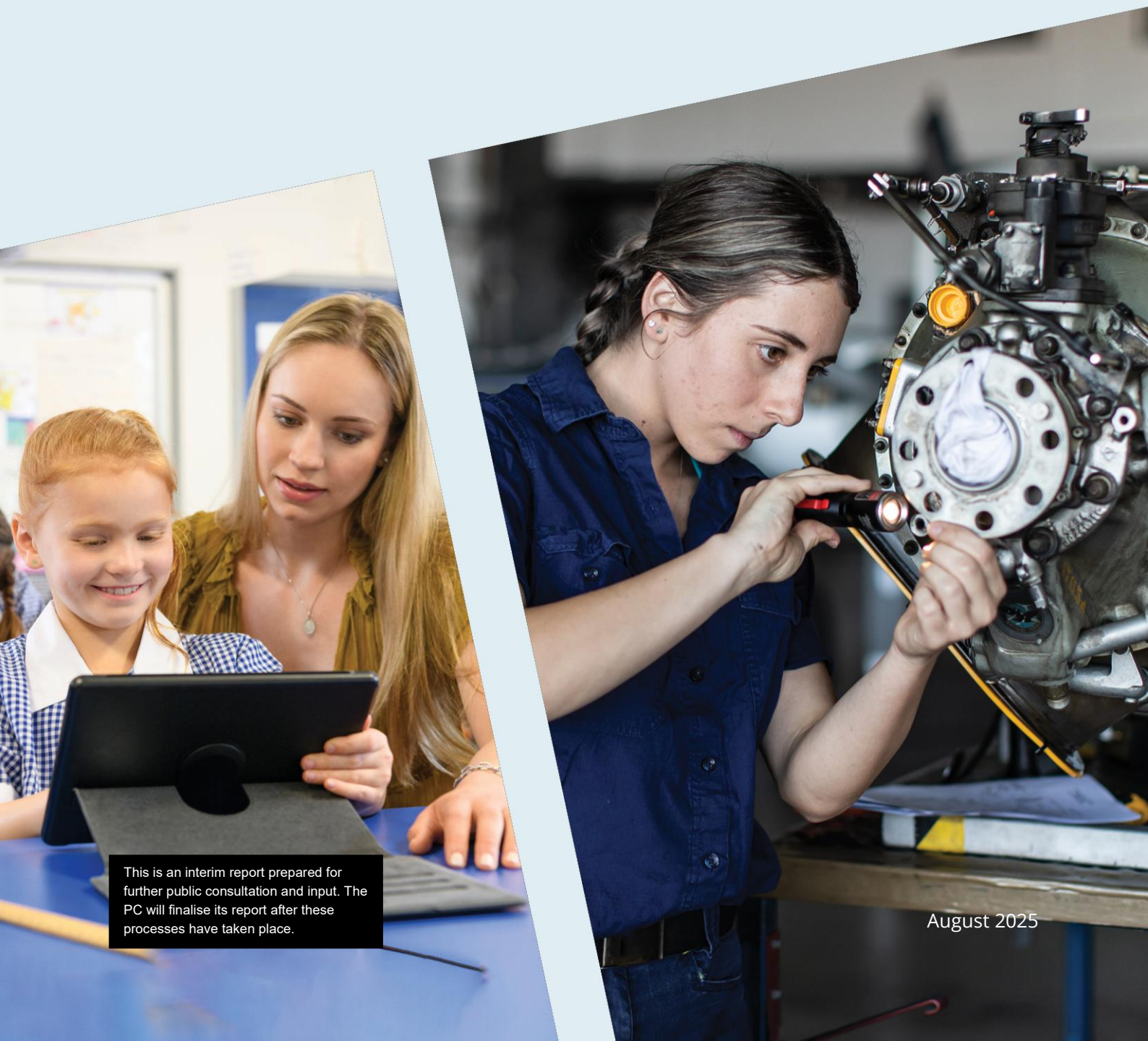




Building a skilled and adaptable workforce

Interim report



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

August 2025



The Productivity Commission acknowledges the Traditional Owners of Country throughout Australia and their continuing connection to land, waters and community. We pay our respects to their Cultures, Country and Elders past and present.

The Productivity Commission

The Productivity Commission (PC) is the Australian Government's independent research and advisory body on a range of economic, social and environmental issues affecting the welfare of Australians. Its role, expressed most simply, is to help governments make better policies, in the long-term interest of the Australian community.

The PC's independence is underpinned by an Act of Parliament. Its processes and outputs are open to public scrutiny and are driven by concern for the wellbeing of the community as a whole.

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Opportunity for comment

The PC thanks all participants for their contribution to this Inquiry 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 PC, preferably in electronic format, by 15 September 2025.

Further information on how to provide a submission is included on the website:
www.pc.gov.au/inquiries/current/adaptable-workforce

The PC will prepare the final report after further submissions have been received, and it will hold further discussions with participants.

Commissioners

Alex Robson

Deputy Chair

Catherine de Fontenay

Commissioner

Terms of reference

I, Jim Chalmers, pursuant to Parts 2 and 3 of the *Productivity Commission Act 1998*, hereby request that the Productivity Commission (“the Commission”) undertake five inquiries to identify priority reforms under each of the five pillars of the Government’s productivity growth agenda and formulate actionable recommendations to assist governments to make meaningful and measurable productivity-enhancing reforms.

Background

Productivity growth is the key driver of real wage growth and rising living standards over the long term but has been slowing around the world since the mid-2000s. Australia’s productivity growth in the decade to 2020 was the slowest in 60 years.

Several long-standing factors have contributed to the productivity slowdown, including reduced dynamism and competitive pressures, and slower diffusion of technological innovations. Australia also faces new and emerging opportunities and challenges from the changing nature of our economy, including population ageing, rising demand for care and support services, technological and digital transformation, climate change and the net zero transformation, and geopolitical risk and fragmentation. How well we position for and respond to these changes will have a significant impact on our future productivity.

In 2023, the Government set out five pillars for a broad and ambitious productivity growth agenda, and it has already progressed significant reforms under each pillar of this agenda. It is now tasking the Productivity Commission to identify the highest priority reform areas under each of the five pillars which have potential to materially boost Australia’s productivity growth going forward, and the measurable impact of these reforms where possible.

Scope of the inquiries

The Commission will conduct five inquiries to identify and report on priority reforms in each of the areas under the Government’s five pillar productivity growth agenda. Specifically, these are priority reforms which enhance productivity through:

- a. Creating a more dynamic and resilient economy
- b. Building a skilled and adaptable workforce
- c. Harnessing data and digital technology
- d. Delivering quality care more efficiently
- e. Investing in cheaper, cleaner energy and the net zero transformation

The Commission should have regard to other current and recent reviews of relevance to Australia’s productivity performance including the Treasury Competition Taskforce, the National Competition Review and the House Economics Committee inquiry into promoting economic dynamism, competition and business formation; and the objectives and priorities outlined in the Intergenerational Report, the Employment White Paper, the Economic and Fiscal Strategy, the Measuring What Matters statement, and the Government’s legislated emissions reduction targets.

The inquiries should identify prospective areas for reform in the coming years, recognising the findings of recent reviews and taking into account Government reforms and reform directions.

Process

The Commission should engage widely and undertake appropriate public consultation processes, including inviting public submissions. The Commission should engage actively with Commonwealth, and state and territory governments.

The Commission's advice should clearly convey the importance of the reform opportunities identified, including quantitative analysis of the measurable benefits of the priority reforms where possible. This could include the long-run economic impacts on GDP and other measures of economic progress and national prosperity, the benefits accruing to Australian households including distributional impacts where possible, or other outcomes such as improved quality of services or living standards. This analysis should be presented in a way which acknowledges and manages the measurement challenges impacting some important reform areas.

The Commission should publish an interim report for each inquiry in the middle of 2025 that includes preliminary actionable recommendations for productivity-enhancing reforms under the relevant pillar. The final reports for these inquiries should include advice on reform implementation, including implementation feasibility and risks, and be provided to Government within 12 months of receipt of this request.

The Hon Jim Chalmers MP
Treasurer

[Received 13 December 2024]

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. The Commissioners working on this report have no interests requiring disclosure.

Acknowledgments

The Commissioners express their appreciation to the staff who worked on the interim report – Assistant Commissioner Jessica Read, who leads the Inquiry, and other team members including Rebecca Chin, Peter Bon, Danielle Venn, Elizabeth Penm, Ben Cochrane, Cameron Van-Lane, Jared Claxton, Zac Duretto, James Smith, Persis Eskander, Aaron Korczak-Krzeczowski, Luca Bisogni and Jonty Martin. Our thanks are also extended to Yvette Goss and Tracey Horsfall for administrative and project support.

The Commissioners also extend their appreciation to the staff at NSW Treasury and the Reserve Bank of Australia for their valuable technical guidance and advice on the development of the occupational entry regulation stringency index.

Contents

Opportunity for comment	iii
Terms of reference	iv
Executive summary	1
Draft recommendations	2
About this inquiry	5
1. The best resources to improve school student outcomes	7
Australia's education challenge	7
Supporting teachers with comprehensive, evidence-backed, lesson planning materials	19
A national approach to advanced edtech	21
A pathway to reform	25
2. Building skills and qualifications for a more productive workforce	29
Building Australia's skills is vital for productivity growth	30
Enabling tertiary education pathways	32
Lifting work-related training rates	41
3. Fit-for-purpose occupational entry regulations	52
Helping more Australians contribute their skills	53
Excessive OERs impose costs that lower living standards	54
Remove excessive OERs that offer limited benefits	56
Expanding entry pathways and reducing reliance on qualifications will help alleviate skills shortages	62
Governance is vital to reducing inappropriate OERs	71
Appendices	74
A. Public consultation	75
B. Occupational entry regulations – case studies	83
B.1 Overly stringent occupational entry regulations	83
B.2 Qualification requirements are being reviewed for some occupations	86
Abbreviations	89
References	91

Executive summary

This report proposes reforms to secondary and post-secondary education and to occupational entry requirements to build a more skilled and adaptable workforce, an essential pillar of a growing economy. While reforms are underway to boost the quantity and quality of skills in Australia, the adaptability of our workforce has received less attention. Yet the average worker is likely to change occupations two or three times over the next two decades, and to be sure of ongoing work, will need to both learn new skills and adapt to new tasks and contexts. Workers will need solid foundational skills, smooth pathways to upskilling, and easier entry into new occupations.

Foundational skills allow workers to learn new skills, improving their productivity and employability. Yet the share of students leaving school with solid foundational skills is falling. School teachers are under pressure to produce teaching materials for a wide range of student abilities. These challenges are more acute for teachers in remote areas or who teach out of their field. We propose the creation of a single, national platform to host lesson planning, curriculum and support materials, ensuring that all teachers can meet their students' learning needs.

Well implemented generative artificial intelligence (GenAI) and other technologies have tremendous potential to support students who are falling behind, and challenge those who are ahead. We propose a national approach to advanced educational technology. At present states and territories are developing and adapting advanced edtech, such as chatbots, at their own pace, with some not developing any at all. A national approach would aid innovation, support equal access to high-quality tools, and spread the benefits to all.

Without opportunities to upskill, workers and jobseekers may find themselves stuck in less rewarding work or in unemployment. People of all ages and backgrounds need smoother entry pathways to Vocational Education and Training and universities, and better transitions between these two sectors. Better recognition of prior learning and credit transfer arrangements can make it easier for workers to access learning and build their skills over time. A national database of credit decisions is a necessary first step.

Workers should be supported to continue to learn once in employment. Ensuring that work-related training incentives are targeted at the financial barriers faced by small and medium enterprises – the majority of employers – can support workers in these businesses to engage in lifelong skill development.

Improving our education systems will not be enough; we must make better use of existing skills and not create excessive entry requirements for workers. About one in five workers in Australia are subject to occupational entry regulations (OERs) – requirements to meet minimum conditions such as completing a degree, applying for a licence or passing an exam. Evidence suggests that OERs worsen worker shortages.

Governments can ensure that consumers and workers are protected, while taking steps to remove or loosen unduly restrictive regulations. State and territory governments could begin by reducing the excessive regulations that exist in some jurisdictions. We also suggest that more flexible trades entry pathways can be created and qualification requirements streamlined without compromising the competency of workers, and that overly burdensome qualification requirements for some professional occupations be removed.

Draft recommendations

The best resources to improve school student outcomes



Draft recommendation 1.1

Invest in a single national platform for all teachers to access lesson planning materials

The Australian Government should invest in a single online national platform that houses a comprehensive bank of high-quality, curriculum-aligned lesson planning materials. These materials should be publicly available to teachers in all states and territories and across all school sectors, including Catholic and independent schools.

To support this objective, appropriate national education bodies should be asked to:

- develop and maintain a complete resource bank of lesson planning materials that aligns with and covers all components in F–10 of the current endorsed version of the Australian Curriculum. These materials should draw from existing materials where these are assessed as high quality and support evidence-based teaching practices that align with how students learn
- establish a national framework for assessing the quality of lesson planning materials and their alignment with evidence-based education standards
- promote a national online platform for all teachers to access the resource bank. Materials on the platform should be regularly updated and include jurisdictionally developed materials where feasible
- develop professional learning programs to help teachers to use the materials and schools to adopt a whole-school curriculum approach.



Draft recommendation 1.2

Lead national efforts to ensure equitable access to educational technology (edtech) and artificial intelligence (AI)

The Australian Government should provide national leadership on edtech and AI in schools, and work to make the best available tools available to all teachers. Appropriate national education bodies should:

- establish a framework for assessing edtech tools' quality and alignment with evidence-based practices
- undertake a stocktake of what tools are being used, within Australia and internationally
- assess selected edtech and AI tools, and recommend suitable tools for nationwide use
- coordinate acquisition of AI tools for national use, drawing on the combined purchasing power of all states and territories
- continue to develop and refine guidelines for teachers and school leaders to guide the adoption and use of edtech tools
- continue to fund trials of new edtech with a commitment to national roll-out of successes.

State and territory governments should focus their efforts on professional development and wrap-around support for schools that enables teachers to adopt and use these tools effectively.

Building skills and qualifications for a more productive workforce



Draft recommendation 2.1

Move toward a national system of credit transfer and recognition of prior learning (RPL)

To better enable credit transfer and RPL, the Australian Government should:

- enforce the right to have credit transfer or RPL assessed before the deadline for accepting an offer
- develop a national database of academic credit decisions
- develop a model of coordinated assessments of prior learning, and possibly of credit transfers.

Students could draw on the database to better understand possible tertiary education pathways, making decisions about the allocation of credit more transparent and providers more accountable.

The Government should consider a staged approach to establishing the database that begins with compiling credit transfer decisions, before including credit granted from different types of learning, such as microcredentials, informal learning or work experience, including international work experience.

The Australian Tertiary Education Commission, as steward of the tertiary education system, should play a role in establishing the database and enforcing consistent and accurate data collection from providers.



Draft recommendation 2.2

Better target incentives to lift work-related training rates in small and medium enterprises (SMEs)

The Australian Government should trial:

- financial incentives (such as a tax credit) to increase work-related training for SMEs
- SME advisory services to support work-related training.

The measures should be evaluated to determine cost-effectiveness as well as to better understand how SME advisory services and other supports can aid implementation and improve take-up. Data collection to establish a baseline and evaluate the measures should be embedded into the program design.

Fit-for-purpose occupational entry regulations



Draft recommendation 3.1

Remove excessive occupational entry regulations that offer limited benefits

State and territory regulators should work to eliminate occupational entry regulations that exist in their jurisdiction but not in others, where the evidence that the regulations improve outcomes is weak. As a start, reductions in occupational entry regulations should be considered for:

- motor vehicle repairers in New South Wales, Western Australia and the Australian Capital Territory
- air conditioning and refrigeration mechanics in New South Wales
- hairdressers in New South Wales and South Australia
- painters and decorators in New South Wales, Victoria, Queensland, Western Australia and South Australia.



Draft recommendation 3.2

Expand entry pathways and streamline qualification requirements for occupations

Australian, state and territory governments should assess whether current regulated qualification requirements for occupations are proportionate to identified risks, and implement alternative entry pathways where feasible while maintaining quality and safety standards.

To begin, the Australian Government should consider revising qualification requirements for registered company auditors by introducing a tier of licensing for lower-risk assurance activities.

Australian, state and territory governments should also address skills shortages in trades occupations by investigating opportunities for alternative approaches to acquiring competencies in trade-based occupations and expanding non-apprentice pathways.



Draft recommendation 3.3

Improve the regular reviews of occupational entry regulations

State and territory treasury departments, or other government authorities responsible for regulatory policy advice, should work with licensing regulators to jointly review occupational entry regulations in their jurisdictions. These reviews should remove regulations deemed to be excessive and not proportional to risk. They should draw on joint expertise on industry and licensing, as well as principles for best practice regulation.

Licensing regulators and treasury departments should undertake sunset reviews of occupational entry regulations on a scheduled basis. State and territory governments should also perform independent reviews to identify occupational entry regulations that are no longer fit for purpose.



Draft recommendation 3.4

Incentivise occupational entry regulation reform through National Competition Policy

Australian, state and territory governments should use the National Competition Policy process to incentivise reform of occupational entry regulations at the state and territory level.

About this inquiry

The pace of change in our economy means that some existing jobs will disappear, new jobs will be created and the skills required to undertake continuing jobs will evolve. The Productivity Commission's recommendations in this report focus on strengthening the adaptability of Australia's workforce.

Foundational skills provide a fundamental building block for adaptability. But more Australian students are leaving school without strong foundation skills in reading, writing and mathematics, and there is a wide performance gap both within schools and between schools. Teachers need access both to high-quality materials to suit every ability level in their class, and to educational technology (including artificial intelligence) that can meet students at their current level and help them advance. Progress is being made, but many schools and students risk being left behind.

Ninety percent of new jobs in coming years will require post-secondary qualifications, both vocational and university, while transforming our economy towards net zero will require important new skills. Workers without such qualifications may struggle to move up the job ladder, and jobseekers run the risk that their skills are mismatched to the labour market. We need to make it easier for prospective students to enter vocational education or university, by recognising their existing skills. A better system of recognition of prior learning and credit transfer would also smooth their path back into formal training.

Another building block of adaptability is making it easier for adults to acquire new skills, so that they are not left behind as the economy changes. Most workers are employed in small and medium enterprises, which provide significantly less work-related training than larger enterprises. Australia's training rates are low, both overall, and relative to other countries. Policies are needed to support all these firms to better train their workers.

Finally, workers who are changing occupations multiple times over their lives need to have easier ways to enter a new occupation. Occupational entry regulations are more restrictive in Australia than in many overseas countries and present a major barrier to occupational change. Some states have more restrictive regulations for some occupations, without demonstrable benefits in terms of quality or safety. Some low-risk occupations should not be licensed at all. In other occupations, educational requirements have gradually increased to boost professionalism or related goals, rather than improving wages or conditions as a way to attract workers. Some trades need new pathways to acquiring skills that meet the needs of more diverse cohorts of workers.

The PC undertakes this inquiry in a period of considerable change to the work and skills landscape, and therefore some issues have been considered out of scope. The industrial relations system has recently undergone changes, and more time is needed to assess the impact of new legislation on productivity and employment. Similarly, recent changes to migration settings cannot yet be fully assessed. The National Skills Agreement, the formation of Jobs and Skills Councils and governance and regulatory changes to the Australian Skills Quality Authority are significant reforms to the Vocational Education and Training (VET) sector that are showing early promise. The University Accord was recently completed, and the Australian Tertiary Education Commission will be established and fully operational from 2026.

In the long term, continued attention to the bigger issues of the work and skill system is essential. The industrial relations system needs to allow workers and employers to reach mutually beneficial agreements on

work conditions, while protecting workers. As emphasised in our 2023 inquiry into productivity, *Advancing Prosperity*, Australia needs to stay focussed on addressing stagnation in school achievement scores, and in student and employer satisfaction with post-secondary education. And Australia needs to expand the number of people achieving post-secondary qualifications, to respond to technological change in the economy. At a time when technical skills are increasingly important to the digital and net zero transformations the PC also notes recent discussions about the need for parity between VET and higher education to overcome resourcing challenges in VET in recent decades and to counteract widespread perceptions that VET is an inferior study and career pathway.

Developing a skilled and adaptable workforce will support the achievement of productivity pillars identified in other PC reports, including *Harnessing data and digital technology*, *Delivering quality care more efficiently*, and *Investing in cheaper, cleaner energy and the net zero transformation*.

1. The best resources to improve school student outcomes

Summary

- * **School education provides children with the foundational skills they need to undertake further education or training, enter the workforce, and participate fully in society as adults. A high-quality school system increases overall student achievement and broadens the range of students who are reaching their potential.**
- * **But delivering high-quality education to all school students faces several challenges.**
 - Student ability in Australian classrooms varies significantly. Outcomes are stagnating and some students are being left behind.
 - Teachers spend much of their time on activities other than lesson delivery and are working long hours to finish all required tasks.
 - Too many teachers, especially in more remote schools, are having to teach out of their field, and access to teaching tools is uneven across the country.
- * **Two reforms could address these challenges. Both aim to support teachers and schools with the best tools and resources, spread best practice and improve student outcomes.**
 - A single national platform hosting a comprehensive bank of sequenced lesson-planning materials would provide teachers and schools with a foundation to adapt to their local context and student learning needs, saving planning and search time.
 - A national approach to educational technology (edtech) would enable the lessons learned by early adopting jurisdictions to be incorporated into future investments, spreading the benefits of advanced edtech to students in all states and territories and school sectors.
- * **Addressing these national priorities is a coordination challenge. Australian, state and territory governments will need to work together to secure these benefits.**

Australia's education challenge

When students realise their full potential through education, national productivity grows. School education provides the foundational skills required to participate in further education or training, enter the workforce, and participate fully in society as adults. At school, students acquire the foundations of literacy, numeracy and digital competency – essential life skills. Retraining and upskilling is likely to be a feature of the future job market, since the average Australian will change occupations 2.4 times over the next two decades

(AlphaBeta 2018, p. 7). Having strong foundational skills will make it easier for adults to acquire new skills so they are not left behind as the economy changes.

A high-quality education system increases overall student achievement and broadens the range of students that reach their potential. If these benefits are realised, the level of human capital in the workforce rises, increasing Australians' earning potential, as well as health outcomes and ability to participate in the broader community. A more educated and skilled workforce can increase its output from the same time spent working, boosting productivity growth.

The Productivity Commission has previously explored the link between student outcomes and future productivity growth. Computable general equilibrium modelling has estimated that a modest 0.12 to 0.18 standard deviation improvement in school outcomes, equivalent to a 1.4 to 4.3% increase in NAPLAN scores¹ could lift real Gross Domestic Product (GDP) by 0.2% when school students enter the labour market, flowing on to a 2% rise in real GDP in the long run (PC 2023b).

To realise these potential gains, Australia's school system needs to provide students of all backgrounds with the opportunity to develop skills. Young people should not be left in lower-productivity roles (or be kept out of the labour force altogether) because of differences in educational quality and access.

The equity challenge is particularly pertinent for Aboriginal and Torres Strait Islander students.² Under the target set by the National Agreement on Closing the Gap, 96% of Aboriginal and Torres Strait Islander people between the ages of 20 and 24 would attain a year 12 or equivalent qualification by 2031. Year 12 completion rates have improved from 39.4% in 2001 to 68.1% in 2021, but progress is not on track to meet the 2031 target (PC 2025a). Closing this gap could have flow on effects – completing year 12 has been linked to an increased life expectancy of 5.1 years for males and 3.2 years for females (Welsh et al. 2021).³

Teachers are the school system's most powerful resource. But their job is challenging and complex. They need to design and deliver lessons that meet the needs of their students and ensure that learning goals are achieved, but their students' educational levels are diverse, and teachers have limited time to deliver individually tailored learning. Getting the balance right is difficult, and workload pressures are commonly cited as reasons for teachers leaving the profession early (AITSL 2025; Rasanen et al. 2020).

A more productive school system would provide all teachers with high-quality tools and resources to help students achieve their potential. The PC believes action can be taken in two domains to improve student outcomes and in turn, productivity. These domains are improved lesson planning materials and advanced edtech including generative artificial intelligence (GenAI).

¹ NAPLAN stands for National Assessment Program – Literacy and Numeracy. The equivalent range of score increases is calculated using standard deviations in the 2024 National NAPLAN results.

² For the remainder of this report, references to 'Aboriginal and Torres Strait Islander' people are taken to include *either or both* Aboriginal or Torres Strait Islander people.

³ Life expectancy gains are for Aboriginal and Torres Strait Islander people aged 25 in 2016, comparing people who have completed year 12 and no post-secondary studies with people who have not completed year 12 and no post-secondary studies.

Box 1.1 – What we heard through our consultations

To better understand the types of solutions available to governments, the PC released targeted questions on edtech and GenAI tools and access to high-quality, lesson planning materials. More than 50 organisations and individuals responded to these questions.

Lesson planning materials – key themes

- **Empowering teachers.** Teachers should be supported with professional development to enhance their lesson planning skills (NCEC, qr. 29; Teach for Australia, qr. 31). Government policy should encourage innovation and flexibility in lesson design and delivery (AITSL, qr. 55; ESA, qr. 67).
- **Access and availability.** Teachers need access to high-quality, differentiated lesson materials (AITSL, qr. 55; NCEC, qr. 29). Materials on existing platforms are outdated or not aligned with specific school needs (Aaron, qr. 16; Sciberras, qr. 78). There is support for a national, open-access curriculum resource hub (AITSL, qr. 55; NCEC, qr. 29). Some respondents stressed that using materials from a national hub should not be mandatory (University of Newcastle, qr. 88) and that the provision of centrally available materials should not diminish teacher agency (AEU Federal, qr. 51).
- **Quality assured and adaptable.** Resources should be assured against agreed quality standards (ESA, qr. 67; NCEC, qr. 29). Lesson planning tools and resources must be adaptable to different school environments (AITSL, qr. 55; Ai Group, qr. 66; Teach for Australia, qr. 31).

Edtech and GenAI in schools – key themes

- **Barriers to access.** Many respondents raised the need to address concerns about potential barriers to equity of edtech access, including regional versus metropolitan (RUN, qr. 57), advantaged versus disadvantaged schools and students (Loble, qr. 23) and between larger and smaller jurisdictions (Microsoft, qr. 76).
- **Professional development for teachers.** Providing teachers with more skills and guidance in the use of new technologies was a common theme. Respondents stressed that support for teachers in training (Deakin University, qr. 40), current teachers (AITSL qr. 55; CCCH, qr. 45; Loble qr. 23; Microsoft, qr. 76) and school leaders (AITSL, qr. 55; McDonald, qr. 64) was essential to achieving the potential gains in student outcomes that edtech can deliver.
- **Quality assurance.** Many respondents were concerned about a lack of information on the quality of AI tools stemming from a lack of standards or quality assessment framework. They proposed a national standard for edtech and AI tools (ASCA, qr. 34; NCEC, qr. 29), curated lists of vetted products (CCCH, qr. 45) and a quality assessment framework (ACSV, qr. 26; AEU Federal, qr. 51; Loble, qr. 23), among other solutions.

Student outcomes are stagnating and disadvantaged students are left behind ...

NAPLAN scores for each grade level have grown little or only modestly since 2008. Between 2008 and 2022, there was less than 5% growth in average scores for students in years 3, 5 and 7, while results for year 9 students have barely changed.

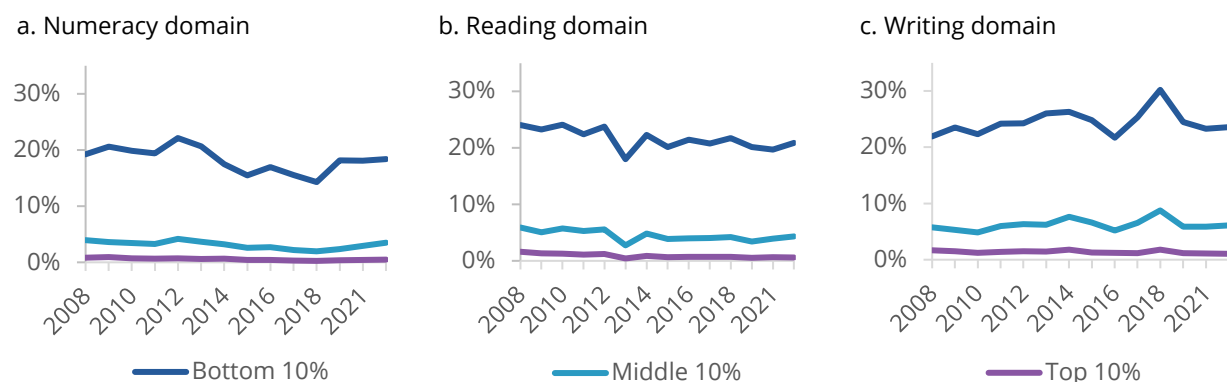
At the international level, Australia's performance has declined in all three literacy domains in the Programme for International Student Assessment (PISA). Between 2003 and 2022, Australian students' reading and mathematics literacy fell by an equivalent one and half years and almost two years of schooling,

respectively. Scientific literacy declined by an equivalent of a year of schooling (Cassidy 2023; De Bortoli et al. 2023). This lack of improvement in educational achievement may limit growth in future generations' productivity potential.

Differences in outcomes for advantaged and disadvantaged students have also not improved over time. Domestic and international research shows the link between a student's level of advantage and their outcomes (De Bortoli et al. 2023; Owens 2018; Perry et al. 2022; Willms 1986). The average share of students below the national minimum standards for a given NAPLAN domain is significantly higher in the schools in the bottom 10% of social and economic advantage than in more advantaged schools (figure 1.1).

Figure 1.1 – Disadvantages flow on to outcomes

Average share of students below the national minimum standard by socio-educational status band and NAPLAN domain, 2008–2022 (%)^a



a. Socio-economic status is defined by the Index of Community Socio-educational Advantage (ICSEA) which captures a school's relative level of advantage through a combination of variables relating to a student cohort's background that are known to impact student achievement.

Source: PC analysis of NAPLAN data.

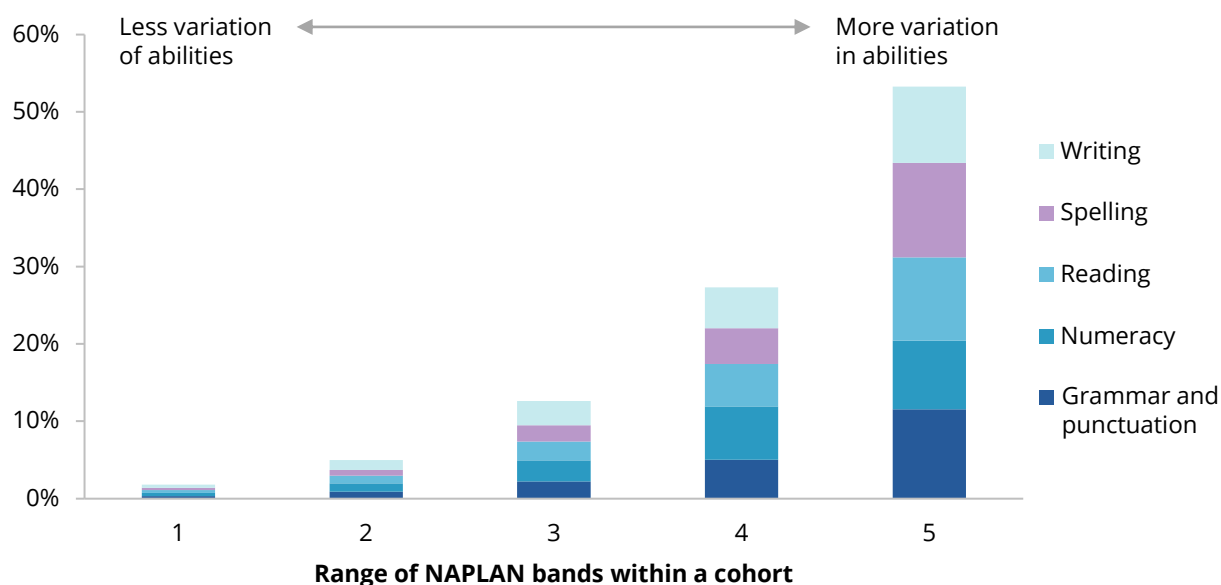
While there have been improvements for these disadvantaged schools in some domains (such as reading) since 2008, a similar or greater share of students have fallen below the national minimum standards in other domains. Over the same period, more advantaged schools have consistently seen a considerably smaller share of students below minimum standards across all NAPLAN domains.

... leaving a wide range of abilities in the classroom

The Australian Professional Standards for Teachers require teachers to 'differentiate teaching to meet the specific learning needs of students across the full range of abilities' (AITSL 2022).

The PC's analysis of NAPLAN data identifies a large range of abilities within the majority of year levels in Australia (figure 1.2). Prior to 2023, each student's NAPLAN results were grouped into one of six possible achievement bands for their year level. A student in the maximum band is performing at the highest level while one in the minimum band is 'below the national minimum standard' for that domain (ACARA 2023).

Analysis of the 2022 results across all five NAPLAN domains for each year level within each school (a total of over 90,000 school-year level-domain groups) shows that more than half (53%) of the groups had the highest possible range of abilities. This means that for a particular domain (e.g. numeracy), at least one student was below the minimum standard while another in the same year level at a school was in the maximum band. Only 7% of groups had students concentrated within three NAPLAN bands (a range of two or less). In other words, most teachers have to account for a wide range of abilities when planning lessons.

Figure 1.2 – Spread of abilities within a year level, 2022^{a,b}**Share of all school-year level-domain groups (%)**

a. Some schools will have multiple classes per year level. **b.** A given year level at a school could be represented in different range groups for different NAPLAN domains. For example, a year 3 cohort could have a NAPLAN band range of five in numeracy but a range of four in reading.

Source: PC analysis of NAPLAN data.

This range of abilities within a classroom require teachers to prepare for various student groups: those falling behind, those at or around expectations for a specific grade level and those that are well ahead. High-quality resources and tools – both traditional (Pentimonti et al. 2017) and more technologically sophisticated (Johler and Krumsvik 2024) – can help teachers to meet the needs of students of all abilities, learning styles and backgrounds.

But not all teachers have access to high-quality tools and resources, or know where to find them

During consultation, the PC repeatedly heard that the tools teachers have at their disposal depend largely on the jurisdiction or sector they are in. While some states and territories have developed lesson planning materials and made them available through centralised resource banks, others have not. Where they do exist, they can be limited to teachers working within that state or territory.

Without access to high-quality lesson plans, teachers can spend a considerable amount of time searching for and creating their own materials. The Grattan Institute found the typical full-time teacher spends six hours a week sourcing and creating curriculum materials and some teachers spend a lot longer. Converting one subject into a year's worth of sequenced, detailed curriculum materials would take an estimated 500 hours (Hunter et al. 2022a, p. 35). Teachers also have less opportunity to focus on adopting the most effective teaching strategies.

Highly experienced teachers have had enough time to learn how to reach all their students. But not every teacher has a wealth of knowledge and existing materials to draw from. Under-resourced teachers and those new to the workforce often need additional support to develop or source materials for their classes. Teachers who are sourcing materials that fail to meet the standards set in the Australian Curriculum will place their students at a

disadvantage, which can be compounded when materials are not adapted for local contexts, or do not provide additional guidance or scaffolding for both under and over-performing students (ACER 2023b; AERO 2023).

To become skilled at adapting lessons to meet the needs of their students, beginning teachers need a strong foundation – knowledge of what high-quality teaching looks like. High-quality tools and materials (and the training to know when and how to use them) provides the foundation for all students to reach their potential, not just those with the best teachers.

Out-of-field teaching is a persistent problem, caused by teacher shortages and uneven distribution of teachers with specific specialisations, particularly in remote areas with small populations.⁴ It can lead to students experiencing ineffective learning environments and teachers' workload can increase as a result (Luft 2020). In 2022 and 2023, nearly half of secondary school teachers were teaching at least some out-of-field subjects; in 2023 42% taught some and 7% only taught out-of-field subjects. In remote and very remote schools, 65% of secondary school teachers taught out-of-field subjects, compared with 46% of teachers in schools in major cities (AITSL 2025).

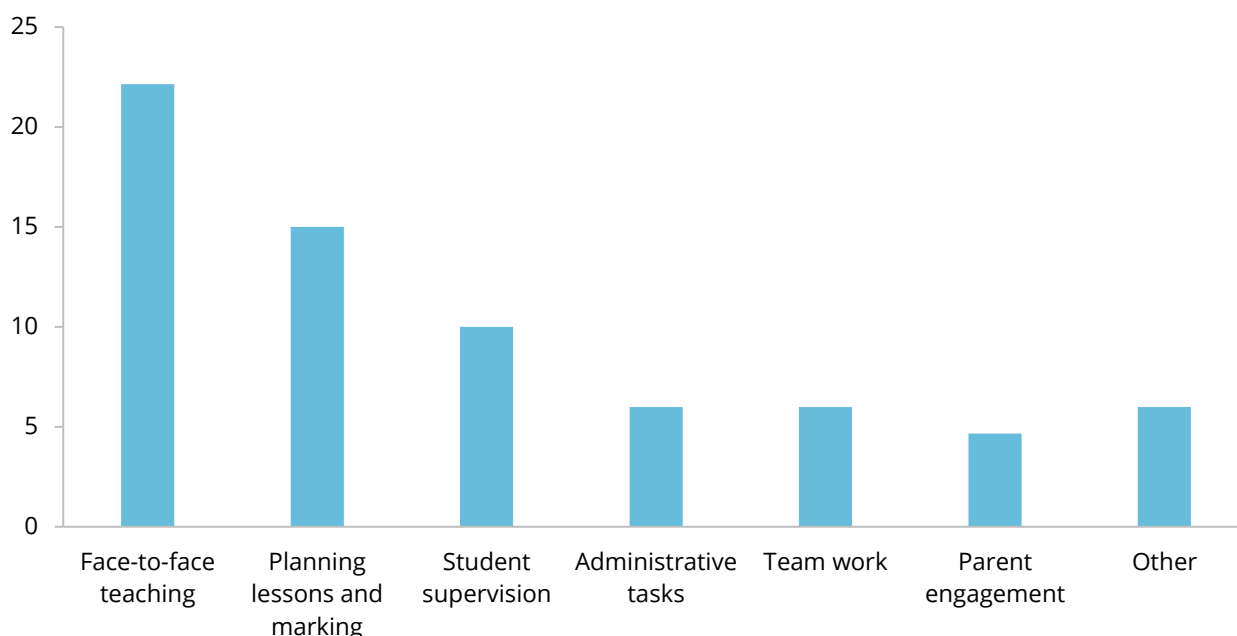
Much teacher time is spent on activities other than teaching

In 2023, full-time classroom teachers, whether in primary, secondary or combined schools, reported working an average of 52 hours a week during school term. Across states and territories, government school teachers' enterprise bargaining agreements establish maximum face-to-face teaching hours, ranging from 19.5 to 23.7 hours per week (AITSL 2025). In 2023, full-time teachers spent most of their time outside the classroom, including an average of 15 hours a week on planning or preparing for lessons and marking or assessing student work (figure 1.3). There is an opportunity to reduce the time teachers spend on these activities.

Increased demands on teachers' time can harm their wellbeing and cause them to leave the profession early. In 2023, when teachers who intended to leave early were asked why, 75% cited 'workload', 69% cited 'work/life balance' and 68% 'stress/mental health/wellbeing'. These reasons have been consistently cited as the most common reasons for teachers intending to leave the profession since 2019 (AITSL 2025).

Workload pressures can force teachers to sacrifice preparation. More than 90% of teachers, and especially those early in their career or under-resourced, have said they do not have enough time to effectively prepare for the classroom (Hunter et al. 2022b, p. 13). Data suggests these teachers are disproportionately employed in remote or very remote schools and schools with higher proportions of disadvantaged and higher-need student cohorts (AITSL 2025; Regional, Rural and Remote and Unique Settings Directorate 2025). Research also shows that teachers living in very remote areas (7%) are more likely to leave the profession, compared with those in major cities (5.2%) (Buckley and Griselda 2025). Access to high-quality tools and resources could reduce the pressures on these teachers.

⁴ Out-of-field teaching refers to teaching a subject that is not the subject studied, both content and pedagogy, during the teacher's secondary initial teacher education (AITSL 2025).

Figure 1.3 – Teachers spend most of their time outside the classroom^{a,b,c,d}**Mean hours a week spent on tasks by full-time teachers, 2023**

a. Figure includes responses for full-time teachers only and hours during an average teaching week. **b.** ‘Other’ category includes: extra-curricular activities, leadership, and student counselling. **c.** Mean hours is an average of primary, secondary and combined school types. **d.** Summing of these duties adds up to more than a teacher’s total average hours worked in a week as some of these tasks can overlap or be done simultaneously.

Source: Australian Teacher Workforce Survey 2023.

Governments have made progress, but more can be done



State and territory governments are responsible for ensuring the delivery and regulation of schooling to all school-age children in their jurisdiction. They have major financial responsibility for government schools, administered under their legislation. They also determine curricula, register schools, regulate school activities, oversee administration of government schools and provide support services used by all school sectors (SCRGSP 2025). The Australian, state and territory governments work together to build national institutions, systems and tools to support better student outcomes (PC 2022).

The national schooling architecture provides a foundation for further reform

The Australian Government establishes joint agreements with state and territory governments to advance education across the country. The Better and Fairer Schools Agreement (BFSA) ties increased Australian Government funding to reforms aimed at improving student outcomes, especially for disadvantaged students. The BFSA also reaffirms all governments’ commitment under the National Agreement on Closing the Gap to support Aboriginal and Torres Strait Islander students to achieve their full learning potential (DoE 2025a).

Four organisations within the national architecture, each with different responsibilities, seek to promote consistency in the Australian school system (figure 1.4). While these bodies offer substantial resources and support for systems and schools, their influence can be limited. Ultimately, state and territory governments are responsible for school education, including decisions over how to implement national initiatives such as the Australian Curriculum.

Figure 1.4 – Education bodies in Australia’s national schooling architecture

<p>acara Australian Curriculum, Assessment and Reporting Authority (ACARA)</p> <ul style="list-style-type: none"> • Develops, reviews and updates the Australian Curriculum. • Provides resources and support to aid in the implementation of the curriculum including guidelines for assessment. • Administers and reports on national student assessments, including NAPLAN. 	<p> Australian Education Research Organisation (AERO)</p> <ul style="list-style-type: none"> • Undertakes education research and enhances the use of high-quality evidence in Australia education. • Produces a range of resources including evidence-based lesson planning materials aligned to the Australian Curriculum. • Supports educators to develop effective teaching and learning plans. • Promotes resources and training to help teachers integrate evidence-based practices.
<p>aitsl Australian Institute for Teaching and School Leadership (AITSL)</p> <ul style="list-style-type: none"> • Administers the Australian Professional Standards for Teachers (APST) for teachers and principals, and accreditation standards for initial teacher education (ITE). • Provides tools and resources for teachers and principals. 	<p> Education Services Australia (ESA)</p> <ul style="list-style-type: none"> • National not-for-profit company owned by the state, territory and Australian Government education ministers. • Develops and provides digital teaching materials aligned to the Australian Curriculum, and learning resources through Scootle website and teacher resource hubs. • Assesses the safety of online educational products and services.

Source: Vines and Clark (2024); Ey and Clark (2021).

In 2010, education ministers established Education Services Australia (ESA) to advance key priorities such as the development of resources. ESA also took on responsibility for Scootle, a portal providing teachers with more than 20,000 digital resources aligned with the Australian Curriculum (ESA nd). ESA curates teaching and learning resources to streamline access to quality resources from all states and territories, including publicly available lesson plans from New South Wales and Victoria (ESA, pers. comm., 10 July 2025).

Yet despite the availability of these resources, some state and territory governments have developed their own lesson planning materials, often to align with their own curricula and supported by their own systems. They often reference Scootle as a supplementary resource. Queensland is one jurisdiction that uses Scootle to share teaching materials that are not publicly available outside the government system. Yet technical constraints, such as the embedding of resources in state education system platforms and additional quality review processes, have been cited as limiting the inclusion of more government-created resources on Scootle (ESA, pers. comm., 10 July 2025).

Improved collaboration and coordination within the national education architecture could better address challenges that are common across states and territories.

The Australian Curriculum and states’ curricula can vary

The Australian Government is responsible for developing the Australian Curriculum and state and territory governments for implementing it. The latter governments are not uniform in their approach to education policies

and curriculum development. While some have converged in recent years in adopting explicit teaching and phonics as evidence-backed practices, other differences can create tensions with national objectives.

Since its initial release in 2010, the Australian Curriculum has undergone several major updates. In April 2022, all education ministers endorsed the latest version (9.0). For each version, the structure and content of curriculum support materials, including practice guides and lesson plans, needs to be updated to align with the new curriculum. All states and territories are expected to fully implement the latest curriculum by 2027.

Queensland, Tasmania, the Northern Territory and the Australian Capital Territory have adopted the Australian Curriculum while New South Wales, Victoria, Western Australia and South Australia have adapted it within local syllabuses or to local curricula. Adaptions include repackaging of content into broader groupings of syllabuses (as in New South Wales and Western Australia). The Victorian curriculum presents literacy, numeracy and digital literacy as foundational skills, while content for some subjects in the Western Australian curriculum are presented in year levels rather than band levels. Other adaptations include excluding or modifying some content or including elements that align with state-specific educational goals and contexts. Nevertheless, the adapted curricula maintain core alignment with the national framework and its broader goals (adapted from ACARA, pers. comms., 11 July 2025).

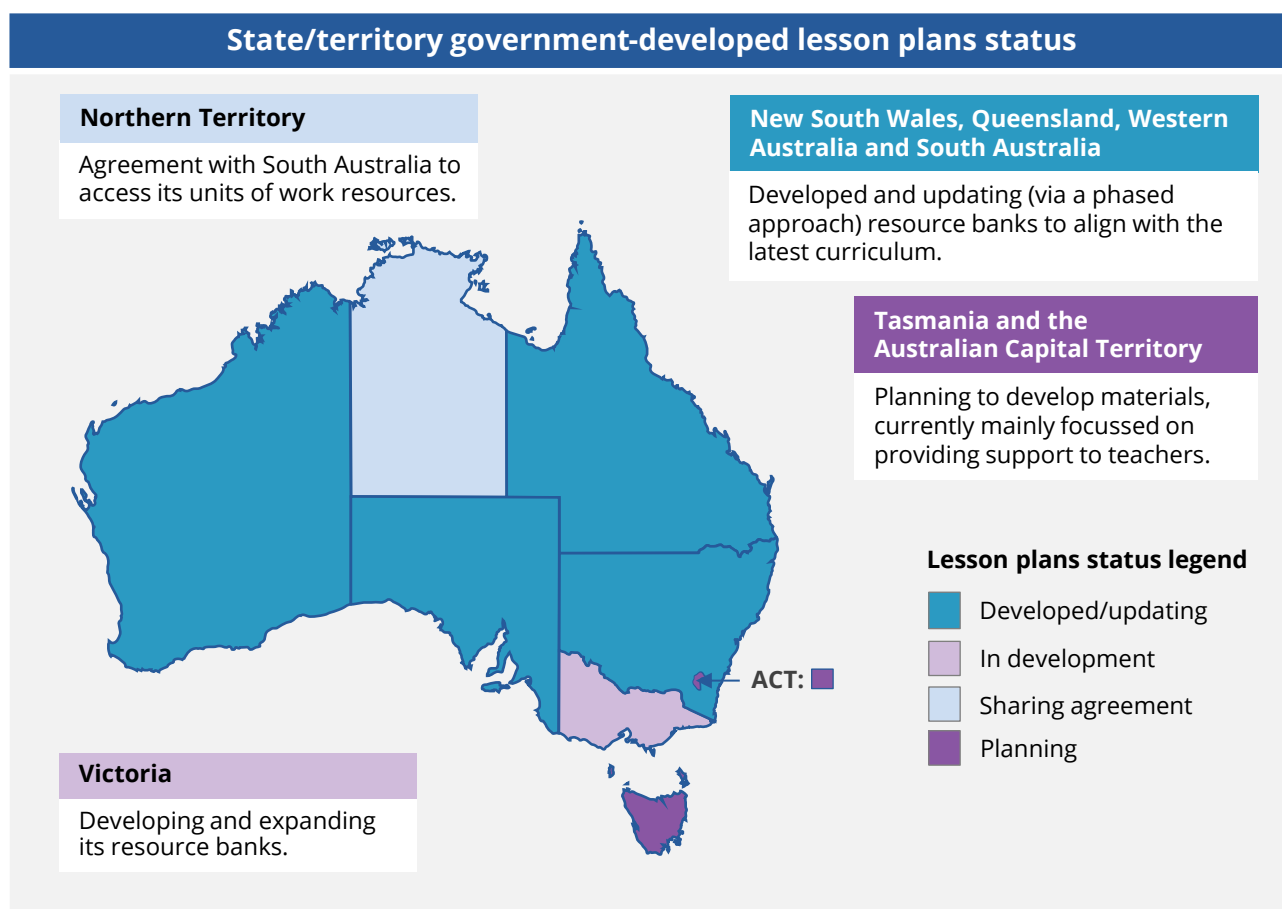
Most school sectors are developing lesson planning materials

Reviews of teaching have identified high-quality subject content as crucial for effective pedagogy and successful student outcomes. Teachers need deep knowledge of their subject matter to skilfully adapt content to students' learning needs (OECD 2025b). To support high-quality teaching, most government and non-government school sectors have invested in or are developing lesson-planning materials. These materials align with the Australian or local curriculum, are evidence-based, and often support the desired sequencing of units of work. Teachers have also received professional development to help them to use these materials most effectively. These 'resource banks', which hold lesson planning materials that teachers can access, are in various stages of development (figure 1.5).

Separately, progress is being made on several other fronts.

- ESA has a comprehensive resource bank of lesson planning materials aligned with the Australian curriculum for Foundation to year 10 (F–10) and available through the Scootle platform. ESA also manages teacher resource hubs that provide resources to support literacy, mathematics, civics and citizenship and digital technologies. It also provides resources supporting cross-curriculum activities including student wellbeing, inclusion and disability (ESA, pers. comm., 10 July 2025). Scootle aggregates materials from multiple sources, although the materials may not always be up-to-date or consistently aligned with more recent evidence-based practices recommended by the Australian Education Research Organisation (AERO).
- AERO provided funding to not-for-profit organisation Ochre Education to develop a series of sequenced lesson planning materials for years 3 to 6 mathematics and English, and years 7 to 10 science, aligned with the Australian Curriculum and evidence-based practices. Materials are openly available on the AERO and Ochre Education websites.
- Separately, the Catholic sector has engaged Ochre Education to develop lesson planning materials for Foundation to year 6 mathematics while its latest Mastery in Mathematics (MiM) project expands these resources for years 7 to 10. These are aligned with the Australian, New South Wales and Victorian curricula (NCEC, pers. comm., 9 July 2025).
- The Independent school sector has mixed approaches: some schools use a recognised alternative curriculum such as Steiner, Montessori or International Baccalaureate (Independent Schools Australia, pers. comm., 8 July 2025).

Figure 1.5 – Availability of lesson plans varies by jurisdiction^a



a. Lesson plan materials are for Foundation to year 10.

Source: Tasmanian Department for Education, Children and Young People, pers. comm., 9 July 2025; Queensland DoE, pers. comm., 9 July 2025; New South Wales DoE, pers. comm., 10 July 2025; Western Australian DoE, pers. comm., 10 July 2025; Victorian DoE, pers. comm., 14 July 2025; Australian Capital Territory Education Directorate, pers. comm., 20 July 2025; South Australian DoE, pers. comm., 24 July 2025; Northern Territory DoE, pers. comm., 27 July 2025.

Governments have taken mixed approaches, drawing on their own funding (box 1.2).

Box 1.2 – Funding for lesson planning varies and often duplicates other initiatives

Developing materials and other supports and ensuring they are high quality requires the engagement of subject-matter experts and considerable funding. Because states and territories have different curricula, the current approach duplicates investments to produce similar products.

- The Victorian Government committed \$36.9 million to develop detailed lesson planning materials and implement a professional learning program to support government school teachers.
- Under its Curriculum Reforms, the New South Wales Government committed \$74.1 million to redevelop nearly 200 syllabuses for early and middle years of schooling.
- The Australian Government committed \$34.6 million to ESA to continue delivery of its resource bank and professional learning materials through its suite of teacher resource hubs.

Box 1.2 – Funding for lesson planning varies and often duplicates other initiatives

- The Australian Government has committed \$30 million under the Teacher Workload Reduction Fund for states and territories to pilot new approaches, such as developing lesson planning materials, to reduce teacher workloads. Under the agreement, states are to provide matching funding contributions to the projects.

Larger states benefit from economies of scale and have access to more resources to develop lesson planning materials. Smaller states and territories tend to rely on nationally available products, enter sharing arrangements with other jurisdictions, and focus their efforts on developing guidelines that support teachers to customise existing materials and other quality assurance processes.

Source: Commonwealth of Australia (2024a); Federal Financial Relations (2023); Government of South Australia (2020); NSW Government (2021); Victorian Department of Treasury and Finance (2023).

Access to resource banks also varies: some are available to all teachers nationally, others are restricted to school teachers working within a state or territory. Access can be limited to better track usage data or to comply with intellectual property, licensing agreements, copyright restrictions or security concerns.

- New South Wales and Victoria make their materials publicly available on departmental websites (New South Wales DoE, pers. comm., 10 July 2025; Victorian DoE, pers. comm., 14 July 2025).
- ESA make their materials publicly available on the Scootle website and through various teacher resource hubs (ESA, pers. comm., 10 July 2025).
- MiM resources are publicly available on the Ochre Education website (NCEC, pers. comm., 9 July 2025).
- Other states and territories limit access to teachers working within the state or territory via a website portal. For example, Queensland provide access to its resources via a website portal (Curriculum Gateway) for government schools, and makes its resources available through Scootle for non-government schools (Queensland DoE, pers. comm., 9 July 2025). Western Australian teachers can access resources through the School Curriculum and Standards Authority's public website and through its extranet (Western Australia DoE, pers. comm., 10 July 2025). Access to lesson planning materials and the South Australian Curriculum Prototype is limited to teachers working within the jurisdiction via a website portal (South Australian DoE, pers. comm., 24 July 2025).

While the focus on the need for high-quality lesson planning materials is welcome, the current fragmented approach has several pitfalls. Access to these materials varies across jurisdictions and is often limited to teachers working in the jurisdiction. Others have a wide range of materials to choose from, but of varying quality. There is no single point of access for verified, high-quality and evidence-based materials. Producing materials for all subjects (not just English and mathematics) requires significant resources, and not all jurisdictions – especially smaller states or territories – can invest in their development. Teachers also need resources to support lower and higher-achieving students in their class and materials such as demonstration videos or worked examples that promote active student engagement in learning (AERO 2023; NSW DoE 2020). A centralised and well-resourced approach is essential to ensure all teachers have access to resources to support highly effective teaching.

Some states are also developing specific edtech tools

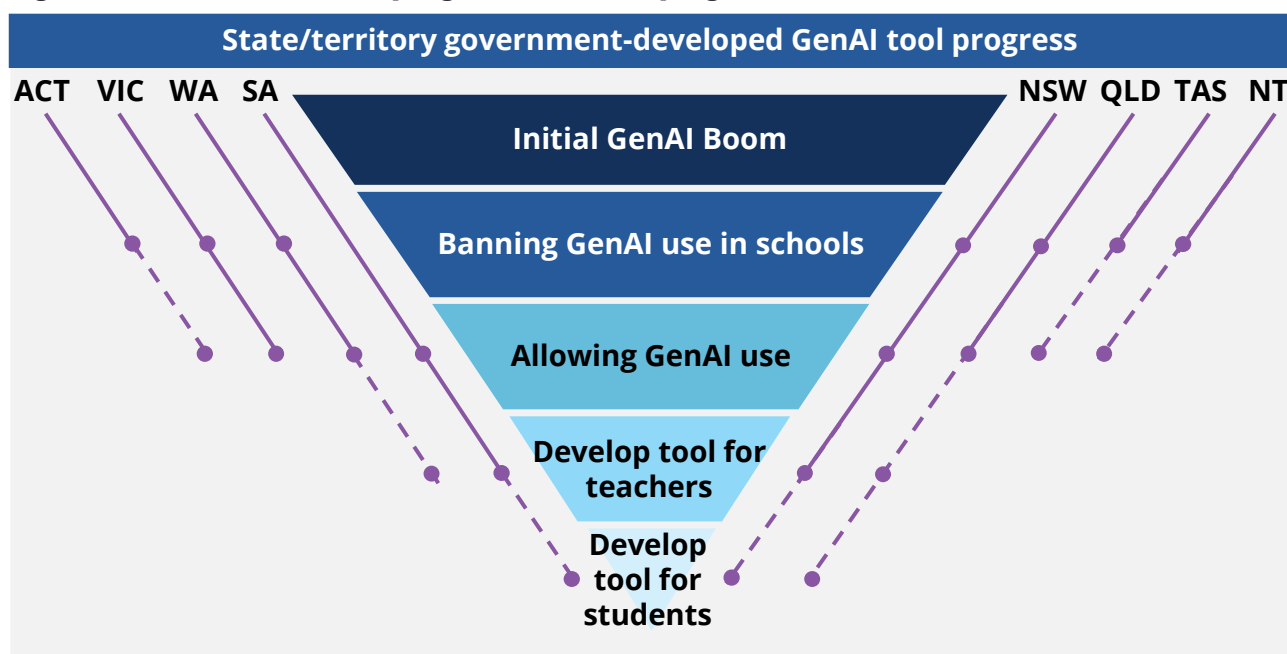
States and territories are also developing and adapting advanced edtech at their own pace, with GenAI the current focus. The progress of GenAI tool development and adoption is creating a divide between those

jurisdictions willing and able to develop and trial tools themselves and those that are not. Currently, four of the eight jurisdictions have developed or are planning to develop their own tool for use in schools (figure 1.6).

South Australia, New South Wales and Queensland are all progressing a chatbot tool for teachers and/or students to use. All operate in a closed environment such that:

- state education departments have oversight of how the tool is used, which is crucial to ensuring the tool aligns with educational standards and policies
- restrictions can be placed on what teachers and students can ask the chatbot to do, ensuring appropriate and effective use within the educational context
- usage data remains within the system and cannot be used to train the chatbot, safeguarding sensitive information and upholding privacy of users in the educational setting.

Figure 1.6 – Jurisdictional progress in developing GenAI tools^a



a. Dots indicate a point in the jurisdiction's journey with GenAI, solid lines indicate completed progress between points and dashed lines indicate current progress to next point.

Source: Tasmanian Department for Education, Children and Young People, pers. comm., 9 July 2025; Queensland DoE, pers. comm., 9 July 2025; New South Wales DoE, pers. comm., 10 July 2025; Western Australian DoE, pers. comm., 10 July 2025; Victorian DoE, pers. comm., 14 July 2025; Australian Capital Territory Education Directorate, pers. comm., 20 July 2025; South Australian DoE, pers. comm., 24 July 2025; Northern Territory DoE, pers. comm., 27 July 2025.

South Australia's EdChat chatbot tool is available for teachers in all South Australian government schools to assist them with administrative tasks and lesson planning; student use is being trialled in a small number of schools (DoE SA 2025). New South Wales' EduChat tool is available for all teachers in their government schools and all department staff across the state, and is being trialled in select schools for student use for learning (NSW DoE 2024). Both states have followed similar paths, starting with a small trial of both teacher and student use. Both saw positive outcomes during the trials, leading to state-wide expansion for teacher use.

Queensland is focussed on ensuring that its Corella tool, which is in its early stages, is ready and appropriate for teacher and student use (Queensland DoE, pers. comm., 9 July 2025). Western Australia has focussed on developing a unique tool to generate lesson planning materials and adapt them to its local

context. To make it available to all teachers in Western Australia, the tool is being developed with government and non-government sectors (Western Australian DoE, pers. comm., 10 July 2025).

Others are not developing AI tools or are excluded from existing tools

Victoria's approach focusses on providing advice for school leaders and teachers around how to use GenAI tools in a safe and responsible way, as well as advice on how to promote academic integrity in recognition of potential student use of GenAI tools. Advice complies with the department's GenAI policy for schools; consistent with the *Australian Framework for Generative Artificial Intelligence in Schools* (Victorian DoE, pers. comm., 14 July 2025).

Tasmania, Northern Territory and the Australian Capital Territory do not explicitly allow schools to use GenAI by students, though they are developing policies to allow use of off-the-shelf tools rather than developing their own tool. For example, Tasmania has developed both a policy and procedure on the use of Generative AI in government schools, alongside a suite of supporting resources and supports teachers using Microsoft CoPilot in accordance with their policies (Tasmanian Department for Education, Children and Young People, pers. comm., 9 July 2025).

The tools developed by South Australia, New South Wales, and Queensland are available only to government schools. The non-government school sector is diverse. While some schools, such as those within the Brisbane Catholic Education vicariate (Microsoft, qr. 76), may have the capabilities and resources to implement a GenAI tool, others may be unable to afford to do so, and will need to rely on nationally available products or wait until jurisdictions expand use beyond the government sector. This divergence in approaches could see outcomes diverge over time for the up to 2.1 million students being taught by teachers without access to a state-funded GenAI tool.⁵

The commonalities in each jurisdiction's progress with GenAI highlights the need for more coordination. Not all are progressing at the same rate. Access to tools that prove effective for teachers and students should not be defined by what state or territory a school is in. A nationwide approach that brings in all states, territories and school sectors can diffuse the best innovations, reduce the burden on smaller states and territories to fund these tools and make sure no students are left behind.

Supporting teachers with comprehensive, evidence-backed, lesson planning materials

Making high-quality resources available to all teachers

A national approach would provide and/or quality-assure lesson planning materials for all teachers in a more coordinated way. It would optimise resources and produce more efficient and effective outcomes than one in which jurisdictions and school sectors pursue their own solutions.

Similar models exist in other countries. Singapore's Ministry of Education provides a library of curriculum-aligned resources for all grade levels and subjects. It also curates resources and maintains an approved textbook list to inform schools when selecting materials (Singapore MoE nd). Singapore's

⁵ In 2024, there were 2,145,927 full-time equivalent students enrolled in all schools across Victoria, Tasmania, the Northern Territory, and the Australian Capital Territory, or in a non-government school in New South Wales, Queensland, or South Australia (SCRGSP 2025).

investment in education resources is a key component of its education system. The country consistently ranks among the top-performers in PISA (De Bortoli et al. 2023).

All teachers need access to a comprehensive and high-quality resource bank

Well-structured and sequenced teaching and learning plans help students to succeed (AERO 2025). Access to quality-assured, lesson planning materials can improve teachers' effectiveness and reduce their workloads, especially for those in under-resourced schools (Hunter et al. 2022; Juma 2024). Students also receive more consistent and effective education, leading to a better understanding of subject content and improved learning outcomes (AERO 2023; Learning First 2018).

The Australian Government should invest in and promote a single online platform that would provide all teachers with public access to a comprehensive resource bank. The platform could also house materials developed by other jurisdictions, positioning it as the go-to platform for all Australian teachers, improving teacher confidence and efficiency of lesson planning. Teachers should retain autonomy and would not be required to use the materials; rather, the materials would support teachers' decisions about how they teach.

Funding should support the design and delivery of learning resources to help teachers to effectively implement the evidence-based practices recommended by AERO (2023). The lesson planning materials should be:

- structured to follow a sequence, and include learning activities that gradually build students' knowledge and skills
- provided for all subjects, with content aligned with curriculum requirements and achievement standards covering the whole year
- editable and adaptable to local contexts to support the autonomy and expertise of schools and teachers
- scaffolded to support struggling students to build their understanding and extensions to encourage deeper learning, meeting the needs of students of diverse abilities within a single class.

Lastly, integrated assessments would enable ongoing monitoring of student learning progress.

Materials should be assessed for quality against a clear framework

Teachers should have confidence in the lesson-planning materials they select for their classes. A teacher survey by Grattan Institute found conflicting advice about what constitutes high quality and with mixed perceptions on the quality of classroom materials being used (Hunter et al. 2022a).

Several commentators suggest that a national education body responsible for quality-assuring curriculum materials would help teachers make these choices (Carter 2024; NCEC, qr. 29). Other countries have adopted various approaches to quality-assuring teaching materials. In the USA, EdReports, an independent non-profit organisation, conducts and publishes evidence-based reviews of curriculum materials (EdReports nd).

Materials on the national platform should be assessed against a clear framework to evaluate their alignment with the Australian curriculum, education standards and other evidence-based quality criteria. Beyond curriculum and evidence-based research, the framework could also evaluate cultural appropriateness and alignment with relevant guides, such as the Australian Institute of Aboriginal and Torres Strait Islander Studies (AIATSIS) Guide to evaluating and selecting education resources (AIATSIS 2022).

Adoption of the framework by states and territories would provide assurance that their materials meet national quality standards. A list of quality-assured teaching materials could also be published on the national platform, with approved materials receiving a stamp of quality assurance. Future assessments may be expanded to include materials from other sources, including teachers and publishers. Teachers could use the list to save time searching and instead improve their pedagogical knowledge, teaching practices and the

quality of student engagement, and to foster culturally safe learning environments. Providing one online platform would ensure equal access for all teachers, particularly those in under-resourced schools.

Lesson planning materials should be updated regularly, incorporating the latest guidance from ACARA and AERO, and other relevant experts, such as AIATSIS. Updates would ensure teachers have access to lesson planning materials that are relevant, effective and culturally safe. Updates based on user feedback could also be considered.



Draft recommendation 1.1

Invest in a single national platform for all teachers to access lesson planning materials

The Australian Government should invest in a single online national platform that houses a comprehensive bank of high-quality, curriculum-aligned lesson planning materials. These materials should be publicly available to teachers in all states and territories and across all school sectors, including Catholic and independent schools.

To support this objective, appropriate national education bodies should be asked to:

- develop and maintain a complete resource bank of lesson planning materials that aligns with and covers all components in F–10 of the current endorsed version of the Australian Curriculum. These materials should draw from existing materials where these are assessed as high quality and support evidence-based teaching practices that align with how students learn
- establish a national framework for assessing the quality of lesson planning materials and their alignment with evidence-based education standards
- promote a national online platform for all teachers to access the resource bank. Materials on the platform should be regularly updated and include jurisdictionally developed materials where feasible
- develop professional learning programs to help teachers to use the materials and schools to adopt a whole-school curriculum approach.

A national approach to advanced edtech

Artificial intelligence can help address the challenge ahead

The rising complexity and administrative burden of teaching is reducing the time teachers spend supporting students. Making it easier for teachers to address their students' needs would benefit learners of all abilities, but especially schools in more disadvantaged areas that have higher concentrations of teachers teaching out-of-field and/or early career teachers (AITSL 2024). Reducing complexity may help lessen gaps in experience or resourcing, making it easier for all teachers to achieve higher outcomes while addressing the reasons why some are leaving the workforce.

Recent developments in GenAI have led to new applications for education. Literature examining the impact of AI supports shows promise for how schools can seize this opportunity, particularly in three areas.

- **Class preparation aids:** The relevance of lesson materials to a student's context or level of learning can affect their ability to understand them (Aronson and Laughter 2016). GenAI can take existing materials, adopt them for different contexts or learning abilities, or generate new materials from scratch. In its consultation, the PC heard that teachers in rural, regional or remote areas could use GenAI tools to

quickly adapt city-focussed lesson plans to reflect their local context, or scale the content based on students' abilities. Provided that teachers know how to assess the quality of the output, these tools can reduce the time and compliance burden on teachers to create lesson plans for every class, covering multiple scenarios they might face.

- **Assessment and feedback:** Understanding precisely where a student is at in their learning journey is vital to pitching teaching material at the right level and improving student outcomes (Hill and Chin 2018). This is particularly important for early career teachers, who can be less effective than other teachers at identifying struggling students (Kosel et al. 2024). Edtech tools can be used to mark or analyse student work in real time to identify learning gaps or areas of need. They can also lessen the gap between early career and experienced teachers in identifying and assisting students who are falling behind.
- **Student-based tools:** Effectively deployed, high-quality tools can improve results for students who are falling behind and are typically disadvantaged (Huang et al. 2016; Thomas et al. 2024). Students use these tools in class and at home. Tools may include adaptive learning applications that quiz students and adjust the difficulty of questions to help fill in gaps in knowledge.

As technology continues to shape the future of life and work, Australians are more likely to need to understand and work with digital technologies such as AI.

Some of Australia's early progress in AI use in schools has been shown to improve teacher workload and student outcomes. The pilot program for the Brisbane Catholic Education GenAI tool provided average time savings of 9.5 hours per week for teachers across both their planning time and administrative tasks (Microsoft Australia 2025).

A major value of edtech (including, but not specifically AI) is its ability to make learning more accessible (Loble and Stephens 2024b). Features that can adjust the delivery and engagement of content through something as simple as different font sizes and colours, to more sophisticated functions such as translation tools, text-to-speech or speech-to-text can make education more inclusive. Around 25% of Australian students require disability adjustments, 31% speak English as an additional language, and nearly 7% are Aboriginal or Torres Strait Islander (ACARA 2024, 2025). If well implemented, edtech could particularly benefit these students.

These tools offer the potential to help address Australia's future educational challenge, and many teachers, schools, sectors and governments are already taking them up.

A coordinated approach diffuses the best innovations to all schools

The potential benefits of GenAI provide an opportunity to share tools and lessons across jurisdictions. A national system can end the current fragmented and duplicative approach. The Australian Government should play a more active role in the development and implementation of advanced edtech tools and help spread the benefits nationwide. Doing so should not stall progress and experimentation to date, but rather future-proof the system as more advanced edtech products become available and adaptable to school settings.

However, schools do not have equal access to these tools. Outside of states that are developing their own tools, schools are left on their own to find a GenAI tool or be completely excluded from the benefits. Further, the lack of coordination between jurisdictions has resulted in duplicated efforts. For example, New South Wales developed and funded EduChat while South Australia did the same with EdChat. Had they combined their efforts, both states are likely to have spent less per teacher. Combining the purchasing power of all states and territories could have an even bigger impact.

Accordingly, the Australian Government should endorse a national edtech toolkit. It should coordinate with state and territory governments to make tools such as AI (and future technology developments) that need to

be developed specifically for Australian schools available to all schools. A national process to develop advanced edtech tools could draw on greater bargaining power than any school, sector or jurisdiction could have on its own, reducing the cost per school and student. For off-the-shelf edtech tools a different approach is needed (discussed further below).

Development of the tool kit requires a stocktake of what advanced edtech tools are currently in use, what similar tools have in common, and what gaps need to be filled. Selected AI and advanced edtech tools should be assessed for their effectiveness and suitability for nationwide use, in line with an edtech quality assessment framework (discussed below). Experiments to fill the gaps should be encouraged by the Australian Government through funding of trials, on the condition that successes are spread nationwide.

Risks to GenAI use in schools

Artificial Intelligence is not a 'set and forget' technology. The risks associated with AI in its current state, and GenAI in particular, need to be considered (box 1.3). Some of these risks may be accounted for in existing legislation, but a gap analysis is required to identify whether further regulation is needed (as recommended by the PC's interim report on *Harnessing data and digital technology*). The *Australian Framework for Generative Artificial Intelligence in Schools* (the Framework) addresses many of the risks noted below. All states and territories have agreed to use and develop AI in accordance with the Framework.

Box 1.3 – Risks associated with GenAI use in schools

Many off-the-shelf GenAI products – including large language models – were not designed as education tools. While presenting great promise, they are not specifically designed to foster critical thinking and can generate unsound pedagogical responses and harm student outcomes (Wang et al. 2024).

There are also concerns that without a proper understanding of the tools and their shortcomings, the way these tools are trained can reinforce existing biases and produce hallucinations (incorrect information presented as factual) that can be difficult to counteract (Ali et al. 2024; Idowu et al. 2024; Tao et al. 2024).

GenAI tools and the way they are trained have particular implications for Aboriginal and Torres Strait Islander people. They have the potential to produce and perpetuate misinformation about Indigenous peoples' history and contemporary lives (Worrell 2024). They also have the potential to damage the intellectual rights and sovereignty of Aboriginal and Torres Strait Islander people through the inappropriate generation of materials such as Aboriginal art. Mechanisms must be put in place to ensure AI developments do not threaten Indigenous community wellbeing and self-determination (Worrell 2024).

To use the tools well, students and teachers must understand them well. The quality of prompts a person provides can directly affect the quality and accuracy of the output (Garg et al. 2025).

Data privacy and potential misuse of GenAI that harms student and teacher wellbeing have also been highlighted as a serious risk to its use in schools (Standing Committee on Employment, Education and Training 2024).

The risks that GenAI poses should be balanced against potential benefits. A national tool can increase the degree of control that educators and governments have over its use. Even if GenAI is banned, teachers and students could use a public GenAI tool on their own devices, exposing themselves to risks beyond any controls. However, students and teachers are more likely to use a national tool over a public GenAI tool if it

is well-developed. The former would also allow school leaders and governments to create controls to combat risks such as biases and data privacy.

Beyond AI alone, students in more disadvantaged schools and/or rural and remote areas may struggle to access affordable digital technologies and internet at home or in school, thereby blocking their engagement with edtech (Loble and Stephens 2024b). These challenges may be more acute for some groups, such as Aboriginal and Torres Strait Islander students, who are disproportionately attending rural and remote schools, than for others (PC 2022).

A national solution that accounts for differences in technological access is essential for equity. Guidelines and training for teachers may have to allow for alternatives when internet and device access is not guaranteed either at home or in school. When such alternatives are not possible, the procured tools should only be used in school environments, so students without home internet access are not worse off.

A different approach may be needed for other edtech tools

The Australian Government does not need to and cannot provide access for all types of edtech tools, of which more than 500,000 are on the market (Loble and Stephens 2024a). A look at which off-the-shelf edtech tools schools procure indicates that there are information asymmetries that need to be addressed. The decision maker is often the school leader, not a centralised state or territory government department (Loble and Hawcroft 2022). School leaders are likely to face information barriers when considering the efficacy of off-the-shelf edtech tools, especially if the only advocate for the tool's benefit is the market provider. Without informed consumers, edtech providers may obscure the likely effectiveness of their tool by cherry-picking results, presenting results that have not been rigorously assessed or relying on results in a different context to that which an individual school faces.

The Australian Government can mitigate information barriers for school leaders by developing a quality assessment framework for edtech. Any edtech tools should meet the aims of the Australian Curriculum and be backed by evidence of their effectiveness. These two aspects and other relevant criteria for a given type of tool should be the basis for a quality assurance framework that would allow governments and school leaders to assess what tools should be endorsed and made available.

It would be too burdensome to assess the quality of all available edtech tools. However, publicising any tool that is assessed by the framework would inform school leaders about which tools do and do not meet quality standards. The Australian Government could go one step further and use the combined purchasing power of all Australian schools to provide approved tools at a cheaper price than what schools could procure alone – in the way that New South Wales' edtech marketplace negotiates for edtech products to be provided to all New South Wales schools.

A national approach can help to future-proof the school system. Without it, the gap between early adopters and others could widen further. The current wave of GenAI tools is likely to be just the start of advanced edtech. As technology develops, new and improved tools will enter the market. The early adopting jurisdictions, either through their increased resources or willingness to experiment, may be more able to integrate the new tools, compounding their technological advantage. A national approach can help to break the cycle that separates early adopters from everyone else, to the benefit of all students.



Draft recommendation 1.2

Lead national efforts to ensure equitable access to educational technology (edtech) and artificial intelligence (AI)

The Australian Government should provide national leadership on edtech and AI in schools, and work to make the best available tools available to all teachers. Appropriate national education bodies should:

- establish a framework for assessing edtech tools' quality and alignment with evidence-based practices
- undertake a stocktake of what tools are being used, within Australia and internationally
- assess selected edtech and AI tools, and recommend suitable tools for nationwide use
- coordinate acquisition of AI tools for national use, drawing on the combined purchasing power of all states and territories
- continue to develop and refine guidelines for teachers and school leaders to guide the adoption and use of edtech tools
- continue to fund trials of new edtech with a commitment to national roll-out of successes.

State and territory governments should focus their efforts on professional development and wrap-around support for schools that enables teachers to adopt and use these tools effectively.

A pathway to reform

This paper presents the PC's assessment of the challenges facing the Australian school system and provides targeted, tangible policy recommendations.

Steps to implement a national approach

National agreement, most appropriately through the Education Ministers Meeting of Australian, state and territory education ministers, is vital to the success of these recommended reforms. Following national agreement, the implementation process could broadly follow the steps below (figure 1.7).

National bodies have the capability to implement both reforms

Both AERO and ESA are experienced in understanding what constitutes evidence-based, teaching materials. Teachers already view materials from these organisations as high-quality, evidence-based and effective for supporting teaching. In 2024, more than 86% of user survey respondents used ESA's Scootle to find subject-specific materials, and 46% relied on it for curriculum planning. In addition, around 86% of Scootle survey respondents were likely to recommend Scootle (ESA 2024).

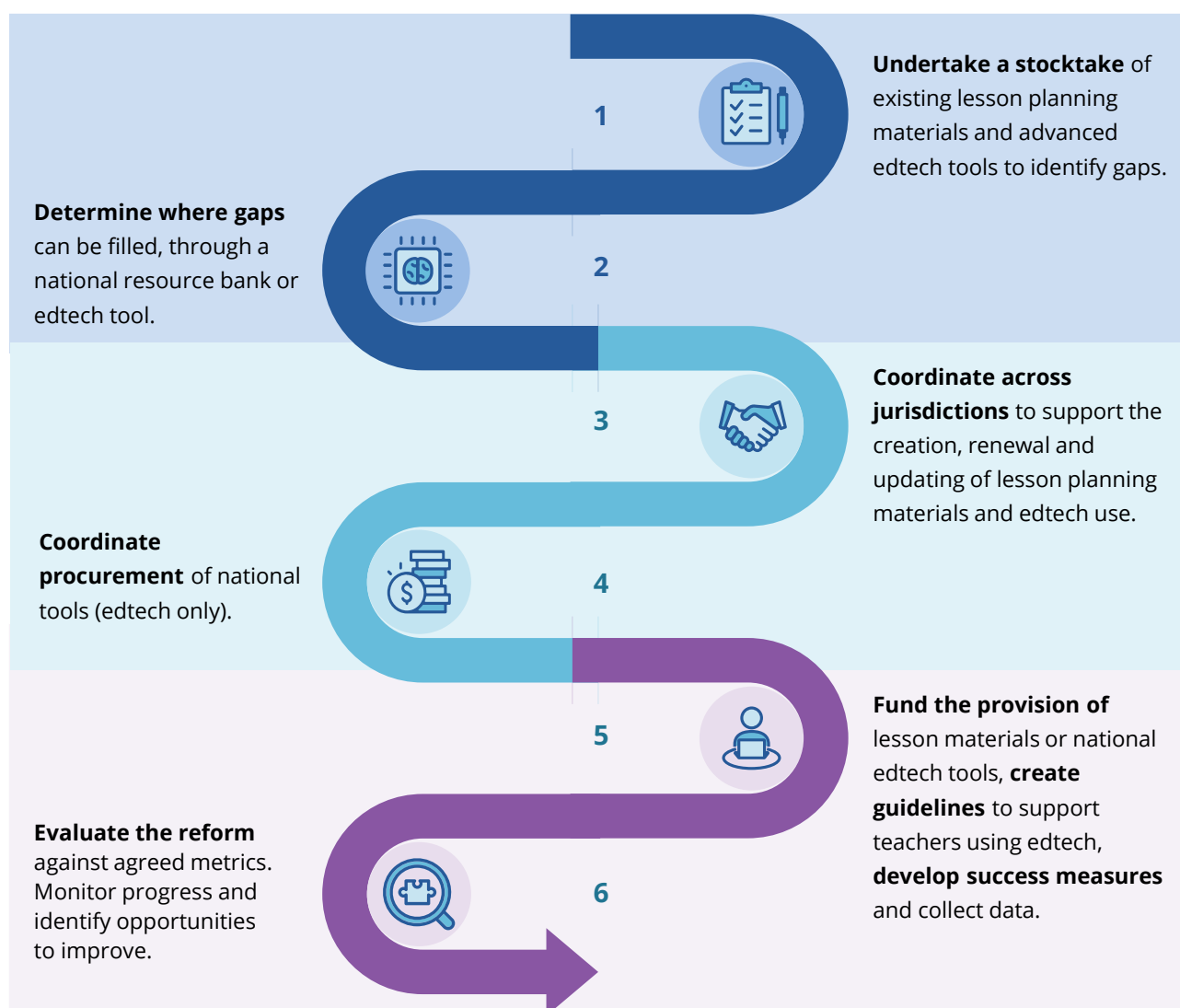
ESA, drawing on its experience with Scootle, has been invited by the Australian Education Senior Officials Committee to coordinate national efforts and propose a refreshed service to improve teachers' experience in discovering, selecting and using quality digital resources. The goal is to save teachers' time and increase their positive impact on school outcomes (ESA, qr. 67).

AERO and ESA have also played a role in edtech. ESA has developed the Safer Technologies 4 Schools (ST4S) initiative to help schools assess the data privacy and security of edtech products and services. Following that initiative, ESA have released learning modules to increase teachers' confidence and safe use of AI technologies. Both AERO and ESA have been tasked with developing a quality assurance framework

for edtech products (Loble, qr. 23). Yet the role that each continues to play in the development and implementation of national edtech resources is not yet clear.

There is merit in a single unified approach primarily delivered by one body, rather than each being allocated parts of the implementation, potentially weakening its overall effectiveness.

Figure 1.7 – Implementation pathway



Other implementation considerations and risks

A national approach depends on strong collaboration

Effective implementation of both reforms requires collaboration and buy-in from state and territory governments, school sectors, school leaders and teachers. As identified above, a unified approach is needed to promote and support the national platform of lesson planning materials and adoption of effective edtech tools in Australian schools.

Some governments and school sectors have invested substantially in developing their own resources and GenAI tools and may be reluctant to approach the challenge together. Some jurisdictions may argue that

their unique circumstances and education priorities require their own resources and GenAI tools. States and territories that have adapted the Australian Curriculum or have specific backgrounds and challenges in their schools may be reluctant to adopt a tool or resources developed by another jurisdiction. For lesson plans, GenAI can potentially address these problems, making it easier for teachers across jurisdictions to adapt existing materials (using an AI tool) to account for differences in their context or version of the Curriculum.

The Australian Government can encourage collaboration between states and territories, including by exploring how future national agreements could resolve some of these issues. Individual state and territory development of similar tools and lesson planning materials duplicates resources, time and effort. Active collaboration in openly sharing tools or the lessons learnt from their implementation could speed up the nationwide adoption of new edtech.

Teachers and schools need to see the benefits

Adopting national teaching materials and edtech tools would require support from school leaders and teachers. Governments and school leaders would need buy-in from school communities, and to invest in teacher training during the transition process.

There are concerns over the risks of AI, particularly for children. Successful implementation of a national AI tool needs to answer these concerns. Collaboration with teaching professionals in a tool's development can help to ensure it is equitable, fit-for-purpose and used broadly (Loble, qr. 23; Australian Council for Student Voice, qr. 26).

New tools and resources will not deliver expected benefits without accompanying professional development

Professional development increases engagement in teaching and school activities, develops new skills and knowledge, and leads to better student learning outcomes (Mukan et al. 2019; AITSL 2023). Effective professional development initiatives are essential for implementing new programs and teaching strategies, since they promote teachers' confidence and self-efficacy (Quach et al. 2024). Professional development should also equip teachers with the skills to respond to diverse needs in the classroom, including creating culturally safe environments for Aboriginal and Torres Strait Islander students (PC 2022).

The PC heard in many consultations that just making new tools and resources available to teachers is unlikely to generate the desired benefits. Schools and teachers also need to build the capabilities to use new tools effectively through professional development, which can come in many forms. All four national education agencies have experience in providing a range of materials to support teachers and school leaders, and to strengthen their teaching practices with training delivered through methods such as self-paced online learning modules, webinars, podcasts and guides.

Lessons can also be learnt from the development of existing AI tools in schools. The PC has been advised that the Brisbane Catholic Education's GenAI tool was successful because teachers were brought along the implementation journey. Early adopters of the tool were appointed to help prepare other teachers in each school and answer any concerns. Teachers were also provided with multiple hands-on training sessions and follow-up learning modules to get them comfortable with the tool and understand the risks and benefits of the AI (Microsoft Australia 2025). Emulating a similar approach that collaborates with teachers and provides the learning and development time required may break down barriers that may limit a tool's effectiveness.

Ongoing, not once-off, funding is required

The cost of these proposals is likely to be modest relative to overall school system expenditure and may deliver some savings through elimination of duplication. Ongoing funding would be required to ensure materials and tools are regularly updated to keep them relevant and aligned with the latest evidence-based research.

In-field testing of edtech will be vital as technology develops. The Teacher Workload Reduction Fund (an Australian Government initiative that funds states and territories to pilot approaches to reduce teacher workloads and maximise the value of teachers' time) can continue to be drawn upon to fund trials of new edtech and allow for innovation to diffuse across Australia. But funding requirements go beyond the initial development and trialling phase.

Whatever form a national edtech tool takes, governments may need to implement cost-sharing mechanisms to maintain its availability and use for all teachers, not just those from schools that can afford the necessary licenses. The PC is seeking input from inquiry participants on cost-sharing arrangements.

A combination of measures is needed to assess impact

Ultimately, the most effective materials and tools need to be designed for use by teachers and students. If they are not satisfied, any measurable gains to student outcomes are unlikely to be realised. Some outcomes can be measured through student achievement results, while others will need to be evaluated based on feedback and experiences from users. Possible information sources include:

- **reporting under the BFSa**, which identifies several objectives for the Australian education system and measures of student outcomes. The 'equity and excellence' objective seeks to ensure schools and education systems are equipped to provide all students with effective, evidence-based teaching, equitable learning opportunities and support for maximum learning (DoE 2025a). This objective identifies several relevant measures that could help evaluate the success of these reforms, including for students from priority cohorts
- **teacher surveys, such as those included in the Australian Teacher Workforce Data**. These reforms are expected to reduce teachers' non-teaching workload, including time spent on lesson planning and preparation.

How school leaders, teachers and students use and experience edtech tools – especially perceptions of their impact on learning – are vital factors for assessing their success.



Information request 1.1

The PC is seeking views on:

1. which agency in the existing national education infrastructure is best placed to take on responsibility for the assessment and development of lesson planning materials and the assessment and procurement/development of advanced edtech tools?
2. any changes required to the Australian Curriculum or the role of Australian Government education agencies to enable collaboration across jurisdictions to achieve the reforms?
3. funding implications for both recommendations, including views on appropriate cost-sharing arrangements?

2. Building skills and qualifications for a more productive workforce

Summary

- ✱ **The Australian economy's growing reliance on services combined with rapid technological advancement makes participation in post-secondary education and training more important than ever.**
 - More than 90% of jobs forecast over the next 10 years will require a tertiary qualification and businesses are already experiencing recruitment difficulties due to a shortage of skills.
 - Australia's current and future skill needs cannot be met without a significant increase in post-secondary education and work-related training.
- ✱ **Tertiary education plays a critical role in equipping Australians with the skills needed in a changing economy, yet disjointed systems limit its potential.**
- ✱ **Sound credit transfer and recognition of prior learning (RPL) arrangements can make it easier for students to access learning and build their skills over time. Students, particularly those from regional areas, low socio-economic backgrounds and Aboriginal and Torres Strait Islander people, would benefit from more accessible and flexible education opportunities.**
 - A national database of academic credit decisions is a fundamental step to improve the current disjointed arrangements. Students could draw on the database to better understand possible tertiary education pathways; it would also make decisions around the allocation of credit more transparent and providers more accountable.
 - Complementary changes, such as enforcing the right to have credit transfer and RPL applications assessed before the deadline for accepting offers, and developing a model of coordinated assessments of prior learning, should also be pursued.
- ✱ **Work-related training increases the skills of employees already in the workforce, boosting wages and productivity. But training participation has stagnated and is concentrated in larger businesses.**
- ✱ **Targeting work-related training incentives to the barriers small and medium enterprises (SMEs) face can support this cohort of workers to engage in lifelong skill development.**
 - Carefully designed incentives for work-related training can lower the financial barriers faced by SMEs. Limiting eligibility to SMEs also reduces the risk of supporting training that would have happened anyway.
 - Tailored SME advisory services can help firms identify skill gaps and find relevant training opportunities for their employees.

Building Australia's skills is vital for productivity growth

Investments in education and skills have underpinned productivity growth in Australia in recent decades and will do so in the future (PC 2023b, pp. 2–3). Australia's economy relies increasingly on skilled employment. Service industries, which rely more heavily on skills than do those that produce goods, on average, will be the major source of future employment growth (ABS 2022a; JSA 2024d; PC 2021, pp. 5–6). More than 90% of employment growth over the next decade is projected to be in occupations requiring a tertiary or vocational qualification (JSA 2024d). Meanwhile, existing demand for skills is going unmet and recruitment is hardest for highly-skilled jobs (JSA 2024g, 2024b).

Skills are also vital to building an adaptable workforce. Strong foundational skills, and the ability to upskill and reskill as jobs change, help workers and businesses adapt to emerging technologies (including artificial intelligence) and structural change. Lifelong learning can help older workers stay in the workforce longer, adapt to labour market changes over the course of their careers and prevent skill atrophy (OECD 2025a, p. 218).

Boosting skills not only improves productivity but can also spur investment and innovation. Across the OECD, employers report that skill gaps delay the introduction of new equipment, technologies and working practices (OECD 2024, pp. 20–21). Lower capital investment makes business less profitable, leading to fewer skilled job opportunities and reducing employees' incentives to develop their skills (Snower and Booth 1996, p. 342). Many nations observe a positive correlation between the share of individuals with tertiary qualifications, the share of businesses providing training, and spending on research and development (R&D) (Brunello and Wruuck 2020, p. 19).

Australia can only meet current and future skill needs by significantly increasing the number of tertiary education graduates and people engaging in lifelong learning (O'Kane et al. 2024, p. 73). Accordingly, participation in post-secondary education and training must increase. Yet several barriers remain to workers upskilling. Those returning to study can struggle to have existing skills and earlier study recognised. Cost and time can be barriers to workers and firms investing in work-related training.

Sound credit transfer and recognition of prior learning arrangements can make it easier for students to access learning and build their skills over time. Financial incentives and advisory services can boost low training rates in SMEs and help workers and businesses gain new skills as industry needs change.

Box 2.1 – What we heard through our consultations

The Productivity Commission asked about credit transfer, recognition of prior learning (RPL) and work-related training. More than 60 organisations and individuals answered these questions.

Credit transfer and RPL – key themes

- **Need for reform.** While acknowledging progress in these areas, many respondents supported national reform to standardise RPL and credit transfer processes to ensure more consistent outcomes (including Ai Group, qr. 66; Deakin University, qr. 40; Engineers Australia, qr. 87; MFAA, qr. 63; The University of Melbourne, qr. 54; The University of Newcastle, qr. 69). Suggestions included better funding, clearer guidelines, improved assessor training and integration with tools like a National Skills Passport.
- **Inconsistency, complexity and lack of transparency.** Many noted inconsistencies across institutions and providers, that processes are opaque, and that students struggle to navigate unclear requirements, costs, and timelines (AEU Federal, qr. 51; ASCA, qr. 34; Engineers Australia, qr. 87; HVIA, qr. 47;

Box 2.1 – What we heard through our consultations

NACCHO, sub. 37; RUN, qr. 57; Skills Insight, qr. 38; TAFE SA, qr. 70; the Front Project, qr. 44).

Participants also lack confidence in the system due to past regulatory issues and lack of standardisation.

- **Barriers to access.** High costs, administrative burdens, low awareness and lack of institutional support were all cited as reasons that may deter students – particularly those facing disadvantage (Brotherhood of St. Laurence, qr. 34) – and providers from engaging with RPL processes (CA ANZ, qr. 56). Some education institutions are reluctant to grant credit due to the loss in funding or academic integrity concerns.

Work-related training – key themes

- **Benefits of training.** Business representatives noted that training measurably improves workforce capabilities, pointing to the value and relevance of tailored training and the ripple effects of knowledge sharing (Anonymous, qr. 32; MYSKILLS Manager, qr. 83; Pappas, qr. 72; The University of Sydney, qr. 46). Employees and their representatives pointed to career development as the primary benefit of work-related training (Anonymous, qr. 1, 8, 36, 37).
- **Barriers for businesses.** Participants asked to identify what prevented them from supporting work-related training cited cost pressures (particularly for SMEs), a lack of time, absence of a strong training culture, the risk of staff turnover and the lack of systems to assess skill needs or navigate training ecosystems, particularly for SMEs (Ausfilm, qr. 33; MFAA, qr. 63; NDS, qr. 77; Pappas, qr. 72; Skills Insight, qr. 38; TAFE SA, qr. 70; TCA, qr. 92; the Front Project, qr. 44; The University of Melbourne, qr. 54; The University of Sydney, qr. 46; WWA&AMWA, qr. 43).
- **Barriers for individuals.** Individuals face time and financial constraints when considering work-related training. Some are deterred by the lack of recognition, accreditation and flexibility in delivery methods. Some point to the absence of dedicated training budgets, leading to low employer support for training (Anonymous, qr. 1, 8, 32, 36, 37; Brookes, qr. 4; RMIT University, qr. 61; Sciberras, qr. 78; the Front Project, qr. 44; The University of Melbourne, qr. 54; The University of Sydney, qr. 46).
- **Role of businesses.** Many noted that businesses should have a role in investing in workforce training, give employees time to undertake training, collaborate on course design with training providers and embed workforce development into organisational practices (Ai Group, qr. 66; AIIA, qr. 74; Anonymous, qr. 10, 32; AUSMASA, qr. 75; Engineers Australia, qr. 87; Hodson, qr. 84; Montu Group, qr. 59; TAFE SA, qr. 70; the Front Project, qr. 44; The University of Melbourne, qr. 54; The University of Sydney, qr. 46).
- **Role of governments.** Inquiry participants suggested that governments could provide targeted financial incentives to support businesses and underrepresented groups (Ai Group, qr. 66; AIIA, qr. 74; ASCA, qr. 34; IHEA, sub. 23; IPA, sub. 13; AUSMASA, qr. 75; MEA, qr. 95; NDS, qr. 77; RUN, qr. 57; TAFE SA, qr. 70; TCA, qr. 92). Some suggested that governments should offer recognition or accreditation for work-related training, build flexibility into training provision and standardise skill recognition frameworks via a skills passport and national skills taxonomy (Amazon AU, sub. 31; ARA, sub. 22; Engineers Australia, qr. 87; HVIA, qr. 47; NSW Farmers, sub. 10; RMIT University, qr. 61; Sciberras, qr. 78; Skills Insight, qr. 38; the Front Project, qr. 44). More detailed and frequently collected data is needed to support a clearer examination of the problem.

Enabling tertiary education pathways

Credit transfer and RPL outcomes can be improved

The Universities Accord (the Accord) proposed an ambitious target of lifting the tertiary attainment rate to 80% by 2050 (O’Kane et al. 2024, p. 2). In doing so, the Accord acknowledges ‘the role that a more integrated tertiary education system will play in meeting skills demand’ (O’Kane et al. 2024, p. 69).



But Australia’s post-secondary education system is disjointed: separate funding and regulatory regimes have produced two disconnected sectors (JSA 2023, 2025b; Parliament of Australia 2024b, chap. 6). Many inquiry participants pointed towards the importance of more effective strategic alignment – often described as ‘tertiary harmonisation’ – both within and between the vocational education and training (VET) and higher education sectors (JSA 2025b, p. 7). In practice, this could support more seamless transitions between and within VET and higher education. Over time, more qualifications could combine elements of both sectors.

One step towards more integrated pathways is having a more effective credit transfer and RPL system to support flexible and diverse education pathways (box 2.2).

Box 2.2 – Credit transfer and recognition of prior learning (RPL)

This paper refers to the decision made by any education provider in the tertiary sector (higher education or VET) to grant a student credit towards their qualification as an ‘academic credit decision’ or ‘credit decision’. These decisions can be the result of a student seeking either a credit transfer or RPL. While both can allow students to complete a qualification faster, they differ in terms of the type of prior learning and application process.

Australian Qualifications Framework glossary definitions

Credit transfer 	A process that provides students with agreed and consistent credit outcomes for components of a qualification based on identified equivalence in content and learning outcomes between matched qualifications.
RPL 	An assessment process that involves assessment of an individual’s relevant prior learning (including formal, informal and non-formal learning) to determine the credit outcomes of an individual application for credit.

Source: DoE (2013a).

Credit transfers are more formalised than RPL since they are based on the completion of a recognised training product and therefore do not require an individual assessment (O’Kane et al. 2024, p. 89). RPL, on the other hand, provides a mechanism for recognising knowledge and skills gained through many types of learning (Ithaca Group 2018, p. 26). RPL can include work experience, overseas education, informal training and other life experiences.

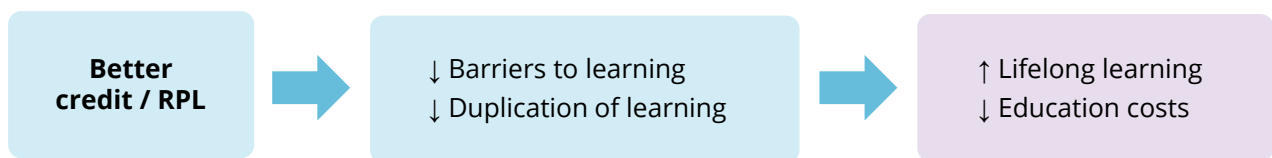
Effective and transparent credit transfer and RPL processes are important. They allow prospective students to understand all possible education pathways they can undertake, including course length and associated costs, helping them to make well-informed choices.

Better credit transfer and RPL support lifelong learning

Lifelong learning strengthens labour markets and industry. By continuously updating their skills, workers become more adaptable and capable of meeting the evolving demands of the job market.

Improving credit transfer and RPL processes reduces the cost of learning, encouraging people to invest further in their human capital and build upon prior qualifications. Where students have already developed the necessary skills, improving the availability of credit transfers and RPL will reduce duplication in learning (figure 2.1). Addressing students' financial and time barriers, making courses more flexible and raising awareness of education pathways all help support lifelong learning (PC 2023b, p. 91).

Figure 2.1 – The benefits of better credit transfer and RPL processes



Poor credit transfer processes may have greater impacts on Aboriginal and Torres Strait Islander students, those from low socio-economic backgrounds and people in regional areas, since these cohorts are more likely to use VET as a pathway to higher education (Commonwealth of Australia 2023, p. 127). Many from these cohorts will also consider post-secondary study some years after leaving school. Low tertiary education completion rates are impacted by many factors including health or stress, workload difficulties, financial difficulties and systemic racism (Li and Carrol 2017, p. 6; PC 2025e; UA 2022, table 3).

Better credit transfer and RPL processes can remove barriers to entering or re-entering post-secondary education and are important for advancing labour market participation (JSA 2024c, p. 6). A socio-economic target from the National Agreement on Closing the Gap is to ensure Aboriginal and Torres Strait Islander people reach their full potential through further education pathways. The target includes increasing the proportion of Aboriginal and Torres Strait Islander people aged 25 to 34 who have completed a tertiary qualification to 70% by 2031, up from 47% in 2021 (PC 2025e). Better RPL processes can also support skilled migrants and their families integrate into the labour market by recognising skills and qualifications learnt overseas (Teräs et al. 2024, chapter 3).

A more flexible, open and inclusive approach to recognising learning (including informal and non-traditional routes) will better value the skills of all Australians. However, Australia's credit transfer and RPL system is fragmented, inconsistent and complex, likely affecting many current and prospective students (box 2.3).



Information request 2.1

The impacts and use of credit transfer and RPL

How do the current challenges in navigating credit transfer and RPL impact Aboriginal and Torres Strait Islander people, people with disability, people living in regional and remote locations, women, mature-aged workers, and people from culturally and linguistically diverse backgrounds?

Offering credit is not straightforward, but providers have perverse incentives when making credit and RPL decisions

The granting of credit or RPL is not a one-size-fits-all exercise. Students enter tertiary study with a vast range of prior experience and sometimes with qualifications from overseas institutions that may be unfamiliar to individuals making credit decisions. Determining whether that experience has delivered the skills and knowledge needed to provide credit towards a specific subject is difficult.

Box 2.3 – The scale of the credit transfer problem is unclear

The absence of an accurate source of data makes it difficult to understand the scale of demand for credit transfers, but the following data suggests that a substantial proportion of students are impacted:

- Nous Group found that about 450,000 university students, about one in three of the total, apply for credit recognition each year (Nous Group 2019, p. 3). However, this estimate was extrapolated using data from a relatively small sample of providers.
- Ithaca Group's analysis of Higher Education Information Management System data found that 15% of commencing students – about 88,000 – received some credit in 2016. Given that 62% of applications were approved (on average), this means that potentially 24% of commencing students applied for credit (although one student could apply multiple times). The applicants' success rate varied widely, from 10% to 100%, depending on the institution (Ithaca Group 2018, p. 28).
- Data from the Higher Education Student Data Collection suggests that around 25% of higher education students were granted some form of credit or RPL in 2023. However, the data have limitations that likely affect the quality of this information (box 2.4).

The total number of students who have the potential to receive credit is likely to be even higher than these estimates since they do not capture students who are unaware of credit options or are deterred by the complexities of the process. Better data (and data infrastructure) are needed to inform both the size of the problem and the potential benefits of change.

Because Australian universities have significant freedom in their course design, the structure of degrees and the content of subjects vary across providers. For example, foundational mechanical engineering units may not contain the same subject material in two different universities, which can act as a significant barrier to granting credit.

But education providers can also have poor incentives to grant credit or RPL. If a university does not grant credit, a student may instead complete the full length of study at that university, producing a higher net revenue yield from that student. Universities can use those additional funds for research activities, which contribute to improved rankings and can lead to a larger share of the student market. In 2022, approximately 51% of higher education expenditure on R&D came from general university funds (ABS 2024).⁶

In VET, the national training system has largely removed provider discretion over credit transfers (Ithaca Group 2018, p. 4), although perverse incentives still exist for RPL. For VET providers, RPL is likely to reduce the total revenue they receive for individual students, even if providers can charge RPL assessment fees.

⁶ General university funds include funds from student fees and income relating to Higher Education Contribution Scheme liabilities. This category also includes other types of funds such as research specific donations.

While the regulations do not provide explicit guidance on fee quantum, a broad scan of RPL assessment fees online suggest these vary considerably but are likely to be lower than overall course or subject fees. Inquiry participants also presented similar views (ASCA, qr. 34; HVIA, qr. 47; MFAA, qr. 63), including that registered training organisations incur unrecovered costs for doing RPL assessments (NACCHO, sub. 37).

In some circumstances, providers may offer more effective credit and RPL processes to attract more students and gain a competitive advantage over other providers. While effective RPL assessments can lift student participation and enrolments (Al-Malood 2023), some VET providers have misused them to exploit vulnerable individuals to pay for fraudulent qualifications. The PC has found little evidence that providers in Australia make widespread use of effective, genuine credit and RPL processes to attract more students.

Credit processes are complex and existing policy frameworks are not enforced

Credit transfer processes vary among providers, adding to the barriers students face in applying. While more than 90% of higher education institutions publish information on how to apply for credit on their web pages (Ithaca Group 2018, p. 13), many inquiry participants have suggested that these processes are complex and inconsistent, with varying degrees of accessibility, reliability, transparency and timeliness (box 2.1). Students may be unaware of the credit options available to them and some providers only allow applications for credit after students have enrolled (Ithaca Group 2018).

Compounding these problems, existing policy frameworks are not well enforced. The Australian Qualifications Framework Qualifications Pathways Policy specifies that organisations must have transparent and accessible policies and processes to provide qualifications pathways and credit arrangements for students. While providers are required to have a public register of credit transfer agreements they have made with other providers (DoE 2013b, p. 80), the PC has not found compelling evidence that universities keep them updated or that students draw on them to understand their credit options.

Credit is not currently included in the admissions process. Students apply for credit separately to the institution after enrolment in the course. Students are therefore required to make enrolment decisions without information on how much (if any) credit will be awarded. There is also currently no mechanism through which students can compare available credit between different institutions. (Universities Admissions Centre, qr. 90, p. 2)

Effective RPL processes are costlier to establish than credit transfer processes

Evaluating whether it is appropriate to give credit for prior learning is inherently difficult because the type and source of learning can vary widely. Examples of learning that could be recognised under RPL processes vary from years of informal caregiving experience to an overseas qualification.

Unlike credit transfer processes, RPL requires an individual assessment (O’Kane et al. 2024, p. 89). Assessing an application to recognise formal, informal and non-formal learning requires a specialist in the field to determine whether the learning is equivalent to the course being offered by the education provider. As a result, RPL processes can be costly and difficult to manage, and therefore can vary significantly across providers. These challenges can result in limited uptake and use of RPL (Osborne and Serich 2020, p. 8).

I tried to get RPL years ago and the process was worse than completing an entire course, so I did not proceed. (Former student, qr. 32, p. 2)

Previous reviews have found that RPL practices are inconsistent, outdated and can act as a barrier to further study (Ithaca Group 2018; O’Kane et al. 2024). A recent review of the Australian apprenticeship system recommended that the government, regulators and Jobs and Skills Councils collectively support best practice RPL for apprentices to fast-track pathways where competencies can be demonstrated (DEWR 2024,

p. 25). Best practice RPL requires educational institutions to clearly communicate which types of professional experience and further education are eligible for recognition, under what circumstances, and where limits apply (Engelage et al. 2024, p. 38).

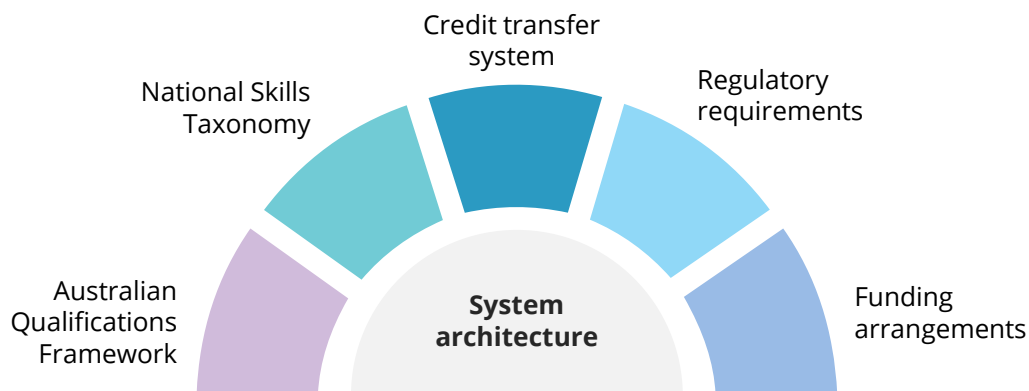
Government has already committed to tertiary harmonisation reform

The Australian Government is invested in the success of the tertiary education sector and has multiple levers, including creating better incentives and supporting the necessary national data infrastructure, to improve credit transfer and RPL outcomes. The need for government intervention may be particularly high where incentives are poor.

Improving credit transfer and RPL is important for tertiary harmonisation but is only part of the picture. In response to the Universities Accord, the Australian Government announced a series of initiatives relating to tertiary harmonisation. These include updating the Australian Qualifications Framework Qualifications Pathways Policy, working towards a standard approach to credit recognition, building better alignment between VET and higher education data, and developing a National Skills Taxonomy (DoE 2024a).

Jobs and Skills Australia (JSA) has also released a tertiary harmonisation roadmap (JSA 2025b), and is one of many organisations across the Australian Government that is working on a more harmonised tertiary education sector (figure 2.2). To ensure their coherence, credit and RPL reforms need to align with parallel developments in skills taxonomies, qualifications policies and higher education reform.

Figure 2.2 – System architecture of tertiary harmonisation



Source: JSA (2025b, figure 2).

The Australian Government has also committed to establishing the Australian Tertiary Education Commission (ATEC) as a steward of the tertiary education system (DoE 2025b). One of ATEC's responsibilities will be to promote and monitor tertiary harmonisation (DoE 2025c, p. 2).

A national credit transfer and RPL system is needed

A national credit transfer and RPL system would create a more efficient tertiary education sector by establishing better data infrastructure on credit decisions, a more coordinated and transparent approach to approving credit, and effective enforcement mechanisms that ensure students get the credit they deserve.

The idea of a national credit transfer and RPL system has been recommended before.

- Ithaca Group found 'those consulted supported the concept of a national policy on credit pathways' (2018, p. 6).

- The Accord recommended the Australian Government adopt a 'national approach to recognition of prior learning (RPL) and credit recognition' (O'Kane et al. 2024, p. 18).
- JSA (2025b, p. 6) recommended that 'stakeholders work towards a national credit transfer system'.

Providers should allow students to apply for credit before they enrol

Improvements in credit data infrastructure should enable students to better predict what education pathways are available to them. But they will only find this information useful if it can guide their decisions about future pathways. Therefore, they need to be able to apply for credit and RPL before enrolment, and be informed of the decision, something the current system does not guarantee.

At the time of Ithaca Group's Provider Survey (2018, p. 21), a significant proportion of providers (24% in Higher Education and 17% in Vocational Education) did not allow students to apply for credit before enrolment. Removing this constraint would help students to better understand their options, reducing barriers to further study.

Enforcing this requirement alone would create a much stronger incentive for universities to offer credit or RPL where justified, since it would become a competitive advantage. However, effective governance arrangements would need to be developed to enforce such a requirement.

A national credit database is an early, fundamental step to a better system

Better data infrastructure is needed to enable a more coordinated and effective system for credit transfer and RPL. The credit and RPL databases that exist are disconnected and unreliable (box 2.4).

Box 2.4 – Current data infrastructure and resources for credit and RPL

National higher education data infrastructure has improved in recent years, shifting from batch-based data uploads in the Higher Education Information Management System to a near real-time data exchange in the Tertiary Collection of Student Information, enabling a student's academic history to be accessed and verified more quickly and accurately.

Yet tracking credit transfers and RPL between providers remains difficult due to provider-centric data infrastructure, poor system-to-system communication (i.e. VET to higher education and between providers) and a lack of universal identifiers for students not on a Commonwealth-supported place. Due to these known limitations, the Department of Education considers many data elements relating to credit and RPL to be of low quality, with a significant number of missing values and known instances of RPL not being reported when it should be. While many of these problems are slowly being addressed through the introduction of the Unique Student Identifier, more targeted investment is needed to improve reporting and tracking of credit and RPL in higher education (DoE, pers. comm., 8 July 2025).

Tertiary admissions centres use the Automated Results Transfer Systems to transfer and verify tertiary qualifications between institutions. Some admissions centres, such as the Universities Admission Centre, offer their own credit management software as a service. Some university systems (for example, ANU nd) provide a level of automatic assessment for certain programs.

Some universities offer online credit calculators or databases that set out precedents, enabling students to determine what credit they are or may be eligible for. Yet the clear data gaps in these tools mean that they help only a subset of students, or only those interested in studying at particular institutions. Some universities' credit calculators help current and former students to understand what credit they can obtain for study at their university but have limited information for study at different institutions.

Databases of precedent credit decisions held by many education providers and tertiary admission centres could be formalised and combined to form a national database that would provide a complete record of all tertiary education credit decisions.

Students could use such a database to search prior credit decisions based on what qualifications they hold or intend to pursue. For example, a student could search whether a VET qualification they hold has previously been used to obtain credit for a university degree. This search would provide insight into what types of learning, including microcredentials and international qualifications, commonly receive credit. The ability to search credit decisions removes barriers to further study, allowing current or prospective students to understand what education pathways are available to them.

A national database would improve the transparency and accountability of credit decisions across education providers. The ability of students to easily search and compare credit decisions across institutions could encourage providers to improve their credit approval processes to compete for enrolments. Further, providers can more easily leverage off the credit decisions made by other institutions to speed their own processes.

Similarities matrices – tools used to measure how similar two items are – might be developed to help with credit transfer (box 2.5). Natural language processing could also identify comparable courses across institutions. JSA is using these modelling techniques to identify similarities between university curriculum data and skills listed in the Australian Skills Classification (O’Kane et al. 2024, p. 89). This approach could be expanded to assist credit databases and could be strengthened by the introduction of a National Skills Taxonomy – a common language used to describe skills that aims to better connect the education and employment sectors (JSA 2024e, p. 2).

Box 2.5 – The European Union (EU) experience of credit transfers and mutual recognition

The European Credit Transfer and Accumulation System (ECTS) is a standardised framework adopted across the European Higher Education Area (EHEA) to support recognition and transfer of credits. The ECTS is aligned with the European skills taxonomy ESCO (European Skills, Competences, Qualifications and Occupations), enabling learning outcomes to be expressed in terms of recognised skills and competencies. The European Commission has introduced pilot projects using machine learning to automate mapping of learning outcomes to ESCO skills across languages and qualification frameworks.

While implementation of ECTS is voluntary, 40 of 48 EHEA countries require the use of its Users’ Guide principles in their systems (EECEA 2024, p. 65). But system-level automatic recognition of qualifications operates in only about a third of these countries (EECEA 2024, p. 91).

Finally, the database could be used to impose consistency on the treatment of credit for VET subjects. Since VET qualifications need to follow specific nationally recognised ‘Training Packages’ (ASQA nd), course content would be highly similar across providers. A university that grants credit for a VET subject from one provider should have little reason to refuse credit for the same subject from another provider. Some universities have concerns about the quality of some VET providers, but these should be addressed through the framework for the regulation of quality rather than through credit decisions (discussed further below).



Information request 2.2

Establishing a national credit database

The PC is interested in participant views on the following questions.

1. Is a national credit database feasible with the current credit data infrastructure?
2. Would it be possible to codify RPL decisions into the database? What are the key challenges?
3. What are the major risks of establishing a national database? How can they be mitigated?
4. What are the key barriers to coordinating consistent and accurate data on credit decisions across providers? How can providers be supported to overcome these barriers?

Coordinated assessments could support RPL

Effective recognition of prior learning can recognise many types of learning. Efficient and cost-effective entry assessments need to be established so that an education provider can understand what skills and knowledge a prospective student has and what credit they should receive.

Prior Learning Assessments (PLA), which include individual assessments and program evaluations as well as standardised exams (Klein-Collins 2010, p. 7), have gained substantial traction in post-secondary institutions in the US in recent years. Students who undertake a PLA have higher graduation rates, shorter completion periods and reduced tuition costs (Al-Malood 2023).

Many US providers have developed their own PLAs independently (Al-Malood 2023, p. 282). While many Australian providers offer RPL applications, a more coordinated approach to entry assessments could be more efficient and would avoid the incentive to not grant RPL (or to fraudulently grant too much). This approach could involve use of standardised tests or independent assessments to coordinate more common types of assessment. An approach that many providers can use is likely to cost less overall than tailored RPL assessments. Examples of coordinated assessments used to recognise an individual's prior experience include Victoria's non-apprentice pathway into the plumbing occupation (chapter 3, box 3.10).

RPL assessments could also be integrated with the proposed National Skills Passport – a tool designed to help workers promote their qualifications and skills, and businesses to find staff with the right skills (DoE 2024c). The National Skills Passport could keep a record of any RPL assessment that establishes that an individual has acquired a particular set of skills.

RPL assessments could also be expanded to assist credit transfers. If a student can demonstrate their knowledge and skills, a provider can be more confident that the student's prior formal learning is an appropriate substitute for their equivalent course.



Information request 2.3

Recognition of Prior Learning (RPL) assessments

The PC is interested in hearing from education providers that have RPL assessment processes.

1. What approaches are used? What costs are incurred? What level of staff involvement is required?
2. Would it be helpful to have a coordinated RPL assessment process that spans across multiple education providers? Would that be feasible? What would be the challenges and risks?

Considerations in implementing a national system

The Australian Tertiary Education Commission will play an important role

Getting organisations to jointly produce and publish credit decisions will be difficult. There is little evidence to date that bilateral or multilateral agreements between providers can achieve that coordination. Establishing joined-up credit systems is likely to be costly for individual providers.

A system-level response is needed. As steward of the tertiary education system, ATEC will have an important role in coordinating a national system of credit transfer and RPL. ATEC could manage standards for credit processes and data collection. While education providers would make credit and RPL decisions, ATEC could establish, coordinate and maintain the database. It could also use this data asset to better understand potential inconsistencies in credit and RPL decisions, both within and across providers.

One of ATEC's proposed functions is to implement and negotiate enforceable mission-based compacts (DoE 2025c, p. 1) – agreements between the Australian Government and each university that outline the latter's mission and priority areas. These compacts will be important for formalising an institution's contribution to meeting national education targets and skills needs (O'Kane et al. 2024, p. 236). Improving data collection and processes in credit and RPL decisions could be an important component of each university's mission-based compact. ATEC could highlight and question any inconsistencies in a university's credit and RPL processes (such as institutions who operate in both the VET and higher education sectors granting credit for a VET subject at their own institution, but not comparable providers) as part of discussions about the compact.

Quality concerns need to be managed

Education providers may be reluctant to grant credit due to concerns about the quality and relevance of prior learning (Ithaca Group 2018; Osborne and Serich 2020). Courses at different education providers, while sounding similar, might involve different content and quality of teaching, making one course an unsuitable substitute for the other. Giving students credit when they have not fully developed the relevant skills could undermine the quality and reliability of that qualification. Providers with quality concerns may refuse to admit students to avoid creating a precedent, leading to lower entry rates.

Entry assessments that identify a prospective student's skills can mitigate quality concerns (as discussed above). In addition, providers could focus on granting credit for learning completed at institutions with similar rankings or adopt the credit recognition decisions of those institutions.

At the other extreme, providers may fraudulently use RPL to allow people to purchase a qualification without learning the skills. The Australian Skills Quality Authority (ASQA 2025a) noted that 'unethical and misleading marketing of RPL can be used to lure students into enrolling with a non-genuine [registered training organisation] through the promise of fast-tracked qualifications, often without the need for any training or assessment.' The Australian Broadcasting Corporation (2025) provides examples of fraudulent providers using RPL to sell 'fake qualifications', resulting in 'millions wasted on worthless diplomas'.

To overcome this risk, ASQA investigates and closes poor performing or fraudulent providers. A balanced regulatory approach is required – one that focuses on addressing and removing poor quality providers but does not discourage the adoption of better credit transfer and RPL processes. The Australian Government is progressing reforms to strengthen ASQA's focus on building capability and fostering excellence across the VET sector (DEWR 2023a).

The Government could prioritise credit transfer in areas where providers are likely to offer common content and pathways

In designing a national system for credit transfer and RPL (beyond the establishment of a credit database), the Australian Government could identify and focus on education pathways that are likely to be comparable across providers.

Education pathways that are subject to *professional accreditation* require students to build specific skills that an accrediting body will recognise. These requirements may lead providers, especially those with comparable rankings, to produce similar course content and student skill development. For example, the Nursing and Midwifery Board of Australia (NMBA) is responsible for accrediting nursing and midwifery programs. The Registered Nurse Accreditation Standards outline various requirements for programs of study and student assessment: learning outcomes must achieve the NMBA Registered nurse standards for practice⁷ as well as a minimum of 800 hours professional practice experience (ANMAC 2019, pp. 16–17).

With more formalised programs of study, greater comparability of courses should produce more seamless credit approvals and may help provide useful precedents for more widespread credit transfer arrangements.



Draft recommendation 2.1

Move toward a national system of credit transfer and recognition of prior learning (RPL)

To better enable credit transfer and RPL, the Australian Government should:

- enforce the right to have credit transfer or RPL assessed before the deadline for accepting an offer
- develop a national database of academic credit decisions
- develop a model of coordinated assessments of prior learning, and possibly of credit transfers.

Students could draw on the database to better understand possible tertiary education pathways, making decisions about the allocation of credit more transparent and providers more accountable.

The Government should consider a staged approach to establishing the database that begins with compiling credit transfer decisions, before including credit granted from different types of learning, such as microcredentials, informal learning or work experience, including international work experience.

The Australian Tertiary Education Commission, as steward of the tertiary education system, should play a role in establishing the database and enforcing consistent and accurate data collection from providers.

Lifting work-related training rates

Australia's work-related training rates are stagnating

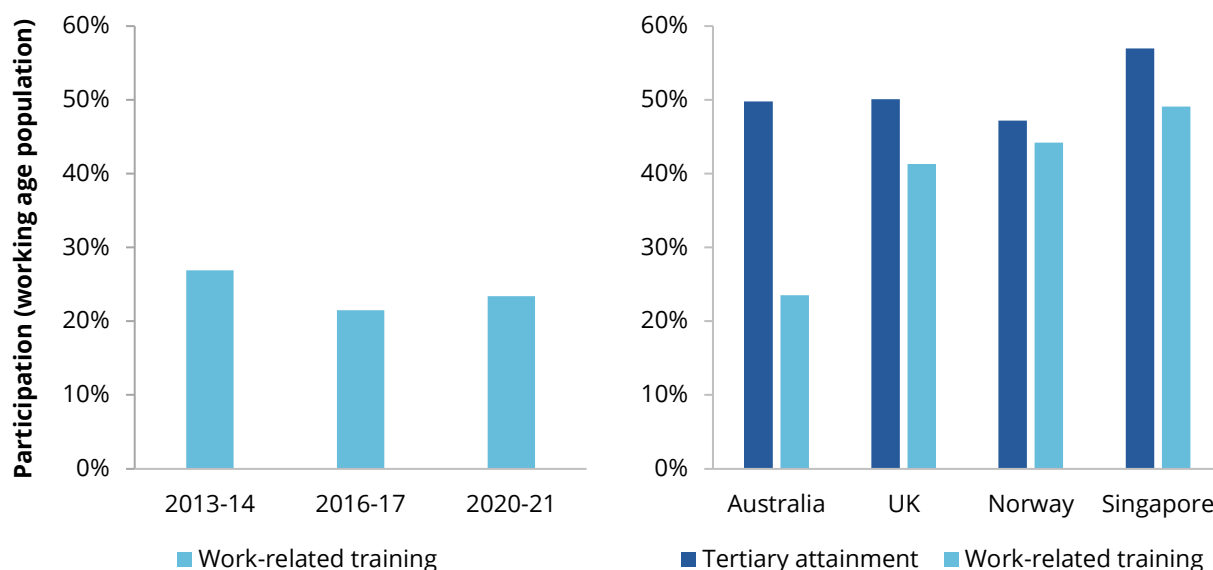
Work-related training refers to structured learning activities that do not form part of a qualification. Training could include short courses on improving management practices, workshops to learn digital skills, or other professionally relevant training. Work-related training is distinct both from unstructured on-the-job learning and from formal education that confers a qualification like a diploma or degree (ABS 2022c).

⁷ The NMBA Registered nurse standards for practice are seven standards that involve the development of a range of skills. For example, the ability to comprehensively conduct assessments (NMBA 2024, standard 4).

Participation in work-related training has stagnated since 2013 (figure 2.3a). A recent study using Australian survey data found that between 2007 and 2022, work-related training rates fell by about four percentage points (CEDA 2024, p. 16). Among countries with similar or higher tertiary education attainment rates in 2021, Australia's work-related training was comparatively low (figure 2.3b).

Figure 2.3 – Australia's work-related training rates are low^a

Australia's training rates over time (a) and compared to similarly educated nations (b)^b



a. Australia's rates of work-related training in figure 2.3a cover 15–74-year-olds. However, for an international comparison in figure 2.3b, Australia's work-related training rate covers 15–64-year-olds only. **b.** The work-related training rate for the United Kingdom is from 2016 and covers 25–64-year-olds. For Norway it covers 18–64-year-olds.

Source: ABS (2017 table 1.2, 2022b table 2); ACER (2023a, p. 68); Eurostat (2024); MOM (2023, p. 30).

Employers provide and fund most work-related training ...

In 2020-21, 94% of people who undertook work-related training did so as part of their current employment and 91% did it to increase their skills for their current job or because it was compulsory. Amongst employed individuals, 87% did not pay out-of-pocket for the training and 63% did their training during work hours only.

There appears to be relatively little unmet demand from individuals for work-related training. The percentage of individuals who wanted to participate in more work-related training but were unable to dropped from 11% in 2013-14 to 6% in 2020-21 (PC estimates using ABS *Work-Related Training and Adult Learning* survey data (unpublished)). While this fall may indicate that the unmet demand for training in certain cohorts is shrinking, stagnating participation along with a decline in demand may also imply that the training culture within businesses is weakening.

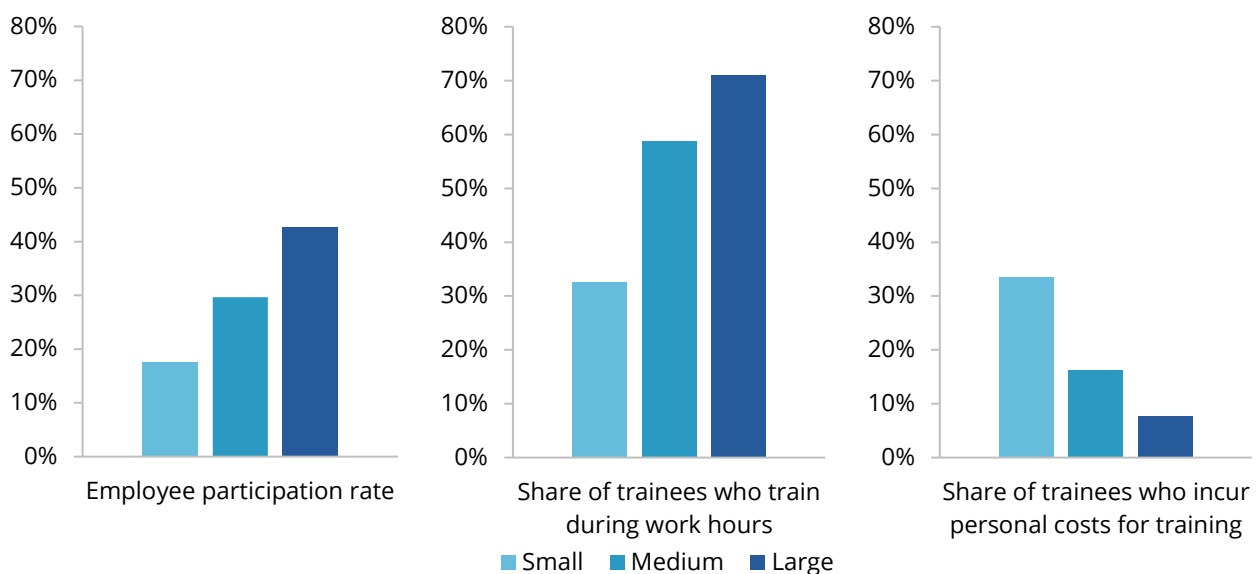
Individuals report insufficient time for training as the primary barrier (32%) followed by cost (16%) (PC estimates using ABS *Work-Related Training and Adult Learning* survey data (unpublished)). Across the OECD, a third of businesses report that the cost of adult learning and training is a barrier to providing it (OECD 2019b, pp. 88–89). Participants told the PC that cost and time pressures, the lack of a strong training culture, staff turnover, and difficulties assessing skill needs and understanding training opportunities were the main barriers to businesses (especially SMEs) undertaking more work-related training (box 2.1).

... but participation in training is concentrated among larger businesses

In 2020-21, employee participation in work-related training was more than two times larger in businesses with 100 or more employees (large businesses) than it was in small businesses with fewer than 20 employees and by sole traders (figure 2.4). Similarly, employees at large businesses are more than twice as likely to do their work-related training during working hours only than are employees in small businesses. Similar patterns are found in other OECD countries (OECD 2024, pp. 38–40).

Figure 2.4 – Employees at small businesses have the lowest training rates, undertake most training outside work hours, and pay most for training^a

Selected indicators of work-related training by size of business, 2021



a. Small businesses are defined as those with 0–19 employees, medium businesses with 20–99 employees and large businesses with 100+ employees.

Source: ABS *Work-Related Training and Adult Learning* microdata (unpublished).

Sole traders and employees at small businesses are more than four times more likely to incur a personal cost for work-related training than are employees at large businesses, a trend that has become more pronounced over time. In 2020-21, sole traders and SMEs together accounted for 99.8% of all businesses and provided 65.9% of all jobs in Australia (ABS 2021b table 13a, 2025 table 1, DO007).

Investment in work-related training boosts wages and productivity

Numerous studies show that work-related training boosts productivity and subsequently wages:

- In Japan, a 1% increase in training expenditure per employee has been estimated to increase labour productivity in businesses by 0.03% (Morikawa 2021).
- In Portugal, a 10-hour increase in training per employee increased labour productivity by 0.6% (Almeida and Carneiro 2009).
- In Britain, one percentage point increase in training was associated with a 0.6% increase in value added per hour worked (Dearden et al. 2006, p. 400).
- In Belgium, a 10 percentage point increase in the share of workers who were trained led to per employee productivity benefits of 1.7 to 3.2% (Konings and Vanormelingen 2015, p. 485).

The primary benefit of work-related training to individuals is higher wages. A multinational study found that work-related training was associated with an 11% increase in wages for employees (OECD 2019c, p. 60). However, some studies show that while both employee and business share the returns from employer-provided work-related training, businesses gain a proportionately larger increase in productivity (Dearden et al. 2006; Konings and Vanormelingen 2015). Further, the improvement to productivity from training is larger in service industries than in manufacturing industries (Morikawa 2021).

Government policy should target underinvestment in training

Skill development offers clear benefits to businesses and individuals, but both may invest less in training than is optimal for productivity growth (Richardson 2007, p. 17). Individuals may underinvest in training because (in the absence of perfect labour markets) a portion of the productivity gains from training flow to business profits rather than to higher wages (Acemoglu 1997; Acemoglu and Pischke 1998a). Individuals may also face information gaps about the kinds of skills that employers demand and underestimate the returns to investing in skill acquisition (Caliendo et al. 2022, p. 1312; Dillon et al. 2025, p. 7). They may also face credit constraints that prevent them from investing in training, even if the future benefit to them outweighs the training cost (Becker 1964; Caliendo et al. 2022, p. 1320).

Businesses may be unwilling to provide general (as opposed to firm-specific) training at optimal levels because trained employees may move to other firms before the business can benefit (Becker 1964; Stevens 1996). Business investment in skills will be lower in competitive labour markets where labour mobility is higher and workers can extract more of the productivity benefits of training as higher wages (Dillon et al. 2025, p. 7). Businesses may also face information gaps about available training and its potential impact on productivity that lead them to underinvest in training.



SMEs in particular face higher barriers and disincentives to providing training. While large businesses can benefit from economies of scale and tailored work-related training, the greater liquidity and credit constraints of SMEs provide fewer opportunities to undertake training (Shah 2017, p. 22). SMEs also face greater risks from poaching because larger businesses can offer more competitive employment conditions and advancement opportunities (CEDEFOP 2024a, p. 26).

Government intervention can be efficient if it focuses on addressing only those costs and benefits that the labour market does not take into account (PC 2023b, pp. 88–89).

Box 2.6 – Existing government policy can be improved

Currently, work-related training is supported by two main mechanisms: tax deductions and grants (see figure). Yet these mechanisms do not necessarily address the obstacles faced by sole traders, business owners and employees at SMEs.

Work-related training is supported by tax deductions and grants

Tax deductions	Grants
 <p>Tax deductions allow businesses and individuals to reduce their taxable income which lowers their tax liability.</p> <p>For example, operating expenses can be deducted by businesses if they provide or reimburse employees for work-related training.</p>	 <p>Grants are payments to businesses to fully or partially cover the cost of work-related training for employees.</p> <p>For example, the Defence Industry Development Program provides businesses up to \$250,000 to increase technical skills.</p>

Source: ATO (2024); Commonwealth of Australia (2025a).

Individuals and businesses have long been able to claim a tax deduction for work-related training, reducing their taxable income. Individuals can only claim deductions for training that relates to their current job and is likely to result in an increase in income (ATO 2025a). The OECD (2019a, p. 10) recommended that reskilling or upskilling that was not directly related to current employment should also be deductible, while excluding personal interest courses. Businesses can deduct the cost of work-related training from their taxable income as a business expense (ATO 2024).

From 2019, the Skills and Training Incentive provided individuals over the age of 40 and at risk of entering an income support system with up to \$2200 to put towards the cost of training linked to an occupation in national shortage or of national priority. Either employees or employers could fund the remaining cost of training (DEWR 2023b). A midpoint evaluation found that the co-contribution model effectively induced participants to complete training, but it also subsidised some training that employers would have invested in regardless and it did not adequately support participants with financial difficulties who could not afford the upfront payment (DEWR 2022, pp. 45–46). The program ended in July 2024 (Commonwealth of Australia 2024b, p. 239).

From 2022 to 2024, the Small Business Skills and Training Boost provided businesses with annual turnover of less than \$50 million with an additional 20% tax deduction for external work-related training courses undertaken by their employees (ATO 2025b). To encourage quality training and prevent fraud, training had to be delivered by a registered training provider (Explanatory Memorandum, Treasury Laws Amendment (2022 Measures No. 4) Bill 2022, p. 64). The measure has not been evaluated, but early data from 2022-23 shows almost 40,000 businesses claimed the deduction (PC estimates using data from ATO *Taxation Statistics* 2022-23). Possible reasons for relatively low take-up in the first year include delays in legislating the measure^a and associated lack of awareness of it among businesses, and the requirement that registered providers conduct the training. Awareness and participation may have been higher in the second year of operation, but data on participation in 2023-24 will become available only in mid-2026.

a. The Bill to enact the Skills and Training Boost was passed by the Parliament on 21 June 2023, less than two weeks before the end of the financial year in which the bonus could be claimed by businesses.

Incentives and support for work-related training in SMEs

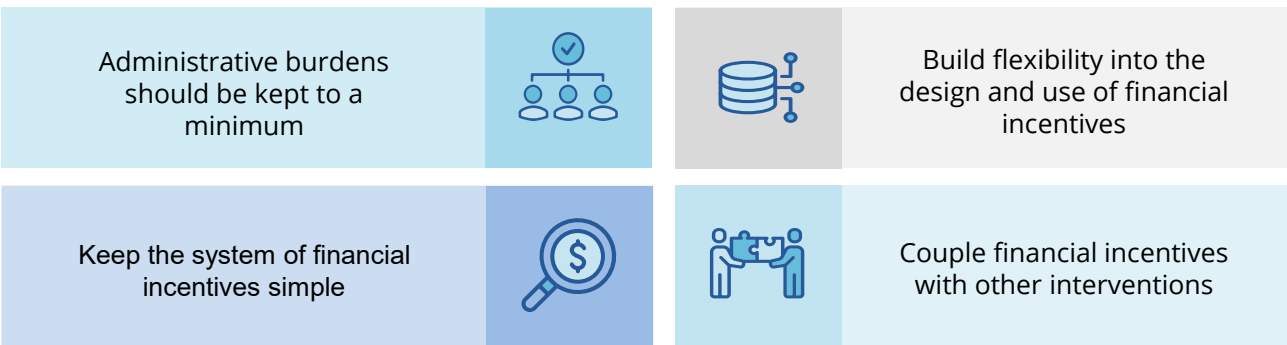
Trial financial incentives for training for SMEs

More evidence is needed on what financial incentives work best to encourage training and improve Australia's skills. The PC is considering the potential of carefully designed pilot programs of financial incentives for SMEs. This approach would contain costs, encourage informed risk-taking in policy design and build a credible evidence base for future scaling. The pilots should focus on gathering information and studying the impacts and benefits of work-related training, as well as better understanding what wraparound services can aid implementation and improve take-up. Pilots that are longer than previous programs (like the Small Business Skills and Training Boost) may need to be considered to encourage behavioural change and study the longer-term impacts of these policies.

Financial incentives for training should focus on SMEs, where training rates are lowest. Targeting SMEs can help reduce the risk that financial support goes to businesses that would do training anyway. Providing financial incentives to businesses ameliorates some of the perceived risk that other firms will poach trained employees. The incentive should cover only part of training cost, recognising that both businesses and employees receive a direct benefit from training. Incentivising businesses may induce them to free up time for employees to train (lack of time is one of the main barriers to training).

The design of financial incentives should follow the OECD's best practice framework on use of financial incentives for education and training (figure 2.5). Financial incentives should be accompanied by SME advisory services (described in the next section), in line with the OECD guidelines.

Figure 2.5 – OECD best practice guidelines on the use of financial incentives^a



a. For brevity, only guidelines within the scope of this inquiry have been included.

Source: OECD (2017, pp. 106–110).

A range of different financial incentives are used internationally to support business investment in work-related training (CEDEFOP 2024a; OECD 2017, p. 36).

Tax incentives are commonly used to encourage businesses to increase their engagement in particular activities or to increase financial support for specific cohorts, such as SMEs. Tax credits (also called offsets) reduce tax payable, whereas tax deductions reduce taxable income (CEDEFOP 2024a, p. 53). Since business training costs are a legitimate business expense, tax deductions for business training costs are standard in most countries. Tax credits are currently used to support work-related training in the EU and Singapore (CEDEFOP 2025; GB 2025a) and have been trialled in more countries across the OECD (OECD 2012b, p. 10). Building on existing tax infrastructure makes the design and implementation of tax incentives relatively straightforward and inexpensive to administer and claim relative to grants. Another

advantage is that businesses retain flexibility to choose the type, quantity and quality of training they fund (CEDEFOP 2009, pp. 101–102).

However, broad-based tax credits have been criticised for being inefficient and costly. Because they are demand-driven, it is difficult to estimate take-up (and cost) in advance. Limiting eligibility to SMEs is critical to minimise the displacement of existing private investment and stimulate new investment in training (OECD 2017, pp. 86–87). Tax incentives also do little to address the immediate cost constraints facing SMEs because training costs must be paid upfront and reimbursed through the tax system later.

Training grants or vouchers can do more to improve targeting and reduce inefficiency than tax incentives can because they allow the government to determine the size of support and the characteristics of eligibility. But they can be more administratively complex than tax incentives, involving high costs for governments and benefiting larger businesses with more administrative capacity for applications (OECD 2012a, p. 20). Training grant programs aimed at Australian businesses seem to be ad hoc, temporary and small in scale and their merits are hard to discern since they are often not evaluated.

Training levies mandate minimum expenditure on work-related training but have mixed success. They remove the free rider problem by forcing all businesses to provide work-related training (Snower and Booth 1996, p. 345). Evaluations found that Australia's Training Guarantee, operating between 1990 and 1996 (Teicher 1995, p. 107), cost-effectively increased the number of businesses providing training (Fraser 1996, pp. vi, 6). Yet it placed an administrative and cost burden on small businesses, decreased training hours in large businesses and failed to build a strong training culture (Teicher 1995, pp. 109–111). International evaluations have found similar results (Dar and Whitehead 2003, pp. 6–7).



Information request 2.4

Financial incentives for training in small and medium enterprises (SMEs)

The PC is seeking further information on the design and implementation of financial incentives for SMEs to provide work-related training.

1. What is the most effective way to encourage SMEs to increase work-related training? What lessons are there from past programs and policies?
2. What should be considered in determining an appropriate size of SMEs eligible for financial incentives for training? Should sole traders be eligible?
3. Which types or formats of training (for example, management or IT-related, short courses versus workshops) should be covered by financial incentives? How should training providers be vetted? What types of training would be most effective in increasing productivity in SMEs?
4. How and at what level should support for training be capped (per firm, per employee)? How can co-payment requirements be designed to reduce inefficiencies without disadvantaging small businesses?
5. What other criteria should be considered when determining eligibility for financial incentives?
6. Can the introduction of financial incentives for training in SMEs lead to increased risks of fraud or misuse? Have past measures identified significant fraud or misuse?
7. What other risks, complexities or unintended consequences should the Australian Government be aware of?

Trial SME advisory services for training provision

Information, advice and consultation services may be needed to support take-up of financial incentives and address non-financial barriers to training (CEDEFOP 2024a, p. 17; OECD 2017, pp. 109–110). For example, SMEs may not have the administrative capacity to assess their skill needs (OECD 2024, pp. 32–33). Further, they may see external training courses as lacking flexibility and unable to personalise training information, content and delivery (Dawe and Nguyen 2007, p. 7).

Providing individual advisory services to help SMEs understand, identify and develop training opportunities that meet their business needs can address their lack of knowledge, managerial capacity and time to identify useful training opportunities (CEDEFOP 2024a, pp. 26–27, 56–58).

Many countries already offer individualised consulting services. In 2015, Austria introduced up to 11 days of free consulting with the Public Employment Service on training opportunities. It was available to businesses of all sizes, but with limitations on adoption by large businesses. Four thousand mostly small businesses took part in the program between 2015 and 2019. It was due to end in 2018, but after evaluation was extended indefinitely (CEDEFOP 2024b, p. 9). In 2023, Singapore introduced subsidies for SMEs to help them identify their employee skill gaps and find training courses suited to their business needs (GB 2025b; SSG 2024a, p. 15). While this new program has not yet been evaluated, it was recently expanded in response to high demand, suggesting SMEs are interested in providing work-related training when it is appropriately tailored (SSG 2024b).

In some cases, advisory services have focused on a specific training area. Poland introduced targeted training advisory services in 2018 aimed at improving managerial capability in SMEs. External consultants diagnosed company needs and managerial competency gaps and recommended training programs, with the government paying up to 80% of the cost (CEDEFOP 2024b, p. 161). Some research has found that managerial practices are a substantial driver of firm level productivity. In a panel of 11,000 firms across 34 countries Bloom et al. (2016) found that differences in management practices accounted for about 30% of total factor productivity differences across firms both between and within countries.

Australian, state and territory governments provide a range of mentoring and advisory supports to SMEs, but most focus on the fundamentals of owning and operating a business and the skill development offered is generic rather than tailored (Commonwealth of Australia 2025b). Nevertheless, the existence of these programs demonstrates that the infrastructure required to provide tailored SME advisory services exists. Advisory services for SMEs could be delivered by changing or expanding the functions of one or more of these institutions to incorporate work-related training advice. While advice would be tailored to each firm, it would help bridge the gap in areas like managerial capability, where Australian firms lag international peers.⁸

⁸ The 2025 IMD World Competitiveness Yearbook ranked Australia 43rd out of 69 countries on its adoption of management practices (IMD 2024).



Information request 2.5 SME advisory services for training provision

The PC is seeking further information on the value of SME advisory services for training provision.

1. What advisory or consultation services would most effectively support SMEs to increase their provision of work-related training? In what form should this support be made available or delivered?
2. Which government entities should be responsible for coordinating and delivering support services?
3. What should be considered in deciding whether and how support services are publicly funded?
4. Do Australian SMEs have persistent capability gaps, such as managerial capacity, digital competencies or any other critical skills, that an advisory or consultation service should prioritise?

More data is needed to better understand work-related training

Robust policy development requires a strong evidence base, but current data limitations on work-related training hinder the identification of factors contributing to low training rates. Specific issues include:

- methodological inconsistencies in past surveys which make comparisons over time difficult
- the infrequency and limited historical data from the Australian survey on work-related training rates, which is conducted once every three years and has been completed only three times (ABS 2022b)
- lagging employer training expenditure data, with Australia's last collection dating back to 2002 (ABS 2003), whereas countries like Singapore, Norway and the United Kingdom conduct annual or biannual surveys (DfE 2023; MOM 2024; SSB 2024).

In a first step towards improving the work-related training evidence base, the Australian Government committed to rejoining the OECD's Programme for the International Assessment of Adult Competencies which conducts both employee and employer surveys on adult skills (O'Connor 2024). But this survey is conducted in 10-year cycles, which are too long to fill the existing evidence gaps.

Several further steps could be taken to fill data gaps on work-related training. It is crucial that any new policies are implemented after sufficient data is collected to measure current baseline rates and spending on work-related training. Collecting data on employers (as opposed to current household survey data) would also provide valuable insights on how much employers spend on training and where they allocate money (if most work-related training spending goes to compliance or upskilling training, for example). Surveys could be conducted based on a representative sample or data could be collected through the tax system's business activity statements (although the latter may prove expensive). Similarly, data on rates of work-related training could be collected by adding training-related questions to the ABS labour statistics program (ABS 2023) to provide policymakers with more frequent insights.

The consistency of data collection is also vital to better understand work-related training. Future surveys should aim to clarify and adopt a single definition of work-related training. They could also distinguish clearly between different types of training, such as regulatory, compliance, job-specific and general training.

Future policy options to support work-related training for individuals

Government incentives should ideally address training barriers faced by individuals as well as businesses. One of the main disincentives for individuals is that work-related training is non-formal and therefore unaccredited. While it may provide valuable transferable skills, prospective employers cannot use it to

discern an individual's competencies (Acemoglu and Pischke 1998b). Training does not have to be accredited to be recognised but alternate systems of recognition are needed.

Reforms to the tertiary education system now underway include: piloting accreditation of microcredentials; progressing the development of a National Skills Taxonomy; developing a National Skills Passport; and working towards a harmonised tertiary education system (DoE 2024b, 2024c; JSA 2024e, 2025b). These reforms, discussed earlier, aim to expand tertiary education pathways and improve the visibility of skill acquisition. Further reforms to encourage individual work-related training (as opposed to targeting businesses) should only be considered after these programs are evaluated.

Training leave has been proposed as a measure to overcome time barriers to training (OECD 2019a, p. 10), but it may prove unnecessary if financial incentives and SME advisory services succeed in lifting training rates. Paid or unpaid training leave is a regulatory provision entitling employees to a fixed number of hours or days leave to engage in work-related training. A training leave allowance might have a role in future, but its cost-effectiveness should be evaluated after monitoring the impact of other measures to address time barriers. This will only be possible when sufficient data on the type and extent of employer training expenditure in Australia is available.



Information request 2.6

Supporting access to work-related training for individuals

The PC is seeking information on policies to encourage individual participation in work-related training.

1. With ongoing tertiary education reforms in mind, what else can the Australian Government do to address the work-related training barriers individuals face?
2. How does low participation in work-related training impact different segments of the population, such as Aboriginal and Torres Strait Islander people, women, people with disabilities and workers in regional and remote areas?
3. What risks, complexities or unintended consequences should the Australian Government consider?

Further considerations to inform cost-effective policy design

As noted, financial mechanisms like the tax system can easily accommodate new incentives to encourage SMEs to conduct work-related training. But any financial mechanism will impact the budget, and spending needs to be proportionate to the scale of the problem. The size of the budget impact depends on the incentive's design, duration, and how well it is promoted to the target group.

Making sure the policy is well targeted is crucial. Placing a cap on the level of expenditure eligible for a tax credit, for example, can reduce budget risks. A threshold that is too high might be poorly targeted, while one that is too low may not cover some businesses in need of this support. Past schemes for SMEs used thresholds of under \$20 million or \$50 million in annual turnover (ATO 2022, 2025b).

Concerns about fraud associated with demand-driven training programs (OECD 2019a, p. 49) are less relevant for business-targeted programs because employers will have little incentive to pay for training that does not have a direct benefit. However, it will be important to carefully consider whether sole traders should be included or if that could increase the risk of fraud.

SME advisory services may need to be coordinated with state and territory governments to share costs and avoid overlapping programs. The uptake and value of advice will also depend on the accessibility of services and their ability to tailor advice to the firms' needs based on high-quality evidence. Ongoing monitoring and evaluation would be needed to keep the services responsive to SME needs.

Finally, government interventions can produce unintended consequences. For example, setting an overly narrow definition of an SME may discourage firms close to the threshold from expanding so that they can remain eligible for support. Therefore, any trial should be coupled with frequent monitoring and evaluation.



Draft recommendation 2.2

Better target incentives to lift work-related training rates in small to medium enterprises (SMEs)

The Australian Government should trial:

- financial incentives (such as a tax credit) to increase work-related training for SMEs
- SME advisory services to support work-related training.

The measures should be evaluated to determine cost-effectiveness as well as to better understand how SME advisory services and other supports can aid implementation and improve take-up. Data collection to establish a baseline and evaluate the measures should be embedded into the program design.

3. Fit-for-purpose occupational entry regulations

Summary

- ✳ About one in five workers in Australia are subject to occupational entry regulations (OERs) – rules that require workers to meet minimum conditions. Evidence suggests that OERs worsen worker shortages.
- ✳ Streamlining excessive OERs, while maintaining safety and quality standards, can lower prices for consumers by making the workforce more adaptable to industry needs and allowing more people to work in jobs for which they have skills and experience. It can also promote competition and encourage businesses to innovate.
- ✳ State and territory regulators should work to eliminate OERs that exist in their jurisdiction but not in others, where the evidence that the regulations improve outcomes is weak.
 - As a start, reductions in OERs should be considered for motor vehicle repairers, air conditioning and refrigeration mechanics, painters and decorators, and hairdressers in the jurisdictions that regulate entry into these occupations.
- ✳ Qualification requirements are the most significant barrier to entry into many occupations. More flexible entry pathways can be created and qualification requirements streamlined to help address workforce shortages without compromising on the competency of workers. To start further reform governments can:
 - build on work to reduce overly burdensome qualification requirements (for example for psychologists) and consider revising qualification requirements for other professional occupations (such as auditors)
 - seek opportunities to scale up successful pilots of alternative apprenticeship models that may better suit the needs of mature age entrants, women and other non-traditional cohorts.
- ✳ Improving the use and quality of regulatory impact assessments and sunset reviews in all Australian jurisdictions would better allow governments to address excessive OERs, including licensing creep and legacy licensing.
- ✳ State and territory treasury departments, or other relevant government authorities, should work with licensing regulators to review OERs in their jurisdictions, drawing on joint expertise on industry and licensing, as well as principles for best practice regulation.
- ✳ Governments should use the National Competition Policy process to incentivise OER reform.

Helping more Australians contribute their skills

Occupational entry regulations (OERs) govern the entry of new workers into occupations. They require workers to meet minimum conditions: for example, to complete a certain degree, apply for a licence or pass an exam.⁹ OERs are prevalent in Australia; about one in five workers are subject to them (PM&C 2021, p. 7).

Some jobs, such as medicine or electrical services, involve work that can cause harm if performed incorrectly (box 3.1; Ahpra 2020a, p. 10). OERs are intended to protect consumers, workers, the public and the environment by ensuring that practitioners meet minimum standards of training, competence and ethics (PM&C 2021, p. 7; Select Committee on Red Tape 2018, p. 17). For instance, in other countries an increase in patient health outcomes has been observed in hospitals that have more nurses with bachelor degree qualifications relative to lower qualification levels (Harrison et al. 2019; Lasater et al. 2021; Schnell et al. 2024). OERs also help to restore balance in situations where consumers depend on the professional's judgment, ensuring a baseline level of competence that boosts trust in the profession (Bowman et al. 2024, p. 7).

However, OERs can make it harder for new workers to enter a profession and can create additional compliance costs (box 3.1). Higher costs and a more limited pool of workers can raise prices for consumers and stifle innovation. OERs are excessive when these costs exceed the benefits.

Box 3.1 – What we heard through our consultations

OERs can help protect workers and consumers by ensuring safe, high-quality products or services.

The electrical industry is a high-risk sector with a high barrier to entry, including four years of training and the completion of a Cert III qualification. These requirements are essential to ensure competency, uphold safety, protect workers and consumers, and maintain public confidence in the industry. (Master Electricians Australia, qr. 95, p. 7)

Engineering is a high-risk profession in which failures can have profound economic, environmental, health and safety consequences for communities. Public trust in the work of engineers depends on strong professional standards and robust regulatory oversight. (Engineers Australia, qr. 87, p. 8)

But OERs can be inconsistent, costly and disproportionate to risks faced by workers and consumers.

Increasingly, inconsistent and excessive [OER] requirements are creating artificial barriers across the economy. Often, these requirements are introduced without rigorous analysis or evidence, creating additional and unnecessary barriers to entry and compounding existing labour shortage challenges. (Insurance Council of Australia, qr. 49, p. 4)

Meeting occupational entry requirements results in increased cost to the Faculty [of Health] in delivering these programs, both in the form of direct fees for initial and ongoing registration and indirect cost of staff time in preparing documentation and responding to accrediting bodies. (Deakin University, qr. 40, p. 6)

⁹ 'Occupational licensing' has been used in other policy contexts to mean OER. We have used the term OER to better reflect non-licensing entry regulations (such as registration or regulated qualification requirements).

Box 3.1 – What we heard through our consultations

Entry requirements for financial advisors are disproportionate to the level of risk, contributing to a decline in the number of financial advisers, which has limited the public's access to affordable advice. (CPA Australia, qr. 68, p. 5)

OERs are administered by different regulators depending on the occupation and level of government responsible. For example, most health practitioners are regulated under the Health Practitioner Regulation National Law, administered by the Australian Health Practitioner Regulation Agency and National Boards for each health profession (Storen and Ferris 2023). Electricians, by contrast, are regulated at the state and territory level by regulators such as Energy Safe Victoria (2024). Ultimately, the responsible minister and government decide which occupations to regulate.

The expectations of government agencies or industry bodies may also influence workers to obtain licences, qualifications or checks, even when they are not legally required to do so. These non-regulated expectations can have a similar impact to OERs.

Current OER reforms focus on helping workers increase their mobility between states and territories. For example, a proposed national licensing system for electrical trades is being progressed through the National Competition Policy framework (Chalmers 2025), to be informed by analysis and modelling by the Productivity Commission (PC 2025d). Automatic mutual recognition (AMR) reforms, which have been estimated to lead to large economic benefits, are also underway (PM&C 2021, p. 23; PwC 2020, p. 16). These reforms aim to make it easier for workers and businesses to provide services across jurisdictions and reduce the requirement to hold or reapply for multiple licences (Chalmers 2025; DoF 2022, p. 18). Addressing mobility across state and territory borders is an important aspect of improving OERs, but other issues also require attention.

In Australia, OERs impose economy-wide costs and have become more prevalent over time, highlighting the need for governments to address OERs that do not reflect underlying risks. In some occupations, governments can safely remove unnecessary licensing arrangements. In some occupations where OERs remain necessary, expanding entry pathways and reducing qualification requirements will help increase employment opportunities and reduce costs for all Australians. In the long term, governments must improve the mechanisms that introduce and review regulations. This chapter examines these issues and potential solutions.

Excessive OERs impose costs that lower living standards

There is growing evidence that excessive OERs reduce economic performance. The Reserve Bank of Australia and NSW Treasury found that more stringent OERs are linked with reduced business entry and exit, slower flows of labour from low- to high-productivity firms, and skill shortages (Bowman et al. 2024).

Licensed occupations feature prominently in the Occupation Shortage List, an annual, point-in-time assessment across each Australian jurisdiction of occupations with insufficient workers (JSA 2024a). PC

analysis found that 73% of workers that require or may require a licence or registration are in occupations in shortage, compared with 24% of workers that do not require a licence or registration.¹⁰

International evidence has found that OERs impede economic performance without necessarily improving quality (box 3.2). Making OERs less overly stringent could yield substantial economic benefits. The Committee for Economic Development of Australia estimated that Australia could gain \$5 billion from higher productivity by reducing the coverage and stringency of OERs (Barker 2022, p. 4). Previous PC work estimated an overall 0.34–0.39% boost to GDP from streamlining OERs, based on an increase in productivity of 0.8% (drawn from international empirical estimates) in industries with the highest incidence of OERs (PC 2023a, p. 181, 2024b, p. 24).

Box 3.2 – International research finds negative effects from more restrictive OERs

International evidence finds that more restrictive OERs can:

- reduce labour supply and employment opportunities (Blair and Chung 2019; Kleiner 2017)
- increase prices without always improving quality (Farronato et al. 2024; Kleiner 2017)
- reduce worker mobility between occupations and between states (Johnson and Kleiner 2020; Kleiner and Xu 2023)
- reduce productivity by reducing firm capabilities and incentives to innovate and adopt best practices, and reducing the reallocation of workers from low- to high-productivity firms (Bambalaite et al. 2020).

Studies also suggest that higher OERs cannot guarantee improved quality or safety (Bambalaite et al. 2020, p. 12; Carroll and Gaston 1981; Kleiner 2015, p. 6; Kleiner and Kudrle 2000; Koumenta et al. 2018; Powell and Vorotnikov 2012).

The overall effect of more stringent OERs on workers' wellbeing is ambiguous. While more stringent OERs may raise wages by reducing competition (Kleiner 2017), this may not offset costs meeting study requirements or registration fees that workers may incur. Higher wages may also lower demand for labour, leaving workers on balance worse off. However, more stringent OERs that are grandfathered (that only apply to new workers entering an industry) may be attractive to incumbent workers.

OERs are affecting a growing number of occupations

OERs have grown to cover more occupations. For example, the National Registration and Accreditation Scheme was introduced in 2010 to cover 10 health professions. It has expanded to 16, including some that were not previously regulated under state and territory schemes (Ahpra 2020b, pp. 32–33, 2023). In building

¹⁰ Estimates were produced at a national level based on Australian Bureau of Statistics (ABS) Australian and New Zealand Standard Classification of Occupation (ANZSCO) 2021 and the Jobs and Skills Australia (JSA) 2024 Occupation Shortage List. Workers in occupations with missing shortage data (18% of workers) were excluded. The ABS data identifies registration or licensing as any restriction (legislative, regulatory or code of practice) that applies to anyone employed in that occupation. The JSA Occupation Shortage List is largely based on vacancies at current wages and employment conditions. The Grattan Institute (2022) and the PC (2023) have stated that recruitment issues should prompt higher wages, with shortages assessed after significant wage increases. Despite shortcomings, shortage lists provide insight into occupations with insufficient workers.

and construction, OER stringency has increased through higher requirements or by covering more of the sector (PC 2023a, p. 68).

Some increases in OERs are justified to address consumer and worker safety, but others are not (PC 2023a, pp. 68–69). Licensing creep describes the unnecessary expansion of OER without clear public benefit. It can result from parties seeking to gain benefits for themselves rather than the wider public (Kleiner 2018). For instance, educational institutions benefit from higher qualification requirements because they increase demand for their courses (Pittinsky 2015, p. 36). Governments may wish to retain licensing to keep the often substantial fee revenue. For example, revenue from licences in New South Wales accounted for about 5% of the state budget in 2011-12 (IPART 2014, p. 2).

Incumbent workers also have incentives to support new OERs, particularly if these are grandfathered. Regulated occupations such as plumbing, building trades and hairdressing contain many sole traders so firm and worker incentives often align. New OERs, by creating a barrier for new workers to enter the market, can reduce competition and raise the wages of incumbents. Further, regulators often wish to maintain cooperative and collaborative relationships with industry (for example, QLD OFT 2022, p. 4; WA DPIRD 2024, p. 10), which may undermine their ability to provide a balanced perspective.

Calls to increase OERs are sometimes made for reasons other than to protect against risks – for example, to increase a sector’s professionalisation and attract workers (Skills Insight, qr. 38, p. 9; Pagone and Briggs 2021, p. 126). Even in these circumstances, tightening OERs may be counterproductive and could limit a sector’s ability to attract workers (for instance, in the case of aged care, discussed below). Instead, improving pay and conditions is a well-established pathway to attract and retain staff.

Remove excessive OERs that offer limited benefits

OERs should exist only where there is a clear and demonstrable risk to consumers or workers that cannot be addressed through less restrictive and costly means. We identify opportunities to reduce excessive OER by comparing the different approaches taken by Australian jurisdictions and by considering alternative and potentially less costly approaches while still protecting workers and consumers.

State and territory approaches to licensing are inconsistent

State and territory OERs for the same occupation often vary, despite limited evidence that the risks or nature of most occupations differ meaningfully across jurisdictions.

Discrepancies in OERs have frustrated national harmonisation efforts. The National Occupational Licensing Scheme failed in 2013 in part because state and territory governments were unable to agree to consistent requirements for each occupation (PC 2015, p. 35). They also differ on how an occupation is defined. For instance, in some but not all jurisdictions, plumbers may undertake roofing and mechanical services or incidental electrical work (DoF 2022, p. 21; Master Plumbers 2020). Similarly, Queensland has separate builders licences for low- and medium-rise developments while Victoria has separate licences for domestic and commercial builders (Master Trades Association 2023). These differences often result in complex and ambiguous discrepancies for people working across state and territory borders.

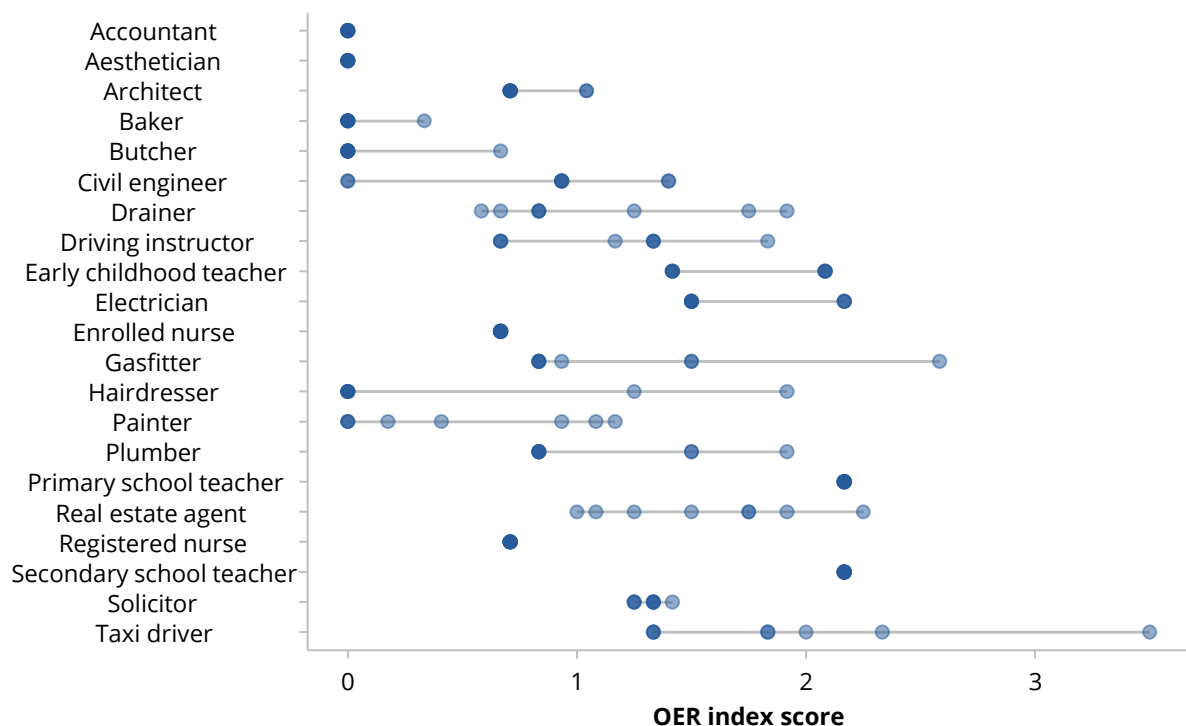
These variations present an opportunity to identify potentially excessive OERs. The policy question is: if an occupation operates effectively and safely under less stringent regulation in one jurisdiction, are more restrictive regimes necessary in others? Jurisdictions with AMR for selected occupations already allow workers who have passed less stringent requirements in other states and territories to work in their jurisdiction. These cases suggest that the jurisdiction could make its own OERs less stringent while still

adequately protecting consumers and workers. Regulators should focus on such cases as they may indicate the need for a review. This is further explored below.

To help identify where OERs across Australia can be streamlined, we applied the OECD's OER stringency index to selected occupations in each state and territory (the technical supplement contains further details). Our analysis shows that OERs can vary widely across occupations and jurisdictions (figure 3.1), demonstrating that in some cases OERs may be excessive and not aligned with occupational risks. For example, the tasks of a hairdresser and the risks of the occupation do not vary between states and territories, but the levels of OER stringency do, suggesting that OERs for hairdressers may be disproportionate to risk in some jurisdictions. International evidence also shows large variation in OER stringency across occupations and countries (box 3.3). The following section explores cases where excessive OERs may be able to be reduced.

Figure 3.1 – OERs can vary widely across occupations and jurisdictions^{a,b,c,d}

OER stringency index scores across jurisdictions



a. Each point represents a state or territory. Point transparency indicates density – darker points mean more states or territories have the same score. A higher index score indicates that the occupation has more stringent OERs. **b.** The OER index is primarily used for comparing stringency between jurisdictions for the same occupation and may not be appropriate for comparing between occupations. **c.** The OER index was based on methodology developed by the OECD, which may not fully capture the complexity of the Australian regulatory environment. Therefore, actual OER stringency may differ when judged on other factors. The index also does not capture the underlying level of risk associated with the occupation. Other limitations are described in the technical supplement. **d.** The OER index does not capture restrictions that are not imposed by regulations. For example, professional bodies such as CPA Australia may impose requirements on their members, but membership is not legally required to work as an accountant.

Source: PC estimates.

Box 3.3 – Licensing applies to more workers in Australia than some other countries

Many countries have licensing regimes that are less stringent than Australia's. While this may reflect different attitudes to risk, it could also suggest that Australia's OERs are excessive or that Australia is not adequately using alternatives to licensing.

Existing estimates of the share of Australian workers with a licence are about 18% to 19% (PM&C 2021, p. 7). PC analysis found that at least 15.5% and possibly as many as 30.7% of Australian workers may be subject to registration or licensing.^a This means that of 27 EU countries, Australia is more restrictive than at least nine and perhaps as many as 23. These include Sweden, where estimates using 2012 data range from 11% to 15%, Netherlands (10% to 17%), the United Kingdom (10% to 21%) and France (13% to 21%) (Koumenta et al. 2014, pp. 46–47).

Research into why OER stringency varies between countries is limited. One hypothesis is that Sweden's lower licensing levels stem from its highly developed vocational education, higher degree of unionisation and lower levels of privatisation (Osheroff and Levi-Faur 2019, pp. 9–10). Kleiner and Krueger (2008, p. 10) have observed a correlation between rising OERs and declining unionism. von Rueden and Bambalaite (2020, p. 13) also suggest that some legal systems may rely more on insurance or litigation than on OERs or other mechanisms to ensure service quality.

a. Employment based on Australian and New Zealand Standard Classification of Occupation (ANZSCO) 4-digit occupations: Australian Bureau of Statistics (ABS), Labour Force Survey, Detailed, February 2025; Jobs and Skills Australia trend data (JSA 2025a). Licensing based on ABS ANZSCO 2021. The ABS identifies registration or licensing as any restriction (legislative, regulatory or code of practice) that applies to anyone employed in that occupation.

Alternatives to OERs may cost less and should be considered

OERs are not the only way to address the risks that occupations can pose to consumers and workers. When considering the introduction or expansion of OERs, policymakers should consider whether government intervention is needed, whether something else addresses the problem, and whether other options could better deliver policy objectives (PwC 2013, p. 8).¹¹ The ongoing costs of monitoring and enforcement of OERs can be difficult to justify if businesses are willing to comply voluntarily or where harm is limited or recoverable. If other regulatory frameworks or market mechanisms can reduce risk, further OERs may be unnecessary.

When they are necessary, OERs should be risk-based and focused on protecting outcomes for consumers and workers. Inquiry participants (for example MFAA, qr. 63, p. 5) highlighted situations that may require new OERs. When considering regulations, policymakers should adopt policy options with the highest net benefit and that adequately safeguard against risks (box 3.4).

¹¹ Based on guidance material on designing and reviewing licensing schemes, prepared for the NSW Independent Pricing and Regulatory Tribunal.

Box 3.4 – Alternatives to OERs should be considered

Considering alternatives to OERs can help policymakers achieve policy objectives more efficiently than more costly options such as a comprehensive licensing scheme. Regulatory options are not mutually exclusive, and a mix of tools may be required. Alternatives to licensing include:

- **negative licensing** – anyone can practise an occupation unless they violate certain rules (CAV 2006, p. 18). Queensland has used this approach for debt collectors and South Australia for tattooists (PC 2023a, pp. 63–64)
- **task-based licensing** for specific high-risk tasks, such as scaffolding work or operating a forklift truck, rather than entire occupations (SWA nd)
- **stronger regulation of occupational outputs or outcomes** rather than occupational entry. Examples include electrical wiring rules, building inspections and aged care quality standards
- **relying on general laws** not specific to the occupation, such as consumer protection, occupational health and safety, and food safety. For example, the *Competition and Consumer Act 2010* prohibits businesses from engaging in misleading or deceptive conduct and protects consumers against harmful business practices
- **voluntary industry measures** such as voluntary certification, codes of conduct and best practice guidelines that outline the expected level of knowledge or skills for an occupation. Examples include a voluntary certification for school principals (Caldwell 2013) and best-practice guidelines for hairdressers in Western Australia (WA DoH 2016, p. 2, 2024a, p. 7)
- **stronger market competition**, which can incentivise providers to improve quality and service. Poor performers tend to be filtered out as consumers choose better alternatives, reducing the need for regulatory intervention. Competition can be supported by:
 - **information campaigns** to help consumers make informed decisions, including on their choice of service providers and how to report misconduct
 - **ensuring that consumer reviews are genuine** to help consumers compare service providers and select one that meets their preferences (Shelton 2022). For instance, the Australian Competition and Consumer Commission enforces regulations requiring online reviews to be independent, genuine and written only by those who have used the product or service (ACCC 2023b). Businesses in the travel sector tend to have strong verification measures, including requiring booking numbers to be submitted with a review and only inviting reviews after hotel guest stays (ACCC 2023a, p. 11).

Technological progress requires constant review of OERs

As technology advances and consumer preferences evolve, existing OERs may no longer reflect the demands of consumers or workers – a case of ‘legacy licensing’. Innovations such as online review platforms provide consumers with easy access to information about service quality, reducing the need for OER in certain sectors (Rozner 2018, as cited in Select Committee on Red Tape 2018, pp. 9–10; Wild 2018, p. 9). Such changes make it essential that OERs are regularly reviewed to remain fit for purpose. OERs must adapt to current demands and risks in each occupation. Box 3.5 explores the successful removal of licensing in the taxi and travel agent industry due to technological change.

Box 3.5 – Technology removed the need for licensing in the taxi and travel agent industries

The Australian taxi industry illustrates how technological disruption can necessitate licensing reform. Improvements in navigation technology led Victoria to stop requiring taxi drivers to pass a ‘knowledge’ test (Transport for Victoria 2018, pp. 24, 30, 70). In New South Wales, the emergence of rideshare platforms led to some passenger transport services being regulated and others not. In response, restrictions on the number of taxi licences available and on where taxis can operate were removed, and fees were deregulated (Transport NSW 2021, p. 1).

Travel agents were previously required to be licensed and to participate in the Travel Compensation Fund, which provided consumer protection. The widespread adoption of the internet and credit cards allowed consumers to book directly with travel suppliers; hence their funds were not at risk from travel agent collapse or misappropriation (PwC 2010, pp. 18–19). As risks lessened, travel agents were deregulated and a voluntary industry accreditation scheme was introduced (Mischin 2014; NSW Fair Trading 2018).

A starting point for removing OERs that offer limited benefits

We have identified several occupations that have OERs in some jurisdictions but not others, with little evidence that OERs are improving outcomes. While these individual regulations may not cause major economic harm, they limit labour mobility, reduce competition and unnecessarily drive up costs.

For example, New South Wales and South Australia are the only jurisdictions to require hairdressers to have a certificate III. PC analysis using 2021 Census data suggests that New South Wales and South Australia have fewer hairdressers who are born overseas, relative to migrant representation in the general population, than do other comparable states. This suggests their OER requirements present a barrier to employment for potential workers who would be employed in other states and territories (appendix B).

Evidence should guide decisions about relaxing OERs. Box 3.6 explores existing licensing arrangements for motor vehicle repairers and provides evidence that questions whether they help protect consumers or workers. Other occupations that could be considered for reform include air conditioning and refrigeration mechanics, hairdressers, painters and decorators, and introduction agents – all discussed in appendix B. OERs in these occupations illustrate a broader problem and are a starting point for reform. Additional occupations should be examined to ensure that regulations are both proportional to risk and evidence based.

Box 3.6 – Motor vehicle repairers’ licensing requirements

A licence to repair a motor vehicle is required in New South Wales, Western Australia and the Australian Capital Territory. But it is unclear whether licensing improves service quality or worker safety. The proportion of repaired vehicles sent back for rework (a measure of service quality) and the frequency of serious workers’ compensation claims (a measure of worker safety) do not strongly correlate with licence requirements (as the figure below shows). However, jurisdiction-specific factors and regulations may also be influencing these outcomes.

Box 3.6 – Motor vehicle repairers’ licensing requirements

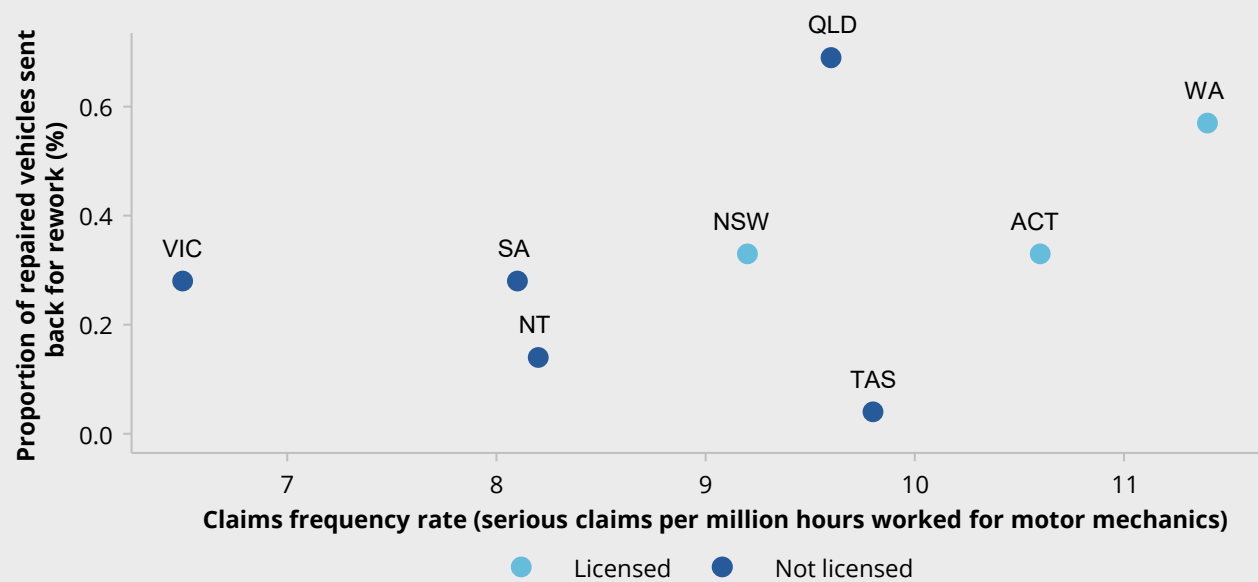
Regulatory frameworks already help protect consumers and workers in unlicensed jurisdictions. The Insurance Council of Australia notes that:

Work Health and Safety (WHS) laws already require employers to provide appropriate training, tools, and equipment for workers to safely perform their roles. Additionally, consumer law protects customers by requiring services to be delivered with due care and skill. Further protection exists where vehicles are repaired under insurance policies (which account for around 80% of motor vehicle smash repairs). In these cases, the General Insurance Code of Practice requires insurers to provide a lifetime guarantee on the quality of workmanship performed under an insurance claim. (Insurance Council of Australia, qr. 49, p. 4)

Alternatives to both OERs and general laws can also protect consumers and workers. South Australia has a mandatory code of conduct with fines for non-compliance (SBCSA 2023). Victoria’s codes of conduct are voluntary through industry associations such as the Royal Automobile Club of Victoria or the Victorian Automobile Chamber of Commerce (CAV 2024). More information about alternatives to OER can be found in box 3.4.

Given alternative consumer and worker protection mechanisms, New South Wales, Western Australia and the Australian Capital Territory should assess whether current licensing requirements for motor vehicle repairers remain fit for purpose.

Quality and safety metrics are not strongly correlated with licensing requirements^a



a. Vehicle repair quality data for NSW and ACT data are combined. ‘Serious’ claims are accepted workers’ compensation claims that have resulted in one or more working weeks lost. Unweighted average of the following five-year periods: 2008-09 to 2012-13, 2013-14 to 2017-18 and 2018-19 to 2022-23. 2022-23 data is preliminary. Source: 2024 vehicle repair quality data from Insurance Council Australia, qr. 49, pp. 5–6. Unpublished workers’ compensation claims data from the National Data Set for Compensation-based Statistics, Safe Work Australia, for ANZSCO unit group 3212 (motor mechanics).

**Draft recommendation 3.1****Remove excessive occupational entry regulations that offer limited benefits**

State and territory regulators should work to eliminate occupational entry regulations that exist in their jurisdiction but not in others, where the evidence that the regulations improve outcomes is weak. As a start, reductions in occupational entry regulations should be considered for:

- motor vehicle repairers in New South Wales, Western Australia and the Australian Capital Territory
- air conditioning and refrigeration mechanics in New South Wales
- hairdressers in New South Wales and South Australia
- painters and decorators in New South Wales, Victoria, Queensland, Western Australia and South Australia.

Expanding entry pathways and reducing reliance on qualifications will help alleviate skills shortages

Qualification requirements are the biggest hurdle to entry for many workers. Education and training are essential to developing the skills to perform an occupation competently and safely. Where worker skills affect risks to consumers and other workers, regulated qualification requirements can be justified. But trade-offs, including the financial and time costs of education or training for the aspiring worker, can be significant.

An overreliance on qualifications to assess a person's ability to perform a job – known as credentialism – can create a barrier to employment for unqualified but capable candidates. Credentialism also contributes to regressive employment outcomes and impedes social mobility, since children from disadvantaged families are less likely to attain post-secondary qualifications (Schwartz 2023, p. 4). OERs with excessive qualification requirements reinforce and exacerbate credentialism, limiting employment opportunities.

OERs may harm employment outcomes for people in regional and remote communities, who may have restricted access to education and training infrastructure. Aboriginal and Torres Strait Islander people may also be disproportionately impacted by credentialism, as entrenched inequalities have shaped their engagement with the formal education system (Bodkin-Andrews and Carlson 2016). While the proportion of Aboriginal and Torres Strait Islander people aged 25–34 years who have completed a tertiary qualification has increased, the relevant Closing the Gap target is not on track to be met (PC 2024a, p. 4). The PC heard of cases in which qualification requirements failed to consider relevant experience and cultural knowledge in the care sector.

Excessive qualification requirements can also increase the costs of a service to consumers, with little additional benefit. And they can severely limit the supply of workers in an occupation. Long training gaps are the primary driver in 41% of the 114 occupations on the national occupational shortage list (PC analysis using Occupation Shortage List at unit group level (JSA 2024f)). These occupations have few qualified applicants for each job vacancy and require a certificate III or above (JSA 2024a, p. 5).

PwC (2013, pp. 37–38) suggested that licensing requirements should 'generate the least burden on licensees ... while achieving the policy objective' and 'be proportionate to the risks'. For regulated qualification requirements, that means identifying the minimum level of education or training to achieve an acceptable level of competence.

Despite ongoing reform work, the fact that qualifications remain closely tied to OERs consolidates traditional forms of learning and accreditation pathways (PC 2017, p. 98). Overall, governments seem to agree that it is

important to reduce unnecessary qualification and pathway barriers into professions while maintaining quality standards. But views on how best to undertake reform may differ.

Qualification requirements differ across states and territories

Most licensed occupations are regulated by state and territory governments, resulting in varying regulated qualification requirements (figure 3.2). Among a selection of licensed occupations, Victoria has the least stringent average requirements, in part because it offers non-qualification-based pathways to licensing (discussed below).

Some occupations have uniform qualification requirements across jurisdictions. All states and territories require school teachers to have at least four years of higher education (AITSL 2015, p. 15). Likewise, no jurisdiction has formal qualification requirements to practise as an accountant (Parliament of Australia 2024a, p. 83). Other occupations, such as plumbers (box 3.7) and engineers, have much greater variation.

The significant differences in qualification requirements across jurisdictions for specific occupations is unlikely to reflect differences in risk. Even for occupations with uniform qualification requirements, it is unclear that these are proportionate to the risks to consumers and workers.

Figure 3.2 – State and territory qualification requirements differ
Average years taken to complete required qualification for 21 occupations^{a,b}



a. Length of qualification is based on minimum time needed, rounded up to the nearest year, for each occupation prior to averaging. **b.** Occupations included: accountant, architect, baker, beautician, butcher, civil engineer, drainer, driving instructor, early childhood teacher, electrician, enrolled nurse, gasfitter, hairdresser, painter, plumber (general), primary school teacher, real estate agent, registered nurse, secondary school teacher, solicitor and taxi driver.

Source: PC estimates.

Box 3.7 – Qualification requirements for drainers and roof plumbers vary

Drainers and roof plumbers are specialised occupations within plumbing. Drainers design, install and service below-ground drainage systems. For most Australian jurisdictions, a Certificate II in Drainage (usually completed through a one- to two-year traineeship) is required to work as a drainer under supervision. But in South Australia, Tasmania and the Northern Territory, the requirement is a Certificate III in Plumbing completed through a four-year apprenticeship.

Roof plumbers install and repair metal roof and wall cladding, as well as flashing, gutters and downpipes. In New South Wales, Victoria and Tasmania, a roof plumber requires a Certificate III in Plumbing completed through a four-year apprenticeship. But roof plumbers are not a licensed occupation in jurisdictions such as South Australia and the Northern Territory, so there are no qualification requirements.

Source: ACT Government (2025); BPC (2024); CBOS (2025); Government of South Australia (2024); Government of Western Australia (2024); NSW Building Commission (2024c); PDLB (2024); QBCC (2024).

Addressing credentialism in OERs

Australian, state and territory governments should consider whether qualification requirements for OERs are appropriate to the risks. Opportunities to reduce unnecessary qualification requirements exist across a diverse range of professional and vocational occupations. Removing or reducing these requirements may be the best option in some cases. For example, the Psychology Board of Australia is reviewing qualification requirements for psychologists (appendix B).

Australian governments must also resist credentialism creep, especially when it is unlikely to provide net benefits or meet policy objectives. Instead, governments and regulated industries should consider other solutions to meet the competency requirements of occupations while supporting mobility. Potential solutions include non-qualification pathways, greater flexibility in qualification attainment, tiered licensing (box 3.8) and a more modular approach to licensing.

Box 3.9 and appendix B set out other occupations where qualification requirements are being reviewed.

Box 3.8 – Considering risk-based tiers of licensing for registered company auditors

Registered company auditors (RCAs) examine and report on the financial statements of an organisation to ensure they accurately reflect its financial position. The Australian Securities and Investment Commission licenses and regulates RCAs. To qualify for a licence, an applicant must complete (ASIC 2016):

- at least a three-year qualification in accounting
- at least a two-year qualification in law
- a prescribed course in auditing
- a logbook of experience in auditing competencies in the previous three to five years.

Box 3.8 – Considering risk-based tiers of licensing for registered company auditors

CPA Australia (qr. 68, pp. 4–5) suggested that the requirements were prohibitively restrictive and prevented new entrants. Over the 20 years to 2025, the number of RCAs declined from over 7,000 to about 3,200 while demand for services has increased. Moreover, CPA Australia noted:

RCA entry requirements are designed for large, complex, and high-risk audits, such as those of listed companies or multinational enterprises. The current rigorous entry requirements are appropriate for such audit engagements; however, RCAs are also required by different laws, regulations and procedures to undertake lower-risk audits. The RCA entry requirements are not appropriate for these audits, and adds to the costs of those being audited. (qr. 68, p. 5)

By contrast, New Zealand provides two tiers of licensing (CPA Australia 2014, 2015). Qualified auditors can complete lower-risk assurance activities. To qualify, applicants must demonstrate 300 to 500 days of supervised, practical audit experience in the previous five years. Meanwhile, licensed auditors are required for higher risk assurance activities, such as for listed companies, banks and insurers. Qualification requirements for licensed auditors are just as restrictive as they are for RCAs in Australia.

The Australian Government should consider a more nuanced approach to licensing RCAs, including the addition of a lower-tier licence for low-risk audits.

Box 3.9 – Need for a balanced approach to raising entry barriers for aged care support workers

In 2018, the Royal Commission into Aged Care Quality and Safety exposed regulatory failings in the sector (Pagone and Briggs 2021; PC 2025c). The report recommended a national registration scheme for care workers, including (Pagone and Briggs 2021, p. 126):

- a mandatory minimum qualification of a Certificate III
- ongoing training requirements
- minimum levels of English language proficiency
- criminal history screening requirements
- a code of conduct, and power for a registering body to investigate complaints into breaches of the code and to take appropriate disciplinary action.

This seeks to create a more professionalised workforce that could attract and retain workers while improving the quality of care. But it might also pose new challenges. Aged care workers are in short supply and modelling by Deloitte Access Economics indicates that the workforce will need to increase by 70% by 2050 (Pagone and Briggs 2021, p. 125). In 2025, the Department of Health, Disability and Ageing began consulting on the design of the recommended scheme (DOHAC 2025).

Some recommended changes such as improved complaints processes are likely to improve the quality of care in the sector, which has been largely unregulated. But introducing minimum qualifications may reduce the sector's capacity to attract workers. For instance, national licensing could stop providers from

Box 3.9 – Need for a balanced approach to raising entry barriers for aged care support workers

recruiting Aboriginal and Torres Strait Islander people by removing their discretion to employ those with an aptitude for care work despite not meeting other conditions (DOHDA 2025, p. 53).

Entry requirements may create employment barriers for those from culturally and linguistically diverse backgrounds, who do not have the option to pursue formal qualifications, and people in regional and remote communities, where training is less accessible. In response to the PC's questionnaire, the Working with Women Alliance and the Australian Multicultural Women's Alliance (qr. 43, p. 6) submitted:

Occupational entry regulations can have significant and often unequal effects, particularly in feminised industries such as childcare, social work, and aged care. Women are increasingly required to prove that their experience is 'skilled', as more formal and informal entry requirements are placed on these professions ... Migrant and CALD [culturally and linguistically diverse] women face additional barriers. Their prior work experience from outside Australia is frequently not recognised, despite the fact that this experience brings valuable cultural knowledge and skills. This lack of recognition not only limits their career opportunities but also deprives organisations of the enhanced cultural competencies these women could offer.

NewDirection Care (sub. 21, p. 3) suggested:

... greater benefit would come from shifting a focus from 'qualifications' to attracting the right talent. A workforce with the right mindset, temperament and alignment to the intention of the sector would deliver greater dividends and importantly, employee satisfaction.

Current training pathways limit entry to trades

Most regulated, trade-based occupations require the completion of an apprenticeship, creating a bottleneck in the supply of qualified workers. Jobs and Skills Australia (2023, pp. 54–55) noted that occupation shortages were most pronounced in trades, with many of them experiencing persistent shortages. Commencements and completions of apprenticeships have declined for many years. In 2023, only 54.1% of trade apprentices completed their apprenticeship (NCVER 2024).¹² At the same time, many industries that rely on the apprenticeship pathway to train and supply workers – notably construction and clean energy – are expected to see large increases in demand for skilled workers over coming years (DEWR 2024, p. 42).

As noted by the PC (2020), there are both supply and demand barriers to the uptake and completion of apprenticeships. On the demand side, employers cite poor-quality vocational education and risks of non-completion. On the supply side, workplace challenges (poor working conditions, harassment or lack of support), rigid training structures, a lack of qualified vocational education and training (VET) teachers and negative perceptions can adversely impact uptake and completion (DEWR 2024, pp. 81, 187; MEA, qr. 95, p. 7).

Long training times can also have an impact – most trade-based apprenticeships take three to four years for a level 3 qualification (certificate III) under the Australian Qualification Framework, but a level 7 qualification (bachelor or honours degree) can be attained in the same amount of time. In non-trade fields, a certificate III typically takes one to two years.

¹² Individual completion rate four years after commencement for all trade occupations.

The Australian Government is seeking to improve apprenticeship policies. This work includes the *Strategic review of the Australian Apprenticeship Incentive System* (Strategic Review) (DEWR 2024) and *Unlocking the potential of VET: improving the relevance and transferability of vocational education and training qualifications* (QRDG 2024). The Strategic Review recommended more targeted employer incentives, improved support for apprentices and greater use of group training organisations to improve apprenticeship outcomes. Following the National Skills Agreement, Australian governments are also reforming VET qualifications to allow more flexibility and place a greater emphasis on broader capabilities to assist lifelong learning and workforce mobility (QRDG 2024, p. 1).

While these changes may help to address some of these existing challenges, ‘tickets to work’ or units of competency that align with licensing requirements will remain core components of the VET system. Gaining these competencies through apprenticeships will remain important for some students, but it is increasingly recognised that the apprenticeship pathway may not be the best way to promote entry into all trades for all students. As the NSW Productivity Commission (NSW PC 2021, p. 97) noted:

Largely for historical reasons, apprenticeships are designed around the needs of young male school leavers. Other cohorts, such as older people and women, have few alternative pathways to these occupations. As a result, many miss out on the jobs they are best suited for, while chronic skills shortages persist.

Alternative approaches to acquiring competencies in trade-based occupations

Ongoing skill shortages in trades provide a strong motive to reassess qualification requirements based on risk and explore alternative entry pathways to broaden access into these occupations. Alternative pathways will also help increase access for underrepresented cohorts, such as women, who only represented approximately 3% of construction trade workers in 2024 (BSA 2024, p. 77). These ideas are explored below.

Accelerated apprenticeships

Accelerated apprenticeships may enable a larger demographic of workers to access trades without compromising quality. The NSW Productivity Commission (2021, p. 101) heard that apprentices often obtain equivalent skills to a fully qualified tradesperson within two years. While competence-based progression and recognition of prior learning can notionally reduce apprenticeship lengths, these are rarely practised (PC 2020, p. 356). In some industries, award wages only recognise progression based on time served (FWO 2025, nd).

Some occupations and jurisdictions are using accelerated apprenticeship programs. The Master Builders Association (NSW) provides an accelerated apprenticeship pathway for mature-aged applicants in carpentry, through its Adult Apprenticeship Commencement Training Program (MBA NSW nd). In 2026, the South Australian Government is launching its Industry Accelerated Apprenticeship Pilot, which will fast-track an apprenticeship program for 1,000 candidates across seven critical trade-based occupations (SASC 2025). From 2007, PC (2020, pp. 355–356) noted a temporary increase in the number of mature-age and existing workers completing apprenticeships in less than two years. This uptick was attributed to several government policy settings, including the Accelerated Australian Apprenticeship initiative.

The Strategic Review (DEWR 2024, pp. 266–269) called on Jobs and Skills Councils to develop fast-tracked apprenticeships, especially in areas such as clean energy, care and support, and construction. But it also noted that employers generally do not support shorter training times because they reduce the period in which a worker is highly productive while still receiving lower apprentice wages, compensating employers for the upfront costs. Employers also raised concerns about how well training providers are implementing the competency-based progression system, with apprentices being pushed through before they are ready (Ai Group CET 2025, p. 45). Overcoming the misalignment of incentives and implementation concerns will be

important. Such programs may be best geared towards experienced mature-aged workers who can provide employers with greater value upfront.

Front-loading training components

In most trade-based occupations, aspiring entrants must be employed as an apprentice before undertaking training. These are the only occupations in which the number of people in training may be restricted by employer demand (PC 2020, p. 332).

OERs could be made more flexible by allowing training components of an apprenticeship to be completed upfront, as in most other occupations. Upon graduation from a registered training organisation, workers could obtain the necessary supervised work experience before being assessed for competence and eligibility for a licence. Such a pathway would help screen for motivated candidates, increase the value of junior workers to employers and mitigate the financial risk to employers of investing in apprentice training. Trades that do not require licensing are often more flexible in how an aspiring worker undertakes training. Both apprentices and non-apprentices can undertake a Certificate III in Cabinet Making (PC 2020, p. 358). Governments, employers and unions will need to consider appropriate contract and wage-setting arrangements, as well as address any negative perceptions of such pathways.

A more modular approach to licensing

Australian governments could also consider a more modular approach to licensing for some occupations. The Clean Energy Council (qr. 20, p. 4) noted that the breadth of required competencies in the electrical trade (across residential, commercial and industrial settings) increases the cost and length of apprenticeships. It suggested that reforms underway to the Electrotechnology Training Package could help establish an industrial electrician's licence, which would produce qualified workers faster by removing the need to obtain experience in residential and commercial settings. While gaining the full set of competencies may appeal to some apprentices and employers, many would find the full training package superfluous to their needs. The PC (2020, p. 358) also noted that it was difficult for some apprentices to complete all competencies unless they worked for a large employer that provided access to a diversity of settings.

In countries such as France and Finland, training usually involves a core set of modules that are a prerequisite to specialisation (OECD 2023, pp. 82–85). A modular approach may help the training system to adapt to change in industries. But it also risks making the system more complex and may require workers to obtain extra qualifications and licences to switch between jobs currently covered by a single licence. Unless undertaken in a coordinated way, it could also undermine labour mobility across Australian jurisdictions.

Expand non-apprentice pathways into trades

The current reliance on apprenticeship qualifications also fails to recognise the skills many workers already possess. Workers may acquire skills through non-traditional pathways. Most Australian jurisdictions do not provide pathways to recognise skills developed outside formal educational institutions or developed from a variety of formal institutions. But exceptions exist.

The Australian Government committed \$78 million to its Advanced Entry Trades Training program to help unqualified but experienced workers gain relevant qualifications in trade-based occupations, including construction where more than 35% of workers have no formal qualification (NSC 2020, p. 6; PBO 2025). The program is modelled after a successful pilot in New South Wales (Trade Pathways for Experienced Workers Program) and follows similar programs that various governments have introduced in recent years.

State and territory governments should also consider greater use of independent assessment to recognise skills. Assessment conducted by parties who are not delivering the training provides assurance on the competence of VET graduates, enables non-traditional entry pathways and supports new learning models.

The PC's *National Agreement for Skills and Workforce Development Review* (2020, p. 249) found that independent assessment would address concerns of uneven quality standards among VET graduates and assure worker competence. Likewise, the PC's *Shifting the Dial* report (2017, p. 100) noted that a lack of independent assessment impedes development of new models of learning, reduces investment in education and entrenches education institutions that are traditional and inefficient.

As an example of an independent assessment approach, Victoria provides non-apprenticeship pathways to the plumbing occupation (box 3.10).

Box 3.10 – The Victorian Building and Plumbing Commission model

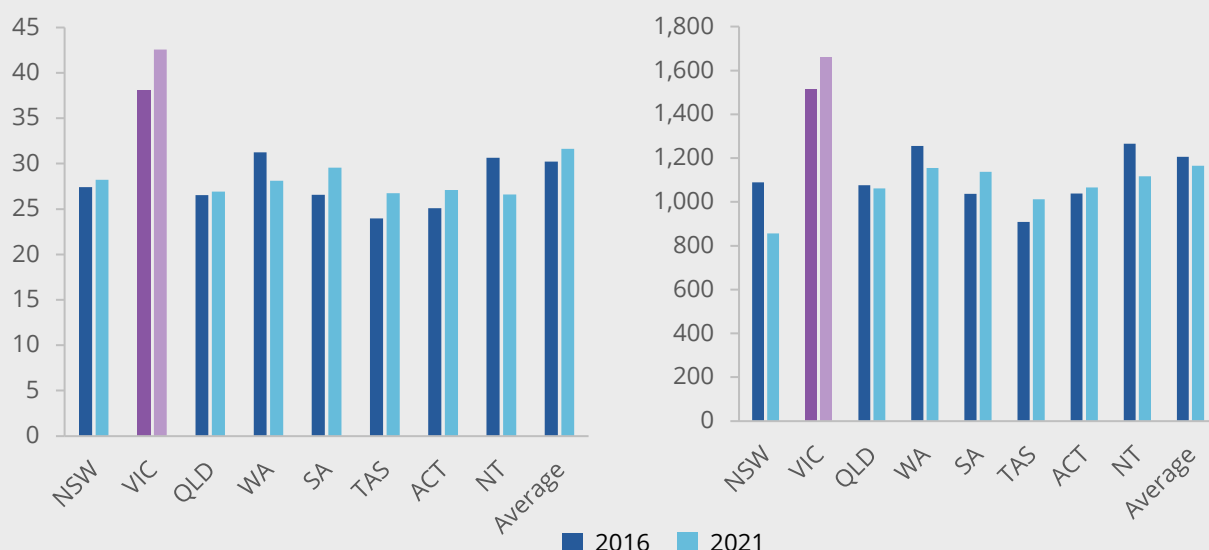
The Building and Plumbing Commission (BPC) regulates the building and plumbing industries in Victoria through licensing and registration, monitoring compliance, and enforcement. The legislated scheme provides multiple pathways to registration for plumbers, including an apprenticeship pathway and an experience pathway (non-apprenticeship pathway). The former requires completing an apprenticeship (which has both a prescribed qualification and experience component) and the latter a combination of qualifications and four years of relevant work experience. Applicants for both pathways must complete a BPC-administered exam of registration competencies for their chosen class(es), among other requirements (DELWP 2018, p. 153).

Competency exams ensure that all applicants are independently assessed before they are registered. The exams are designed to assess whether applicants can use and interpret relevant codes and standards correctly, read and interpret drawings, and perform common practical plumbing tasks safely and compliantly. This helps to protect consumers and workers against poor quality plumbing work.

Applicants seeking registration via the experience pathway are generally migrants with verifiable qualifications and experience; workers with interstate experience who have not completed a plumbing apprenticeship; workers with experience in an unfinished apprenticeship or under a provisional registration; or workers with a registration/licence in another trade (such as electricians) who only want a restricted registration or licence to do specific restricted work (BPC, pers. comm., 16 July 2025).

BPC data indicate that from 2017-18 to 28 April 2025, the experience pathway^a accounted for one in five applications for registration that were granted (BPC, pers. comm., 16 July 2025).

Victoria has significantly more plumbers and greater plumbing service provision per capita than do all other Australian jurisdictions, which do not have experience pathways (as shown in the figure below). Data from Safe Work Australia also indicate that Victorian plumbers have the lowest frequency of serious workers' compensation claims compared with other jurisdictions (as shown in the table below).^b It is important to note that licensing is only one of many forms of regulation impacting workplace health and safety, and it is unclear how different licensing regimes might impact outcomes.

Box 3.10 – The Victorian Building and Plumbing Commission model**Number of plumbers (left) and hours worked by plumbers (right) per 10,000 residents, 2016 and 2021^c****Claims frequency rate (serious claims per million hours worked)^d**

NSW	VIC	QLD	WA	SA	TAS	ACT	NT	Average
9.8	6.9	10.8	10.6	10.0	13.3	14.5	8.4	9.1

a. There is a wide variety of applicant types in this cohort, often seeking registration in a single class of plumbing work only (such as roofing work) or in a narrow component of a single class (such as fire protection work restricted to routine servicing of fire hose reels). **b.** Plumbers identified by ANZSCO unit group 3341 in these datasets may not align with registered and licensed plumbers identified by BPC. **c.** PC analysis of ABS (Census of Population and Housing 2016, 2021a). **d.** Unpublished workers' compensation claims data from the National Data Set for Compensation-based Statistics, Safe Work Australia for ANZSCO unit group 3341 (plumbers). 'Serious' claims are accepted workers' compensation claims that have resulted in one or more working weeks lost. Unweighted average of the following five-year periods: 2008-09 to 2012-13, 2013-14 to 2017-18 and 2018-19 to 2022-23. 2022-23 data is preliminary. Average includes data from all jurisdictions including Comcare and Seacare claims.

**Draft recommendation 3.2****Expand entry pathways and streamline qualification requirements for occupations**

Australian, state and territory governments should assess whether current regulated qualification requirements for occupations are proportionate to identified risks, and implement alternative entry pathways where feasible while maintaining quality and safety standards.

To begin, the Australian Government should consider revising qualification requirements for registered company auditors by introducing a tier of licensing for lower-risk assurance activities.

Australian, state and territory governments should also address skills shortages in trades occupations by investigating opportunities for alternative approaches to acquiring competencies in trade-based occupations and expanding non-apprentice pathways.

Governance is vital to reducing inappropriate OERs

Current mechanisms are not delivering efficient policy reform

Regulatory impact assessments and sunset provisions have the potential to prevent licensing creep and address legacy licensing. Regulatory impact assessments should provide a balanced analysis of policy options and the likely impact of new or amended regulations (PM&C 2020). Sunset provisions automatically repeal regulations after a set period (usually five or ten years) unless exempted or remade. The goal is to ensure that regulations are regularly reviewed and retained only if relevant (Argument 2019, p. 38).

Yet these policy instruments are not fulfilling their potential. The PC (2023a, p. 74) found that regulatory impact assessments of OERs relied too much on anecdotal evidence and unsubstantiated judgement calls about their net benefits. A lack of data to effectively estimate the market impacts of regulation has also contributed to the poor quality of these assessments, when a growing body of international evidence indicates these impacts can be significant (box 3.2). The result is that it can be much easier to show the benefits of regulations than their direct and indirect costs.

This PC inquiry also found no instances in which a licensing regulation did not proceed following a regulatory impact assessment. This suggests a lack of transparency over assessments that fail, a skew towards finding positive net benefits of regulations, or that assessments have limited bearing on the final decision to impose regulation. Similarly, initial consultations identified only one instance in which OERs were changed due to sunseting. This may suggest that many regulations may have simply been remade, with limited assessment, nullifying any benefit of sunset provisions. Poor quality regulatory impact assessments and perfunctory sunset reviews are not a new problem, nor are they unique to OERs (PC 2025b).

Consultations also raised concerns about who is best placed to undertake a regulatory impact assessment. Regulators responsible for a proposed or sunseting regulation usually play that role. But regulators may not be best placed to assess the net benefits of different regulatory options.

Implement better processes for introducing and reviewing OERs

Three factors would improve regulatory impact assessments: greater support from an agency that is more independent of industry affiliations; improved data collection; and greater use of sunseting reviews.

Precisely because regulators have strong connections to and understanding of the industries they regulate, they are not always best placed to impartially assess the impact of regulation. If they provide a critical assessment, their ability to maintain constructive relationships with industry may be undermined.

An independent assessor, or an assessment conducted jointly by more than one entity, could better balance the concerns of industry, regulators, unions and consumers. In the US state of Colorado, the Department of Regulatory Agencies conducts all sunrise and sunset reviews across government (USA Treasury et al. 2015, p. 50). To make impact analysis more influential at the Australian Government level, the PC (2025b) has made a draft recommendation to appoint an independent statutory commissioner to the Office of Impact Analysis.

When new regulations are introduced, high-quality data should be collected over the life of the regulation to inform its review at sunseting. Data collection can shed light on whether policy objectives are being achieved. For OERs, worker and consumer safety will be the main outcomes of interest, along with the impact of regulations on prices, employment and service availability. Regulators should identify administrative datasets, such as Safe Work Australia data, that provide useful insights, and design collection processes where necessary. The Australian Centre for Evaluation provides resources to help Australian Government policymakers identify data that will measure and assess the performance of policies (The

Treasury 2024). For states and territories, central agencies or independent authorities could assist regulators in designing both appropriate data collection and policy evaluation processes.

The PC (2025b) heard that many Australian Government agencies are not resourced to properly manage the sunset of legislation. Australian governments should make a greater effort to sunset OERs that do not provide a net benefit. With enhanced regulatory stewardship (PC 2025b), regulators would undertake more regular, targeted reviews of OERs. As recommended by the PC (2023a, p. 87), systematic regulatory reviews by an independent authority could also identify unnecessary legacy licensing.

The PC proposes that state and territory treasury departments, or other government authorities responsible for regulatory policy advice, work with licensing regulators to review OERs in their jurisdictions. This would allow the advice to incorporate both regulator expertise in licensing and industry needs, and the guidance and principles for best-practice regulation that treasury departments often provide. The Australian Government should play a supporting and coordinating role, providing guidance on impact assessments and working towards improved automatic mutual recognition where feasible. The Australian Government Office of Impact Analysis could help to support best-practice impact assessment, while the Australian Government Treasury can continue to support reform through National Competition Policy.

Getting the policy framework right for OERs is not only about removing the inefficiencies in previously introduced licences or preventing current licensing arrangements from becoming progressively more stringent. It also provides a sound basis for regulating occupations that will emerge in future.



Draft recommendation 3.3

Improve the regular reviews of occupational entry regulations

State and territory treasury departments, or other government authorities responsible for regulatory policy advice, should work with licensing regulators to jointly review occupational entry regulations in their jurisdictions. These reviews should remove regulations deemed to be excessive and not proportional to risk. They should draw on joint expertise on industry and licensing, as well as principles for best practice regulation.

Licensing regulators and treasury departments should undertake sunset reviews of occupational entry regulations on a scheduled basis. State and territory governments should also perform independent reviews to identify occupational entry regulations that are no longer fit for purpose.

Establishing lasting reforms to make OERs efficient

Any reforms to OERs must be considered in the context of Australian states and territories pursuing licence interoperability. Multiple participants in this inquiry highlighted the challenges and costs associated with inconsistent licensing across states and territories (AUSMASA, qr. 75; BCA, sub. 17; Ben Adamson, qr. 2; Engineers Australia, qr. 87; ICA, qr. 49; Master Builders Australia, sub. 32; Professor Leanne Wiseman, qr. 14; RAI, sub. 16; Teach For Australia, qr. 31). These challenges will continue to evolve with the emergence of new occupations and technological change, as the evolution of electric vehicle technician licensing shows (AUSMASA, qr. 75).

The *Intergovernmental Agreement on the Automatic Mutual Recognition of Occupational Registration* was a step forward in improving worker mobility across state borders after many years of stalled progress and the failure of the National Occupational Licensing Scheme. However, AMR has revived long-standing disagreements on acceptable standards for OERs (McArthur and Rooney 2025; Rooney 2025).

Although states and territories are reforming OERs, a national approach to the strategic direction of reform is needed. In March 2025, the Australian Government Treasurer requested advice from the PC on analysis and modelling of a national licensing scheme for electrical trades and other occupations. Regardless of the outcome of such a scheme, excessive OERs should be addressed in a way that promotes labour mobility between jurisdictions.

The *Intergovernmental Agreement on National Competition Policy* (NCP) provides an ideal mechanism to pursue improvements to OERs, identifying and addressing those that are not fit for purpose and promoting AMR. The Australian government can use NCP to establish a reform agenda and incentivise state and territory reform. However, reform will be ongoing and the Australian Government's role in coordination and incentives should outlive the current iteration of the NCP, due to expire in 2034.

Reforming requirements for licensed professions is likely to be resisted, due to both well-justified concerns and perverse incentives (previously discussed). Despite the challenges, reforming OER can provide significant productivity gains that will benefit the wider community over the long-term.



Draft recommendation 3.4

Incentivise occupational entry regulation reform through National Competition Policy

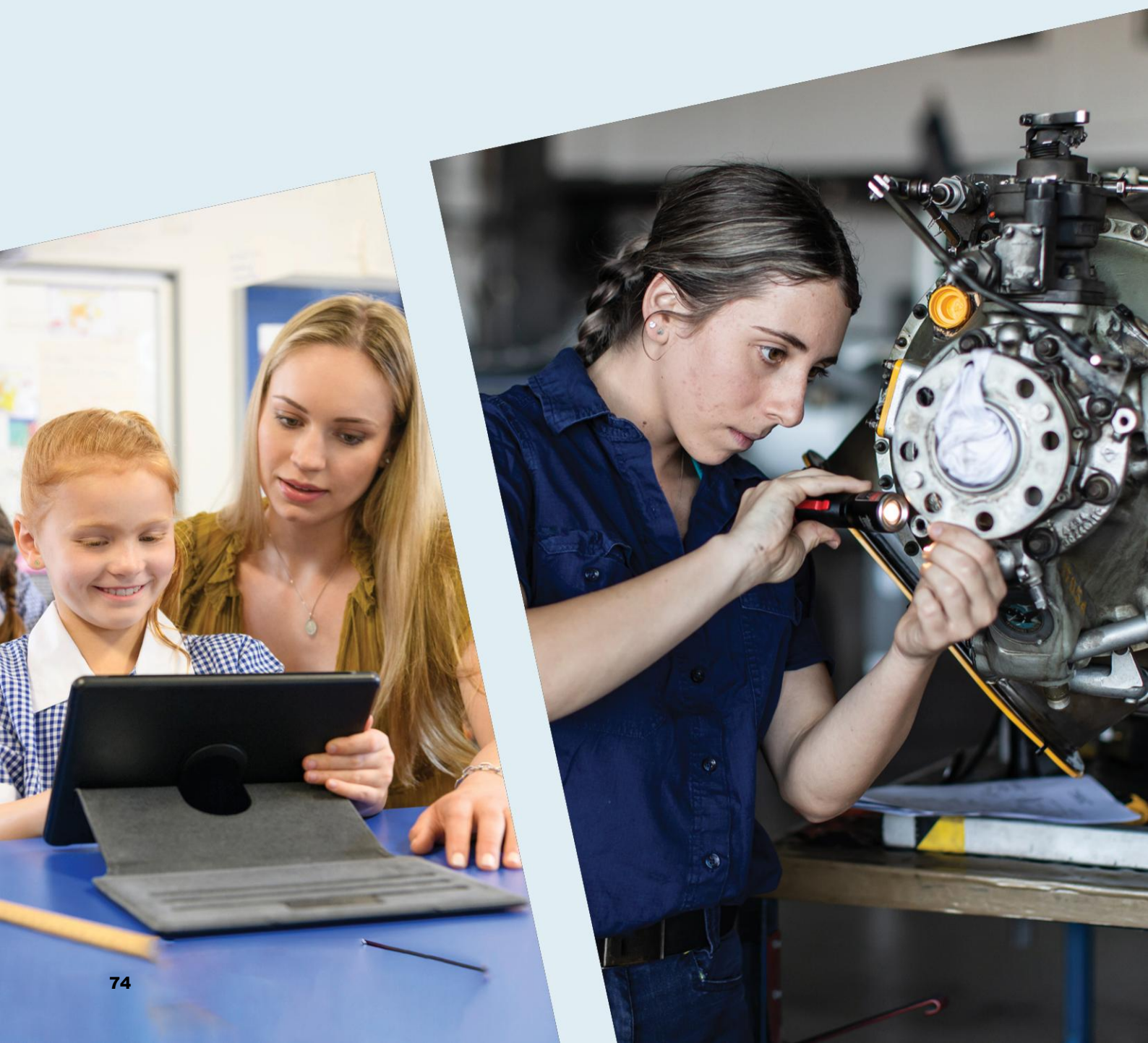
Australian, state and territory governments should use the National Competition Policy process to incentivise reform of occupational entry regulations at the state and territory level.



Information request 3.1

1. What occupational entry regulations should be prioritised for review?
2. Are there examples of requirements other than occupational entry regulations that overly limit entry into professions? How could these be addressed?
3. How do occupational entry regulations uniquely impact segments of the population, such as Aboriginal and Torres Strait Islander people, women, mature-aged workers and people from culturally and linguistically diverse backgrounds?
4. Aside from regulatory impact assessments, what other policy instruments could Australian governments use to better address excessive occupational entry regulations?
5. What data collection would best inform the evaluation of occupational entry regulations?
6. What alternative approaches to apprenticeships should governments consider to improve pathways into trade-based occupations, while maintaining quality standards? And what are the potential implications of alternative pathways?
7. How can Australian governments and industries facilitate and incentivise greater use of accelerated apprenticeships?
8. How can the Australian Government best support state and territory governments in reforming occupational entry regulations?
9. How can the National Competition Policy process (or other longer-term arrangements) help to incentivise reform on occupational entry regulations?
10. What other aspects of occupational entry regulations (or broader, contextual issues) warrant consideration by Australian governments?

Appendices



A. Public consultation

This appendix outlines the consultation process and lists the organisations and individuals who participated in the inquiry. The PC received the terms of reference for this inquiry on 13 December 2024. The PC consulted with 78 individual organisations (table A.1). A consultation questionnaire was released on 19 May 2025 seeking feedback on specific aspects of our policy reform areas. In total, 94 responses to the questionnaire (table A.2) were received. An additional 37 submissions were received via email (table A.3). The questionnaire responses and submissions are available at: engage.pc.gov.au/projects/workforce/page/pillar-2-responses.

The PC would like to thank everyone who has participated in this inquiry.

Table A.1 – Consultations

Participants

Australian Health Practitioner Regulation Agency (Ahpra)

Andrew Norton

Australian Capital Territory Education Directorate

Australian Council of Trade Unions (ACTU)

Australian Curriculum, Assessment and Reporting Authority (ACARA)

Australian Education Research Organisation (AERO)

Australian Government Department of Education

Australian Government Department of Employment and Workplace Relations

Australian Government Department of Health and Aged Care (DoHAC)

Australian Government Department of Prime Minister and Cabinet (PM&C)

Australian Government Treasury

Australian Industry Group (Ai Group)

Australian Institute for Teaching and School Leadership (AITSL)

Australian Institute of Architects

Australian National University (ANU)

Australian Skills Quality Authority (ASQA)

BuildSkills Australia

Building Commission New South Wales

Business Council of Australia (BCA)

Centre for Economic Development Australia (CEDA)

Coalition of Peaks

Participants

e61

Education Services Australia (ESA)

Engagement Institute (formerly IAP2 Australasia)

Engineers Australia

Future Skills Organisation

Grattan Institute

HumanAbility

Independent Education Union of Australia (IEUA)

Independent Schools Australia (ISA)

James Martin Institute for Public Policy

Jobs and Skills Australia (JSA)

Leslie Loble AM

Master Electricians Australia (MEA)

Microsoft

National Aboriginal and Torres Strait Islander Education Corporation (NATSIEC)

National Aboriginal Community Controlled Health Organisation (NACCHO)

National Catholic Education Commission (NCEC)

National Centre for Vocational Education Research (NCVER)

National Indigenous Australians Agency (NIAA)

National Indigenous Employment and Training Alliance

New South Wales Department of Education

New South Wales Fair Trading

New South Wales Treasury

Northern Territory Department of Education and Training

Nous Group

Ochre Education

Professor Jeff Borland

Professor Peter Dawkins

Professor Robert Breunig

Psychology Board of Australia

Queensland Curriculum and Assessment Authority

Queensland Department of Education

Queensland Department of Treasury

Queensland Office of Fair Trading

Reserve Bank of Australia (RBA)

Participants

RMIT University
Seek
Service and Creative Skills Australia
Settlement Services International
Skills Insight
South Australian Consumer and Business Services
South Australian Department of Education
South Australian Department of Treasury and Finance
South Australian Skills Commission
South Australia Productivity Commission
Tasmanian Department of Education, Young People and Children
Tertiary Education Quality Standards Agency (TEQSA)
Universities Admissions Centre (UAC)
Universities Australia
Victorian Building Authority
Victorian Department of Education and Training
Victorian Department of Jobs, Skills, Industry and Regions
Victorian Department of Treasury & Finance
Victorian Skills Authority
Western Australian Department of Education
Western Australian Treasury
Woolworths Group

Table A.2 – Questionnaire responses

Participants	qr no.
Aaron	16
Accommodation Australia (AA) and Australian Hotels Association (AHA)	25
Ausfilm	33
Australasian Institute of Mining and Metallurgy (AusIMM)	81
Australian Catholic University (ACU)	53
Australian Council for Student Voice (ACSV)	26
Australian Dairy Products Federation (ADPF)	93
Australian Digital Inclusion Alliance (ADIA)	58
Australian Education Union Federal Office (AEU Federal)	51
Australian Industry Group (Ai Group)	66

Participants	qr no.
Australian Information Industry Association (AIIA)	74
Australian Institute for Teaching and School Leadership Limited (AITSL)	55
Australian Logistics Council (ALC)	86
Australian Trucking Association (ATA)	39
Ben Adamson	2
Broadband Today Alliance Inc Trading as Australian Smart Communities Association (ASCA)	34
Brotherhood of St. Laurence	71
Cameron McDonald	64
Centre for Community Child Health (CCCH), Murdoch Children's Research Institute	45
Chartered Accountants Australia and New Zealand (CA ANZ)	56
Clean Energy Council	20
Community and Public Sector Union (PSU Group)	52
CPA Australia	68
Deakin University	40
Education Services Australia (ESA)	67
Electrical Trades Union of Australia (ETU)	89
Engineers Australia	87
Grant Sciberras	78
GW Priddle Pty Ltd	17
Heavy Vehicle Industry Australia (HVIA)	47
Independent Education Union of Australia (IEUA)	13
Independent Schools Australia (ISA)	80
Insurance Council of Australia (ICA)	49
Karen May	79
Keith Wilson	22
Kerry Brookes	4
Leah May Pappas	72
Leslie Loble	23
Lyndsay Connors and Jim McMorrow	42
Master Electricians Australia (MEA)	95
Microsoft	76
Mining and Automotive Skills Alliance Ltd (AUSMASA)	75
Montu Group Pty Ltd	59
Mortgage and Finance Association of Australia (MFAA)	63
Municipal Association of Victoria (MAV)	50

Participants	qr no.
MYSKILLSmanager, The Business Builder, Peter Brown Plumbing Services (MySKILLS manager)	83
National Catholic Education Commission (NCEC)	29
National Disability Services (NDS)	77
National Growth Areas Alliance (NGAA)	73
Paul Butler	35
Professor Leanne Wiseman	14
Property Council of Australia	91
Rachel Wilson	19
Real Estate Institute of Australia (REIA)	24
Regional Universities Network (RUN)	57
RMIT University's Policy, Strategy and Impact Group	61
Rosie Hodson	84
Schools Copyright Advisory Group (CAG Schools)	60
Skills Insight Jobs and Skills Council (Skills Insight JSC)	38
Speech Pathology Australia	82
TAFE Copyright Advisory Group (CAG TAFE)	65
TAFE SA	70
Teach For Australia	31
Teachers and Teaching Research Centre - The University of Newcastle	88
The Front Project	44
The Tech Council of Australia (TCA)	92
The University of Melbourne	54
The University of Sydney	46
Universities Admissions Centre (NSW & ACT) Pty Ltd (UAC)	90
Universities Australia (UA)	94
University of Newcastle	69
Vicki Winfield	12
Working with Women Alliance (WwWA), Australian Multicultural Women's Alliance (AMWA)	43
XBase Pty Ltd	28
Youth Law Australia (YLA)	5
Anonymous	1
Anonymous	3
Anonymous	6
Anonymous	7
Anonymous	8

Participants	qr no.
Anonymous	9
Anonymous	10
Anonymous	11
Anonymous	15
Anonymous	18
Anonymous	21
Anonymous	27
Anonymous	30
Anonymous	32
Anonymous	36
Anonymous	37
Anonymous	48
Anonymous	62
Anonymous	85

Table A.3 – Submissions

Participants	Sub no.
Advocating for Children with Disability (ACD)	5
Amazon AU	31
Australasian Institute of Mining and Metallurgy (AusIMM)	2
Australian Academy of Science (AAS)	35
Australian Academy of Technological Sciences & Engineering (ATSE)	15
Australian Chamber of Commerce and Industry (ACCI)	20
Australian Council of Social Service (ACOSS)	25
Australian Council of Trade Unions (ACTU)	30
Australian Information Industry Association (AIIA)	6
Australian Institute of Company Directors (AICD)	19
Australian Retailers Association and National Retail Association	22
Australian Technology Network of Universities (ATN)	26
Business Council of Australia (BCA)	17
Chamber of Commerce and Industry Western Australia (CCIWA)	24
Civil Contractors Federation Australia Ltd (CCF)	11
Coca-Cola System	18
Commonwealth Bank of Australia (CBA)	33
Confio Pty Limited	36

Participants	Sub no.
Council of Small Business Organisations Australia (COSBOA)	29
Dementia Australia	3
Group of Eight Australia (Go8)	34
Heavy Vehicle Industry Australia (HVIA)	8
HumanAbility	4
Independent Higher Education Australia (IHEA)	23
Institute of Public Accountants (IPA)	13
John Seddon	1
Lite n Easy	7
Master Builders Australia	32
National Aboriginal Community Controlled Health Organisation (NACCHO)	37
National Electrical and Communications Association (NECA)	14
NewDirection Care	21
NSW Farmers	10
ReadyTech	27
Regional Australia Institute (RAI)	16
The Pharmacy Guild of Australia	28
Universities Admissions Centre (NSW & ACT) Pty Ltd (UAC)	12
Woolworths Group	9

B. Occupational entry regulations – case studies

Relaxing overly stringent occupational entry regulations (OERs), while maintaining safety and quality standards, can lead to economic benefits (chapter 3). This appendix provides some background and rationale for considering reductions in OER for certain occupations, as proposed in draft recommendation 3.1 (section B.1). This appendix also outlines several instances in which OERs are currently being reviewed, such as initiatives to redesign qualification pathways to improve consumer access to services (section B.2).

B.1 Overly stringent occupational entry regulations

In addition to motor vehicle repairers (covered in chapter 3), we have identified several other occupations where OERs are higher than necessary and could be reduced.

Mandatory qualifications for hairdressers

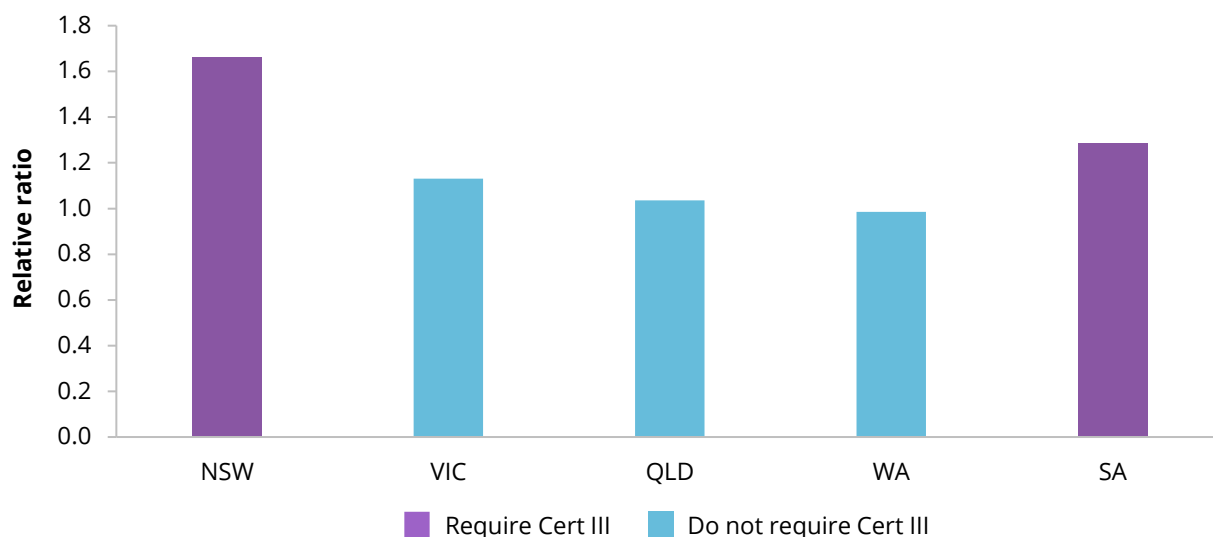
Hairdressing regulation often falls under jurisdictional public health regulation and is generally considered to be low risk (WA DoH 2024b). New South Wales and South Australia are the only Australian jurisdictions that require a Certificate III to work as a hairdresser (LCA 2025, p. 5). A 2016 discussion paper released as part of a NSW Government review noted that the NSW hairdresser qualification requirements impose additional regulatory burden without significant benefits (NSW Business Chamber 2016, p. 21).

The requirement to obtain a Certificate III may dissuade potential hairdressers from entering the profession,¹³ reducing choice for consumers. Many students may still study a Certificate III, however this requirement can pose a significant barrier for migrants who already possess the skills and whose overseas qualification or experience may not be recognised by local authorities. A Certificate III can cost between \$13,000 and \$28,000 and take between 12 and 34 months to complete (NSW PEC 2024, p. 10; tafeSA nd).

Productivity Commission analysis using 2021 Census data suggests that New South Wales and South Australia have fewer hairdressers who are born overseas than other states, relative to migrant representation in the general population (figure B.1).

¹³ While enforcement of hairdressing qualifications may be limited (Bradshaw 2021, p. 1), the existence of the legislation may still affect behaviour.

Figure B.1 – States requiring a Certificate III have a relatively higher prevalence of hairdressers who are born in Australia^a



a. The relative ratio compares the foreign-born to Australian-born population of workers, in relation to the ratio of foreign-born hairdressers to Australian-born hairdressers. A higher value means hairdressers born overseas are relatively less prevalent in the state. Tasmania, Northern Territory, and the Australian Capital Territory are excluded from the table due to small population sizes and different demographic and economic compositions.

Source: PC analysis of ABS Census (2021a) – Persons, Place of usual residence.

The hairdressing industry has stated that removing regulations would compromise client safety (Campitelli as cited in Select Committee on Red Tape 2018, p. 9) and reduce quality (Ryan 2010), however there is limited evidence to support this. Others have stated that deregulation would result in unqualified hairdressers undercutting salons (Peta 2018), however competition leading to lower consumer prices can be a desirable outcome.

Other forms of regulation can mitigate safety risks without restricting access to the profession. Western Australia introduced best practice industry guidelines (WA DoH 2016, p. 2, 2024a, p. 7). The WA Department of Health (2016, p. 1) also noted that hairdressing is highly competitive with strong incentives for businesses to adhere to hygiene practices. Further, online reviews have made public feedback more accessible, so poor quality hairdressers are more likely to receive negative reviews and experience fewer new and returning customers. More broadly, hairdressing services are covered by Australian Consumer Law (Australian Retailers Association and National Retail Association, qr. 22, p. 5; NSW Fair Trading 2024), which covers refunds, consumer guarantees, and unsafe and defective products (DFSI 2016, p. 6).

Given the existence of less intrusive forms of regulation and the costs it imposes on hairdressers, New South Wales and South Australian governments should consider ways to remove the requirement for hairdressers to obtain a Certificate III and adopt industry guidelines to promote best practice.

Regulation of painters and decorators

Painting and decorating involves applying coatings such as paint, wallpaper and frescos to interior and exterior surfaces. OERs for painters and decorators differ across Australian jurisdictions. The most restrictive regulation is in South Australia, which requires all building work (including painting work) contractors to be licensed (SA Government 2024, Building Work Contractors Regulations 2011 (SA)). New South Wales, Victoria, Queensland and Western Australia apply licensing requirements only to larger painting jobs (with

value thresholds across these states ranging from \$1,000 to \$5,000 and some states not requiring licensing for standalone contracts that only cover paintwork) (BPC 2025; NSW Building Commission 2024b; QBCC 2021b, 2021a; WA Government 2024). Tasmania, the Australian Capital Territory and the Northern Territory do not have OERs for painters.

One rationale for licensing is the benefit to consumers in reducing poor quality workmanship (Wurm 2012, p. 9). However, the risks of a bad paint job are typically cosmetic, and problems can be rectified through the Australian Consumer Law, with remedies such as fixing damage, cancelling contracts and refunds (CAV 2023b). Building trust in, and professionalisation of, the industry is another potential reason for licensing (Wurm 2012, p. 10). However US research found that prices and reputation are the primary factors influencing decisions to hire a home improvement service professional, and less than 1% of respondents included licensing among their top three factors (Farronato et al. 2024, p. 565).

Painters themselves can face safety risks – for example through exposure to chemicals, lifting and falls from heights. The PC's analysis of Safe Work Australia data does not suggest a strong relationship between jurisdictions with more stringent licensing and the relative frequency of serious workers' compensation claims for painters. The three states with the highest frequency of serious claims per million hours worked (Queensland (11.5), South Australia (9.6) and Western Australia (8.4)) also have relatively stringent rules for when painting licensing applies.¹⁴ However, the industry operates in a broader regulatory environment that also differs between jurisdictions and this could affect these outcomes.

Codes of practice help promote safe working conditions under work health and safety legislation. Safe Work Australia provides model codes of practice on topics such as managing the risk of falls, which state and territory jurisdictions can adapt (SafeWork NSW nd; SWA 2016).

Overall, general legislation and codes of practice should be able to be relied on to safeguard against risks associated with painting. There is scope to reduce regulation of painters in the states and territories that impose licensing – for example: to remove the need for licensing of standalone paint jobs in jurisdictions where this currently is not the case; to increase the value threshold before licensing applies; or to remove licensing altogether.

Entry pathways for air conditioning and refrigeration mechanics

Entry pathways for air conditioning and refrigeration (AC&R) mechanics vary substantially by jurisdiction. In New South Wales a Certificate III in Air Conditioning and Refrigeration is required (NSW Building Commission 2024a), however Victoria employs a competency based approach with certificate IV, diploma and advanced diploma qualification options (NSW PEC 2024, p. 10). In Queensland, it appears some AC&R services are being performed by related trades, such as plumbers and electricians, with no evidence of poorer quality or riskier work provided (PC 2023a, p. 74).

AC&R mechanics have recently joined the automatic mutual recognition scheme in New South Wales (NSW Building Commission 2025) suggesting that qualifications in other jurisdictions provide suitable worker and consumer protection.

¹⁴ Unpublished workers' compensation claims data from the National Data Set for Compensation-based Statistics, Safe Work Australia, for Australian and New Zealand Standard Classification of Occupations (ANZSCO) unit group 3322 (painters). 'Serious' claims are accepted workers' compensation claims that have resulted in one or more working weeks lost. Frequency is per million hours worked. Unweighted average of the following five-year periods: 2008-09 to 2012-13, 2013-14 to 2017-18 and 2018-19 to 2022-23. 2022-23 data is preliminary.

Previous research into AC&R mechanics in Australia found that concerns about unsafe outcomes were not strongly supported by evidence (PC 2023a, p. 70). Analysis undertaken for this inquiry found that the frequency of serious workers' compensation claims per million hours worked in New South Wales (8.3) is comparable to Queensland (8.8) and higher than Victoria (5.2).¹⁵

Overall, New South Wales should consider expanding entry pathways for AC&R mechanics given the absence of quality or safety benefits from a more restrictive regime.

Introduction agents have outlasted their need for licensing

Victoria and Queensland impose restrictions on introduction agents – people or companies offering personal introduction or matchmaking services for those looking for potential partners or companions for social activities (CAV 2023a; Queensland Government 2024). Regulation was introduced more than two decades ago in response to unfair practices such as non-existent services and money extortion (Dixon 2001, p. 3). At the time, non-legislative approaches, such as self-regulation, voluntary codes and consumer information, were not seen as able to improve standards (Introduction Agents Bill 1997 Explanatory Memorandum (VIC), p. 1; Introduction Agents Bill 2001 Explanatory Notes (Qld), pp. 1–2).

Since legislation was introduced, the industry has changed substantially with the emergence of online dating apps such that there are now far fewer introduction agents – down in Queensland from at least 76 in 2001 (Dixon 2001, p. 2) to 14 as of May 2025.¹⁶ All other jurisdictions rely on standard consumer protection laws to address any issues in the industry. Further, with consumer information on scams such as catfishing more readily available in the digital era, people are now likely more aware of the risks of introduction services than they were in the past.

Given the cost of regulating a small number of entities and the limited ongoing benefits, Victoria and Queensland governments should consider removing OERs for introduction agents and relying on consumer protection laws.

B.2 Qualification requirements are being reviewed for some occupations

Redesigning qualification pathways for psychologists

General registration as a psychologist in Australia requires a four-year undergraduate degree, plus a two-year masters degree or a one-year masters and a one-year internship (PsyBA 2016, p. 2). Additional study and supervised training are required for area of practice endorsement, such as for clinical psychology. Unlike other health professions, there is no one single, short practical course of study to qualify as a registered psychologist, making the psychology training pathways out of step with other health professions (PsyBA Chair (Rachel Phillips), pers. comm., 29 July 2025). Unsurprisingly, there is a shortage of psychologists in all Australian jurisdictions, except New South Wales (JSA 2024f).

The Psychology Board of Australia (PsyBA) has been asked by the Department of Health, Disability and Ageing to investigate options to redesign the training pathway to registration as a psychologist

¹⁵ Estimates for ANZSCO unit group 3421 (airconditioning and refrigeration mechanics). See previous footnote for details.

¹⁶ Data based on Queensland licence register for regulated introduction agents (Queensland Government 2025).

(PsyBA 2025a, 2025b). The review is intended to address training complexity and workforce shortages while maintaining quality standards. The review will examine:

- options for the design of a single, shorter and more practical qualification for eligibility for general registration
- standardisation of pathways to improve equity and access for those pursuing general registration
- industry demand for psychologists across sectors, including possible demand for assistant psychologists.

To become a psychologist, students need to enter and graduate from three degree programs (bachelors, honours, masters) and undertake several unaccredited units of study (such as arts or science subjects) on their journey to general registration because undergraduate psychology sequences are approved by subject, rather than by qualification (PsyBA Chair (Rachel Phillips), pers. comm., 29 July 2025). Moreover, funding arrangements mean that there are more bachelor graduates seeking entry into masters programs than there are available places, creating a bottleneck in supply (Melville 2023).

Reducing qualification requirements and the costs associated with long, rigid entry pathways will improve access to psychological services in the community while improving productivity. While training is essential to ensure that psychologists have the appropriate skills, there is scope to shorten the time it takes to gain these skills. A better designed training package may provide an equivalent level of competence at lower cost.

Reforming qualification requirements for financial advisers

OER requirements for financial advisers were increased in 2019 following numerous cases of inappropriate financial advice and concerns about the quality and consistency of training standards in the industry (Corporations Amendment (Professional Standards of Financial Advisers) Bill 2016, p. 5). This included requiring financial advisers to hold a degree or higher qualification focused on financial advice, pass an exam, undertake a professional year, undertake continuous professional development and comply with a code of ethics. The changes sought to improve consumer outcomes and restore confidence in the profession. However, the changes also reduced the number of potential entrants who were previously able to enter (Deakin University, qr. 40, p. 7). From 2019 to 2025, the number of advisers fell from 28,000 to fewer than 16,000 (Assistant Treasurer and Minister for Financial Services 2025) which has reduced the public's access to affordable financial advice (CPA Australia, qr. 68, p. 4; The Treasury 2022, pp. 17, 70).

In response the Australian Government is reforming entry pathways to ensure Australians have access to high quality, accessible and affordable financial advice (The Treasury 2022, 2025). Proposed changes to the education standard include removing the requirement to hold an approved qualification focused on financial advice. This will be replaced with a requirement to hold a bachelor degree or higher in any discipline, complete minimum relevant study in areas such as finance, economics or accounting, and complete prescribed accredited financial advice subjects such as in ethics, law and regulatory obligations and the financial advice process. This is expected to halve the study time and lower the cost to meet the education standard for most students studying a commerce, economics or finance degree (The Treasury 2025, p. 1). The remaining professional standards will continue to support the overall development of financial advisers.

The Australian Government is also seeking to introduce a new class of financial adviser that can provide safe and simple advice with a reduced qualification requirement and be restricted to providing advice on a narrower set of products and topics compared to a professional adviser (The Treasury 2025, p. 2).

These reforms should ensure that consumers are protected whilst entry requirements are not unnecessary burdensome. This can be achieved by ensuring alternatives to OERs are considered and restrictions are proportionate to risk. If combined with other forms of robust regulation of the industry, these reforms should ensure that consumers are protected whilst entry requirements are not unnecessary burdensome.

Abbreviations

ABS	Australian Bureau of Statistics
AC&R	Air conditioning and refrigeration
ACARA	Australian Curriculum, Assessment Reporting Authority
ACER	Australian Council for Education Research
AERO	Australian Education Research Organisation
AI	Artificial intelligence
AIATSIS	Australian Institute of Aboriginal and Torres Strait Islander Studies
AITSL	Australian Institute for Teaching and School Leadership
AMR	Automatic Mutual Recognition
ANZSCO	Australian and New Zealand Standard Classification of Occupations
AQF	Australian Qualifications Framework
ATEC	Australian Tertiary Education Commission
BFSA	Better Fairer Schools Agreement
BPC	Victorian Building and Plumbing Commission
CALD	Culturally and linguistically diverse
CGE	Computable General Equilibrium
ECTS	European Credit Transfer and Accumulation System
edtech	Educational technology
EHEA	European Higher Education Area
ESA	Education Services Australia
ESCO	European Skills, Competences, Qualifications and Occupations
EU	European Union
F–10	Foundation to Year 10
GDP	Gross Domestic Product
GenAI	Generative artificial intelligence
JSA	Jobs and Skills Australia
MiM	Mastery in Mathematics
NAPLAN	National Assessment Program – Literacy and Numeracy
NCP	National Competition Policy
NMBA	Nursing and Midwifery Board of Australia
OECD	Organisation for Economic Co-operation and Development

OER	Occupational entry regulation
PBA	Psychology Board of Australia
PC	Productivity Commission
PLA	Prior Learning Assessment
qr	Questionnaire response
R&D	Research and development
RBA	Reserve Bank of Australia
RPL	Recognition of prior learning
SME	Small and medium enterprise
ST4S	Safer Technologies For Schools
US	United States
VET	Vocational Education and Training

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