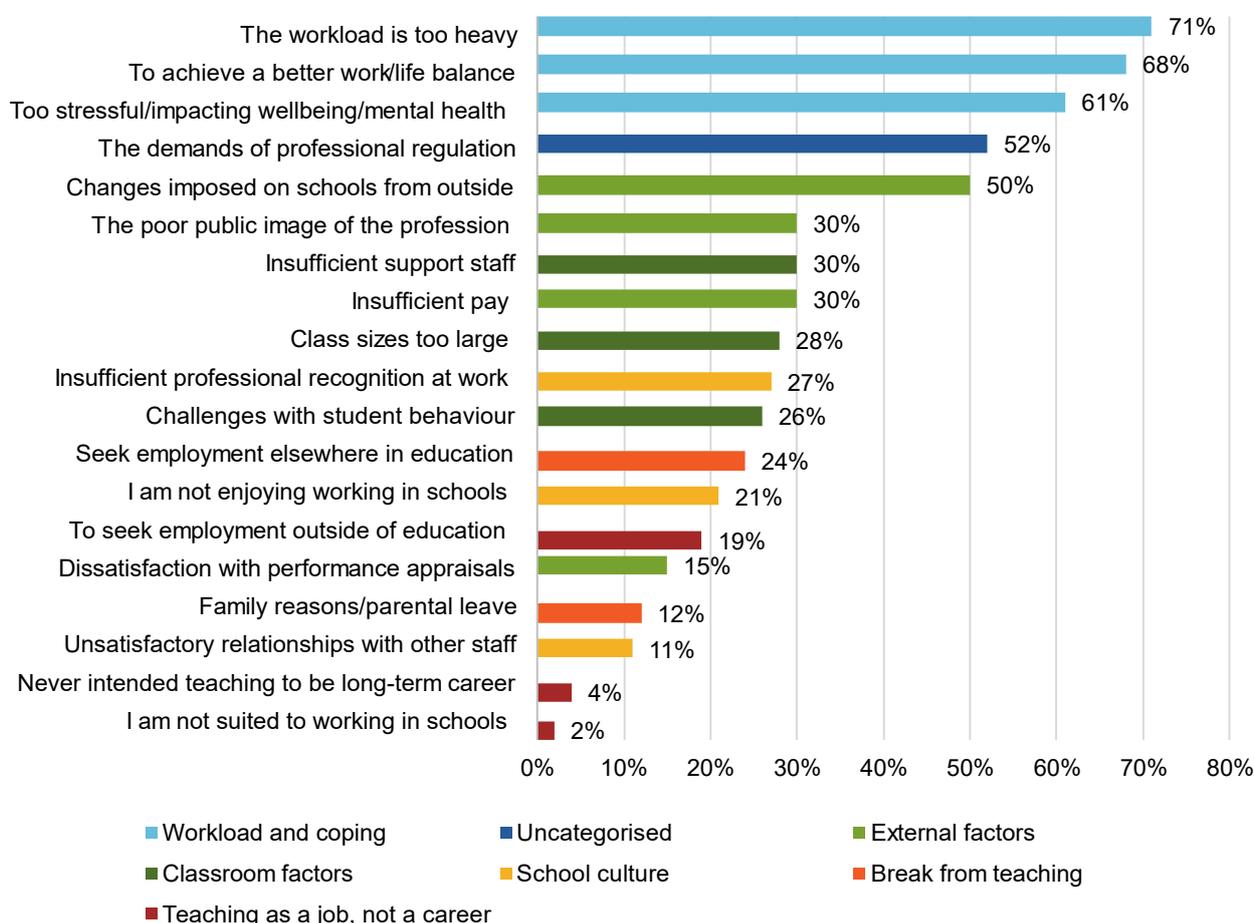
Nevertheless, COVID-19 has also offered an opportunity for innovation in schools. The online delivery of classes in the long term could alleviate workforce issues such as out-of-field teaching. However, any long-term implementation of online teaching needs to take into account access to infrastructure; particularly for students from equity cohorts who typically experience technology limitations (AEU, sub. 36, p. 20; DoE NT, sub. 42, p. 5; AGPPA, sub. 47, p. 3). Innovation in education is being explored in the Commission's ongoing *Productivity Inquiry*.

The school environment features heavily in decisions to leave teaching

While inquiry participants pointed to factors such as an ageing workforce, a broader range of environmental factors — such as workplace conditions, wages and career pathways — feature heavily in intentions to leave teaching.

The new Australian Teacher Workforce Data (ATWD) dataset contains data on the factors driving intentions to leave. Early data suggest that about 14 per cent of teachers surveyed by AITSL could leave the profession in the next 10 years due to non-retirement reasons (AITSL 2021a, p. 23). And the main factor driving teachers' intentions to leave is workload and burnout (figure 5.7); intentions to leave were broadly consistent for early career teachers (AITSL 2021a, p. 153).¹⁹ While intentions data do not necessarily correlate with attrition, AITSL note that '... [i]t can, however, be a good barometer of current perceptions and the mindset in a population' (2021a, p. 24).

¹⁹ Early career support and development is important for retaining teachers. Factors that drive early teacher attrition often involve unstable employment patterns, and heavy and complex workloads (AITSL 2015, p. 12). Therefore, factors such as supportive school environments, the ability to find stable permanent employment, and adequate pedagogical preparation can help improve teacher retention and development.

Figure 5.7 – Reasons for considering leaving^a

a. Based on 3216 survey respondents from New South Wales, Northern Territory and South Australia.

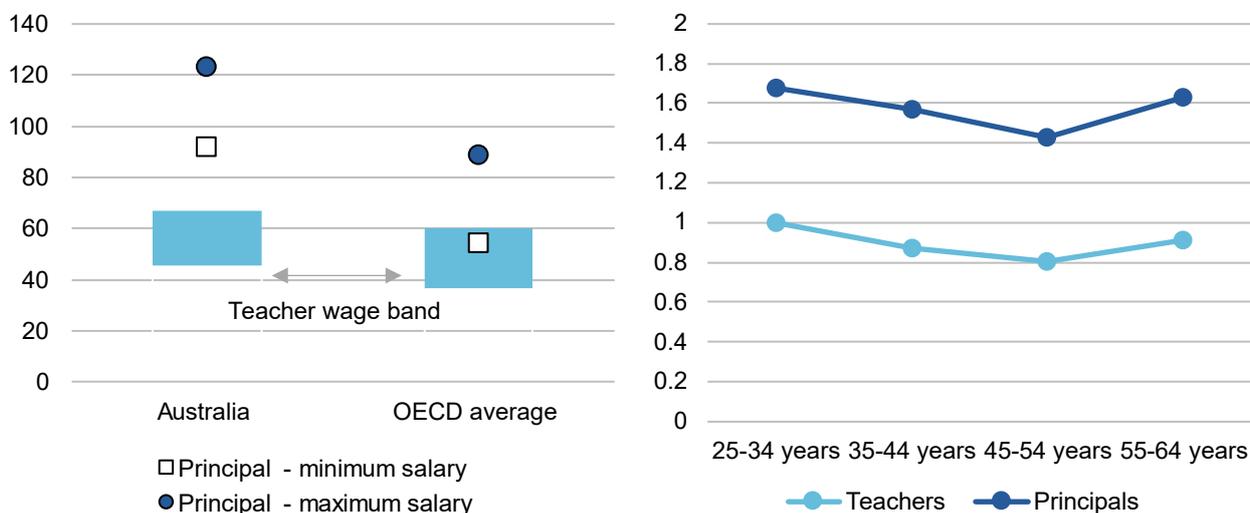
Source: AITSL (2021a, p. 108).

Some 30 per cent of teachers surveyed also identified remunerations as a reason for considering leaving the profession — a point echoed in submissions (AEU, sub. 36, p. 33).

While higher teacher salaries relative to other industries could improve retention and attraction — especially in areas of shortage (Dolton 2006, p. 1153; Fahey 2022, p. 16) — international evidence suggests that teacher pay is unlikely to be the sole disincentive to teaching (OECD 2018). For example, student characteristics, such as socioeconomic status and performance, have been found to have a stronger influence on teacher attrition than wages (Hanushek, Kain and Rivkin 1999, pp. 43–44).

More broadly, evidence suggests that Australian teacher salaries, while slightly more compressed, are higher relative to the OECD average (figure 5.8). And the compression of salaries mainly affects teachers in the middle of their career — starting salaries for Australian graduates are competitive relative to other tertiary educated workers, and principal pay is measurably higher.

Figure 5.8 – Australian teacher statutory salary bands (left) and salaries relative to earnings for tertiary educated workers (right)^a



a. Australian and OECD statutory salary bands are in terms of annual statutory salaries of teachers and school heads in USD purchasing power parity (PPP). Australian teacher salaries relative to earnings for tertiary educated workers in terms of actual salaries of lower secondary school level teachers and principals.

Source: OECD (2021).

Some submissions suggested that creating higher paying expert teacher career paths could resolve pay compression issues and so improve teacher attraction and retention (AERO, sub. 6, p. 12; Grattan Institute, sub. 5, p. 10). Section 5.4 explores career pathway options, while section 5.3 identifies options for addressing high teacher workloads.



Information request 5.3
The prevalence of teacher attrition

1. Is teacher attrition more or less of a problem than in other professions?
2. Are the drivers of attrition amenable to government policy? How could government policy address high teacher attrition?
3. Do the drivers of attrition vary across the course of a teacher’s career?

A more systematic means of predicting shortages is warranted

While efforts to reduce teacher workload will help ease workforce pressures, there remains a need for improved mechanisms to better identify and predict future imbalances in the teacher labour market.

Predicting future teacher imbalances can be challenging due to the forecasting assumptions required (PC 2012, p. 94). But in Australia’s case, these difficulties are (unnecessarily) compounded by the lack of available and timely data at the national level, and for different labour market segments.

As AITSL commented, ‘our current understanding of national supply and demand trends for the teacher workforce in Australia is immature’ with workforce data ‘widely dispersed across the various systems and

sectors responsible for the employment of teachers' (AITSL 2021b, p. 18). This was echoed in other reviews (Paul 2022, p. 87; TEMAG 2014, p. 51), with the Commission previously noting that '[e]xisting data collections on the teacher workforce have been found to be inconsistent and lacking in detail on subject specialisations, which has resulted in difficulties for initial teacher education (ITE) providers and employers to match supply and demand' (2016c, p. 102). A lack of data similarly limits an understanding of the magnitude and the locations of geographic teacher shortages, with much of the evidence being anecdotal (Paul 2022, p. 88).

Although the progression of the ATWD initiative will improve national teacher supply data, national teacher demand will remain a gap (box 5.3). And while state and territory governments typically undertake workforce planning for their own jurisdictions, this is often not widely available or comparable across jurisdictions (AITSL 2021b, p. 11).

Box 5.3 – The Australian Teacher Workforce Data initiative

The Australian Teacher Workforce Data (ATWD) initiative is a nationally agreed data linkage project that will provide the first nationally consistent longitudinal teacher supply dataset in Australia (AITSL 2021a, p. 6). Coverage includes ITE students, teachers at various stages in their careers, jurisdiction, sector, geolocation and subject specialisation. The purpose of the ATWD is to 'gain an understanding of the lifecycle of the modern teaching career, and to identify trends in teacher education, the teacher supply pipeline and the teacher workforce in Australia, that will help inform national policy and programs to support the profession and improve student outcomes' (AITSL 2021b, p. 34).

The first ATWD key metrics dashboard on ITE data was released in June 2022 with the ATWD to provide annual supply data, currently funded until 2025 (AITSL, sub. 27, p. 15). While the initiative will provide a comprehensive dataset on teacher supply, the lack of complementary teacher demand data will remain a barrier to understanding current and future imbalances in the teacher labour market.

As acknowledged in the Education Ministers' National Teacher Workforce Action Plan, a '[b]etter understanding [of] future teacher workforce needs' is required (Education Ministers Meeting 2022, p. 3). Improved data collection should form the basis of a national teacher labour market model, which could help forecast teacher demand and supply, and evaluate national-level policies (draft recommendation 2.1).

National efforts are preferred as:

- *a national labour market model could capture the broader national landscape, and the trends that affect it.* Although each state and territory has developed workforce planning models, these do not give a national picture of supply or demand (AITSL 2021b, p. 11)
- *teacher workforce challenges may require a national response.* These challenges are often common across jurisdictions. Further, any workforce shortages may require a coordinated response from employers, ITE providers and teacher regulatory authorities (AITSL, sub. 27, p. 10)
- *the national teacher labour market is becoming increasingly interconnected.* Teachers move across jurisdictions and the rise of online ITE means 'prospective teachers living (and planning to work) in one jurisdiction can study at an ITE provider based in another jurisdiction' (AITSL, sub. 27, p. 9).



Draft finding 5.2

There are local shortages of teachers and shortages of trained teachers in key subjects

There are teacher shortages in regional, rural and remote areas, and in subjects such as mathematics, science, English and design and technology. There is also a lack of teachers from diverse backgrounds.

Factors such as changes in initial teacher education enrolment trends, an ageing workforce and growing student enrolments may contribute to teacher shortages in the future.

Improving labour demand and supply data collection and developing a national model of the teacher workforce, would help Governments better manage local shortages and out-of-field teaching.



Draft recommendation 5.1

Governments should improve teacher workforce demand and supply data

The Australian, State and Territory Governments should commit to continued development of the Australian Teacher Workforce Data initiative, with a priority placed on achieving full participation by all States and Territories. Governments should also improve workforce demand data. This data could be used to underpin the national model of the teacher workforce (draft recommendation 2.1).

5.3 Reducing teacher workload pressures

Teachers' workloads are high and increasing

Many inquiry participants raised concerns about high and increasing teacher workloads.²⁰ Evidence lends support to these views.

Teachers work long hours ...

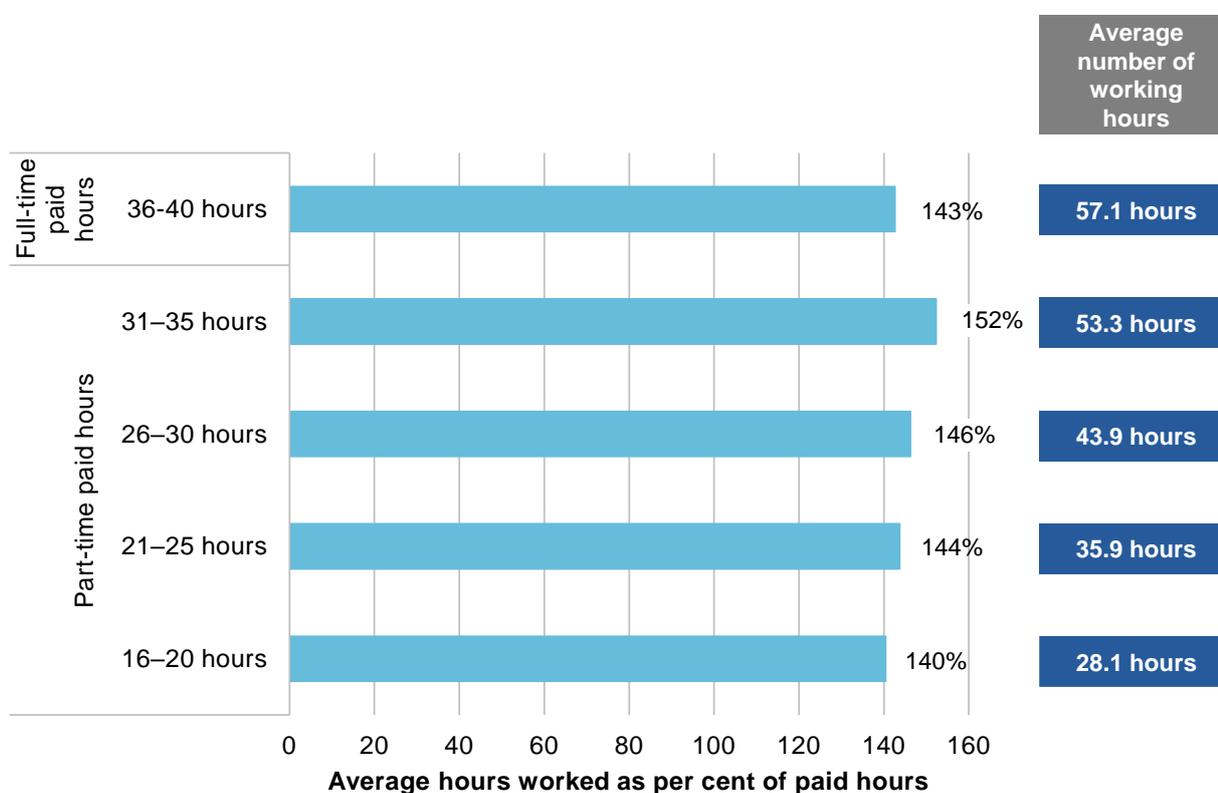
Survey data suggest that teachers are working long hours with estimates ranging from about 44 to 57 hours for full-time teachers in term time (AITSL 2021a, p. 66; Hunter and Sonnemann 2022, p. 7; McGrath-Champ et al. 2018, p. 28; Weldon and Ingvarson 2016, p. 28). Teachers surveyed by AITSL in New South Wales, Northern Territory and South Australia in 2018 stated that they were working between 140-152 per cent of their paid hours²¹ (figure 5.9); on average, full-time teachers report working about 57 hours a week. This was similar for primary and secondary teachers, and early career teachers surveyed (AITSL 2021a, pp. 131–132).²² Meanwhile Aboriginal and Torres Strait Islander teachers surveyed reported working more than the total teacher workforce on average (AITSL 2021a, p. 208).

²⁰ ACARA, sub. 45, p. 7; AEU, sub. 36, p. 35; AGPA, sub. 47, p. 3; APPA, sub. 48, p. 2; APTA, sub. 50, p. 5; CEMA, sub. 28, p. 2; Grattan Institute, sub. 5, p. 12; IEUA, sub. 15, p. 4; P&C Federation NSW, sub. 18, p. 14; Teacher's Work in School Research Group, sub. 16, p. 1.

²¹ Paid hours refer to what surveyed teachers self-reported they were paid to work each week (AITSL 2021a, p. 63).

²² Teachers working for 1-5 years.

Figure 5.9 – Teachers surveyed typically work about 50 per cent more than their paid hours^a
Average working hours compared with paid hours of teachers surveyed during term time in 2018



a. 11 980 survey respondents from New South Wales, Northern Territory and South Australia. The sample was not sufficient to consider part-time work under 16 hours a week. Only includes school teachers. Teachers were asked the number of hours they actually worked in a typical working week. A typical working week was defined as a week that is not shortened by breaks, public holidays, sick leave etc.

Source: Commission analysis based on AITSL (2021a, pp. 64, 66).

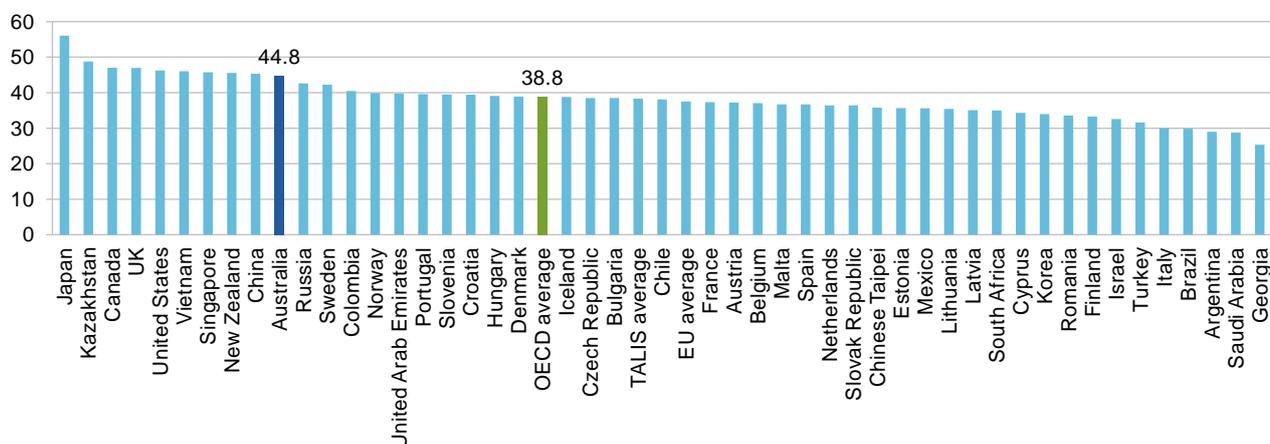
... and more than their international counterparts ...

There is evidence that Australian teachers also work more hours than their international counterparts. The OECD's Teaching and Learning International Survey (TALIS) found that Australian lower secondary teachers worked 44.8 hours in a week compared with the OECD average of 38.8 hours during term time²³ in 2018 (figure 5.10).²⁴

²³ The survey asked teachers about average working hours during a 'complete' calendar week, that is one that was not shortened by breaks, public holidays, sick leave, etc. (OECD 2018).

²⁴ There are two estimates of teaching time used. One from TALIS and one from the ATWD. The estimate from TALIS (44.8 hours) is lower than the estimate from the ATWD (57.1 hours) as TALIS included part-time teachers while the ATWD included only full-time teachers. Additionally the ATWD is based on a larger sample size (11 980 survey respondents from New South Wales, Northern Territory and South Australia) than TALIS (3 573 survey respondents). As noted, estimates of working hours for full-time teachers range from about 44 to 57 hours in term time (AITSL 2021a, p. 66; Hunter and Sonnemann 2022, p. 7; McGrath-Champ et al. 2018, p. 28; Weldon and Ingvarson 2016, p. 28).

Figure 5.10 – Australian teachers report working more than international counterparts^a
Average working hours of lower secondary teachers during term time in 2018



a. 3573 survey respondents. Includes part-time teachers. The survey asked teachers about average working hours during a ‘complete’ calendar week, that is one that was not shortened by breaks, public holidays, sick leave, etc.

Source: OECD (2018).

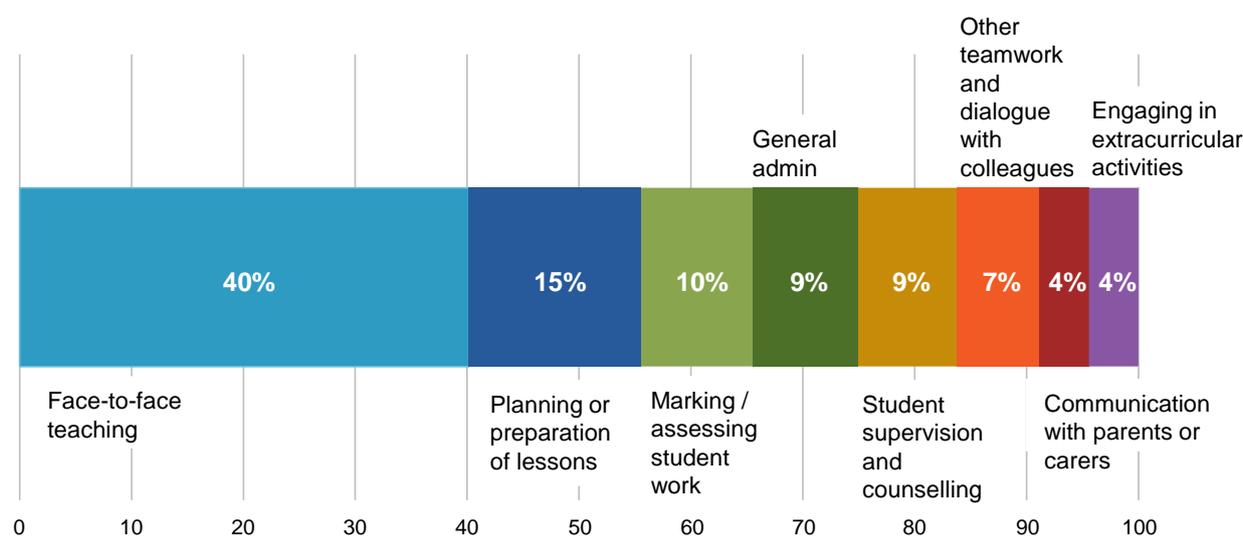
... but spend less time teaching

Teachers typically spend the majority of their time on teaching, lesson planning, marking and general administration (figure 5.11). Full-time teachers surveyed by AITSL reported spending about 40 per cent of their weekly time teaching face-to-face; followed by lesson planning (15 per cent), marking (10 per cent) and general administration (9 per cent) in 2018 during term time (AITSL 2021a, pp. 67–70).²⁵ While teaching accounts for the bulk of their time, TALIS data suggest that Australian teachers spend less time teaching than their international counterparts in terms of both absolute hours and the proportion of their working week (OECD 2018).

²⁵ This was similar for primary and secondary teachers and early career teachers surveyed, although the latter spent slightly more time teaching face-to-face (AITSL 2021a, pp. 67–70, 133–135). Part-time teachers spent a greater proportion of their time teaching face-to-face than other tasks (AITSL 2021a, pp. 67–70). Aboriginal and Torres Strait Islander teachers surveyed reported spending slightly more time on face-to-face teaching as well as on extracurricular activities than the total teacher workforce on average (AITSL 2021a, p. 209).

Figure 5.11 – Teachers surveyed are typically spending most of their time teaching, lesson planning, marking or on general administration^a

Average proportion of weekly hours spent on teaching tasks during term time by full-time teachers surveyed in 2018



a. Sample of survey respondents varies by task from New South Wales, Northern Territory and South Australia. The sample was not sufficient to consider part-time work under 16 hours a week. Only includes full-time school teachers. Teachers were asked about a typical working week. A typical working week was defined as a week 'that is not shortened by breaks, public holidays, sick leave etc'.

Source: Commission analysis of AITSL (2021a, pp. 64, 67–70).

Teacher workload has been increasing ...

Evidence suggests teacher workload has increased over time. TALIS reported an increase in average teacher weekly working hours from 42.7 hours in 2013 to 44.8 hours in 2018 (figure 5.12).

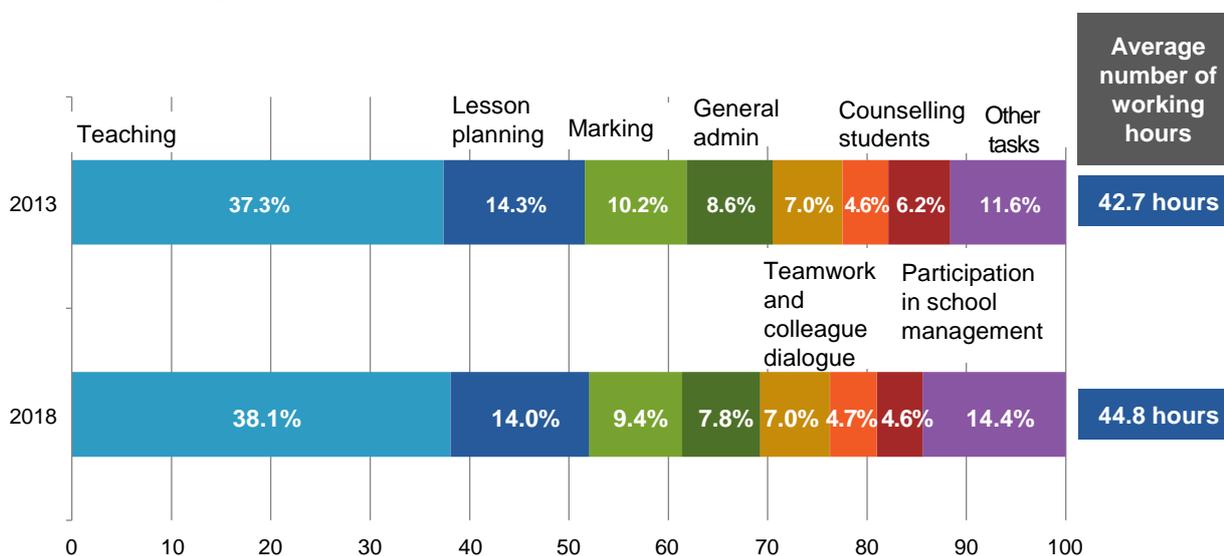
... but the cause of the increase is not clear

Some reports suggest that rising teacher workload is caused by the increasing expectations placed on teachers and schools; this includes increasing general administration, expectations of personalised teaching delivery, and scope of what schools deliver (Easthope and Easthope 2000, p. 43; Hunter and Sonnemann 2022, pp. 8–9; McGrath-Champ et al. 2018, p. 42). COVID-19 is also thought to have contributed to teacher workload (box 5.2).

The available data provide little additional insight as to the cause of increasing workloads — it points to a slight increase in the time spent teaching (figure 5.12).

Figure 5.12 – Teacher workload has been increasing although the composition of time spent on tasks has remained fairly constant^a

Average proportion of weekly hours spent on teaching tasks of lower secondary teachers during term time



a. 3573 survey respondents. In 2013, other tasks included communication with parents or guardians, engaging in extracurricular activities and other work tasks. In 2018, other tasks included the same tasks as in 2013, with the addition of professional development. Therefore, other tasks is not directly comparable across time. Categories including teaching, lesson planning, marking and general admin are more comparable across time. The survey asked teachers about average working hours during a 'complete' calendar week; that is one that was not shortened by breaks, public holidays, sick leave, etc.

Sources: Commission analysis of OECD (2018), OECD (2014, pp. 387–388).

Higher hours reduce teacher effectiveness

Whatever the cause, high teacher workloads can reduce teacher effectiveness. High teacher workload can impose costs on the education system by:

- *reducing the quality of teaching* – high teacher workloads may reduce the time teachers have to prepare for lessons, thereby decreasing the quality of teaching received by students (Hunter and Sonnemann 2022, p. 7)
- *negatively affecting teacher wellbeing* – high workloads can result in high stress and burnout of teachers (IEUA, sub. 15, p. 4)
- *exacerbating teacher shortages* – high workloads and stress can contribute to teacher attrition (figure 5.7)
- *reducing the effect of other policies aimed at improving teacher effectiveness* – which will only have their intended effect if teachers have time to implement them.²⁶

Meanwhile the number of teaching assistants and support staff has grown ...

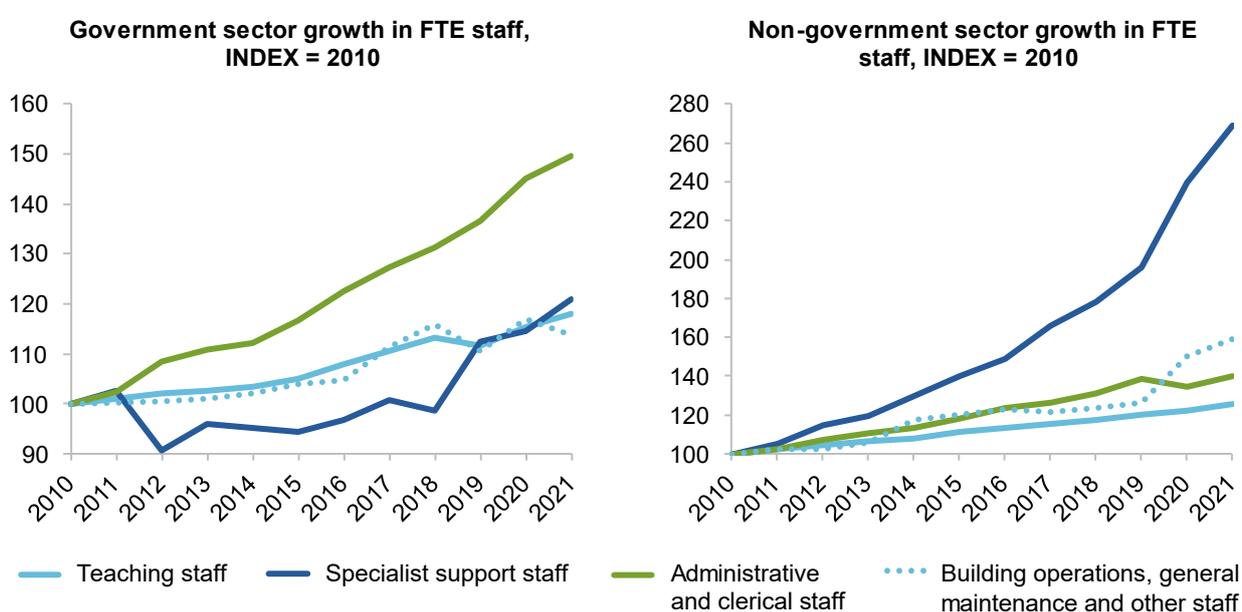
At the same time that teacher workload has been increasing, the number of teaching assistants and other support staff has grown. Between 2010 and 2021, the number of administrative and clerical staff – which

²⁶ For example, in terms of the Online Formative Assessment (chapter 2), National Catholic Education Commission (sub. 7, p. 5) noted that '[d]eep consideration of changes to workplace practices are needed to ensure allocated time for teachers to engage and collaborate on pedagogy and formative assessment'.

includes teaching assistants – and specialist support staff grew faster than teaching staff, albeit off a low base (figure 5.13).²⁷ In the government sector, administrative and clerical staff increased on average by about 4 per cent per year, while in the non-government sector, specialist support staff increased on average by about 9 per cent per year. By 2021, there were about 300 000 FTE teaching staff, 114 000 FTE administrative and clerical staff and 15 000 FTE specialist support staff, compared with about 250 000, 78 000 and 9000 FTE staff respectively in 2010.

Figure 5.13 – Between 2010 and 2021, the number of teaching assistants and other support staff grew at a faster rate teaching staff^a

Growth in FTE staff, by staff type and school sector (government – left, non-government – right), from 2010 to 2021



a. This chart is based off Australian Curriculum, Assessment and Reporting Authority's (ACARA) collection of school workforce data as detailed in footnote 27.

Source: ACARA (2022g).

... but it is not clear how they are being deployed

When utilised effectively and supported well, international evidence has found that teaching assistants can: help reduce teacher workload; allow teachers more time to teach; and improve some student outcomes (Sharples, Webster and Blatchford 2018, p. 7). In Australia, the remit of teaching assistants is broad. Under the direction of the classroom teacher, teaching assistants work in small groups or one-on-one with students; particularly for students requiring learning assistance. They can also support the classroom teacher with day-to-day running of the classroom, including undertaking administrative tasks (ITAC 2021).

²⁷ Based on Australian Curriculum, Assessment and Reporting Authority's collection of school workforce data, which includes four types of school staff: 1. Teaching staff – employees who spend the majority of their time in contact with students. This can include teachers, principals, deputy principals, and senior teachers mainly involved in administration. 2. Speciality support staff – employees who perform functions to support students or teaching staff. These staff do not teach the school curriculum to students. 3. Administrative and clerical staff – such as teacher aides and teacher assistants. 4. Building operations, general maintenance and other staff.

However, it is not clear how teaching assistants and other support staff are being used in schools (Hunter and Sonnemann 2022, p. 21).

Governments should work together to reduce low value tasks

Policies to reduce high teacher (and principal) workload could provide substantial benefits by improving teacher effectiveness. Reducing teacher workload has been previously recommended by both the *Quality Initial Teacher Education Review* (Paul 2022, p. vi) and the Grattan Institute (2022, p. 4). More recently, in the National Teacher Workforce Action Plan, Education Ministers included a priority for maximising time to teach:

To improve retention and free teachers up to focus on teaching, Ministers agreed that jurisdictions and non-government systems would provide information on actions they are taking to maximise the time to plan, collaborate and teach. (Education Ministers Meeting 2022, p. 3)

Reducing low-value and administrative tasks could ease the burden

Stakeholders have remarked that the changing policy landscape has increased the administrative burden placed on teachers — the P&C Federation NSW (sub. 18, p. 15) submitted that the ‘substantial increase in reporting, red tape and compliance for teachers has seriously impacted their time to teach’.

While the data do not point to an increase in administrative burden (at least not between 2013 and 2018), Australian full-time teachers surveyed by AITSL typically spent 5.3 hours of their week on general admin in 2018 (AITSL 2021a, p. 68). On average, Australian teachers spend longer on general administration than their international counterparts: Australian lower secondary teachers reported spending the fifth highest amount of time on general admin²⁸ amongst the countries that participated in TALIS 2018 (OECD 2018). Australian teachers also spent more time on school management, teamwork and dialogue with colleagues than other countries (OECD 2018).

The Australian Government Minister for Education, with the agreement of the Education Council, tasked AITSL to undertake a review to ‘reduce red tape for teacher and school leaders, in partnership with states and territories’ (2020a, p. 3). AITSL found that ‘most jurisdictions, systems and sectors in Australia have a focus on or processes underway to reduce the impact of ‘red tape’ on their schools’ (AITSL 2020a, p. 3).²⁹

But the key aim of the review was to identify the ways in which jurisdictions, sectors, and schools are reducing ‘red tape’ for teachers and school leaders, with a view to sharing best practice approaches (AITSL 2020a, p. 7), rather than identify the low-value tasks that could be minimised or dispensed with altogether.

²⁸ Includes communication, paperwork and other clerical duties (OECD 2018).

²⁹ For example, the Department of Education New South Wales have a ‘Quality Time Action Plan to simplify administrative practices in schools’ with the aim of ‘reducing low-value administrative tasks... [by] 20% for our teachers by the end of 2022. This equates to a reduction of 40 hours of low-value administrative tasks per teacher per year’ (NSW Department of Education 2021a, p. 2). In South Australia, initiatives to streamline administrative processes have been established including the Education Management System; an online portal that streamlines approval processes and reduces the need for duplication of data entry for public schools and pre-schools (AITSL 2020a, p. 23).

More detailed information is required to identify and reduce burdens on teacher workload. This includes:

- collecting evidence on the ground, such as through surveys of teacher and principal time, to provide a better understanding of what teachers are spending increasing amounts of their time on.³⁰ This can augment the insights gleaned from AITSL’s consultation and case studies
- identifying if there are low-value tasks that can be removed.³¹ This would extend beyond the scope of AITSL’s review, which did not determine ‘[w]hether particular compliance requirements are justified or necessary’ as this was excluded from consideration in their terms of reference (AITSL 2020a, p. 45)
- the Australian, state and territory governments committing to a deregulation agenda based on the evidence gathered.

This could be pursued collaboratively

There is a strong case for all governments to work together to reduce teacher workload in consultation with teachers and school leaders.³² Not only is high teacher workload a common problem facing all jurisdictions, there are overlapping Commonwealth, state and territory regulations, which can increase teacher workload. As AITSL observed in their review on reducing red tape:

The overlapping Commonwealth, state and territory responsibilities, and the various differing governance arrangements across sectors, have a limiting effect on the ability of individual sectors acting alone to address and ameliorate red tape issues in support of their schools. Ideally, an existing forum would be found to take on this role. (2020a, p. 38)

The Commission seeks feedback on the merits of the Australian, state and territory governments, working in collaboration with teachers and principals to identify low-value and duplicative tasks, and regulatory inefficiencies that could be reduced or streamlined, as well as options for better deploying teaching assistants to reduce teacher workloads.



Draft finding 5.3 Teachers work long hours and their workload is increasing

Australian teacher workload is greater than the OECD average. Australian teachers spend more time on non-teaching tasks, and less time on teaching tasks, than their international counterparts.

Teacher workload has increased over time. Many teachers cite heavy workload as a reason for wanting to leave the profession.

At the same time that teacher workload has been increasing, the number of teaching assistants and other support staff has grown.

³⁰ AITSL’s previous review was based on the premise that teachers and school leaders are spending increasing amounts of time on compliance administrative tasks (AITSL 2020a, p. 3). However, the exact tasks and regulation that could be reduced is not clear.

³¹ It is important to consider the context in which regulation exists. For example, some administrative tasks may be important if they ensure student safety. Further, reducing teacher workload is not just about removing tasks, it is also about improving the efficiency and effectiveness of regulation so that it takes up less teacher time.

³² The Commission notes that some States and Territories have already operationalised some policies to reduce teacher workload.



Draft recommendation 5.2

Reducing teacher workload should be a focus of the next agreement

In the next agreement, the Australian, State and Territory Governments — in consultation with teachers and school leaders — should develop a new National Policy Initiative that commits all jurisdictions to undertake an assessment of teacher and principal time use. This could involve a four-step process, whereby Australian, State and Territory Governments:

- commit to an assessment of teacher and principal time use across school sectors, with a focus on identifying how teachers and principals spend their time, and what tasks they rate as low or high value
- specify how they will remove low-value tasks, duplicate tasks and regulatory inefficiencies
- specify how teaching assistants can be best deployed, including to reduce teacher workload
- monitor the compliance and administration burden on teachers and principals over time.



Information request 5.4

Teaching assistants and support staff

How are teaching assistants and support staff being deployed in schools and classrooms?

- What are the primary functions of teaching assistants and support staff in Australia?
- Could deployment and use of teaching assistants and support staff be improved to help reduce teacher workload? If so, should this be pursued through national collaboration?

5.4 Fostering and drawing on teaching expertise

Building, recognising and effectively deploying teaching expertise is another way to enhance teacher effectiveness (AITSL, sub. 27, p. 19), which can also aid with teacher attraction and retention (section 5.2).

However, as AERO observed, '[w]e are not effectively utilising our best teachers ... our existing teacher career paths do not systematically build, recognise and deploy teaching expertise across the teaching workforce to create a quality teaching workforce' (sub. 6, pp. 11–12).

Processes to build, recognise and deploy teaching expertise can take many forms

In Australia, and overseas, processes for building, recognising and deploying expertise are often intertwined.

Teachers sharing expertise with others has been identified as an effective example of professional development (Grattan Institute, sub. 5, p. 9). One avenue for sharing expertise is through building communities of practice around so-called Master, Instructional Leader or Highly Accomplished Teachers.

The use of Master Teachers that lead and coordinate professional learning has been observed as integral in high-performing school systems, such as Singapore and Shanghai (AERO, sub. 6, p. 11). In these systems, Master Teachers are intended to be the pedagogical leaders in their subjects, working across a network of schools in their region to identify teacher needs, coordinate training, and connect schools with research.

Unlike Master Teachers, who have no classroom load, Instructional Leaders split their time between classroom teaching and instructional leadership, working in their own schools to support and guide other teachers in specific subjects (Goss and Sonnemann 2020, p. 11).

The Australian Professional Standards for Teachers recognises four professional levels and career stages: graduate teachers; proficient teachers; highly accomplished teachers; and lead teachers. There is particular focus on the latter two levels, typically referred to as Highly Accomplished and Lead Teachers (HALTs), identified as ‘expert teachers and reflective practitioners who lead and support colleagues towards better outcomes for learners’ (AITSL 2019, p. 3). States and Territories also have their own specialists. For example, in government schools in Victoria, Learning Specialists refer to highly skilled teachers that work with other teachers to improve their practice (Vic DoE 2022).

An additional benefit of Master, Lead or Highly Accomplished Teacher roles is that they provide career pathways, including (in the case of Highly Accomplished or Lead Teachers) for highly skilled teachers that want to remain in the classroom. Further, where expertise is formally recognised through processes such as certification, roles can be linked to pay progression (AITSL 2019, p. 9).

The formation of formalised expert teacher networks has been limited

While one of the primary benefits of HALTs and other highly skilled teachers is to give rise to spill-over or peer effects, through sharing expertise with other teachers (AERO, sub. 6, p. 12; Grattan Institute, sub. 5, p. 9), in practice, the realisation of these benefits have been limited (Goss and Sonnemann 2020, p. 13). In the case of HALT, for example, benefits appear to have been constrained by:

- lack of mentoring, training or feedback on how to best share expertise with other teachers (Goss and Sonnemann 2020, pp. 23–24)
- limited instructional opportunities due to constrained teacher time (Goss and Sonnemann 2020, p. 20)
- limited uptake of instructional leader advice by teachers who receive it (Goss and Sonnemann 2020, p. 15), and a lack of confidence that those in higher teaching positions are ‘among the best teachers’ by other teachers (Goss and Sonnemann 2020, p. 20)
- lack of consistency of advice given by teachers in instructional positions (Goss and Sonnemann 2020, p. 16), and not enough focus on specialised pedagogical content knowledge (Goss and Sonnemann 2020, p. 19).

Further, there has been poor take up of HALT certifications, potentially reflecting the intensive application process (ACARA, sub. 45, p. 5; Goss and Sonnemann 2020, p. 33). Since the introduction of HALT certifications in 2012, only 1025 teachers have become certified HALTs; approximately 0.3 per cent of the workforce (AITSL, sub. 27, p. 14). Poor incentives might also be a contributing factor — with some evidence suggesting that even when pay is linked to certification, there is little wage differential between identified HALTs and long-serving proficient teachers (NSW PC 2021, p. 81).

Less formal networks have proved more accessible

While they do not offer the same degree of recognition, Quality Teaching Rounds — where teachers work together in small groups to analyse and improve their practice — have been found to have significant positive effects on teaching quality and student academic achievement (NSW Department of Education 2022b; QT Academy 2022).

Teachers who participate in Quality Teaching Rounds report experiencing enhanced morale, stronger individual and collective efficacy, and improved school culture (NSW Department of Education 2022b). Quality Teaching Rounds do not require intensive application or certification processes, and so provide an accessible avenue for time-poor teachers to improve their practice.

Employing this peering effect in combination with a focus on sharing subject-specific expertise where there are acute teacher shortages, such as mathematics, may crowd in any benefits from certification (Goss and Sonnemann 2020, p. 10).

Reducing barriers would increase the share of highly effective teachers

Stakeholders have made a number of suggestions to better encourage and recognise highly effective teachers, these include:

- training for those that are assigned roles to share teaching expertise (Goss and Sonnemann 2020, p. 37)
- having subject-specific expert lead teachers, including as a means of supporting those teaching out of field (Grattan Institute, sub. 5, p. 16)
- making HALT roles more accessible, such as by streamlining certification processes, particularly where teachers have undertaken similar processes (AITSL, sub. 27, p. 14)
- scaling of instructional leadership roles to cover more schools (Goss and Sonnemann 2020, p. 5).

In addition to the general benefits that come from enhancing teacher effectiveness, better recognising and deploying highly effective teachers could also raise the status of the teaching profession by valuing professional expertise (AITSL, sub. 27, p. 13) with real responsibility and pay (Grattan Institute, sub. 5, p. 10). This, in turn, could help improve teacher retention, attrition, and attraction (section 5.2), particularly of high quality teachers (AITSL, sub. 27, p. 13; Schleicher 2011, p. 11).^{33 34}

The next agreement provides an opportunity to identify ways to foster the development of communities of best practice, better equip and deploy instructional leads to share expertise, and streamline HALT processes, including by recognising prior competencies. Together this would expand the reach of highly accomplished teachers across schools and sectors.



Draft recommendation 5.3

Encouraging highly effective teachers and maximising their value

In the next agreement, the Australian, State and Territory Governments should work together, in consultation with teachers and school leaders, to:

- develop and support localised communities of practice across schools, regions and sectors. These should encompass accessible options for time-constrained teachers as well as subject specific options to support those teaching out-of-field
- ensure that Highly Accomplished and Lead Teachers are trained, and deployed as intended, to lift the quality of teaching across schools and sectors
- streamline processes for becoming a Highly Accomplished and Lead Teacher, including by recognising prior competencies.

³³ These teachers are sometimes attributed as having high academic achievement in secondary school (AERO, sub. 6, p. 12; Goss and Sonnemann 2019, p. 8; Paul 2022, p. 100), although as discussed above the relationship between test scores and teacher effectiveness is contested (Rivkin, Hanushek and Kain 2005, p. 420).

³⁴ While improved leadership progression might remove effective teachers from the classroom, these teachers can still impact student achievement through sharing their expertise with other teachers (chapter 6). Indeed, this can have a large effect on student performance.

Facilitating mid-career entrants

Mid-career professionals could be an important source of teacher supply ...

Flexible approaches to matching teacher demand with supply are required to overcome teacher labour market challenges. One approach raised in submissions was to attract high-quality mid-career entrants as a source of teacher supply (AITSL, sub. 27, p. 13; IEUA, sub. 15, p. 11; CIS, sub. 43, p. 45).³⁵

Mid-career professionals could be an important pipeline for future teacher supply — particularly in certain subject areas such as mathematics (Bauer, Thomas and Sim 2017, p. 185), geographic locations, and as a means of improving workforce diversity. Recent surveys reveal up to four in ten mid-career professionals would consider a career in teaching, with one in ten planning a career change to become a teacher, and three in ten open to the idea (Paul 2022, p. 16).

Evidence suggests that mid-career entrants have, and will continue to become increasingly important.

- TALIS data show that in 2018 about one quarter of total work experience for Australian teachers comes from non-teaching work experience, emphasising the role that mid-career entrants already play in the workforce (Thomson and Hillman 2019a, p. 39).
- The age of ITE enrolments and the proportion of post-graduate ITE enrolments has increased, which may suggest that more mid-career entrants are considering teaching (Paul 2022, p. 10).
- Some evidence suggests that career mobility – the movement from one career to another – is becoming more prevalent in modern society (Deloitte 2017a; Lyons, Schweitzer and Ng 2014, pp. 8–9).

... but they face switching costs ...

Mid-career professionals looking to make the switch to teaching are motivated by a range of factors.

Evidence suggests that they are influenced by intrinsic factors, such as perceived teaching ability and desire to make a social contribution, as well as extrinsic factors, including the need for new employment opportunities (Bauer, Thomas and Sim 2017, pp. 186–187).

However, mid-career teacher entrants face considerable switching costs, including the time taken to undertake ITE courses and the loss of income while studying and beginning a new career (Paul 2022, p. 17).³⁶

Costs for those looking to make the switch have increased over time. The normal mid-career pathway to become a teacher for a person with a Bachelor degree changed from a one-year graduate diploma, to a two-year post-graduate degree; a transition which started in 2013 (Paul 2021, p. 6). This change was made due to concerns that teachers were not 'adequately equipped to address diverse learning needs, did not have sufficient knowledge of teaching theory, and were not equipped to teach numeracy and literacy' (TEMAG 2014, pp. viii–ix).

... which governments could reduce

Governments have two potential levers to reduce mid-career switching costs. First, they could provide income and/or ITE subsidies to reduce the loss of income from switching careers. Some evidence suggests that mid-career entrants would value financial and study assistance to help them transition into teaching (Paul 2022, p. 16). Although, these factors can differ by the age and industry background of mid-career

³⁵ Another area to examine is attracting teachers from the potential teacher supply (that is, registered teachers who are not currently teaching) back into teaching in areas of shortage.

³⁶ Barriers to entry may also be exacerbated by mid-career professionals underestimating the time required to gain teaching qualifications (currently a two-year master's degree in Australia) (Paul 2022, p. 16).

professionals (Paul 2022, pp. 17–18). Second, they could reduce the length of time to study post-graduate degrees. As the review into quality Initial Teacher Education, observed:

The requirement of the two-year Masters qualification has the biggest impact on mid-career professionals who show interest in becoming a teacher. Time out of the workforce, and the associated lack of income, is the most significant barrier to entry for this cohort. (Paul 2022, p. 33)

Greater reliance on accelerated postgraduate degrees and employment-based pathways would reduce switching costs and make teaching more attractive. Some policies already address these switching costs. For instance, most states have some form of accelerated post-graduate teacher degrees to reduce the amount of time required to study (Paul 2022, p. 29). And there are employment-based pathways, such as the Teach For Australia program, which provides employment in areas of teacher shortages while people study (DoE 2022a).

In weighing up the relative merits of accelerated study pathways, the Initial Teacher Education review concluded that a one year program was not sufficient to develop the foundations to become a primary teacher. However, they drew a different conclusion in relation to secondary teaching:

To attract more mid-career professionals to secondary teaching, particularly in specialisations that are experiencing shortages such as maths and science, the Expert Panel recommends that a one-year qualification be offered subject to specific criteria.

There should be flexibility in how this model is offered. It could, for example, be incorporated into the existing two-year program, but with prior experience and subject content knowledge recognised so that fewer units need to be completed. Alternatively, it could be the reintroduction of a one-year Graduate Diploma of Education. This one-year qualification should only be available to well-qualified individuals, who have demonstrated suitability for teaching, in areas of high workforce demand. (Paul 2022, p. 33)

Given mid-career professionals could be an important pipeline for future teacher supply, the Commission invites feedback on options for streamlining pathways for mid-career entrants, especially those with skills in areas of shortage.



Information request 5.5 **Streamlining pathways into teaching**

How can pathways into teaching for mid-career entrants, especially those with skills in critical areas, be streamlined?

- What are the costs and benefits of re-introducing one year graduate diplomas?
- What employment-based pathways could be explored?

5.5 Evidence-based practices help drive better student outcomes

Ensuring teachers are using evidence-based teaching practices is important for teacher effectiveness and student outcomes (section 5.1).

This requires high-quality evidence on the effectiveness of different teacher practices, to support an understanding of which are most effective. Understanding what works best requires visibility of classroom practice, and the capacity to generate evidence through high-quality research. Several stakeholders expressed support for the promotion of evidence-based education practices, and strengthening the evidence base to deliver these.³⁷ Some argued that Australia needs to improve its capacity for research on which interventions are most effective,³⁸ while others emphasised diffusion of evidence through the education system (AERO, sub. 6, p. 10).

The benefits of improving the evidence base on effective teaching practice need to be balanced against the costs. These include: the resources invested into setting up new organisations, new data collection methodology, and the administrative burden on teachers, principals and school administrators in completing surveys, providing data, and supporting students to complete testing. The latter adds to teachers' already high workloads (section 5.3).³⁹

Understanding the interventions being employed in schools

Understanding what is happening 'on the ground' in schools and classrooms remains a gap in Australia's education evidence base.

Better visibility of classroom practice would have several benefits. First, it would facilitate a better understanding of relationships between what and how students are being taught and their learning outcomes. Policy makers would be able to identify where problems might lie in order to better target solutions and assess the effectiveness of existing approaches (Goss 2017, pp. 13–14; Sonnemann and Goss 2018, p. 16; Steiner, Magee and Jensen 2018, p. 15). Second, better information on what is happening in classrooms would be helpful in assessing the extent to which new evidence-based approaches are being taken up by practitioners, and potential barriers to the diffusion and adoption of best practice.⁴⁰

Taking steps to better understand what is being taught in classrooms (curricular choices) and how it is being taught (pedagogical approaches) could help address these issues.

³⁷ Grattan Institute (sub. 5, pp. 13-14); AERO (sub. 6, p. 10); DoE NSW (sub. 12, p. 8); Australian AASE NSW (sub. 20, p. 4); and Pivot Professional Learning (sub. 31, p. 18).

³⁸ Grattan Institute (sub. 5, pp. 13-14); National School Resourcing Board (sub. 22, p. 4); Queensland Family and Child Commission (sub. 32, p. 4); and Pivot Professional Learning (sub. 33, p. 8).

³⁹ Stakeholders highlighted these costs and identified principles or approaches that balance them with the potential benefits that evidence can deliver. For example, the Department of Education New South Wales (sub. 12, p. 24) argued that new data measures should be 'cost-effective to collect, not pose additional burden on schools', and wherever possible rely on existing administrative data.

⁴⁰ Several stakeholders also addressed these issues. Grattan Institute (sub. 5, p. 13) noted the problem of lack of visibility of classroom practices. The National School Resourcing Board (sub. 22, p. 4) emphasised the importance of information on the interventions being employed in schools for understanding what works, arguing that '[i]t would be valuable to be able to link the employment of specific interventions to the educational outcomes of students – especially those from disadvantaged backgrounds'. AERO (sub. 6, p. 10) emphasised that visibility of classrooms can support the implementation of good practice: 'While we know 'what works' in terms of effective teaching practices in the classroom, we do not know and cannot monitor the extent to which there has been systematic implementation of these practices in classrooms across Australia.'



Information request 5.6
Understanding what happens in the classroom

What (if any) systems do jurisdictions already have in place to understand what is being taught in classrooms, and how it is being taught? What are the options for obtaining more and better data on classroom practice in a way that minimises costs and administrative impost?

6. School leadership

Key points

- ✳️ **Principals play an important role in the educational leadership, management, and accountability of their schools.**
 - Strengthening leadership can raise student outcomes by enhancing quality teaching, better deploying resources, and improving the responsiveness of schools to students' and community needs.
- ✳️ **The effectiveness of school leaders can be as important as the effectiveness of their teaching staff.**
 - School leaders are second only to teachers in terms of creating an effective learning environment, though the difference is small.
- ✳️ **As the intermediary between the classroom, school board, and education system, principals are the locus of innovation and reform in schools.**
 - School decision makers are generally best placed to respond to local changes and the needs of teachers, students, parents, and the community.
 - School leaders are the link between education policy and practice. School leaders should be involved in developing, as well as delivering reform.
- ✳️ **School leadership roles are becoming more complex and demanding.**
 - Greater school autonomy, increased accountability and governance obligations, and shocks such as COVID-19, have made leadership more challenging, prompting a shift to more specialist leadership roles.
- ✳️ **Addressing the scarcity of school leadership skills should be a primary aim in school reform.**
 - Some teachers are deterred from taking up leadership roles, concerned about intense workloads and low levels of support.
 - Effective preparation for teachers aspiring to become future school leaders requires early identification and investment, but also has the risk of removing effective teachers from the classroom.
- ✳️ **To meet demand and obtain the right mix of skills needed by schools, policy makers could consider attracting school leaders from outside the teaching profession.**
- ✳️ **While the importance of school leadership is recognised in the reform directions of the National School Reform Agreement, there is no national policy initiative addressing this issue.**
 - The Commission is seeking feedback on whether there is merit in a nationally coordinated approach to supporting a pipeline of future school leaders.

6.1 Why is school leadership important?

School leadership roles are diverse, encompassing principals, assistant principals, and other executive-level staff members. Together, they play an important role in the educational leadership, culture, management and accountability of their schools (box 6.1).

While the importance of school leadership is recognised in the National School Reform Agreement, through the reform direction ‘supporting teaching, school leadership and school improvement’, national policy initiatives have not delivered action on school leadership. The (then) Education Council noted that ‘[s]chool leaders are an important part of the national teacher workforce landscape’ and that ‘[t]his is an area where there may be scope for more national collaboration in the future’ (2020c, p. 2).

Box 6.1 – School leadership roles vary in their scope and nature

School leadership encompasses four core components

The focus of school leaders can vary according to their role and school, but typically includes four core elements.

- Educational leadership – focused on efforts to improve teachers’ professional learning, and activities such as establishing systems for evaluating and monitoring teachers’ performance, and implementing decisions of the school board.
- Management – including routine school operations such as establishing and managing financial systems, recruitment of teaching and non-teaching staff, and other human resources activities.
- Administration – such as overseeing compliance with Australian government and jurisdictional legislation, regulations and guidelines, as well as implementation and review of school policies, programs and operations.
- Accountability – for the outcomes of their schools to education authorities, parents and the wider community.¹

Leadership roles vary depending on school size

Operational authority for a school does not only reside with the principal, and can vary depending on school size. Leadership functions tend to be more devolved in larger schools but, even in smaller schools, it is unusual for all leadership roles to fall to the principal. For example, a principal might engage with stakeholders (such as the school governing body, parents, and system administrators), while a head or lead teacher might be involved in teacher professional development.

Sources: (Anderson et al. 2007, p. 27; Pont et al. 2008, p. 18; Spillane, Halverson and Diamond 2001).

School leaders create conditions for teaching and learning

School leaders affect school and student outcomes, both through organising and allocating resources, and creating the social institutions that regulate the way school communities interact:

¹ More specific guidance on what Australian principals are expected to ‘know, understand and do to succeed in their work’ is outlined in the Australian Professional Standard for Principals (AITSL 2011).

Leadership involves the identification, acquisition, allocation, coordination, and use of the social, material, and cultural resources necessary to establish the conditions for the possibility of teaching and learning. (Spillane, Halverson and Diamond 2001, p. 24)

School leaders foster the conditions for teaching and learning through a variety of channels including cultivating:

- shared purposes and goals: school leaders' involvement in framing, conveying and sustaining the school's vision and goals
- structure and social networks: the way that leadership is exercised and its basic aims with respect to others in the organisation
- relationships: engaging with the school community, including students, parents, and teachers
- organisational culture: by developing a shared meaning and values. (Hallinger and Heck 1998, pp. 171–178)

School leaders' ability to develop an organisational culture and shared meaning and values can be particularly important for the outcomes of students in particular cohorts (box 6.2).

Box 6.2 – The way in which school leaders shape school culture matters for students from priority equity cohorts

One way in which school leaders can develop school culture and shared meaning and values is by developing reciprocal trust, relationship building and focusing on the development of others (Halsey 2018b, p. 42).

In his review into regional, rural and remote education, Halsey noted that 'school culture is reflected in the school environment and therefore also encompasses 'the physical and emotional safety of students, the orderliness of classrooms and public spaces, or the degree to which a school embraces and celebrates racial, ethnic, linguistic, or cultural diversity'' (2018b, pp. 39–40).

The role of school leaders in shaping school culture can be particularly important for students from priority equity cohorts including:

- Aboriginal and Torres Strait Islander students — the extent of recognition and inclusion of Aboriginal and Torres Strait Islander culture in teaching at schools can affect Aboriginal and Torres Strait Islander student engagement (chapter 3)
- students with disability — the degree to which teachers are supported to recognise diverse needs and the extent to which a 'manage-and-discipline' model is embedded in school culture can influence whether students with disability receive disciplinary action, such as classroom exclusions, as opposed to behavioural supports, which can affect their engagement (chapter 3)
- students in regional, rural and remote areas — school leaders can have significant responsibility in regional, rural and remote locations. Their capacity to form and sustain relationships, which directly and indirectly contribute to the learning culture of a school has been described as crucial, 'especially in locations where there is effectively no other option for families than the local school' (Halsey 2018a, p. 18)
- other cohorts such as students with English as an Additional Language or Dialect — school leadership can play a key role in building inclusive whole school systems of support that meet the language learning needs of these students (ACTA, sub. 37, attach 1, p. 24).

Principals are the locus of innovation and reform in schools

In addition to their more widely recognised roles as educational leaders, managers and administrators, school leaders (and principals in particular) play an important role in the wider education system. As the intermediaries between the classroom, school board, and the education system as a whole, effective school leaders are the main drivers of innovation and translating policy reforms into actions.

School leaders drive innovation in schools ...

Local school decision makers are generally best placed to respond to local changes and the needs of teachers, students, parents, and the community. Doing so can require innovation — as the Australian Parents Council (APC) observed:

Centring school as the subject matter experts of the community in which they operate leaves them as the best placed to identify need, gaps and challenges and they should be encouraged and incentivised to devise innovative solutions to their problems. School leaders should be skilled and empowered to take these measures. (sub. 8, p. 5)

There is also a strong case that innovation in leadership practice is especially important in diverse school contexts (Santamaría and Santamaría 2016, p. 2).

Innovation in schools starts with a commitment to continuous improvement and a problem solving culture among the principal and leadership teams. Schools that innovate successfully have been found to exhibit a number of characteristics including:

- prioritisation of goals
- clear assignment of leadership roles within the school
- rigorous use of data
- alignment of resources to teaching and learning improvements (Anderson et al. 2007; Santamaría and Santamaría 2016, p. 2; Spillane, Halverson and Diamond 2001, p. 23).

... and enable reforms

School leaders bridge education policy and practice. Policy reforms at the system-level provide direction to schools, but their success at the school- and classroom-level depend on the deliberate action of leaders to oversee implementation (Pont et al. 2008, p. 19). This function of school leaders was recognised in the Australian Professional Standards for Principals:

Principals work with others to produce and implement clear, evidence-based improvement plans and policies for the development of the school and its facilities. They recognise that a crucial part of the role is to lead and manage innovation and change to ensure the ... strategic plan is put into action across the school and that its goals and intentions are realised. (AITSL 2014, p. 16)

Implementing and embedding reforms require school leaders to promote adaptations of school processes, cultures, attitudes and behaviours (Pont et al. 2008, pp. 19–20). Principals translate the reforms into practice through their teachers. Australian Professional Teachers Association (APTA) noted that:

The role of school leaders should be to clearly communicate policy reforms that are most relevant to teachers' work, in plain language, to teachers within their schools so that teachers understand the purpose of the policy reform and what it means for their classroom practice. (sub. 50, p. 3)

When school leaders support reform initiatives, it is more likely that they will promote them with their staff. And they are more likely to support reform initiatives if they are engaged in their development (Pont et

al. 2008, p. 20). It follows that school leaders and teachers should be engaged in the development of policies, not just the implementation. The importance of engaging both was underscored by APTA:

Principals' associations are able to speak from a managerial perspective of school operations. Teachers are sometimes consulted through teachers' associations such as APTA. Teachers' associations are able to speak from a classroom-focused, practitioner perspective that is directly connected to the student. Both perspectives are important in consultation on new policy development. (sub. 50, p. 4)

Effective leaders are as important as effective teachers

School leaders are second only to teachers in terms of their importance in creating an effective learning environment, though recent evidence has suggested the difference is small (Leithwood, Patten and Jantzi 2010; Lindsay, Grissom and Egalite 2021, p. 672). The economic benefits from improving principal effectiveness are as large as for teachers (box 6.3).

Principal effectiveness is measured in the same way as teacher effectiveness — by examining how much principals contribute to student achievement (Lindsay, Grissom and Egalite 2021, chap. 5). However, unlike teachers, principals influence student outcomes indirectly, by affecting the environment for student learning (Hallinger and Heck 1998; Lindsay, Grissom and Egalite 2021, p. 34). While most Australian principals teach, they mainly work outside the classroom (AITSL 2021a, p. 180). Their impact on student learning occurs indirectly through other people, events and organisational factors such as classroom practices and school culture (Hallinger and Heck 1998). These indirect influences include principals' decisions on the allocation, training, and development of teachers, and (where they have the authority) hiring practices.

Box 6.3 – Comparison of principal and teacher effectiveness

Principals' estimated contribution to student achievement is smaller than but almost equal with the effects of teachers (Helal and Coelli 2016; Lindsay, Grissom and Egalite 2021).

There is wide variation in student learning gains between highly effective and less effective principals (Branch, Hanushek and Rivkin 2009; Leigh 2010; Rivkin, Hanushek and Kain 2005). Their effectiveness is larger in scope than that of teachers because they are averaged over all students in a school, rather than a classroom (Lindsay, Grissom and Egalite 2021, p. 43).

Comparison of principal and teacher effectiveness per student^a

	Mathematics	Reading
Moving a teacher from the 25th percentile to the 75th percentile of performers	3.7 months of learning	3.8 months of learning
	Averaged across all students in a teacher's classroom	
Moving a principal from the 25th percentile to the 75th percentile of performers	2.9 months of learning	2.7 months of learning
	Averaged across all students in the principal's school	

a. As discussed in chapter 5, moving a teacher from the 25th to 75th percentile of performers is no small feat, the same holds for principals. Fewer studies have examined principal effectiveness compared to teacher effectiveness.

Source: Lindsay, Grissom and Egalite (2021, p. 39).



Draft finding 6.1

Improving school leadership can have large impacts on students' learning

School leaders are second only to teachers in fostering a positive learning environment. Improving the effectiveness of leaders, especially principals, would generate sizable benefits.

6.2 What are the emerging pressures on school leaders?

As education systems have evolved, and the external environment has changed, so too have the roles of school leaders. With greater school autonomy, increased accountability and increased school governance, leadership roles have taken on more complex, demanding and specialised functions (Eacott 2017; PC 2012, p. 241; Pont 2014, 2020, p. 156).² At the same time, centralised support for schools has reduced (Heffernan and Pierpoint 2020, p. 8).

As a result of these factors, the activities carried out by school leaders have gradually shifted from administration and management to focusing directly on student outcomes.

Leaders have taken on more complex and specialised functions

With more autonomy, leadership roles have increased in scale and scope ...

Systems have moved away from central management models, towards decentralisation and greater school autonomy. Some states, such as Victoria, have historically had high levels of school autonomy (PC 2012, p. 241), while in other states, such as Western Australia and New South Wales, the shift towards greater school autonomy has been more recent.³

Greater school autonomy increases the scale and scope of the roles that school leaders perform. School leaders can be given more responsibility over decisions such as staffing, financial budgets, curriculum, assessment and accountability (PC 2012, p. 246). Further, increased school autonomy (and accountability) has changed the principal role from 'a more managerial role' to an 'instructional leadership' role focusing directly on student outcomes (Pont 2020, p. 156).

² Australia is not alone in this trend, internationally, the shift in advanced countries towards knowledge-based economies requiring highly skilled and educated workers; an increased government focus on education policy reforms; and recognising and responding to greater diversity in the student population, have all added to the complexity of school leadership roles (Pont 2014, pp. 6–9; Pont et al. 2008).

³ New South Wales implemented the 'Local Schools, Local Decisions' policy in 2012, which aimed to increase school autonomy by giving principals more say in managing resources, staffing, reducing red tape and overall decision making (NSW Government 2021). Government of Western Australia submitted that '[f]or over a decade, a key aspect of Western Australia's public school improvement strategy has been the move to increased school autonomy that equips and empowers principals and their staff to act with greater authority and responsibility for the success of their school, based on the needs of their students and local community' (sub. 19, p. 8).

... at the same time schools and leaders have been adapting to changing student needs ...

Society also expects more from its schools and school leaders. Schools are expected to deliver a broader range of outcomes for a more diverse cohort of students. This too has added to the complexity of school leaders' roles and responsibilities.

In addition to delivering content in traditional subject areas such as English, mathematics, science and history, schools are now expected to deliver content and, in some cases, outcomes on a broader range of social issues, such as student wellbeing, childhood obesity, mental health challenges, cyber bullying, and financial literacy (Deloitte 2017b, p. 6; Hunter and Sonnemann 2022, p. 9). Supporting student wellbeing in particular, has taken on greater prominence (box 6.4), while also becoming increasingly demanding, as school leaders have had to adapt their approaches to respond to COVID-19 and a series of natural disasters.

Box 6.4 – Approaches to wellbeing are shaped by school leaders

School leadership plays a large part in schools' responses and approaches to wellbeing, which influences student engagement and learning (chapter 4). Cross and Falconer found that '[s]chool leaders, along with teachers, are essential to securing student academic success and wellbeing by creating supportive school environments or building a positive school culture' (2021, pp. 2–3).

The role principals and school leaders play in building a positive learning environment where the whole school community feels included, connected, safe and respected is recognised in the Australian Student Wellbeing Framework, which identifies leadership as one of five key elements (Education Council 2018, p. 5). Leaders can adopt a number of practices to support the school community to build and maintain safety and wellbeing, including:

- developing the school's vision and values
- actively seeking and incorporating students' perspectives about safety and wellbeing
- communicating priorities and encouraging collaborative partnerships
- collaboratively developing whole school policies with staff, students, and families
- regularly monitoring and reviewing school capacity to address safety and wellbeing (Education Council 2018, p. 5).

Positive relationships between all members of the school community can underpin wellbeing. Research suggests that if school leaders and other school staff feel well and supported in school environments, their positive relationships, for example, can positively impact students' wellbeing and educational success (Cross and Falconer 2021, p. 3).

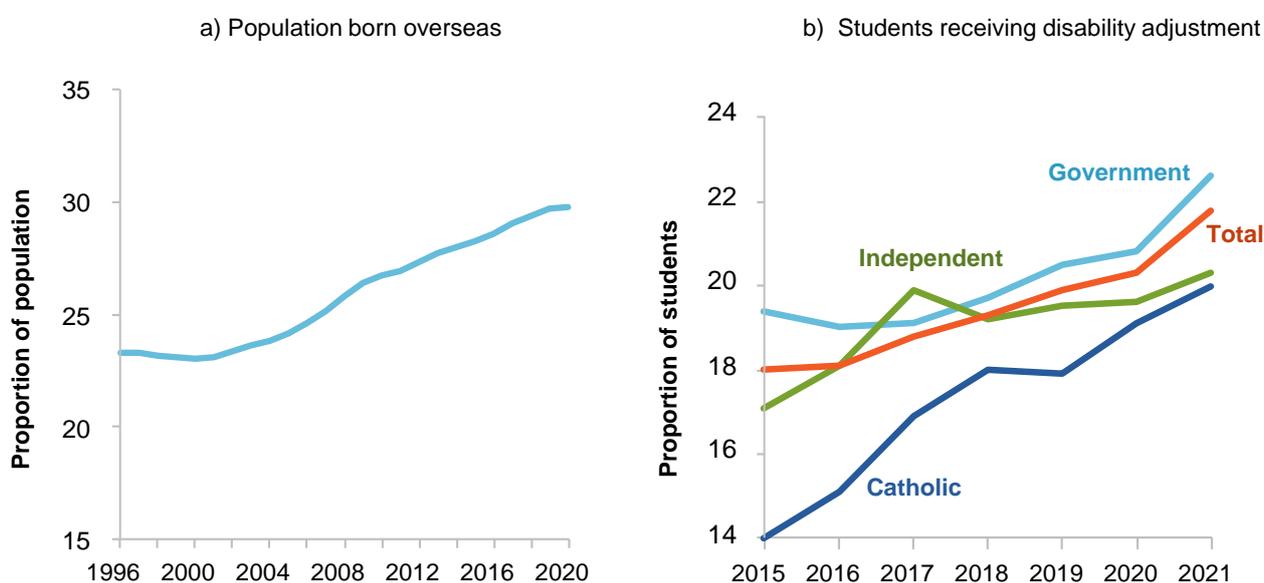
Schools and school leaders have also needed to adapt teaching and learning strategies to respond to a more diverse student body (Hunter and Sonnemann 2022, p. 11; Pont 2014, p. 8). While data on student diversity are incomplete (chapter 7), the available data have revealed that schools now support more

students with non-English speaking backgrounds, complex behavioural challenges, and disability (figure 6.1).⁴ As the Australian Education Union (AEU) observed in respect of students with a disability:

... the responsibility for ensuring that students receive the support they require falls to teachers and principals rather than on the authorities which manage school systems and the State, Territory and Commonwealth Governments that fund them. (sub. 36, p. 18)

Schools have also become more diverse as more students complete their secondary education. For example, the number of students staying through to Year 12 has increased from 75 per cent in 2005 to 83 per cent in 2020 (Hunter and Sonnemann 2022, p. 11).

Figure 6.1 – As populations become more diverse, schools are catering for different needs
Proportion of population born overseas from 1996 to 2020 (left), and the proportion of students receiving adjustment due to disability by school sector, 2015 to 2021 (right)



Sources: Commission estimates based on ABS (*Migration, Australia, April 2021*, Table 5.1); Report on Government Services 2022, table 4A.7.

... and external shocks to the education system

A number of external shocks, including the COVID-19 pandemic and a series of natural disasters, have and will likely continue to pose significant challenges for the education system (CSPA, sub. 24, pp. 4–5; NCEC, sub. 7, p. 7; DoE NSW, sub. 12, p. 3). Managing the burden of these shocks often falls on school leaders. For example, during the COVID-19 pandemic, school leaders had to grapple with remote learning, staffing shortages, and supporting student and staff wellbeing during lockdowns (ACU 2021, p. 21) (box 6.4). The Australian Catholic University (ACU) observed in the Australian Principal Occupational Health, Safety and Wellbeing Survey that:

Burnout and Cognitive Stress were the highest since this survey commenced. We know that principals' work is busy, but the scale of the pandemic and other challenges increased it. (2021, p. 2)

⁴ Catering for more students with different needs can also increase the complexity of teaching and may result in increased engagement with guardians and families, adding to school workloads (Hunter and Sonnemann 2022, p. 11).

High-stakes accountability adds to leadership pressures

Decentralisation has been coupled with an increased focus on accountability, evaluations and results; raising the stakes for school leaders. Inquiry participants noted that education outcome measures often place responsibility for improving education outcomes and supporting students on school leaders and staff (APC, sub. 8, p. 3; AEU, sub. 36, p. 18). Additionally, '[g]rowth in Australian Government funding and specific funding initiatives have led to increased financial accountability regimes' (AITSL 2020a, p. 16).

Greater autonomy has come with greater scrutiny on decision making ...

The move toward autonomy has been accompanied by an increase in reporting for accountability purposes. Greater accountability is seen as both a condition of, and complementary to, greater autonomy (box 6.5). The Commission previously noted that '[t]he overriding condition for most autonomy initiatives is that school leaders be held accountable for student outcomes' (2012, p. 262). And research has suggested that '[a]utonomy has more positive results when this is compounded with accountability' (Pont 2014, p. 13).

Increased autonomy requires stronger local governance to ensure school leaders are meeting the needs and expectations of their stakeholders (PC 2012, p. 248). But these governance arrangements have been identified by secondary school principals as one of the largest sources of additional pressure (Heffernan and Pierpoint 2020, p. 9). This includes:

- compliance processes to fulfil regulatory or legislative requirements including plans and reports for funding initiatives, and policy requirements through completion of forms, reports and other departmental obligations (AITSL 2020a, p. 16)
- data collection for the assessment of students, teachers and schools (Pont 2014, p. 9) and fulfilment of policy requirements (such as the student census) (AITSL 2020a, p. 16).

Primary school principals similarly noted that 'employer and government accountability requirements are an increasing proportion of ... workload[s]' (APPA 2017, p. 11).

These sentiments have been echoed in surveys of principals, which revealed that increased scrutiny has exacerbated already intensified workloads (APPA 2017, p. 11; Heffernan and Pierpoint 2020, p. 8) and levels of stress (Deloitte 2017b, p. 6). Concerns were also raised that increased administrative and compliance processes limited principals' ability to fulfil their role of leading teaching and learning (Deloitte 2017b, p. 21; Heffernan and Pierpoint 2020, p. 13) and that reporting requirements can be duplicated by accountabilities to different authorities, particularly for non-government schools (AITSL 2020a, p. 20).

Even so, one survey suggested that principals 'would not want to give up their autonomy, even with the increased workload in mind' (Heffernan and Pierpoint 2020, p. 12). This is consistent with research pointing to similar tensions, which found that 'principals with higher autonomy felt empowered to lead school improvement and to meet local needs' (Heffernan and Pierpoint 2020, p. 12).

... and public reporting has raised the accountability stakes

The introduction of system-wide reporting on student outcomes has increased public transparency at the school level. For example, national reporting of the National Assessment Program — Literacy and Numeracy (NAPLAN) and publication on the My School website has increased transparency of education systems, but in particular, scrutiny on principals (Deloitte 2017b, p. 6).

Box 6.5 – School autonomy and complexity of leaders’ roles

School autonomy is a broad concept, but is usually taken to mean devolving to school leaders such responsibilities as managing budgets, as well as hiring staff and allocating them to specific roles (PC 2012, p. 247). The extent of school autonomy varies across jurisdictions. In jurisdictions where schools have a high degree of autonomy, school principals have greater flexibility to choose how to fill vacancies, vary the mix of staff to meet student needs, and the ability to use part of a school budget to attract or retain staff (NSW Government 2021).

Accountability is critical for autonomy to be successful, as the OECD observed: ‘greater autonomy ... tend[s] to be associated with better student performance, particularly when schools operate within a culture of accountability’ (2011, p. 4). But more accountability adds to the complexity of leader roles. And there are other costs of accountability, both at the school-governance level, through expanded duties of school boards, and the system-level, through greater compliance and reporting on matters related to delegated decisions (PC 2012, pp. 245–249).

The impact of autonomy is contingent on the setting and the capacity of schools (Caldwell 2014, p. 6). Along, with ensuring accountability for student outcomes, the scope of school leaders’ responsibilities needs to balance the benefits from schools being able to tailor decisions to student needs against their capacity to take on those responsibilities (PC 2012, pp. 245–246). But leaders’ capacity to operate more autonomously can vary according to the:

- scope of leaders to take on greater roles and responsibilities
- availability of the right mix of skills in leaders and the community
- complexity of student population needs (PC 2012, pp. 246–248).

Rather than a one-size-fits-all approach, decision-making responsibilities should be delegated according to each school’s capacity to self-manage its affairs (PC 2012, p. 246).

Leaders face more complex and intense workloads

New and increasingly complex roles may have contributed to higher workloads for school leaders.

Approximately two-thirds of Australian principals identified high workload and level of responsibility in their job as issues that ‘substantially limited their effectiveness’ in 2018 (Thomson and Hillman 2019b, p. 7). High workload, including from compliance burdens, was also raised by participants in this review. The Australian Primary Principals Association (APPA) pointed to the intensification of teacher and principal work-load in recent years (sub. 48, p. 2), while the Independent Education Union of Australia (IEUA) observed that members of school leadership teams are experiencing ‘significant levels of burnout’ (sub. 15, p. 4).

Results from the Australian Principal Occupational Health, Safety and Wellbeing Survey undertaken by the ACU suggested the COVID-19 pandemic added to already growing workload pressures:

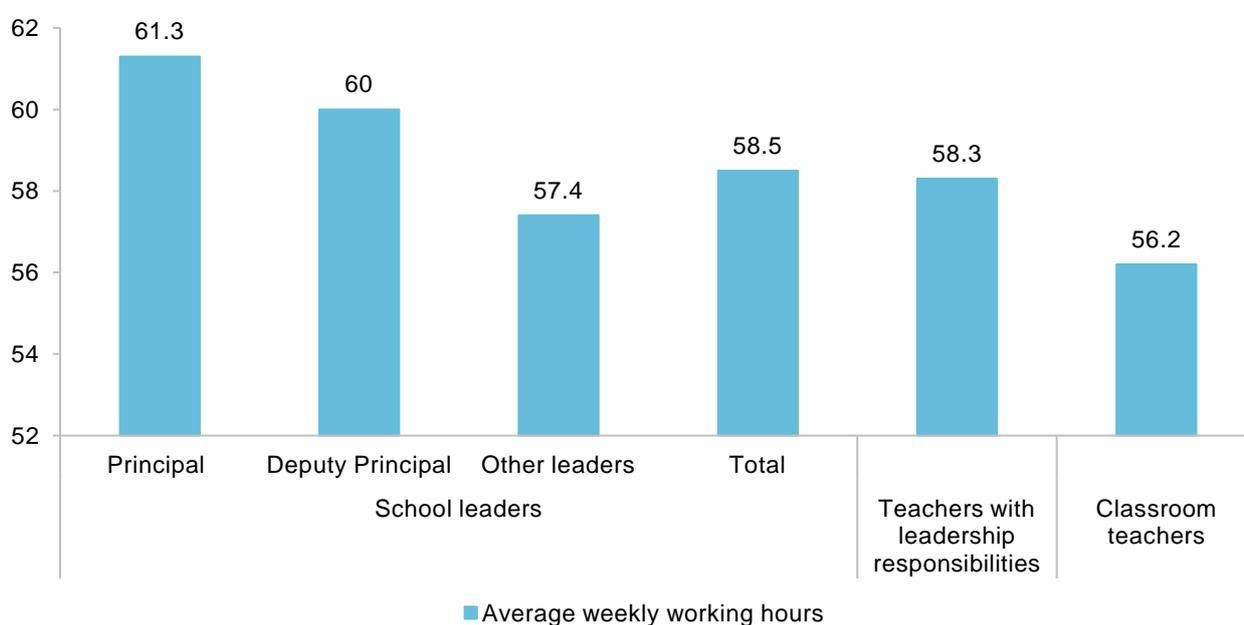
COVID-19 ... has presented a range of challenges. The workload has been increased due to the reduction of staff on site and dealing with a constantly changing COVID landscape. Extended lockdown requires school leaders continuously supporting students, staff and parents. (2021, p. 21)

... [i]n 20 years the significant increase in workload, stress and emotional and physical demands to the role has to come to a head. (2021, p. 59)

Concerns about high workload are borne out in the data — principals surveyed by the Australian Institute for Teaching and School Leadership (AITSL) worked on average 61.3 hours per week in 2018 (figure 6.2). While principals spent a portion of their work week engaging with students, teachers and parents, they spent the majority of their time on administrative tasks, leadership tasks and meetings (figure 6.3).

As discussed in chapter 5, teachers also face high workloads. In order to ease workloads, reducing low-value tasks for both principals and teachers, could be a focus of Australian, State and Territory government efforts in the next intergovernmental agreement (draft recommendation 5.2).

Figure 6.2 – Principals surveyed work on average 61.3 hours per week^a
Average weekly working hours by teacher role, 2018

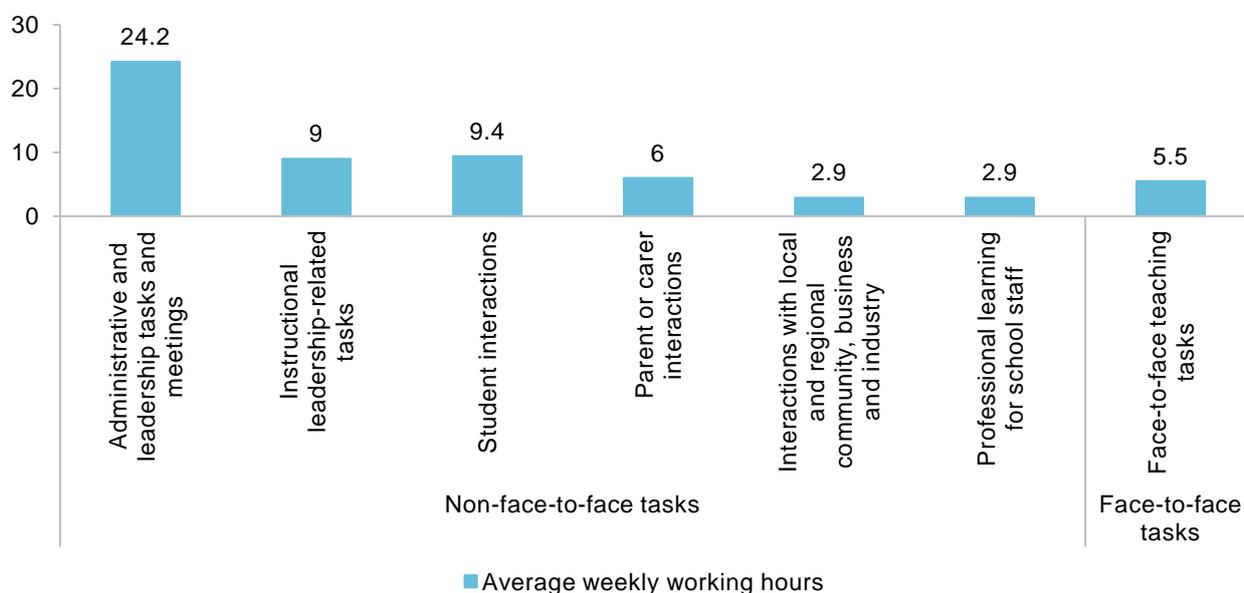


a. Data are from the Australian Teacher Workforce Data initiative and included respondents from New South Wales, Northern Territory and South Australia in 2018. The number of respondents was 322 for principals, 653 for deputy principals, 1 037 for other leaders (2 012 for total), 1 167 for teachers with leadership positions, and 4 632 for classroom teachers.

Source: AITSL (2021a, p. 178).

Figure 6.3 – Principals surveyed spend much of their time on administrative and leadership tasks^a

Average weekly working hours for a principal by type of work, 2018



a. Data are from the Australian Teacher Workforce Data initiative and included respondents from New South Wales, Northern Territory and South Australia in 2018. The number of respondents was 318 (except for interactions with local and regional community, business and industry, which was 316).

Source: AITSL (2021a, pp. 180–181).

6.3 Is the pipeline of future leaders sustainable?

Leadership capability in any profession is a scarce resource and often in short supply. Generating high quality leadership skills takes time and investment. The little research that is available suggests some teachers are deterred from taking up formal leadership roles, contributing to concerns about future shortages.

Potential candidates are shying away from leadership careers

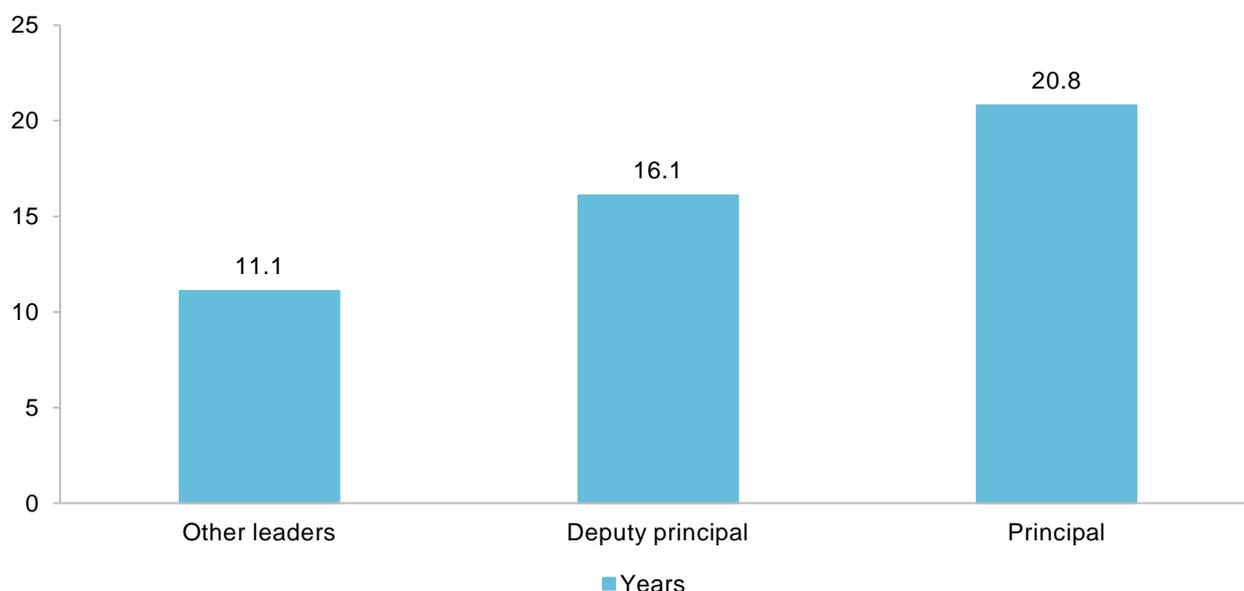
Traditional leadership pathways involve long lead times

Becoming an experienced teacher is the traditional pathway to school leadership, with some school leaders continuing to hold a teaching position alongside leadership responsibilities (AITSL 2021a, p. 154). The Australian Teacher Workforce Data reveal that the average principal surveyed in New South Wales, Northern Territory and South Australia had taught for close to 21 years before becoming a principal in 2018 (figure 6.4) — longer than the average classroom teacher had been in the profession (AITSL 2021a, p. 170).⁵

⁵ The OECD's Teaching and Learning International Survey found that average teaching experience of secondary principals in Australia was 23 years in 2018, above the OECD average (20 years) (Thomson and Hillman 2019).

Figure 6.4 – School leaders surveyed typically have significant teaching experience prior to taking up leadership roles^a

Average years teaching prior to leadership role in 2018



a. Data are from the Australian Teacher Workforce Data initiative that included 2 650 principals, deputy principals and other leaders in schools from New South Wales, Northern Territory and South Australia. Data for 'other leaders' come from South Australia only. The number of respondents was 367 for principals, 821 for deputy principals, and 699 for other leaders.

Source: AITSL (2021a, p. 171).

Sourcing future leaders from the teaching population involves trade-offs

With the pipeline of school leaders largely drawn from the teaching workforce, some have worried that '[t]oday's teacher crisis will be tomorrow's leadership crisis' (Henebery 2022). And sourcing future leaders from the teaching workforce involves trade-offs — reducing the pool of teachers available to teach, and potentially exacerbating any teacher shortages (chapter 5). This is of particular concern for the pool of highly effective teachers, presuming they are more likely to aspire to, or be selected for school leadership roles. However, while leadership progression might remove effective teachers from the classroom, these teachers can still affect student achievement through effective leadership and sharing their expertise with other teachers, with potentially large effects on student performance (chapter 5, section 6.1).

Some potential leaders are deterred by high workload and limited preparation

Some aspiring school leaders are discouraged from taking on school leadership roles due to concerns about:

- intense workload, particularly at the principal-level (Pont 2014, p. 23) and its negative effect on health and wellbeing (APPA 2017, p. 4)
- low levels of support (Pont 2014, p. 23)
- lack of career development prospects for principals (Pont 2014, p. 23).

Indeed, there have been reports that teachers in middle leadership positions, having observed the significant workload involved, are hesitant to seek promotion to principal (Heffernan and Pierpoint 2020, p. 11).⁶

⁶ Hesitancy to apply for school leadership roles has been observed in other countries as well (Pont et al. 2008, p. 9).

Evidence points to localised leader shortages

Identifying school leader shortages is not clear cut ...

As with teachers, identifying whether there are school leader labour market imbalances is not clear cut:

- there is no single measure of leader shortages. The nature of leadership roles, and the availability of suitable candidates, differs across schools — be it primary and secondary schools, small and large schools, and/or metropolitan and regional, rural and remote schools⁷
- there are persistent problems with a lack of complete and timely data on school leaders (AITSL 2021a, p. 7; Anderson et al. 2007, p. 52; Education Council 2020c, p. 2).

... but evidence points to persistent localised shortages, particularly in regional, rural and remote areas

Concerns of school leader shortages are not new (Anderson et al. 2007, p. 52).^{8,9}

However, as with teachers, evidence suggests shortages are localised, with supply issues resulting in shortages in applicants in particular schools at particular times. A shortage of applicants with the requisite skills may also reflect candidate perspectives about hiring and selection processes.¹⁰

Where evidence of school leader shortages has appeared, this has been:

- in regional, rural and remote areas where attracting and retaining quality leaders continues to remain a challenge (Halsey, sub. 10, p. 8; House of Representatives Standing Committee on Employment, Education and Training 2020, p. 106). This can disproportionately affect Aboriginal and Torres Strait Islander students in those settings (Barty et al. 2005, p. 5; House of Representatives Standing Committee on Employment, Education and Training 2020, p. 100)
- dependent on the size of the school, with either very large or small schools found to attract fewer applicants than average, as they were viewed as particularly challenging environments in some jurisdictions (Barty et al. 2005, p. 6).

There is a question mark over future workforce pressures

There are concerns that broader school leader shortages will emerge in the future. The combination of a mature school leader workforce and retirement intentions have led some to conclude that: 'Australia will soon experience recruitment and retention problems' (Riley et al. 2021, p. 7).

Evidence has suggested that the school leadership workforce is ageing. In 2018, the majority of leaders surveyed in schools (61 per cent) were aged 40–59 years in New South Wales, Northern Territory and South Australia, with 17 per cent aged 60 years or more (AITSL 2021a, p. 164). While intentions to retire do not

⁷ However, there has been evidence of mobility in the principal labour market within jurisdictions (Anderson et al. 2007, p. 48) suggesting there is less segmentation in the school leader labour market than the teacher labour market.

⁸ Because there is typically a limited number of school leaders per school (and so fewer options for sharing the workload), shortages of school leaders may be more likely to show up as a quantitative rather than qualitative shortages.

⁹ For example, principal vacancies in NSW Catholic schools attracted an average of about 3 applications per school in 2004 (Anderson et al. 2007, p. 52).

¹⁰ Barty et al. (2005, pp. 7–9) found that fewer candidates applied for principal positions when an incumbent was expected to apply for the job, the complexity and amount of time needed to apply were considered frustrating, and confidence in merit selection was low.

necessarily translate to actual retirements, just over 20 per cent of this cohort stated they intended to leave before retirement (AITSL 2021a, p. 192).

Ageing aside, 6.8 per cent of school leaders surveyed in the 2020 Australian Principal Occupational Health, Safety and Wellbeing Survey indicated their intention to retire in 2021 due to continuous stress and the uncertainty brought by the COVID-19 pandemic (Riley et al. 2021, p. 7).

Better analysis of, and planning for a pipeline of school leaders is needed

Assessing whether there is a sufficient pipeline of skilled school leaders is challenging due to the forecasting assumptions required and a lack of available and timely data at the national level (Anderson et al. 2007, p. 52; Barty et al. 2005, p. 4). More effective leadership planning, supported by complete and timely data, is long overdue.



Draft finding 6.2

More planning is needed to ensure a sustainable supply of school leaders

Long lead times for teachers to move into leadership roles, and the emergent pressures on the current cohort of school leaders, underscore the importance of effective leadership planning to ensure a sustainable pipeline of future school leaders.

6.4 What role could the next agreement play in supporting the pipeline of leaders?

A more systematic approach to early identification and development of leadership talent might help

There is no national approach to the early identification and development of leadership talent. Instead, many jurisdictions outline initiatives, aimed at identification and encouragement of leadership talent, as well as professional development for new and aspiring school leaders, in their bilateral agreements.

International experience suggests that there may be merit in a more structured approach to school leadership pathways. For example, in order to more efficiently target professional development, Singapore ‘streams’ teachers into three professional tracks, one of which targets school leaders (box 6.6) (Hairon 2017; NISL 2019).

A more structured approach to career pathways can foster the development of specialist expertise. For example, Singapore’s ‘streaming’ framework provides a career pathway for effective teachers who are willing to specialise in developing expertise in pedagogy (chapter 5). At the same time, it recognises leadership potential in other teachers early in their career, creating leadership pathways and investing in targeted professional development.

In Australia, some of the architecture that would be required for a ‘streaming’ framework is already in place: AITSL’s Principal Professional Standards have been developed in consultation with jurisdictions. However, the standards are voluntary and so far not embedded in local agreements or tied to teacher or principal remuneration.

Box 6.6 – Case study: Singapore’s Teacher Career Ladder

Singapore’s approach to teacher and leader pathways centres on ‘streaming’ teachers into three professional tracks — a teaching, leadership, and senior specialist track. All teachers commence at the same level and then can choose to specialise in one of the tracks (Hairon 2017, p. 171).

The teaching track is designed for teachers who aspire to become expert teachers — remaining in classrooms as experts in pedagogy and mentoring their colleagues — while senior specialist roles allow teachers to develop deep expertise in specific disciplines (NISL 2019, p. 1).

The leadership track provides a pathway for teachers who are identified early on as having leadership potential. About one quarter of teachers in Singapore’s system are on the leadership track (NISL 2019, p. 5). In this track, teachers progress through various roles from subject heads, heads of departments, vice principals, principals, and positions in government.

Streaming is combined with a consistently-applied evaluation and feedback program for all staff against the professional standards for the relevant track (NISL 2019, p. 1). Progress through pay schedules is based on performance against the standards rather than experience.

Looking beyond traditional sources

Another option for overcoming leadership supply concerns is to source school leaders from outside of the teaching profession.

Teaching has emerged as the traditional school leadership pathway, in part because some teaching skills and experience are also relevant to school leadership roles. Effective school leadership practices, such as working collaboratively with teachers, instructional leadership, and developing professional communities of practice can be informed by teaching experience (Pont 2014, pp. 11–12). Teachers also value having school leaders with teaching experience (Ballou and Podgursky 1995, p. 250) and their trust in principals, and their working relationship, is important for improving student achievement and maximising the benefits of autonomy (Pont 2014, p. 12).

But school leaders do not just need to be educational leaders. They also need skills in management, financial oversight and administration. Some specialised leadership roles might therefore benefit from a skill set outside of that afforded by traditional teaching pathways. Sourcing from outside the teaching profession has previously been considered in jurisdictions such as Victoria (Jennings 2014). And some principals are already supported by leadership teams that include non-teaching positions, such as compliance managers, who are responsible for administrative and compliance requirements (AITSL 2020a, p. 14).¹¹

A key question for this review, is whether there is merit in a nationally coordinated approach to supporting a pipeline of future school leaders or whether such efforts are best pursued by each jurisdiction individually. Arguments can be made for both. State and territory specific solutions can be tailored to local contexts, and some jurisdictions have workforce planning efforts underway. On the other hand, a national approach could be more efficient. Many of leadership workforce challenges — such as the intensification and complexity of leadership roles and workforce demographics — are common to all jurisdictions. And even where solutions

¹¹ This is more likely in larger schools with more students (AITSL 2020a, p. 14).

are implemented locally, they may rely on, or be informed by national architecture, such as professional standards. The Commission invites feedback on this and other issues.



Information request 6.1 **Fostering school leaders**

1. Do principals have the resources, support and professional development opportunities required for their demanding roles?
2. Are policy efforts to identify and prepare potential leaders effective?
3. Are there alternative sources of school leaders, including from outside the teaching profession?
4. What are the relative merits of a nationally coordinated approach to supporting a pipeline of future school leaders?

7. The National Measurement Framework

Key points

- ✳ **The National School Reform Agreement (NSRA) has an accountability deficit.**
 - The Measurement Framework for Schooling in Australia (MFSa) is the main source of public information on progress against the targets, outcomes and sub-outcomes in the NSRA, but the framework is incomplete and, in some cases, needs more relevant performance measures.
 - Accountability is also diminished by the lack of stand-alone public reporting.
- ✳ **The MFSa's Key Performance Measure (KPM) dataset has significant reporting gaps, particularly for students from priority equity cohorts.**
 - Many of these gaps could be readily filled for Aboriginal and Torres Strait Islander students and students from regional and remote areas, accompanied by appropriate caveats about sample sizes and margins of error.
 - Reporting gaps on the outcomes of students with disability are more difficult to address but should be resolved as a priority.
- ✳ **The sub-outcomes in the next intergovernmental agreement should remain as a high-level 'health check' for each of the NSRA outcomes, including the proposed new outcome on student wellbeing. Time series reporting on these sub-outcomes should occur through the MFSa, and future reporting arrangements under the bilateral agreements.**
- ✳ **The Australian Curriculum, Assessment and Reporting Authority (ACARA) is responsible for regular updates of the MFSa. ACARA anticipates the Framework will undergo a revision over the course of 2023.**
 - This review should explicitly map KPMs to the sub-outcomes in the NSRA and note reporting gaps. The review of the MFSa should be undertaken in consultation with those who are represented in the data and users of the measures.
- ✳ **Stakeholders have also identified an opportunity to better align KPMs to the goals and commitments to action in the Alice Springs (Mparntwe) Education Declaration.**
- ✳ **To reduce the costs of new national data collection, the use of existing surveys of students, parents and teachers could be incorporated into the MFSa.**

7.1 Assessing NSRA performance reporting arrangements

Effective national performance reporting is a powerful tool for providing accountability to the community and ensuring governments remain committed to the goals they have endorsed.

Schedule C of the Intergovernmental Agreement on Federal Financial Arrangements notes that:

The purpose of the performance indicators is to inform the general public about government performance in making progress towards identified outcomes. Performance indicators will provide a clear picture of the achievement of governments in delivering services (CFFR 2009, p. 2)

As part of this review, the Commission has been asked to assess the appropriateness of the national Measurement Framework for Schooling in Australia (MFSA) in measuring progress towards achieving the outcomes of the National School Reform Agreement (NSRA).

The NSRA includes agreed outcomes and sub-outcomes

The overarching objective of the NSRA is captured in a single statement — that Australian schooling provides a high quality and equitable education for all students. This objective is supported by three outcomes — relating to student achievement, engagement, and transition to further study, work or life success — and seven related sub-outcomes (indicators) to track progress (table 7.1).

The NSRA also includes three national targets:

1. by 2025, Australia considered to be a high quality and high equity schooling system by international standards
2. by 2031, increase the proportion of people (aged 20-24) attaining Year 12 or equivalent qualification to 96 per cent
3. by 2031, increase the proportion of Aboriginal and Torres Strait Islander people (aged 20-24) attaining year 12 or equivalent qualification to 96 per cent.

The third target mirrors Target 5 under the National Agreement on Closing the Gap.

Together, these form the NSRA performance framework.

The MFSA is used to track performance against NSRA outcomes and sub-outcomes

There is no standalone document used to report annually on performance against NSRA sub-outcomes and targets. Some of the sub-outcomes are reported in the Performance Reporting Dashboard published by the Productivity Commission (2022a). Another annual national performance report, the Report on Government Services (RoGS), also reports on student engagement, achievement and skills attainment, but uses different measures (SCRGSP 2022a).

In the absence of standalone reporting, the MFSA is the primary tool for reporting against the NSRA's outcomes and sub-outcomes (Department of Education 2019b), although this is not explicitly stated in the NSRA. The MFSA pre-dates the NSRA, and is designed to provide:

... the basis for Australian education ministers to report to the community on the performance of schooling, in accordance with the Education Goals for Young Australians as expressed in the Alice Springs (Mparntwe) Education Declaration. (ACARA 2020a, p. 1)

The MFSA contains nationally agreed Key Performance Measures (KPMs), which are reported via two mechanisms:

- the Australian Curriculum, Assessment and Reporting Authority’s (ACARA) annual *National Report on Schooling in Australia* (National Report), covering schooling contextual data, school funding data, schooling policies and priorities, and a discussion of KPM results
- the ACARA (2022d) data portal containing the KPMs for Schooling in Australia dashboard and dataset, which include timeseries data and an analysis of long-term trends.

Several (but not all) of the NSRA’s sub-outcomes are included in the MFSA, which also includes KPMs not directly aligned to NSRA outcomes, consistent with its broader remit.

The Education Council has delegated the management of the MFSA to ACARA, including the assessment of data needs and a review of the framework at least every three years (ACARA 2020a). ACARA can make minor changes to the MFSA but more substantial changes to the KPMs and data reported against them need to be considered by the Australian Education Senior Officials Committee (AESOC) and approved by Education Ministers.

Because progress against the NSRA’s sub-outcomes is reported as part of a broader measurement framework and an even broader national report on schooling, the public’s ability to identify relevant metrics and understand the performance of governments in achieving NSRA outcomes is diminished. This has implications for transparency and accountability. The Queensland Government (sub. 53, p. 15) noted that:

The KPMs were not designed or intended to monitor progress on achievement of the goals set out in the NSRA, and the purpose of the Measurement Framework is longer-term and broader than the measurement of outcomes of the NSRA.

Three criteria can be used to assess the appropriateness of the MFSA

Drawing on the *Performance Measurement and Monitoring* guidance developed by the Australian National Audit Office (ANAO), the Commission has assessed the appropriateness of the Measurement Framework KPMs (in measuring progress towards achieving the outcomes of the NSRA) using three criteria (figure 7.1).

Figure 7.1– Criteria for assessing the appropriateness of the MFSA against the NSRA

Appropriate performance measures are:		
<p>Complete</p> <p>They provide a balanced examination of the overall performance story, and collectively address the objectives</p>	<p>Relevant</p> <p>They address a significant aspect of the objective, provide sufficient information to inform the reader about achievement against objectives and are clear and concise</p>	<p>Reliable</p> <p>They use and disclose information sources and methodologies that are fit-for-purpose (including as a basis or baseline for measurement or assessment) and are free from bias</p>

Source: adapted from ANAO (2021).

These criteria are broadly consistent with Schedule C of the Intergovernmental Agreement on Federal Financial Relations (IGA FFR) which states that parties to the IGA FFR are expected to:

... ensure that performance indicators will be meaningful, simple and comprehensible to members of the public, that there is underlying data to support the indicators, that the indicators meaningfully measure what they purport to measure and are reliable. (CFFR 2009, p. 2)

The MFSA does not provide a complete view of progress against NSRA outcomes

Complete: *performance measures provide a balanced examination of the overall performance story, and collectively address the objectives.*

There are several reporting gaps in the MFSA dataset, leading to an incomplete view of progress against the NSRA outcomes. Some, but not all, are noted in the MFSA – for example, the reporting of National Assessment Program – Literacy and Numeracy (NAPLAN) proficiency standards¹ is noted as not being reported until 2022 (sub. 45).

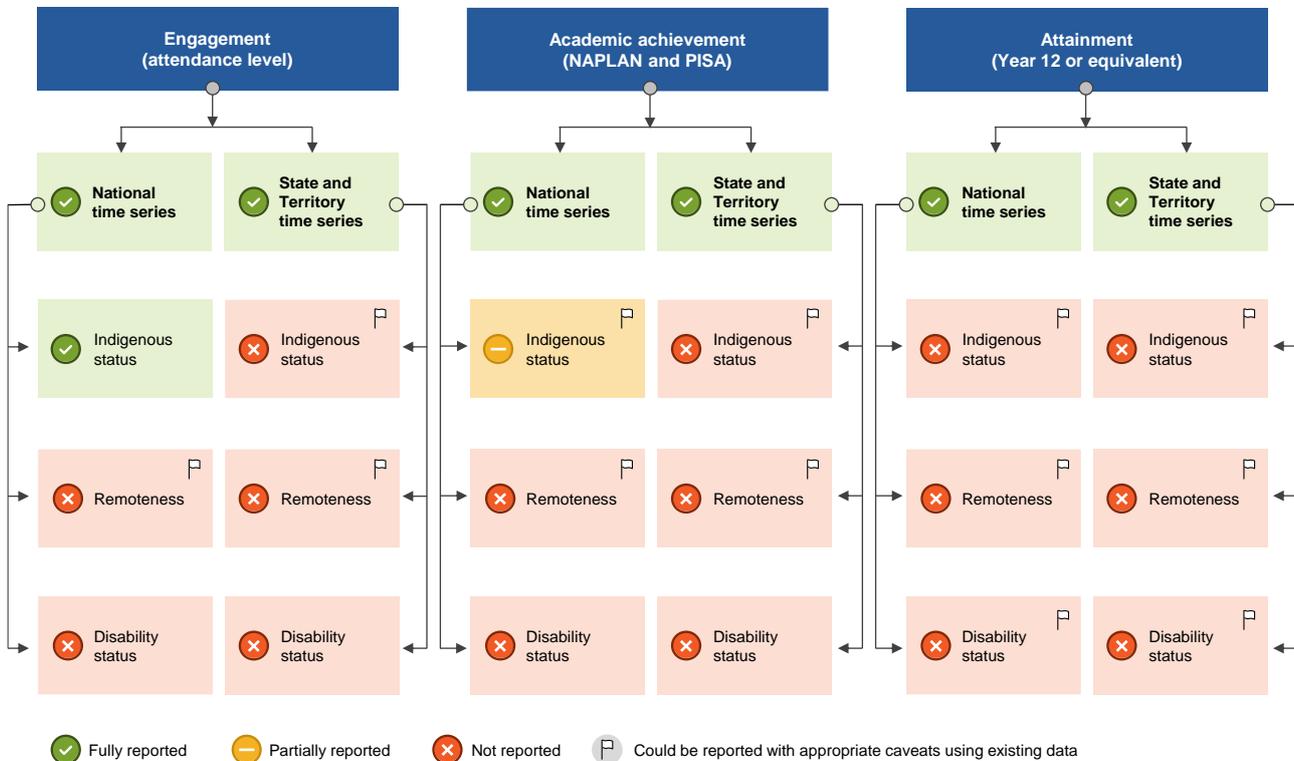
The most significant reporting gap in the MFSA relates to outcomes for students from priority equity cohorts (figure 7.2). Priority equity cohorts are defined in section 38 of the NSRA to include Aboriginal and Torres Strait Islander students, students living in regional, rural and remote locations, students with a disability and students from educationally disadvantaged backgrounds. Three sub-outcomes and one of the targets relate specifically to students from priority equity cohorts, and Parties to the NSRA also agreed to disaggregate sub-outcomes by priority equity cohorts, where data are available.

To report progress against the NSRA, the sub-outcomes should be disaggregated by priority equity cohort not only at the national level, but at the state and territory level. While the KPM dashboard includes some reporting on Aboriginal and Torres Strait Islander students' sub-outcomes in relation to attendance level and academic achievement, these data are not reported for each State and Territory, and data for other equity cohorts are entirely absent. Some of this data can be accessed elsewhere on the ACARA website, but is not available via the KPM dashboard.

¹ ACARA is completing work on NAPLAN proficiency standards, with reporting expected to commence following approval from Education Ministers.

Figure 7.2 – Completeness of MFSA reporting by NSRA equity cohorts^a

The MFSA has substantial gaps in reporting on outcomes for students from equity cohorts



a. Green boxes indicate that KPMs are reported at this level in the ACARA KPM dataset. Red boxes indicate that no KPMs are reported at this level in the ACARA KPM dataset. Orange boxes indicate that some KPMs are reported at this level in the ACARA KPM dataset.

Source: Commission analysis of ACARA (2022d).

The lack of definition and reporting on equity of outcomes was noted by participants to the review (Sahlberg. And Cobbold, sub. 21; Australian Child Rights Taskforce, sub. 40; CEMA, sub. 28). The Teachers’ Work in Schools Research Group (sub. 16, p. 2) argued that:

A data, measurement and accountability framework for schooling that is ... more aligned with the pursuit of broad educational goals, especially equity ... would alleviate some of teachers’ frustrations.

In some cases, data are available which could be used to report against NSRA targets and sub-outcomes by equity cohort, noting that some issues exist in relation to sample sizes and margins of error, particularly for smaller jurisdictions. In terms of reporting of sub-outcomes by equity cohort:

- **for academic achievement sub-outcomes**, NAPLAN results are published by remoteness and Indigenous status for each State and Territory in ACARA’s (2019a) NAPLAN report. Results from the Programme for International Student Assessment (PISA) can be reported by Indigenous status and remoteness area and are reported separately by the Australian Council for Educational Research (Thomson et al. 2019)
- **for the engagement sub-outcome**, the National Student Attendance Data Collection includes the Indigenous status of students, and the remoteness area of students could be derived because data are also collected on location of school campus (DESE 2022d)
- **for the attainment sub-outcome**, the remoteness area of students is available in the Survey of Education and Work (ABS 2021). Reporting by all three priority equity cohorts in figure 7.2 at the state and

territory level could be reported via the Census (albeit infrequently). Caveats would be needed to explain that the count of students with disability varies significantly based on the methodologies underpinning the Census compared with the Nationally Consistent Collection of Data on School Students with Disability (NCCD).

ACARA (sub. 45) noted that it would commence reporting on five KPMs that use Census data by remoteness area and disability in the KPM dataset in 2022, subject to agreement.

However, it is not always possible to fill reporting gaps with readily available data. For students with disability, some of the reporting gaps occur because the cohorts are not identified in the datasets used for KPMs (box 7.1). The Centre for Educational Measurement and Assessment (sub. 28, p. 5) described outcomes for students with disability as 'woefully neglected in national data'. DESE (2020a, p. 53) noted that:

Participants [to the Review of Disability Standards] felt that not measuring these areas leads to a lack of action, and this lack of data was constraining the ability to improve the experience of students with disability.

The MFSA also states that KPMs will be disaggregated by language background and socioeconomic background (where possible and appropriate) but no data on these cohorts are included in the KPM dataset (ACARA 2020a). The latter cohort could be seen as a proxy for the cohort of students from 'educationally disadvantaged backgrounds' described in the NSRA. This cohort is not well defined in the NSRA and represents another group for which it would be desirable to build a more complete understanding of outcomes.

Finally, the MFSA National Report does not publish results for the NSRA target and sub-outcome that defines success in relation to international performance. One of the NSRA's three targets is that 'Australia is considered to be a high quality and high equity schooling system by international standards by 2025'.

The PISA, Trends in International Mathematics and Science Study (TIMSS), and Progress in International Literacy Study (PIRLS) international sample assessments provide opportunities for benchmarking results for Australian students against students in other countries to help understand performance against this target and related sub-outcome, but relevant comparative data are not included in the MFSA.

The 2018 *National Report on Schooling* is the latest to include PISA results, but it only compared Australia's results with the OECD average (ACARA 2018b, p. 107). This report did not include any discussion of whether Australia has a high equity schooling system by international standards or how gaps in achievement in Australia's PISA educational performance compared with other countries.² Similarly, the 2016 report only compared the mean PIRLS reading score of Australian students with the mean score for other countries (ACARA 2016b, p. 96). The 2019 National Report is the latest to report TIMSS and included no international comparisons (ACARA 2019b).

The Commission considers that the KPMs included in the MFSA do not provide a complete picture of the performance of NSRA in meeting its objectives, outcomes and sub-outcomes.

² Chapter 1 considers several sources of uncertainty in Australia's PISA results. When reporting on PISA, the Commission considers it most appropriate to report scores and rankings as a point-in-time measure, and to emphasise any changes in the design of the PISA survey or composition of the PISA sample.

Box 7.1 – National reporting on outcomes for students with disability

Although students with disability are a priority equity cohort under the NSRA, their schooling outcomes are not reported under the MFSA.

DESE (2020a, p. 52) found that insufficient data were reported on the participation and achievement of students with disability. Participants to the Review of Disability Standards advocated for the collection and publication of data which would be directly relevant to the NSRA, including academic attainment, as well as reporting on suspensions and expulsions, part-time attendance, and complaints made under the Standards. The Review recommended the development of 'nationally consistent principles and practices on collection and public reporting of data for school students with disability' (DESE 2020a, p. ix).

The Review of Disability Standards also raised the reporting of intersectional disadvantage as another gap, for example on the outcomes of Aboriginal and Torres Strait Islander students with disability (DESE 2020a, p. 52). The Australian Education Union (sub. 36) and Queensland Advocacy for Inclusion (sub. 1, attachment A) raised similar concerns about the lack of outcomes measurement for students who face compounding sources of disadvantage.

Australia's Disability Strategy 2021–2031 states that 'governments are committed to collecting and sharing relevant data to support effective monitoring and reporting of outcomes for people with disability' (DSS 2021a, p. 41). As part of their commitment to the strategy, governments are expected to agree to a national disability data strategy in 2022. Also in development is the National Disability Data Asset, which is intended to provide a more comprehensive understanding of how people with disability are supported through government services. The implications of these developments for schooling outcomes for students with disability are not yet clear.

Nationally Consistent Collection of Data on School Students with Disability (NCCD)

The NCCD identifies and collects annual data on Australian school students receiving an educational adjustment due to disability. The NCCD reported 22 per cent of school students had disability in 2021 (ACARA 2022d). Although high-level summary statistics regarding level of adjustment and broad category of disability are reported by ACARA via their data portal, the data are not linked nationally to datasets used to report KPMs in the MFSA or sub-outcomes in the NSRA.

The Centre for Educational Measurement and Assessment (sub. 28, p. 5) raised the NCCD as an opportunity to improve national reporting on students with disability via data linkage. However, the Department of Education NSW (sub. 12, p. 25) was wary that 'the data is not yet consistent across jurisdiction and sector'.

The Australian Institute of Health and Welfare's *People with Disability in Australia* Report

The *People with Disability in Australia* report collates national data about people with disability, including on their engagement in education, their educational attainment and their education participation needs and challenges. These measures use the ABS' Survey of Disability, Ageing and Carers, which has been released every three years since 2009. The Survey found 10 per cent of school students had disability in 2018 (AIHW 2022c, p. 266).

The relevance of the MFSA KPMs to NSRA sub-outcomes should be improved

Relevant: *performance measures address a significant aspect of the objective, provide sufficient information to inform the reader about achievement against objectives and are clear and concise.*

Most sub-outcomes included in the NSRA have a closely aligned MFSA KPM which provides information to help understand achievement, and is clear and concise. There are, however, some differences between the student achievement sub-outcomes and the MFSA KPMs that use NAPLAN and PISA data.

The NSRA sub-outcomes are defined based on the changes in the proportion of students in the top and bottom two bands of performance in NAPLAN and PISA, while MFSA KPMs are defined using the proportions of students meeting PISA proficient standards and NAPLAN national minimum, proficient and highly proficient standards. These differences make understanding performance against this outcome difficult, particularly for members of the general public.

The NSRA sub-outcome for PISA is defined as a reduction in the achievement gap between students from 'various socioeconomic backgrounds' compared with other schooling systems internationally. However, the only MFSA KPMs that reference PISA focus on the high-level proportion of students meeting proficient standards. These KPMs are not relevant to the NSRA's focus on achievement gaps or to its requirement for international comparisons.

A related point is that the MFSA also includes several KPMs which are relevant to the outcomes of the NSRA but are not listed as sub-outcomes in the NSRA. For example, the MFSA includes measurement of the proportion of 17–24-year-olds who have left school and are in education, training or work, which is a relevant measure of the outcome on transition to further study, work and life success.

Overall, the Commission considers that the relevance of MFSA KPMs for reporting NSRA outcomes and sub-outcomes is adequate, but should be improved both by aligning the definition of measures, and including relevant MFSA KPMs as sub-outcomes in the NSRA performance framework.

The MFSA sets a high bar for reliability

Reliable: *performance measures use and disclose information sources and methodologies that are fit-for-purpose (including a basis or baseline for measurement or assessment) and are free from bias.*

The Education Council's guidance on performance reporting for the Australian Schooling system states that:³

Reporting should involve balancing the community's right to know with the need to avoid the misinterpretation or misuse of the information. (Education Council 2009, p. 4)

Each KPM is clearly defined in the MFSA, is based on nationally comparable data and supportive of valid and consistent reporting (ACARA 2020a). The datasets are all managed by Australian and international agencies, including ACARA, the ABS, NCVER, the OECD and the International Association for the Evaluation of Educational Achievement.

KPM dataset includes few disaggregations by equity cohort at the state and territory level. ACARA explained that the reason that some KPMs are not disaggregated by Indigenous status and remoteness status for each State and Territory is because the error associated with most of the data collections is quite high at this level of disaggregation, particularly in the smaller States and Territories (ACARA, pers. comm., 12 August 2022). However, the Commission considers that there would be benefit in greater reporting of indicators at this level,

³ The *Principles and Protocols* provides guidance to the performance reporting of the Australian schooling system, as agreed by the Education Council. It outlines practices used by ACARA and all jurisdictions in their reporting against the MFSA.

provided that appropriate caveats are included and large statistical errors are reported and clearly explained. The value of additional transparency in these outcomes should exceed the risk of misinterpretation.

Several KPMs are not ideal for the purpose of reporting progress against a five-year intergovernmental agreement because their reporting cycles are infrequent. The PISA, TIMSS and PIRLS testing regimes only release results every three or four years and the ABS Census is available every five years. This affects the frequency of reporting on some NSRA sub-outcomes: for example, the target on skills attainment for Aboriginal and Torres Strait Islander students can only be reported once during the life of the NSRA. Infrequent reporting has been an issue for other intergovernmental agreements.⁴

In some cases, timely survey-based data sources are reported alongside less timely population-based datasets for the same KPMs. For example, some disaggregations of the Survey of Education and Work may not be reliable due to the sample size and sampling methodology so KPMs using this dataset are supplemented by the ABS Census.

No data are perfect — the Department of Education NSW (sub. 12, p. 22) suggested that the MFSA KPMs ‘vary in their reliability and robustness’ and that each dataset ‘has its own specific limitations’. To manage data reliability risks, ACARA uses multiple methods, including by adding caveats to the National Report and data dashboard, omitting data and trends, contextualising results in the National Report, and using multiple data sources. For example, the retention rate KPM is called the *apparent* retention rate because the data needed for a true retention rate are not available, and the indicative measure is explained clearly in the National Report (ACARA 2020b).

ACARA’s reporting against the MFSA includes comparisons of KPMs over time, as well as across jurisdictions. This provides a suitable benchmark for the assessment of performance against the KPMs, as is required under the ANAO’s criteria for reliability.

On balance, the MFSA KPMs are reliable as the measures use public, fit-for-purpose data and methodologies, and data reliability risks have been considered.

The MFSA is not appropriate for measuring progress towards the outcomes of the NSRA

Table 7.1 summarises the relevance, reliability, and completeness of the MFSA KPMs in reporting against the NSRA sub-outcomes.

⁴ In the case of the National Agreement on Skills and Workforce Development, the Commission found that some performance indicators ‘were only compiled periodically given limited data availability ... This meant that the framework was unable to regularly assess the acquisition of foundation skills’ (PC 2020b, p. 142).

Table 7.1 – Relevance, reliability, and completeness of the MFSA KPMs for reporting against the NSRA

NSRA Reporting Framework		MFSA KPMs		
NSRA outcomes	NSRA sub-outcomes	Relevant	Reliable	Complete
Academic achievement improves for all students, including priority equity cohorts.	Improve performance levels in National Assessment Program — Literacy and Numeracy (NAPLAN). ^a	Partial ^b	Yes	No
	Improve performance levels in Programme for International Student Assessment (PISA) testing in reading, mathematics and science. ^a	Partial ^b	Yes	
	Lower the proportion of students from priority equity cohorts in the bottom levels and increase the proportion of students in the top levels of performance in NAPLAN. ^a	Partial ^b	Yes	
	Reduce the gap in achievement between students from various socio-economic backgrounds in Australia's PISA educational performance compared to other countries and the OECD average.	No	Yes	
	Increase the proportion of young people from priority equity cohorts, who have completed Year 12 or equivalent or have gained a non-school qualification at Certificate III level or above.	Yes	Yes	
All students are engaged in their schooling.	Increase the proportion of students attending school 90 per cent or more of the time, including students from priority equity cohorts. ^c	Yes	Yes	No
Students gain the skills they need to transition to further study and/or work and life success.	Increase the proportion of young people who have completed Year 12 or equivalent or have gained a non-school qualification at Certificate III level or above.	Yes	Yes	No

a. Measures are defined in relation to the proportions of students in top and bottom performance levels. b. NSRA sub-outcomes have been considered to have partially relevant KPMs in the MFSA in cases where there is poor alignment between indicators, despite similarities in broad aims. c. The MFSA and the RoGS report on attendance for Years 1 to 10 only.



Draft finding 7.1

The Measurement Framework for Schooling in Australia is not appropriate for measuring progress on National School Reform Agreement outcomes

While reliable, and largely relevant, the Measurement Framework for Schooling in Australia is not a complete means of reporting progress on National School Reform Agreement outcomes. The visibility of Governments' progress against agreement outcomes is further diminished by the absence of a standalone report and the reliance on the broader *National Report on Schooling in Australia* and ACARA dashboard for performance reporting.



Information request 7.1

Standalone reporting against the National School Reform Agreement

Would a standalone report on progress against the National School Reform Agreement outcomes and sub-outcomes (separate to the *National Report on Schooling in Australia*) improve the accountability of Governments to the community?

7.2 Improvements to national performance reporting on schooling

The terms of reference state that the final report should include recommendations to inform the design of the next intergovernmental school reform agreement, and improvements to the MFSA. This section identifies potential improvements to both the NSRA's performance reporting framework and the MFSA, taking into account costs and benefits, existing data sources and data development projects, and the proposals in earlier chapters.

Improving NSRA's performance reporting framework

NSRA sub-outcomes and targets could be improved without growing significantly in number

There were mixed views provided to the Commission about whether the NSRA's performance framework should keep its narrow focus or take a broader view of outcomes. The Independent Education Union of Australia (sub. 15, p. 7) suggested that the existing metrics in the NSRA:

... focus on narrow conceptualisations of education ... performance on NAPLAN and PISA tests represents just one form of learning and, while it is appropriate to increase numbers of students from equity-targeted groups that attain literacy and numeracy benchmarks, this is not sufficient to ensure that those students will successfully transition to meaningful social and economic participation.

The Federation of Parents and Citizens Associations of NSW (sub 18, p. 4) noted that NAPLAN has limited learning domains and that it provides information on the 'general trend in a child's learning trajectory'.

Others considered that the indicators (sub-outcomes) in the next intergovernmental agreement should remain at a high-level. The Victorian Government (sub. 31, p. 10) stated that the MFSA is intended to act as a 'whole-of-system health check', and that it is 'not intended to be a complete measurement framework for schooling in Australia'. The Department of Education NSW (sub. 12, p. 24) noted its preference for 'a small number of high-level measures that are published with appropriate context'.

The Commission considers that it would be beneficial for the NSRA performance reporting framework to focus on tracking each outcome, and the equity of these outcomes, in a concise way. Fewer measures, chosen carefully, may better help the community to understand overall school system performance. While a single sub-outcome is unlikely to fully encompass all the elements of an outcome, additional measures constructed with more flexibility may be better suited to the MFSA (discussed in the next section) and implementation plans proposed for the NSRA (chapter 2).

The Commission considers that there is scope to both add and subtract from the performance reporting framework in the NSRA to retain a tightly targeted set of national outcomes and sub-outcomes (table 7.2).

While retaining a focus on conciseness, the Commission also considers that there should be a clear statement of intention to publicly report on each NSRA outcome by jurisdiction for students with disability, Aboriginal and Torres Strait Islander students and students in regional, rural and remote areas through the MFSA and other mechanisms.

Including additional sub-outcomes for student achievement

The NSRA outcome for academic achievement is defined in terms of improvements for all students, but the sub-outcomes are defined based on the level of achievement of students (rather than their learning gain) and have a heavy reliance on NAPLAN outcomes in the literacy and numeracy domains. This does not provide a view of whether students are improving relative to their prior achievement.

Several stakeholders identified opportunities to build a broader understanding of performance against this outcome. The ACT Government (sub. 39, p. 3) noted that ‘progress in student learning gain is an important measure of evaluating educational outcomes’.

Section 39 of the NSRA foreshadowed the need for new measures in these areas, by stating that:

All Parties agree to consider improvements to these outcomes and sub-outcomes over time, including enhancements to the existing performance measures and developing further performance measures reflecting priority areas, such as measures of learning gain, early years foundation skills and student engagement.

ACARA (2022a) already uses a measure of learning gain at the school level on the MySchool website, which could be used to develop a new sub-outcome.

The Commission also considers there is merit in the inclusion of a new sub-outcome based on National Assessment Program sample surveys on science, civics and citizenship and ICT literacy. While the sample size may be too small for accurately reporting on all desired disaggregations, even reporting these indicators at the national or jurisdictional level, or with appropriate caveats would help to balance out the focus on literacy and numeracy.

... engagement ...

Although student engagement is a multifaceted outcome, the NSRA includes only one related sub-outcome. The NSRA sub-outcome on attendance levels is a measure of participation in schooling; engagement also comprises a broader definition of behavioural engagement (such as participation in school activities or classroom behaviours), emotional engagement (the connections to school) and cognitive engagement (students’ effort and motivation) (Fredricks, Blumenfeld and Paris 2004). Neither the NSRA performance reporting framework or the MFSA report these deeper levels of behavioural, cognitive or emotional engagement.

Participants to the Review suggested the inclusion of new measures for student engagement in the MFSA such as belonging, inclusion and cultural connection (P&C Federation NSW, sub. 18; Save the Children Australia, sub. 23; AITSL, sub. 27; ACT Government, sub. 39). The Australian Parents Council (sub. 8, p. 6) noted that, on its own:

... measuring student attendance doesn’t interrogate students’ level of engagement nor the reasons for the lack of engagement.

Better measurement of student engagement would be particularly valuable for groups of students that frequently experience exclusion, including Aboriginal and Torres Strait Islander students, students with

disability and children who have had interactions with care and protection systems. Queensland Advocacy for Inclusion (sub. 1, attachment A) raised concerns about the use of, and lack of publicly available data on, school disciplinary absences, which is a concern among students with disability and Aboriginal and Torres Strait Islander students with disability. Deloitte Access Economics (2017a, p. xii) recommended to the Department of Education Queensland that:

Use of School Disciplinary Absences as a measure of engagement should be incorporated into measurement frameworks and used to measure improvements in policy change over time.

While the inclusion of broader measures of engagement would be valuable to the performance reporting framework of a future agreement, there are no nationally consistent data collections available to fill this gap in the short-term.⁵

To add an additional sub-outcome, there would need to be a commitment either to a new nationally consistent data collection, or to reporting data that may not be nationally consistent. Additional data collections, however, take time to design and establish, and may not be feasible in the immediate term. In the interim, there may be a case for data that is not nationally consistent to be included in a revised MFSA (discussed in the next section) or as part of bilateral reporting arrangements. Future agreements should revisit the possibility of a new engagement sub-outcome, if nationally consistent data become available.

... and transition to further study, work or life success

The third NSRA outcome relating to students gaining the skills they needed to transition to further study or work or life success could also be measured using a broader set of sub-outcomes than the current single indicator (increase the proportion of young people who have completed Year 12 or equivalent or have gained a non-school qualification at Certificate III level or above).

Parties to the Agreement should consider including one of the three KPMs included in the MFSA on the number of young people engaged in employment, education or training to use as a sub-outcome for the next agreement.

Consideration could also be given to including results from state and territory surveys on schooling outcomes, possibly as part of bilateral agreement reporting. An alternative approach, with additional costs, would be to survey students about whether they felt well prepared for their transition out of school.

Data on post-school transitions are particularly lacking for groups who systematically face increased barriers to further study or employment, including students with disability. In their submission to the Review of Senior Secondary Pathways (an output of a NSRA National Policy Initiative), Children and Young People with Disability Australia called for governments to 'improve data collection about post-school transition programs, including their uptake, implementation and outcomes' (CYDA 2019, p. 3).

To support a new wellbeing outcome, a future agreement should include wellbeing as a sub-outcome

Draft recommendation 4.1 proposes that student wellbeing be added as a fourth outcome in the next agreement, and that a national minimum dataset is agreed to enable public reporting on a new sub-outcome.

The case for adding this sub-outcome is discussed in chapter 4, with reference to the Student Wellbeing Data Project, which is being progressed as part of the NSRA's National Policy Initiatives and led by the ACT Education Directorate. The project has resulted in a measurement framework for deriving an indicator of subjective wellbeing

⁵ The OECD does collect some engagement data (e.g. school belonging) as part of PISA. However, changes to the PISA questionnaire in different years mean that there may be no reliable benchmark against which to report new data.

(which has not yet been considered by Education Ministers) and an assessment of the extent to which each department for education collect wellbeing data from school students (Cárdenas et al. 2021).

Some existing NSRA sub-outcomes could be removed, as they do not support a better understanding of performance

There are two areas where the Commission considers that sub-outcomes could be removed to support the introduction of new measures, while retaining a concise NSRA performance framework overall. These are:

- where sub-outcomes provide a more detailed breakdown of other sub-outcomes
- where the identified dataset is not fit for purpose for NSRA reporting or duplicates other reported sub-outcomes.

A future agreement should remove sub-outcomes that provide a more detailed break-down of other sub-outcomes, where there is a clear expectation that these will be reported through other mechanisms. Specifically, reporting of outcomes for students from equity cohorts, while key to understanding progress towards the NSRA outcome and objectives, is better suited to the more granular KPM reporting structure of the MFSA and bilateral agreements. This would result in the removal of the following sub-outcomes:

- lower the proportion of students from priority equity cohorts in the bottom levels and increase the proportion of students in the top levels of performance in NAPLAN
- increase the proportion of young people from priority equity cohorts, who have completed Year 12 or equivalent or have gained a non-school qualification at Certificate III level or above.

While valuable for other purposes, the PISA dataset is not ideal for tracking progress against the NSRA, particularly at the state and territory level (DoE NSW, sub. 12; P&C Federation NSW, sub. 18). In addition, the sub-outcome relating to PISA performance levels to some extent duplicates sub-outcome one (Improve performance levels in National Assessment Program — Literacy and Numeracy (NAPLAN)). The sub-outcome relating to improved PISA performance could be removed in the next agreement.

There may be an ongoing role for the inclusion of PISA results to understand Australia's schooling performance compared to other countries and the OECD average, including in regards to the gap in achievement between students from various socio-economic backgrounds. PISA will be of continued relevance to the NSRA performance framework if target three – that Australia considered to be a high quality and high equity schooling system by international standards by 2025 – is retained. However, this is distinct from the use of PISA to understand changes in academic performance over the life of the agreement.

These changes would make room for new sub-outcomes on learning gain, post-school outcomes and a measure of student wellbeing.

Table 7.2 – Outcomes and sub-outcomes proposed for the next agreement

NSRA outcomes	Sub-outcomes proposed for the next agreement (all of which should be reported for all students and for students from priority equity cohorts)	
Academic achievement improves for all students.	Increase the proportion of students who meet minimum, proficient and highly proficient national standard in NAPLAN.	MODIFIED
	Increase the proportion of students achieving at or above the proficient standard in science, civics and citizenship and ICT literacy.	NEW
	Increase the proportion of students who make at least one year of learning gain for one year of schooling.	NEW
All students are engaged in their schooling.	Increase the proportion of students in Years 1 to 10 attending school 90 per cent or more of the time.	EXISTING
Students gain the skills they need to transition to further study or work and life success.	Increase the proportion of young people who have completed Year 12 or equivalent or have gained a non-school qualification at Certificate III level or above.	EXISTING
	Increase the proportion of young people in education, training or work.	NEW
Improved student wellbeing (draft recommendation 4.1)	Based on the proposed national measure of student wellbeing (draft recommendation 4.1).	NEW



Draft recommendation 7.1

The performance reporting framework of the next agreement

In the next intergovernmental school reform agreement, Australian, State and Territory Governments should:

- commit to public reporting on each outcome by jurisdiction for students with disability, Aboriginal and Torres Strait Islander students and students in regional, rural and remote areas
- add new sub-outcome measures for learning gain, post-school outcomes and the measure of student wellbeing proposed in draft recommendation 4.1
- update the NAPLAN sub-outcome measure to use proficiency standards rather than learning bands.



Information request 7.2

Proposed sub-outcomes under the future agreement

Do the identified outcomes, and proposed additional and modified sub-outcomes, reflect the aspirations of all Australian students, including those from Aboriginal and Torres Strait Islander backgrounds, students with a disability, and students from other priority equity cohorts (including students from equity cohorts not explicitly identified in the current agreement, such as those in out-of-home care, or who speak English as an Additional Language or Dialect)?

Reporting on NSRA's outcomes should be more prominent and accessible

Public scrutiny on the progress towards NSRA outcomes has been diminished through reliance on the MFSA as a proxy reporting tool, and absence of stand-alone annual reporting on NSRA sub-outcomes and targets.

Time series reporting on these indicators could occur at the front of the annual implementation plans proposed for each party to the next agreement (chapter 2) as well as continuing in the MFSA.

To further elevate accountability through transparency, the National Report could be tabled annually in Parliament. The annual Closing the Gap report is tabled in Parliament and the Commission recommended this occur biennially for the National Disability Report under the National Disability Agreement (PC 2019, p. 38).

Improvements to the Measurement Framework for Schooling in Australia

Consistent with the terms of reference, this section considers improvements to the MFSA directly related to its role in understanding performance against the objective and outcomes of the NSRA. However, a number of stakeholders identified broader opportunities to deliver improvements to the MFSA, particularly with regards to better alignment with commitments made by Education Ministers in the Mparntwe Declaration. The Commission has noted these opportunities.

ACARA is responsible for regular updates of the MFSA, and anticipates that following this review, the Framework will be revised in 2023 to reflect and support the next iteration of the NSRA (sub. 45, p. 2).

Stakeholders have suggested that there would be value in undertaking a significant review and revision of the framework:

The ACT urges that wholesale reform of the National Measurement Framework be considered rather than minor amendments or 'tweaks' which have characterised changes in recent years. (ACT Government, sub. 39, p. 3)

The Commission believes that, as part of any review, there would be value creating a performance indicator framework aligned to NSRA outcomes and sub-outcomes, to which KPMs are mapped.

ACARA (sub. 45, p. 3) has raised the option of grouping the KPMs in the Framework into three categories: External influences on students ('beyond-school-gate' factors), system performance measures (including workforce indicators), and educational outcomes (including academic achievement and attainment). This approach is consistent with that used by the National Health Performance Framework, which groups its indicators into measures of health determinants, the health system, and health status (NHIPPC 2017).

The following discussion highlights some areas of priority focus for ACARA in undertaking their review of the MFSA.

The MFSA could include system performance KPMs

The MFSA is intentionally focused on student outcomes measures (ACARA, sub. 45; Victorian Government sub. 31), with no indicators for the school workforce or schooling processes. However, the introduction of relevant KPIs would assist in understanding progress towards the overarching NSRA objective that Australian schooling provides a high quality and equitable education for all students.

Potential measures related to educators were suggested by the Australian Institute of Teaching and School Leadership (sub. 27), ACARA (sub. 45), the Victorian Government (sub. 31), the Australian Education Union (sub. 36) and Independent Education Union of Australia (sub. 15), including measures of initial teacher education scholarships, the proportion of schools meeting staffing requirements, and teacher workload.

The focus on teachers in the Mparntwe Declaration relating to teacher supply, the recognition of high-quality teachers and the role of leaders in fostering quality teaching are also relevant to supporting the NSRA objective. In time, nationally consistent measures of teacher shortages could be developed with the implementation of the national teacher market model proposed in chapter 5. Measures that are not

recommended by ACARA for use in the MFSA could still be incorporated by individual jurisdictions in implementation plans proposed in chapter 2, if they provided valuable information about progress against their reforms in the next agreement.

Introducing measures of this type can provide early insights into the progress made against the NSRA's overarching objective and the progress of reforms generally. Changes in educational outcomes typically have long lead times, with changes only observed many years after a new schooling policy is introduced (assuming that policy is effective at all) (DoE NSW, sub. 12). The Commission has previously found that, in the context of education and social policy, outcome measures 'provide only partial insights into system performance' (PC 2020b, p. 143).

The Indigenous Education Consultative Meeting (sub. 52, p. 3) recommended that data on outcomes and reform action should be:

... treated in a more formative capacity to enable early and ongoing analysis of progress. The current NSRA presents lofty data items for reporting. How can we break this down into meaningful elements that can be measured and provide progressive insights into how we are tracking towards achieving the higher order goals?

In addition to system performance indicators, reporting of contextual data can also support improved outcomes. For example, the inclusion of measures related to children's development prior to starting schooling could provide useful context about factors that affect learning and how these vary across jurisdictions. The Australian Education Research Organisation (AERO) suggested using the Australian Early Development Census and noted that 'every state and territory in Australia has designed its own entry to school assessment which could provide valuable national insights on learning trajectories' (AERO, sub. 6, p. 8).

KPMs should provide better visibility of outcomes for students from priority equity cohorts

Improved reporting on outcomes for students from priority equity cohorts can and should be progressed as a priority. The ACT Government (sub. 39, p. 2) stated that 'it is important that the National Measurement Framework focus on equity for all learners', while the Department of Education NSW (sub. 12, p. 25) noted that the 'focus on equity is not fully realised in the [MFSA]'.

To support a granular understanding of performance against NSRA sub-outcomes for students from priority equity cohorts, ACARA's next review of the MFSA should identify which KPMs relevant to NSRA outcomes are not reported at the State, Territory and national levels for Aboriginal and Torres Strait Islander students, students with disability, students in regional, rural and remote areas and any other priority equity cohort identified in the next agreement. Of these, ACARA should document which gaps:

- could be readily filled using existing datasets that already feature in the MFSA, subject to appropriate caveats about sample size and margins of error
- have government approval pending or have not been agreed for reporting (and the reasons why)
- could be readily filled using other datasets, such as the ABS Survey of Disability, Ageing and Carers
- could be filled if MFSA datasets were linked with other national datasets (such as the NCCD or administrative data from the National Disability Insurance Scheme).

The NSRA is about reform that delivers improvements in student outcomes over time. For this reason, and to align with strengths-based reporting principles, data published by cohort should focus on timeseries reporting and the changes in outcomes for students in the cohort over time, rather than gaps in outcomes between cohorts. In cases where a comparison group is provided, the goal of reporting should be to communicate the progress (or otherwise) in outcomes for students in the cohort of interest. For state and territory level data,

the same principle applies – reporting should compare changes in results over time for each jurisdiction, rather than emphasising absolute differences between jurisdictions.

Participants to the review have also called for clear definition, measurement and reporting of equity in the NSRA. Among other measures of equity, Prof. Pasi Sahlberg and Trevor Cobbold (sub. 21) and ACARA (sub. 45) noted that the gaps in relative distribution of education outcomes between different social groups is a measure of the equity or fairness of the education system. ACARA (sub. 45) advised that it will consider building on the experience of producing a recent report on educational equity with a view to incorporating appropriate additional measures of educational equity in a revised MFSA. The issue of educational equity is discussed in chapter 3.

A determinant of a student's schooling performance is English language proficiency. AERO (sub. 6, p. 8) noted that 'all states and territories collect data on English Language Proficiency based on the national English as an Additional Language or Dialect (EAL/D) progressions, but that information is not reported nationally'. Reporting on this cohort in the MFSA was also supported by ACARA (sub. 45) and the Australian Council of TESOL Association (sub. 37).

Existing surveys of students, parents and teachers could be used to fill reporting gaps

The benefits of a more complete MFSA should be considered against the costs of additional data collection and reporting. Participants urged that performance reporting measures should be cost-effective and not impose an undue burden on schools.⁶ National collections have the added cost and challenge of achieving data consistency.

To minimise costs, the MFSA should consider opportunities to relax the constraint of only using nationally comparable datasets. Many State and Territory Governments have well-established and repeating surveys of students, parents and carers, and teachers that cover the domains that participants have suggested (on teachers, student engagement, and parental engagement) (box 7.2).

The views of students, parents and teachers (with appropriate caveats) at the state and territory level would be valuable if the data were comparable over time, even if reporting against the indicator is not nationally complete or comparable across jurisdictions. This would be consistent with the approach taken in previous intergovernmental education agreements – the National Education Agreement, for example, reported on State and Territory literacy and numeracy testing prior to the introduction of a nationally consistent testing in 2008 (COAG 2008b).

Broader measures of student engagement (section 7.1) would be available from these surveys.

Engagement in the classroom is best determined by teachers. The reasons for engagement or disengagement are best determined by asking students. (P&C Federation NSW, sub. 18, p. 11)

And the use of these datasets in the MFSA could make national reporting on schooling more accessible:

[we] found both the NSRA objectives, targets and outcomes and the national measurement framework to be rather sterile, technocratic and managerial in tone. (Connors AO, Lyndsay and McMorrow, Dr Jim, sub. 3, p. 2)

ACARA may find instances where using these datasets would be worth sacrificing a degree of reliability to achieve greater breadth of reporting in the MFSA. One limitation of the State and Territory surveys is that they are generally only administered in public schools. In time, ACARA could consult with other school

⁶ Victorian Government, sub. 31; Government of Western Australia, sub. 19; DoE NSW, sub. 12; Teachers' Work in Schools Research Group, sub. 16; P&C Federation NSW, sub. 18; ISA, sub. 44; Queensland Government, sub. 53.

sectors and non-government organisations that collect school outcomes data to explore opportunities to integrate data on students in independent and Catholic schools in the MFSA.

Box 7.2 – State and Territory Government surveys of students, parents and teachers

Although there are no nationally agreed measures for cognitive or emotional engagement, all jurisdictions other than Western Australia collect data on these domains. Generally, public annual reporting of results at the state and territory level is not extensive.

Tell Them From Me (NSW)

NSW collects wellbeing and engagement data via their Tell Them from Me survey, collected twice a year since 2013 for primary and secondary school students. Data are also collected from parents and teachers as part of the survey. The teacher component of Tell Them from Me includes items for teaching strategies, school inclusiveness, use of data, and parent/carer engagement. Items administered to parents include questions about their participation in their child's schooling, whether they feel welcome and informed, and whether they support their child's learning at home.

Attitudes to Schools Survey (VIC)

Victoria has collected data from government school students in Years 4 to 12 annually at least since 2017. The survey includes a focus on student wellbeing and engagement, with elements of emotional and cognitive engagement included. Separate surveys are also conducted to gather opinions from teachers, parents, and principals.

Annual School Survey (NT)

The Northern Territory conducts opinion surveys from staff (including teachers and administrative staff), students in Year 5 to 12, and their families. These surveys include domains of wellbeing, engagement, and school performance, culture and services.

Australian School Climate and School Identification Measurement Tool (ASCSIMT)

In conjunction with the ACT School Satisfaction Survey, all public school students in the ACT from Year 4 to 12 and all parents and staff from preschool to Year 12 are invited to complete the ASCSIMT. Longitudinal research using the ASCSIMT is possible (ANU 2022).

Other student wellbeing and engagement surveys

The South Australia Wellbeing and Engagement Collection includes data from Year 4 to 12 students. While some form of wellbeing and engagement data has been collected by South Australia since 2013, the collection has since been expanded and now covers most government schools. Results are published annually on the proportion of students who report low, medium, and high levels of wellbeing across various domains. South Australia also runs a short survey of parental engagement.

Tasmania conducts the Student Wellbeing and Engagement Survey annually since 2019, which also covers Year 4 to 12 students in public schools. The most recent data available is from 2020. The Queensland Engagement and Wellbeing survey was first offered to Queensland government schools in 2021.

Source: SCRGSP (2022a), Department of Education New South Wales (2022a), Department of Education and Training Victoria (2022), Department of Education Northern Territory (2022), Department for Education SA (2022), Department of Education Tasmania (2022).

Aligning the future NSRA, the Mparntwe Declaration and a refreshed MFSA

The Alice Springs (Mparntwe) Declaration sets out the national vision for education and the commitment of governments to improving educational outcomes, as agreed by Education Ministers. It was developed in consultation with young people, educators, education and training providers, parents, business and industry – over 260 submissions were received and over 900 people attended consultation events.

Several participants raised concerns regarding the lack of alignment between the Mparntwe Declaration (box 7.3) and the MFSA (CEMA, sub. 28; NCEC, sub. 7; CSPA, sub. 24).

... additional metrics are needed to truly monitor progress and ensure the education community is on track to deliver the commitments outlined in the Mparntwe Declaration. (AITSL, sub. 27, p. 20)

The Centre for Educational Measurement and Assessment (sub. 28) suggested that indicators should be derived from the goals and commitments to action in the Mparntwe Declaration, and the existing KPMs should be mapped to these.

Box 7.3 – The Alice Springs (Mparntwe) Declaration Goals

The Mparntwe Declaration includes two high-level goals for Australian education:

1. The Australian education system promotes excellence and equity
2. All young Australians become confident and creative individuals, successful lifelong learners, and active and informed members of the community

The Mparntwe Declaration contains 11 commitments to action by all Australian Governments, including to developing stronger partnerships, supporting quality teaching and leadership, building foundational skills, promoting world-class curriculum and assessment, supporting Aboriginal and Torres Strait Islander learners and young Australians at risk of educational disadvantage to reach their full potential, embedding pathways for learning throughout life and supporting effective transitions.

Students in their middle years are flagged as being at greater risk of disengagement, and the Declaration focuses on the development of their literacy and numeracy skills, social relationships, wellbeing and engagement.

The Declaration also commits to strengthening accountability and transparency with strong meaningful measures. It states that good data on the educational experience and outcomes will be used to track progress against the goals of the Declaration but that collection of data should be proportionate and not unduly add to the workloads of educators.

Source: COAG (2019)

ACARA's (sub. 45) analysis of the MFSA found that four of the eleven Mparntwe commitments to action were not represented in the MFSA, including those related to stronger partnerships, early childhood education, teachers and leaders, critical and creative thinking, wellbeing and English language proficiency. The Australian Education Union (sub. 36) added lifelong learning, and effective transitions, and supporting all young people at risk of educational disadvantage to the list of gaps. The Department of Education NSW (sub. 12, p. 25) noted the MFSA's lack of 'culturally responsive metrics' to tell a balanced or full story for

Aboriginal and Torres Strait Islander learners. The Australian Parents Council (sub. 8, p. 6) considered that the biggest omission in the MFSA was parent and community engagement.

Better alignment of reporting arrangements to the Mparntwe Declaration has implications both for the performance framework set out in the NSRA and the MFSA.

The MFSA review should be undertaken in consultation with students, teachers and communities

In reviewing the MFSA, and potentially in developing selected new KPMs, ACARA should consult with those who are represented in the data, those who are asked to collect it and users of the measures (CEMA, sub. 28; AEU, sub. 36; DoE NSW, sub. 12). If new data are needed, the community may have insights about what should be measured and how it should be collected, managed and shared. For example, the *Western Australian Aboriginal Child Health Survey Vol. 3* provides a good example of how new data collections can be co-designed, particularly in cases where children may experience multiple forms of disadvantage (such as Aboriginal and Torres Strait Islander children in regional, rural and remote communities) (Zubrick et al. 2006).



Draft recommendation 7.2

Review of the Measurement Framework for Schooling in Australia

ACARA's next review of the Measurement Framework for Schooling in Australia should:

- create a performance indicator framework aligned to National School Reform Agreement outcomes and sub-outcomes to which Key Performance Measures are mapped
- consider the inclusion of system performance Key Performance Measures relating to the teaching workforce
- consider the inclusion of additional contextual information relating to influences on learning based on Australian Early Development Census data and information on English language proficiency
- deliver improved reporting on outcomes for students from priority equity cohorts
- be undertaken in consultation with students, teachers and communities
- document remaining gaps.

The *National Report on Schooling in Australia* should be tabled annually in Parliament.

ACARA should work towards filling reporting gaps by exploring the use of State and Territory Government data that are comparable over time, even if it is not nationally complete or comparable across jurisdictions. Well established State and Territory Government surveys of students, parents and carers, and teachers should be given due consideration.

A. Public Consultation

The Commission has actively encouraged public participation in this study. This appendix outlines the consultation process and lists the organisations and individuals who have participated to date.

- The terms of reference was received on 7 April 2022. A call for submissions was released on 9 May 2022.
- The Commission received 53 submissions prior to the release of the interim report (table A.1). These submissions and brief comments are available online at www.pc.gov.au/inquiries/current/school-agreement/submissions
- Consultations were held with representatives from State, Territory and Australian Government agencies, education bodies, unions and professional organisations representing different members of the schools workforce, peak non-profit organisations, representative and advocacy bodies, researchers, and parent representative bodies (tables A.2).
- Consultations were also held with groups of children and young people, including ACT Youth Advisory Council, Child Wise Youth Advisory Board, CREATE Young Consultants and the Student Executive Advisory Committee of the Victorian Student Representative Council.
- The Commission attended the Indigenous Education Consultative Meeting workshop on 20 June 2022.
- The Commission welcomes further submissions on the content of the interim report, including responses to the information requests, draft findings and draft recommendations.

The Commission would like to thank everyone who has participated in the study to date.

Table A.1 – Submissions

Participant	Submission Number
ACT Government	39
Association of Heads of Independent Schools of Australia (AHISA)	4
Australian Association of Special Education NSW (AASE NSW)	20
Australian Child Rights Taskforce	40
Australian Council of State School Organisations (ACSSO)	51
Australian Council of TESOL Associations (ACTA)	37
Australian Curriculum, Assessment and Reporting Authority (ACARA)	45
Australian Education Research Organisation (AERO)	6
Australian Education Union (AEU)	36
Australian Government Primary Principals Association (AGPPA)	47
Australian Institute for Teaching and School Leadership (AITSL)	27
Australian Learning Lecture (ALL)	2
Australian Parents Council (APC)	8
Australian Primary Principals Association (APPA)	48
Australian Professional Teachers Association (APTA)	50
Australian Research Alliance for Children and Youth (ARACY)	38
Ben Blackburn Racing	49
Beyond Blue	25
Catholic School Parents Australia (CSPA)	24
Centre for Community Child Health (CCCH)	14
Centre for Educational Measurement and Assessment (CEMA)	28
Centre for Independent Studies (CIS)	43
Connors AO, Lyndsay and McMorrow, Dr Jim	3
Department of Education New South Wales (DoE NSW)	12
Department of Education Northern Territory (DoE NT)	42
Federation of Parents and Citizens Association of New South Wales (P&C Federation NSW)	18
Gifted Education Research, Resource and Information Centre (GERRIC)	17
Government of Western Australia	19
Grattan Institute	5
Halsey, John, Prof Emer	10
Independent Education Union of Australia (IEUA)	15
Independent Schools Australia (ISA)	44
Indigenous Education Consultative Meeting (IECM)	52

Participant	Submission Number
Learning Creates Australia	35
National Catholic Education Commission (NCEC)	7
National Mental Health Commission (NMHC)	26
National School Resourcing Board (NSRB)	22
Orygen	13
Paterson, Molly; Parasnis, Jaai, Dr and Rendall, Michelle, Assoc Prof	9
Pivot Professional Learning	33*
Queensland Advocacy for Inclusion (QAI)	1
Queensland Family and Child Commission (QFCC)	32
Queensland Government	53
Queensland Nurses and Midwives' Union (QNMU)	30
Restacking the Odds	41
Ross, Marty, Dr	34
Sahlberg, Pasi, Prof. and Cobbold, Trevor	21
Save the Children Australia	23
Speech Pathology Australia	11
Tasmanian Government	46
Teachers' Work in Schools Research Group	16
The Smith Family	29
Victorian Government	31

An asterisk (*) indicates that the submission contains confidential material not available to the public

Table A.2 – Consultations

Participants

ACT Education Directorate

ACT Youth Advisory Council

Australian Council of State School Organisations (ACSSO)

Australian Curriculum, Assessment and Reporting Authority (ACARA)

Australian Education Research Organisation (AERO)

Australian Education Union (AEU)

Australian Institute for Teaching and School Leadership (AITSL)

Australian Parents Council (APC)

Australian Primary Principals Association (APPA)

Australian Professional Teachers Association (APTA)

Australian Secondary Principals Association (ASPA)

Participants

Centre for Independent Studies (CIS)

Child Wise Youth Advisory Board

Children and Young People with Disability Australia (CYDA)

Children's Ground

Commission for Children and Young People (Victoria)

Community Resource Unit (CRU)

CREATE Young Consultants

Department for Education South Australia (DfE SA)

Department of Education New South Wales (DoE NSW)

Department of Education Northern Territory (DoE NT)

Department of Education Queensland (DoE Queensland)

Department of Education Tasmania (DoE Tasmania)

Department of Education Victoria (DoE Victoria)

Department of Education Western Australia (DoE WA)

Department of Education, Skills and Employment (DESE)

Education Services Australia (ESA)

First Peoples Disability Network (FPDN)

Gore, Jenny, Laureate Prof and Carey, Tom (Teachers and Teaching Research Centre, University of Newcastle)

Grattan Institute

Halsey, John, Prof Emer

Hattie, John, Prof Emer

Independent Education Union of Australia (IEUA)

Independent Schools Association (ISA)

Indigenous Education Consultative Meeting (IECM)

National Catholic Education Commission (NCEC)

National Disability Insurance Agency (NDIA)

National School Resourcing Board (NSRB)

Queensland Collective for Inclusive Education (QCIE)

Savage, Glenn, Assoc Prof (Graduate School of Education, University of Western Australia)

Stronger Smarter Institute

The Smith Family

Victorian Student Representative Council (VicSRC)

B. Trends in student outcomes

This appendix provides supporting evidence and econometric modelling for the assessment of student achievement described in the overview, chapter 1 and chapter 3. While the aggregate achievement results are insightful, it is important to consider the influence of student-level characteristics on student outcomes. With this in mind:

- section B.1 considers the achievement of Australian school students in the Programme for International Student Assessment (PISA); this section draws on the results of an econometric model to estimate changes in PISA results over time, after controlling for changes in the demographics of the PISA sample
- section B.2 examines the academic performance of students from specific equity cohorts, similarly applying an econometric model to National Assessment Program – Literacy and Numeracy (NAPLAN) data
- section B.3 discusses the methodology used for converting NAPLAN test points to an equivalent years of learning measure, which provides a more tractable way to understand and interpret NAPLAN test results.

B.1 Achievement of Australian students — analysis of PISA data

The policy landscape and PISA

PISA is an international test of mathematics, reading, and science competency, administered by the OECD every three years since 2000 to 15-year-old school students (box B.1). PISA tests a student's ability to *apply* their knowledge in each of these subject areas.¹

PISA is intended to provide an evaluation of a school system's performance — both domestically and relative to other countries — to assist participating countries in undertaking evidence-based reform (OECD 2022).

Box B.1 – Programme for International Student Assessment

The Programme for International Student Assessment (PISA) is designed to infer students' ability to apply their knowledge and skills from a limited set of questions. This is a challenging task, particularly when comparisons are being made both across countries (which often have substantial differences in linguistic and cultural contexts) and over time. In order to draw sensible conclusions, PISA adopts a complex sampling and psychometric methodology.

¹ This contrasts with the NAPLAN assessment, which tests how familiar students are with the subject matter.

Box B.1 – Programme for International Student Assessment

PISA's sampling methodology

PISA test results rely on sampling and weighting techniques to draw inferences about Australia's population. The stratification of the sample is based on jurisdiction, school sector, geographic location, school gender composition, and a socioeconomic background variable (OECD 2020a). The sample of Australian students is larger than the OECD average, as Australia deliberately oversamples to allow for reliable disaggregation of data (for example, by State and Territory). Observations are then weighted to allow for appropriate inference when estimating population parameters.

Sampling methods differ substantially **between** participating countries, including in the variables used for sample stratification (OECD, 2019). Sampling approaches also differ **within** the same country over time; for example, PISA 2018 was the first time that Australia included 15-year-old TAFE students (OECD 2020a).

Technical concepts in PISA

Plausible Values

Rather than all students receiving a single test consisting of a small number of common questions, participants are administered a random sample of test items from a large pool of questions. Therefore, instead of expressing a student's performance in terms of a 'score', a distribution of possible scores for each student is obtained using their responses to the questions they received.

Once this distribution is obtained, actual values are randomly drawn from it. These values, called Plausible Values (PVs), represent a range of possible competencies of a student based on their performance on the test. The OECD recommends estimating population statistics using each PV separately and then averaging the analysis, rather than performing analysis on the average of the PVs.

Linking errors

The exact items administered to students differ in each wave. However, some common questions are retained each year to allow the OECD to appropriately scale students' performance based on the relative difficulty of questions. The choice of which questions to retain is an additional source of uncertainty that should be accounted for in any statistical analysis of PISA scores over time. To account for this, the OECD derives 'linking errors' for any statistics of change in performance between two time points t_1 and t_2 :

$$\sigma(\Delta_{t_2-t_1}) = \sqrt{\sigma_{t_2}^2 + \sigma_{t_1}^2 + \text{error}_{t_2, t_1}^2}$$

Some are critical of the PISA method of calculating linking errors, suggesting that they underestimate the level of uncertainty resulting from choice of anchor questions (Monseur and Berezner 2007).

Changes in performance over time

Chapter 1 shows there has been a decline in PISA results since 2009 (albeit the decline was not statistically significant between 2015 and 2018). While these headline results receive significant attention, there are a number of factors that may explain the decline in PISA results.

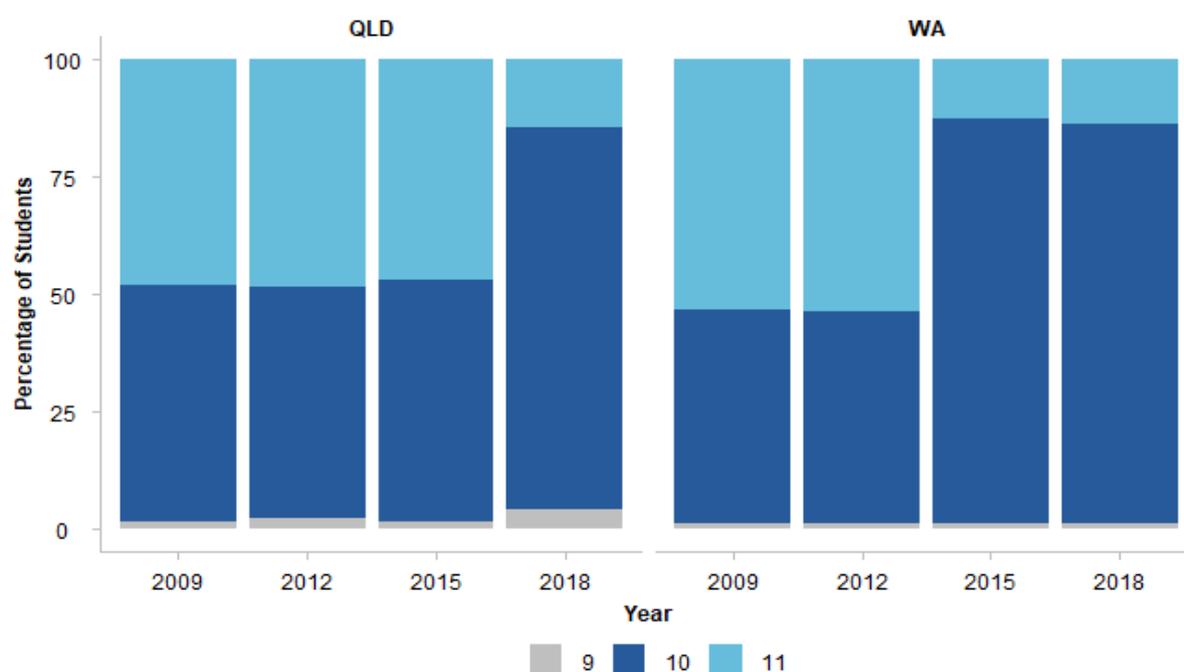
- **Changes in the Australian PISA sample** — in both 2015 and 2018, an increased proportion of students in the PISA sample had an entire year less schooling, relative to students in previous PISA waves

(figure B.1).² As year 11 students tend to score higher than year 10 (and year 9) students, this would be expected to reduce the national average.³

- **Changing demographics in the Australian population** — Australia's student population is continually changing, and student demographics are a key driver of academic achievement. Therefore, as the population changes, performance would reasonably be expected to change.
- **A decline in performance** — the decline in results could reflect a true decline in the performance of Australia's students. This could be a function of lower ability of Australian students, or a growing gap between what PISA tests and what is taught in the Australian curriculum (sometimes referred to as 'curriculum drift').

Figure B.1 –More students sitting PISA have less schooling^a

Proportion of total students in each PISA wave, by year level



a. Students below Year 9 or above Year 11 are excluded from this analysis.

Source: Commission estimates based on PISA data.

Therefore, the Commission has undertaken an analysis to assess the potential reasons behind the changes to Australian PISA scores over time.

A pooled weighted least squared (PWLS) model was used to control for student characteristics and changes to the student sample. Changes in performance not attributable to these factors could be considered to be a decline in performance, although further research is required to identify the underlying causes of this decline.

The analysis focused on changes in performance, relative to the OECD mean. PISA is an international standardised test, with results typically reported as a comparison of Australia's school systems' performance

² Changes in school starting age in some jurisdictions are likely to have been a contributory factor.

³ When the trend is disaggregated by year level and benchmarked against the OECD average, the evidence for a downward trend is mixed.

relative to the OECD. Therefore, the results focus on test scores relative to the OECD average. Using OECD average scores as a benchmark allows analysis to better account for any changes that affect other countries equally (for example, differences in scaling procedures due to the entrance of new countries sitting the test).

Methodology

Data preparation

Unit record data for Australian students from four waves of PISA testing (2009, 2012, 2015 and 2018) were obtained from the Australian Council of Education Research (ACER) webpage.⁴ Data were pooled together, with a small number of common variables retained for multivariate analysis (table B.1). These variables were chosen for conceptual reasons (as they are strongly correlated with student performance and thus likely to explain variations in student performance), and practical reasons (as these variables were common across the four waves of students). This resulted in a combined dataset of 57 535 observations. Each student's PISA scores were estimated using the first five Plausible Values (PVs) for each domain (box B.1).

Econometric model

To identify whether there has been a true decline in the PISA scores of Australian students, a PWLS regression model was used. This model controls for compositional changes in the population and the PISA sample, as well as a number of student characteristics that are likely to influence PISA performance. The model also included a time fixed-effect. Equation 1 shows the estimating equation for the PWLS model (table B.1)⁵:

$$\begin{aligned} score_{i,t,k} - OECD_{t,k} &= \gamma_{t,k} + \delta_k(grade_{i,t}) + \beta'_k \mathbf{x}_i + \varepsilon_{i,t,k} \\ \varepsilon_{i,t,k} &\sim N(0, \sigma_k^2) \end{aligned} \quad (1)$$

For $t = 2009, 2012, 2015, 2018$ and $k = \text{maths, science, reading}$

$\gamma_{t,k}$ is the coefficient of interest and shows the difference in PISA scores in a given year relative to 2018 (table B.1). A positive statistically significant value for $\gamma_{t,k}$ would suggest a decline in PISA results between year t and 2018.

Given the changes in year level composition between the 2012 and 2018 (figure B.1), the year level variable is a particularly important control in the model.

Table B.1 – PISA model variables and parameters

Variable/Parameter	Variable or parameter descriptions	Included in specification		
		(1)	(2)	(3)
$score_{i,t,k} - OECD_{t,k}$	Dependent variable. Mean of PISA Plausible Values for student i , at year t , for subject k , minus OECD mean at year t , for subject k	✓	✓	
$score_{i,t,k}$	Alternate dependent variable. Mean of PISA Plausible Values for student i , at year t , for subject k , without adjustment for OECD mean			✓

⁴ ACER is the custodian of PISA data for Australia

⁵ All observations were weighted based on the weights provided by the OECD (2020b). Standard errors were adjusted to include both sampling error and linking error.

Variable/Parameter	Variable or parameter descriptions	Included in specification		
		(1)	(2)	(3)
β'_k	Vector of coefficients corresponding to each control variable for subject k	✓		✓
x_i	Vector of student controls to account for school sector, state, student gender, gender, Indigenous status, number of books in the home (less than 100, 100-500, or more than 500), geolocation of school, migrant status, parental education and occupation	✓		✓
$\gamma_{t,k}$	The coefficient of interest, shows the fixed effect for year t for subject k . This is interpreted as the difference in points in year t relative to 2018, all other factors held equal.	✓	✓	✓
$\varepsilon_{i,t,k}$	Idiosyncratic error for student i in year t for subject k	✓	✓	✓
δ_k	Coefficient for year level	✓	✓	✓
$grade_i$	Student's year level at the time of sitting the PISA test (minimum year 7, maximum year 12)	✓	✓	✓

The analysis focuses on the results from 2009 onwards, with a particular interest in changes from 2012 to 2018. There are three main reasons behind this choice.

1. The *Australian Education Act 2013* represented a change in the direction of school policy which may have affected student results.
2. Some changes have been made to PISA questionnaires that make comparisons prior to 2009 difficult.⁶
3. Compositional changes to the PISA sample (such as the year level of students) are most pronounced in the period between 2012 and 2018.

Three model specifications were estimated to ensure results were reliable and robust.

- Specification 1 — included all control variables and an adjustment for the OECD mean. This is considered the main model.
- Specification 2 — included only year level as a control, and an adjustment for the OECD mean.
- Specification 3 — included all controls, but used test scores as a dependent variable (that is, did not adjust for the OECD mean).

Results

Regression results

The base year in the specification is 2018. A positive statistically significant coefficient at time t indicates test scores were *higher* at time t (and therefore have declined between time t and 2018). A negative coefficient indicates the opposite.

The regressions results⁷ set out in table B.2 show that, relative the OECD mean score, results have declined since 2009 for maths and science, but there have been no statistically significant changes over the period

⁶ The exact questions used in the PISA questionnaires change in each wave. This leads to some inconsistencies in variable definitions, for example in the geolocation variable. There are also changes to the ways that indices (for example, for occupational status) are calculated.

⁷ Analysis of the regression residuals suggested that the assumptions of the PWLS model were a good fit for the data.

2012-2018. For reading, there have been no statistically significant changes over the period 2012-2018. Specifically:

- specification 1 (the main model) shows a decline in maths and science scores from 2009 to 2018, but no significant decline since 2012
- specification 2 (which controls for the year levels of students only) shows almost identical results as specification 1 (although a notably lower R^2 due the removal of a number of key explanatory variables). An implication of this is that changes in student demographics result in little change in PISA test results
- specification 3 (which is not specified relative to the OECD mean) shows a statistically significant drop in all subjects between 2009 and 2018, a significant drop in maths and science between 2012 and 2018, and no significant changes in any subject between 2015 and 2018.

Robustness checks

To examine whether the regression results were robust, the analysis was replicated with some minor changes to the PVs in the model. PVs are random draws from a distribution of possible student competencies for each domain (box B.1). In order to check that the regressions' results were not sensitive to random uncertainty in student abilities, the model was replicated with each of the five PVs individually for all three domains. Results were consistent with table B.2.

Table B.2 – There is some evidence of a decline in PISA scores^{a,b}

Pooled regression results for three specifications, for each PISA subject

	Math	Reading	Science
Specification 1: Main model			
2009	15.73*** (4.53)	3.73 (4.60)	10.73* (4.69)
2012	4.81 (4.32)	-2.60 (4.81)	3.63 (5.09)
2015	-0.43 (3.30)	-8.34 (4.99)	0.81 (2.58)
R^2	0.22	0.22	0.20
Specification 2: Year level fixed effects only			
2009	13.72** (4.59)	3.53 (4.68)	9.62* (4.74)
2012	4.60 (4.38)	-2.47 (4.89)	3.94 (5.14)
2015	-0.33 (3.36)	-6.99 (5.07)	1.42 (2.64)
R^2	0.03	0.02	0.02
Specification 3: No OECD control			
2009	21.73*** (4.53)	9.73* (4.60)	22.73*** (4.69)
2012	9.81*	6.40	15.63**

	Math	Reading	Science
		(4.32)	(4.81)
		(5.09)	
2015	0.57	-2.34	4.81
	(3.30)	(4.99)	(2.58)
R²	0.22	0.22	0.21

a. Asterisks indicate statistical significance at the following levels: *** $p < .001$ ** $p < .01$ * $p < .05$. b. Standard errors in parentheses are derived using a combination of standard sampling error and PISA linking errors

Source: Commission estimates based PISA data.

Limitations of the analysis

While the PWLS model found evidence that after controlling for various factors, the decline in Australia's PISA results was less than generally considered, the analysis was not without its limitations.

- The model used data drawn from multiple waves of PISA, in which the questionnaires administered to students differed in a number of ways. Although the data have been prepared to ensure that the variables from each wave are comparable, there may be subtle differences in the way students responded to the test in each wave (for example, due to changes in context or fatigue related to the longer questionnaires in later waves).
- Changes to the countries participating in the test in each PISA wave may impact on the way PISA scores are scaled, or on the OECD mean. This could affect the OECD demeaned scores (specification 1 and 2).
- Due to non-response from students completing the questionnaire, there are some missing values in the variables used in the main model. This led to the omission of 7389 observations from specification 1. This is problematic given that these observations are unlikely to be missing at random – students who do not complete all questions may be more likely to be disengaged, and tend to perform more poorly on average. However, no variables were omitted from specification 2 as the year level variables were available for all students. This provides some assurance that the general result is robust.
- As the questionnaires administered in each year are not identical, there may be subtle differences in the way each variable is worded or framed in each wave. The variables selected for this analysis were relatively comparable across waves, so the effect of any inconsistencies should be minimal.

B.2 Learning achievement for students from priority equity cohorts

Ensuring high-quality and high equity education for students has long been a goal of Australian schooling (chapter 3). Equitable education is important as better educational outcomes can provide benefits for the individual, economy and broader society (chapter 1). However, evidence suggests that some students experience persistent educational barriers (chapter 3).

The Commission investigated learning outcomes for these cohorts by replicating the model used in section B.1 with NAPLAN data (box B.2). NAPLAN collects demographic data on students, enabling analysis of NAPLAN achievement scores for students from three priority equity cohorts: students in outer regional and remote locations; Aboriginal and Torres Strait Islander students; and students with parents with low educational attainment.⁸ Two lines of inquiry were pursued.

⁸ For this analysis, students with parents who did not complete secondary school are assumed to represent students from a priority equity cohort.

1. **How does the learning gain of students from priority equity cohorts compare with other students?** The *Review to Achieve Educational Excellence in Australian Schools* identified that learning level is only one aspect of measuring student performance; another important aspect is learning gain (Gonski et al. 2018, p. 31). Of particular interest to this question is whether all students, regardless of their background, demonstrate similar learning gain in their NAPLAN test scores.
2. **How do multiple educational barriers affect student achievement?**⁹ Chapters 1 and 3 highlight that Australia has been unable to achieve an equitable school system. Part of this stems from the persistent differences in outcomes that occur between students from priority equity cohorts and other students. This research question is intended to estimate the effect that belonging to more than one equity cohort has on student test scores.

Box B.2 – NAPLAN has important differences and similarities with PISA

National Assessment Program – Literacy and Numeracy (NAPLAN) is an annual assessment of reading, numeracy, writing, and conventions of language (such as spelling) administered nationally to students in years 3, 5, 7 and 9. NAPLAN provides insight into how students are progressing in foundational skills against national standards.

While NAPLAN and PISA both assess student achievement, they have a number of differences.

- NAPLAN assesses students in years 3, 5, 7 and 9, which can allow for a student's performance to be tracked over time; NAPLAN is a cross-sectional dataset with the potential to be used as a panel dataset. In contrast, PISA is conducted every three years, and only administered to a sample of 15-year-old students; PISA is a cross-sectional dataset.
- NAPLAN and PISA assess different aspects of education. NAPLAN is designed to assess fundamental literacy and numeracy skills based on the Australian Curriculum (ACARA 2021a, p. iv). PISA is designed to assess students' abilities to apply knowledge and skills to 'real-life problems and situations', and does not prescribe any one curriculum (Thomson et al. 2019, p. xiv).
- PISA tests a significantly smaller sample of students compared with NAPLAN. PISA assesses a random sample of 15-year-old students taken from a nationally representative sample of schools (Thomson et al. 2019, p. xiii) – 14 273 students were tested in PISA 2018. NAPLAN tests the majority of Australian students – approximately 1 150 600 students participated in NAPLAN in 2018¹⁰, with a participation rate of approximately 95 per cent (ACARA 2018a, p. 64).

However, NAPLAN and PISA share some important features.

- Both NAPLAN and PISA provide indicators of progress in student achievement across different cohorts and over time. However, both represent a limited view of education that excludes other outcomes such as achievement in other subjects, and student wellbeing.
- There is evidence that NAPLAN and PISA results are correlated suggesting they could test similar skills (Lumsden et al. 2015, p. 9).

⁹ Multiple educational barriers is defined as students who belong to multiple equity cohorts. For example, an Aboriginal and Torres Strait Islander student who lives in an outer regional or remote location.

¹⁰ Averaged across NAPLAN domains and year levels (ACARA 2022b).

Data

NAPLAN de-identified student-level data were used to investigate both questions. NAPLAN data were obtained from the Australian Curriculum, Assessment and Reporting Authority (ACARA). There were eight waves of data from 2013-2021; there were no data in 2020 as NAPLAN was not conducted due to the COVID-19 pandemic. Data were pooled together, with a number variables retained for multivariate analysis (table B.3 and B.5). This resulted in a combined dataset of 9 501 618 observations.

Inquiry 1: How does the learning gain of students from priority equity cohorts compare with other students?

Methodology

To estimate the learning gain of students from priority equity cohorts relative to other cohorts, lagged NAPLAN achievement scores were used. The NAPLAN dataset provides lagged achievement scores for students in year 5 and year 9.¹¹ This allows for the separate estimation of the learning gains made for each subject (numeracy and reading) between year 3 and year 5 and between year 7 and year 9. Specifically, ordinary least squares (OLS) models (using data for 2013-2021) were estimated using the following equation:

$$y_{i,t,k,g} - y_{i,t,k,g-2} = \beta_0 + \beta_1(\text{Aboriginal and Torres Strait Islander}_i) + \beta_2(\text{remote}_i) + \beta_3(\text{low parental education}_i) + \beta_k' x_i + \gamma_t + \varepsilon_{i,t,k} \quad (2)$$

$$\varepsilon_{i,t,k} \sim N(0, \sigma_k^2)$$

For $t = 2013 - 2019, 2021$ and $k = \text{numeracy, literacy}$

A description of the variables is provided in table B.3. Three empirical specifications were used for the two dependent variables:

- specification 1 — baseline specification (yearly observations from 2013–2021) which includes the coefficients of interest (β_1, β_2 and β_3)
- specification 2 — baseline specification with year fixed effects
- specification 3 — baseline specification with year fixed effects and student controls.

Specification 3 is the preferred estimation as it best controls for any omitted variable bias by introducing the student control variables that were available in the NAPLAN data.

Table B.3 – Student learning gain model variables and parameters

Variable/Parameter	Variable or parameter descriptions	Included in specification		
		(1)	(2)	(3)
$y_{i,t,k,g} - y_{i,t,k,g-2}$	Dependent variable. NAPLAN learning gain for student i , at year t , for subject k and year level g . ^a	✓	✓	✓
β_0	Intercept	✓	✓	✓
β_k'	Vector of coefficients corresponding to each control variable			✓

¹¹ Lagged student achievement was included in a cross-sectional dataset only for year 5 and year 9 students, and therefore, students could not be tracked overtime from years 3 to 9. That is, a panel data analysis could not be conducted. Data were not linked from year 5 to year 7 because there is no unique student identifier to track students from primary school to high school.

Variable/Parameter	Variable or parameter descriptions	Included in specification		
		(1)	(2)	(3)
x_i	Vector of student controls to account for school sector, state, student sex, parental occupation, language background other than English, NAPLAN test type (online or paper), whether the student stayed in the same school, test participation, and previous NAPLAN score			✓
β_1	The coefficient of interest which shows the learning gain for an Aboriginal and Torres Strait Islander student relative to a non-Aboriginal and Torres Strait Islander student	✓	✓	✓
<i>Aboriginal and Torres Strait Islander</i>	A dummy variable, taking the value of 1 if the student identifies as an Aboriginal and Torres Strait Islander student, or 0 otherwise	✓	✓	✓
β_2	The coefficient of interest which shows the learning gain for an outer regional and remote student relative to a metropolitan student	✓	✓	✓
<i>remote</i>	A location of student variable. This takes the value of 1 if the student attends school in an outer regional or remote location, or 0 otherwise (if the student is in an inner regional or metropolitan location)	✓	✓	✓
β_3	The coefficient of interest which shows the learning gain of a student whose highest parental education is Year 11 or below relative to a student whose highest parental education is a Bachelor degree	✓	✓	✓
<i>low parental_education</i>	A level of parental education variable. This takes the value of 1 if a parent's highest level of educational attainment is 'year 11 or below, or 0 otherwise.	✓	✓	✓
γ_t	Yearly time dummy variables (time fixed effects)		✓	✓
$\varepsilon_{i,t,k}$	Idiosyncratic error	✓	✓	✓

a. Subjects include NAPLAN numeracy and reading. Student learning gain is measured between year 3 and year 5, and between year 7 and year 9.

Regression results

The regression results estimate that students from priority equity cohorts gained fewer NAPLAN points, relative to other cohorts between year 3 and year 5, and year 7 and year 9 in reading and numeracy (table B.4), all else equal. Learning gain differs for students based on their previous NAPLAN score (or starting point); this analysis controls for the previous score, and therefore, compares the learning gain for year 5 (year 9) students who were at similar levels in year 3 (year 7). This way, the analysis isolates the difference in learning gain associated with belonging to each priority equity cohort.

Students with parents with low-parental education experienced the largest difference in their learning gain, followed by Aboriginal and Torres Strait Islander students. Students in outer regional and remote areas only experienced a small difference in their learning gain.

For example, the preferred specification (3) estimated that, holding all else equal, between years 3 and 5 in numeracy:

- an Aboriginal and Torres Strait Islander student gained on average 9 NAPLAN points less than a non-Aboriginal and Torres Strait Islander student
- a student whose parents' highest level of education was year 11 or less gained on average 16 NAPLAN points less than a student whose parents' highest level of education was a Bachelor degree
- an outer regional and remote student gained on average 3 NAPLAN points less than a metropolitan student.

Table B.4 – Regression results for the three learning gain specifications

	Specification 1 (Baseline: coefficients of interest)	Specification 2 (Baseline with year fixed effects)	Specification 3 (Baseline with year fixed effects and student controls)
Numeracy Scores			
Year 3 to Year 5 learning gain			
Aboriginal and Torres Strait Islander students	0.35* (0.17)	0.47** (0.17)	-8.96*** (0.17)
Students in outer regional and remote locations	-0.52*** (0.14)	-0.20 (0.14)	-2.68*** (0.14)
Students with parents with low educational attainment	2.44*** (0.13)	2.11*** (0.13)	-15.99*** (0.15)
R-squared	0.001	0.005	0.234
Year 7 to Year 9 learning gain			
Aboriginal and Torres Strait Islander students	1.73*** (0.163)	1.96*** (0.16)	-4.64*** (0.16)
Students in outer regional and remote locations	4.21*** (0.11)	0.78*** (0.13)	-0.09 (0.13)
Students with parents with low educational attainment	-0.95*** (0.13)	2.93*** (0.11)	-10.15*** (0.13)
R-squared	0.001	0.028	0.203
Reading Scores			
Year 3 to Year 5 learning gain			
Aboriginal and Torres Strait Islander students	1.60*** (0.21)	1.83*** (0.21)	-12.07*** (0.19)
Students in outer regional and remote locations	3.80*** (0.17)	4.24*** (0.17)	-2.30*** (0.16)
Students with parents with low educational attainment	7.92*** (0.16)	7.44*** (0.16)	-18.72*** (0.17)
R-squared	0.003	0.005	0.290

	Specification 1 (Baseline: coefficients of interest)	Specification 2 (Baseline with year fixed effects)	Specification 3 (Baseline with year fixed effects and student controls)
Year 7 to Year 9 learning gain			
Aboriginal and Torres Strait Islander students	-2.28*** (0.19)	-2.13*** (0.18)	-8.40*** (0.18)
Students in outer regional and remote locations	-2.31*** (0.15)	-1.17*** (0.15)	-2.13*** (0.15)
Students with parents with low educational attainment	2.07*** (0.13)	1.44*** (0.13)	-12.80*** (0.15)
R-squared	0.001	0.008	0.1703

a. Data ranged from 2013 to 2021 (there are no data for 2020 as NAPLAN was not conducted due to COVID-19). Only the coefficients of interest were included in this table. Not all of the coefficients were statistically significant in the regressions. Standard errors presented in parentheses. *** $p < .001$ ** $p < .01$ * $p < .05$

Source: Commission estimates based on NAPLAN de-identified student-level data.

Inquiry 2: academic achievement for students who experience multiple educational barriers

Methodology

The following equation was used to estimate how experiencing multiple barriers affect academic performance for student i , at year t , for subject k and year level g using an ordinary least squares (OLS) model.

$$\begin{aligned}
 y_{i,t,k,g} = & \beta_0 + \beta_1(\text{Aboriginal and Torres Strait Islander}_i) + \beta_2(\text{remote}_i) + \beta_3(\text{low parental education}_i) \\
 & + \beta_4(\text{Aboriginal and Torres Strait Islander}_i * \text{remote}_i) \\
 & + \beta_5(\text{remote}_i * \text{low parental education}_i) \\
 & + \beta_6(\text{low parental education}_i * \text{Aboriginal and Torres Strait Islander}_i) + \beta_k' x_i + \gamma_t + \varepsilon_{i,t,k}.
 \end{aligned}
 \tag{3}$$

Equation 3 is similar to equation 2, but the dependent variable ($y_{i,t,k,g}$) was changed to a student's NAPLAN score (rather than their learning gain). Equation 3 also includes interaction variables ($\text{Aboriginal and Torres Strait Islander}_i * \text{remote}_i$, $\text{remote}_i * \text{low parental education}_i$ and $\text{low parental education}_i * \text{Aboriginal and Torres Strait Islander}_i$).

The interaction variables show how a student who identifies as belonging to two equity cohorts — such as an Aboriginal and Torres Strait Islander student who lives in outer regional or remote areas — may negatively affect a students' NAPLAN performance (table B.5). Specifically, equation 3 identifies, *all else equal*, how:

1. **belonging to a single priority equity cohort** affects student academic achievement. That is, the coefficients: β_1 , β_2 and β_3
2. **belonging to multiple priority equity cohorts** affects student academic achievement. For example, for an Aboriginal and Torres Strait Islander student who lives in outer regional and remote areas. This can be determined by adding β_1 and β_2 together
3. **belonging to multiple equity cohorts results in further compounding effects** on student academic achievement (coefficients β_4 , β_5 and β_6). If β_4 , β_5 and β_6 are statistically significant and negative, it suggests that belonging to more than one equity cohort is negatively correlated with student academic

achievement above the sum of β_1 , β_2 or β_3 . For example, β_4 provides an estimate for if there is an additional impact on NAPLAN scores for an Aboriginal and Torres Strait Islander student living in outer regional and remote area (above the effect identified through summing β_1 and β_2).

The model was estimated eight times: regressions were run separately for students in years 3, 5, 7, and 9 for both NAPLAN numeracy and reading. This model also has the same year (γ_t) fixed effects, and vector of student controls (x_i) as equation 2 (table B.3).

Table B.5 – Compounding barriers model variables and parameters ^a

Variable/Parameter	Variable or parameter descriptions
$y_{i,t,k,g}$	Dependent variable. NAPLAN score for student i , at year t , for subject k and year level g^a
β_4	The coefficient of interest. It shows the NAPLAN score of an Aboriginal and Torres Strait Islander student who lives in outer regional or remote areas relative to a non-Aboriginal and Torres Strait Islander student who lives in a metropolitan area
<i>Aboriginal and Torres Strait Islander * remote</i>	An interaction variable between an Aboriginal and Torres Strait Islander student dummy variable and a location variable
β_5	The coefficient of interest. It shows the NAPLAN score of a student whose highest parental education is year 11 or below and lives in an outer regional or remote area, relative to a student whose highest parental education is a Bachelor degree and lives in a metropolitan area
<i>remote * low parental education</i>	An interaction variable between a location variable and a highest parental education variable
β_6	The coefficient of interest. It shows the NAPLAN score of an Aboriginal and Torres Strait Islander student whose highest parental education is year 11 or below, relative to a non-Aboriginal and Torres Strait Islander student whose highest parental education is a Bachelor degree
<i>Aboriginal and Torres Strait Islander * low parental education</i>	An interaction variable between an Aboriginal and Torres Strait Islander student dummy variable and a highest parental education variable

a. This table only includes descriptions of the new variables in equation 3 compared with equation 2. That is, only the different dependent variable and new interaction terms. All other variables are the same as described in Table B.3.

Regression results

The regression results are shown in table B.6. The results show that:

- **students from a single priority equity cohort score on average less in NAPLAN reading and numeracy across all year levels (β_1 , β_2 and β_3).** Students from low-parental education households experienced the largest difference in their NAPLAN scores, followed by Aboriginal and Torres Strait Islander students, and outer regional and remote students. For example, holding all else equal in year 3, an Aboriginal and Torres Strait Islander student scored on average 37 NAPLAN points less than a non-Aboriginal and Torres Strait Islander student in numeracy, and 41 points less in reading
- **students belonging to multiple priority equity cohorts score on average less in NAPLAN reading and numeracy than students from one priority equity cohort across all year levels, this suggests that the effects of barriers can be compounding.** For example, holding all else equal, a year 3 Aboriginal and Torres Strait Islander student who lives in an outer regional or remote area would score

on average about 72 points less in numeracy than a non-Aboriginal and Torres Strait Islander student from a metropolitan area.

The Commission also found some examples where belonging to multiple equity cohorts resulted in further compounding effects on student academic achievement.

- Aboriginal and Torres Strait Islander students who live in outer regional and remote locations (*Aboriginal and Torres Strait Islander * remote*) scored on average even less across all year levels (denoted by the statistical significance of the *ATSI * remote* indicator).
- However, evidence of further compounding effects was not universal. For example, Aboriginal and Torres Strait Islander students from low-parental education households (*Aboriginal and Torres Strait Islander * parental_education*) on average did not experience additional compounding negative effects on outcomes. The same was found for students from outer regional and remote areas with parents with low educational attainment (*remote * parental_education*).
- It is possible that the education variable suffers from an endogeneity problem, which could distort the interaction terms and cause them to appear positive. This is discussed in the limitations section below.

Table B.6 – Regression results for compounding barriers model^a

	Year 3	Year 5	Year 7	Year 9
Numeracy scores				
<i>Aboriginal and Torres Strait Islander</i>	-37.19*** (0.74)	-36.27*** (0.72)	-42.24*** (0.74)	-41.32*** (0.76)
<i>remote</i>	-15.28*** (0.38)	-16.47*** (0.38)	-18.69*** (0.43)	-18.63*** (0.43)
<i>low parental education</i>	-55.45*** (0.28)	-53.95*** (0.26)	-56.86*** (0.27)	-53.83*** (0.25)
<i>Aboriginal and Torres Strait Islander * remote</i>	-19.56*** (0.67)	-19.54*** (0.64)	-20.77*** (0.70)	-12.60*** (0.74)
<i>Aboriginal and Torres Strait Islander * low parental education</i>	12.61*** (0.87)	11.12*** (0.84)	15.72*** (0.88)	17.49*** (0.92)
<i>remote * low parental education</i>	10.94*** (0.74)	11.72*** (0.69)	11.69*** (0.75)	16.29*** (0.75)
R-squared	0.17	0.18	0.20	0.19
Reading scores				
<i>Aboriginal and Torres Strait Islander</i>	-40.74*** (0.87)	-35.39*** (0.80)	34.78*** (0.71)	-32.38*** (0.76)
<i>remote</i>	-16.66*** (0.45)	-13.48*** (0.42)	-13.60 (0.41)	-11.56*** (0.43)
<i>low parental education</i>	-62.42*** (0.33)	-56.64*** (0.29)	-51.91*** (0.26)	-49.39*** (0.25)
<i>Aboriginal and Torres Strait Islander * remote</i>	-23.32*** (0.78)	-24.57*** (0.68)	-20.99*** (0.67)	-18.79*** (0.73)

	Year 3	Year 5	Year 7	Year 9
<i>Aboriginal and Torres Strait Islander</i>	9.60***	5.01***	7.68***	4.88***
<i>* low parental education</i>	(1.02)	(0.93)	(0.85)	(0.91)
<i>remote * low parental education</i>	3.85***	2.36**	7.69***	2.23**
	(0.87)	(0.76)	(0.44)	(0.75)
R-squared	0.16	0.17	0.18	0.17

a. Data ranged from 2013 to 2021 (there are not data for 2020 as NAPLAN was not conducted due to COVID-19). Only the coefficients of interest were included in this table. Not all of the coefficients were statistically significant in the regressions. Standard errors presented in parentheses. *** $p < .001$ ** $p < .01$ * $p < .05$.

Source: Commission estimates based on NAPLAN de-identified student-level data.

Limitations of the analysis

The NAPLAN models were subject to a number of limitations.

- Data were not linked in a panel format. If the data were linked, the analysis could control for the unobserved, time-invariant student characteristics (such as inherited factors like ability) that affect student test scores.
- Outer regional and remote student estimates are likely to be positively biased for those students located in very remote areas. This is because the variable in the NAPLAN data changed in 2016 to include outer regional students who are closer to inner regional areas.
- There are a number of priority equity cohorts not captured in the data that are important to consider. For example, there is no NAPLAN achievement data for students with disability or students with English as an additional language or dialect, which limits the breadth of the analysis.
- The analysis estimates the p-values for a large number of parameters. Reporting many p-values inflates the likelihood of making at least one Type 1 error (that is, claiming a statistically significant relationship when there is none).¹²
- Parental education attainment is likely to be correlated with a number of unobservable factors that may influence a student's achievement — including heritable factors such as intelligence or ability, and environmental factors such as parental enthusiasm about learning. This implies that the parental education variable would be endogenous (that is, correlated with the error term $\varepsilon_{i,t,k}$), and β_3 would be negatively biased. Further, this would likely have implications for the interaction effects involving low-parental education (β_4 and β_5 in the multiple barriers model); such as the sign, magnitude and significance of the results.

Conclusion

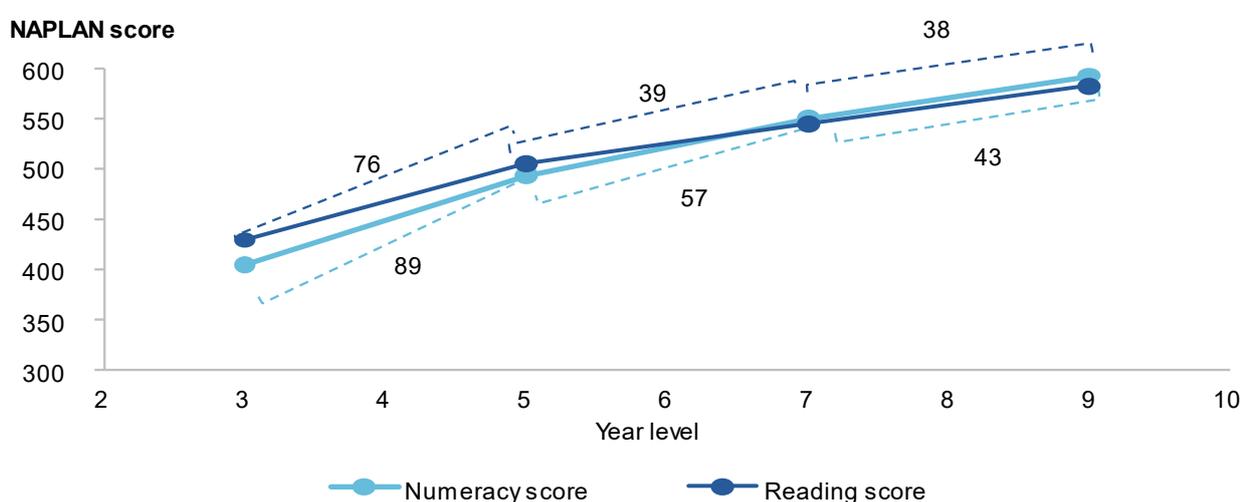
Overall, the preliminary results show evidence that students from priority equity cohorts experience less learning gain than other students for NAPLAN numeracy and reading. The difference in learning gain was most prevalent for students from low-parental education households, and for Aboriginal and Torres Strait Islander students. Further, the results show that students who experience one or multiple barriers, score on average less than other students, across all year levels for numeracy and reading, suggesting that the effects of barriers can be compounding. The Commission also found some examples where belonging to multiple equity cohorts resulted in further compounding effects on student academic achievement.

¹² Given the very small standard errors, common adjustments such as the Bonferroni correction are unlikely to change the results.

B.3 Equivalised years of learning

Learning gain — NAPLAN points gained overtime — can provide insights into how students are progressing in terms of academic achievement. However, the interpretation of learning gain is limited by the lack of direct interpretation of NAPLAN scores — a given score represents the same level of achievement over time but ‘the numbers themselves have no particular meaning’ — especially for most students and their families (ACARA 2022c; Goss and Chisholm 2016, p. 6). Additionally, it is difficult to compare students from different starting points due to the non-linear growth path of NAPLAN scores between year levels. The increase in NAPLAN points for the average student falls as students progress through school (ACARA 2015, p. 5) (figure B.2).¹³

Figure B.2 – Average learning gains fall as students progress to higher year levels
Average scores for NAPLAN numeracy and reading, across 2013 to 2021



Source: Commission estimates based on NAPLAN de-identified student-level data.

Alternative measures of learning can provide better insight into how students are progressing. One potential measure is equivalised years of learning (EYL).¹⁴ Equivalised years of learning translates NAPLAN scores into a measure of how much a student has learnt in terms of years of learning, and is therefore more likely to be readily understandable. For example, a student who performs at the year 3 average NAPLAN score is assumed to have an EYL of three years. This measure allows for a better understanding of:

- how students are progressing relative to a benchmark of the average student
- how students are progressing relative to other students with different levels of prior achievement.

Developing an equivalised years of learning measure for NAPLAN

To estimate EYL a logarithmic function was used to fit NAPLAN data. This logarithmic function was then transposed to estimate the EYL. This involved a four-step process.

¹³ This means that the expected gains in NAPLAN points are not the same between year levels (Goss, Emslie and Sonnemann 2018, p. 8). This could potentially reflect a non-linear growth path of student learning where students increase their skill level faster from a lower base, meaning that learning progress slows down over time (Goss and Chisholm 2016, p. 8).

¹⁴ The Grattan Institute created an Equivalent Year Level measure for NAPLAN data (Goss and Chisholm 2016). The method adopted by the Commission is a simplified version of the method created by the Grattan Institute.

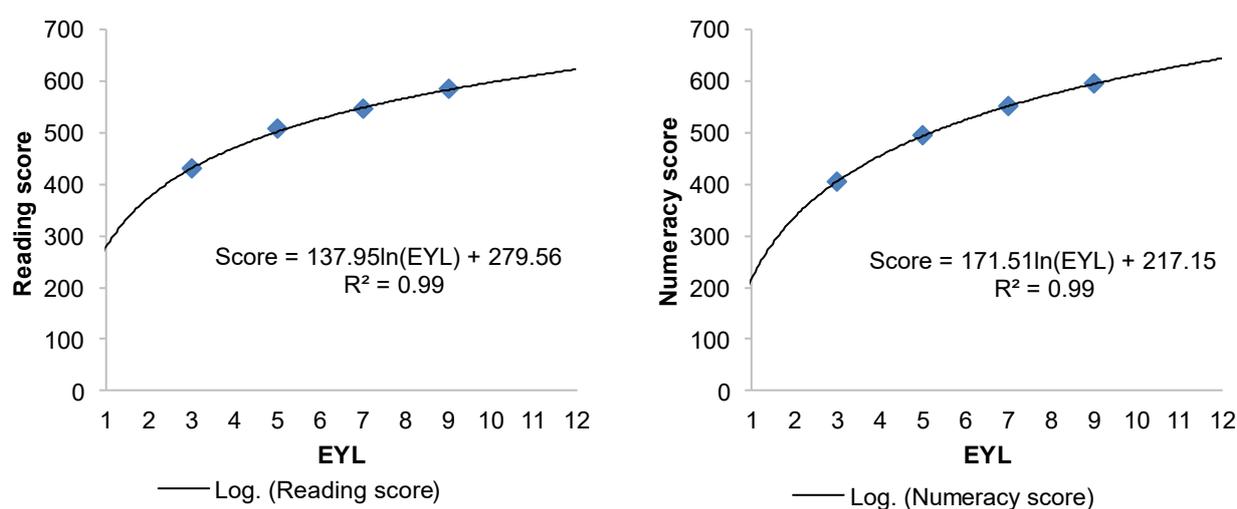
1. Calculate mean scores for NAPLAN numeracy and reading for each year level across the entire sample (2013 to 2021).¹⁵
2. The mean scores are assumed to represent the EYL of an average student for that year level. This is shown in figure B.3.
3. The relationship between mean scores and EYL is estimated using a logarithmic function. (figure B.3).¹⁶
4. These functions were then transposed to make EYL the subject. This allows one to predict the EYL from a given NAPLAN score. The EYL difference between students in different cohorts can also be calculated (box B.3).

a. Numeracy: $EYL = \exp\left(\frac{Score - 217.15}{171.15}\right)$

b. Reading: $EYL = \exp\left(\frac{Score - 279.56}{137.95}\right)$

Figure B.3 – NAPLAN scores are fitted with a logarithmic function^a

Average NAPLAN scores for numeracy (left) and reading (right), and their fitted logarithmic functions



a. Averages are based off data from 2013 to 2021 (excluding 2020 as NAPLAN was not conducted due to COVID-19). Source: Commission estimates based on NAPLAN de-identified student-level data.

This EYL measure expresses a student's NAPLAN scores relative to the average in terms of years of learning. The difference between two EYL scores shows the time it takes for an average student to make up that difference (box B.3).

Interpreting the EYL measure requires some nuance — if the difference in EYL scores between two students increases over time, this is not necessarily an indication that one student has learned less than the other. The difference in NAPLAN scores represent a 'knowledge gap' between two students; whereas the difference in EYL represents the time it would take to bridge that knowledge gap. As student learning growth

¹⁵ It is important to estimate numeracy and reading scores separately, as the logarithmic function that fits the average scores is different for each subject. Replicating the analysis for each year in the dataset does not greatly change the results, so the data were pooled across all years.

¹⁶ This function provided a very good fit for the data – an R-squared of 0.99 for both numeracy and reading.

in the NAPLAN data is faster when students are younger (figure B.2), a constant gap in knowledge (NAPLAN scores) would take longer to bridge (as measured by EYL) as a student gets older.

Interpreting differences in EYL between cohorts over time also requires some care. In general, NAPLAN scores show a decline in the knowledge gap over time between student cohorts, while the EYL figures show that it will take longer to bridge this (smaller) knowledge gap. For example, figure B.4 shows that from year 3 to year 9, the average NAPLAN numeracy score difference between outer regional and remote students, and metropolitan students decreased (from 37 points to 33 points). In contrast, the EYL difference increased from 0.6 to 1.6 years. The decline in the difference between NAPLAN scores means that the numeracy 'knowledge gap' has decreased; that is, the difference in numeracy knowledge in year 9 is less than in year 3. In contrast, the increase in the EYL difference overtime means it will take students longer to bridge this 'knowledge gap'.

Box B.3 – An example of applying the equivalised years of learning function

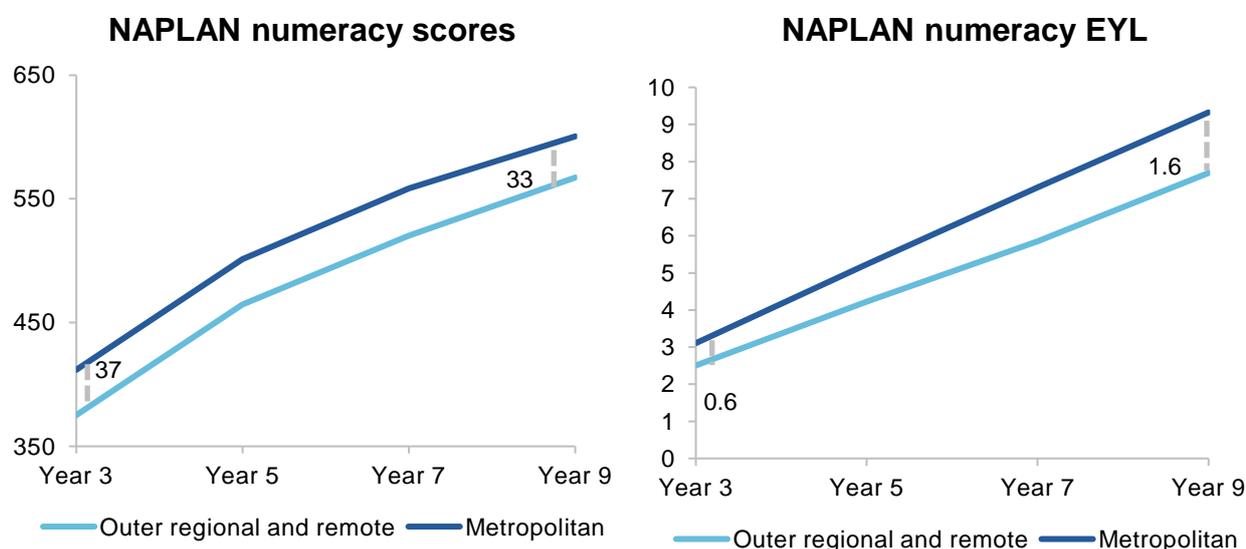
To convert National Assessment Program – Literacy and Numeracy (NAPLAN) scores to equivalised years of learning (EYL), the fitted logarithmic equations in figure B.3 are transposed to make EYL the subject of the equation. This function can then be applied to NAPLAN scores to predict the EYL. For example, a year 9 outer regional and remote student's average numeracy score is 567.3, and a year 9 metropolitan student's average numeracy score is 600.5.

$$\text{EYL of an average outer regional and remote student} = \exp\left(\frac{567.3-217.15}{171.15}\right) = 7.7 \text{ years}$$

$$\text{EYL of an average metropolitan student} = \exp\left(\frac{600.5-279.56}{137.95}\right) = 9.3 \text{ years}$$

Therefore, the EYL difference is $9.3 - 7.7 = 1.6 \text{ years}$. This means that **on average**, it would take about 1.6 years for a year 9 outer regional and remote student to attain the same NAPLAN score as a metropolitan student.

Source: Commission estimates based on NAPLAN de-identified student-level data.

Figure B.4 –EYL measures a different perspective on outcome gaps^a**Average NAPLAN numeracy scores (left) and average NAPLAN EYL (right), by location**

a. Data are pooled across the whole sample from 2013 to 2021 (excluding 2020 as NAPLAN was not conducted due to COVID-19). Dotted lines show the difference in terms of NAPLAN numeracy scores (left) and EYL (right) for year 3 and year 9.

Source: Commission estimates based on NAPLAN de-identified student-level data.

Assumptions and limitations

There are two core assumptions that underpin the conversion of NAPLAN scores to EYL:

1. A student would receive the same NAPLAN score, regardless of the test they sit. This is a strong assumption, as a year 9 student, who is two years behind and being taught the year 9 curriculum, may sit the year 9 NAPLAN test and perform below the year 7 level. However, if they were taught the year 7 curriculum and were to sit the year 7 NAPLAN test, their outcome may be different.
2. The rate at which a child gains NAPLAN points is measured based on their EYL, not their year level. For example, a year 7 student performing at the year 5 level is expected to learn at the year 5 rate, not the year 7 rate. If they acquire knowledge at the same rate as their year level, the EYL measure finds they are actually falling further behind.

The NAPLAN EYL measure is subject to limitations.

- The measure should only be used on large groups of students and avoid student- and school-level comparisons, and analysis of extreme observations. This is because NAPLAN data have large measurement error at the individual-level.
- The measure would be less accurate for EYL that are less than 3 years and greater than 9 years. This is because NAPLAN is not conducted before year 3 and after year 9. Extrapolating past these bounds may lead to misleading or biased results, as there is no way to verify if the logarithmic function is a good fit.
- The measure assumes a 'typical' student achieves the average NAPLAN score. This measure does not model a typical student based on student characteristics.

C. National Policy Initiatives: background and assessments

C.1 The task

The terms of reference indicate that the Commission should assess '[t]he effectiveness and appropriateness of the National Policy Initiatives (NPIs) outlined in Part 3 of the NSRA [National Schools Reform Agreement], recognising that national reform takes time to implement and mature, and for the effects of nationally coordinated reform efforts to materialise'. This fulfils the requirements under section 29 of the National School Reform Agreement.

Eight NPIs were included under the NSRA. Milestones and timing were set out in Schedule B of the NSRA, and subject to Education Council considering and agreeing the cost and cost sharing arrangements, scope and governance of each NPI, acknowledging the different local contexts and starting points of each jurisdiction.¹⁸³

The NPIs were nested within three reform streams:

A. Supporting students, student learning and student achievement

- i. Enhancing the Australian Curriculum to support teacher assessment of student attainment and growth against clear descriptors
- ii. Assisting teachers to monitor individual student progress and identify student learning needs through opt-in online and on demand student learning assessment tools with links to student learning resources, prioritising early years foundation skills ¹⁸⁴
- iii. Reviewing senior secondary pathways into work, further education and training

B. Supporting teaching, school leadership and school improvement

- i. Reviewing teacher workforce needs of the future to attract and retain the best and brightest to the teaching profession and attract teachers to areas of need
- ii. Strengthening the initial teacher education (ITE) accreditation system

C. Enhancing the national evidence base

- i. Implementing a national unique student identifier (USI) that meets national privacy requirements in order to support better understanding of student progression and improve the national evidence base

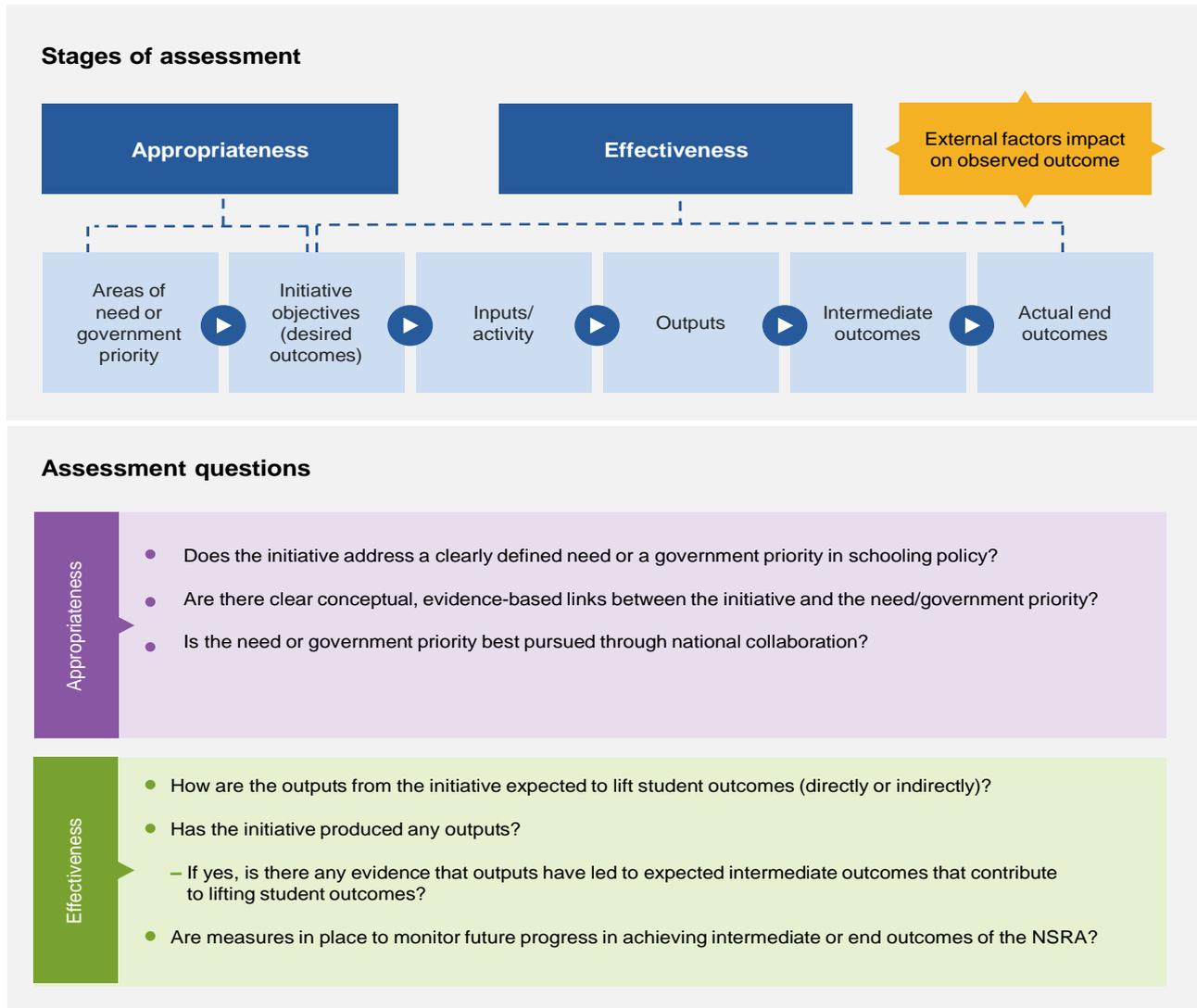
¹⁸³ Schedule B notes that milestones may be added or amended.

¹⁸⁴ Initiatives A (i) and (ii) were combined to form the Online Formative Assessment Initiative.

- ii. Establishing an independent national evidence institute to inform teacher practice, system improvement and policy development
- iii. Improving national data quality, consistency and collection to improve the national evidence base and inform policy development.

C.2 The Commission's approach

The Commission's proposed approach to assessing the effectiveness and appropriateness of the NPIs is summarised at Figure C.1. In assessing both effectiveness and appropriateness, a clear articulation of how the activities undertaken as part of the NPIs will lead to the desired NSRA outcomes (sometimes referred to as the 'theory of change' or 'program logic') can be highly valuable. The Commission's approach draws on Australian Government Department of Finance evaluation advice, as well as previous work undertaken the Commission (Department of Finance 2021; PC 2013). Assessments were informed by relevant research, key documents that underpinned the selection of the NPIs, progress updates made available on the Department of Education website, and responses to the Call for Submissions.

Figure C.1 – Approach to defining and assessing appropriateness and effectiveness

Source: Adapted from various guidelines, including Department of Finance (2021).

C.3 Assessment of individual National Policy Initiatives

The NSRA states that the eight NPIs build on existing activities, have a robust and evidence-based rationale, and concentrate reform effort on 'key enablers that drive improvements in educational outcomes.'¹⁸⁵ Initiative selection was informed by key inputs set out at section 8 of the NSRA including the Review to Achieve Educational Excellence in Australian Schools. As noted in chapter two, the ideas behind some of the initiatives were around several years before the NSRA.

Consistent with the shared responsibilities set out at section 56 of the agreement, responsibility for progressing individual NPIs has been shared between national education agencies and bodies (such as ACARA) and groups of officials reporting through Education Council, as well as dedicated project management boards and individual jurisdictions. Reports on progress towards implementing the NPIs are

¹⁸⁵NSRA, s. 43.

published annually on the Department of Education website. More detailed fact sheets are also available on the Department of Education website.¹⁸⁶

Supporting students, student learning and student achievement

NPIs A.i) and ii) *Enhancing the Australian Curriculum to support teacher assessment of student attainment and growth against clear descriptors* and *Assisting teachers monitor individual student progress and identify student learning needs through opt-in online and on demand student learning assessment tools with links to student learning resources, prioritising early years foundation skills*.

Table C.1 – Online Formative Assessment Initiative (OFAI) (NPI A (i) & A (ii))

Assessment of effectiveness and appropriateness

Assessment question	Answer
Appropriateness	
Does the initiative address a clearly defined need or government priority in schooling policy?	Yes. Productivity Commission analysis for this review confirmed that in any given school year-level, there is a wide spread of achievement. The online formative assessment initiative would help teachers identify a student’s level, teach to their standard, and maximise learning growth (Gonski et al. 2018). Through providing support to teachers in this way, this initiative also has the capacity to help manage teacher workloads and competing demands on time.
Are there clearly defined conceptual, evidence-based links between the initiative and the need/government priority?	Formative assessment has been used with some success in subjects such as science and writing (Lane et al. 2019). As the OFAI is yet to commence, it is not possible to assess its impacts. However teachers and schools have been comprehensively consulted to align the design of the tool with what is most likely to be helpful. A comprehensive monitoring and evaluation program has also been designed to ensure the project is valuable for teachers.
Is the need or government priority best pursued through national collaboration?	This is unclear. Larger jurisdictions may perceive less value in pursuing a nationally consistent approach — some have suggested that the online formative assessment shares some features with tools they already adopt. ¹⁸⁷ Smaller jurisdictions may be more likely to find value in the economies of scale brought about through national collaboration. ¹⁸⁸ Pursuing implementation of an OFAI via a national approach, even on an ‘opt in’ basis raises a number of complex matters (legislative requirements, privacy, ICT platforms, cost sharing, interface with existing school and systems) to overcome for the tool to be successful. ¹⁸⁹ None of these issues are insurmountable. However, the benefits of participating in a national approach need to be clearly articulated, and options for jurisdictions to retain or leverage their existing tools (for example via a modular approach to the development of the OFAI) explored, to support productive collaboration by all jurisdictions.

¹⁸⁶ These were last updated in May 2021.

¹⁸⁷ Victorian Government, sub. 31

¹⁸⁸ Northern Territory Government, sub. 42

¹⁸⁹ Government of Western Australia, sub. 19

Assessment question**Answer****Effectiveness**

How are the outputs from the initiative expected to lift student outcomes (directly or indirectly)?	Directly. The output is expected to improve teacher practices by allowing them to identify a students' current learning level and tailor their teaching to the students' ability.
Has the initiative produced any outputs?	Yes. A series of intermediate outputs, including learning progressions, a discovery phase report, and a literature review have been completed. ¹⁹⁰ However, the main output — an online tool to help teachers, has not yet been completed, or introduced into schools.
If yes, is there any evidence that outputs have led to expected intermediate outcomes that contribute to lifting student outcomes	No. As the outputs are only intermediate outputs, nothing has been implemented in the classroom. Therefore there is no evidence that the outputs have led to any changes in outcomes at this stage.
Are any measures in place to monitor future progress in achieving intermediate or end outcomes of the NSRA?	Progress on this initiative is monitored via NSRA annual reports on progress and the stand-alone Online Formative Assessment Initiative website. The last OFAI newsletter was released in June 2021.

Conclusion

This remains an appropriate initiative for progression at the national level, and has the potential to effectively influence student outcomes. As noted above, the benefits need to be clearly articulated, and options for jurisdictions to retain or leverage their existing tools explored, to support productive collaboration by all jurisdictions.

¹⁹⁰ These are available at <https://ofai.edu.au/> — a custom-build website for the Online Formative Assessment initiative

NPI A (iii) *Reviewing senior secondary pathways into work, further education and training.*

Table C.2 – Senior Secondary Pathways Review (NPI A (iii))

Assessment of effectiveness and appropriateness

Assessment question

Answer

Appropriateness

Does the initiative address a clearly defined need or government priority in schooling policy?

Yes. The review was an ‘urgent’ recommendation of the second Gonski report, which described the state of the senior secondary schooling curriculum and delivery structure as ‘unsatisfactory’. The recommendation specified three areas of focus for the review: the kind and quality of educational experiences provided in senior secondary; the adequacy of senior secondary education for students’ employment outlook; and how student achievements are assessed and reported (Gonski et al. 2018, pp. 53–55).

These areas continued to be raised as being of importance in consultations undertaken for this review, and several submissions from stakeholder groups expressed general support for the review.¹⁹¹ New South Wales (NSW Department of Education 2021b) and Victoria (sub. 31, p. 5-6) have also commissioned related reviews at state level.

Are there clearly defined conceptual, evidence-based links between the initiative and the need/government priority?

Partly. The Gonski report identified senior secondary schooling as a specific problem area within the school system. While a dedicated review might have been a sensible approach to progressing work in this area, in and of itself, it does not address the policy needs outlined above. That would require the review to identify meaningful reforms and for these reforms to be implemented.

Is the need or government priority best pursued through national collaboration?

There was a strong case for the initial NPI being pursued through a national approach due to funding and regulatory responsibilities for both schools and vocational education and training being shared between the Australian Government and the States and Territories.

Moving forwards, the need for a nationally collaborative approach is less clear. Some of the review’s recommendations would ideally (or are explicitly directed to) be carried out nationally, while others could potentially be undertaken separately by jurisdictions.¹⁹²

Both New South Wales (sub. 12, p. 13) and Victoria (sub. 31, p. 9-10) have foregone at least some of the national response to the review in favour of their own processes. Both states commented on the time or administrative

¹⁹¹ National Catholic Education Commission, sub. 7; Catholic School Parents Australia, sub. 24; Learning Creates Australia, sub. 35; Australian Education Union, sub. 36.

¹⁹² Examples of recommendations suited to national collaboration include the development of a national strategy on Vocational Education and Training in schools (which is being overseen under the Heads of Agreement for Skills Reform (DoE 2022b)), formalising the relationship between education authorities and industry bodies and the national transition from school program. Examples of recommendations that could be undertaken separately by jurisdictions include the strengthening of career guidance and ensuring that all students with disability have access to work exploration opportunities and a post-school transition plan.

Assessment question**Answer**

cost of attempting to achieve national consensus when progressing initiatives.

Effectiveness

How are the outputs from the initiative expected to lift student outcomes (directly or indirectly)?

Indirectly. The review's recommendations centre on helping students to leave school better-equipped to succeed outside of the academic realm. Some recommendations attempt to address this directly, such as those on improving the quality of Vocational Education and Training (VET). Learner profiles, arguably the most prominent recommendation, would potentially have both a direct and indirect impact, though they are still a largely untested concept. Learner profiles may indirectly incentivise schools and students to put more of their focus towards non-academic skills and outcomes, but may also help directly support post-school employment outcomes by better communicating non-academic skills and attributes. However, few of the remaining recommendations represent actions that are both clearly defined and would be expected to have a substantial impact on the outcomes of the NSRA.

Has the initiative produced any outputs?

Yes. The review was completed, with its report released in June 2020. Education Ministers agreed to all of its recommendations 'in-principle' and agreed on a workplan to implement some of them in December 2020 (DESE 2021e), but it is unclear which have since been implemented.

If yes, is there any evidence that outputs have led to expected intermediate outcomes that contribute to lifting student outcomes

Not as yet.

Are any measures in place to monitor future progress in achieving intermediate or end outcomes of the NSRA?

Noting that this initiative is reported as having been completed, the plan for implementing the majority of the report's recommendations and monitoring their impact is unclear.

Conclusion

Some report recommendations are appropriate for progression at a national level. Ideally, parties would agree on and publicly announce which of the remaining Review recommendations will involve further national cooperation to implement. They should put in place clear responsibilities for further evaluation and, where appropriate, implementation, tracking of progress and assessing impacts on student outcomes.

Supporting teaching, school leadership and school improvement

NPI B (i) *Reviewing teacher workforce needs of the future to attract and retain the best and brightest to the teaching profession and attract teachers to areas of need.*

Table C.3 – Teacher workforce review (NPI B (i))
Assessment of effectiveness and appropriateness

Assessment question	Answer
Appropriateness	
Does the initiative address a clearly defined need or government priority in schooling policy?	Yes. The teacher workforce review and strategy aimed to address the need for national, collaborative teacher workforce planning, and better identify issues in the national teacher labour market (AITSL 2021b, p. 2). The teacher labour market is currently experiencing shortages, concentrated in particular subjects, and in regional, rural and remote areas. These may persist into the future (chapter 5).
Are there clearly defined conceptual, evidence-based links between the initiative and the need/government priority?	Partly. The teacher workforce review and strategy's core functions were to identify current and future issues in the teacher workforce and strategies to overcome them. However, any evidence-based links to policy problems (such as teacher attraction and retention) rely on the review identifying meaningful reforms and these reforms being implemented.
Is the need or government priority best pursued through national collaboration?	Yes. While some individual jurisdictions have undertaken local teacher market modelling, there are emerging national pressures that would benefit from a more systematic approach, including to better predict teacher labour market imbalances (chapter 5). Additionally 'it is more efficient to have one national dataset on the teaching workforce, with easy access for jurisdictions, especially in a national labour market' (AITSL, sub. 27, p. 9).
Effectiveness	
How are the outputs from the initiative expected to lift student outcomes (directly or indirectly)?	Indirectly. Improved workforce planning can support teacher effectiveness — the most important in-school factor driving student outcomes (chapter 5). Better workforce planning can reveal where and why some shortages might occur so that they can be mitigated, and assist in overcoming coordination problems between initial teacher education (ITE) providers, schools, and education departments.
Has the initiative produced any outputs?	Yes. According to the (then) Education Council, the <i>National Initiatives to Support Teaching and School Leadership</i> document (2020c), and the workforce strategy <i>Teaching Futures: A National Teacher Workforce Strategy for Australia</i> , together fulfilled governments' commitments to review teacher workforce needs (Education Council 2020d, p. 6). The Workforce Strategy is not yet publicly available (AITSL, pers. comm., 12 August 2022), noting that Ministers agreed that the Workforce Strategy would be 'published as a background paper' (Education Council 2020a, p. 1) with the <i>Teaching Futures: Background Paper</i> publicly available (AITSL 2021b).
If yes, is there any evidence that outputs have led to expected intermediate	There is no information in the public domain to suggest that parties to the NSRA have used the review to implement policy actions that could influence

Assessment question	Answer
outcomes that contribute to lifting student outcomes	student outcomes. Further, there is no clear plan on how jurisdictions will implement the National Teacher Workforce Strategy to plan for future workforce needs. As such, neither output provides the resources required by school systems and ITE providers to identify and plan for future workforce needs. ¹⁹³
Are any measures in place to monitor future progress in achieving intermediate or end outcomes of the NSRA?	Noting that the end outcome of this initiative (as defined under the NSRA) has been achieved, it is unclear what the plan is for implementing the Strategy. There may be opportunities to incorporate key aspects of the Strategy into the National Teacher Workforce Action Plan currently under development.

Conclusion

Ongoing work on the teacher workforce is appropriate for progression at the national level, and has the capacity to effectively improve student outcomes. The Commission has recommended developing a national model of the teacher workforce to support workforce planning. (Draft recommendation 5.1). The Commission notes that Ministers have recently committed to developing a National Teacher Workforce Action Plan, with the working group aiming to deliver a report in December 2022, outlining priorities for immediate action (Education Ministers Meeting 2022, p. 1). This may provide an additional forum for national collaboration on the teacher workforce.

NPI B (ii) *Strengthening the initial teacher education accreditation system.*

**Table C.4 – Initial teacher education (NPI B (ii))
Assessment of effectiveness and appropriateness**

Assessment question	Answer
Appropriateness	
Does the initiative address a clearly defined need or government priority in schooling policy?	Yes. The NPI was established as part of a number of national reforms, introduced in September 2018, to strengthen the initial teacher accreditation system (DESE 2021g, p. 1). These were in response to challenges the Teacher Education Ministerial Advisory Group (TEMAG) raised regarding ITE (which were subsequently highlighted in the second Gonski Review). These included deficits in ITE quality and selection processes, shortcomings in subject and content preparation, and a lack of classroom readiness, particularly at career commencement (Gonski et al. 2018, pp. 73–74). TEMAG’s recommended reforms were made in response to evidence that teachers are a major source of variance in student achievement and ‘significant public concern regarding variability in the quality of teaching in Australian classrooms and the effectiveness of the preparation of new teachers for the profession’ (TEMAG 2014, p. 1).
Are there clearly defined conceptual, evidence-based links between the	Yes. The initiative aims to improve the consistency of ITE preparation, classroom readiness and the quality of teaching in Australian classrooms. It requires pre-service teachers in ITE to complete an endorsed final-year

¹⁹³ The Workforce Strategy is not yet publicly available (AITSL, pers. comm., 12 August 2022). This assessment is based on the Teaching Futures: Background Paper (AITSL 2021b), noting that Ministers agreed that the Workforce Strategy would be ‘published as a background paper’ (Education Council 2020a).

Assessment question

Answer

initiative and the need/government priority?

teaching performance assessment prior to graduation, and for governments to undertake national quality assurance activities in cooperation with jurisdictional authorities.

Is the need or government priority best pursued through national collaboration?

Yes. Both Australian and State and Territory governments play roles in ITE. Further, ITE is becoming increasingly connected across Australia, meaning changes in one jurisdiction can affect teacher graduates in another. For example, AITSL (sub. 27, p. 9) noted '[t]he rise of online ITE means prospective teachers living (and planning to work) in one jurisdiction can study at an ITE provider based in another jurisdiction. A quarter of ITE students study fully online, and a third of these live in a jurisdiction other than the one where their provider is based and regulated.'

Effectiveness

How are the outputs from the initiative expected to lift student outcomes (directly or indirectly)?

Improving the quality of ITE can improve teacher effectiveness through better preparing ITE graduates for the classroom and improving classroom practices.

Has the initiative produced any outputs?

Yes. All milestones outlined in the NSRA are reported as having been fully completed (DESE 2022c, p. 2).

- States and Territories have ensured that accredited initial teacher education programs require pre-service teachers to have successfully completed an endorsed final-year teaching performance assessment prior to graduation (DESE 2022c, p. 3).
- National quality assurance activities have commenced in cooperation with all jurisdictional authorities (DESE 2022c, p. 3).

If yes, is there any evidence that outputs have led to expected intermediate outcomes that contribute to lifting student outcomes?

It is difficult to assess whether the new standards have affected the quality of ITE preparation, and therefore the intermediate outcome of teacher preparedness or quality of teaching.

The new standards governing ITE providers have been in place for little more than two years, and so have only impacted a small proportion of the teacher workforce (Education Council 2020d, p. 6). The Commission estimates that approximately 26 000 students completed ITE between 2019 and 2020 after the final-year TPA was introduced (ACARA 2022i). Assuming all ITE completions entered the workforce, this represents approximately 9 per cent of the 2020 teacher workforce.

Are any measures in place to monitor future progress in achieving intermediate or end outcomes of the NSRA?

This initiative is reported as having been completed, but it is unclear what measures are in place to monitor whether and how changes in ITE standards improve teacher preparedness and the quality of teaching. Further, it may be difficult to isolate and monitor the effect of this on student outcomes.

Conclusion

Work on ITE is appropriate to pursue through national collaboration, and has the potential to have a direct, positive impact on student outcomes. While Governments have met agreed milestones relating to ensuring accredited initial teacher education programs require final year Teacher Performance Assessment (TPA), as discussed in chapter 5, the Commission is seeking further information on options for increasing the quality and consistency of TPAs (information request 5.3).

Enhancing the national evidence base

NPI C (i) *Implementing a national unique student identifier (USI) that meets national privacy requirements in order to support better understanding of student progression and improve the national evidence base.*

Table C.5 – Unique student identifier (NPI C (i))
Assessment of effectiveness and appropriateness

Assessment question	Answer
Appropriateness	
Does the initiative address a clearly defined need or government priority in schooling policy?	Yes. The unique student identifier (USI) is a piece of supporting data infrastructure that should ultimately enable researchers to generate more high-quality, policy-relevant quantitative evidence on Australian schooling. Governments committed to introducing a national USI since as far back as 2009 (MCEETYA 2009, p. 19). Developing a nationally consistent system of unique student identifiers was recommended by the Commission as part of its inquiry into improving the national education evidence base (PC 2016b).
Are there clearly defined conceptual, evidence-based links between the initiative and the need/government priority?	Yes. The USI would improve the coverage of longitudinal student data (by enabling data collection for students in jurisdictions without their own existing sub-national systems, and tracking of students who cross jurisdictions) and streamline access to national-level data for researchers. It may also assist in forming a more comprehensive education dataset (AERO, sub. 6, p. 16; NSW Department of Education, sub. 12, pp. 12–13) and enable easier linkage to other datasets (DET 2016, p. 10; PC 2016b, p. 132). This would effectively improve the inputs and lower costs for conducting quantitative research on Australian schooling, particularly in relation to the drivers of student outcomes. USIs have been used to generate evidence on the drivers of student outcomes and the effectiveness of education interventions in the United Kingdom (Jay, Grath-Lone and Gilbert 2019), and in Australia, by the Smith Family for students participating in its Learning for Life program (sub. 29, p. 7).
Is the need or government priority best pursued through national collaboration?	Yes. A USI (along with national data linkage) would facilitate sharing of information across education systems and provide operational and research benefits.
Effectiveness	
How are the outputs from the initiative expected to lift student outcomes (directly or indirectly)?	Indirectly. The USI would support the delivery of high quality, quantitative evidence on schooling, including on key determinants of student outcomes, and evaluation of effective policies, practices and approaches. This, in turn, would support better informed policy and investment decisions, and outcomes for students.
Has the initiative produced any outputs?	No. Jurisdictions have yet to reach agreement on some of the features of the new system, such as how the data would be stored, who would regulate its release, and permissible uses for the data.
If yes, is there any evidence that outputs have led to expected intermediate	N/A.

Assessment question

Answer

outcomes that contribute to lifting student outcomes

Are any measures in place to monitor future progress in achieving intermediate or end outcomes of the NSRA?

Progress on this initiative is monitored via annual reporting under the NSRA. However, there is little transparency regarding the work that has been undertaken on the USI to date, and the reasons for its stalling.

Conclusion

The development of a national USI is appropriate to pursue at the national level, and has the capacity to have an indirect impact on student outcomes, through supporting better informed policy and investment decisions. The Commission has recommended that parties to the agreement fulfil their commitments to deliver this initiative, agreeing the design and privacy protections. If parties are unable to deliver a national USI, they should at a minimum explain why they have been unable to do so (Draft recommendation 2.1)

NPI C (ii) *Establishing an independent national evidence institute to inform teacher practice, system improvement and policy development.*

Table C.6 – Independent national evidence institute (NPI C (ii))

Assessment of effectiveness and appropriateness

Assessment question

Answer

Appropriateness

Does the initiative address a clearly defined need or government priority in schooling policy?

Yes. The new national evidence institute, the Australian Education Research Organisation (AERO), was established to fill a well-established gap in Australia's national education evidence base — the lack of institutional architecture to support the generation of evidence on what works best to improve student outcomes, and the translation of this evidence into usable material for stakeholders such as teachers (PC 2016b).

The establishment of a national evidence institute to carry out these functions was recommended by the Australian Government's Through Growth to Achievement review (Gonski et al. 2018). The Commission also recommended the creation of a national evidence institute in its 2016 inquiry into the National Education Evidence Base (PC 2016b).

Are there clearly defined conceptual, evidence-based links between the initiative and the need/government priority?

Yes. AERO's core functions are generating, presenting and encouraging the adoption of relevant, high-quality education evidence for use by policymakers and practitioners (AERO 2021b). These broadly align with the functions of a national evidence institute proposed by the Commission in its National Education Evidence Base inquiry, as well as those recommended by Gonski et al. (2018).¹⁹⁴

Is the need or government priority best pursued through national collaboration?

Yes. The need to support the generation and dissemination of evidence on what works best in education is common to all jurisdictions.

AERO is structured as a company owned by Australian, state and territory education ministers, and is jointly funded by their respective governments (DESE 2021a). This ensures that it is accountable to ministers, and that its research is relevant to the needs of each jurisdiction.

Effectiveness

How are the outputs from the initiative expected to lift student outcomes (directly or indirectly)?

AERO aims to facilitate the implementation of evidence-based policies and practices, by generating evidence on effective interventions and presenting newly generated or existing evidence into an accessible form for end users. The ultimate outcome of this is intended to be improvements to student outcomes, through enabling a better understanding among policy makers and education practitioners of what works best.

Has the initiative produced any outputs?

Yes. The key output so far is the establishment of AERO. In addition, AERO has published a Strategic Plan, which outlines their objectives and functions

¹⁹⁴ The *Through Growth to Achievement* report recommended four functions for a national evidence institute: generating and sourcing relevant research and evidence; synthesising evidence; transferring, brokering and managing knowledge, and; accelerating and mediating the practical utilisation of knowledge. This was based on the framework developed by Clinton et al. (2018).

Assessment question

Answer

(AERO 2021b), and a Research Agenda for July 2021 to December 2022, which outlines their research areas of focus and was produced in consultation with a wide range of education stakeholders (AERO 2021a). AERO has also published a number of research reports and other resources for practitioners, such as practice guides and curriculum materials.

If yes, is there any evidence that outputs have led to expected intermediate outcomes that contribute to lifting student outcomes?

It is still unclear whether AERO’s work has thus far led teachers or other education stakeholders to implement their recommended practices or policies. There is some indication of a lack of awareness of AERO and its products among education stakeholders, though this is most likely because AERO is so newly established (NSW Department of Education, sub. 12, p. 12).
International experience suggests that AERO may face barriers to generating and disseminating evidence on effective education interventions (chapter 2).

Are any measures in place to monitor future progress in achieving intermediate or end outcomes of the NSRA?

AERO has a three-year evaluation plan to monitor progress towards intermediate outcomes (supporting educators and policymakers to implement evidence-based practices and policies). AERO has developed specific indicators of the ‘reach, relevance and usefulness’ of its work, which include website downloads and page views (AERO, sub. 6, p. 4).
Isolating AERO’s influence on the NSRA’s end outcomes may be difficult given the indirect mechanism through which it is intended to influence outcomes.

Conclusion

The establishment of AERO, and its ongoing funding and ownership, are appropriate to progress nationally. AERO’s work will support the development and dissemination of research and evidence to effectively drive improvements in student outcomes. Ongoing focus is required to ensure AERO does not encounter any barriers to its success.

NPI C (iii) *Improving national data quality, consistency and collection to improve the national evidence base and inform policy development.*

Table C.7 – Improving national data quality (NAPLAN proficiency standards and other projects) (NPI C (iii))

Assessment of effectiveness and appropriateness

Assessment question

Answer

Appropriateness

Does the initiative address a clearly defined need or government priority in schooling policy?

NAPLAN proficiency standards

Yes. Proficiency standards provide a meaningful benchmark for assessing trends in student academic achievement. Better understanding student proficiency can support better monitoring of system performance and inform future areas of focus.

Other measures to enhance the national evidence base

Measures of child development status at school entry, general capabilities, student attainment, learning gain, retention and well-being, and post-school outcomes and destinations are of ongoing relevance and interest in schooling policy.

However, the extent to which there are data and evidence gaps varies. For example, there are established data collections relating to child development status at school entry, but no national approach to collecting data on student wellbeing. Measures of 'general capabilities' are not well defined, and so difficult to assess.

The Student Wellbeing Data Project could play a role in addressing a clearly defined need, informing the development a wellbeing indicator for the next intergovernmental agreement (chapter 4).

Are there clearly defined conceptual, evidence-based links between the initiative and the need/government priority?

Yes. Proficiency standards and improved national data quality would support better informed policy and investment decisions on student readiness, achievement, learning gain, attainment, wellbeing and post-school outcomes.

Is the need or government priority best pursued through national collaboration?

NAPLAN proficiency standards

Yes. The proficiency standards are being developed by ACARA as part of the administration of the National Assessment Program. A nationally consistent approach is important to build understanding of performance, and the proficiency standards are included as part of the national Measurement Framework for School in Australia.

Other measures to enhance the national evidence base

Yes. These areas are of common interest across jurisdictions, and adopting a nationally consistent approach would improve transparency around variations in outcomes in these domains over time and across jurisdictions.

Effectiveness

How are the outputs from the initiative expected to lift student outcomes (directly or indirectly)?

The proficiency standards and some of the other projects are intended to improve or expand the measurement of student outcomes (rather than acting to influence them). For example, one project improves the accuracy

Assessment question

Answer

	of socioeconomic background data, which feeds into funding allocations (DESE 2021b).
Has the initiative produced any outputs?	<p>NAPLAN proficiency standards</p> <p>On 11 December 2019, Education Ministers approved a revised Measurement Framework for Schooling in Australia, which includes the NAPLAN proficiency standards in its key performance measures. ACARA has stated it is currently completing work on the proficiency standards and reporting will commence once education Ministers have approved the design (ACARA, sub. 45, p. 4).</p> <p>Other measures to enhance the national evidence base</p> <p>Of the eight initial data projects, one (learning gain) is complete, one (post-school destinations) is on track, two (school readiness and student wellbeing) experienced delays and four have not yet commenced according to the public reporting available at August 2022 (DESE 2021b, 2022c).</p> <p>The learning gain project led to changes to My School reporting in 2020 (DESE 2021b).</p> <p>The Student Wellbeing Data Project was endorsed by Education Ministers in June 2020 (AITSL 2022c) and is being led by the ACT Education Directorate. The project has resulted in a measurement framework for deriving an indicator of subjective wellbeing (which has not yet been considered by Education Ministers) and an assessment of the extent to which Education Departments collect wellbeing data from school students (Cárdenas et al. 2021).</p> <p>An additional project on improved socioeconomic background data has progressed — ACARA was funded to enable the collection of student background data from independent schools, in addition to government schools (DESE 2021b).</p>
If yes, is there any evidence that outputs have led to expected intermediate outcomes that contribute to lifting student outcomes	Not yet applicable.
Are any measures in place to monitor future progress in achieving intermediate or end outcomes of the NSRA?	Reporting for this NPI is through the annual updates on progress made available on the Department of Education website.

Conclusion

Improving data quality has the capacity to benefit all jurisdictions and indirectly improve student outcomes. Key aspects of this initiative, such as the introduction of NAPLAN proficiency standards, needed to be pursued nationally, as they were tied to national processes. Outstanding components of this NPI will need to be progressed. This could occur through existing governance mechanisms or agencies, such as the Schools Policy Group or ACARA.

D. Estimates of teacher effectiveness

This Appendix outlines the Commission's approach to estimating the value of improving teacher effectiveness referenced in chapter 5.

D.1 Studies that measure teacher effectiveness

Studies that measure teacher effectiveness (that is, the ability of a teacher to affect student outcomes) use a value-added model, and measure teacher effectiveness in terms of standard deviations (section 5.1).

The value-added model

Economic models that measure teacher effectiveness use a 'value-added model', which examine student learning gain from one point in time to another. Student learning gain is used instead of real student scores at a point in time because real student scores can be influenced by prior family, community and school experiences — such data are usually not available (Rivkin, Hanushek and Kain 2005, pp. 423–424). Therefore, focusing on the relationship between the *growth* of student achievement and school inputs over time allows one to better control for the history of parental and school influences. Equation 1 shows an example of a value-added model:

$$\Delta A_{ijgs}^c = X_{ig}^c \beta_X + \delta_j + S_{gs}^c \beta_S + f_i + \varepsilon_{ijgs}^c \quad (1)$$

ΔA_{ijgs}^c is the gain in student achievement for individual i , in cohort c , with teacher j , in grade g , of school s . This gain is measured as the difference between a student's test score in grade g and $g-1$. ΔA_{ijgs}^c depends on family background (X); inherent teacher characteristics (δ_j); school characteristics (S); inherent student abilities (f_i); and a random error (ε).

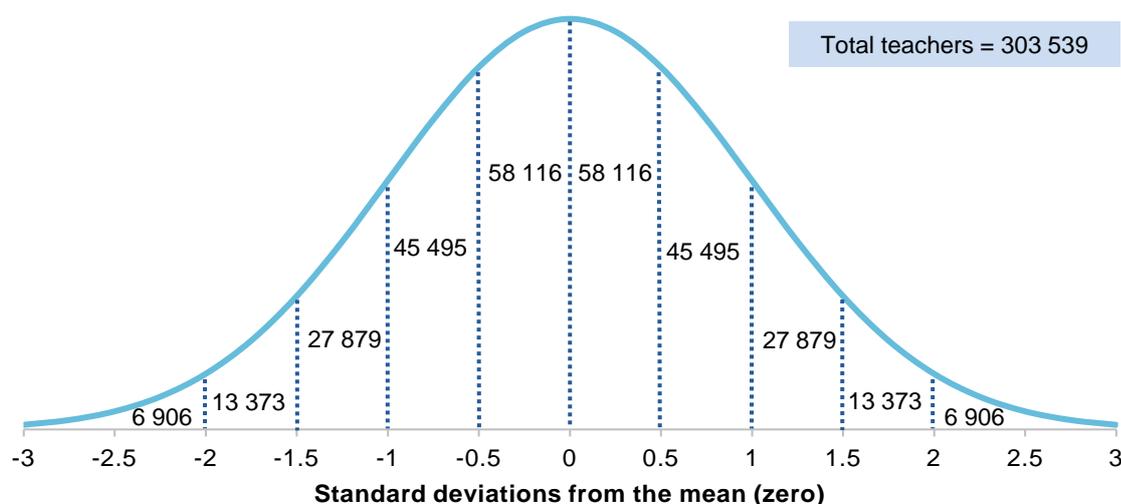
δ_j is the variable of interest and is a teacher fixed effect; it shows the change in student achievement that can be attributed to non-measurable, time-invariant teacher characteristics (that is, teacher effectiveness). To avoid selection bias — noting that parents will choose the school their child attends — studies should focus on the within school variation captured by δ_j , rather than the between school variation (Rivkin, Hanushek and Kain 2005, p. 424).

Teacher effectiveness is measured in standard deviations

Economic models measure teacher effectiveness (δ_j) in standard deviations, with the mean of teacher effectiveness standardised to zero and the standard deviation set to one. Common estimates of teacher effectiveness are between 0.2 to 0.3 standard deviations of total student achievement variation (Hanushek 2011, p. 472). This means that a teacher whose effectiveness is one standard deviation above average teacher effectiveness, is estimated to increase student achievement by 0.2 to 0.3 standard deviations above that of the average student in a given year.

The distribution of teacher effectiveness is plotted in figure D.1. Moving teachers from below the mean of zero to above the mean of zero can have substantial benefits. For example, moving teachers from the 25th percentile of performers to the 75th percentile of performers can increase learning gains by about one additional term of school for an average student in a given year (Leigh 2010, p. 484).

Figure D.1– Number of teachers, distributed by teacher effectiveness^a
Normal distribution of teacher effectiveness, mean standardised to zero



a. Teachers are assumed to be distributed across a normal distribution according to their ability to affect student outcomes, with the mean teacher effectiveness standardised to zero.

Source: ACARA (2022g).

D.2 Estimating the benefits of improved teacher effectiveness

Teachers are the most important in-school factor driving student outcomes (section 5.1). However, the economic value that a teacher provides to society beyond student achievement is less understood. Improved student outcomes can provide substantial personal, economic and social benefits (PC 2012, p. 42). For instance, students with higher educational attainment can have higher lifetime earnings and experience lower levels of unemployment (sections 1.2 and 5.1).

A study conducted by Hanushek (2011) aimed to estimate the marginal economic benefits of improving teacher effectiveness. The Commission replicated Hanushek (2011) for Australia using ABS income data.

The model focused on the demand side of the teacher labour market and was based on the premise that teacher effectiveness was the major element that defined student achievement. Therefore, the demand for teacher effectiveness can be derived from the effect that teachers have on student achievement.

Hanushek (2011) identified estimates of key parameters from the academic literature for two models:

1. an extended Mincer earnings model — shows how cognitive skills impact a person’s earnings
2. a student achievement model — shows how a teacher can impact a student’s achievement.

Hanushek (2011) linked parameter estimates from these two models to create an expression that estimates the marginal annual economic value from improved teacher effectiveness on student lifetime earnings.

Mincer earnings model

The extended Mincer earnings model (equation 2) shows how educational attainment, experience, and cognitive skills (CS) affect labour market earnings (Hanushek 2011, p. 471).

$$\ln Y_i = \alpha_0 + rS_i + \alpha_1 \text{Exper}_i + \alpha_2 \text{Exper}_i^2 + \phi CS_i + \varepsilon_i \quad (2)$$

Y_i is earnings of individual i , S_i is school attainment, Exper is potential labour market experience, and ε_i is a random error. When cognitive skills are standardised to mean zero and a standard deviation of one, ϕ shows the percentage increase in annual earnings that can be attributed to a one standard deviation increase in achievement. ϕ is the parameter of interest. Based off estimates in the literature, a lower bound value of 13 per cent was chosen. This value can be applied to the net present value of a full-time worker from ages 25-70 to determine the total economic benefits of improved cognitive skills over a person's lifetime.

Student achievement model

Teacher effectiveness is determined by a basic student achievement (A) model for student i in grade g (Hanushek 2011, p. 472).

$$A_{it} = (1 - \theta)A_{it-1} + \delta_j + \beta X_i + v_{it} \quad (3)$$

A_{it-1} is lagged achievement for student i , δ_j is a teacher fixed effect and X is a vector of other factors that might affect performance. Two variables of interest are used. First, θ shows the depreciation of prior learning. This helps indicate how much of the learning attributable to a teacher carries over after the student leaves the classroom. Based off the literature, a θ value of 0.3 was chosen. Second, the variation in δ_j is used to identify the standard deviation of teacher effectiveness (σ_T). σ_T shows how a *one standard deviation increase in teacher effectiveness above the average impacts the standard deviation of student achievement*. Based off the literature, a lower bound σ_T value of 0.2 was chosen.

Economic value of teacher quality

By combining the coefficients of interest (ϕ , θ , and σ_T) an expression can be derived, which is an estimate of the marginal annual economic value of improving teacher effectiveness (equation 4) (Hanushek 2011, p. 473).

$$\text{Marginal annual economic value} = \delta * \sigma_T * (1 - \theta) * \phi * n * Y \quad (4)$$

Here, δ is the standard deviation level of a teacher's effectiveness above or below the mean, and n is the number of students in the teacher's class (the more students in a teacher's class, the greater the economic benefit (cost) of an effective (less effective) teacher in a given year), and Y is a student's lifetime income.

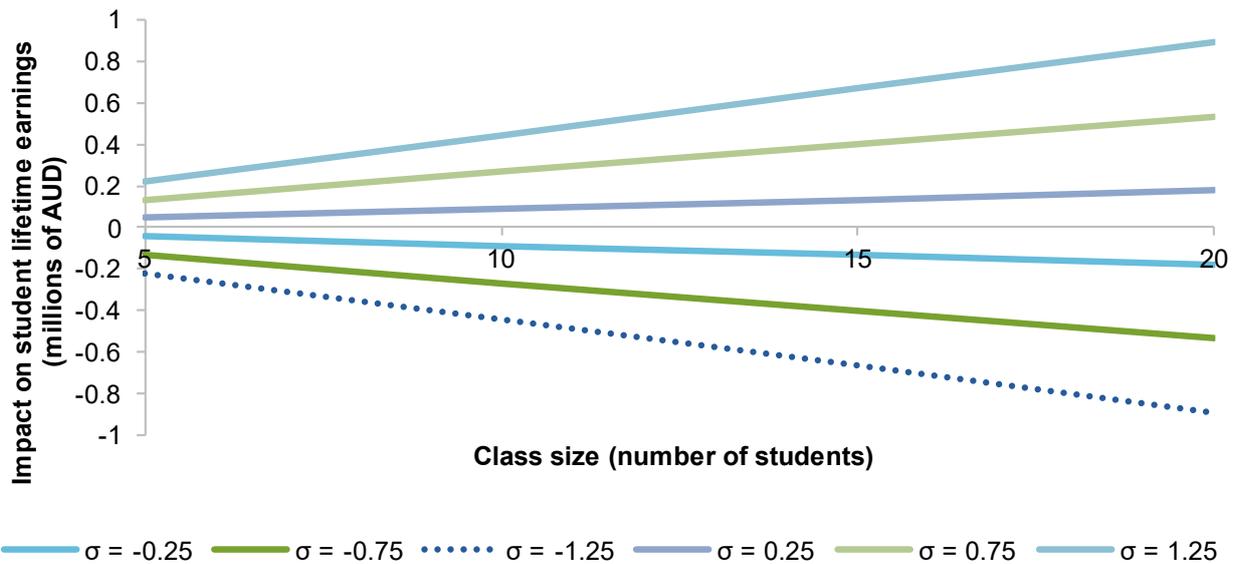
The Commission utilised the values of $\sigma_T = 0.2$, $\phi = 0.13$ and $\theta = 0.3$, which are lower bound estimates in the literature. Student lifetime earnings (Y) were estimated to be 1 960 831 AUD using ABS data.¹ The Commission found that a highly-effective teacher, who is one standard deviation above the average teacher, instructing a classroom of 15 students, could increase the average lifetime earnings of the classroom by

¹ Calculations use 2018-19 (adjusted to 2020-21 values) ABS average income data by age group to determine the lifetime income of a full time worker from age 25-70. Income is assumed to increase by 1 per cent per year, and future income streams are discounted to a net present value at 3 per cent. Commission estimates based on ABS (Personal Income in Australia, December 2021, Table 4); Hanushek (2011).

about \$530 000 each year; or about \$35 000 per student. This effect increases with both class size and teacher effectiveness (σ_T) (figure D.2). Similar results are obtained for principals: while the net learning gain per student is lower, effective principals benefit more students at once (chapter 6).

Figure D.2 – The economic value of improved teacher effectiveness is large, and scales in class size

Marginal annual economic value of teacher effectiveness, by class size^a



a. Teacher effectiveness (σ) is measured as standard deviations above (positive) and below (negative) the mean. Marginal annual economic value is given by $MEV = \delta * \sigma_T * (1 - \theta) * \phi * n * Y$, where the teacher fixed effect is δ ; standard deviation of teacher effectiveness $\sigma_T = 0.2$; prior learning depreciation $\theta = 0.3$; skills premium $\phi = 0.13$; class size n – variable; life-time earnings $Y = \$1.96$ million.

Source: Commission estimates based on ABS (Personal Income in Australia, December 2021, Table 4); Hanushek (2011).

Abbreviations

ABS	Australian Bureau of Statistics
ACARA	Australian Curriculum, Assessment and Reporting Authority
ACER	Australian Council for Educational Research
ACT	Australian Capital Territory
ADHD	Attention Deficit Hyperactivity Disorder
AEDC	Australian Early Development Census
AERO	Australian Education Research Organisation
AESOC	Australian Education Senior Officials Committee
AITSL	Australian Institute for Teaching and School Leadership
ATAR	Australian Tertiary Admission Rank
ATWD	Australian Teacher Workforce Data
COAG	Council of Australian Governments
DESE	Department of Education, Skills and Employment
EALD	English as an Additional Language or Dialect
ESA	Education Services Australia
EYL	Equivalised Years of Learning
FTE	Full Time Equivalent
HALT	Highly Accomplished and Lead Teacher
HILDA	Household, Income and Labour Dynamics in Australia
ICT	Information and Communication Technology
IGA FFR	Intergovernmental Agreement on Federal Financial Relations
ITE	Initial Teacher Education
KPM	Key Performance Measure
LGBTIQ	Lesbian, Gay, Bisexual, Trans and gender diverse, Intersex, Queer and questioning
MBS	Medicare Benefits Scheme
MFSA	Measurement Framework for Schooling in Australia
NAP	National Assessment Program
NAPLAN	National Assessment Program – Literacy and Numeracy
NCCD	Nationally Consistent Collection of Data on School Students with Disability
NDS	National Disability Strategy
NPI	National Policy Initiative

NPV	Net Present Value
NSRA	National School Reform Agreement
NSW	New South Wales
NT	Northern Territory
OECD	Organisation for Economic Co-operation and Development
OFAI	Online Formative Assessment Initiative
OLS	Ordinary Least Squares
PIRLS	Progress in International Reading Literacy Study
PISA	Programme for International Student Assessment
PPP	Purchasing Power Parity
PV	Plausible Value
PWLS	Pooled Weighted Least Squares
QAI	Queensland Advocacy for Inclusion
RoGS	Report on Government Services
RRR	Rural, Regional and Remote
SA	South Australia
SDAC	Survey of Disability, Ageing and Carers
SPS	School Psychology Service
TALIS	Teaching and Learning International Survey
TEMAG	Teacher Education Ministerial Advisory Group
TIMSS	Teaching in Mathematics and Science Survey
TPA	Teaching Performance Assessment
TRA	Teacher Regulatory Authority
TTFM	Tell Them From Me
UDL	Universal Design for Learning
USI	Unique Student Identifier
VET	Vocational Education and Training
WA	Western Australia

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