PARLIAMENT OF VICTORIA

LEGISLATIVE ASSEMBLY
Economy and Infrastructure Committee

Inquiry into Victorian universities' investment in skills

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About the Committee

Functions

The Economy and Infrastructure Standing Committee is established under the Legislative Assembly Standing Orders Chapter 24—Committees.

The Committee's functions are to inquire into and report on any proposal, matter or thing connected with the following departments and their related agencies:

- Department of Education and Training

- Department of Jobs, Precincts and Regions

- Department of Transport

- Department of Treasury and Finance.

Secretariat

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This report is available on the Committee's website.

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Terms of reference

Inquiry into Victorian universities' investment in skills

On 8 March 2022, the Legislative Assembly agreed to the following motion:

That this House refers an inquiry into how Victorian universities can play a greater role in directing their own investment to support the pipeline of skilled workers needed for government priorities to ensure a growing economy to the Economy and Infrastructure Standing Committee for consideration and report no later than 1 September 2022 and the Committee should consider:

1. future skills;

2. working towards a clean economy; and

3. regional skills analysis in health, agriculture and community services.

Chair's foreword

The university sector can play a pivotal role in solidifying the future of Victoria's skilled workforce in priority employment areas. Universities' potential to produce graduates with the skills required by industry is currently untapped. Throughout this Inquiry, the Committee learnt about several ways to strengthen the contribution of universities to alleviate skill shortages in priority industries.

Many professions in priority employment sectors, like community services, health, engineering, the clean economy and agriculture, require university-educated graduates. Universities must ensure that graduates have the necessary skills and confidence to alleviate skill shortages. A more systemic and comprehensive work-integrated learning framework can enhance the ability of students to acquire the skills and aptitudes required by industry.

Promoting the job-readiness of graduates can be further boosted by co-designing course curricula with industry experts. Career counselling and guidance that is embedded in university courses can also promote job-readiness. Additionally, universities can improve the promotion of priority skills courses, beginning in secondary schools, and support enrolments from marginalised student groups to increase the workforce diversity of in-demand sectors.

The importance of partnerships, collaboration and engagement between governments, universities, vocational education providers, industry and local communities cannot be understated. Capitalising on these relationships can ensure better outcomes for university graduates and the sectors they are subsequently employed in. The Committee believes the Victorian Government should more actively facilitate working relationships to create a holistic and efficient tertiary education system that meets the strategic objectives of governments and industry.

As a Committee composed predominately of regional Members of Parliament, regional and rural tertiary education providers and skill shortages were a key focus of the Inquiry, with recommendations in this regard spanning the report. This includes improving student work placements in regional areas, responding to skill demands in regional economies by developing innovative upskilling opportunities and supporting regional students to enrol in priority skill courses.

Universities should also use their expertise as world-leading educators to create microcredential courses and innovative training solutions to upskill the existing workforce. Upskilling and reskilling Victoria's current workforce will be important as employees transition to new and emerging industries, or need to keep up to date with technological change.

Universities' expertise and research capabilities can further benefit the Victorian Government and industry in forecasting future skill needs and contributing to workforce planning initiatives in priority employment sectors. Similarly, universities can use

the data and insights produced by the Victorian Government and industry to ensure courses are current and cutting-edge.

The Committee heard frequently about Commonwealth Government reforms to the funding of universities with the purported intent of increasing enrolments in priority sectors. The reality is that the funding reforms constrain the ability of Victorian universities to address skill shortages by providing high-quality education in priority employment areas. The Committee recognises a need for the Victorian Government and universities to work together to advocate for reform at a national level using an evidence-informed approach.

On behalf of the Committee, I thank the universities, industry groups, government bodies, education providers and individuals who wrote submissions and attended public hearings. The Committee greatly appreciates the time and effort that stakeholders made to inform the findings and recommendations of the report.

I also thank my fellow Committee Members, in particular the Deputy Chair, Mr Gary Blackwood MP, for their valuable contributions to the Inquiry. On behalf of the Committee, I extend our gratitude to the Secretariat for their hard work and support.

Hon John Eren MP
Chair

Executive summary

Chapter 1: Introduction

The Committee received 26 submissions and conducted three days of online public hearings to consider how Victorian universities can contribute to the pipeline of skilled workers in priority employment sectors. Victoria has six universities and four dual-sector universities. They are an essential element of the tertiary education system and are governed and financed by both the Commonwealth and Victorian Governments.

Victoria is facing a shortage of skilled workers in several sectors, including healthcare, community services, engineering, teaching, digital and technology, construction and agriculture. University-level education will be required for many professionals in these sectors. Skills shortages are due to a range of factors, including low enrolments in courses relevant to priority employment areas, university graduates not possessing the skills required by industry and COVID-19. Several Commonwealth and Victorian Government policies and plans aim to respond to skills shortages, including the National Microcredentials Framework and the Victorian Skills Plan.

Chapter 2: Enhancing university collaboration with industry

Partnerships between universities and industry can be enhanced to improve outcomes for students, increase productivity and contribute to economic growth. Universities should also engage with industry when developing course content to ensure students graduate with the skills required by industry. Furthermore, work-integrated learning (WIL), like student placements and internships, can enhance graduate outcomes and work readiness. It also benefits industry by increasing workforce retention, increasing productivity and lessening the effects of skill shortages.

There are several ways the Victorian Government can improve WIL outcomes and address barriers to creating WIL opportunities to increase its success. This includes encouraging and supporting industry and businesses to host student placements; developing a collaborative approach and WIL guidance framework; supporting new and innovative WIL opportunities; expanding WIL in the public sector; increasing the participation of disadvantaged student groups in WIL; and increasing the availability of WIL opportunities in regional areas or where it is a mandatory component of a course.

Chapter 3: Collaboration with vocational education providers and industry

Better collaboration between universities, Technical and Further Education (TAFE) institutes and local communities can alleviate skill shortages, streamline responses to local skill demands, allow students to move between vocational and higher education more easily, and improve the work readiness of students. This collaboration should be coherent, holistic and structured to create a more inter-connected and comprehensive tertiary education system. Current barriers to systematic collaboration include the disjointed nature of the tertiary system, bureaucratic nature of universities and division between applied and theoretical learning approaches. The Victorian Government can better facilitate collaboration and learning pathways between universities and TAFEs.

Universities should also work in partnership with local communities to ensure that measures to increase workforce participation and address local skill shortages are fit-for-purpose, particularly in regional areas. The Committee learnt about multiple programs that engage local communities to develop particular skills and respond to workforce needs, but the Victorian Government can strengthen engagement between education providers, industry and local communities to ensure inputs and outcomes are aligned.

Chapter 4: Learning support and skills planning in priority employment areas

Universities can alleviate skill shortages with a long-term outlook by increasing enrolments in priority sector courses and student retention. Awareness-raising campaigns for the community, students and in secondary schools are an important element of this. Courses should include career planning and guidance so students can prepare for their careers by acquiring the skills needed by industry in priority sectors. Underrepresented groups, like regional, female or Aboriginal and Torres Strait Islander students, should also be encouraged to enrol in priority courses through targeted financial and social incentives.

The Commonwealth Government reformed university funding in 2021 which affected enrolments in priority skills areas, with some courses relevant to priority areas experiencing decreased enrolments and increased fees. The Victorian Government can collaborate with universities to advocate for change in the Commonwealth's upcoming review of the funding reforms.

Universities can help upskill and reskill the existing workforce to address workforce shortages, expand workforce capacity and prevent unemployment in transitioning industries (like the clean economy). Microcredentials are one means to upskill workers, and the Committee recognises more consistency is needed to regulate them. The Victorian Government should link with universities to address issues within the context of the Commonwealth Government's forthcoming National Microcredential Framework review. Universities can also develop innovative training solutions to meet the workforce

demands of industry and businesses in specific locations and sectors, using data and information gathered through consultation with key stakeholders. This is particularly pertinent in regional areas and outcomes should be evaluated. Universities are also key contributors to workforce development planning and forecasting to address skill shortages, and their expertise in this regard could be better leveraged by the Victorian Government.

Chapter 5: Conclusion

In Chapter 5, the Committee summarises the key themes of the Inquiry. This includes the centrality of partnerships and collaboration to ensure efforts to address workforce shortages and develop the future supply of skilled workers are not duplicated. Better partnerships and collaborations between the education sector (including universities and TAFEs), industry, government and community will ensure responses are tailored, effective and supported by the stakeholders required for success. Further, the benefits of WIL are evident and more can be done to ensure students and host organisations are supported to capitalise on work placement opportunities. In addition, the expertise of universities as leaders in implementing innovative and place-based training programs, as well their ability to help predict future labour market trends and shortages, should be recognised. Adequate funding for universities and information-sharing between key stakeholders are critical enablers of success.

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Findings

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23

FINDING 3: Work-integrated learning at university can enhance graduates' job-readiness by helping learners connect theoretical knowledge with real-life problems. It builds applied and workplace skills, easing the transition from university to the workplace.

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52

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4 Learning support and skills planning in priority employment areas

FINDING 24: Targeted financial incentives, marketing and awareness-raising campaigns, and career education in schools can attract students to study in priority skills areas. **61**

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FINDING 28: The National Microcredential Framework may create greater consistency in the regulation of microcredentials. However, issues relating to the speed of accrediting courses, the potential for course duplication and inconsistency, building industry and employee trust, developing courses in partnership with industry and universities, and the overall scope and scale of microcredentials, require further consideration. **74**

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FINDING 34: Data on workforce supply and demand in Victoria is not always adequate or sufficiently granular to inform workforce planning and forecasting. Data on the demand for skills and graduate outcomes must be transparently communicated between the Victorian Government, education sector and industry. **84**

Recommendations

2   Enhancing university collaboration with industry

RECOMMENDATION 1: The Victorian Government assist universities to enhance collaboration with industry, through a coordinated approach that recognises the needs of industry partners. **22**

RECOMMENDATION 2: The Victorian Government introduce incentives to encourage industry participation in work-integrated learning. **28**

RECOMMENDATION 3: The Victorian Government, through the Department of Education and Training and the Victorian Skills Authority, support the university sector to develop a collaborative network approach to implementing work-integrated learning. **28**

RECOMMENDATION 4: The Victorian Government, with the university sector and industry, explore possibilities for the centralised management of work-integrated learning opportunities, including establishing an online platform to meet work placement demand and supply. **28**

RECOMMENDATION 5: The Victorian Government support Victorian universities, industry peak bodies and other professional bodies to develop a work-integrated learning guidance framework. The framework should aim to encourage greater industry participation through standardisation and ensure students can maximise their learning experiences.   29

RECOMMENDATION 6: As part of the work-integrated learning (WIL) guidance framework (Recommendation 5), the Victorian Government aim to assist universities to address the barriers preventing disadvantaged and underrepresented students from participating in WIL. It should include raising awareness of the benefits of WIL for both industry and students and encouraging greater participation.   31

RECOMMENDATION 7: The Victorian Government, through the Department of Education and Training and the Victorian Skills Authority, support universities and industry to explore new and flexible models of work-integrated learning to increase opportunities.   32

RECOMMENDATION 8: The Victorian Government consider expanding work-integrated learning and other work experience in the public sector and for publicly funded projects.   32

RECOMMENDATION 9: The Victorian Government work with universities and professional bodies to develop tailored strategies to capacitate and support host organisations and supervisors to undertake mandatory student placements, including through providing professional incentives and greater supervisor training.   34

RECOMMENDATION 10: The Victorian Government, through the Department of Education and Training, review the effectiveness of the 2021 memorandum of understanding with universities to increase the number of pre-teacher placements at Victoria's public schools.   34

RECOMMENDATION 11: The Victorian Government, through the Department of Education and Training, work with the Victoria Institute of Teaching to raise awareness among the university sector, teachers and schools that supervision and mentoring of pre-service teachers can count towards the professional development hours required for teachers' annual registration.   35

RECOMMENDATION 12: The Victorian Government consider fees and funding arrangements in its forthcoming review of clinical student placements to balance training costs to healthcare providers with ensuring a pipeline of skilled workers in healthcare occupations.

36

RECOMMENDATION 13: The Victorian Government actively consult with relevant stakeholders, including universities, to address the limited availability of clinical placements and make the findings of its forthcoming clinical student placement review publicly available.

36

RECOMMENDATION 14: The Victorian Government undertake a review of mandatory student placements in education and community services sectors to enhance the number and quality of placements.

36

RECOMMENDATION 15: The Victorian Government consider ways to expand the availability and uptake of regional placements in priority areas, in conjunction with Recommendations 6 and 7, to explore new and flexible models of work-integrated learning.

37

RECOMMENDATION 16: The Victorian Government fund financial and social support for students undertaking rural and regional placements in priority employment areas.

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RECOMMENDATION 17: The Victorian Government investigate ways to support host organisations in regional and rural Victoria to enable them to offer placements to university students in priority employment areas.

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3   Collaboration with vocational education providers and local communities

RECOMMENDATION 18: The Victorian Government assist universities, including dual-sector universities, and TAFEs to develop hybrid or dual qualifications in priority subject areas where integrated qualifications would be of practical benefit for the employability of graduates.

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RECOMMENDATION 19: The Victorian Government, through the Department of Education and Training's Office of TAFE Coordination and Delivery and the Victorian Skills Authority, take a lead role to facilitate the structured collaboration of TAFEs and universities to improve learning pathways for students.

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RECOMMENDATION 20: The Victorian Government fund opportunities that promote strengthened partnerships between universities and TAFEs. Such opportunities may also require consideration of Commonwealth Government funding arrangements.   **52**

RECOMMENDATION 21: The Victorian Government promote public information on learning pathways through universities and TAFEs.   **52**

RECOMMENDATION 22: The Victorian Government implement policies to support university and TAFE models for collaborative education hubs or shared services where appropriate.   **53**

RECOMMENDATION 23: The Victorian Government support universities to work with regional partners on place-based skills solutions and workforce planning strategies. This collaboration should include stakeholders such as local governments, industry partners and TAFEs. Such work should leverage the Victorian Skills Authority's Regional Skills Demand Profiles and other relevant initiatives.   **57**

4 Learning support and skills planning in priority employment areas

RECOMMENDATION 24: The Victorian Government work with universities and industry to undertake tailored initiatives that encourage enrolments in priority skills areas, including marketing campaigns, financial incentives and career education in schools.   **61**

RECOMMENDATION 25: The Victorian Government collaborate with universities to provide adequate funding for tailored programs and learning options that encourage under-represented groups to enrol in education pathways in priority skills areas.   **64**

RECOMMENDATION 26: The Victorian Government and universities collaborate and use evidence on enrolments to advocate for change and increased funding by the Commonwealth Government in its upcoming review of the Job-ready Graduates program.   **69**

RECOMMENDATION 27: The Victorian Government collaborate with the education sector and the Commonwealth Government to address identified issues with microcredentials in the Commonwealth Government's upcoming National Microcredential Framework review.   **75**

RECOMMENDATION 28: The Victorian Government support and fund universities to provide skilling pathways and programs in priority areas that are coherent, tailored, adequately funded and evaluated. **78**

RECOMMENDATION 29: The Victorian Government expand programs that support overseas-trained professionals to work in priority skills areas. **79**

RECOMMENDATION 30: The Victorian Government enhance collaboration with the university sector when producing workforce development plans and when the Victorian Skills Authority develops its annual and regional skills plans. **83**

RECOMMENDATION 31: The Victorian Government facilitate high-quality and timely data collection on labour market information, such as the demand for and supply of skills, and improve data sharing between the Victorian Government, education sector and industry. **84**

Acronyms

AASW	Australian Association of Social Workers
ABS	Australian Bureau of Statistics
ACU	Australian Catholic University
AQF	Australian Qualifications Framework
CSPs	Commonwealth Supported Places
DET	Department of Education and Training, Victoria
HE	Higher education
ICT	Information and communications technology
JRG	Job-ready Graduates Package
NSC	National Skills Commission
NZQA	New Zealand Qualifications Authority
OECD	Organisation for Economic Cooperation and Development
OTCD	Office of TAFE Coordination and Delivery
RRR	Regional, rural and remote
SPL	Skills Priority List
STEM	Science, technology, engineering, and maths
TAFE	Technical and Further Education
VE	Vocational education
VET	Vocational education and training
VHA	Victorian Healthcare Association
VIT	Victorian Institute of Teaching
VSA	Victorian Skills Authority
VSP	Victorian Skills Plan
VTHC	Victorian Trades Hall Council
WIL	Work-integrated learning
WSSF	Workforce Skills Set Fund
WTIF	Workforce Training Innovation Fund

Tables, figures and case studies

1 Introduction

On 8 March 2022, the Legislative Assembly's Economy and Infrastructure Committee received terms of reference to conduct an Inquiry into how Victorian universities can play a greater role to support the pipeline of skilled workers in government priority areas. In relation to skills, the Legislative Assembly asked the Committee to consider future demand in developing a clean economy and regional need in health, agriculture and community services.

Over the next three years, university-qualified workers will make up around half of Victoria's employment growth.[1] Labour market demand suggests that universities play a crucial role in developing the skilled workforce. Stronger collaboration between universities and industry, local communities and vocational education and training (VET) providers will contribute to the better alignment of learning outcomes with industry and community skills demands.

Skill imbalances (a term used by the Committee to cover both shortages and gaps) in priority employment areas, such as healthcare, engineering and teaching, have been exacerbated by the impact of COVID-19. In this report, the Committee makes recommendations to improve collaboration between universities, VET providers, industry and local communities to address skill imbalances.

1.1 Skill imbalances in priority sectors

This section explores Victoria's skill shortages, as the state is facing both growing demand and opportunities for skilled workers in the digital economy, clean economy, care economy, and advanced manufacturing, construction and infrastructure sectors.[2] Economic opportunities also lie in cloud technology, software development, financial technology, data analytics, health technologies, biotechnology, engineering, food and agriculture, and cleantech services.[3]

The implementation of policies on early childhood education, public infrastructure, mental health and the National Disability Insurance Scheme will increase demand in teaching, engineering and healthcare occupations.[4] Demographic shifts, including an ageing population and disease pattern changes, have led to sustained and escalated demand for healthcare workers.[5] Workforce modelling for regional Victoria estimates

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1   Craig Robertson, Chief Executive Officer, Victorian Skills Authority, public hearing, Melbourne, 14 June 2022, *Transcript of evidence*, p. 12.

2   Jenny Macklin, *Future Skills for Victoria: driving collaboration and innovation in post-secondary education and training, final report of the skills for Victoria's growing economy review*, report for the Victorian Government, Melbourne, 2020, pp. 35–36.

3   Ibid.; Department of Education and Training and Victorian Skills Authority, *Submission 23*, received 16 May 2022, pp. 3–4.

4   Department of Education and Training and Victorian Skills Authority, *Submission 23*, p. 3; Monash University, *Submission 21*, received 16 May 2022, p. 5.

5   Victorian Healthcare Association, *Submission 4, Attachment 1*, received 4 May 2022, p. 5.

the health and social workforce needs to increase by 12.7% to fill an additional 14,600 jobs by 2025.[6]

The Victorian Skills Authority (VSA) estimates that between 2022 and 2025, 50% of Victoria's labour market demand will be met by professional and management occupations, requiring higher education qualifications.[7] VSA explained that high-demand professional occupations include school teachers, early childhood teachers, software and applications programmers, and registered nurses.[8] In-demand manager occupations include human resources, information and communications technology and specialist managers.[9]

According to the Department of Education and Training (DET), all sectors of Victoria's economy rely on university graduates.[10] Figure 1.1 highlights the current distribution of qualification levels across industries. University-qualified people make up a large proportion of several sectors, including professional, scientific and technical, education and training, and financial and insurance services.[11]

Figure 1.1   Education level by industry sector, 2016, Victoria
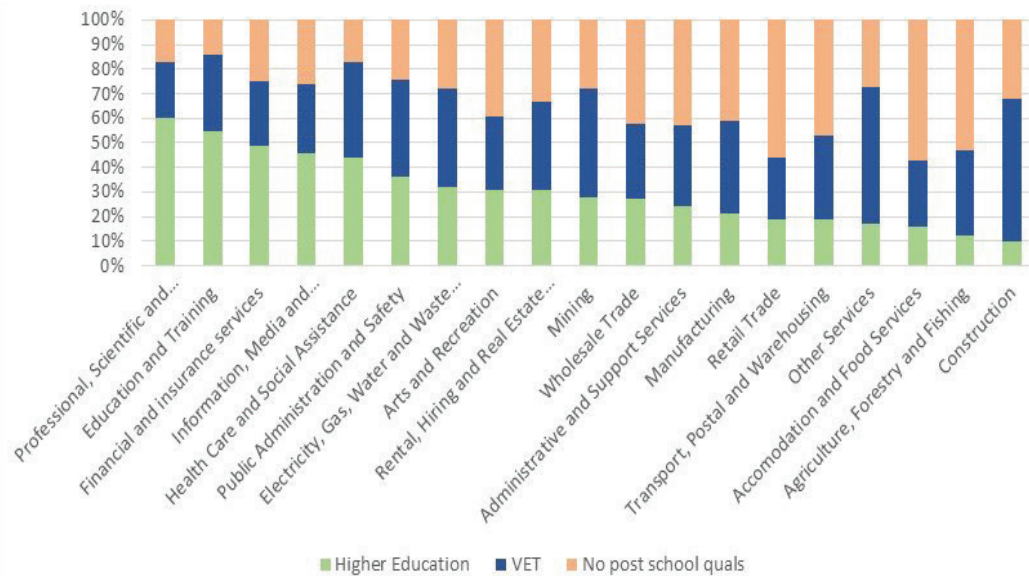
Source: Department of Education and Training and Victorian Skills Authority, *Submission 23*, received 16 May 2022, p. 15.

6   Ibid.

7   Craig Robertson, *Transcript of evidence*, p. 12.

8   Ibid.

9   Ibid.

10   Department of Education and Training and Victorian Skills Authority, *Submission 23*, p. 15.

11   Ibid.

Skill shortages in professional occupations

A skills shortage refers to a situation in which the supply of workers is not sufficient to meet employment demand, or in other words, the quantity of workers demanded exceeds the supply available.[12] Stakeholders often use the concept to identify a subset of skill imbalances in the labour market or as a general way to refer to skills shortages and mismatches. This Inquiry followed the approach taken by the Commonwealth National Skills Commission (NSC), which considers an occupation to be in shortage:

> when employers are unable to fill or have considerable difficulty filling vacancies for an occupation or cannot meet significant specialised skill needs within that occupation, at current levels of remuneration and conditions of employment, and in reasonably accessible locations.[13]

NSC's main measure of an occupational shortage is employers' ability to fill vacancies. However, NCS also considers other information, such as input from the Commonwealth Government, states and territories, and peak bodies.[14]

Victoria is currently experiencing a shortage of workers in occupations requiring higher education qualifications. NSC classifies shortages in terms of either strong or moderate future demand in the national Skills Priority List (SPL). NSC identified 57 occupations with a strong future demand.[15] For Victoria, these occupations include external and internal auditing, general and taxation accounting, various engineering disciplines including software, mining, petroleum, mechanical, aircraft maintenance and electrical, and agricultural consultancy and scientists. Nearly 70% of the occupations in shortage with strong future demand require university qualifications.[16] Of the 87 occupations in shortage with moderate future demand, 25 require university qualifications. These occupations include midwifery, geologist, geophysicist, physiotherapist, pre-primary school teacher, general practitioner and several medical specialisations.[17]

In August 2022, the Commonwealth Minister for Skills and Training indicated that the Commonwealth Government is considering ways to increase skilled migration to fill chronic labour shortages and recognise trades and qualifications of overseas-trained migrants.[18] The Minister noted that, according to the Organisation for Economic Cooperation and Development (OECD), Australia has the second highest labour shortage among OECD developed countries.[19] As a result, the Commonwealth

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12 National Centre for Vocational Education Research, *What is a skill shortage?*, report prepared by Sue Richardson, report for The Australian Government, states and territories, Australian Government, Adelaide, 2007, pp. 11–12.

13 National Skills Commission, *Skills priority list methodology*, (n.d.), <https://www.nationalskillscommission.gov.au/sites/default/files/2021-12/Skills%20Priority%20List%20Methodology_0.pdf> accessed 11 July 2022, p. 25.

14 Ibid., pp. 7, 17, 22.

15 National Skills Commission, *Skills priority list*, Australian Government, Canberra, June 2021, pp. 4–5.

16 Ibid.

17 Ibid., pp. 5–7.

18 Minister's Media Centre —Ministers of the Employment and Workplace Relations Portfolio, *Press Conference with the Hon Brendan O'Connor MP*, 14 August 2022, <https://ministers.dewr.gov.au/oconnor/press-conference-melbourne-0> accessed 16 August 2022.

19 Ibid.

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Government is considering 'areas of acute demand' where skilled migration increases might help to fill shortages, while also investing in the Australian workforce.[20] The Minister noted shortages across a variety of sectors including traditional trades, advanced manufacturing, retail, tourism, the technology industry, aged care and the healthcare sector.[21]

Stakeholders raised concerns about skills shortages in specific occupations. For example, Engineers Australia discussed shortages in the engineering profession:

> the skills shortage is the most pressing issue facing our profession, sharing [the] top spot with climate change, and of course the two are interrelated because we cannot act with the pace and scale required to get to net zero emissions and a circular economy in the timescales required without sufficient engineers.[22]

The Clean Energy Council also noted engineering shortages in the clean energy sector.[23] However, it suggested that shortages are not limited to this occupation as the sector employs a broad workforce:

> it is an entire ecosystem, an entire business, so we have a lot of engineers and specialised power systems engineers, but we also have experts across legal fields, finance fields and energy trading, environmental scientists, community liaison et cetera—so there are strengths and weaknesses. I think across Australia, this is not just in Victoria, we do have a shortage of those skills needed ...[24]

The Department of Health[25] and the Victorian Healthcare Association (VHA) also highlighted pressing workforce shortages in healthcare, with VHA stating:

> Feedback from extensive engagement with the sector by the VHA confirms workforce is a shared challenge and priority across the health system. State-led workforce surge policy and the clinical reserve programs have not been able to meet the demands of regional services.[26]

The Centre for Excellence in Child and Family Welfare echoed this concern, referring to workforce supply as the 'most pressing challenge facing the sector', particularly for regional and rural Victoria.[27]

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20 Ibid.

21 Anthony Galloway, 'Labor to bring in tens of thousands more migrants as it eyes bargain with union movement', *The Age*, 14 August 2022, <https://www.smh.com.au/politics/federal/labor-to-bring-in-tens-of-thousands-more-migrants-as-it-eyes-bargain-with-union-movement-20220812-p5b9hf.html> accessed 16 August 2022.

22 Jane MacMaster, Chief Engineer, Engineers Australia, public hearing, Melbourne, 16 June 2022, *Transcript of evidence*, p. 16.

23 Dr Anita Talberg, Director, Workforce Development Clean Energy Council, public hearing, Melbourne, 16 June 2022, *Transcript of evidence*, p. 21.

24 Ibid.

25 Louise McKinlay, Senior Executive Director, System Improvement, Department of Health, public hearing, Melbourne, 28 June 2022, *Transcript of evidence*, p. 23.

26 Victorian Healthcare Association, *Submission 4, Attachment 1*, p. 3.

27 Centre for Excellence in Child and Family Welfare, *Submission 9*, received 6 May 2022, p. 1.

Recruitment challenges

As a consequence of skills shortages, employers in Victoria continue to experience difficulties filling job vacancies, especially in regional and rural areas.[28] Over the three months to May 2022, Victoria's job vacancy rate increased by 18%.[29] The May quarter had the highest number of job vacancies in Victoria since 1983, at 120,100.[30] The Australian Bureau of Statistics (ABS) suggested these results reflect the quick recovery in labour demand after a fall in job vacancies in May 2020. ABS also indicated job vacancies could signal labour shortages and ongoing operational disruptions, as reported by businesses.[31]

Although data on Victorian job vacancies does not provide detailed information on specific occupations and industries, it does indicate the extent of recruitment challenges, with 27.3% of businesses reporting vacancies during the May quarter.[32] Nationally, job vacancies have been reported as high in human resource intense industries, such as healthcare and social assistance and professional, scientific and technical services.[33]

Stakeholders also presented anecdotal evidence of recruitment challenges within specific sectors in Victoria. For example, the Centre for Excellence in Child and Family Welfare stated:

> Our members frequently report difficulty in the staffing of programs right across Victoria and often find themselves in intense competition with other programs and services that are equally as important.[34]

The recruitment challenges and skill shortages identified above suggest that Victorian universities play a significant role in contributing to the pipeline of skilled workers needed for government priorities to ensure a growing economy. Universities can prepare graduates in priority sectors by equipping them with appropriate skills and prepare the existing workforce by reskilling and upskilling workers to transition to priority sectors or re-enter the workforce.[35]

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28 National Skills Commission, *Recruitment experiences and outlook survey: recruitment difficulty*, 19 July 2022, <https://labourmarketinsights.gov.au/our-research/recruitment-experiences-and-outlook-survey> accessed 25 July 2022; Craig Robertson, Chief Executive Officer, Victorian Skills Authority, *Inquiry into Victorian universities' investment in skills: the Victorian Skills Plan*, supplementary evidence received 10 June 2022, p. 13; Kim Houghton, *Regional labour market update June quarter 2022*, June 2022, <https://www.regionalaustralia.org.au/Web/Toolkits-Indexes/Regional-Jobs-Update/Updates/2022/Regional-Labour-Market-Update-June-Quarter-2022.aspx> accessed 4 August 2022.

29 Australian Bureau of Statistics, *Job Vacancies, Australia: change in job vacancies, states and territories*, 2022, <https://www.abs.gov.au/statistics/labour/jobs/job-vacancies-australia/latest-release> accessed 21 July 2022.

30 Australian Bureau of Statistics, *Job vacancies, Australia: states and territories*, 2022, <https://www.abs.gov.au/statistics/labour/jobs/job-vacancies-australia/latest-release> accessed 7 June 2022.

31 Ibid.

32 Australian Bureau of Statistics, *Job Vacancies, Australia: proportion of businesses reporting vacancies, states and territories*, 2022, <https://www.abs.gov.au/statistics/labour/jobs/job-vacancies-australia/may-2022#key-statistics> accessed 25 July 2022.

33 Australian Bureau of Statistics, *Job vacancies, Australia*.

34 Centre for Excellence in Child and Family Welfare, *Submission 9*, p. 2.

35 The University of Melbourne, *Submission 17*, received 13 May 2022, p. 4.

1.1.1   **Reasons for skill imbalances**

Several submissions to the Inquiry suggested that Victoria's shortage of skilled workers and skills gaps in priority areas are multifaceted. Skill imbalances may vary from one sector to another, and from metropolitan to regional areas. Low unemployment levels, as Victoria is currently experiencing, can contribute to skills shortages.[36] In June 2022, Victoria had a 3.2% unemployment rate and 67.1% employment participation ratio, compared to the 65.5% ten-year state average.[37] Victoria's unemployment rate was below the 3.5% national rate in June and under the 5.6% ten-year state average.[38]

Low enrolments in priority areas

Insufficient university enrolments and graduates in priority areas affects the pipeline of skilled workers. Stakeholders mentioned the need for more students in courses leading to careers in priority sectors. The University of Melbourne noted that this is the case for science, technology, engineering, and maths (STEM) courses:

> There is a large and looming challenge to develop the skills required to establish a clean economy and meet net-zero emissions by 2050. To meet those targets, Victoria will need a much greater number of people pursuing STEM and technical VET, including many more women.[39]

These concerns are consistent with research from the OECD, showing that in 2019 the percentage of engineering graduates in Australia was 8.2% of all university graduates, which was below the 14.2% OECD average.[40] World Bank data also confirmed that between 2013 and 2020, Australia recorded a smaller proportion of science and engineering graduates compared to the global median and the percentage of Canadian and New Zealand graduates.[41]

Along with low enrolments and graduates in these key areas, long lead times to enter and practice competently in specific professions can create additional pressures on the supply of skilled workers. Long lead times necessitate adequate skills forecasting and workforce planning, as VHA submitted:

> The public health workforce has long lead times for skill development and therefore it is imperative action is taken to create a pipeline of skilled workers to meet current and anticipated workforce needs as early as possible.[42]

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36   National Centre for Vocational Education Research, *What is a skill shortage?*, p. 8.

37   Parliamentary Budget Office, *Victorian economic and fiscal indicators*, 2022, <https://pbo.vic.gov.au/Victorian_economic_and_fiscal_indicators> accessed 25 July 2022.

38   Ibid.

39   The University of Melbourne, *Submission 17*, p. 7.

40   Engineers Australia, *Submission 19, Attachment 1*, received 13 May 2022, p. 12.

41   The World Bank, Graduates in science and engineering, *Open trade and competitiveness data*, <https://tcdata360.worldbank.org/indicators/h77528693> accessed 12 July 2022.

42   Victorian Healthcare Association, *Submission 4, Attachment 1*, p. 6.

Recent research from Engineers Australia identified that developing competent practice in the engineering sector is a lengthy process. Professional engineers must complete a four-year undergraduate degree, which only 25% of students complete in this timeframe.[43] Afterwards, five to ten years of experience is necessary before an engineer is considered capable of independent practice.[44]

Misaligned graduate outcomes

The misalignment between graduates' learning outcomes and the skills demanded in priority occupations is another factor contributing to overall skill imbalances. While a level of mismatch between the talent pool on offer and labour market demand is normal, it is detrimental for this mismatch to reach a level that compromises economic growth. This can occur if employers are unable to find the right skills for their work or if the quality and quantity of their outputs are affected by a lack of skilled workers.[45]

Stakeholders confirmed a misalignment between graduates' learning and the type of skills required in some industries.[46] For example, the Australian Association of Social Workers (AASW) told the Committee that 'there is a disconnect between institutional learning and industry requirements to have adequately skilled graduates ready to enter the workforce upon graduation'.[47]

COVID-19 and border closures

COVID-19 has exacerbated skills shortages in sectors already experiencing workforce challenges and chronic undersupply of skilled labour.[48] In the healthcare sector, COVID-19 and the working conditions associated with the pandemic health response increased resignations, worsening staff shortages.[49] AASW also raised concerns about the effects of declining international student enrolments due to border closures on the future supply of skilled workers in Victoria for priority allied healthcare areas.[50]

The decrease in skilled migrants resulting from international travel restrictions has severely limited the supply of workers for sectors that traditionally rely on skilled migrants.[51] Sectors such as healthcare and engineering have suffered because of disrupted international skilled migration.[52]

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43 Engineers Australia, *Submission 19, Attachment 1*, p. 4.

44 Ibid.

45 National Centre for Vocational Education Research, *What is a skill shortage?*, p. 11.

46 Dr Anita Talberg, *Transcript of evidence*, p. 20; Australian Centre for Career Education, *Submission 2*, received 28 April 2022, p. 2.

47 Rachel Reilly, Manager, Policy and Advocacy, Australian Association of Social Workers, public hearing, Melbourne, 14 June 2022, *Transcript of evidence*, p. 28.

48 Juan Paolo Legaspi, Manager, Policy and Advocacy, Victorian Healthcare Association, public hearing, Melbourne, 16 June 2022, *Transcript of evidence*, p. 8.

49 Victorian Healthcare Association, *Submission 4, Attachment 1*, p. 3.

50 Rachel Reilly, *Transcript of evidence*, p. 31.

51 Monash University, *Submission 21*, p. 5; Victorian Healthcare Association, *Submission 4, Attachment 1*, p. 7; Jane MacMaster, *Transcript of evidence*, p. 16.

52 La Trobe University, *Submission 22*, received 16 May 2022, pp. 8, 11.

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Several stakeholders noted that although skilled migration will continue to be a major source of talent in priority areas, Victoria cannot rely on international migration alone to solve skills shortages. Victoria needs a combination of local and overseas professionals for the long-term workforce supply in priority sectors.[53]

1.1.2 Skill imbalances in regional Victoria

Factors affecting the pipeline of skilled workers in priority areas are more acute in regional and rural Victoria than in metropolitan areas. This is due to workforce challenges and skill shortage issues including:

* limited local supply of post-secondary education, both generally and for priority areas[54]

* higher literacy and numeracy needs for rural students compared to metropolitan students,[55] which requires additional student and learning support services[56]

* increased costs of attending training and education, compounded by poor quality transport networks, digital services and internet connectivity[57]

* migration of school leavers and young people from regional to metropolitan areas[58]

* misconceptions and biases about the type of work undertaken in specific industries and of limited opportunities in those industries[59]

* lower participation in higher education from people living in regional, rural and remote areas than people in metropolitan areas, impacting the pool of qualified workers[60]

* low housing availability and affordability for workers intending to relocate from metropolitan and other regional areas[61]

* a lack of flexibility in workforce models and service accreditation to comply with legal standards that may not align with rural and regional environments, particularly for health professionals.[62]

Overall, the Committee notes that there are a number of factors that make skill shortages in rural and regional Victoria worse than in metropolitan areas.

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53   Jane MacMaster, *Transcript of evidence*, p. 16; Louise McKinlay, *Transcript of evidence*, p. 23; Monash University, *Submission 21*, p. 5.

54   South West Institute of TAFE, *Submission 3*, received 3 May 2022, p. 5.

55   Emeritus Professor John Halsey, *Independent Review into Regional, Rural and Remote Education*, report for the Department of Education and Training Australian Government 2018, p. 8.

56   South West Institute of TAFE, *Submission 3*, p. 9.

57   Ibid., p. 8.

58   Federation University, *Submission 16*, received 10 May 2022, p. 5.

59   Craig Robertson, *Transcript of evidence*, p. 14.

60   Halsey, *Independent Review into Regional, Rural and Remote Education*, p. 15.

61   Victorian Healthcare Association, *Submission 4, Attachment 1*, p. 5.

62   Ibid.; Monash University, *Submission 21*, p. 5.

1.2 The role of universities in the post-secondary education system

Universities are a key part of Australia's post-secondary education and training system, along with VET and pre-accredited adult community and further education providers.[63]

Victoria has six universities and four dual-sector universities. The universities providing higher education are La Trobe University, the University of Melbourne, Deakin University, Monash University, Australian Catholic University and University of Divinity. RMIT University, Victoria University, Federation University and Swinburne University of Technology are dual-sector universities delivering VET and higher education courses.[64] There are 42 institutes of higher education with registered head offices in Victoria.[65]

Table 1.1 below shows that between 2016 and 2020, most higher education students in Victoria were enrolled in courses at universities. The share of enrolments in Victoria has been stable, accounting for around 30% of Australia's enrolments in higher education.

Table 1.1 Enrolments at Victoria's higher education institutions and variations, 2016 to 2020

Enrolments by type of higher education (HE) provider	2016	2017	2018	2019	2020
University enrolments	402,259	421,368	442,307	454,245	452,803
Non-university HE provider enrolments	27,584	31,401	32,381	35,320	32,248
Victoria's total HE enrolments	429,843	452,769	474,688	489,565	485,051
Annual variation (%)	na	0.053	0.048	0.031	-0.009
Victoria's share of national enrolments (%)	29	30	30	30	30
Total Australia enrolments	**1,457,209**	**1,513,383**	**1,562,520**	**1,609,798**	**1,622,867**

Source: Adapted from the Department of Education, Skills and Employment, *Higher education statistics collection*, 2021, <https://www.dese.gov.au/higher-education-statistics> accessed 21 April 2022.

Some submissions to the Inquiry implied a tension between the role of universities in creating and advancing knowledge and providing qualified graduates for the workforce, particularly in a context of limited resources.[66] Stakeholders further highlighted universities' broader role and contributions to the community and the Victorian economy. DET considered that universities are 'crucial' in supporting Victoria's innovation, productivity, employment and regional development.[67] The National

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63 Macklin, *Future Skills for Victoria* p. 8.

64 Department of Education and Training and Victorian Skills Authority, *Submission 23*, p. 3.

65 Department of Education, Skills and Employment, *National register for providers and courses*, 2022, <https://www.teqsa.gov.au/national-register> accessed 21 April 2022.

66 Department of Education and Training and Victorian Skills Authority, *Submission 23*, p. 10; Centre for Future Work, *Submission 14*, received 6 May 2022, p. 2.

67 Lill Healy, Deputy Secretary, Higher Education and Skills, Department of Education and Training, public hearing, Melbourne, 14 June 2022, *Transcript of evidence*, p. 2; The University of Melbourne, *Submission 17*, p. 2.

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Tertiary Education Union told the Committee that 'universities play a broader role than skilling workforces; they are a public good that provide vital infrastructure and expertise … contributes to social discourse and well-being, and are a major source of employment'.[68]

1.2.1 University governance

Both the Commonwealth and Victorian Governments provide legislation governing the university sector but perform different functions. The Commonwealth Government is responsible for setting the general rules, policies and funding regulations for universities. It regulates higher education through the *Tertiary Education Quality and Standards Agency Act 2011* (Cth) and the *Higher Education Support Act 2003* (Cth).[69] The Tertiary Education Quality and Standards Agency is the national quality assurance and regulatory body for higher education providers that sets standards for the sector.

Although the Victorian Government has a limited role in the governance of universities, universities are established through state laws. University councils are the main governing body for each university, responsible for general direction and oversight. The Victorian Government participates in the governance of universities through its power to appoint at least four council members to Victorian public university councils.[70] Victoria's public universities must deliver annual financial reports to the Parliament of Victoria and comply with financial reporting in accordance with the *Financial Management Act 1994* (Vic). Under the *Audit Act 1994* (Vic), the Victorian Auditor-General's Office can conduct financial audits to ensure universities manage public resources appropriately.[71]

This Inquiry report presents findings and recommendations that take into account the independent nature of Victorian universities and different responsibilities of Commonwealth and Victorian Governments.

1.2.2 Funding arrangements

Figure 1.2 illustrates Victorian public universities' revenue by source type. The data shows that Commonwealth Government grants for domestic and international student fees represented more than half of public universities' revenue in Victoria in 2021.

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68 National Tertiary Education Union, *Submission 20*, received 13 May 2022, p. 2.

69 Department of Education and Training and Victorian Skills Authority, *Submission 23*, pp. 4–5.

70 See, for example, *Federation University Australia Act 2010* (Vic) s 11; Department of Education and Training and Victorian Skills Authority, *Submission 23*, p. 6.

71 Department of Education and Training and Victorian Skills Authority, *Submission 23*, p. 5.

Figure 1.2 Composition of public universities' revenue, 2021, Victoria
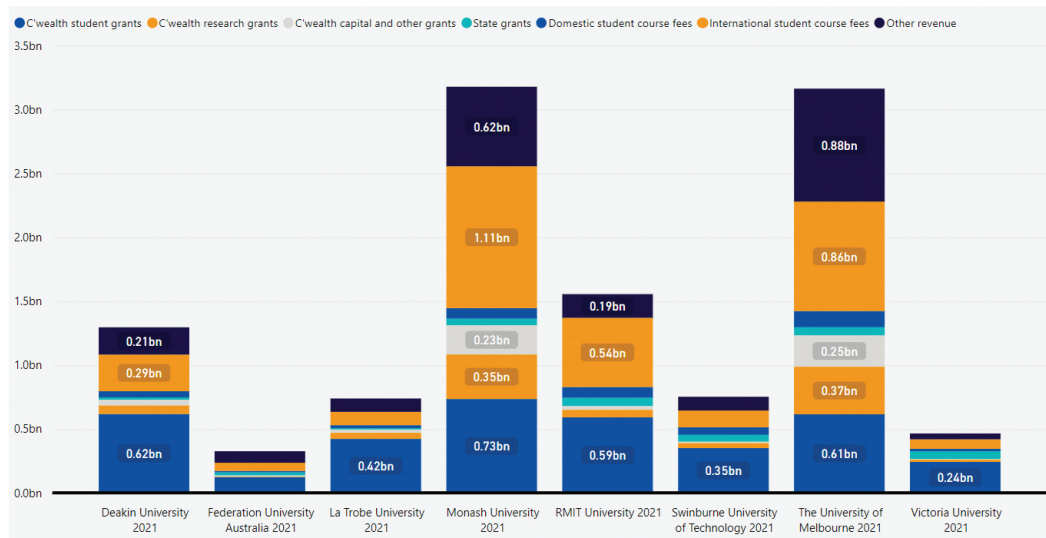
Source: Victorian Auditor's-General Office, *Results of 2021 audits: universities*, 2022, <https://www.audit.vic.gov.au/report/results-2021-audits-universities> accessed 20 July 2022.

The Commonwealth Government funds Victorian universities under three streams:

- Teaching-based grants through the Commonwealth Grant Scheme, providing funding based on the number of domestic students in Commonwealth Supported Places (CSPs).[72]

- Research block-based grants to support domestic and international students completing masters by research and doctorate studies under the Research Training Program, and flexible funding for systemic research costs.[73]

- Engagement grants including industry linkage grants; funding to improve access and participation from people with lower participation and attainment rates; and a scheme for universities supporting national institutes.[74]

Domestic student fees are another source of funding for universities in Victoria. Student contributions differ for each field of study, as Commonwealth Government funding for CSPs change according to the field. Likewise, international students fees for university courses are a significant source of revenue.[75]

The Commonwealth Government also allocates grants on a competitive basis, mainly through the Australian Research Council and National Health and Medical Research Council.[76] The Commonwealth Government supports university research through the

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72   *Higher Education Support Act 2003* (Cth).pt 2–2, div 33; Department of Education and Training and Victorian Skills Authority, *Submission 23*, p. 7.

73   Department of Education and Department of Employment and Workplace Relations, *Other Grants Guidelines*, 16 November 2020, <https://www.dese.gov.au/help-and-other-information/higher-education-support-act-2003-and-guidelines/other-grants-guidelines> accessed 13 July 2022; Department of Education and Training and Victorian Skills Authority, *Submission 23*, p. 9.

74   Department of Education and Department of Employment and Workplace Relations, *Other Grants Guidelines*.

75   Department of Education and Training and Victorian Skills Authority, *Submission 23*, p. 9.

76   Ibid., pp. 7, 9.

Research and Development Tax Incentive Scheme. It is also responsible for funding research infrastructure at Victorian universities.[77]

The Victorian Government has no ongoing funding responsibilities in relation to Victorian universities, but it provides specific funding, for example, through the 2020 Victorian Universities support package of $350 million (Victoria Higher Education State Investment Fund).[78] The Victorian Government has individual partnership agreements with the ten Victorian universities.[79] The agreements' objectives are broad and set out areas of common interest and mutual benefit.[80]

Victorian universities also have their own revenue sources, primarily through contract research, consultancy fees and investment income. Additionally, Victorian universities receive funding from industry partners and philanthropies to undertake research.[81]

1.2.3 Addressing skills demands and imbalances

Several Inquiry submissions highlighted multiple ways in which Victorian universities are addressing skills shortages and workforce demands in priority industries. Universities address skills demands and imbalances by developing specialised courses, delivering innovative pathways in education and training,[82] investing in learning infrastructure and providing expert advice to government.[83]

Universities referred to their input in skills development by investing in facilities and equipment that enable appropriate learning environments.[84] Some of these investments are independently made, and others in partnership with the Victorian Government or with additional Commonwealth Government funding.[85] Victorian universities also noted their investments and outcomes in priority sectors for Victoria's economic growth through research, research commercialisation (research that delivers commercial returns by creating new products and services) and infrastructure investments.[86]

Governments often rely on the expertise of the university sector. For example, the Committee heard that researchers from the Melbourne Graduate School of Education supported the Commonwealth Government to develop the National Microcredentials

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77 Ibid., p. 9.

78 Ibid., p. 5.

79 Department of Education and Training, *Partnership agreements between Victorian Government and Victorian universities* <https://www.education.vic.gov.au/training/providers/rto/Pages/Partnership-Agreement-between-Victorian-Government-and-Victorian-Universities.aspx> accessed 28 April 2022.

80 *Partnership agreement Government of Victoria and Monash University*, (n.d.), <https://www.education.vic.gov.au/Documents/training/providers/rto/05%20Government%20of%20Victoria%20and%20Monash%20University%20Partnership%20Agreement.pdf> accessed 28 April 2022.

81 Department of Education and Training and Victorian Skills Authority, *Submission 23*, pp. 9–10.

82 La Trobe University, *Submission 22*, p. 1.

83 The University of Melbourne, *Submission 17*, p. 5.

84 RMIT University, *Submission 5*, received 4 May 2022, p. 5.

85 See, for example, Australian Catholic University, *Submission 8*, received 5 May 2022, p. 3; La Trobe University, *Submission 22, Attachment 1*, p. 6.

86 See, for example, Federation University, *Submission 16*, p. 3; The University of Melbourne, *Submission 17*, pp. 9–10.

Framework.[87] Explored further in Chapter 4, the Framework aims to increase consistency in managing short course certifications.

The Committee found several ways in which multi-stakeholder collaboration can be enhanced for universities to deliver better outcomes for learners, industry, the community and the Victorian economy. The onus is not solely on Victorian universities to provide solutions to skill imbalances. They are a shared responsibility of government, education providers (including universities), industry and local communities. As this report highlights in following chapters, scaling up some current initiatives could positively support the long-term pipeline of skilled workers in Victoria.

1.3 Policies to promote skills development

Both the Commonwealth and Victorian Governments have policies and programs in the higher education sector to respond to skills demand in priority sectors.

1.3.1 Commonwealth Government

This section describes initiatives the Commonwealth Government has implemented to support the pipeline of skilled workers.

Job-ready Graduates Package

The Job-ready Graduates Package (JRG), effective from 1 January 2021, aims to:

- encourage domestic students to enrol in priority areas for the national economy, including STEM, agriculture, allied health, nursing and education[88]

- better support students from regional and remote Australia in higher education

- better match graduate skills to employer needs

- increase integration of the tertiary education system.[89]

The reforms introduced budget measures and incentives to achieve these aims.

The Commonwealth Government introduced some of these measures in response to recommendations of the 2019 *National regional, rural and remote tertiary education strategy final report* (Napthine Review). The Napthine Review made seven recommendations to improve regional and remote tertiary education outcomes. The recommendations focused on improving access to tertiary education, financial and

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87   The University of Melbourne, *Submission 17*, p. 5.

88   Department of Education, Skills and Employment, *Job-ready Graduates: higher education reform package 2020*, Australian Government, Canberra, 2020, p. 8.

89   Ibid., p. 9.

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non-financial student support, career advice and participation from disadvantaged groups.[90]

Discussed further in Section 4.1.4, several stakeholders raised concerns about the effect of some JRG reforms on university funding and enrolments in priority areas for Victoria. For example, the Centre for Future Work discussed perverse impacts on the supply and demand for courses:

> Under these reforms, on average, student tuition increases by 8 per cent, so students are paying more; federal commonwealth grants scheme funding declines by 15 per cent, so the government pays less; and universities lose 5.9 per cent of funding per student, so universities are receiving a reduced rate of funding, even for priority courses, and they are expected to expand domestic enrolment. This is likely to affect both the supply and the demand for courses in a perverse way ...[91]

Despite insufficient data on university enrolments and completions from 2021 onwards, the Committee understands there is an opportunity to further investigate the effects of these reforms in Victoria.

National Microcredentials Framework

In March 2022, the Commonwealth Government released the National Microcredentials Framework to increase coherence in the design and delivery of microcredentials to upskill workers. The framework sets a national definition for microcredentials, establishes unifying principles, provides critical information requirements and outlines a minimum standard for microcredentials to be included in the Microcredentials Marketplace.[92] The National Framework and the Marketplace are yet to be implemented and are discussed further in Section 4.2.1.

The Framework responds to recommendations in multiple reports, including the 2019 *Review of the Australian Qualifications Framework* (AQF). This review recommended developing guidelines to facilitate the recognition of shorter form credentials, including principles that institutions should use to align short courses to AQF levels.[93]

1.3.2 Victorian Government

Described below, a number of Victorian Government programs to support the increase of skilled workers are early in the implementation process or were announced as part of the 2022–23 State Budget.

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90 Denis Napthine, et al., *National regional, rural and remote tertiary education strategy: final report*, report prepared by the Regional Education Expert Advisory Group, report for the Australian Government, Canberra, 2019, pp. 44–54.

91 Eliza Littleton, Research Economist, Centre for Future Work, public hearing, Melbourne, 28 June 2022, *Transcript of evidence*, p. 19.

92 Department of Education, Skills and Employment, *National Microcredentials Framework*, Australian Government, Canberra, 2021, pp. 2–3.

93 Peter Noonan, et al., *Review of the Australian Qualifications Framework: final report 2019*, Australian Government, Canberra, 2019, p. 62.

Victorian Skills Plan

The Victorian Skills Plan (VSP) is a new tool for current and future skills planning. VSA intends to release the inaugural plan in late 2022, outlining skill needs across the whole economy. The VSP aims to prioritise skill areas requiring post-school education and training, communicate opportunities for education and training, and align priorities across industry and government.[94] The VSP will include demand breakdowns for nine Victorian regions and metropolitan demand, along with in-depth information on the clean economy, the care economy, digital skill needs, gender, inclusion and participation.[95] The VSP matches similar efforts at the national level by the NSC.

Skills funds

The Victorian Government has introduced several funding programs to address skill needs in priority areas. However, some of these programs are only available to VET providers, which limits eligibility to dual-sector universities. The initiatives include:

- The Workforce Training Innovation Fund (WTIF), as part of the 2017 Skills First program. Skills First provides funding to Victoria's Technical and Further Education (TAFE) and training system and aims to deliver high-quality training aligned with industry and workforce needs. WTIF supports collaboration between industry and training providers to deliver innovation in training, workforce development, applied research and emerging industry skill development.[96] WTIF is currently under review.

- The Workforce Skills Set Fund (WSSF) will support targeted training to meet emerging industry needs, as well as specialist and regional needs for employment outcomes.[97] WSSF will complement the 2017 Skills First reforms.

- The Regional and Specialist Training Fund will support targeted training for specific skills in regional and specialist areas that the training market is not meeting.[98]

- The Skills Solutions Partnerships will pilot new training approaches to address skills shortages in priority areas, including short courses and work placements.[99]

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94   Robertson, *Inquiry into Victorian universities' investment in skills*, p. 12.

95   Ibid.

96   Victorian Government, *Workforce Training Innovation Fund: Guidelines to seed funding*, (n.d.), <https://education.vic.gov.au/skillsfirst/Documents/Workforce%20Training%20Innovation%20Fund/2019/wtif-2019-grant-guidelines-final.pdf> accessed 19 July 2022, p. 3.

97   Victorian Government, *Workforce Skills Set Fund: Overview*, 28 June 2022, <https://www.vic.gov.au/workforce-skills-set-fund> accessed 19 July 2022.

98   Victorian Government, *Regional and Specialist Training Fund Overview*, 28 June 2022, <https://www.vic.gov.au/regional-and-specialist-training-fund> accessed 19 June 2022.

99   Department of Treasure and Finance, *Victorian Budget 2022–23 Paper No. 3: Service delivery*, Melbourne, 2022, pp. 79, 88.

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Digital skills and clean economy initiatives

In August 2021, the Victorian Government launched a $64 million Digital Skills and Jobs Program to upskill the state's digital talent.[100] The Program's goal is to support 5,000 mid-career Victorians to gain digital skills over three years. The program includes 12 weeks of funded training backed with industry training, 12 weeks of paid internships in digital roles with a Victorian business and ongoing mentoring during the program. Several Victorian universities are partners in delivering the digital training and upskilling.[101] The Digital Jobs for Manufacturing stream of this program will support 300 work placements across the sector over the next two years.[102]

The Clean Economy Workforce Skills Initiative establishes a taskforce to provide expert advice and inform the development of a Clean Economy Workforce Development Strategy, expected for late 2022.[103] It is accompanied by a Clean Economy Capability Fund, supporting new training methods and products, and collaborative learning platforms to progress clean economy workforce skills.[104]

1.4 Scope of the Inquiry

The terms of reference for the Inquiry required the Committee to examine how Victorian universities can play a greater role to support the pipeline of skilled workers in government priority areas to ensure a growing economy. The Committee was asked to consider future skills needs, clean economy skill demands and regional skills needs in health, agriculture and community services. Based on the evidence from submissions and public hearings, the Committee inquired into how universities could improve collaboration with stakeholders, barriers universities face in supporting workforce supply in priority areas and the effects of existing government policies on developing skills for priority areas.

1.5 Inquiry process

The Committee called for submissions in March 2022 by advertising in print media, Parliament of Victoria News and social media, and writing directly to 159 stakeholders. Stakeholders invited to make a submission included universities and other post-secondary education providers, professional associations, unions, business groups, research centres, community and social service organisations, and local, state and Commonwealth government bodies.

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100   Precincts and Regions Department of Jobs, *Digital Jobs: Building Victoria's digital workforce*, 7 July 2022, <https://djpr.vic.gov.au/digital-jobs> accessed 19 June 2022.

101   See, for example, RMIT University, *Submission 5*, p. 6.

102   Department of Treasure and Finance, *Victorian Budget 2022–23 Paper No. 3*, p. 86.

103   Craig Robertson, *Transcript of evidence*, p. 15; Department of Education and Training and Victorian Skills Authority, *Submission 23*, p. 18.

104   Department of Education and Training and Victorian Skills Authority, *Submission 23*, p. 18.

The Committee received 26 submissions and held three days of public hearings over Zoom in June 2022. Notice of the public hearings was given on the Parliament of Victoria's website, Twitter, Facebook and LinkedIn. The public hearings were broadcast live on the Parliament of Victoria's website. Appendix A lists the submissions received and witnesses who gave evidence during public hearings.

1.6 Report outline

This report consists of five chapters:

- This chapter, Chapter 1, introduces the Inquiry by outlining its scope and process and discusses the context of skill demands, shortages and gaps in Victoria.

- Chapter 2 considers the benefits and avenues for improved collaboration between universities and industry to address skill shortages and gaps in priority areas.

- Chapter 3 examines the need for enhanced collaboration between universities, VET providers (specifically TAFEs) and local communities to address skill shortages and gaps in priority areas.

- Chapter 4 explores enhancing support for students and the university sector's role in responding to skills forecasting and planning.

- Chapter 5 provides a brief conclusion to the report.

2 Enhancing university collaboration with industry

This chapter examines the benefits of collaboration between Victorian universities and industry by equipping learners with appropriate skills to ensure economic growth and the delivery of services. The Committee received evidence on the need to strengthen collaboration between Victorian universities and industry through curricula co-design and work-integrated learning (WIL). Collaboration takes place today; however, stakeholders consider it should be systematic to develop its full benefits. The chapter discusses the Victorian Government's role in facilitating a long-term relationship between universities and industry. It also considers the challenges of mandatory WIL in metropolitan and regional Victoria and how the challenges impact the pipeline of skilled workers in priority areas.

2.1 Promoting university and industry collaboration

A key Inquiry theme was the importance of enhancing collaborative relationships between universities and industry to equip graduates with the skills and training necessary for the workforce. The importance of industry engagement for universities traverses most sectors, including private, public and not-for-profit organisations.[1]

2.2 Benefits of collaboration

Multiple reviews have emphasised the need for stronger university and industry collaboration, particularly to improve employment prospects for students and support innovative research outcomes.

A 2019 report by Mercer Consulting on *Keys for successful industry-education engagement* highlighted that while ad hoc industry engagement exists, collaboration 'is more important than ever to continue to evolve, tap into new markets, and show relevance in a changing education landscape'.[2] It outlined the benefits of universities adopting a strategic industry engagement approach, including financial and resource support for research projects, disseminating university research outcomes for broader audiences, providing innovative placements and projects, opening doors to business networks, streamlining pathways into key industries for better graduate employment outcomes, harnessing alumni networks and recognising pathways into university for industry partners.[3] The report highlighted the importance of 'an intentional engagement

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1   Mercer Consulting, *Keys for successful industry education-engagement*, report prepared by Patrick Ephraim, David Heazlett, Jenny Anderson and Vicki Hartley, Melbourne, June 2019, p. 2.

2   Ibid., p. 4.

3   Ibid., p. 6.

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strategy—at an industry, business, leader and individual level'.[4] It noted that while there are many examples of strong collaboration efforts and networks, this does not necessarily translate into an organisation-wide strategy that is leveraged across a university.[5]

In 2019, Universities Australia issued a report on *Clever collaborations: the strong business case for partnering with universities*. It outlined modelling that showed formal collaborations between universities and business generated $10.6 billion a year in revenue for the partner firms and $19.4 billion a year for the Australian economy.[6] It noted that approximately 16,000 businesses have formal partnerships with a university, with a return to companies of $4.50 for every $1 invested in collaborative university research.[7] It highlighted ways to strengthen collaboration, including through research, student placements and scholarships, co-location, innovation networks, industry advisory groups and experts-in-residence.[8]

In December 2021, the Commonwealth Department of Education, Skills and Employment released the *University-industry collaboration in teaching and learning review* (Bean-Dawkins Review) to improve industry engagement in teaching and learning, with the goals of enhancing research and skills development. It found a need for improved connections between higher education providers and industry, strengthened pathways to employment and enhanced upskilling and reskilling of the workforce.[9] The Bean-Dawkins Review highlighted that youth unemployment and underemployment trends show young people find it harder to transition into employment. This 'may be lessened by gaining qualifications that are geared towards the needs of industry, and by acquiring relevant employment experience which complements their education and training'.[10] Further, Australia is facing crucial skills shortages post-COVID-19, which requires government, higher education providers and industry to work together 'to meet these skills gaps and help Australians fulfil their career ambitions quickly and effectively'.[11]

As part of seven actions for greater collaboration, the Bean-Dawkins Review described as central the need for industry and universities to work together to develop workforce skills. Its recommendations included high-level actions to reform the education sector framework and several immediate investments in areas such as microcredentials, cadetships programs and WIL.[12] WIL is considered in detail in this chapter.

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4   Ibid.

5   Ibid., pp. 6, 16.

6   Universities Australia, *Clever collaborations: the strong business case for partnering with universities*, Canberra, 2019, p. 4.

7   Ibid., pp. 4–5.

8   Ibid., p. 10.

9   Martin Bean and Peter Dawkins, *Review of university-industry collaboration in teaching and learning*, report for the Department of Education, Skills and Employment, 2021, p. 17.

10   Ibid., p. 20.

11   Ibid., p. 27.

12   Ibid., pp. 30–31.

The importance of strong partnerships between industry and universities was emphasised to the Committee during the Inquiry.[13] The Victorian Chamber of Commerce and Industry (Victorian Chamber) discussed the need for universities to develop job-ready graduates with transferable and technical skills relevant to industry.[14] At a public hearing, the Victorian Chamber discussed aligning the goals of university and business, particularly to include small, medium and family-sizes businesses:

> businesses are time poor, and the relationship between industry and, more broadly, university really needs to be elevated so that there is a capacity through which, where skills are required, the businesses are able to just go to a university and say, 'We need to try and do something around this. How can that process be kicked off?' … We know that some of the bigger businesses are able to more directly engage with universities, but the ones that are missing out are the ones that can really drive our growth, and they are small, medium and family-sized businesses.[15]

The Department of Education and Training (DET) noted that there is room for deeper collaboration between industry and universities, but also with the entire education sector to ensure alignment and coordination:

> working directly with business and industry is a priority, so if you sit with everybody in a business and you have got a whole lot of different levels of education providers coming at you, it does not necessarily get the best outcome. So I think there is a really important opportunity for us to better coordinate and be much more integrated in the way that we do work with business and industry.[16]

Similarly, Federation University highlighted the importance of a collaborative approach to ensure industry organisations are not burdened with siloed requests:

> And what is not going to work is all of the institutions doing this independently— everyone tapping an organisation industry on the back and saying, 'Can we have some time with you? How can we make this work for this region?'. So I think it needs to be an all-of-government approach, as is the way that it is starting to take shape, and it is being able to pool these industry partners so that they can see the benefit of their potential investment so that we are not relying solely on government investment and it is looking at industry investing.[17]

The Committee considers that the promotion of strong collaborative ties between universities and industry partners is likely the single-most important factor for improving universities' investment in skills development in priority areas of the labour

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13   See, for example, Victorian Farmers Federation, *Submission 10*, received 6 May 2022, pp. 3, 5; The University of Melbourne, *Submission 17*, received 13 May 2022, pp. 9–10; Engineers Australia, *Submission 19*, received 13 May 2022, pp. 1–2; La Trobe University, *Submission 22*, received 16 May 2022, pp. 5–6; Victoria University, *Submission 26*, received 15 June 2022, p. 6; Dr Anita Talberg, Director, Workforce Development Clean Energy Council, public hearing, Melbourne, 16 June 2022, *Transcript of evidence*, p. 20; Liam Sloan, Pro Vice-Chancellor (VET) and CEO TAFE, Federation University, public hearing, Melbourne, 28 June 2022, *Transcript of evidence*, pp. 13–14.

14   Victorian Chamber of Commerce and Industry, *Submission 7*, received 5 May 2022, p. 6.

15   Dylan Broomfield, General Manager, Policy and Advocacy, Victorian Chamber of Commerce and Industry, public hearing, Melbourne, 14 June 2022, *Transcript of evidence*, p. 17.

16   Lill Healy, Deputy Secretary, Higher Education and Skills, Department of Education and Training, public hearing, Melbourne, 14 June 2022, *Transcript of evidence*, p. 10.

17   Liam Sloan, *Transcript of evidence*, p. 14.

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market. Greater collaboration also has significant economic benefits for industry and the Australian economy. It requires a significant degree of coordination because industry organisations are often time poor and a coordinated approach is preferred.

> **FINDING 1:** Greater collaboration between universities and industry is essential to ensure that universities can provide the pipeline of workers required for government priorities for a growing economy.

> **RECOMMENDATION 1:** The Victorian Government assist universities to enhance collaboration with industry, through a coordinated approach that recognises the needs of industry partners.

2.3   Curricula co-design

The Bean-Dawkins Review considered improved industry involvement in course curricula. It acknowledged that universities have made efforts to increase industry engagement using mechanisms such as professional accreditation, involvement in course design and mentoring.[18] It highlighted some examples from Victorian universities, such as Monash University's Education Agenda to reform its curriculum, pedagogy and assessment to include industry engagement and establish an industry advisory board and council.[19]

Stakeholders also discussed the benefits of curricula co-design.[20] The University of Melbourne told the Committee that industry partnerships are deepening and that 'we are seeing a greater appetite for industry to take part in not just endorsement of the content … but actually the co-creation of some of the programs we are building'.[21] In discussing its Education Agenda, Monash University noted the benefits of industry involvement for providing 'strategic direction' for courses:

> there has historically been a very strong partnership within disciplines with industry advice not only at the point of accreditation but throughout to be able to say what it is that our courses are delivering, the types of assessment and delivery that we are providing and the types of students that we are then producing as graduates. However, there is continued need to ensure that there is a cross- and interdisciplinary nature to this so that that is visible, not by bringing up within a university from each of the different faculties this information, but instead being able to see this in a true partnership that is across the university and with our partners.[22]

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18   Bean and Dawkins, *Review of university-industry collaboration in teaching and learning*, p. 53.

19   Ibid., p. 55.

20   See, for example, Federation University, *Submission 16*, received 10 May 2022, p. 4; Engineers Australia, *Submission 19*, pp. 2–3.

21   Professor Simon Bell, Head of Melbourne School of Professional and Continuing Education, The University of Melbourne, public hearing, Melbourne, 28 June 2022, *Transcript of evidence*, p. 4.

22   Professor Kris Ryan, Pro Vice-Chancellor, Academic, Monash University, public hearing, Melbourne, 28 June 2022, *Transcript of evidence*, p. 4.

The Victorian Chamber observed a current disconnect between educators and the needs of the labour market, particularly where course content does not seek industry input 'and best practice industry-education engagement is not widely known or elevated'.[23] It suggested industry could be more involved in course content, including through industry relevance tests, evaluations by industry specialists and delivery of content by industry experts.[24]

A direct benefit of better collaboration between industry and universities is the creation of courses designed to produce job-ready graduates. The Committee agrees that efforts already underway should be enhanced, particularly through WIL (see Section 2.4).

> **FINDING 2:** Industry involvement in aspects of curricula design and delivery is key to ensuring that university graduates are job-ready. Universities are making efforts to encourage industry engagement; however, these efforts could be enhanced.

2.4   Work-integrated learning in higher education

WIL involves learning programs and activities that integrate theory with practice through specifically designed curriculum, educational practices and student engagement.[25] WIL is different from other forms of work experience because it is formally integrated into the education process. Student assessment is also a frequent part of WIL.[26] Although placements are the most common forms of WIL, it can also occur through simulations, fieldwork, student consultancy (for example, clinics) and industry projects.[27]

The type and extent of WIL in university courses varies according to the study field. WIL is a requirement in health and allied health professions such as nursing, medicine and social work and it usually occurs through placements.[28] WIL can also be a professional accreditation requirement for non-health roles such as education and engineering.[29] Embedding WIL in university programs is a key strategy for supporting the development of skills in priority areas.

2.4.1   Benefits of work-integrated learning

The Committee heard about the significant value of WIL for learners and industry. For learners, stakeholders reported that WIL increases job-readiness by providing them with on-the-job skills. As discussed by the Australian Association of Social Workers

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23   Victorian Chamber of Commerce and Industry, *Submission 7*, p. 5.

24   Dylan Broomfield, *Transcript of evidence*, p. 17.

25   National Centre for Vocational Education Research, *Work-based learning and work-integrated learning: fostering engagement with employers*, report prepared by Georgina Atkinson, Adelaide, 2016, p. 4.

26   Ibid.

27   Universities Australia, *Work-integrated learning in universities: final report*, 2019, p. 8.

28   Australian Association of Social Workers, *Submission 13*, received 6 May 2022, p. 7.

29   Universities Australia, *Work-integrated learning in universities*, p. 32.

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(AASW), WIL 'intends to equip graduates with the right skills to be able to quickly go into the workforce upon graduation'.[30] The Clean Energy Council also referred to this advantage when highlighting that WIL provides a closer connection between graduating and entering the workforce due to its occupational or applied component.[31] As Engineers Australia suggested, WIL experiences bridge theoretical and applied knowledge by allowing learners to relate the theories and concepts they learn to the real world.[32] WIL also eases the transition to employment by providing students with the opportunity to 'engage and learn in authentic practice settings'.[33] It provides workplace skills and on-the-job training to better place graduates when entering the workforce,[34] and helps build confidence and empower learners to join the job market.[35]

The Committee also heard that WIL benefits learners by exposing them to different career options and paths they may not have considered otherwise. Engineers Australia stated that WIL allows learners to connect with specific roles and see what contributions they can make to society.[36]

WIL contributes to better labour market outcomes for young graduates. Research commissioned for the Bean-Dawkins Review showed that university graduates in areas where WIL is common have 'consistently' better labour markets outcomes than graduates in fields where WIL is low.[37] The research suggested that graduates from health, education and agriculture are 3% to 8% more likely to be employed at age 25 than people who graduated from fields with low WIL engagement (for example, natural and physical sciences).[38] Graduates in areas with strong WIL are 15% to 32% more likely to be in a high-skill job at age 25 than graduates from areas with limited WIL presence.[39]

FINDING 3: Work-integrated learning at university can enhance graduates' job-readiness by helping learners connect theoretical knowledge with real-life problems. It builds applied and workplace skills, easing the transition from university to the workplace.

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30   Rachel Reilly, Manager, Policy and Advocacy, Australian Association of Social Workers, public hearing, Melbourne, 14 June 2022, *Transcript of evidence*, p. 28.

31   Dr Anita Talberg, *Transcript of evidence*, p. 22.

32   Jane MacMaster, Chief Engineer, Engineers Australia, public hearing, Melbourne, 16 June 2022, *Transcript of evidence*, p. 18.

33   Australian Association of Social Workers, *Submission 13*, p. 7.

34   Alesha Printz, General Manager, Victoria, Engineers Australia, public hearing, Melbourne, 16 June 2022, *Transcript of evidence*, p. 18.

35   Dylan Broomfield, *Transcript of evidence*, p. 21.

36   Alesha Printz, *Transcript of evidence*, p. 18.

37   Mitchell Institute, *Industry experiences and their role in education to work transitions*, report prepared by Peter Hurley, Michael Coelli, Binh Ta, Lizzie Knight and Melinda Hildebrandt, Melbourne, 2021, p. 4.

38   Ibid., p. 33.

39   Ibid., p. 34.

WIL also benefits industry.[40] Productivity increases and employee attraction and retention are linked to industry participation in WIL.[41] As AASW submitted, WIL can lead to a student being offered employment upon completion of their degree, enhancing 'both the pipeline of the workforce and the job-readiness of the graduates'.[42]

Engineers Australia noted that WIL can alleviate workforce shortages and retain talent by enabling students to connect to an engineering career. It may encourage graduates to pursue this path rather than taking jobs in non-engineering occupations.[43] Similarly, the Centre for Excellence in Child and Family Welfare stated that the proximity of placements to the child and family service sector can 'breed' loyalty from students.[44]

Other benefits for industry include access to new thinking and ideas and emerging research and practice.[45] Monash University highlighted at a public hearing that intellectual property can also be generated through WIL.[46]

FINDING 4: Work-integrated learning can support industries experiencing skill shortages by attracting and retaining talent through exposing learners to career options and pathways.

2.4.2 Industry engagement in work-integrated learning

Stakeholders acknowledged the need for enhanced university and industry collaboration through WIL and other work experience.[47] For example, the Victorian Chamber advocated for enhanced industry engagement through internships, placements, cadetships and WIL.[48]

Case study 2.1. provides an example of a project-based WIL program that builds mentoring and leadership skills for industry participants while contributing to workplace skills for students. The program assesses students based on the value created for the industry partner.

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40   Alesha Printz, *Transcript of evidence*, p. 18.

41   National Centre for Vocational Education Research, *Work-based learning and work-integrated learning*, p. 7.

42   Australian Association of Social Workers, *Submission 13*, p. 7.

43   Jane MacMaster, *Transcript of evidence*, p. 18.

44   Deb Tsorbaris, Chief Executive Officer, Centre for Excellence in Child and Family Welfare, public hearing, Melbourne, 14 June 2022, *Transcript of evidence*, p. 25.

45   Universities Australia, et al., *National strategy on work-integrated learning in higher education*, 2015, p. 2.

46   Professor Kris Ryan, *Transcript of evidence*, p. 8.

47   Alesha Printz, *Transcript of evidence*, p. 18; Dylan Broomfield, *Transcript of evidence*, p. 17; Rachel Reilly, *Transcript of evidence*, p. 28.

48   Victorian Chamber of Commerce and Industry, *Submission 7*, p. 2.

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> ### CASE STUDY 2.1: Innovation Practice Program at The University of Melbourne
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> The Innovation Practice Program (IPP), administered by the Faculty of Engineering and Information Technology, matches organisations from industry and government with masters students from Engineering, Biomedicine, Business, and IT. A mentor from the partner organisation works with a dedicated student team over 12 weeks to develop an innovative proposal for a product, service, or organisational change in response to an organisational innovation opportunity.
>
> The Program comprises two interdependent streams, one for students and one for industry mentors:
>
> - For Students: 'Creating Innovative Professionals' (CIP): CIP is a designated innovation subject, with three contact hours per week. At the end of 12 weeks, student teams are expected to produce an innovation proposal that is technically feasible, economically viable, socially desirable, and aligned with the sponsor's strategy. Students are assessed on the value created for the partner organisation.
>
> - For mentors: 'Leading Innovative Teams' (LIT): Industry mentors participate in a 2-day leadership intensive workshop and one 90-minute leadership class per week, as well attending the three-hour innovation classes with their student team. LIT provides mentors with an opportunity to develop the coaching and leadership skills required to guide innovation projects and take the next step in their careers.
>
> Source: The University of Melbourne, *Submission 17*, received 13 May 2022, p. 4.

Despite its benefits, WIL is not a widespread feature of university courses. In 2017, Universities Australia conducted a survey showing that only one in three university students had a WIL experience that year.[49] This was largely due to student participation in mandatory WIL, such as health and education. Students in agriculture and environmental studies, where WIL is not compulsory, also reported high WIL participation.[50]

The Committee received evidence suggesting that certain barriers prevent more WIL engagement from industry, including low capacity of businesses to offer WIL. The Clean Energy Council stated WIL can be a challenge for businesses 'because it goes above and beyond what they need to do in their business as usual'.[51] Despite the difficulties, the Clean Energy Council suggested that the sector is willing to participate in WIL more actively than in the past.[52] It considered that a cross-sectoral approach between universities and industry can help coordination to overcome barriers.[53]

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49   Universities Australia, *Work-integrated learning in universities*, p. 8.

50   Ibid., p. 13.

51   Dr Anita Talberg, *Transcript of evidence*, p. 22.

52   Ibid.

53   Ibid.

From Victorian universities' perspective, successfully implementing WIL demands time and resources to build industry partnerships and facilitate opportunities for students.[54] From an industry perspective, university management of WIL programs or work experience is not always clear and varies from one university to another. Some programs are run by faculties, others by departments or even specific teachers. This is hard for businesses to navigate.[55]

The Committee heard that establishing a standardised framework for WIL in Victoria would make it easier for businesses to engage and reduce the costs and time of individual agreements.[56] The Victorian Chamber suggested introducing template agreements as part of this framework which could help streamline processes.[57] The Victorian Chamber further highlighted the need for wrap-around support services for learners, businesses and education providers to solve queries and issues that may arise.[58] Permanent contact points at universities and within participating businesses, such as internship managers, can enhance accountability and the success of a WIL experience.[59]

More centralised management of work experience opportunities and the student pool can encourage business participation. Federation University proposed a dedicated consultancy platform with a cross-institutional approach to expand WIL:

> Government could fund a cross-institutional consultancy platform. It would connect industry with appropriately qualified students to work on real projects, benefiting both the students and employers. A cross-institutional approach would avoid a situation where individual brokers could engage in price gouging and would reduce unnecessary agency costs.[60]

The suggestion for a dedicated platform aligns with the Bean-Dawkins Review's recommendation to examine the feasibility of a digital marketplace for WIL placements and projects.[61] While the Victorian Government should lead these initiatives, it should ensure that efforts are not duplicated with other similar initiatives at the Commonwealth level. A coordinated approach with the Commonwealth will ensure the best outcome for learners, industry and universities.

Stakeholders suggested that incentives, including tax incentives, could encourage industry participation in WIL programs and ease some administrative costs.[62] This is supported by the Bean-Dawkins Review's recommendation to introduce tax incentives

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54   Liam Sloan, *Transcript of evidence*, p. 17.

55   Dylan Broomfield, *Transcript of evidence*, pp. 20–21.

56   Ibid., p. 17; Victorian Chamber of Commerce and Industry, *Submission 7*, p. 8.

57   Dylan Broomfield, *Transcript of evidence*, p. 17.

58   Ibid., p. 20.

59   Ibid., pp. 20, 21.

60   Federation University, *Submission 16*, p. 6.

61   Bean and Dawkins, *Review of university-industry collaboration in teaching and learning*, pp. 13, 61.

62   Liam Sloan, *Transcript of evidence*, pp. 10, 17; Dylan Broomfield, *Transcript of evidence*, p. 21; Australian Association of Social Workers, *Submission 13*, p. 9.

for industry if they contribute to WIL beyond opportunities that provide organisational returns.[63]

FINDING 5: Administrative burdens and costs prevent businesses from engaging in work-integrated learning experiences.

RECOMMENDATION 2: The Victorian Government introduce incentives to encourage industry participation in work-integrated learning.

RECOMMENDATION 3: The Victorian Government, through the Department of Education and Training and the Victorian Skills Authority, support the university sector to develop a collaborative network approach to implementing work-integrated learning.

RECOMMENDATION 4: The Victorian Government, with the university sector and industry, explore possibilities for the centralised management of work-integrated learning opportunities, including establishing an online platform to meet work placement demand and supply.

2.4.3   Structured work-integrated learning

Stakeholders highlighted that a meaningful WIL experience needs to be well planned and structured so learners gain on-the-job skills and industry knowledge.[64] The Victorian Chamber suggested several options to achieve this under a standardised WIL framework:

- Develop job description templates that include the role, responsibilities and goals for businesses to use when advertising roles and setting expectations.[65]

- Deliver orientation packages to familiarise learners with businesses' policies and procedures.[66]

- Detail the entire internship process from interview to performance review and exit interview.[67]

These tools can make work experiences more valuable than they have been in the past.[68] Through a more structured WIL framework, universities can also receive

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63   Bean and Dawkins, *Review of university-industry collaboration in teaching and learning*, p. 5.

64   Jane MacMaster, *Transcript of evidence*, p. 18; Dylan Broomfield, *Transcript of evidence*, p. 17.

65   Dylan Broomfield, *Transcript of evidence*, p. 21.

66   Ibid.

67   Ibid.

68   Ibid.

immediate industry feedback on whether the skills they are developing fulfil industry needs.[69]

Although the Victorian Chamber suggested the Victorian Government develop a framework, the Committee considers it should be the joint work of industry peak bodies, government, professional bodies and the university sector. The Victorian Government can support and facilitate establishing a standardised WIL framework.

> **FINDING 6:** Meaningful work-integrated learning experiences that contribute to student learning and job-readiness need to be well planned and responsive to industry and learners.

> **RECOMMENDATION 5:** The Victorian Government support Victorian universities, industry peak bodies and other professional bodies to develop a work-integrated learning guidance framework. The framework should aim to encourage greater industry participation through standardisation and ensure students can maximise their learning experiences.

2.4.4 Disadvantaged students' participation in work-integrated learning

As illustrated in Figure 2.1, the 2017 Universities Australia survey suggested that WIL participation from Indigenous, low socio-economic background and regional students is lower than for other student groups.[70] Challenges in accessing higher education (see Section 4.1) may also affect WIL participation for disadvantaged student groups.

Figure 2.1   Work-integrated learning participation rate in Australia by student group, 2017 (percentage)
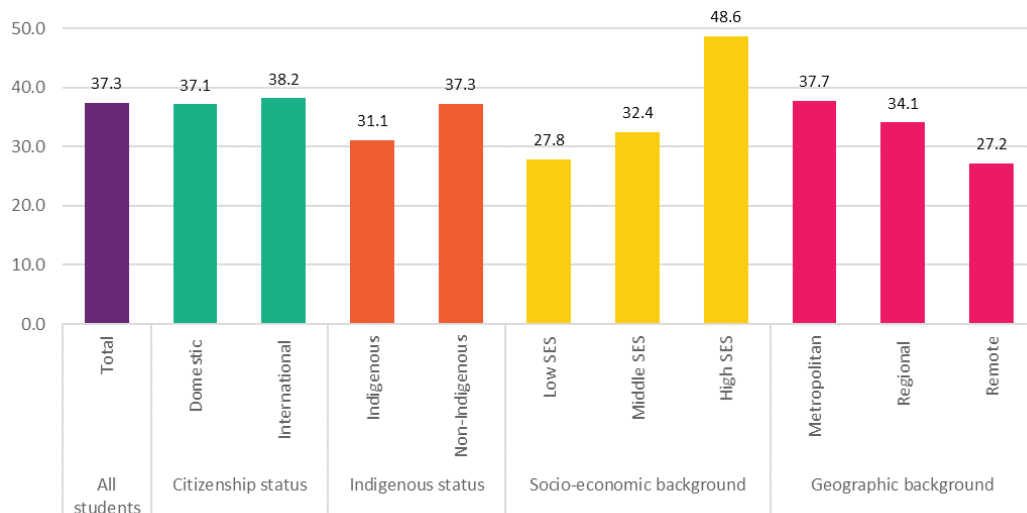
Source: Universities Australia, *Work-integrated learning in universities: final report*, 2019, p. 27.

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69   Ibid., p. 17.

70   Universities Australia, *Work-integrated learning in universities*, pp. 27–30.

The Committee heard about initiatives that may encourage students from low socio-economic backgrounds to participate in WIL. For example, the Centre for Excellence in Child and Family Welfare is piloting paid internships in the community services sector.[71] Universities Australia also reported that some employers are paying students from low socio-economic backgrounds during their WIL experience.[72] Other universities, such as Deakin University and Monash University, provide financial assistance to enable student participation.[73] The Clean Energy Council advocated for a coordinated, rather than case-by-case approach to effectively address the barriers preventing learners from participating in WIL and build a diverse workforce. This would involve industry working with several employers and universities to understand how WIL opportunities could be increased and participant diversity enhanced.[74] The Committee agrees that a network approach to WIL may be more effective in addressing the barriers for different student cohorts, including the design of financial and other support services.

The Committee acknowledges that a paid internship will not always solve WIL participation barriers. In some instances, other types of financial assistance and support services may be more appropriate. For example, AASW highlighted that adequate support is required to ensure that risks to students, social work clients and host organisations are avoided:

> social workers are often working with complex people and in complex spaces—if paid, and not given adequate support, [this] places the clients of the host organisation at risk and by default, the host organisation at risk if something happens.[75]

Swinburne University of Technology also highlighted that addressing perceived or real barriers that industries have towards international students' engagement with WIL may increase their participation in the workforce.[76]

Swinburne University of Technology and IBM have partnered for over 30 years to deliver the Bachelor of Information Technology, which includes paid internships, student mentoring and networking. These programs allow regional and metro students to build their technical and soft skills in the workplace.[77] Case study 2.2. is an ongoing university-industry partnership between IBM and Federation University to provide WIL, which includes opportunities for disadvantaged students.

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71 Centre for Excellence in Child and Family Welfare, *Submission 9*, received 6 May 2022, p. 2.

72 Universities Australia, *Work-integrated learning in universities*, p. 29.

73 Ibid.

74 Dr Anita Talberg, *Transcript of evidence*, p. 22.

75 Rachel Reilly, Policy & Advocacy Manager, Australian Association of Social, Inquiry into Victorian universities' investment in skills hearing, response to questions on notice received 6 July 2022, p. 3.

76 Professor Chris Pilgrim, Senior Deputy Vice-Chancellor and Chief Academic Officer, Swinburne University of Technology, public hearing, Melbourne, 28 June 2022, *Transcript of evidence*, p. 18.

77 Australian Centre for Career Education, *Submission 2*, received 28 April 2022, pp. 1–2.

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CASE STUDY 2.2: Federation University-IBM partnership

Federation's flagship partnership with IBM was established in 1995 to create a new generation of IT professionals. IBM is one of the largest regional services employers in Australia, employing 800 people, and providing unprecedented benefits to our students and community. The university works closely with IBM to maximise educational impact and deliver a guaranteed pipeline of aligned skills. The Bachelor of Information Technology (Professional Practice) offers an 'earn as you learn' internship with IBM, where students are embedded in real projects with real teams, learning the critical soft skills of client interface and securing meaningful experience. This innovative degree is now one of the most prestigious IT degrees in Australia and is recognised as national best practice by the Australian Computer Society.

The IBM/Federation partnership has been expanded beyond university to work with local Year 7–12 students via the Australia-first Pathways in Technology (P-TECH) program with a focus on neurodiversity.

IBM was also the first tenant in the Ballarat Technology Park, kick-starting a revolutionary partnership with wide-reaching benefit.

Source: Federation University, *Submission 16*, received 10 May 2022, p. 2.

The Committee considers that the WIL guidance framework (Recommendation 5), should include strategies to improve participation by disadvantaged groups and encourage students in fields where WIL engagement is low such as sciences, information technology, and engineering and related technologies.[78]

FINDING 7: Students from disadvantaged and underrepresented groups face financial and non-financial barriers to engage in work-integrated learning (WIL) in higher education. Helping students to overcome the barriers to take part in WIL through financial and other support will contribute to their workforce participation.

RECOMMENDATION 6: As part of the work-integrated learning (WIL) guidance framework (Recommendation 5), the Victorian Government aim to assist universities to address the barriers preventing disadvantaged and underrepresented students from participating in WIL. It should include raising awareness of the benefits of WIL for both industry and students and encouraging greater participation.

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78   Universities Australia, *Work-integrated learning in universities*, p. 13.

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2.4.5 New work-integrated learning opportunities

The 2017 Universities Australia survey showed emerging practices in virtual internships.[79] Technologies and remote working trends in recent years have enabled or broadened new models of WIL, as demonstrated by Deakin University:

> one thing that the pandemic did do for us, which was really interesting, was it brought in the idea of work-integrated learning or work-based learning online, and that has been quite revolutionary for a number of areas for us where work-integrated learning has been less easy to source on a systematic basis—so, for example, in business—to the point now where businesses are seeking online work-integrated learning and placement as much as they are seeking onsite.[80]

The Victorian Skills Authority also suggested that the forthcoming Victorian Skills Plan will have a focus area exploring how technology can enable new flexible placement models (see Section 1.3.2).[81]

Expanding less common forms of WIL, such as student clinics and consultancies, can also create opportunities for students to engage in applied learning. For example, Victoria University suggested that taxation clinics can enhance student learning and benefit the broader community attending them.[82] Stakeholders also suggested there are opportunities to expand the number of university student placements available in the public sector and provide clearer information on these opportunities.[83]

The Committee considers it is important to develop innovative ways of delivering WIL and ensure availability of WIL in all sectors that might benefit from it.

FINDING 8: There are a number of opportunities to expand work-integrated learning (WIL) experiences, including through virtual placement models and enhancing less common forms of WIL. WIL opportunities in the public sector can also be increased.

RECOMMENDATION 7: The Victorian Government, through the Department of Education and Training and the Victorian Skills Authority, support universities and industry to explore new and flexible models of work-integrated learning to increase opportunities.

RECOMMENDATION 8: The Victorian Government consider expanding work-integrated learning and other work experience in the public sector and for publicly funded projects.

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79   Ibid., p. 10.

80   Professor Liz Johnson, Deputy Vice-Chancellor Academic and Acting Vice-Chancellor, Deakin University, public hearing, Melbourne, 28 June 2022, *Transcript of evidence*, p. 7.

81   Craig Robertson, Chief Executive Officer, Victorian Skills Authority, *Inquiry into Victorian universities' investment in skills: the Victorian Skills Plan*, supplementary evidence received 10 June 2022, p. 15.

82   Professor Adam Shoemaker, Vice-Chancellor and President, Victoria University, public hearing, Melbourne, 28 June 2022, *Transcript of evidence*, p. 18.

83   See, for example, The University of Melbourne, *Submission 17*, p. 5; Engineers Australia, *Submission 19*, p. 2.

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2.4.6 Barriers to mandatory work-integrated learning

Placements are mandatory in several priority skill areas. They can be part of a university qualification or a requirement for professional accreditation. The Committee received extensive evidence that Victorian universities face significant challenges securing mandatory placements in education, health and allied health professions because places are limited.[84] Difficulty accessing mandatory placements compromises universities' contribution to the pipeline of skilled workers in these professions.[85]

COVID-19 further reduced the availability of mandatory placements,[86] although shortages existed before the pandemic.[87] A range of factors affect placement availability, including the limited capacity of host organisations, lack of industry awareness[88] and legal requirements.[89] In relation to the limited capacity of host organisations, La Trobe University noted that '[h]ealth services already experiencing workforce shortages often lack the human resources to provide adequate supervision for placements and can only offer so many based on their operational settings'.[90] These challenges constrain universities' ability to enrol students in areas with significant workforce shortages, such as nursing.[91] Ultimately, as ACU noted for education placements, 'ensuring adequate future teacher supply relies on the availability of teaching practicums'.[92]

The Committee heard that a key barrier to effective placements in health, allied health and education is the lack of adequate support for host organisations and supervisors. AASW outlined that if organisations are ill-equipped to host social work students, it can result in inadequate supervision and support, risks to students and clients, and students undertaking tasks which are not relevant to their degree.[93] Low capacity in host organisations may also impact students' ability to learn. AASW further advised that graduates may not have the skills or confidence to carry out professional obligations even though they have completed a qualification. Additionally, mandatory placements may burden higher education providers required to manage placements.[94]

DET referred to a 2021 memorandum of understanding it signed with universities to increase the number of placements in Victoria's public schools to address the low

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84   Australian Association of Social Workers, *Submission 13*, p. 8; Professor Meg Stuart, Interim Provost and Deputy Vice-Chancellor, Academic, Australian Catholic University, public hearing, Melbourne, 28 June 2022, *Transcript of evidence*, p. 6.

85   Australian Catholic University, *Submission 8*, received 5 May 2022, p. 1; La Trobe University, *Submission 22*, p. 10; Professor Liz Johnson, *Transcript of evidence*, p. 7; Professor Gregor Kennedy, Deputy Vice-Chancellor, Academic, The University of Melbourne, public hearing, Melbourne, 28 June 2022, *Transcript of evidence*.

86   The University of Melbourne, *Submission 17*, p. 6.

87   Universities Australia, *Work-integrated learning in universities*, p. 32; The University of Melbourne, *Submission 17*, p. 6.

88   Rachel Reilly, *Transcript of evidence*, p. 29.

89   Victorian Healthcare Association, *Submission 4, Attachment 1*, received 4 May 2022, p. 5.

90   La Trobe University, *Submission 22*, p. 10.

91   Ibid.

92   Australian Catholic University, *Submission 8*, p. 5.

93   Australian Association of Social Workers, *Submission 13*, p. 8.

94   Ibid.

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availability of mandatory student placements.[95] The memorandum aims to streamline and standardise the placement process to ensure placement quality and make it easier for schools to host placements.[96] However, the Committee received evidence from ACU that in 2021, only 11% of the 233 Victorian government schools that indicated willingness to host an ACU placement student through the memorandum actually did so, suggesting there is still reluctance to host students.[97] ACU observed that individual teachers may not see the value in nominating themselves to undertake supervision roles and that 'many teachers appear to consider supervising practicum an unrewarding chore'.[98]

Some stakeholders considered that creating concerted and tailored strategies can capacitate and encourage host organisations to take on placement students. La Trobe University recommended the facilitation of greater supervision training for placement providers.[99] Noting the importance of developing rural medicine capabilities, Monash University further recommended subsidising the training of clinical supervisors to build capacity for rural medical students and interns.[100]

In the education sector, the Victorian Institute of Teaching (VIT) developed a pre-service teacher mentoring program.[101] VIT also allows supervision time to count towards the professional development hours required for teacher's annual registration.[102] Promoting incentives that recognise teachers' contribution when supervising placements may improve teachers' participation in mandatory work placements.

> **FINDING 9:** Host organisations and supervisors are not provided with adequate support to host mandatory placements in priority employment areas, which impacts their willingness and capacity to take on students.

> **RECOMMENDATION 9:** The Victorian Government work with universities and professional bodies to develop tailored strategies to capacitate and support host organisations and supervisors to undertake mandatory student placements, including through providing professional incentives and greater supervisor training.

> **RECOMMENDATION 10:** The Victorian Government, through the Department of Education and Training, review the effectiveness of the 2021 memorandum of understanding with universities to increase the number of pre-teacher placements at Victoria's public schools.

95 Department of Education and Training and Victorian Skills Authority, *Submission 23*, received 16 May 2022, p. 17; Jane Ward, Executive Director, Higher Education and Workforce Development, Department of Education and Training, public hearing, Melbourne, 14 June 2022, *Transcript of evidence*, p. 7.

96 Lill Healy, *Transcript of evidence*, p. 8.

97 Australian Catholic University, *Submission 8*, p. 5.

98 Ibid.

99 La Trobe University, *Submission 22*, p. 10.

100 Monash University, *Submission 21*, received 16 May 2022, p. 3.

101 Lill Healy, *Transcript of evidence*, p. 8.

102 Tony Bates, Acting Deputy Secretary, Higher Education and Skills, Inquiry into Victorian universities' investment in skills hearing, response to questions on notice received 8 July 2022, p. 1.

RECOMMENDATION 11: The Victorian Government, through the Department of Education and Training, work with the Victoria Institute of Teaching to raise awareness among the university sector, teachers and schools that supervision and mentoring of pre-service teachers can count towards the professional development hours required for teachers' annual registration.

In the healthcare sector, the 2022–23 State Budget committed funding to review current clinical placements. The Department of Health noted that the review will investigate opportunities to reform and improve funding for clinical placements. The review will also examine the quantity and the quality of clinical student placements and identify areas to boost capacity.[103] The Department of Health and the Victorian Healthcare Association agreed that there is opportunity to create additional placement capacity in non-traditional settings, such as aged care,[104] and beyond 'inpatient hospital care placements'.[105]

The University of Melbourne suggested mandatory student placement arrangements in education, health and community services sectors should be reviewed.[106] The Committee considers that Victorian Government reviews of mandatory student placements in education and community services can contribute to systematic solutions and assess the effectiveness of current measures. The reviews should consider maximising current capacity, supporting host organisations and supervisors, and alternative ways to source placements by scaling up successful pilots.[107] The Committee understands that, although there may be some shared problems, solutions may differ between sectors.

Several stakeholders highlighted that clinical placement fees and associated costs have become significant and restrain Victorian universities from offering student placements.[108] The Committee acknowledges that fees aim to recognise the time and investment host organisations' make when providing support and supervision.[109] The Committee understands a better balance between recognising host organisations' efforts by charging fees and encouraging student placements to ensure an adequate number of graduates to support workforce development is required.

FINDING 10: Victorian universities face significant challenges in securing mandatory student placements in the health, allied health and education sector, which hinders their ability to enrol students in areas experiencing workforce shortages.

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103 Louise McKinlay, Senior Executive Director, System Improvement, Department of Health, public hearing, Melbourne, 28 June 2022, *Transcript of evidence*, p. 24.

104 Australian Association of Social Workers, *Submission 13*, p. 8.

105 Louise McKinlay, *Transcript of evidence*, p. 24.

106 The University of Melbourne, *Submission 17*, p. 6.

107 Centre for Excellence in Child and Family Welfare, *Submission 9*, p. 2.

108 Professor Liz Johnson, *Transcript of evidence*, p. 7; Deakin University, *Submission 15*, received 9 May 2022, pp. 14–15; Australian Catholic University, *Submission 8*, p. 3.

109 Louise McKinlay, *Transcript of evidence*, p. 24; Professor Liz Johnson, *Transcript of evidence*, p. 7.

RECOMMENDATION 12: The Victorian Government consider fees and funding arrangements in its forthcoming review of clinical student placements to balance training costs to healthcare providers with ensuring a pipeline of skilled workers in healthcare occupations.

RECOMMENDATION 13: The Victorian Government actively consult with relevant stakeholders, including universities, to address the limited availability of clinical placements and make the findings of its forthcoming clinical student placement review publicly available.

RECOMMENDATION 14: The Victorian Government undertake a review of mandatory student placements in education and community services sectors to enhance the number and quality of placements.

2.4.7 Work-integrated learning in regional Victoria

Securing placements for students in rural and regional areas is a key factor for the growth of priority industry areas. The *National regional, rural and remote tertiary education strategy final report* (Napthine Review), released in June 2019, discussed that WIL placements in regional, rural and remote (RRR) areas of Australia are an opportunity to attract students to these areas and meet local industry needs. However, a shortage of RRR placements and barriers such as the cost of travel, accommodation and lack of support are key challenges.[110]

Expanding regional placements

The key benefit of regional placements highlighted by stakeholders is that students are more likely to remain in those areas to live and work after graduation, thus helping with the pipeline of workers and growing local economies.[111] When discussing teacher placements, Swinburne University of Technology outlined that regional placements address supply shortages:

> Those teacher education graduates are more likely to have better skills and knowledge to be able to deal with the particular issues of regional and rural students and, upon graduation, are more likely to remain in the regions and to support teacher education supply shortages that we know are profound.[112]

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110 Denis Napthine, et al., *National regional, rural and remote tertiary education strategy: final report*, report prepared by the Regional Education Expert Advisory Group, report for the Australian Government, Canberra, 2019, p. 42.

111 See, for example, Lill Healy, *Transcript of evidence*, pp. 6–7; Australian Catholic University, *Submission 8*, pp. 1, 6.

112 Professor Chris Pilgrim, *Transcript of evidence*, p. 13.

ACU also discussed the importance of placements in the health field for 'creating a regional-ready workforce'.[113] It noted that approximately 57% of its students undertaking placements with regional and rural providers accept graduate roles and 'stay working within the regions'.[114]

There is a particular need to expand health placements in regional Victoria. Approximately 9% of Deakin University's clinical placements for undergraduate nursing and midwifery are in regional areas. It noted there is 'significant opportunity to increase the number of regional placements'.[115] ACU also considered that Victoria 'requires more placements for more health students, particularly in regional areas'.[116] Monash University observed a trend where nursing graduates enter the workforce without many years of clinical experience but with expectations for career advancement. It considered that this 'points to a need for new models of internship and placements, as well as graduate programs that can be embedded in hospitals and other health care services'.[117] The University of Melbourne discussed its new Doctor of Medicine (Rural Pathway) degree, beginning in 2022, which provides students with a rural medical pathway where they are required to work for three years in a rural area within 18 years of graduating.[118]

The Committee agrees that the availability of student placements in RRR in various sectors should be expanded.

> **FINDING 11:** Regional student placements are essential in priority areas such as health and education to help secure the pipeline of workers and grow local economies. Expanding the number of available placements, particularly where such placements can lead to ongoing working arrangements, can address skills shortages.

> **RECOMMENDATION 15:** The Victorian Government consider ways to expand the availability and uptake of regional placements in priority areas, in conjunction with Recommendations 6 and 7, to explore new and flexible models of work-integrated learning.

Student support

Several barriers prevent students from undertaking placements in RRR areas, including the cost of travel, accommodation and lack of student support. As AASW explained, challenges for students undertaking placements in rural and regional Victoria include:

- Financial stress as they are required to pay for accommodation, food, transport and living expenses, yet have limited capacity to engage in paid [work] while undertaking their placement.

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113 Professor Meg Stuart, *Transcript of evidence*, p. 7.

114 Ibid. 7

115 Deakin University, *Submission 15*, p. 11.

116 Australian Catholic University, *Submission 8*, p. 4.

117 Monash University, *Submission 21*, p. 7.

118 The University of Melbourne, *Submission 17*, p. 10.

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• They are removed from their known community and supports which, combined with the potential financial burden noted above, can contribute to mental ill-health.[119]

AASW expanded at a public hearing that additional physical, financial and social supports are required for students moving to rural and regional areas due to these challenges:

> That is both the physical, so removing them from their potential accommodation into a place where there is a lack of accommodation; not being able to work, so there are the financial issues; but also, and we know this obviously coming out of COVID, just having the normal social supports around a person. When they are uprooted from that and put into rural and regional areas, how well will they flourish if they do not have those sorts of supports? So it needs to be both the physical, the financial and the social supports that are implemented into those rural and regional areas to really entice and allow people to flourish if they are doing those sorts of placements out there.[120]

Stakeholders suggested that providing sufficient support and encouraging metropolitan-based students to undertake regional placements is essential. AASW outlined that some jurisdictions, such as Northern Territory and New South Wales, have built accommodation facilities for placement students and employ local supervisors onsite. It considered that the Victorian Government should similarly provide financial incentives for rural and/or regional Victoria student placements.[121] ACU told the Committee about a pilot program to provide financial and mentoring support to metropolitan students undertaking regional placements:

> So in Queensland, New South Wales and Victoria we are running a program this year where we are providing some financial support to the student, a metro-based student, to undertake a placement; in education we are running this this year. Our financial support covers their travel, their accommodation and some living costs. As part of that program we also connect them to a local mentor, a professional and a social mentor. So we help them to ease into the community and become part of the community within that program. We do not have evidence yet, but anecdotally from a pilot we ran in Queensland we are seeing more of these metro students returning to regional careers on graduation, so we really think that it is worth pursuing.[122]

ACU further noted a recent Victorian Government pilot program to encourage rural and regional placements for pre-service teachers called *Go Rural—Education*, and considered that a similar program for health placements would be beneficial. It also suggested removing financial burdens for students 'can be enough to remove the barrier [to accepting a regional placement] altogether'.[123]

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119   Australian Association of Social Workers, *Submission 13*, p. 10.

120   Rachel Reilly, *Transcript of evidence*, p. 30.

121   Australian Association of Social Workers, *Submission 13*, pp. 10–11.

122   Professor Meg Stuart, *Transcript of evidence*, pp. 7–8.

123   Australian Catholic University, *Submission 8*, pp. 6–7.

The Napthine Review similarly advocated for 'opportunities to attract and retain students in RRR areas, including WIL placements'.[124] It recommended a program to support students to undertake WIL placements in RRR areas through internships, mentorships, practicums, research, teaching and tutoring placements.[125]

The Committee agrees that support is required for students to undertake placements in regional and rural areas, noting the Victorian Government is already taking steps in the education sector towards this. Further targeted supported in priority areas is required.

FINDING 12: Students undertaking placements in rural and regional Victoria, particularly students moving from metropolitan areas, require sufficient financial and social support to reduce potential financial costs and mental ill-health.

RECOMMENDATION 16: The Victorian Government fund financial and social support for students undertaking rural and regional placements in priority employment areas.

Supervisor and host organisation support

Regional supervisors and host organisations that accept university student placements also require assistance. ACU outlined that it spends approximately $1.3 million a year to secure and coordinate health science placements, however, 'while health supervisors in regional areas have the competence to supervise students on placement, they often lack the capacity to do so'.[126] Similarly, AASW told the Committee that organisations require information and resources to support regional placements:

> host industry providers are not actually aware of what is involved in a placement, would not know necessarily how to execute that placement and may not have the resources available, whether that be human resources or the more specific resources around hosting a specific social work student … It is about ensuring industries—so the providers—know that there is this opportunity available and supporting the universities and the providers to connect to adequately support those placements.[127]

La Trobe University also noted a need to improve regional health placement networks.[128] However, the Committee did not receive substantial evidence proposing better ways to support regional industry to offer placements. The Committee considers this issue requires further investigation to ensure supervisors and host organisations can increase the number, availability and quality of placements in regional areas.

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124   Napthine, et al., *National regional, rural and remote tertiary education strategy*, p. 42.

125   Ibid., p. 53.

126   Australian Catholic University, *Submission 8*, p. 4.

127   Rachel Reilly, *Transcript of evidence*, pp. 29–30.

128   La Trobe University, *Submission 22*, p. 10.

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FINDING 13: Supervisors and host organisations in regional and rural Victoria require additional support to offer student placements and adequately supervise students.

RECOMMENDATION 17: The Victorian Government investigate ways to support host organisations in regional and rural Victoria to enable them to offer placements to university students in priority employment areas.

3 Collaboration with vocational education providers and local communities

This chapter outlines the value of improved university collaboration with key stakeholders, particularly Technical and Further Education (TAFE) institutes and local communities, to respond effectively to future skills needs and support localised economic growth.

During the Inquiry, the Committee heard about the need to improve collaboration and coordination between universities and TAFEs to address skills shortages across Victoria and meet demand for employees in priority areas. While several pathways and joint projects between TAFEs and universities exist, stakeholders considered that a more structured approach is required to embed these relationships for the future. Similarly, the Committee received evidence regarding the importance of universities investing in local communities, particularly in regional Victoria.

3.1 Enhancing university and TAFE collaboration

This section discusses the need to enhance collaboration of universities with TAFEs, as they are both key pillars of the post-secondary education system.

In Victoria, TAFE institutes are funded by the State and Commonwealth Governments to provide access to vocational education and training (VET) courses. They operate at a localised level spanning across 90 campuses to provide courses to over 200,000 students.[1] The TAFE network comprises 12 TAFE institutes and four dual-sector universities (Federation University, RMIT University, Swinburne University of Technology and Victoria University).[2] It employs approximately 10,000 staff to deliver more than 2 million training units and manages over $2 billion of state-owned assets.[3] TAFE courses are generally geared towards equipping students for employment through the attainment of specific and practical job skills.[4] Courses are regulated qualifications under the Australian Qualifications Framework (AQF), or short units of competency taken from regulated qualifications.[5]

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1   Victorian TAFE Association, *Submission 24*, received 17 May 2022, p. 2.

2   Department of Education and Training and Victorian Skills Authority, *Submission 23*, received 16 May 2022, pp. 23–24; Victorian TAFE Association, *Submission 24*, p. 2.

3   Victorian TAFE Association, *Submission 24*, p. 2.

4   Australian Institute of Health and Welfare, *Higher education and vocational education*, 16 September 2021, <https://www.aihw.gov.au/reports/australias-welfare/higher-education-and-vocational-education> accessed 8 August 2022.

5   TAFE Victoria, *About*, 2022, <https://www.tafe.vic.gov.au/s/about> accessed 8 August 2022.

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The widespread presence of TAFEs across Victoria is a significant benefit, particularly as TAFE is the only post-secondary school education option available in some regional areas. This was highlighted by South West TAFE at a public hearing:

> The TAFE institutes in regional areas are often the only major public provider delivering post-secondary training and education, and we have a variety of locations throughout our regions—for example, we have got four different campus sites in South West and I think TAFE Gippsland has something like nine different campus locations. And they can become very valuable resources for study or digital skills hubs that can enable university students to attend.[6]

The Committee notes the importance of TAFEs to ensure equitable access to post-secondary school education options across Victoria and their role in training students to be ready for the workforce.

3.1.1 Benefits of collaboration

Commissioned by the Commonwealth Department for Education, Skills and Training, the 2021 *Review of university-industry collaboration in teaching and learning* (the Bean-Dawkins Review) highlighted the need for collaboration across higher education, government and industry to improve skills development and the transition of young people into the workforce. The Bean-Dawkins Review found a need for greater collaboration between higher education and VET providers to ensure that Australia has 'a more comprehensive, coherent and inter-connected tertiary education sector that makes better use of both VET and higher education'.[7] It noted an increase in higher education pathways among school leavers and a decrease in vocational and job pathways over the last 15 years.[8] This trend is accompanied by students more commonly undertaking both vocational and higher education courses, as well as microcredentials, during their life-long learning journeys. However, despite the interlinkages, the Bean-Dawkins Review found a lack of clear pathways and connections between the sectors which ultimately impacts the labour market:

> Policy, regulatory, institutional, administrative and cultural fragmentation impede learners from finding their way into and through pathways that could lead to valued skills and better labour market outcomes, and stifle transitions for students within and between VET and higher education institutions.[9]

In its recommended action for investment in better cross-sectoral partnerships, the Bean-Dawkins Review advocated for building partnerships between higher education providers and industry in collaboration with the VET sector and/or schools.[10]

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6   Dr John Flett, Director, Strategy and Research, South West Institute of TAFE, public hearing, Melbourne, 16 June 2022, *Transcript of evidence*, p. 3.

7   Martin Bean and Peter Dawkins, *Review of university-industry collaboration in teaching and learning*, report for the Department of Education, Skills and Employment, 2021, p. 28.

8   Ibid.

9   Ibid.

10   Ibid., pp. 7, 63, 67.

The 2020 *Future skills for Victoria, driving collaboration and innovation in post-secondary education and training report* (Macklin Review) outlined actions to achieve a more collaborative post-secondary training system, particularly focusing on VET.[11] It considered strengthening connections between TAFE, higher education and community education providers can ensure a more responsive post-secondary system.[12] It made recommendations to strengthen pathways, including through the development of industry-specific platforms.[13]

Similarly, Inquiry stakeholders discussed the benefits of a joined-up tertiary education system, primarily focusing on improving the connections between TAFEs and universities. In support of strengthened partnerships, La Trobe University considered that 'governments at all levels should take a broad and holistic focus … that recognises the complementary roles of both TAFEs and universities'.[14] The Victorian TAFE Association also noted that considering universities and TAFE (and VET more broadly) as one tertiary system is required for better investment, while maintaining the diversity of the sector to meet shifting demands.[15] It also suggested that both collaboration and impact are important in the context of university investment, presenting opportunities to minimise duplication between the sectors, transfer successful strategies and policies, and leverage interconnected programs.[16]

Agreeing that there is a need for increased partnerships, the Department of Education and Training (DET) told the Committee that pathways to employment from the post-secondary school system are key:

> Through pathways across the education and training ecosystem—so working together with schools, with training providers and with industry and business—universities and TAFEs can establish accessible pathways to employment in key priority areas for Victorians at any stage of the post-secondary system … strengthened partnerships—again, it is a building on; it is certainly not starting from scratch—can ensure that all learners with aspiration can access education and training that they need for the job they want.[17]

The University of Melbourne also highlighted in its submission the importance of collaboration in regional areas, noting that '[c]loser links between universities and TAFEs promises better responsiveness to local skills needs, and better utilisation of limited education resources'.[18]

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11   Jenny Macklin, *Future Skills for Victoria: driving collaboration and innovation in post-secondary education and training, final report of the skills for Victoria's growing economy review*, report for the Victorian Government, Melbourne, 2020, p. 8.

12   Ibid., pp. 13, 62.

13   Ibid., p. 62.

14   La Trobe University, *Submission 22*, received 16 May 2022, p. 13.

15   Victorian TAFE Association, *Submission 24*, p. 3.

16   Ibid.

17   Lill Healy, Deputy Secretary, Higher Education and Skills, Department of Education and Training, public hearing, Melbourne, 14 June 2022, *Transcript of evidence*, p. 3.

18   The University of Melbourne, *Submission 17*, received 13 May 2022, p. 9.

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Barriers

Despite these benefits, the Committee understands that there are several barriers to the effective alignment of TAFEs and universities, which directly impacts the education sector's ability to meet workforce demands. Stakeholders reiterated findings made in relevant reviews regarding the disjointed nature of the post-secondary education system. The Victorian TAFE Association advised that universities and TAFEs are currently disjointed and operate as 'very, very separate systems', leading to missed opportunities and substantial hurdles for students to transition between vocational education and higher education.[19] Deakin University also noted that transitions between TAFEs and universities are difficult for students to manage, unless there are very dedicated pathways in place.[20]

The Victorian TAFE Association further explained to the Committee that often there is competition between TAFEs and universities for the limited educational resources available, rather than a sense of shared goals or objectives:

> there has always and continues to be a sense of competition between TAFEs and higher education, which impacts the relationship that we have both ways, and often there is a sense that we are competing for students and that we are competing in each other's arena if you like. That really should not exist.[21]

Another issue raised by the Victorian TAFE Association is that the large and bureaucratic nature of universities means it is not always a simple task to attempt collaborative work.[22] It noted that universities' large workforce size 'does make it difficult for them to explore new pathways in terms of education and qualifications'.[23]

There is also a persistent divide between the applied and theoretical learning approaches taken in TAFEs and universities. The Australian Centre for Career Education considered that TAFEs have an advantage in ensuring student workforce readiness:

> I think that is the difference with our TAFEs and where they have been very successful in ensuring that young people are well prepared for the workforce, both in the development of their courses, because they are very focused on work readiness, but they also have designed their courses with this applied learning element. And I think that is where our universities could really learn about the importance of understanding how the AQF works and then designing their courses to have that applied learning element within them. There are many university courses that are already doing this— but not as many as we would like to see, because I think that that is what we are missing.

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19 Dan Mabilia, Director, Advocacy and Policy, Victorian TAFE Association, public hearing, Melbourne, 16 June 2022, *Transcript of evidence*, p. 4.

20 Professor Liz Johnson, Deputy Vice-Chancellor Academic and Acting Vice-Chancellor, Deakin University, public hearing, Melbourne, 28 June 2022, *Transcript of evidence*, pp. 4–5.

21 Pam Jonas, Senior Adviser, Victorian TAFE Association, public hearing, Melbourne, 16 June 2022, *Transcript of evidence*, p. 4.

22 Dr John Flett, *Transcript of evidence*, p. 4.

23 Ibid.

We really still have this great divide between applied learning and theoretical learning, and in a country the size of Australia we could be doing this a lot better.[24]

La Trobe University pointed to gaps in the way components of the post-secondary system are treated at a strategic policy level. For example, a recent review of agricultural education in Victoria did not include universities in its remit, which exacerbates fragmentation:

I think there needs to be a mindset in state government and in universities that we are part of a post-secondary tertiary system that needs to work together in a more integrated way. I think the department needs to see that as part of its agenda.[25]

Another example given by La Trobe University was the commencement of Free TAFE, which was seen as a great initiative, but has had negative impacts on regional university enrolments.[26] La Trobe University commented that this could be seen through one lens as 'promoting one part of [post-secondary education] at the potential expense of another'.[27]

Federation University suggested that the Victorian Government 'has a role to play in helping universities and the TAFE sector to continue the network approach where at all possible to help address some of these gaps'.[28] Additionally, La Trobe University noted there is 'enormous scope for state government to play a role in facilitating a more seamless interaction between TAFE and higher ed[ucation]'.[29]

> **FINDING 14:** Collaboration between universities and TAFEs can result in improved student workforce readiness and responsiveness to labour market needs. However, there are several barriers to effective working relationships, including fragmentation of the post-secondary school education system.

3.1.2 Pathways across vocational and higher education

Despite the challenges, the Committee heard of a range of initiatives already being undertaken to bring universities and TAFEs into closer working relationships. As noted by RMIT University in discussing the recommendations of the Bean-Dawkins Review for better collaboration, 'rather than needing to start from ground zero … there is a good repository of opportunity that is already there'.[30]

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24   Bernadette Gigliotti, Chief Executive Officer, Australian Centre for Career Education, public hearing, Melbourne, 14 June 2022, *Transcript of evidence*, p. 31.

25   Professor John Dewar AO, Vice-Chancellor, La Trobe University, public hearing, Melbourne, 28 June 2022, *Transcript of evidence*, p. 5.

26   See, for example, La Trobe University, *Submission 22*, p. 13.

27   Professor John Dewar AO, *Transcript of evidence*, p. 5.

28   Liam Sloan, Pro Vice-Chancellor (VET) and CEO TAFE, Federation University, public hearing, Melbourne, 28 June 2022, *Transcript of evidence*, p. 10.

29   Professor John Dewar AO, *Transcript of evidence*, p. 5.

30   Mish Eastman, Deputy Vice-Chancellor, Vocational Education and Vice-President, RMIT, public hearing, Melbourne, 28 June 2022, *Transcript of evidence*, p. 10.

Dual-sector universities

The clearest example of the overlap between the higher education and VET sectors is the development of Victorian dual-sector universities. Victoria houses four of the six Australian dual-sector universities, which provide students with access to both vocational and higher education. As noted by DET and the Victorian Skills Authority (VSA) in its submission, dual-sector universities link school students to tertiary education by providing the relevant training and education programs they need for employment and skills development.[31] DET and VSA considered that they 'play an integral role in supporting graduate capability across the spectrum of vocational and higher education qualification levels'.[32] VSA presented data demonstrating that there is 'a particularly strong attribute within our dual-sector universities' where students commence in VET in certain courses and then continue into higher education (e.g. 57.5% of those studying the Advanced Diploma of Business (Public Relations) went on to higher education in 2020).[33] Similarly, RMIT University considered that the benefit of dual-sector universities lies in the ability for students to move back and forth between the sectors:

> Victoria has a very unique lived experience and advantage of having dual-sector universities and the ecosystem of a joined-up education experience that is not linear; it is not necessarily VE [vocational education] to HE [higher education]. It is about multidirectional experiences for students applying in regions with equally as much vigour as they do in metro experience.[34]

RMIT University also discussed the advantages of dual-sector universities that use applied solutions that prioritise the needs of the workforce:

> I think RMIT and certainly all of us as dual-sector universities have a long legacy with regard to our establishment coming from applied solutions for the communities that we reach, so I think there are some elements and a key contribution the actual sectors can make. Part of our bench strength is understanding the multifaceted approach to workforces that employers are looking for.[35]

A number of practical examples of how dual-sector universities produce the skills needed for the workforce were presented to the Committee. For example, Victoria University has partnered with Ambulance Victoria to provide a centre of activity for paramedicine at its Sunshine campus.[36] DET described the value of students accessing VET courses as well as being able to move into a degree:

> This is a great example of really looking at the very local needs and conditions of a sector that is really in demand in Victoria and of course nationally. In this area its paramedics

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31 Department of Education and Training and Victorian Skills Authority, *Submission 23*, p. 3.

32 Ibid.

33 Craig Robertson, Chief Executive Officer, Victorian Skills Authority, public hearing, Melbourne, 14 June 2022, *Transcript of evidence*, p. 13; Craig Robertson, Chief Executive Officer, Victorian Skills Authority, *Presentation*, supplementary evidence received 14 June 2022, p. 10.

34 Mish Eastman, *Transcript of evidence*, p. 13.

35 Ibid., pp. 17–18.

36 Victoria University, *Submission 26*, received 15 June 2022, pp. 7–8; Professor Adam Shoemaker, Vice-Chancellor and President, Victoria University, public hearing, Melbourne, 28 June 2022, *Transcript of evidence*, p. 15.

training space offers really world-class simulated workplace learning and courses that are co-designed with industry, and a successful completion of the diploma of emergency health care provides entry into a bachelor of paramedicine—a practical example of really applied looking at local needs and bringing that into courses.[37]

A regional example identified was through Federation TAFE, which has constructed Australia's first wind turbine training tower in Ballarat—the Asia Pacific Renewable Energy Training Centre.[38] DET spoke of how this initiative works well across both university and TAFE to anticipate workforce needs:

> as a dual sector it is a great example of how a university can work across different components of the Australian qualifications framework. They have established a wind turbine training centre at Ballarat to create the next generation of renewable energy technicians and engineers, so there is a great example of a university that also has a TAFE component sort of really looking over the horizon and being ahead of the needs.[39]

Dual-sector universities play a significant role in ensuring collaboration across university and TAFE education and training. Collaboration is required to address skills shortages and prepare the workforce for the swift-changing labour market landscape.

FINDING 15: Dual-sector universities play a significant role in providing pathways across vocational and higher education.

Hybrid or dual qualifications

The Committee heard of innovations to encourage student learning across higher and vocational education simultaneously, to ensure workers are prepared with both the knowledge and practical ability needed for the labour market. A particularly noteworthy example is found in Federation University, which, as a regional dual-sector university, 'is uniquely positioned to support regional priorities and local economic growth'.[40] It has recently launched Australia's first hybrid degree for the Bachelor of Sustainable Food Systems, which traverses both TAFE and university components.[41] The university is looking to launch other hybrid degrees in areas such as advanced manufacturing, renewables and agriculture in 2023.[42] The Committee also heard that La Trobe University had success in trialling a dual degree-diploma model, however, Commonwealth funding changes in 2017 rendered the program unfeasible.[43]

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37   Lill Healy, *Transcript of evidence*, p. 4.

38   Federation University, *Submission 16*, received 10 May 2022, p. 3; Victorian TAFE Association, *Submission 24*, p. 5.

39   Jane Ward, Executive Director, Higher Education and Workforce Development, Department of Education and Training, public hearing, Melbourne, 14 June 2022, *Transcript of evidence*, p. 7.

40   Department of Education and Training and Victorian Skills Authority, *Submission 23*, p. 3.

41   Federation University, *Submission 16*, p. 5.

42   Ibid.

43   La Trobe University, *Submission 22*, p. 13.

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Some stakeholders discussed the potential for dual or hybrid qualifications to improve learning outcomes and employability.[44] South West TAFE told the Committee that there are opportunities to investigate dual qualifications in other relevant areas:

> there seems to me to be a real opportunity to encourage or stimulate more interest in dual qualifications, where students might study at both a TAFE and a university. Examples might include something like that the certificate IV in disability course might be done at TAFE concurrently with a bachelor of social work. There are some really good benefits that come out of the practical applications that are part of the VET qualification that can apply then to the degree qualification.[45]

Federation University further discussed the importance of government, industry and universities working together and ensuring pathways are in place:

> One of the key things that we need is, as Liam has said, the aspiration raised from school through TAFE, the pathways into university. How do we go across the AQF level with hybrid qualifications and make sure that you can pathway in?[46]

The Committee notes that the development of hybrid degrees provides the potential for students to obtain higher education within the context of practical skills learned through TAFE engagement.

FINDING 16: There is an opportunity for hybrid or dual qualifications between higher and vocational education to equip students with the applied skills and knowledge required for workforce readiness.

RECOMMENDATION 18: The Victorian Government assist universities, including dual-sector universities, and TAFEs to develop hybrid or dual qualifications in priority subject areas where integrated qualifications would be of practical benefit for the employability of graduates.

Improved partnerships

Ensuring smooth pathways between universities and TAFEs was discussed by several stakeholders. The Victoria TAFE Association recommended creating opportunities 'by allowing or providing the mechanisms for students to have an easier pathway into higher education from vocational education'.[47] However, it cautioned that it would be important to invest in partnerships between TAFEs and universities, rather than recreating or duplicating 'the same delivery capacity in universities that exist in TAFEs'.[48]

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44 See, for example, Dianne Semmens, Deputy Vice-Chancellor, Vocational Education, Victoria University, public hearing, Melbourne, 28 June 2022, *Transcript of evidence*, p. 12.

45 Dr John Flett, *Transcript of evidence*, p. 4.

46 Professor Duncan Bentley, Vice-Chancellor and President, Federation University, public hearing, Melbourne, 28 June 2022, *Transcript of evidence*, p. 11.

47 Dan Mabilia, *Transcript of evidence*, p. 4.

48 Pam Jonas, *Transcript of evidence*, p. 2.

A current example demonstrating the value of partnerships was identified between Deakin University and South West TAFE to address the regional shortages of nurses. Through this partnership, Diploma of Nursing graduates have a guaranteed pathway to enter the Bachelor of Nursing at the Deakin University Warrnambool campus through a special entry access scheme.[49] In another example, Deakin University has partnered with the Gordon Institute of TAFE in Geelong to provide a dedicated pathway program for its TAFE students, including to collaborate in the Skilling the Bay program (Case study 3.1.).[50] Deakin University's Hycel Technology Hub is also working with South West TAFE to design courses and microcredentials in the growing hydrogen industry.[51] It noted in its submission that this project 'illustrates the synergies that can be achieved when TAFEs and universities work effectively together'.[52]

> **FINDING 17:** Strong partnerships between universities and TAFEs can result in pathways for students to move between vocational and higher education and contribute to ensuring appropriate skills are available to local workforces.

Stakeholders suggested there are multiple ways to improve pathways for students to move across vocational and higher education. In the context of agriculture, the Victorian Farmers Federation suggested there is a need for TAFE/VET graduates to receive recognition of prior learning credits when commencing university and for the provision of relevant assistance to students.[53] Similarly, the Committee heard from the VSA that university recognition of prior learning through VET is not systematic, with the issue currently being considered further:

> what we need to be able to do is make sure that the learning in vocational education and training is almost automatically recognised as credit to let you go into higher education. That is not quite the case at the moment, so what we will be doing is working through that qualifications framework and even on how we think about qualifications that promote that transition and success for people to go from VET into higher education.[54]

In the area of health, the Department of Health noted that there is opportunity to improve regional planning for the health workforce across both university and TAFE sectors, noting that 'the best way to retain your workforce is to grow your own locally'.[55] La Trobe University also suggested there is scope to introduce 'degree apprenticeships', which would involve a TAFE skills-based experience during the completion of a degree or major.[56]

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49   Deakin University, *Submission 15*, received 9 May 2022, p. 11.

50   Ibid., p. 10; Lill Healy, *Transcript of evidence*, p. 3.

51   Deakin University, *Submission 15*, p. 11.

52   Ibid.

53   Victorian Farmers Federation, *Submission 10*, received 6 May 2022, p. 5.

54   Craig Robertson, *Transcript of evidence*, pp. 15–16.

55   Louise McKinlay, Senior Executive Director, System Improvement, Department of Health, public hearing, Melbourne, 28 June 2022, *Transcript of evidence*, p. 24.

56   La Trobe University, *Submission 22*, p. 14.

Ultimately, South West TAFE recognised that while there are many examples of individual collaborative efforts, there is currently 'no systemic approach' to embed structural collaboration across the sectors.[57]

In discussing these issues with the Committee, DET acknowledged the need for deeper partnerships to 'ensure that all learners with aspiration can access education and training that they need for the job they want', noting the range of current examples and the natural advantage of dual-sector universities in exploring integrated learning pathways.[58] The Victorian Government's particular role in facilitating these partnerships was also discussed. DET considered that its Office of TAFE Coordination and Delivery (OTCD) can make a significant contribution to ensuring both universities and TAFEs engage with business and industry:

> I think the opportunity is there for universities and TAFEs together to leverage those relationships better, rather than individually trying to go out and sustain those, and I think government can play a role in facilitating and brokering that, both through things like the Office of TAFE Coordination and Delivery for TAFEs and, again, through our collaborative ventures with universities.[59]

Similarly, Federation University told the Committee that the establishment of the OTCD and VSA 'is taking us some way towards embracing that opportunity for government, TAFEs and universities to have that collaborative approach'.[60]

As a first step, Victoria University suggested bringing universities, TAFEs and industry into alignment, which could be facilitated through a roundtable forum:

> We have already gone on record offering to host, with many others, on our city campus a kind of roundtable with all the relevant skills sectors and everyone on those issues and how to bring them together. We think that would be a really productive next step, and then focus on policy into legislation rather than just talking about the possibilities, because we think Victoria can really lead the way in this respect.[61]

The Committee notes that there is a need for structured and ongoing partnerships between universities and TAFEs to ensure that students can readily access both the vocational and higher education courses they require, particularly where they are designed to be responsive to local labour market needs. The Committee agrees that the Victorian Government should help facilitate these partnerships.

> **FINDING 18:** While there are examples of strong partnerships between universities and TAFEs to enable smooth learning pathways for students, there is a need to embed a systemic approach to collaborative and responsive relationships.

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57   Dr John Flett, *Transcript of evidence*, p. 5.

58   Lill Healy, *Transcript of evidence*, p. 3.

59   Ibid., p. 9.

60   Liam Sloan, *Transcript of evidence*, p. 10.

61   Professor Adam Shoemaker, *Transcript of evidence*, p. 11.

> **RECOMMENDATION 19:** The Victorian Government, through the Department of Education and Training's Office of TAFE Coordination and Delivery and the Victorian Skills Authority, take a lead role to facilitate the structured collaboration of TAFEs and universities to improve learning pathways for students.

Another potential solution suggested was to incentivise partnerships between universities and TAFEs through funding arrangements. La Trobe University considered there is a need for government 'to strengthen and incentivise greater collaboration between Victorian universities, vocational education and training providers, and industry'.[62] South West TAFE acknowledged that the Victorian Government's Workforce Training and Innovation Fund has enabled TAFEs to bring university partners into projects.[63] However, it considered that there are not enough incentives to encourage universities to bring TAFEs into their projects, with Commonwealth funding generally directed to higher education rather than VET:

> too many commonwealth funds for industry-based work are purely directed at the higher ed sector and it sort of freezes out the vocational education and training sector, which it is a real shame because it is fantastic to develop new technologies and new processes, but unless you can train the technicians and the operators of those new technologies, there is going to be a problem, and it is not a problem that you want to be solving the day after the plant gets installed and the suppliers walk away. So I guess we need some incentives. We need to make sure that universities include TAFE and other private providers from the VET sector in their thinking.[64]

Such gaps in funding require redress to ensure that the relevant educational stakeholders in both higher and vocational education can be engaged to deliver the skills needed in the workforce. This may require consideration at both Victorian and Commonwealth Government levels.

A recent project which will use expertise across both sectors is found in a grant of Commonwealth Trailblazer Universities Program funding to Deakin University's Recycling and Renewable Energy Commercialisation Hub. This project, backed by other industry and university funding, will be delivered by range of government, industry and education partners.[65] This includes researchers from several TAFEs (the Gordon Institute of TAFE, Bendigo Kangan Institute, South West TAFE, Wodonga TAFE and Swinburne TAFE) and universities (Federation University, RMIT University, Swinburne University of Technology and the University of Southern Queensland) to create a job-ready workforce.[66]

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62   La Trobe University, *Submission 22*, p. 14.

63   Dr John Flett, *Transcript of evidence*, p. 5.

64   Ibid.

65   Victorian TAFE Association, *Submission 24*, p. 5.

66   Ibid.

FINDING 19: There is a need to provide incentives to ensure that universities and TAFEs can collaborate effectively to deliver the skills needed in priority areas for economic growth and delivery of services.

RECOMMENDATION 20: The Victorian Government fund opportunities that promote strengthened partnerships between universities and TAFEs. Such opportunities may also require consideration of Commonwealth Government funding arrangements.

A final area considered is the need to improve public information and awareness on the pathways available for school leavers, including where integrated learning through TAFE and university is an option. As stated by La Trobe University, 'the Victorian Government could increase the publicly available information on TAFE-university pathways' to support partnerships and synergies.[67] Similarly, the Victorian TAFE Association spoke of the need to include industry to promote jobs in new and emerging industries, such as the clean economy:

> I think it is a broader collaboration between industry and the education sector and a broader collaboration between industry and government and the education sector to be working together on promoting these things and explaining to people what the future looks like—in fact what now looks like.[68]

The Committee notes that improving public information on university and TAFE education is a key factor to help address skills shortages and to promote careers in new and emerging industries. It is important that public information is widely accessible, and all options are known to school leavers.

FINDING 20: There is a need for improved public information on learning pathways through universities and TAFEs to ensure students are aware of all options available.

RECOMMENDATION 21: The Victorian Government promote public information on learning pathways through universities and TAFEs.

3.1.3   Collaborative education hubs

To strengthen connections between TAFEs, universities and community education providers, the Macklin Review recommended the establishment of FutureSkills Labs to bring together education and training providers, industry, unions, and communities for skills development, including in the areas of the clean economy, care economy and digital economy.[69]

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67   La Trobe University, *Submission 22*, p. 13.

68   Pam Jonas, *Transcript of evidence*, p. 6.

69   Macklin, *Future Skills for Victoria* pp. 17–18.

In a similar way, the Committee heard of the need to consider ways for universities and TAFE providers to share services and collaborate in innovative location-based ways. For example, South West TAFE noted exploring such options in regional areas in particular, and it is currently working on a relevant educational precinct pilot program:

> With appropriate support and relationships outer regional TAFE campuses can become great locations to create broader educational precincts bringing together Learn Locals, adult education centres and universities. Structured as digital or study hubs there can be savings and synergies that allow access to multiple university or TAFE programs, as well as better learner support systems and services. SWTAFE [South West TAFE] is currently involved in a research project pilot to explore how such a model can work in outer regional Victoria.[70]

Victoria University detailed its approach to establishing four innovation hubs through Victorian Government funding under the Victoria Higher Education State Investment Fund. As part of the Education Innovation Hub*,* Victoria University is working to deliver offerings in both higher and vocational education to reduce transition barriers.[71] La Trobe University is currently considering ways to work with local TAFE providers in Melbourne's north, including 'through the sharing of resources and facilities through joint usage agreements or co-location, as well as other opportunities' to enable transitions.[72] Similarly, South West TAFE indicated that it is 'open to collaboration, shared services or coordination and cost sharing between TAFE institutes in appropriate areas (e.g. payroll, finance, course accreditation)', with DET support.[73]

FINDING 21: Collaborative efforts through the development of education hubs or shared services between universities and TAFEs are currently being considered by various institutions.

RECOMMENDATION 22: The Victorian Government implement policies to support university and TAFE models for collaborative education hubs or shared services where appropriate.

3.2 Enhancing university and local community collaboration

This section discusses the importance of universities collaborating with local communities to ensure learning needs are met, skills shortages are addressed and localised workforce planning can be undertaken to anticipate future needs.

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70 South West Institute of TAFE, *Submission 3*, received 3 May 2022, p. 9.

71 Victoria University, *Submission 26*, p. 5.

72 La Trobe University, *Submission 22, Attachment 1*, p. 14.

73 South West Institute of TAFE, *Submission 3*, p. 4.

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3.2.1   Benefits of collaboration

The importance of embedding universities within local communities was particularly raised in the context of regional Victoria. In a submission, DET and VSA considered that the four regional Victorian universities are critical for increasing local access to higher education and research, and building connections with schools, TAFEs, local government, and business.[74] DET and VSA also noted that universities support regional areas as they are major employers of regional Victorians. They are also key to securing the pipeline of local workers, including by 'encouraging people to remain in their communities to study and seek local employment opportunities'.[75] RMIT University described the importance of place-based responses to workforce challenges in key sectors (such as health, human and community services).[76] DET further explained at a public hearing when discussing regional skill shortages that the key issue is to come together with business partnerships and address the questions, 'How do we actually solve local problems or try and drive to local needs? How do we retain younger people staying in our areas?'.[77] This also requires enhanced engagement of industry partners, as described in Chapter 2.

Case study 3.1. details one program, Skilling the Bay, identified in evidence as a good example of local partnerships.

CASE STUDY 3.1: Skilling the Bay

Skilling the Bay began in 2011, led by the Gordon Institute of TAFE in partnership with Deakin University and the Victorian Government using a strong partnership model. The initiative was designed to deliver localised education, employment and innovation for Geelong businesses and workers due to significant economic transition in the region over the past decade. It achieved several education successes, including the engagement of 300+ industry partners, a 20% increase in workforce participation from 2011 to 2016, and participation of over 11,000 secondary students in future career pathway programs. Deakin University considered that it 'helped to build Geelong's economic resilience, supporting it to be recognised as one of the most resilient regions in Australia'.

Source: Deakin University, *Submission 15*, received 9 May 2022, pp. 10–11.

The Committee notes that given the complexities and opportunities for economic growth presented in regional Victoria, localised partnerships are imperative to ensure that education providers, industry and government are working together to achieve collective goals for workforce participation.

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74   Department of Education and Training and Victorian Skills Authority, *Submission 23*, pp. 18, 22.

75   Ibid., p. 18.

76   RMIT University, *Submission 5*, received 4 May 2022, p. 8.

77   Lill Healy, *Transcript of evidence*, p. 7.

> **FINDING 22:** Collaborative efforts between universities and all stakeholders within local communities to address workforce skills shortages and planning are key drivers for success, particularly where they are utilised effectively in regional Victoria.

3.2.2 Engaging and responding to local communities

The Committee heard of many efforts across Victoria to engage local communities and work together on skills development. For example, The University of Melbourne, La Trobe University and GOTAFE are working on the *Goulburn Valley regional education strategy and plan* to provide 'a connected approach to education pathways, courses, articulation and the experience of studying' at their institutions.[78]

The Committee also identified an example where local training pathways were developed in an organic way that was responsive to the needs of the community. The Alpine Institute is a registered training organisation that was originally intended to be the internal training unit for Alpine Health.[79] It is now a local regional training hub delivering various health certifications, growing from a handful of students to 400 graduates in 2021.[80] The Victorian Healthcare Association (VHA) suggested that with some planning and data analysis, this model could be replicated and expanded elsewhere.[81]

In another example, VHA described efforts of Regional Development Victoria in the Loddon region to develop 'a very detailed pathway right from VET training all the way into late-stage careers, even going as early as high school', noting collaboration is key:

> I think that is where the TAFE sector, government and our industry can really work together in developing that pipeline more structurally than it is now and across the state. It is really developing that staged approach to it, and I guess that speaks to that point earlier about capturing the community's imagination very early on in the piece into TAFE.[82]

In terms of ways to move collaborative efforts forward, The University of Melbourne suggested that regional communities would benefit from a strategic approach led by government to 'conven[e] education providers, industry and local communities to create regional precincts that can sustain economic development'.[83] This would need to be accompanied by funding for regional infrastructure.

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78 The University of Melbourne, *Submission 17*, p. 9.

79 Victorian Healthcare Association, *Submission 4, Attachment 1*, received 4 May 2022, p. 6; Juan Paolo Legaspi, Manager, Policy and Advocacy, Victorian Healthcare Association, public hearing, Melbourne, 16 June 2022, *Transcript of evidence*, p. 10.

80 Victorian Healthcare Association, *Submission 4, Attachment 1*, p. 6.

81 Juan Paolo Legaspi, *Transcript of evidence*, p. 10.

82 Ibid., p. 9.

83 The University of Melbourne, *Submission 17*, p. 10.

DET and VSA acknowledged there is scope for deeper regional local community engagement, noting that both regional and metropolitan universities should play a role:

> There is an opportunity for universities with regional campuses to collaborate closely with the Victorian Government and relevant Local Governments to better understand the localised economic outlook and workforce needs of their region. A proactive approach will help identify ways that universities can align their presence in regional Victoria, through innovation and research, education and partnerships, to the specific priorities of each region. This could include supporting regional Victorian industries with technologies that address impacts of climate change, or working with local businesses and councils on innovative workplace-based learning opportunities, strengthening students' social and economic ties with their communities.

> Metropolitan universities without a regional footprint can also play a role in supporting regional objectives. There is an opportunity to better engage these universities to deliver on the Government's regional priorities, including through employment pathway programs in education and health as well as industry partnerships connecting researchers with local business to support the transition to the clean economy.[84]

Such engagement would require the support of DET to ensure there is a structured approach to university engagement with local community stakeholders. These efforts will be greatly enhanced by the VSA's Regional Skills Demand Profiles currently under development to identify local education and training requirements.[85] VSA also discussed the importance of promoting available pathways to regional communities:

> I think it is that exposure to what the opportunities are and creating those stronger pathways so that a student can say, 'Hey, I can stay here. I can train locally, and I can then continue to live locally and make my life locally'. I think that is something that we need to be able to do, and I think it is to be able to show what the linkages are from when you leave school to what you can do in your local region, and that may well be that it is a combination of vocational learning or higher education learning that is made available in new ways in those regions.[86]

The Committee notes that the engagement between universities and local communities is a key strategy for ensuring that all relevant stakeholders are aligned to address local education and training needs and workforce planning.

FINDING 23: University engagement with local communities is an important factor for ensuring that universities are responsive to local educational and workforce needs. There is a need for a more structured approach to university engagement with local communities.

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84   Department of Education and Training and Victorian Skills Authority, *Submission 23*, p. 19.

85   Craig Robertson, *Transcript of evidence*, p. 13.

86   Ibid., p. 14.

RECOMMENDATION 23: The Victorian Government support universities to work with regional partners on place-based skills solutions and workforce planning strategies. This collaboration should include stakeholders such as local governments, industry partners and TAFEs. Such work should leverage the Victorian Skills Authority's Regional Skills Demand Profiles and other relevant initiatives.

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4 Learning support and skills planning in priority employment areas

Universities can support and encourage students—both secondary school graduates and mature-aged students—to study or upskill in priority employment areas to address skills shortages. This chapter explores this topic by considering improved access to enrolments in priority skills courses and innovative ways of upskilling employees through microcredentials and local skilling pathways. It also considers enhancing universities' contributions to skills forecasting and the use of workforce supply and demand data.

4.1 University access and retention in priority skills areas

Universities can encourage students to enrol in sought-after skills areas through several methods, including marketing campaigns and funding assistance. Under-represented groups, like regional or Aboriginal and Torres Strait Islander students, require targeted support to facilitate access to university education in priority employment areas. Once students are enrolled, they should have access to career planning and support that increases their understanding of relevant skillsets required in different sectors to help them graduate and prepare for their careers. This section considers these mechanisms and discusses the effects of Commonwealth Government university funding reforms.

4.1.1 Encouraging enrolments

To address skills shortages in priority areas, students should be encouraged to enrol in courses in specific sectors.[1] Universities can promote courses in sectors currently experiencing skills shortages or that will require additional workers in the future.[2] To facilitate this, stakeholders suggested implementing marketing campaigns for sectors such as agriculture, engineering, food, fibre and health.[3] Marketing campaigns can counter stereotypes or negative associations about certain industries and career paths,[4] as well as highlight varying career progression options and the value of

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1 La Trobe University, *Submission 22*, received 16 May 2022, p. 13; The University of Melbourne, *Submission 17*, received 13 May 2022, p. 7.

2 Department of Education and Training and Victorian Skills Authority, *Submission 23*, received 16 May 2022, p. 19.

3 Victorian Farmers Federation, *Submission 10*, received 6 May 2022, p. 4; Dr John Flett, Director, Strategy and Research, South West Institute of TAFE, public hearing, Melbourne, 16 June 2022, *Transcript of evidence*, p. 6.

4 Dr John Flett, *Transcript of evidence*, p. 6.

graduating with a diverse range of educational, skill and qualification outcomes.[5] The Centre for Excellence in Child and Family Welfare, for example, drew attention to the Victorian Government's funding in the 2022–23 State Budget for a recruitment campaign for the community services workforce. The Centre advised that universities should promote the strategy to raise awareness of different career pathways in the sector.[6]

Stakeholders proposed that marketing and awareness campaigns should target young people, teachers, career counsellors and advisors, parents and families.[7] Targeting parents and the community is important because they influence the career decisions young people make.[8] Awareness-raising activities should begin in primary and secondary schools, but years 11 and 12 are particularly important as young people begin to consider career options.[9]

Industry participation is a vital component to better inform school students of the diverse roles available in different industries and the required skills.[10] Deakin University highlighted that career development services in schools should enable students to consider long-term and multiple career options, adaptable to labour market trends. Universities currently work with secondary schools to facilitate this, but Deakin University noted it 'requires close collaboration with both government and industry, and any opportunity to grow those industry linkages, supported by government … would be very welcome'.[11] Similarly, the Victorian TAFE Association commented that strong collaboration with industry to promote what new jobs and skills look like can encourage school students, as well as people seeking to change careers or transition from traditional industries, to move to priority employment areas.[12]

In addition, students should be encouraged to enrol in areas that align with their skills, passions, and learning and employment goals, rather than choosing study options based on fees.[13] La Trobe University explained that there is no 'one-size-fits-all solution':

> there is scope to be more creative than perhaps we have been in the past in identifying ways to attract students into particular priority areas, but … they are going to be

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5 Mish Eastman, Deputy Vice-Chancellor, Vocational Education and Vice-President, RMIT, public hearing, Melbourne, 28 June 2022, *Transcript of evidence*, pp. 16–17; Craig Robertson, Chief Executive Officer, Victorian Skills Authority, public hearing, Melbourne, 14 June 2022, *Transcript of evidence*, p. 14; Dianne Semmens, Deputy Vice-Chancellor, Vocational Education, Victoria University, public hearing, Melbourne, 28 June 2022, *Transcript of evidence*, p. 12.

6 Centre for Excellence in Child and Family Welfare, *Submission 9*, received 6 May 2022, p. 3.

7 Dr John Flett, *Transcript of evidence*, p. 6; Alesha Printz, General Manager, Victoria, Engineers Australia, public hearing, Melbourne, 16 June 2022, *Transcript of evidence*, p. 20; Mish Eastman, *Transcript of evidence*, p. 16.

8 Dr John Flett, *Transcript of evidence*, p. 6; Mish Eastman, *Transcript of evidence*, p. 16.

9 Dan Mabilia, Director, Advocacy and Policy, Victorian TAFE Association, public hearing, Melbourne, 16 June 2022, *Transcript of evidence*, p. 5; Professor Adam Shoemaker, Vice-Chancellor and President, Victoria University, public hearing, Melbourne, 28 June 2022, *Transcript of evidence*, p. 16.

10 Dianne Semmens, *Transcript of evidence*, p. 12; Professor Duncan Bentley, Vice-Chancellor and President, Federation University, public hearing, Melbourne, 28 June 2022, *Transcript of evidence*, p. 17.

11 Professor Liz Johnson, Deputy Vice-Chancellor Academic and Acting Vice-Chancellor, Deakin University, public hearing, Melbourne, 28 June 2022, *Transcript of evidence*, p. 3.

12 Pam Jonas, Senior Adviser, Victorian TAFE Association, public hearing, Melbourne, 16 June 2022, *Transcript of evidence*, p. 6.

13 Department of Education and Training and Victorian Skills Authority, *Submission 23*, pp. 8–9; Jane Ward, Executive Director, Higher Education and Workforce Development, Department of Education and Training, public hearing, Melbourne, 14 June 2022, *Transcript of evidence*, p. 5.

slightly different depending on what the priority area is. But there is certainly scope … for universities and the State Government to work together to incentivise or to make particular areas of study more attractive to students than others.[14]

In terms of funding assistance in priority skills areas, the Department of Education and Training (DET) and Victorian Skills Authority (VSA) considered that fees do not necessarily incentivise or deter students from enrolling in certain areas (except for students from lower socio-economic backgrounds), because costs are often deferred.[15] However, other evidence presented to the Committee suggested that targeted funding and incentives can attract students to future priority skill areas. Scholarships, bursaries, financial support and flexible funding options were proposed as potential means of encouraging enrolments.[16] Stakeholders consistently raised scholarships and grants that encourage students to relocate to regional areas to study in priority employment areas as an area of need, particularly as students who study in regional areas are more likely to remain there and work.[17] Multiple stakeholders also recommended that the Victorian Government advocate to and work with the Commonwealth Government to allocate more Commonwealth Supported Places (CSPs) and overall funding to priority areas and sectors experiencing workforce shortages to boost enrolments.[18]

FINDING 24: Targeted financial incentives, marketing and awareness-raising campaigns, and career education in schools can attract students to study in priority skills areas.

RECOMMENDATION 24: The Victorian Government work with universities and industry to undertake tailored initiatives that encourage enrolments in priority skills areas, including marketing campaigns, financial incentives and career education in schools.

4.1.2 Access for under-represented groups

The Victorian Government's education policy, *Education State*, commits to fostering equity in access to education, which 'means that all students will have access to the same quality education, regardless of their background or circumstance'.[19] Engineers

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14 Professor John Dewar AO, Vice-Chancellor, La Trobe University, public hearing, Melbourne, 28 June 2022, *Transcript of evidence*, p. 3.

15 Department of Education and Training and Victorian Skills Authority, *Submission 23*, pp. 8–9; Jane Ward, *Transcript of evidence*, p. 5.

16 La Trobe University, *Submission 22*, p. 3; Bernadette Gigliotti, Chief Executive Officer, Australian Centre for Career Education, public hearing, Melbourne, 14 June 2022, *Transcript of evidence*, p. 32; Craig Robertson, *Transcript of evidence*, p. 13; Professor Adam Shoemaker, *Transcript of evidence*, p. 16; Professor Meg Stuart, Interim Provost and Deputy Vice-Chancellor, Academic, Australian Catholic University, public hearing, Melbourne, 28 June 2022, *Transcript of evidence*, pp. 5–6.

17 Victorian Farmers Federation, *Submission 10*, p. 6; Australian Catholic University, *Submission 8*, received 5 May 2022, p. 1; La Trobe University, *Submission 22*, p. 3; Rachel Reilly, Manager, Policy and Advocacy, Australian Association of Social Workers, public hearing, Melbourne, 14 June 2022, *Transcript of evidence*, p. 30; Craig Robertson, *Transcript of evidence*, p. 14; Lill Healy, Deputy Secretary, Higher Education and Skills, Department of Education and Training, public hearing, Melbourne, 14 June 2022, *Transcript of evidence*, p. 7.

18 Professor Meg Stuart, *Transcript of evidence*, pp. 5–6; Professor John Dewar AO, *Transcript of evidence*, p. 6; Australian Catholic University, *Submission 8*, pp. 1, 6; Deakin University, *Submission 15*, received 9 May 2022, p. 5.

19 Victorian Government, *About the Education State*, 28 April 2022, <https://www.vic.gov.au/about-the-education-state> accessed 8 August 2022.

Australia noted that the benefits of a diverse workforce 'extend beyond equity and equal opportunity, to enhanced productivity and innovation that fresh perspectives resulting from diversity through any lens (gender, culture, socio-economic background etc.) brings'.[20] Likewise, the Centre for Excellence in Child and Family Welfare observed that diversity in student enrolments is required to reflect the broad range of clients in the child and family sector.[21]

However, the Committee heard that certain groups are excluded from education and face educational disadvantage, including regional and lower socio-economic status students.[22] This intersects with factors such as gender, learning ability, cultural differences and personal circumstances to make access to education more difficult for certain people.[23] For example, Engineers Australia highlighted several reasons why women are discouraged from entering the engineering sector, including low awareness of employment options, negative perceptions of the profession (e.g., that it is male-dominated and unfulfilling), poor career engagement during secondary education, insufficient support for female students while studying, unequal opportunities in the workforce and adverse workplace cultures.[24] Stakeholders identified that incentives are necessary to encourage under-represented groups to enrol in science, technology, engineering and mathematics courses.[25] This includes raising awareness of the engineering industry and 'the breadth of exciting, rewarding and important career opportunities the profession offers ... to encourage more young Australians of all gender identities to choose to study engineering'.[26]

Many universities provide programs to promote student access to education in priority skills areas, including to regional or low socio-economic status students.[27] Case study 4.1. outlines one program, Raising Expectations, that encourages people with lived experience of being in care to complete post-secondary education. Raising Expectations was recognised by Deloitte Access Economics as providing a significant return on investment. In 2020, the program won an award for effective investment in social impact.[28] Stakeholders identified an opportunity to expand access to such programs that encourage under-represented and diverse groups to enrol in priority

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20   Engineers Australia, *Women in Engineering: identifying avenues for increasing female participation in engineering, by understanding the motivators and barriers around entry and progression*, Canberra, June 2022, p. 4.

21   Centre for Excellence in Child and Family Welfare, *Submission 9*, p. 3.

22   South West Institute of TAFE, *Submission 3*, received 3 May 2022, pp. 3, 8–9.

23   Ibid., p. 3.

24   Engineers Australia, *Women in Engineering*, p. 5.

25   Victorian Chamber of Commerce and Industry, *Submission 7*, received 5 May 2022, pp. 3, 6; Jane MacMaster, Chief Engineer, Engineers Australia, public hearing, Melbourne, 16 June 2022, *Transcript of evidence*, pp. 16–17.

26   Jane MacMaster, *Transcript of evidence*, pp. 16–17.

27   Professor Kris Ryan, Pro Vice-Chancellor, Academic, Monash University, public hearing, Melbourne, 28 June 2022, *Transcript of evidence*, p. 2; Professor Gregor Kennedy, Deputy Vice-Chancellor, Academic, The University of Melbourne, public hearing, Melbourne, 28 June 2022, *Transcript of evidence*, p. 2.

28   Centre for Excellence in Child and Family Welfare, *Raising Expectations Winner of the 2020 'Effective Investment Category' SIMNA Award*, 4 December 2020, <https://www.cfecfw.asn.au/raising-expectations-winner-of-the-2020-effective-investment-category-simna-award> accessed 8 August 2022.

skills areas at universities.[29] However, uncertain and time-bound funding can limit the effectiveness of equal access programs as it hinders the recruitment of students and program expansion.[30]

CASE STUDY 4.1: Raising Expectations

Raising Expectations is a unique evidence-informed model that provides a platform for government, universities, TAFEs [Technical and Further Education] and the community sector to work together to improve access to and enable successful completion of post-secondary study for people who are in or have lived in alternative care. Raising Expectations currently partners with Federation University Australia, La Trobe University and Swinburne University of Technology and is in negotiations with the remaining universities regarding participation in the program. The universities provide practical wrap-around support for care leaver students to increase access and reduce barriers to vocational and higher education, including financial (bursaries, scholarships and grants), mentoring, academic and other personal support.

Supported by these partnerships, the Raising Expectations model has contributed to tangible improvements in the education and life opportunities for individuals who have been in care, seeing the number of care experienced people enrolled in the partner universities rise to more than 700 students.

This support has positively contributed to a pipeline of workers for community services, as around 70 per cent of surveyed care leaver students are completing courses in industries experiencing workforce shortages – health, community services & education.

Source: Centre for Excellence in Child and Family Welfare, *Submission 9*, received 6 May 2022, p. 3.

Specific equity measures can also help address student disadvantage.[31] Universities can use equity strategies to promote access to quality education for marginalised groups, particularly regional students.[32] The Australian Centre for Career Education stated there is an opportunity to fund scholarship programs that allow young people to access education 'at the highest level that they can achieve … so that they have got the very best potential coming out of courses and into workplaces'.[33] Similarly, Deakin University recommended increasing funding and places in priority skills areas for students of diverse backgrounds, including from regional areas, lower socio-economic backgrounds, or who are the first in the family to attend university.[34]

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29   Professor Kris Ryan, *Transcript of evidence*, p. 2; Deb Tsorbaris, Chief Executive Officer, Centre for Excellence in Child and Family Welfare, public hearing, Melbourne, 14 June 2022, *Transcript of evidence*, pp. 24–25; Dr Michele Lonsdale, Deputy Chief Executive Officer and Director, Policy, Research and Advocacy, Centre for Excellence in Child and Family Welfare, public hearing, Melbourne, 14 June 2022, *Transcript of evidence*, p. 23.

30   Dr Michele Lonsdale, *Transcript of evidence*, p. 24.

31   Centre for Excellence in Child and Family Welfare, *Submission 9*, p. 3.

32   South West Institute of TAFE, *Submission 3*, p. 8; Federation University, *Submission 16*, received 10 May 2022, pp. 4–5.

33   Bernadette Gigliotti, *Transcript of evidence*, p. 33.

34   Deakin University, *Submission 15*, p. 5. See also Dr Michele Lonsdale, *Transcript of evidence*, p. 23.

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The National Tertiary Education Union identified that the Commonwealth Government's Job-ready Graduates (JRG) reforms (discussed further in Section 4.1.4) negatively impacted First Nations students, female students and students with disability. These students historically had higher participation rates in courses that are now more expensive due to JRG reforms. The Union recommended that universities 'offer incentives, such as targeted scholarships and bursaries' in the areas negatively affected by the changes, 'to ensure that these student cohorts continue to take up studies in areas of interest, as opposed to what they can afford'.[35]

In the 2022–23 State Budget, the Victorian Government allocated $1.53 million over four years for the Aboriginal health workforce, including through scholarships, undergraduate cadetships, and training for existing Aboriginal health workers.[36] The Victorian Aboriginal Education Association noted that Aboriginal and Torres Strait Islander people's participation in university courses can be further enhanced through technology that increases course accessibility. In addition, collaboration between universities and Aboriginal education organisations and support for programs that facilitate access to education can be improved.[37] Federation University also highlighted that investing in technology can improve connections between different learning institutes to provide education to disadvantaged groups, particularly for students located in regional areas where teaching is less financially viable.[38]

> **FINDING 25:** Equity strategies and programs, financial assistance and technology can encourage disadvantaged and marginalised groups to enrol in education pathways in priority skills areas.

> **RECOMMENDATION 25:** The Victorian Government collaborate with universities to provide adequate funding for tailored programs and learning options that encourage under-represented groups to enrol in education pathways in priority skills areas.

4.1.3 Career guidance in university and student retention initiatives

The Australian Centre for Career Education advised that many universities are reducing career development services, which was hastened by COVID-19.[39] The Centre's submission stated that '[o]perationalising career development and education from policy has proved difficult in many jurisdictions and educational settings', which, combined with other factors, has led to a disconnect between student learning

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35   National Tertiary Education Union, *Submission 20*, received 13 May 2022, p. 14.

36   Louise McKinlay, Senior Executive Director, System Improvement, Department of Health, public hearing, Melbourne, 28 June 2022, *Transcript of evidence*, p. 23.

37   Professor Mark Rose, Vice President, Victorian Aboriginal Education Association Incorporated, public hearing, Melbourne, 28 June 2022, *Transcript of evidence*, pp. 28–29.

38   Liam Sloan, Pro Vice-Chancellor (VET) and CEO TAFE, Federation University, public hearing, Melbourne, 28 June 2022, *Transcript of evidence*, pp. 12–13.

39   Australian Centre for Career Education, *Submission 2*, received 28 April 2022, p. 2; Bernadette Gigliotti, *Transcript of evidence*, p. 32.

outcomes, career planning and the skills required by industry.[40] The Centre further advised that there are different career development needs depending on university size:

> Sometimes it is not possible to provide a careers centre for the entire university, simply because of the size of the university, but we should be able to achieve a career development centre per faculty, with one or two experts in each faculty who are responsible for the career development of that group of students.[41]

The Committee learnt that career guidance, counselling and development practitioners, including those with subject matter expertise, should be embedded in university courses so students can identify and understand required future skills.[42] In addition, the Australian Centre for Career Education identified that, upon entry to a course, students should be able to access 'an evidence-based portfolio of career development across the life of their course':

> There are some outstanding examples coming out of the US … [for example] the Florida State University model, which has exactly this. Every student has a portfolio that they are responsible for, and right across the development of their course they can identify the key employability skills they have developed in their course, the applied learning experience that they may have participated in and the work expo component of their course. And they then present that to prospective employers, and prospective employers have access to it. [43]

Case Study 4.2. on DeakinTALENT demonstrates how universities can successfully embed career counselling into university courses.

CASE STUDY 4.2: DeakinTALENT

DeakinTALENT is Deakin University's careers and employment service for students and graduates. It is available both on campus and online to facilitate access to support whenever needed. Most undergraduate degrees also have career education embedded into the core curriculum.

DeakinTALENT provides services to recruit and facilitate connections between employers and students. This includes working with external partners to advertise employment and internship programs, support recruitment through candidate searching and shortlisting, and promote vacancies to specific student cohorts.

Some of the key outcomes in 2021 included over 17,000 vacancies advertised on the DeakinTALENT jobs and internship board, over 15,000 students participating in career education in their core curriculum and close to 7,000 students participating in career services like career coaching or workshops.

Source: Deakin University, *Submission 15*, received 9 May 2022, p. 12.

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40 Australian Centre for Career Education, *Submission 2*, p. 3.

41 Bernadette Gigliotti, *Transcript of evidence*, p. 32.

42 Australian Centre for Career Education, *Submission 2*, p. 2.

43 Bernadette Gigliotti, *Transcript of evidence*, p. 32.

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In addition, strengthening student retention can help address skills gaps by ensuring fewer students leave courses.[44] The Australian Catholic University (ACU) outlined that targeted intervention and proactive prevention for students at risk of leaving courses can better support them to graduate from teaching courses.[45] Additionally, collecting and systematically analysing student performance data can ensure courses are designed to increase student success. ACU observed that a 'more evidence-based, research-informed approach to retention and student success' could positively impact Victoria's supply of skilled workers.[46]

Engineers Australia described how 'support for engineering students through tutors, role models and mentors' is essential as 'not feeling a sense of belonging is an important factor in many engineering students changing degrees'.[47] The Australian Association of Social Workers recognised that more financial and social support for students on placement in metropolitan and regional areas can facilitate the development of an adequately skilled future workforce.[48] In reference to Raising Expectations, the Centre for Excellence in Child and Family Welfare identified providing support to disadvantaged students by connecting them with a dedicated part-time worker upon commencement as a positive outcome.[49] The Victorian Farmers Federation similarly outlined that regional students who choose to study locally, online or relocate to metropolitan areas require 'improved support services and flexible delivery options … to improve student retention and outcomes'.[50]

> **FINDING 26:** Career guidance programs and wellbeing support can improve university student retention and ensure graduates are equipped with the skills required by industry in priority employment areas. However, many universities have reduced career guidance programs or provide insufficient support for students.

4.1.4 Commonwealth Government funding reforms in priority skills areas

The Commonwealth Government capped total funding for universities in December 2017.[51] In 2020, it introduced the JRG package with the intent to 'improve accessibility for regional students, strengthen relationships with business, and increase the number of graduates in areas of expected employment growth'.[52] However, the Committee learnt

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44   Australian Catholic University, *Submission 8*, p. 6.

45   Ibid., pp. 6, 9.

46   Ibid., pp. 6, 8.

47   Jane MacMaster, *Transcript of evidence*, p. 17.

48   Rachel Reilly, *Transcript of evidence*, pp. 28–29, 30.

49   Dr Michele Lonsdale, *Transcript of evidence*, p. 23.

50   Victorian Farmers Federation, *Submission 10*, p. 6.

51   La Trobe University, *Submission 22*, p. 4. See also Deakin University, *Submission 15*, p. 8.

52   Centre for Future Work, *Submission 14, Attachment 1*, received 6 May 2022, p. 22. See also Department of Education, Skills and Employment, *Job-ready Graduates: higher education reform package 2020*, Australian Government, Canberra, 2020, p. 8; Department of Education and Training and Victorian Skills Authority, *Submission 23*, p. 8; La Trobe University, *Submission 22*, pp. 4–5.

that the changes had unintended effects. The University of Melbourne explained the constraints and perverse impacts it has had on enrolments in priority areas:

> at a very basic level the package really constrains … our ability to direct investment into areas which are of Victorian Government priority. It dictates the fees and subsidies for different clusters of education, with a view to attracting students and with the intent of growing enrolments in a particular area. But perversely, in practice the program incentivises in the opposite direction in many cases and really in areas that are not considered priorities.[53]

The Centre for Future Work summarised that the reforms resulted in students paying higher tuition fees on average, with Commonwealth funding decreasing by 15%, and universities losing 5.9% of funding per student.[54] Consequently, universities receive less overall funding, including for priority courses where they are expected to expand domestic enrolments. This will likely affect course supply and demand, and universities' ability to provide high-quality teaching programs for future workforces.[55] Similarly, universities identified in evidence that funding reforms and caps inhibit their ability to provide training in certain priority employment areas and contribute to the pipeline of skilled professionals.[56]

The reforms had mixed effects on enrolments, as noted by La Trobe University:

> [while] implementation of the package seems to be roughly tracking to plan and meeting its overall intent, a number of study disciplines appear to be attracting an increase in student applications despite increased costs to students … This study cluster includes the humanities, social sciences, psychology, social work, and law—areas of study not identified by the [Commonwealth] Government as being of industry priority. What this demonstrates is that student demand does not necessarily follow industry need or areas of workforce shortages. Indeed, early data suggest that students may not be sensitive to price points when they are not required to pay up-front fees.[57]

Similarly, the Centre for Future Work discussed the changes to student contributions and funding, concluding that student demand is not significantly impacted at this stage:

> It is still unclear what impact this will have on supply and demand for different fields of study. The government's purported intention is to use changes in student fees as 'price signals' to encourage student enrolments in undergraduate programs with stronger demand from employers. However, humanities, law and economics still saw a 13 per cent increase in enrolments in 2021, up from a 1.4 per cent increase in 2020. In comparison,

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53   Professor Gregor Kennedy, *Transcript of evidence*, p. 10. See also Department of Education and Training and Victorian Skills Authority, *Submission 23*, pp. 8–9; Sarah Roberts, Assistant Division Secretary for Victoria, National Tertiary Education Union, public hearing, Melbourne, 16 June 2022, *Transcript of evidence*, p. 14.

54   Centre for Future Work, *Submission 14, Attachment 1*, p. 36.

55   Eliza Littleton, Research Economist, Centre for Future Work, public hearing, Melbourne, 28 June 2022, *Transcript of evidence*, p. 19; Centre for Future Work, *Submission 14, Attachment 1*, p. 36.

56   Deakin University, *Submission 15*, pp. 4, 8; Monash University, *Submission 21*, received 16 May 2022, pp. 8–9; Australian Catholic University, *Submission 8*, p. 1.

57   La Trobe University, *Submission 22*, p. 5.

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degrees with reduced prices for students under the JRG system saw a similar increase in enrolments; up 9 per cent in science and 13 per cent in engineering. This suggests that student demand is not being significantly impacted by the price 'signals' at this stage.[58]

However, DET and VSA's submission identified that the changes may disparately impact under-represented and educationally disadvantaged groups by encouraging 'these students to enrol in courses with a lower student contribution that do not align with their strengths or ambitions, which may lead to an increase in subject failures'.[59] Further, as the JRG program penalises students with low subject completion rates by reducing their eligibility for fee assistance from the Commonwealth Government, this disproportionately affects disadvantaged students who experience social and economic challenges, including regional students or those with mental health complications.[60]

La Trobe University reported that the changes pressured universities to 'cap student enrolments, as they would no longer receive additional grant funding if student enrolments increased beyond the funding cap'.[61] Moreover, DET and VSA's submission identified that the JRG changes may have resulted in universities enrolling students in courses with higher student contributions and a lower Commonwealth contribution, which:

> can enable universities to extend the fixed amount of Commonwealth funding across other subject areas to maximise overall revenue generated from student fees, maintaining capability across the breadth of course offerings, and pursue economies from optimal allocation of CGS [Commonwealth Grant Scheme] funding. The extent to which these incentives undermine the underlying objectives of JRG and result in a decrease in enrolments that lead to jobs in priority sectors such as clean economy, advanced manufacturing, agriculture, social services (including early childhood), and health (including mental health) must be closely monitored.[62]

The Centre for Future Work suggested that funding reforms may result in universities providing education that is 'almost exclusively about training for employment'.[63] This was perceived negatively, as it may occur at the expense of university education as a public service that equips 'graduates with a well-rounded understanding of all aspects of life—rather than just greater "employability"'.[64]

The mixed evidence highlights the importance of the forthcoming Commonwealth Government's JRG review, which was welcomed by several Inquiry stakeholders.[65] Stakeholders emphasised that an improved understanding of the effects of the changes,

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58   Centre for Future Work, *Submission 14, Attachment 1*, pp. 34–35. with sources. See also Jane Ward, *Transcript of evidence*, p. 5.

59   Department of Education and Training and Victorian Skills Authority, *Submission 23*, pp. 8–9.

60   Ibid.; Lill Healy, *Transcript of evidence*, p. 5; Professor Kris Ryan, *Transcript of evidence*, p. 10.

61   La Trobe University, *Submission 22*, p. 4. See also Deakin University, *Submission 15*, p. 15.

62   Department of Education and Training and Victorian Skills Authority, *Submission 23*, p. 8.

63   Centre for Future Work, *Submission 14, Attachment 1*, p. 44.

64   Ibid.

65   La Trobe University, *Submission 22*, p. 6; Lill Healy, *Transcript of evidence*, p. 5; Professor Gregor Kennedy, *Transcript of evidence*, p. 10; Professor John Dewar AO, *Transcript of evidence*, p. 10.

particularly as they coincided with the start of COVID-19, is required.[66] Further, it was considered that universities can provide greater transparency and improve reporting to better understand how the changes affected enrolments in priority employment areas.[67]

The National Tertiary Education Union recommended the Victorian and Commonwealth Governments converse to address the gaps created by JRG.[68] Similarly, DET and VSA identified an opportunity for the Victorian Government to work with universities to 'overcome any perverse impacts of the JRG reforms', as well as proactively share insights on enrolments in university courses for priority sectors.[69] The Committee believes enhanced Victorian Government engagement with universities and better evidence on the effects of the changes can increase both the Victorian Government's and education sector's ability to advocate to the Commonwealth Government 'on concerns that the reforms do not meet intended objectives and may result in unintended consequences'.[70]

FINDING 27: The Commonwealth Government's Job-ready Graduates program produced unintended effects on enrolments in priority skills areas. Some priority skills areas received less overall funding and students from lower socio-economic backgrounds may have been disproportionally affected. Lower overall funding for priority employment areas reduces the ability of universities to provide high-quality courses for in-demand skills.

RECOMMENDATION 26: The Victorian Government and universities collaborate and use evidence on enrolments to advocate for change and increased funding by the Commonwealth Government in its upcoming review of the Job-ready Graduates program.

4.2   Upskilling and reskilling workers to address skills gaps

Universities can contribute to the upskilling and reskilling of workers to address workforce shortages, as the University of Melbourne's submission explained:

> The sector's role in career-long upskilling and reskilling will likewise become increasingly important in the coming years. Given that unforeseen shifts in the economy are inevitable and access to additional workers is constrained by the current tight labour market, Victoria's economic performance will to a large extent depend upon the ability to add to the skills of those already in the workforce and re-skill those seeking to re-enter the workforce.[71]

DET and VSA stated that universities need to develop 'new approaches to expanding workforce capacity and capability that are responsive to changing needs, [and] meet

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66   Professor Gregor Kennedy, *Transcript of evidence*, p. 10; Professor John Dewar AO, *Transcript of evidence*, p. 10.

67   Sarah Roberts, *Transcript of evidence*, p. 14; Professor Gregor Kennedy, *Transcript of evidence*, p. 10.

68   Sarah Roberts, *Transcript of evidence*, p. 13.

69   Department of Education and Training and Victorian Skills Authority, *Submission 23*, p. 9.

70   Ibid.

71   The University of Melbourne, *Submission 17*, p. 4.

government priorities and industry demand'.[72] This section considers facilitating this by creating a robust microcredential system, promoting local skilling pathways and supporting skills bridging programs for overseas-trained professionals.

4.2.1 A robust, industry-relevant microcredential system

Throughout the Inquiry, microcredentials were consistently raised as an effective mechanism for upskilling and reskilling the workforce to address labour demands and shortages due to economic and workforce changes.[73] Microcredentials should be 'stackable' (meaning they can be accredited towards other postgraduate qualifications) and short.[74] They should also be informed by industry best practice, developed in partnership with industry to ensure they are relevant and respected, accessible, and linked to workforce and industry needs.[75]

The benefits of microcredentials raised by stakeholders included that they can:

- allow for the quick development of skills to complement 'rapidly developing technologies and emerging disciplines'[76]

- enable flexible and quick reskilling in dynamic labour markets[77]

- be more responsive to industry and economic skills needs and address challenges associated with student study interests not aligning with workforce shortages[78]

- reskill and provide professional development for employees in the current energy market to move to new clean energy sectors,[79] as well as upskill health professionals to improve health and aged care service delivery[80]

- help people build skills over time and through different career changes or work transitions, rather than people becoming over-qualified[81]

- help people build soft skills[82]

- act as a bridge to higher education.[83]

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72 Department of Education and Training and Victorian Skills Authority, *Submission 23*, p. 19.

73 Victorian Chamber of Commerce and Industry, *Submission 7*, p. 2; Jane MacMaster, *Transcript of evidence*, p. 17; Craig Robertson, *Transcript of evidence*, p. 14.

74 Lill Healy, *Transcript of evidence*, p. 6; Federation University, *Submission 16*, pp. 2–3; Dylan Broomfield, General Manager, Policy and Advocacy, Victorian Chamber of Commerce and Industry, public hearing, Melbourne, 14 June 2022, *Transcript of evidence*, p. 19.

75 Dylan Broomfield, *Transcript of evidence*; The University of Melbourne, *Submission 17*, p. 5; La Trobe University, *Submission 22*, p. 9; Professor Simon Bell, Head of Melbourne School of Professional and Continuing Education, The University of Melbourne, public hearing, Melbourne, 28 June 2022, *Transcript of evidence*, p. 4; Lill Healy, *Transcript of evidence*, p. 6; Federation University, *Submission 16*, pp. 2–3.

76 Engineers Australia, *Submission 19*, received 13 May 2022, p. 3.

77 Lill Healy, *Transcript of evidence*, p. 5.

78 La Trobe University, *Submission 22*, pp. 9–10.

79 Federation University, *Submission 16*, p. 3; Monash University, *Submission 21*, p. 13.

80 La Trobe University, *Submission 22*, p. 3.

81 Pam Jonas, *Transcript of evidence*, p. 7.

82 Department of Education and Training and Victorian Skills Authority, *Submission 23*, p. 16.

83 Deakin University, *Submission 15*, p. 12.

The University of Melbourne indicated that microcredentials 'are here to stay' as '[t]hey are incredibly compelling experiences' that learners enjoy, so universities must consider how they can be better established and understood as a potential educational offering.[84] The Victorian Chamber of Commerce and Industry (Victorian Chamber) also identified that universities have a key role to play in offering and accrediting microcredentials because '[w]ith sufficient support, universities can contribute to this fast-paced learning model by offering shorter training programs that are fit-for-purpose, accredited, and meet industry demands'.[85]

However, the Committee heard that microcredentials must be adequately regulated.[86] Microcredentials should be part of a system of diverse course offerings and not duplicate other options, as noted by the Victorian TAFE Association:

> we do not want to see microcredentialling become … the way that everybody goes. Microcredentials have a place within the system; they are not the system. There will always be a place for full qualifications [and] we need to be careful about getting caught up in the dynamic at the moment around microcredentials as being some sort of panacea to building the skills that we need across the state.[87]

Additionally, microcredentials often have a 'bad name' or are undervalued because they have not been properly defined or recognised.[88] Victoria University emphasised that a consistent definition of microcredentials is required that adequately reflects their quality and ability to provide skills quickly.[89] Similarly, the Victorian Chamber identified that microcredentials should be recognised as a formal qualification and understood as a 'small value-added skill' that allows someone in a job to move to the next level.[90] A consistent definition can also preserve the quality of microcredentials, as DET expressed:

> It is where it is quality and can be linked to an ongoing qualification and where it can be delivered in a flexible way that enables workforces to really maximise the use. So microcredentials have a role to play both in, again, upskilling and re-skilling for people moving between careers, but only with those criteria. What we cannot do is lose quality, and we cannot have credentials out there—because they are credentials, they are not just mini certificates—that are not respected by industry, because then they will not be taken up, they will not hold stead.[91]

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84   Professor Simon Bell, *Transcript of evidence*, p. 8.

85   Victorian Chamber of Commerce and Industry, *Submission 7*, p. 2. See also Dylan Broomfield, *Transcript of evidence*, p. 20.

86   Dan Mabilia, *Transcript of evidence*, p. 7; Victorian Chamber of Commerce and Industry, *Submission 7*, p. 3.

87   Pam Jonas, *Transcript of evidence*, p. 7. See also Professor Liz Johnson, *Transcript of evidence*, p. 6; Mish Eastman, *Transcript of evidence*, p. 16.

88   Dylan Broomfield, *Transcript of evidence*, pp. 19–20; Mish Eastman, *Transcript of evidence*, p. 16.

89   Professor Adam Shoemaker, *Transcript of evidence*, p. 15.

90   Dylan Broomfield, *Transcript of evidence*, p. 19.

91   Lill Healy, *Transcript of evidence*, p. 6.

Stakeholders highlighted that greater clarity and consistency is necessary on how microcredentials should be:

- defined, including their role and the size, quality and impact of courses[92]

- developed and funded[93]

- accredited towards university courses or other qualifications[94]

- recognised by industry and how the skills obtained relate to the workplace.[95]

Proper regulation of microcredentials may generate enhanced understanding of their role, trust in their quality and recognition of the value they add to careers, and ensure they are embedded in career development and lifelong learning.[96] To enhance the regulation of microcredentials, stakeholders suggested that:

- they must focus on learning outcomes and include an assessment[97]

- they must be developed in consultation with industry[98]

- accrediting and evaluating microcredentials should be 'rigorous and consistent' and done by subject matter experts[99]

- they must be delivered coherently through partnerships between providers, for example, through 'a cross-institutional platform that supports the delivery of credentials rather than the constant replication and duplication of effort'[100]

- industry should be incentivised to allow employees to complete microcredentials.[101]

The Victorian Chamber raised the New Zealand Qualifications Authority's (NZQA) approach to regulating microcredentials as good practice.[102] NZQA defines microcredentials as smaller courses focused on skill development opportunities not catered for by the tertiary education system. Microcredentials are a certified 'achievement of a coherent set of skills and knowledge' based on specific objectives, learning outcomes and 'strong evidence of need from industry, employers, and/ or community'.[103] They are reviewed annually to ensure their ongoing relevance.

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92 Victorian Chamber of Commerce and Industry, *Submission 7*, pp. 3, 5; Dylan Broomfield, *Transcript of evidence*, pp. 16, 19; Professor Simon Bell, *Transcript of evidence*, p. 8; Mish Eastman, *Transcript of evidence*, p. 16; Professor Adam Shoemaker, *Transcript of evidence*, p. 15; Professor Duncan Bentley, *Transcript of evidence*, p. 16.

93 Victorian Chamber of Commerce and Industry, *Submission 7*, pp. 3, 5; Dylan Broomfield, *Transcript of evidence*, pp. 16, 19; Professor Simon Bell, *Transcript of evidence*, p. 8.

94 Professor Liz Johnson, *Transcript of evidence*, p. 9; Professor Simon Bell, *Transcript of evidence*, p. 8; Victorian Chamber of Commerce and Industry, *Submission 7*, p. 3; Dylan Broomfield, *Transcript of evidence*, p. 20.

95 Professor Liz Johnson, *Transcript of evidence*, p. 9; Professor Simon Bell, *Transcript of evidence*, p. 8.

96 Dylan Broomfield, *Transcript of evidence*, pp. 19–20; Professor Liz Johnson, *Transcript of evidence*, p. 9.

97 Engineers Australia, *Submission 19*, p. 3.

98 Ibid.

99 Jane MacMaster, *Transcript of evidence*, p. 19.

100 Liam Sloan, *Transcript of evidence*, p. 15.

101 Andrew Kong, Pro Vice-Chancellor and Chief Executive, Vocational Education and Training, Swinburne University of Technology, public hearing, Melbourne, 28 June 2022, *Transcript of evidence*, p. 15.

102 Victorian Chamber of Commerce and Industry, *Submission 7*, pp. 3, 6; Dylan Broomfield, *Transcript of evidence*, p. 16.

103 New Zealand Qualifications Authority, *Micro-credentials*, 22 August 2018, <https://www.nzqa.govt.nz/providers-partners/approval-accreditation-and-registration/micro-credentials> accessed 8 August 2022.

NZQA assesses microcredentials and publishes approved courses on a register, a process that takes up to 20 working days. Tertiary education providers can partner to develop courses and microcredentials can be stacked.[104]

Engineers Australia is trialling a framework to recognise microcredentials in the industry to provide 'confidence to participates [sic] and industry that the learning outcomes and structure have been independently evaluated'.[105] Engineers Australia explained the system aims to be 'agile and nimble' with the intent to help members find the most relevant and targeted microcredential learning options—that have been quality-tested by Engineers Australia—to help them upskill.[106]

National Microcredentials Framework

The Commonwealth Government released the National Microcredentials Framework in early 2022.[107] It defines a microcredential as:

> a certification of assessed learning or competency, with a minimum volume of learning of one hour and less than an AQF [Australian Qualifications Framework] award qualification, that is additional, alternate, complementary to or a component part of an AQF award qualification.[108]

The Framework is to be accompanied by a 'Microcredentials Marketplace': a 'user-friendly, nationally-consistent platform that allows learners, employers and providers to compare short courses'.[109] The Framework lists minimum standards that will apply to the Marketplace. The Marketplace is yet to be launched and the Framework will be reviewed 12 months after its implementation.[110]

Stakeholders made multiple suggestions to improve the microcredential system. The Victorian Chamber noted the need for the system to be responsive and fit for purpose:

> the National Microcredentials Framework … has a huge capacity to deliver outcomes over time … [but] it is only new, so we have not really had a chance to see how it is going to work. The big issue, again, comes down to: how can we rapidly accredit some of these microcredentials? That all counts on qualifying through the Australian Qualifications Framework, and at the moment that—currently—takes two years. Now, if I am creating a micro-credential today, in two years time when it is finally accredited it might not be relevant. It might not be fit for purpose anymore. So we need to work out what ways we can try and encourage and help facilitate the national microcredentials framework such that it is able to be a more proactive, malleable and responsive instrument so that

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104 Ibid.

105 Engineers Australia, *Submission 19*, p. 3.

106 Jane MacMaster, *Transcript of evidence*, p. 19.

107 Department of Education, Skills and Employment, *National Microcredentials Framework*, Australian Government, Canberra, November 2021.

108 Ibid., p. 3.

109 Ibid., p. 2.

110 Ibid., p. 6.

businesses and industry are able to get those credentials done and established as quickly as possible, which in turn is better for not just the employer but also the employee.[111]

La Trobe University acknowledged the Commonwealth Government's commitment to develop a microcredential system in partnership with industry and expressed support for '[s]caling up and recognising microcredentials' to 'better respond to contemporary, community aspirations and local needs'.[112] Federation University similarly stated that the government could incentivise education providers to upskill the existing workforce and develop a future pipeline of talent through microcredentials.[113]

Several stakeholders recommended the Victorian Government provide increased funding and support for microcredential courses, particularly those relevant to priority skills areas or that 'would deliver economic benefits but where the incentives for businesses to invest are weak'.[114] La Trobe University recommended both the Commonwealth and Victorian Governments fund universities to develop 'responsive and tailored short courses and microcredentials in conjunction with industry to meet the current and future skills needs', with flexible education delivery options.[115] VSA suggested it can undertake data analysis and provide advice to universities on emerging skills areas, in conjunction with industry, to provide guidance on what courses are required.[116] DET noted that any changes to microcredentials, either by Victorian universities or other stakeholders, must be connected to the Commonwealth Government's microcredential framework review.[117]

While stakeholders provided evidence on the need for better consistency and regulation of microcredentials, given that the National Microcredentials Framework was released in early 2022 and is to be reviewed at the beginning of 2023, the Committee believes more time is required for improvements to flow from the Framework's introduction. However, the Victorian Government should consider the concerns raised by stakeholders to inform advocacy to the Commonwealth Government in its microcredential framework review.

> **FINDING 28:** The National Microcredential Framework may create greater consistency in the regulation of microcredentials. However, issues relating to the speed of accrediting courses, the potential for course duplication and inconsistency, building industry and employee trust, developing courses in partnership with industry and universities, and the overall scope and scale of microcredentials, require further consideration.

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111   Dylan Broomfield, *Transcript of evidence*, p. 20.

112   La Trobe University, *Submission 22*, p. 9.

113   Liam Sloan, *Transcript of evidence*, p. 15.

114   The University of Melbourne, *Submission 17*, p. 2; Professor Simon Bell, *Transcript of evidence*, p. 8; Professor Liz Johnson, *Transcript of evidence*, p. 9; Andrew Kong, *Transcript of evidence*, p. 15; Professor John Dewar AO, *Transcript of evidence*, p. 9.

115   La Trobe University, *Submission 22*, p. 9.

116   Craig Robertson, *Transcript of evidence*, p. 14.

117   Lill Healy, *Transcript of evidence*, p. 7.

RECOMMENDATION 27: The Victorian Government collaborate with the education sector and the Commonwealth Government to address identified issues with microcredentials in the Commonwealth Government's upcoming National Microcredential Framework review.

4.2.2 Local skilling pathways

Universities can help develop innovative training and skilling solutions to meet the workforce demands of local businesses and communities. Analysis of local workforce demands can be enhanced through data collection.[118] VSA's regional skills demand data and analyses can inform discussions between the Victorian Government and universities on required skills in different regions and enable targeted solutions.[119]

Universities can also support people experiencing unemployment or who require upskilling by delivering tailored and industry-recognised education that meets local demands.[120] In addition, universities can 'harness their strengths as world-leading research institutions and providers of education to reflect the needs of a changing economy by adapting course offerings to facilitate pathways for workers to transition'.[121] Doing so will ensure graduates are better equipped and ready for future jobs.

In relation to the transition to a clean economy, the Victorian Trades Hall Council (VTHC) suggested that workers should be retrained as a preventative measure to avoid unemployment. Given that many new jobs in the clean economy sector will require university level education, universities will play a vital role in retraining 'workers in affected industries to ensure a continued access to employment. Equity for these workers is crucial to a just transition to a clean economy'.[122]

Dedicated skilling programs in priority areas should be created through partnerships.[123] Collaboration between universities, TAFEs, governments, industry, communities and business is critical to ensure local skilling and education pathways are fit-for-purpose.[124] Federation University, for example, consulted extensively with industry to construct the Asia Pacific Renewable Energy Training Centre. The Centre will 'train workers from around the country and across the region' and provide 'a pipeline of skilled workers' for the fast-growing renewable energy sector.[125]

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118 Jane Ward, *Transcript of evidence*, p. 7; Juan Paolo Legaspi, Manager, Policy and Advocacy, Victorian Healthcare Association, public hearing, Melbourne, 16 June 2022, *Transcript of evidence*, p. 10.

119 Jane Ward, *Transcript of evidence*, p. 7; Craig Robertson, *Transcript of evidence*, p. 13.

120 Department of Education and Training and Victorian Skills Authority, *Submission 23*, p. 16; Lill Healy, *Transcript of evidence*, p. 3; Victorian Healthcare Association, *Submission 4, Attachment 1*, received 4 May 2022, p. 6.

121 Department of Education and Training and Victorian Skills Authority, *Submission 23*, p. 16.

122 Victorian Trades Hall Council, *Submission 12*, received 6 May 2022, p. 5.

123 Professor Gregor Kennedy, *Transcript of evidence*, pp. 2–3.

124 Lill Healy, *Transcript of evidence*, p. 6; Professor Duncan Bentley, *Transcript of evidence*, p. 11; Department of Education and Training and Victorian Skills Authority, *Submission 23*, pp. 19–20.

125 Federation University, *Submission 16*, p. 3; Liam Sloan, *Transcript of evidence*, pp. 13–14.

Stakeholders advocated for enhanced partnerships and collaboration to ensure skilling pathways meet local needs.[126] VTHC recommended that the Victorian Government 'investigate ways to connect universities with trade unions and industry to reskill and maintain the employment of workers in modernising industries using high-quality qualifications'.[127] Federation University advised the Committee that local skilling pathways must be accompanied with time and financial investment from industry. In relation to the Asia Pacific Renewable Energy Centre, Federation University stated:

> The university obviously contributed in kind to that through all of our time, but it is amazing, the industry engagement and the skin in the game that can be gained through a collaborative approach … it needs to be an all-of-government approach, as is the way that it is starting to take shape, and it is being able to pool these industry partners so that they can see the benefit of their potential investment so that we are not relying solely on government investment and it is looking at industry investing.[128]

Partnerships and collaboration are considered further in Chapters 2 and 3.

Encouraging a workplace training culture can help encourage upskilling. The Australian Centre for Career Education's submission contended that 'Australian workplaces do not have the same training culture for young people as some other developed countries'.[129] Furthermore, the Committee was informed that workplaces are not always willing to upskill and train young people who may be lacking certain necessary skills.[130] The pace of technological change can be a challenge for employees who require reskilling consistent with new and emerging technologies. Embedding a workplace training culture will be particularly important given rapid changes in technology and labour markets.[131]

Delivering local skilling pathways in regional areas was a key focus of the Inquiry. Providing educational opportunities in regional areas has several benefits, including creating jobs and boosting skills and workforce capacity.[132] The Victorian Farmers Federation recommended that universities offer fee relief for secondary school graduates and mature-aged students who wish to upskill by studying agriculture in regional areas.[133] South West TAFE similarly called for increased funding for regional skills programs targeted towards fulfilling strategic and complex industry needs.[134] Developing strong partnerships and building training centres, campuses and packages

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126 Department of Education and Training and Victorian Skills Authority, *Submission 23*, p. 19; RMIT University, *Submission 5*, received 4 May 2022, pp. 4, 8.

127 Victorian Trades Hall Council, *Submission 12*, p. 7.

128 Liam Sloan, *Transcript of evidence*, p. 14.

129 Australian Centre for Career Education, *Submission 2*, p. 2.

130 Ibid., p. 3.

131 Victorian Chamber of Commerce and Industry, *Submission 7*, p. 5.

132 Victorian Farmers Federation, *Submission 10*, pp. 5–6.

133 Ibid., p. 6.

134 South West Institute of TAFE, *Submission 3*, p. 10.

in Victoria's regions can facilitate upskilling and encourage people to enrol in priority courses in regional areas and expose them to potential local in-demand careers.[135]

> **FINDING 29:** Universities play a vital role in developing and contributing to innovative upskilling and reskilling pathways in priority employment areas that meet the needs of local communities and industries. Active collaboration, proper planning and data analysis, sufficient funding and strong workplace training cultures are essential for the success of local skilling programs.

4.2.3 Measuring the outcomes of skill development programs

Many universities provide courses in priority skills areas.[136] Case Study 4.3. details one example implemented by RMIT University. Stakeholders generally perceived this program to be successful and advocated for similar programs to be expanded.[137]

CASE STUDY 4.3: Digital Skills and Jobs

The Victorian Government's Digital Skills and Jobs initiative allocated $3.35 million to RMIT University to develop a digital skills training program to aid transitions to digital jobs. Over 400 diverse students completed the 12-week online course in the initial 2021 intake. Half the students were women, 20% from regional areas and 30% aged 40–49, who were proactively reskilling post-COVID-19. The course was developed with the Victorian Government, is industry-focused, and accompanied by an internship program. At a public hearings, the DET described the program as good practice, stating:

> University and TAFE collaboration can develop short courses and lifelong learning that is industry recognised, accredited and provides genuine opportunities to retrain and upskill in line with workforce demands, responding to industry and business needs through tailored learning and training programs for existing workforces in addition to those new entrants … dual-sector universities continue to demonstrate this capability, and a recent example is how the partnership between the Department of Jobs, Precincts and Regions and RMIT University under the digital jobs program has really done a lot to upskill mid-career Victorians through industry-relevant education, internships and providing connections to industry mentors. That is a really important opportunity to continue.

Source: Lill Healy, Deputy Secretary, Higher Education and Skills, Department of Education and Training, public hearing, 14 June 2022, *Transcript of evidence*, p. 3; RMIT University, *Submission 15*, received 4 May 2022, p. 6.

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135 Professor Duncan Bentley, *Transcript of evidence*, p. 11; Professor Adam Shoemaker, *Transcript of evidence*, p. 11; Dianne Semmens, *Transcript of evidence*, p. 12. See also Juan Paolo Legaspi, *Transcript of evidence*, p. 10; Louise McKinlay, *Transcript of evidence*, p. 24.

136 See, for example, Deakin University, *Submission 15*, pp. 11, 13–14; RMIT University, *Submission 5*, pp. 5–7; Federation University, *Submission 16*, pp. 4–5; The University of Melbourne, *Submission 17*, p. 9.

137 Lill Healy, *Transcript of evidence*, p. 3; Professor John Dewar AO, *Transcript of evidence*, p. 9.

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However, several factors inhibit the effectiveness of skills development programs. Deakin University outlined that the JRG program (discussed in Section 4.1.4) hinders its ability to provide education in priority skills areas where CSPs and funding allocations do not match the priority areas. This reduces the effectiveness of initiatives targeted at alleviating skills shortages. Deakin University recommended that the Victorian Government work with universities and the Commonwealth Government to ensure there are enough fully funded places for graduates in sectors of need.[138] Stakeholders further highlighted that workforce challenges in the university sector, such as short-term contracts and job insecurity, diminish the quality of teaching and overall effectiveness of programs aiming to meet future skills demands.[139]

> **FINDING 30:** The success of university skill development courses in priority employment areas can be compromised by insufficient funding and workforce challenges in the university sector, such as job insecurity.

> **RECOMMENDATION 28:** The Victorian Government support and fund universities to provide skilling pathways and programs in priority areas that are coherent, tailored, adequately funded and evaluated.

4.2.4 Skills bridging programs for overseas-trained professionals

Skill shortages in priority areas can be alleviated by helping overseas-trained professionals work in Victoria. The Victorian Healthcare Association (VHA) argued that 'Australia's skilled migration process is arduous with 90 per cent of applications taking more than 12 months to process'.[140] Migrant workers also do not always receive the skill development support they need.[141] The Centre for Future Work noted that reviewing international qualifications could be more streamlined and accessible, but must still be stringent.[142]

La Trobe University provides several programs to assist overseas-trained professionals gain employment in Victoria, including its Entry Program for the International Qualified Registered Nurse.[143] It also developed a 'pilot engineering bridging program for migrant qualified engineers with the aim of providing a structured training-to-employment pathway' to address workforce shortages.[144] Additionally, La Trobe University partnered with Hume City Council and Melbourne Polytechnic to trial a Permanent Resident

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138   Deakin University, *Submission 15*, pp. 13, 15.

139   Victorian Trades Hall Council, *Submission 12*, pp. 1, 2; National Tertiary Education Union, *Submission 20*, p. 3. See also Centre for Future Work, *Submission 14, Attachment 1*, p. 17.

140   Victorian Healthcare Association, *Submission 4, Attachment 1*, p. 7.

141   Ibid.

142   Dr Jim Stanford, Economist and Director, Centre for Future Work, public hearing, Melbourne, 28 June 2022, *Transcript of evidence*, p. 20.

143   La Trobe University, *Submission 22*, p. 9.

144   Ibid., p. 11.

Employment Program and is seeking to extend this to other regions.[145] Similarly, Alpine Health has an initiative to accelerate accreditation for the international health workforce.[146] La Trobe University recommended exploring 'the merits of supporting new programs or the scaling up of existing programs aimed at bridging existing skills gaps'.[147]

In August 2022, the Commonwealth Minister for Skills and Training noted the Commonwealth Government is looking at this issue in response to skills shortages in various sectors, particularly to better recognise prior learning and 'measure properly the skills, competencies, of people that come into the country', while also maintaining professional standards and skills required for the Australian workforce.[148] The Minister indicated there is a possibility of bridging training for migrants with necessary skills and knowledge so that they can begin to undertake their jobs more quickly.[149]

The Committee's previous *Inquiry into sustainable employment for disadvantaged jobseekers* report found '[j]obseekers with overseas professional or trade qualifications can find the process of getting their qualifications recognised by the relevant registering authority in Australia complex, expensive and time-consuming'.[150] It recommended that the Victorian Government 'advocate for a streamlined recognition process of overseas professional and trade qualifications'.[151] The Victorian Government's response to the recommendation supported this in principle, outlining it will advocate to the Commonwealth Government for process improvements, while recognising that the complexity and large number of stakeholders involved may present a challenge.[152]

FINDING 31: Assisting overseas-trained professionals to gain employment in priority skills areas and providing them with professional support may alleviate skills shortages.

RECOMMENDATION 29: The Victorian Government expand programs that support overseas-trained professionals to work in priority skills areas.

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145   Ibid.

146   Juan Paolo Legaspi, *Transcript of evidence*, p. 10.

147   La Trobe University, *Submission 22*, p. 11.

148   Minister's Media Centre —Ministers of the Employment and Workplace Relations Portfolio, *Press Conference with the Hon Brendan O'Connor MP*, 14 August 2022, <https://ministers.dewr.gov.au/oconnor/press-conference-melbourne-0> accessed 16 August 202.

149   Anthony Galloway, 'Labor to bring in tens of thousands more migrants as it eyes bargain with union movement', *The Age*, 14 August 2022, <https://www.smh.com.au/politics/federal/labor-to-bring-in-tens-of-thousands-more-migrants-as-it-eyes-bargain-with-union-movement-20220812-p5b9hf.html> accessed 16 August 2022.

150   Parliament of Victoria, Legislative Assembly Economy and Infrastructure Committee, *Inquiry into sustainable employment for disadvantaged jobseekers*, August 2020, p. 147.

151   Ibid., p. 148.

152   Government of Victoria, *Response to the Parliament of Victoria, Legislative Assembly Economy and Infrastructure Committee, Inquiry into sustainable employment for disadvantaged jobseekers*, 30 April 2021, p. 11.

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4.3   Skills forecasting and planning

Universities can utilise their expertise to help understand current shortages and predict future priority skills needs. This section explores enhancing universities' participation in skills planning and improving workforce data on skills demand and supply.

4.3.1   Universities and workforce development plans

Workforce development plans or strategies involve analysing current labour environments, skills gaps and potential workforce vulnerabilities to address skill disparities and increase productivity.[153] The Centre for Excellence in Child and Family Welfare outlined that workforce development plans should define the workforce and its importance, and build a strong understanding of current and future skills and capabilities. Plans must have defined actions to support the growth of future capabilities and deliver a 'sustainable pipeline' of 'highly capable workers' who have 'appropriate professional development opportunities and career pathways'.[154]

Two examples of workforce development plans being developed are the 10-year Clean Economy Workforce Development Strategy and 10-year health workforce strategy.[155] The Clean Energy Council described the clean energy strategy as a 'really positive development' as it takes both a state-wide and place-based approach.[156] The Department of Health remarked that it hopes the university sector will be 'deeply engaged' in the process of developing the health workforce strategy to 'maximise capacity across the system to enable a sustainable workforce pipeline and the creation of future jobs'.[157]

Workforce development strategies should be informed by VSA's work, which aims to 'match Victoria's employment demands with training'.[158] VSA collects evidence on employment and training needs in different communities and produces an annual Victorian Skills Plan to help 'respond better and faster to employment needs, and find new and improved ways to get students skilled and employed'.[159] It also provides regional plans on 'the skills needs and challenges of local industries'.[160]

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153   Business Victoria, *Workforce planning*, 4 July 2022, <https://business.vic.gov.au/business-information/staff-and-hr/staff-recruitment/workforce-planning> accessed 8 August 2022.

154   Deb Tsorbaris, *Transcript of evidence*, pp. 23–24.

155   Department of Education and Training, *DET—Learn Local Sector—22 March 2022—Clean Economy Workforce Development Strategy*, 22 March 2022, <https://www.vic.gov.au/det-learn-local-sector-22-march-2022-clean-economy-workforce-development-strategy> accessed 8 August 2022; Craig Robertson, *Transcript of evidence*, p. 15; Louise McKinlay, *Transcript of evidence*, pp. 22–23.

156   Dr Anita Talberg, Director, Workforce Development Clean Energy Council, public hearing, Melbourne, 16 June 2022, *Transcript of evidence*, p. 21.

157   Louise McKinlay, *Transcript of evidence*, pp. 22–23.

158   Victorian Skills Authority, *Victorian Skills Authority*, 2 August 2022, <https://www.vic.gov.au/victorian-skills-authority> accessed 8 August 2022.

159   Ibid. See also Craig Robertson, *Transcript of evidence*, p. 15.

160   Victorian Government, *Victorian Skills Plan*, 1 June 2022, <https://www.vic.gov.au/victorian-skills-plan> accessed 8 August 2022. See also Craig Robertson, *Transcript of evidence*, p. 13.

Stakeholders raised several points to improve the strategic implementation of workforce development plans in Victoria. The Victorian Chamber identified a greater need to establish workforce development plans to alleviate emerging workforce issues before a skill shortage occurs. It identified VSA's work as a good start, but that it is unclear whether responsibility for workforce development plans should sit with government or industry.[161] South West TAFE similarly described a current 'medium and long-term sector wide strategic planning and leadership void' and suggested the Victorian Government set clear policy positions on future skills and 'monitor from a distance'.[162] Monash University also advocated for a 'national, participatory, approach to skills planning linked with industry and innovation policy' that involves integration rather than duplication, information sharing, better visibility on market needs and support for universities to deliver training and education where gaps are identified.[163] Additionally, workforce development plans require more regular evaluation and should be malleable if they do not achieve intended objectives.[164]

> **FINDING 32:** Workforce development planning and skills forecasting in Victoria is not always extensive, consistent, timely or evaluated enough to address workforce shortages in priority skills areas.

There are multiple ways to strengthen the university sector's participation in skills forecasting and workforce development planning. Stakeholders highlighted that state skills planning should be coordinated across departments and levels of government, as well as with the community and industry.[165] VSA observed that it can work more closely with the university sector to reduce the disconnect between the skills of university graduates and the needs of industry.[166] VSA outlined that the next Victorian Skills Plan will have 'stronger engagement with universities' because university graduates are an important element of skill shortage solutions.[167] VSA will implement 'more deliberative structures' with universities to facilitate better engagement for the next plan.[168]

RMIT University identified that universities and the Victorian Government should work together more closely to match the demand for skills with supply. However, it noted that this can be challenging because the university system needs to respond to changing demands from both learners and industry, and because long-term investment in capabilities is required. Additional challenges also include the time lag after implementing systemic education reforms or investing in specific skills; the complexity

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161   Victorian Chamber of Commerce and Industry, *Submission 7*, p. 5.

162   South West Institute of TAFE, *Submission 3*, p. 6.

163   Monash University, *Submission 21*, p. 15.

164   Deb Tsorbaris, *Transcript of evidence*, p. 24.

165   RMIT University, *Submission 5*, p. 2; Victorian Chamber of Commerce and Industry, *Submission 7*, p. 3.

166   Craig Robertson, *Transcript of evidence*, p. 15.

167   Ibid. See also Department of Education and Training and Victorian Skills Authority, *Submission 23*, p. 15.

168   Craig Robertson, *Transcript of evidence*, p. 15. See also Department of Education and Training and Victorian Skills Authority, *Submission 23*, p. 20.

of Victoria's education system; and that more capabilities and incentives are required for effective innovation, which also need to be distributed equitably across sectors, regions and institutions.[169]

Several stakeholders discussed improving partnerships between universities, the Victorian Government and industry to collaborate on workforce priorities and understand the demand for staff and skills.[170] La Trobe University encouraged 'greater dialogue between Victorian universities and the Victorian Skills Authority to meet Victoria's skills and training needs at both entry and higher employment levels'.[171] The University of Melbourne similarly recommended establishing a 'steering committee … to map out skills supply and demand issues and develop an investment plan to respond to these' in the clean energy sector.[172] This should include representation from the university sector to ensure workforce development plans are not solely focused on vocational education.[173]

Furthermore, universities can be proactive and respond to the Victorian Skills Plan and regional plans by analysing what skills will be needed in the future and how it aligns with their course content.[174] VTHC identified regional skills analysis as particularly important:

> Universities are well-placed to provide important knowledge about the economic and social factors underpinning regional skills shortages if such research is funded. On top of the disciplinary expertise that university researchers possess, universities also have the added advantage of having data already monitoring graduate outcomes by location, socioeconomic status and other factors.[175]

DET and VSA likewise identified that universities should drive innovation and generate research in emerging industries to support the Victorian Government's strategic workforce priorities and regional skills analysis.[176] RMIT University's Workforce Innovation and Development Institute is a good example of this as it 'has driven innovation in education, training and applied research to enable the growth and transformation of the social service industry'.[177] In addition, the 'innovative and highly impactful model collaborates and co-develops with stakeholders from across sectors, to set priorities, co-design solutions, and to lead and guide the transformation of service approaches'.[178]

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169   RMIT University, *Submission 5*, pp. 2–3.

170   Department of Education and Training and Victorian Skills Authority, *Submission 23*, pp. 13, 20; Lill Healy, *Transcript of evidence*, p. 6; Jane MacMaster, *Transcript of evidence*, p. 17; Dylan Broomfield, *Transcript of evidence*, p. 17.

171   La Trobe University, *Submission 22*, p. 14.

172   The University of Melbourne, *Submission 17*, p. 3. See also Victorian Chamber of Commerce and Industry, *Submission 7*, p. 3.

173   The University of Melbourne, *Submission 17*.

174   Lill Healy, *Transcript of evidence*, p. 4; Dan Mabilia, *Transcript of evidence*, pp. 6–7.

175   Victorian Trades Hall Council, *Submission 12*, p. 6.

176   Department of Education and Training and Victorian Skills Authority, *Submission 23*, pp. 19–20. See also Centre for Future Work, *Submission 14*, p. 49.

177   RMIT University, *Submission 5*, p. 4.

178   Ibid.

FINDING 33: Universities' participation in workforce development planning can be enhanced. This will enable universities to more accurately match the demand for skills in priority areas with course offerings that proactively respond to workforce shortages.

RECOMMENDATION 30: The Victorian Government enhance collaboration with the university sector when producing workforce development plans and when the Victorian Skills Authority develops its annual and regional skills plans.

4.3.2 Workforce supply and demand data

The Centre for Future Work noted that accessible and comprehensive 'data on university completions and employment transitions is an essential tool for modern labour market planning', which will become more important as workforces transform.[179] Access to high-quality and timely labour market information assists students, workers and employers manage school-to-work transitions and match skills with jobs. However, there is a deficit of integrated data on higher education outputs and labour markets.[180]

RMIT University perceived that 'high quality, timely data and insights to inform workplace planning, growth and transformation' is required.[181] It noted that while various data sets (with differing levels of granularity) capture the composition and scale of the growing health, agriculture and community services workforce, the data sets typically focus on specific workforce segments and 'cannot reveal the interconnected workforce challenges that exist across the social sector as a whole'.[182] Additionally, VHA identified that data subsets in regional areas could be improved.[183] Engineers Australia similarly observed that quantitative data on demand for skills is weak, although improving in different sectors, and demand indicators are not relayed back to universities and secondary schools so 'they understand where the current and future demand is'.[184] The Centre for Future Work called for governments to 'invest and facilitate the development of a comprehensive labour market portal accessible to employers, students, graduates, and educational institutions'.[185]

Data analysis can also be driven by industry. The Victorian Electricity Supply Industry system, for example, produced a matrix of required skills for different occupations in the sector. According to the Clean Energy Council, this 'allows a worker to upskill, cross-skill or re-skill depending on where they want to move because there is perfect visibility and harmony across those different employers in the sector'.[186] Expanding this

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179   Centre for Future Work, *Submission 14, Attachment 2*, p. 86.

180   Ibid., pp. 86, 96; Centre for Future Work, *Submission 14, Attachment 1*, p. 56.

181   RMIT University, *Submission 5*, p. 8.

182   Ibid.

183   Juan Paolo Legaspi, *Transcript of evidence*, p. 10.

184   Jane MacMaster, *Transcript of evidence*, p. 19.

185   Centre for Future Work, *Submission 14, Attachment 1*, p. 56.

186   Dr Anita Talberg, *Transcript of evidence*, p. 23.

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across the clean economy sector 'would empower … registered training organisations to offer the right training at the right time in different regions', better connecting training to industry demands.[187] The Clean Energy Council recommended that the Victorian Government provide funding to produce similar frameworks in other sectors and specific to different regions.[188]

> **FINDING 34:** Data on workforce supply and demand in Victoria is not always adequate or sufficiently granular to inform workforce planning and forecasting. Data on the demand for skills and graduate outcomes must be transparently communicated between the Victorian Government, education sector and industry.

> **RECOMMENDATION 31:** The Victorian Government facilitate high-quality and timely data collection on labour market information, such as the demand for and supply of skills, and improve data sharing between the Victorian Government, education sector and industry.

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187   Ibid.

188   Ibid.

5   Conclusion

The Inquiry into Victorian universities' investment in skills provided an opportunity to consider how universities can help grow the pipeline of skilled workers to meet future demand and alleviate current shortages. Presented with evidence from a range of stakeholders including universities, industry groups, Technical and Further Education (TAFE) institutes, unions and the Victorian Government, the Committee made various recommendations to enhance universities' contribution to future workforce outcomes and planning, and reduce the imbalance between graduate outcomes and labour market skill demands. This chapter highlights the key themes presented to the Committee during the Inquiry and discussed throughout the report.

Victorian universities are a critical element of the post-secondary school system and the Victorian Government's strategic workforce priorities, as demonstrated by the Department of Education and Training and Victorian Skills Authority's submission:

> Victoria's post-secondary system is critical to the continued successful delivery of Victoria's record investments in infrastructure, and health and community services, and to the recovery from ongoing COVID-19 disruptions. Planning for and widening the pool of skilled workers, supplementing existing capacity in the TAFE and training system, will ensure key projects and government priorities are delivered as planned, and that employers across the state have the workforce they need.
>
> The success of the Victorian Government's reform agenda and key economic projects will be underpinned by the post-secondary education system's capacity to foster a pipeline of qualified workers. Universities are an integral part of this system, for example preparing engineers, project managers and strategic communications professionals to deliver 165 projects under Victoria's Big Build as well as skilling social services professionals to deliver on Victoria's mental health and wellbeing reform. Universities are also uniquely positioned to translate their research output to support Government priorities for social and economic prosperity.[1]

During the Inquiry, the Committee learnt that Victoria is expecting to experience labour shortages in the digital, clean and care economies, and advanced manufacturing, construction and infrastructure sectors.[2] Many roles in these sectors require university-level education, including managers, teachers, software programmers, nurses and medical professionals, information and communication technology managers, engineers, accountants and agricultural specialists.[3]

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1   Department of Education and Training and Victorian Skills Authority, *Submission 23*, received 16 May 2022, p. 3.

2   Jenny Macklin, *Future Skills for Victoria: driving collaboration and innovation in post-secondary education and training, final report of the skills for Victoria's growing economy review*, report for the Victorian Government, Melbourne, 2020, pp. 35–36.

3   Craig Robertson, Chief Executive Officer, Victorian Skills Authority, public hearing, Melbourne, 14 June 2022, *Transcript of evidence*, p. 12; National Skills Commission, *Skills priority list*, Australian Government, Canberra, June 2021, pp. 4–5.

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The Committee found that the disconnect between in-demand skills and supply is driven by several factors, including low levels of enrolments in priority skills courses, low unemployment rates, border closures and workforce demands due to COVID-19, and the misalignment between the skills students graduate with and the requirements of industry. This is often exacerbated in regional and rural Victoria.

Universities can help alleviate skills shortages in priority industries through several mechanisms, including developing specialised courses in partnership with industry, investing in learning infrastructure that delivers key skills in appropriate learning environments and using their expertise and research capabilities to inform government strategies on workforce development planning and skills analysis. Explored in greater depth throughout the report, collaboration and partnerships, course content that includes practical learning, encouraging enrolments in priority skills areas, adequate funding for priority skill courses, and developing local upskilling learning pathways are additional ways that universities can lessen skill and labour shortages in priority employment sectors.

5.1 Partnerships and collaboration

Discussed in Chapters 2 and 3, universities need to work in partnership and collaborate effectively with different stakeholders to deliver outcomes for students, industry and businesses and the broader community and economy.

In Chapter 2, the Committee explored how collaboration between Victorian universities and industry can be more systematic and structured. This will ensure graduates have the skills required by industry and improve their employment prospects. Structured partnerships can also reduce the current siloed nature of university engagement with industry and enhance economic productivity by pooling the resources of businesses. The Committee concluded that promoting collaborative relationships between industry and universities is potentially the most important means to improve skills development in priority sectors of the labour market. Better collaboration can also enhance universities' engagement with industry in the co-design of course curricula to ensure content meets industry best practice and graduates are job-ready.

In Chapter 3, the Committee learnt that higher education and vocational education are seen as separate systems and it can be difficult for learners to navigate between the two. Evidence to the Committee demonstrated that relationships between universities and TAFEs could be more structured. This will help ensure Victoria's tertiary education sector is coherent, comprehensive and holistic, but that it also offers a diverse range of learning options and outcomes for students that are responsive to labour market needs. Particularly, dual-sector universities and stronger university-TAFE partnerships will provide easier learning pathways for students between vocational and higher education, and hybrid qualifications can better equip students with skills to improve workforce readiness. Enhanced public information on learning pathways between vocational and higher education and the promotion of careers in new and emerging industries can also provide better graduate outcomes and address skill shortages.

Inquiry stakeholders made several suggestions to improve partnerships between TAFEs and universities, and the Committee recommends the Victorian Government take a more active role in facilitating structured collaboration to improve learning pathways and outcomes. The Committee also recommends the Victorian Government incentivise collaboration by funding initiatives that strengthen partnerships between universities and TAFEs, as well as support the implementation of collaborative education hubs or shared services to bring together a range of stakeholders to meet future skill needs.

Similarly, it is also important that universities collaborate with local communities to ensure measures aiming to address skills shortages are fit-for-purpose. Universities are often embedded in local communities as key employers and contributors to local economies, particularly in regional areas. Place-based approaches to meeting local demands for skills should be accompanied by partnerships between education providers, industry and government. This can help ensure strategies to capitalise on economic growth opportunities and address complex workforce challenges and skills shortages are successful. The Committee believes the Victorian Government can proactively facilitate structured engagement between universities, education providers, industry and business and local communities. This is particularly pertinent in regional areas, where place-based solutions are more responsive to local demand for skills and workforce needs.

5.2 Work-integrated learning

The Committee received significant evidence on the multiple benefits of work-integrated learning (WIL) in higher education. Well-planned and meaningful WIL opportunities improve outcomes for learners by increasing their job-readiness, easing the transition from study to employment and leading to better career outcomes. It also increases productivity and employee retention for industry and businesses. Capitalising on technological advancements that enable placements and increasing work placement opportunities in the public sector can create additional opportunities for WIL.

However, the Committee learnt that WIL can be challenging for both universities and industry as it takes significant time and resources to facilitate. The Committee makes several recommendations to address this challenge, including that the Victorian Government incentivise industry and support the university sector to enhance collaborative WIL outcomes, and assist with developing a WIL guidance framework.

Some WIL placements are mandatory elements within courses, which can be particularly difficult to arrange due to the demand for placements exceeding the supply, particularly in the education and health sectors. This can contribute to workforce shortages as it constrains the number of students that can be enrolled in priority courses if they are unable to complete mandatory WIL. Often, host organisations are not sufficiently supported or do not have the capacity or willingness to facilitate WIL. This is particularly acute in regional areas. Consequently, the Committee also makes various recommendations to the Victorian Government to work with the university sector and professional bodies to increase WIL opportunities and the capacity of host organisations.

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In addition, underrepresented groups, such as Aboriginal and Torres Strait Islander people, people from lower socioeconomic backgrounds and regional students, can face challenges when accessing WIL opportunities. Students may also be reluctant to undertake WIL due to negative stereotypes about it being 'free labour'. Paid internships or financial incentives and wraparound support services can help alleviate challenges and encourage disadvantaged learners to complete WIL opportunities. The Committee concluded that the Victorian Government should provide better support to universities and disadvantaged students to facilitate their involvement in WIL and openness to undertaking work placements.

The Committee's report focused particularly on WIL in regional areas. Work placement opportunities for students in regional areas can contribute to local economic growth and potentially lead to long-term benefits as students are more likely to continue to work regionally after their placement ends. However, additional regional WIL opportunities are required to maximise these benefits. In addition, students may be prevented from engaging in regional WIL due to financial stress, a shortage of accommodation options and lower levels of social support. The Committee recommended the Victorian Government expand financial and social support for students undertaking WIL in regional areas.

5.3 Enrolments and funding for priority skills courses

In Chapter 4, the Committee considered how universities can encourage enrolments in priority skills areas and support students to graduate with the skills required by industry. Universities can promote courses through marketing, career education and awareness campaigns to the community and in secondary schools. They can also offer financial incentives and bursaries to encourage enrolments, particularly in regional areas and for underrepresented and disadvantaged groups.

Encouraging underrepresented groups to enrol in priority courses can also ensure that Victoria's future workforce reflects the diversity of the broader community. Targeted equity measures can help achieve this. Further, strengthening student retention through social and financial support for students who require it can ensure more people who enrol in courses graduate. The Committee made varied recommendations to expand targeted initiatives that promote enrolments in priority areas.

University funding was a significant issue raised by several stakeholders. In their evidence to the Committee, stakeholders discussed the impact of recent Commonwealth Government funding reforms intending to raise enrolments in courses expecting to experience employment growth. However, the Committee heard that the reforms had unexpected results. The Commonwealth Government will review the reforms soon, and the Committee believes universities and the Victorian Government can collaborate to advocate for change at the Commonwealth level.

5.4   Innovative upskilling and skills forecasting

Victorian universities can make use of innovative education and training pathways to upskill and reskill the existing workforce to alleviate skill shortages. Microcredentials are one such mechanism for successfully upskilling and reskilling, but evidence suggested the microcredential system requires greater clarity and consistency. The Committee believes the Victorian Government and broader tertiary education sector can work together and share insights to inform the upcoming Commonwealth Government's National Microcredential Framework review.

Universities can also work closely with communities, industry and business to tailor training and course content to meet local demand for skills, alleviate unemployment and help workers transition to emerging sectors. This is particularly important in regional areas. Facilitating a workplace training culture, whereby businesses encourage their employees to upskill to meet specific skills and adapt to changing technologies will also be required. The Committee understands skill development courses at universities in priority employment areas can be compromised by insufficient funding and workforce challenges. Consequently, the Committee recommends the Victorian Government increase funding and support and promote local skilling pathways that are tailored to meet labour shortages.

Lastly, universities can use their expertise and research capacity to help the Victorian Government better understand current shortages and predict future skill needs. This is dual-pronged: the Victorian Government and industry can seek the input of universities more proactively when establishing workforce development strategies, and universities can use the data from the Victorian Skills Plan and regional skills analysis to align their course content with in-demand skills. The Committee advocates for enhancing data-sharing between the Victorian Government, industry and universities on graduate outcomes and workforce supply and demand to inform workforce planning and forecasting.

Adopted by the Legislative Assembly Economy and Infrastructure Committee
Parliament of Victoria, East Melbourne
18 August 2022

Appendix A
About the Inquiry

A.1 Submissions

Submission number	Individual or organisation	Date received
1	Benjamin Cronshaw	14 April 2022
2	Australian Centre for Career Education	28 April 2022
3	South West Institute of TAFE	3 May 2022
4	Victorian Healthcare Association	4 May 2022
5	RMIT University	4 May 2022
6	CQUniversity Australia	5 May 2022
7	Victorian Chamber of Commerce and Industry	5 May 2022
8	Australian Catholic University	5 May 2022
9	Centre for Excellence in Child and Family Welfare	6 May 2022
10	Victorian Farmers Federation	6 May 2022
11	University of Divinity	6 May 2022
12	Victorian Trades Hall Council	6 May 2022
13	Australian Association of Social Workers	6 May 2022
14	Centre for Future Work	6 May 2022
15	Deakin University	9 May 2022
16	Federation University	10 May 2022
17	The University of Melbourne	13 May 2022
18	Swinburne University of Technology	13 May 2022
19	Engineers Australia	13 May 2022
20	National Tertiary Education Union	13 May 2022
21	Monash University	16 May 2022
22	La Trobe University	16 May 2022
23	Department of Education and Training and Victorian Skills Authority	16 May 2022

Submission number	Individual or organisation	Date received
24	Victorian TAFE Association	17 May 2022
25	Australian Library and Information Association and Public Libraries Victoria	18 May 2022
26	Victoria University	15 June 2022

A.2   Public hearings

Tuesday 14 June 2022

Melbourne

Name	Title	Organisation
Lill Healy	Deputy Secretary, Higher Education and Skills	Department of Education and Training
Jane Ward	Executive Director, Higher Education and Workforce Development	Department of Education and Training
Craig Robertson	Chief Executive Officer	Victorian Skills Authority
Dylan Broomfield	General Manager, Policy and Advocacy	Victorian Chamber of Commerce and Industry
Deb Tsorbaris	Chief Executive Officer	Centre for Excellence in Child and Family Welfare
Dr Michele Lonsdale	Deputy Chief Executive Officer and Director, Policy, Research and Advocacy	Centre for Excellence in Child and Family Welfare
Rachel Reilly	Manager, Policy and Advocacy	Australian Association of Social Workers
Bernadette Gigliotti	Chief Executive Officer	Australian Centre for Career Education
Penne Dawe	Acting Chief Executive Officer and Partnership and Development Manager	Australian Centre for Career Education

Thursday 16 June 2022

Melbourne

Name	Title	Organisation
Dan Mabilia	Director, Advocacy and Policy	Victorian TAFE Association
Pam Jonas	Senior Adviser	Victorian TAFE Association
Dr John Flett	Director, Strategy and Research	South West Institute of TAFE
Juan Paolo Legaspi	Manager, Policy and Advocacy	Victorian Healthcare Association
Sarah Roberts	Assistant Division Secretary for Victoria	National Tertiary Education Union
Timothy Franklin	Victorian Division Industrial Officer	National Tertiary Education Union
Alesha Printz	General Manager, Victoria	Engineers Australia
Jane MacMaster	Chief Engineer	Engineers Australia
Dr Anita Talberg	Director, Workforce Development	Clean Energy Council

Tuesday 28 June 2022

Melbourne

Name	Title	Organisation
Professor Meg Stuart	Interim Provost and Deputy Vice-Chancellor, Academic	Australian Catholic University
Ashley Midalia	Director, Government, Policy and Strategy	Australian Catholic University
Professor Liz Johnson	Deputy Vice-Chancellor, Academic and Acting Vice-Chancellor	Deakin University
Rebecca Bartel	Senior Manager, Research Partnerships	Deakin University
Professor John Dewar AO	Vice-Chancellor	La Trobe University
Professor Kris Ryan	Pro Vice-Chancellor, Academic	Monash University
Ben Vivekanandan	Director, Precincts and Government	Monash University
Professor Gregor Kennedy	Deputy Vice-Chancellor, Academic	The University of Melbourne
Professor Simon Bell	Head of Melbourne School of Professional and Continuing Education	The University of Melbourne
Mish Eastman	Deputy Vice-Chancellor, Vocational Education and Vice-President	RMIT University
Professor Duncan Bentley	Vice-Chancellor and President	Federation University
Liam Sloan	Pro Vice-Chancellor (VET) and CEO TAFE	Federation University
Professor Chris Pilgrim	Senior Deputy Vice-Chancellor and Chief Academic Officer	Swinburne University of Technology

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Name	Title	Organisation
Andrew Kong	Pro Vice-Chancellor and Chief Executive, Vocational Education and Training	Swinburne University of Technology
Professor Adam Shoemaker	Vice-Chancellor and President	Victoria University
Dianne Semmens	Deputy Vice-Chancellor, Vocational Education	Victoria University
Dr Jim Stanford	Economist and Director	Centre for Future Work
Eliza Littleton	Research Economist	Centre for Future Work
Louise McKinlay	Senior Executive Director, System Improvement	Department of Health
Professor Mark Rose	Vice President	Victorian Aboriginal Education Association Incorporated

Glossary

Australian Qualifications Framework (AQF)	The national policy guide for regulated qualifications in the Australian education and training system. The AQF defines the essential characteristics of the qualifications issued across the senior secondary education, vocational education and training (VET) and higher education systems.
Commonwealth Supported Place (CSP)	Place to study a qualification at an Australian university that is subsidised by the Commonwealth Government.
Higher education	Education delivered through universities, as well as other approved higher education providers. Higher education leads to the award of a diploma, degree or doctorate qualification, delivered in accordance with the requirements of the Tertiary Education Quality and Standards Agency.
Integrated qualification	Purposely designed qualifications that enable explicit articulation pathways and encompass more than one AQF level and/or qualification type and/or education and training sector (AQF Glossary of Terminology).
Lifelong learning	The term used to describe any learning activities that are undertaken throughout life to acquire knowledge and skills within personal, civic, social and/or employment-related contexts.
Microcredential	A certification of assessed learning or competency, with a minimum volume of learning of one hour and less than an AQF award qualification, that is additional, alternate, complementary to or a component part of an AQF award qualification.
Pathways	Pathways allow students to move through qualification levels with full or partial recognition for the qualifications and/or learning outcomes they already have (AQF Glossary of Terminology).
Post-secondary education and training	Education that encompasses vocational education and training (VET), pre-accredited adult, community and further education (ACFE) and higher education providers.
Qualification	A formal certification, issued by a relevant approved body, to recognise that a person has achieved the intended learning outcomes or competencies.
Research commercialisation	Research that delivers commercial returns by creating new products and services
Skill	In a revised AQF, skills would be 'the abilities required to take action, acquired through deliberate, systematic, and sustained effort'.
Skill gap	For the purpose of this report, a misalignment between graduates' learning outcomes or skills that employees possess, and the skills demanded to perform a job in priority sectors.
Skills shortage	When employers are unable to fill or have considerable difficulty filling vacancies for an occupation or cannot meet significant specialised skill needs within that occupation, at current levels of remuneration and conditions of employment, and in reasonably accessible locations
Technical and further education providers (TAFE)	State and territory government-funded VET providers.
Tertiary education	Vocational education and training (VET) and higher education.
Vocational education and training (VET)	For this report, courses geared towards equipping students for employment through the attainment of specific and practical job skills.
Work-integrated learning (WIL)	Learning programs and activities that integrate theory with practice through specifically designed curriculum, educational practices and student engagement. WIL is embedded in the education process. WIL frequently requires student assessment.

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