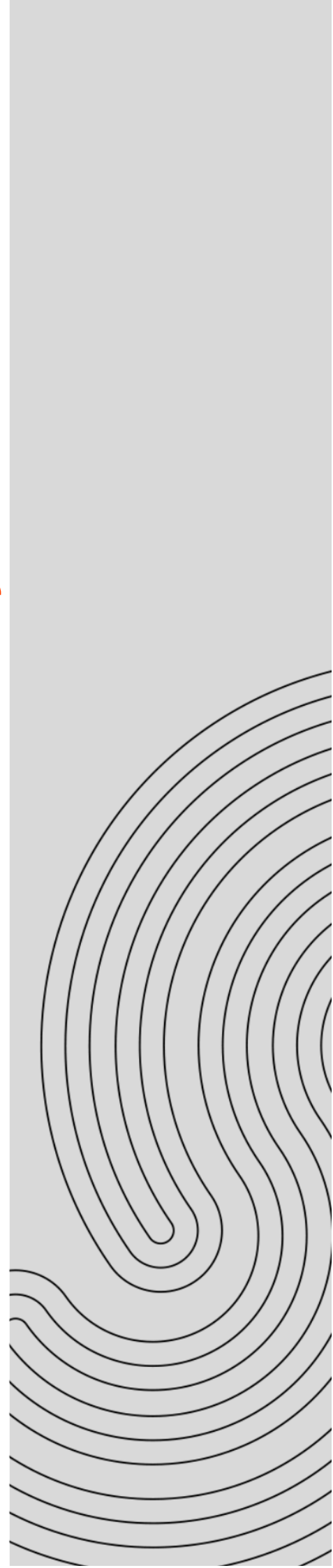


**Victorian
Legislative Assembly
Economy and
Infrastructure Committee**

*Inquiry into student pathways to
in-demand industries*

1 August 2025



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Executive Summary

The Future Skills Organisation (FSO) welcomes the Victorian Legislative Assembly Economy and Infrastructure Committee's (the Committee) inquiry into student pathways to in-demand industries. We have considered the interests of the Committee and the emphasis in the *Victorian Skills Plan for 2024 into 2025* (the Skills Plan) on building digital capability to leverage new technologies and lift productivity. We also note the importance placed in the Skills Plan on 'School students need more exposure to work to make informed career decisions.'¹

Our response is shaped through the lens of the finance, technology and business (FTB) sectors, as the relevant Jobs and Skills Council, with a focus on the importance of collaborative engagement by the Victorian schooling system with FTB industries, employers, and sector unions in Victoria.

FSO mostly operates in what the Commonwealth's Vocational Education and Training (VET) Qualifications Reform Design Group called *purpose three* qualifications.² This is where learning and cross-sectoral skill requirements provides additional opportunities for innovation in areas such as cross-industry skills, foundation skills, and for models to deliver stronger educational outcomes for learners.

While aimed at the national VET system, this reflection of the skills needs for FTB sectors provides context for the need for generalist skills such as strong problem solving, communication, and critical and creative thinking as important in transitioning from the Victorian schooling system to tertiary education and training or to the Victorian labour market.

A significant driver of employer need for generalist skills is when economies become dominated by services. For example, since 1945 the Australian economy has transformed into a serviced based economy where at the time by 2020 nearly 90 percent of employment was in the service sector.³ This has significantly heightened the need for labour market wide generalist skills.

Also, like other developed economies, our economy is driven by underpinning technology in almost every job. The Australian economy and its labour market has been digitalised, with the sophistication of that digitalisation the difference between different occupations and job roles. At a time of technological transformation, when the future of work is uncertain, digital skills are more important than ever, especially with the wide application of automated decision-making (ADM) and the emergence of generative and agentic artificial intelligence (AI). We recognise to transition from school to employment students already need strong generalist skills and a material level of digital capability that enables workers to independently build further digital skills and enhanced their labour mobility.

FSO workforce planning activities for the FTB sectors shows the need for responding to contemporary job architectures through strengthened pathways from education into in-demand industries, with a particular emphasis on skills-first, modular, and work-integrated learning models. This leads to the need to think about recasting earn while

¹ Victorian Skills Authority, *Victorian Skills Plan for 2024 into 2025 Shared prosperity through skills*, 2024 <https://www.vic.gov.au/sites/default/files/2024-12/2024-Victorian-Skills-Plan.pdf> page 7.

² Qualification Reform Design Group, *Unlocking the potential of VET*, December 2024, <https://www.dewr.gov.au/skills-reform/resources/qrldg-final-report-december-2024>

³ Productivity Commission, 2021, *Things you can't drop on your feet An overview of Australia's services sector productivity*, see especially graphs page 6 <https://www.pc.gov.au/ongoing/productivity-insights/services/productivity-insights-2021-services.pdf>

you learn models for senior secondary school (and beyond) that addresses the opportunities in growth in in-demand service industries, such as FTB.

Part of the FSO's current work is around supporting entry level pathways to in-demand industries in the FTB sectors. Entry level pathways inform, and are supported by, an approach to education defined by agreed learning outcomes across the school and post school environment, including from strong collaborative engagement between industry, relevant unions and governments.

Such agreed learning outcomes, while addressing the wider educational needs of students, can be informed by common understandings of the skills, including generalist and digital skills, for entry into employer defined job roles. The key to pathways for students, career advisers, and parents is visualisation of pathways, recognised and defined with industry and sector unions, the knowledge and skills required at the entry point, and the opportunities provided by various employment pathways.

FSO considers this inquiry to be of significance. It follows the previous Australian Parliament's House of Representatives Standing Committee on Employment, Education and Training (House Committee) report, *The Future of Work*, out of its 2024 Inquiry into the Digital Transformation of Workplaces.

FSO made both a submission to, and appeared before, the House Committee. The House Committee made 21 recommendations, including a focus on '...maximising benefits of AI and ADM in the workplace, including through increased support to employers and employees, and strengthening workforce capabilities'.⁴ This '...increased support...and strengthening workforce capabilities...' is needed prior to students exiting the Victorian schooling system so they may have the necessary workforce capabilities to materially engage in a dynamic labour market.

⁴ House of Representatives Standing Committee on Employment, Education and Training, January 2025, *The Future of Work*, https://parlinfo.aph.gov.au/parlInfo/download/committees/reportrep/RB000516/toc_pdf/TheFutureofWork.pdf page V

Recommendations

Recommendation 1

The Committee in its report acknowledges the finance, technology and business sectors in Victoria consist of in-demand industries with high growth opportunities for employment in Victoria.

Recommendation 2

The Committee notes:

- a) The importance of Victorian school students acquiring strong generalist skills to support future employment, and the importance of contextualising these skills within a range of industries, prior to students exiting the Victorian schooling system; and
- b) There is an urgent need for collaboration across all Victorian stakeholders on an agreed set of learning outcomes for Victorian students that includes strong generalist skills, including generalist digital skills, supported, where practicable, by workplace engagement.

Recommendation 3

The Committee notes:

- a) The need to ensure students exiting the Victorian schooling system have the skills needed for broad digital proficiency and the ability to interact with AI; and
- c) Schools need to be well-placed to deliver skills that support AI literacy including AI fundamentals, practical use of AI, ethics, security and best practice, as well as the broader digital skills needed in the labour market; and
- d) This is extended to the upskilling support required for the Victorian school teaching workforce for their own digital skills and AI awareness to be able to best support their students.

Recommendation 4

The Committee notes:

- a) There is a national imperative for a national benchmark for a level of digital ability that enables secondary students to enter the labour market equipped for work in a range of in-demand industries; and
- b) Victorian students should be supported to meet the requirements for a material level of digital capability by the time they exit school, and the level of digital capability obtained is formally recognised at the time of exiting school; and
- c) The role of Fee-Free TAFE is considered in providing opportunity and support to achieve a material level of digital capability for those Victorian students who left school without obtaining such a capability.

Recommendation 5

The Committee notes the value of earn while you learn (EWYL) programs, including traineeships, through the need to strengthen connections between the Victorian secondary education and EWYL models to ensure smoother school-to-work transition.

Recommendation 6

The Committee notes the importance of the Victorian schooling system working with Victorian industry to identify, describe, and map entry level pathways to in-demand

industries to inform students, career advisers, and parents of entry to employment opportunities and for these pathways to be provided in a visualised form.

Recommendation 7

The Committee notes there is a need for a particular emphasis on skills-first, modular, and work-integrated learning models to support participation from school leavers in in-demand industries.

Introduction

The Future Skills Organisation (FSO) welcomes the Victorian Legislative Assembly Economy and Infrastructure Committee's (the Committee) inquiry into student pathways to in-demand industries (the Inquiry).

FSO is one of ten Jobs and Skills Councils (JSC) funded by the Australian Government, with a strong focus on skills. FSO's mission is to advance transferable and industry-specific skills in the finance, technology, and business (FTB) sectors. Through close collaboration with industry, unions, and governments, under tripartisanship, and with the training and education sector, we work collectively to benefit employers, employees, and those seeking to enter the FTB sectors.

FSO mostly operates in what the Commonwealth's Vocational Education and Training Qualifications Reform Design Group (VET QRDG) called purpose three qualifications. This is where learning and cross-sectoral skill requirements provides additional opportunities for innovation in areas such as cross-industry skills, foundation skills, and for models to deliver stronger educational outcomes for learners.

FSO understands the Committee is particularly interested in:

- how to encourage and support students into vocational education and training and higher education that leads to employment in in-demand industries;
- how well Victoria's senior secondary schooling pathways support students to pursue occupations in industries that are in demand;
- how effective school career development is at meeting the needs of students and industry; and
- areas for improvement, including how to better support regional students, female students wanting to work in male-dominated industries and students facing disadvantage to pursue pathways into in-demand industries.

We understand the scope for the Inquiry covers support to enter TAFE and other vocational routes, as well as pathways to some in-demand occupations that require higher education. FTB sectors are experiencing significant workforce demand.

We would be pleased if the Committee considered this submission as a public document. Should the Committee wish, we would also be pleased to appear before the Committee at any public hearings it may hold at a time and place suitable for the Committee.

Finance, Technology and Business - in-demand industries

During July this year, FSO released its industry workforce plan for the FTB sectors. Across Australia, industries in FTB are in-demand with the sectors having seen significant growth since 2021.⁵

- **The finance sector** in 2024 employed 732,180 people in total, up nine percent in the three years since 2021.⁶ This was five percent of the Australian workforce total.⁷
- **The technology sector** in 2024 employed 471,920 people in total, up ten percent in the three years since 2021. This was three percent of the Australian workforce total.

⁵ Future Skills Organisation, July 2025, *Workforce Plan 2025 Pathways to Impact*, <https://futureskillsorganisation.com.au/wp-content/uploads/2025/06/02-2025-FSO-WFP-Full-Report.pdf>

⁶ Australian Bureau of Statistics (ABS) 2024 Labour Force Survey, Detailed, November 2024, Jobs and Skills Australia (JSA) trend data with FSO methodology applied.

⁷ ABS (2021) Census: Employment, income and education, LFSP Labour Force Status, Counting: Person Records

- **For business** for 2024 there were in 662,320 people employed in total, up six percent since 2021. This was five percent of the Australian workforce total.

Accounting for 13 percent of the total Australian workforce, FTB sectors consist of in-demand industries. This highlights the need for widening and deepening the domestic talent pool and for ensuring effective senior secondary schooling pathways into FTB industries and occupations.

These pathways may be supported by cross-sectoral collaborative engagement between secondary and tertiary education and training sectors, FTB industries and employers, FTB sector unions, and governments, to widen and deepen the domestic talent pool, irrespective of background of gender, economic or social circumstances, or geographic location.

Tailored solutions will be needed for each of these circumstances, not dictated centrally or by any particular group but by collaborative engagement. For example, disadvantaged students in regional areas may need different support to disadvantaged students in metro areas, with collaborative engagement at a more local level.

FSO continues to engage across a range of stakeholders on regional issues. In doing so it is working with Jobs and Skills Australia (JSA) and partner JSCs. This work is informed by a range of research and data, underpinned by ten policy design principles to enhance the jobs and skills system across Regional Australia.⁸

See [Attachment A](#) and [Attachment B](#) for graphs of examples of FTB in-demand industries and occupation employment forecasts 2024-30, including for Victoria.

The Victorian Skills Authority (VSA) Employment Projections Dashboard provides further in-demand employment projections.⁹ For example, for the Victorian financial and insurance services industry VSA projects a need for an additional 53,481 workers in Victoria to the ten years to 2034¹⁰, with the vast majority of those new workers expected to be needed in the inner metro area.

Further analysis is available through the FSO FTB Data Dashboards,¹¹ or by contacting the FSO.

Recommendation 1

The Committee in its report acknowledges the finance, technology and business sectors in Victoria consist of in-demand industries with high growth opportunities for employment in Victoria.

⁸ Jobs and Skills Australia, *Jobs and Skills Roadmap for Regional Australia*, July 2025, <https://www.jobsandskills.gov.au/download/19780/jobs-and-skills-roadmap-regional-australia-phase-1/3286/jobs-and-skills-roadmap-regional-australia-phase-1/pdf>. See especially page 10.

⁹ <https://www.vic.gov.au/employment-projections-dashboard>

¹⁰

<https://app.powerbi.com/view?r=eyJrIjoiaMzc5YjdkNWEtNWl2Yi00ZTA1LTk0MDFkNjg1NmUyNCJ9>

¹¹ See Dashboards tab at <https://futureskillsorganisation.com.au/workforce-planning/workforce-plan-2025/>. Four data dashboards are provided for the FTB industries and occupations: Occupations; Industry; Migration; and Education Supply. These data dashboards will be built on by FSO as these are further developed.

Generalist Skills that Transverse the Labour Market

A key method of encouraging and supporting students into VET and higher education that leads to employment in FTB (and other high-demand) industries is to ensure students have strong generalist skills.

The evidence suggests that generalist skills such as digital literacy, communication, teamwork, problem-solving, and adaptability are now essential for enabling learners to move fluidly into the labour market and between jobs and industries. This supports individual career mobility and economic resilience and enables workers to realise their aspirations especially at the early career stage. Generalist skills also enable workers to adjust to rapid labour market changes, including through technological change and the transition to a clean economy.

Supporting evidence

Australian and international economies continue to undergo significant structural change. As industries converge, technology changes, and job roles evolve, workers are requiring transferable, cross-industry (generalist) skills to thrive. This shift, and the consequent change in skills needed, is recognised in the Australian Government's White Paper on Jobs and Opportunities.

'Human capital accumulation requires an investment in people to build up not just technical skills and knowledge but also the core transferable skills needed to be resilient and adaptable through structural change.'¹²

The Australian economy has transformed into a service-based economy, resulting in nearly 90 per cent of employment in 2020 being in the service sector. This has further heightened the need for labour market wide generalist skills. A 2020 report¹³ by an expert panel¹⁴ chaired by Professor Peter Shergold AC, noted:

'Senior secondary graduates will need a broader and different mix of skills compared to previous generations, including stronger problem solving, communication and digital skills, as well as critical and creative thinking.'

International research supports this view. The World Economic Forum's Future of Jobs survey found the top generalist skills required for the workforce include analytical thinking, resilience, flexibility and agility, leadership, and social influence and creative thinking. Almost 70 percent of employers consider analytical thinking to be a core skill for their workforce.¹⁵

Research also indicates that it is generalist skills that most impact wage premiums and that as the labour market morphs and adapts to change, especially technological change, it is generalist skills that most enable workers to transition:

¹² The Treasury, 2023, *White Paper on Jobs and Opportunities*, page 87, <https://treasury.gov.au/sites/default/files/2023-09/p2023-447996-07-ch5.pdf>

¹³ Education Council *Looking to the Future: Report of the Review of Senior Secondary Pathways into Work, Further Education and Training*, June 2020, <https://www.education.gov.au/recurrent-funding-schools/resources/looking-future-report-review-senior-secondary-pathways-work-further-education-and-training> page 8, with recommendations

¹⁴ The expert panel chaired by Professor Peter Shergold included eminent industry and educationalists Professor Tom Calma AO, Patrick O'Reilly, Sarina Russo AM, Patrea Walton PSM, Professor Jennifer Westacott AC, and Dr Don Zoellner. The Committee is encouraged to seek input from members of the expert panel.

¹⁵ World Economic Forum 2025, *Future of Jobs Report*, page 35 https://reports.weforum.org/docs/WEF_Future_of_Jobs_Report_2025.pdf

'...observed wage premiums associated with nested skills almost fully disappear when controlling for an occupation's general skill requirements. This finding underscores the previous argument that specific skills complement general ones rather than stand alone, while general skills remain largely independent. Therefore, even in specialized roles, a strong foundation in general skills remains essential.'¹⁶

This is in contrast to much of the existing education logic for formal vocational learning, either in a school setting (VET for Senior Secondary Schooling) or post-secondary setting, where the learning focuses on specific skills in the form of performance of job tasks. Unfortunately, generalist skills that provide the base for effective performance is often overlooked, and certainly not guaranteed.

It is important to note FSO carries responsibility for the formation of FTB VET qualifications, including for delivery in a school context. As noted earlier, FSO is exploring the design of new forms of VET qualifications (following the VET QRDG's recommendations), which will focus strongly on the relevant generalist skills that underpin industry practice but also provide broad introduction to industry sectors.

FSO recommends this ought to be an education design feature for all industry areas for VET in senior secondary. This will avoid the lost opportunity presented in current VET qualifications, which can too easily overlook the important generalist skills that underpin effective performance. It is also important to note generalist skills should not be universal and 'detached' curriculum, which can lead to disengaged learning. Rather this learning needs to be applied to an industry context, ensuring relevance and connected learning.

This approach is not only applicable to secondary school students whose pathway may be VET, or directly into employment. JSA noted in a recent opinion piece in a national newspaper that:

'JSA research has found that too many engineering and IT graduates are not being hired for jobs they are technically qualified for, because they lack the employability skills required.'¹⁷

The need for generalist skills that transverse the labour market emphasises the need for the higher education sector, VET sector, industry, unions, and the Victorian Government to collaborate on an agreed set of learning outcomes that include strong generalist skills, including generalist digital skills.

When employers, higher education providers, or the VET system set these learning outcomes as prerequisites for a entry level job, or entry to a university or VET course of study (and they should if they are being transparent to students as to what success looks like), students will then be confident they are well prepared for these job roles or for study and are able to transition through the entry point.

The purpose of higher education and of VET is, in the main, skilling students for the labour market¹⁸, in addition to creating an environment and support for student self-

¹⁶ Nature Human Behaviour | Volume 9 | April 2025 | 673–687 *Skill dependencies uncover nested human capital* page 680 <https://www.nature.com/articles/s41562-024-02093-2>

¹⁷ Barney Glover, Megan Lilly and Peter Dawkins, 22 July 2025, *Skills system reform, blended degrees can help solve productivity puzzle*, <https://www.theaustralian.com.au/higher-education/skills-system-reform-blended-degrees-can-help-solve-productivity-puzzle/news-story/4f7fbb0ded43d88d9e7990461f4f922e?btr=35d17887917957bddea551dd3bdbc2d6>

¹⁸ Luke Sheehy, Address to the National Press Club, February 2025, <https://www.youtube.com/watch?v=GJwh2MF8oIY> and <https://universitiesaustralia.edu.au/media-item/address-to-the-national-press-club-of-australia-3/> 'In the years ahead, more jobs will require more skills – skills taught at our universities.'

actualisation. It seems obvious, at least for the FTB sectors, there must be clear signals to the schooling system as to what skills students' need for success in higher education and VET that leads to employment in in-demand industries and the support students need to pursue occupations in industries that are in demand.

It does not seem reasonable to expect students to address, at an additional time and cost, the lack of critical skills that enable employment in in-demand industries due to the schooling system not adequately preparing them before they embark on time consuming and costly tertiary education and training.

It seems unimaginable students may be commencing on a lengthy and costly pathway to in-demand industries lacking '...the employability skills required.' There seems an urgent need for collaboration across all Victorian stakeholders on an agreed set of learning outcomes for Victorian students that includes strong generalist skills, including generalist digital skills, supported, where practicable, by workplace engagement.

The opportunity

There is an opportunity, given the dominance of the service sector in labour market demand, to design educational pathways in the Victorian schooling sector that incorporates generalist skills in a form that allows students to contextualise these generalist skills within an industry. This is best undertaken by collaborative engagement between FTB industries, sector unions, the tertiary education and training sector, and governments with the Victorian schooling sector to identify, describe, and visualise skills pathways.

The recognition of the importance of such skills within FTB may also help balance gender-bias within science, technology, engineering, and mathematics (STEM) subjects.

Recommendation 2

The Committee notes:

- a) The importance of Victorian school students acquiring strong generalist skills to support future employment, and the importance of contextualising these skills within a range of industries, prior to students exiting the Victorian schooling system; and
- b) There is an urgent need for collaboration across all Victorian stakeholders on an agreed set of learning outcomes for Victorian students that includes strong generalist skills, including generalist digital skills, supported, where practicable, by workplace engagement.

Digital capability and the impact of AI

As noted, Australia is now primarily a service-based economy. The economy is driven by underpinning technology in almost every job. This has become even more apparent with the rise of the broad application of artificial intelligence and the continued need for everyone to have strong cyber security skills¹⁹. The Australian economy and its labour

¹⁹ National Institute of Standards and Technology, 2018, *Cybersecurity is Everyone's Job*, https://www.nist.gov/system/files/documents/2018/10/15/cybersecurity_is_everyones_job_v1.0.pdf

market has been digitalised, with the sophistication of that digitalisation, in general, the difference between different occupations and job roles.²⁰

Supporting evidence

As recognised in the World Economic Forum 2025, *Future of Jobs Report*:

‘Technology is predicted to be the most divergent driver of labour-market change, with broadening digital access expected to both create and displace more jobs than any other macrotrend (19 million and 9 million, respectively).’

Currently one of the most divergent drivers of labour-market change is artificial intelligence (AI) including generative AI and agentic AI. Research conducted by FSO and Mandala Partners²¹ indicates:

- Generative AI is significantly impacting the labour market. AI is not only automating routine tasks but also augmenting human abilities. This technology boosts productivity, creates new jobs, and demands new skills. That is, AI not only automates but in the main it augments existing worker tasks and skills.
- The impact of AI is not uniform. Jobs requiring higher cognitive skills, like those in finance and business services, are more exposed to the impact of AI. The adoption of AI also differs between and within occupations and industries due to trust issues with AI and limited access to training, which needs to be addressed initially within the schooling system.
- Individuals are interested in training especially in areas such as AI fundamentals, practical use of AI, AI ethics, and security and best practice.
- FSO is responding to this need by developing VET training products to build generalist AI skills.²²

The opportunity

The technological shift upon us calls for a re-evaluation of schooling, tertiary education and training, and workplace opportunities and pathways to ensure students exiting the Victorian schooling system have the skills needed in an AI-driven economy.

The focus areas for broad digital capability, including AI fundamentals, practical use of AI, ethics, security and best practice, should be addressed in the schooling system, supported by collaborative engagement by industry and employers, sector unions, and governments working together with Victorian educationalists.

²⁰ Digital Skills Organisation, July 2023, *Growing Australia's digital workforce*
<https://digiworkforce.futureskillsorganisation.com.au/>

²¹ Future Skills Organisation, 2023, *Impact of generative AI on skills in the workplace*,
<https://static1.squarespace.com/static/6461becc1e854a7ccb83e329/t/656e6e2bf37bf83542676acc1701735981705/2023-FSO-Impact+of+Generative+AI+on+skills+in+the+workplace.pdf>

²² <https://futureskillsorganisation.com.au/project-uplift-digital-capability/>

We would welcome the opportunity to explore this further with the Committee.

Recommendation 3

The Committee notes:

- a) The need to ensure students exiting the Victorian schooling system have the skills needed for broad digital proficiency and the ability to interact with AI; and
- c) Schools need to be well-placed to deliver skills that support AI literacy including AI fundamentals, practical use of AI, ethics, security and best practice, as well as the broader digital skills needed in the labour market; and
- d) This is extended to the upskilling support required for the Victorian school teaching workforce for their own digital skills and AI awareness to be able to best support their students.

Uplifting broad digital skills – supporting evidence

The impact of digital is not just confined to headline issues, such as AI and cyber security. Starting with computer fundamentals, online communication and collaboration tools (and the safe use), information and data management, data analysis and visualisation, basic understanding of coding concepts, and familiarity with cloud-based platforms for storage and collaboration are just some of the initial skills needing to be acquired at school to a material level. This is a level where students are able to use these digital skills in the workplace, or in post school education and training, from day one without significant assistance.

The need to uplift digital skills across the workforce in all industries is well recognised. For example, the Australian Government’s Employment White Paper states that digital and tech skills are becoming increasingly important to the Australian economy and that, now embedded in most jobs, they are essential for creating an adaptable workforce and supporting productivity growth.²³ The importance of Australia’s digital and technology capability is recognised in the National Skills Agreement as one of eight national priorities.²⁴

There is some urgency to realise success in generalist applied digital skills in Victorian school setting, as these digital skills are important contributors to deepening and broadening the domestic talent pool - often more effectively than through upskilling of entrenched workers. Deepening and broadening the Victorian domestic talent pool not only assists Victorian industry and employers, and the Victorian economy, but it opens up greater opportunity for more Victorians to participate in, and benefit from, economic transformation and the subsequent increase in economic prosperity.

However, according to the Australian Digital Inclusion Index the number of digitally excluded and highly excluded Australians in 2023 is substantial, totalling nearly a quarter (23.6 percent) of the national population. While this number captures the whole

²³ <https://treasury.gov.au/employment-whitepaper/final-report>

²⁴ <https://www.dewr.gov.au/skills-reform/resources/national-skills-agreement-overview>

population, Australians who have not completed secondary school make up 32.5 percent of the highly excluded and a significant portion of those who are digitally excluded.²⁵

The opportunity

There is a need to ensure those leaving Victorian secondary schools are equipped to be digitally enabled and digital expert workers, in an era of broad application of generative and agentic AI.

While digital inclusion is measured across three dimensions of Access, Affordability, and Digital Ability, it is this third aspect that relates directly to the Victorian schooling system and the pathway to employment in in-demand industries, such as those in the FTB sectors.

Nevertheless, especially for regional students and those students from a disadvantaged background, digital access and digital affordability remain critical issues and need to be considered from a Victorian whole-of-government perspective. Without access and affordability being addressed for these student cohorts it is challenging to address digital ability post the school gate.

This needs national and state leadership.

National leadership on a national benchmark for a level of digital ability to enable Victorian secondary students to enter the labour market prepared for work across a range of in-demand industries.

This benchmark needs to be at a material level to enable a worker's labour mobility in a self-generated way, so they may transition across occupations or industries as technology continues to disrupt firms and industries, and where firms, for a range of reasons, are under-investing in training and workplace mentoring.²⁶

At the state level, a benchmark for digital ability²⁷ is needed within the secondary school system so students are equipped to enter in-demand industries and are enabled to move around the labour market as it morphs and adapts.

While the Shergold chaired expert panel reported in 2020, the urgency of the recommendations on digital skills are even more apparent with the emergence of the broad application of generative and agentic AI. These recommendations included:

'All students should expect that they will be supported to meet the minimum literacy, numeracy and digital literacy proficiency standards, which are the foundation for success beyond school.

- a) Students should be supported to meet the requirements and have them recognised by the end of Year 10.

²⁵ Thomas, J., McCosker, A., Parkinson, S., Hegarty, K., Featherstone, D., Kennedy, J., Holcombe-James, I., Ormond-Parker, L., & Ganley, L. (2023). Measuring Australia's Digital Divide: Australian Digital Inclusion Index, 2023, https://www.digitalinclusionindex.org.au/wp-content/uploads/2023/07/ADII-2023-Summary_FINAL-Remediated.pdf

²⁶ Committee for the Economic Development of Australia, 2024, *Learning curve: Why Australia needs a training boost*, <https://cedakenticomedia.blob.core.windows.net/cedamediatest/kentico/media/attachments/ceda-why-australia-needs-a-training-boost.pdf>

²⁷ The Shergold chaired expert panel noted digital literacy includes not just an ability to use social media, but a capacity to use hardware and software effectively in the workplace, an awareness of cybersecurity issues, and the ability to use and evaluate digital information (noting the report was June 2020 before the emergence of the broad application of artificial intelligence).

- b) Students still requiring additional assistance to meet those standards should be provided with targeted interventions in Years 11 and 12.
- c) If, despite this supplementary support, students leave school without meeting these standards, they should be given ample opportunity and support to achieve these proficiency standards later.'

For those students who do not meet these minimum benchmarks, it is worth considering the role of Fee-Free TAFE in providing them with the opportunity and support to achieve these proficiency standards post-school.

Recommendation 4

The Committee notes:

- a) There is a national imperative for a national benchmark for a level of digital ability that enables secondary students to enter the labour market equipped for work in a range of in-demand industries; and
- b) Victorian students should be supported to meet the requirements for a material level of digital capability by the time they exit school, and the level of digital capability obtained is formally recognised at the time of exiting school; and
- c) The role of Fee-Free TAFE is considered in providing opportunity and support to achieve a material level of digital capability for those Victorian students who left school without obtaining such a capability.

Earn While You Learn Pathways

Supporting evidence

FTB employers appear to be struggling to recruit learners with appropriate skills to enter entry-level earn while you learn (EWYL) programs. Without adequate preparation, trainees often fall short of employer expectations, making it difficult for businesses to integrate them effectively into their operations. There seems to be limited opportunities for students to access preparatory programs in schools or before traineeship commencement, making it harder for school students to smoothly transition.

At the same time, the use of information, communication and technology (ICT) qualifications in VET Delivered to Secondary Students (VDSS) has been declining, despite these qualifications having potential to meet the preparatory requirements for post-secondary EWYL programs.

Once VET ICT qualifications currently in the initiation stage to be updated are available²⁸, these should be actively promoted for use through VDSS programs working with Victorian schools and training providers to integrate them into senior secondary offerings.

Evidence shows the types of learners typically recruited into ICT traineeships are those learners with skills and workplace experience who are better prepared compared to

²⁸ <https://futureskillsorganisation.com.au/project-ict-tp-update/>

general school leavers. High performing school leavers were identified as those who had engaged with ICT learning at school.

The opportunity

There is a need to strengthen school-to-work transitions. This can be addressed by enhancing connections between secondary school education and EWYL models to support earlier engagement, smoother transitions, and clearer pathways for young people entering the broader FTB workforce.²⁹ This approach should be developed through collaborative engagement by the Victorian schooling system with FTB industries, employers, and sector unions in Victoria.³⁰

To boost uptake of EWYL models in transition from school, it will be helpful to support consistency across states and territories for how these qualifications are recognised in the Australian Tertiary Admission Rank (ATAR) or secondary school completions. This will assist in making EWYL models more attractive to students and schools, and to support cross state employers. This approach would benefit from national leadership from a larger state able to demonstrate the value of successful implementation of updated EWYL models in school to industry settings. The FTB sectors are ideal industries to trial a more innovative approach, in collaboration with FSO.

Further, there appears a need for awareness campaigns targeting students, parents, and educators to highlight the value of ICT pathways and the career opportunities these unlock in in-demand industries. Enrolment trends and employer satisfaction need to be monitored to refine, with industry, the approach and ensure the pipeline of prepared talent for EWYL programs continues to grow especially out of the Victorian secondary school system into in-demand industries, such as those in the FTB sectors. At the same time, consideration may be given to awareness campaigns to Victorian employers of the benefit of using EWYL pathways with 'prepared' school leavers.

Therefore, it is critical to strengthen connections between the Victorian secondary education and EWYL models to ensure smoother school-to-work transition. Part of this strengthening is to map pathways into EWYL for students, demonstrating how preparation programs, for example Certificate II or Certificate III in schools, contribute to success.

Increased Certificate II and Certificate III completions in schools should, to the benefit of students and industry, increase the pipeline of 'prepared' talent for post-secondary EWYL programs.

²⁹ <https://futureskillsorganisation.com.au/project-ewyl/>

³⁰ Ai GROUP Centre for Education & Training, June 2025, *Apprenticeships and traineeships: The employer perspective* https://cet.aigroup.com.au/globalassets/cet/news/apprenticeship--traineeship---employer-perspective_web.pdf

Recent work by FSO outlines a 'roadmap' to strengthen EWYL models, including traineeships, degree apprenticeships and non-accredited programs, to close the skills gap and boost workforce participation.³¹

Recommendation 5

The Committee notes the value of earn while you learn (EWYL) programs, including traineeships, through the need to strengthen connections between the Victorian secondary education and EWYL models to ensure smoother school-to-work transition.

Entry Level Pathways

Supporting evidence

In all the work of the FSO it is clear pathways into and across FTB, as in-demand industries, and the visualisation of those pathways is highly critical to informing students, career advisers, and parents.

FSO's 2025 *Workforce Plan: Pathways to Impact*³² outlines national strategies to strengthen pathways from education into in-demand industries, with a particular emphasis on skills-first, modular, and work-integrated learning models.

While recent reforms such as the VCE Vocational Major and Victorian Pathways Certificate represent positive steps in aligning secondary schooling with applied learning, the broader national system still requires greater integration between schools, VET, and higher education. To meet workforce needs in areas such as cybersecurity, environmental, social, and governance (ESG) requirements, business analytics, and accounting, education pathways must be more agile, accessible, and aligned with employer demand.

Current educational pathways do not consistently deliver clear transitions into high-demand roles. Although vocational enrolments are recovering post-pandemic, VET completions remain unstable, and domestic enrolments in key higher education programs, such as accounting, continue to decline. These trends reflect a systemic gap between qualifications and job outcomes. Embedding flexible, stackable credentials and strengthening collaboration with industry across the entire education system – from primary and secondary through to VET and higher education - will be essential to ensuring learners can move confidently into sustainable in-demand careers.

Visualisation of pathways serves as a key tool for communicating the needs of employers and industry, demonstrating pathways from school and post school education and training into employment.

³¹ Future Skills Organisation, July 2025, *Developing the Tech Workforce: Unlocking the Potential of Earn While You Learn Report* https://www.futureskillsorganisation.com.au/wp-content/uploads/2025/07/FSO_EWYL-Summary-Report-24pp_Web-Ready-310725-2.pdf

³² Future Skills Organisation *Workforce Plan 2025 Pathways to Impact*, June 2025, <https://futureskillsorganisation.com.au/workforce-planning/workforce-plan-2025/>

If FTB job/career pathways are visualised in a digital form, then entry level jobs and jobs along the job/career pathways may be profiled, including the generalist and specialist skills required for each job role. Further, attaching a link to a short (TikTok) video of a 'day in the life' for that job role will further inform students.

There seems to be general feedback from teachers, parents, and students that they do not know exactly what a technology, or for that matter finance or business, job relates to in terms of skills needed and day-day job experience. Not understanding the makeup of jobs that exist now, let alone what jobs may emerge or change, seems to represent another layer of difficulty in translating what's learnt in Victorian schools to what's useful in the workforce (it is the equivalent need for immersion of what used to occur through physical visits to local employers, factories, and workplaces in more industrial times).

The opportunity

Entry level pathways, when mapped and visualised, should enable a common understanding of the skills, including generalist and digital skills, for entry into employer defined job roles irrespective of how those skills were acquired. That is, mapping and visualising entry level pathways based on skills should widen and deepen the talent pool available to in-demand industries, while opening up broader opportunities for those who seek entry level job roles from alternative pathways and who come from more diverse or disadvantaged backgrounds.

Pathways should also provide clearer guidance for curriculum and qualification design and development, as entry level pathways are clusters of related entry level jobs with significant overlap in the required application of knowledge and skills. This means entry level pathways can inform, and be supported by, an approach to education defined by agreed learning outcomes across the schooling system and post school environment. Such agreed learning outcomes, while addressing the wider educational needs of students, are able to be informed by the common understanding of the skills, including generalist and digital skills, for entry into employer defined job roles.

Of note, FSO is undertaking work to identify and map up to ten entry-level pathways into technology roles, prioritising high-demand skill areas.³³ This work will include utilising recognised capability and skills frameworks, such as DigComp 2.2³⁴ and Skills Framework for the Information Age (SFIA),³⁵ and by engaging learners, industry, and training providers throughout the identification and mapping phase.

Recommendation 6

The Committee notes the importance of the Victorian schooling system working with Victorian industry to identify, describe, and map entry level pathways to in-demand industries to inform students, career advisers, and parents of entry to employment opportunities and for these pathways to be provided in a visualised form.

³³ <https://futureskillsorganisation.com.au/project-entry-level-pathways/>

³⁴ JRC Publications Repository - DigComp 2.2: The Digital Competence Framework for Citizens - With new examples of knowledge, skills and attitudes

³⁵ <https://sfia-online.org/en>

Targeted action is needed to support groups currently underrepresented in FTB occupations. Women account for only 23 percent of the technology workforce, while First Nations people and people with disability represent less than one percent across both technology and finance roles. It is important industry role models are developed so these cohorts of students can 'see themselves' reflected in the industry, and at senior levels.

Nationally, FSO supports a place-based, equity-focused approach that includes culturally safe programs, accessible training delivery, employer-education partnerships, and supported transitions such as EWYL models, and integrated career development. These are essential to ensure all students, irrespective of background or location, can access and thrive on pathways leading to in-demand industries.

Recommendation 7

The Committee notes there is a need for a particular emphasis on skills-first, modular, and work-integrated learning models to support participation from school leavers in in-demand industries.

Conclusion

The finance, technology, and business sectors consist of growing, in-demand industries, and available data supports this view. It is clear senior secondary graduates will need a broader and different mix of skills compared to previous generations, including generalist skills such as strong problem solving, communication, and critical and creative thinking.

Further, due to the post-industrial highly service oriented and digitalised economy, students will need digital capability skills that enable labour mobility and self-learning of further digital capability to progress across the labour market especially given the emergence of generative and agentic AI.

Finally, we need clearly defined and visualised employment pathways that support earn while you learn models and adopt a skills-first approach to widen and deepen the talent pool available for in-demand industries. This will also open up employment opportunities in these industries to diverse and disadvantaged students so that all Victorians may share in our nation's economic prosperity.

Future Skills Organisation

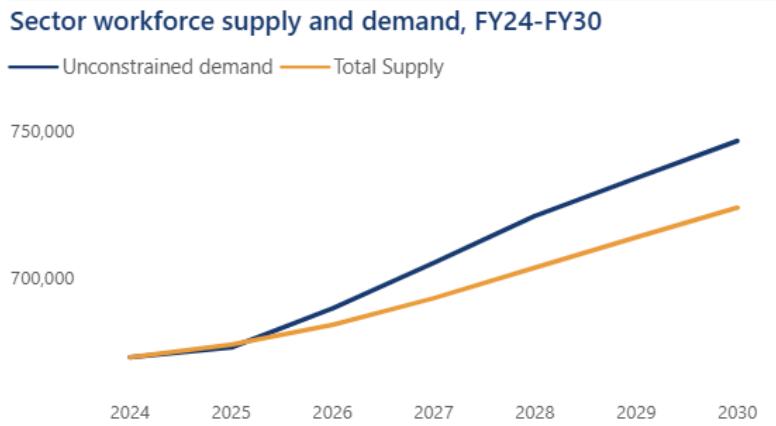
futureskillsorganisation.com.au

PO Box 16194, Collins Street West,
Melbourne VIC 8007

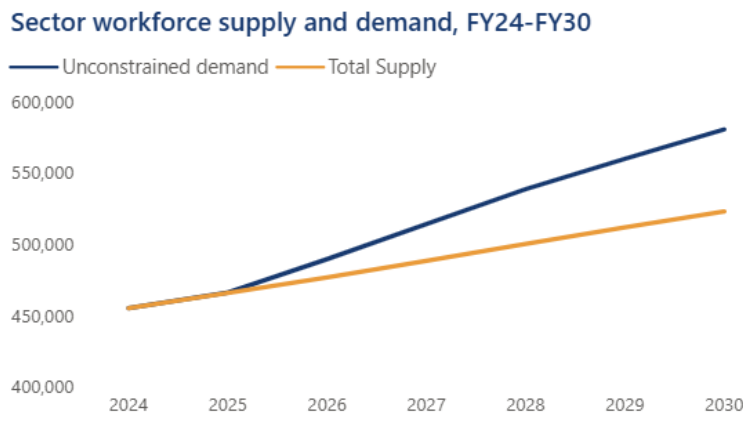
The Future Skills Organisation is a Jobs and Skills Council funded by the Australian Government Department of Employment and Workplace Relations.

National workforce supply and demand projections by industry 2024-30³⁶

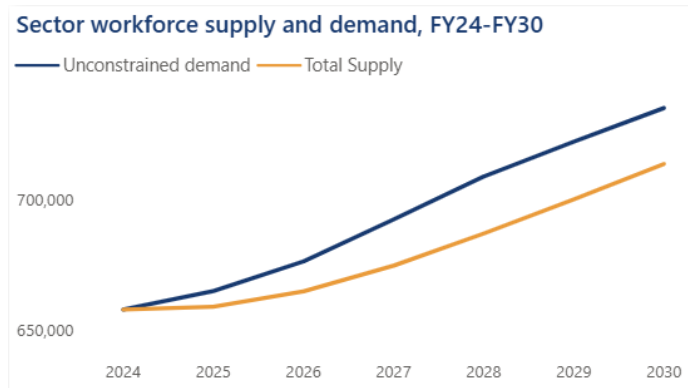
Finance - workers by year



Technology - workers by year



Business - workers by year

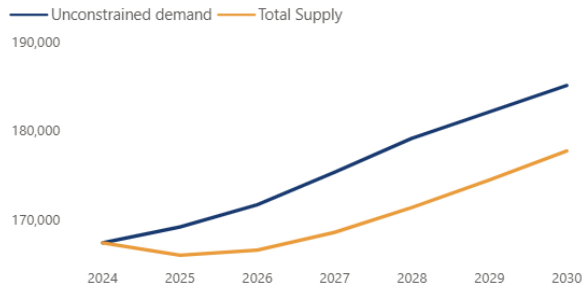


³⁶ See the data FSO 2025 workforce plan and Dashboards tab <https://futureskillsorganisation.com.au/workforce-planning/workforce-plan-2025/>.

National workforce supply and demand projections by sector 2024-30

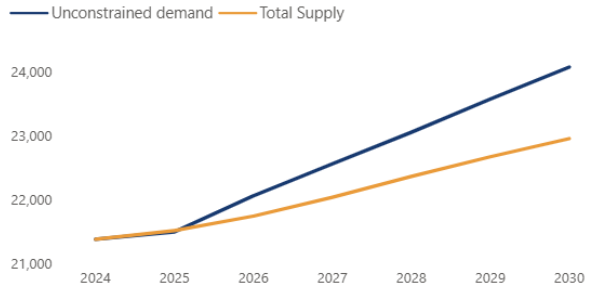
Finance - Accounting Services

Sector workforce supply and demand, FY24-FY30



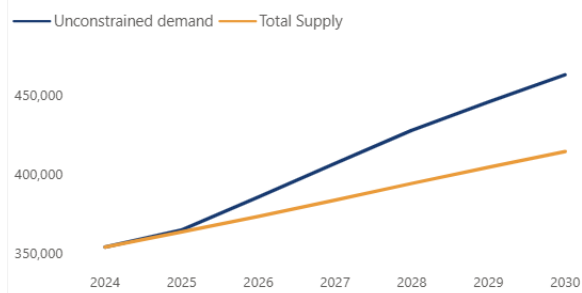
Finance - Superannuation Funds

Sector workforce supply and demand, FY24-FY30



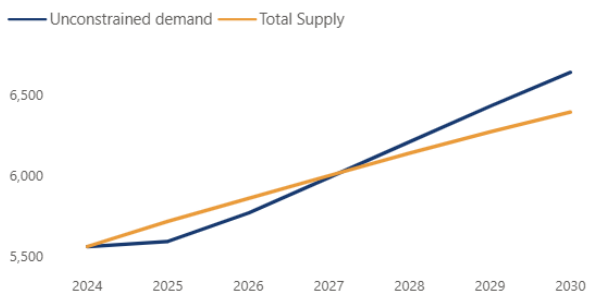
Technology - Computer System Design and Related Services

Sector workforce supply and demand, FY24-FY30



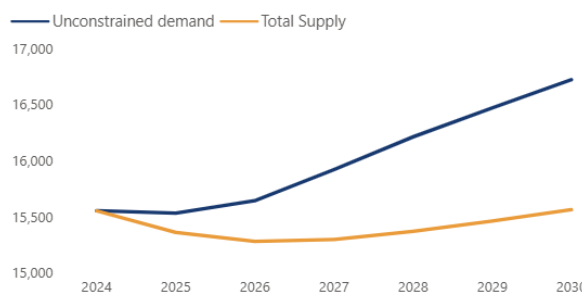
Technology - Internet Service Providers and Web Search Portals

Sector workforce supply and demand, FY24-FY30



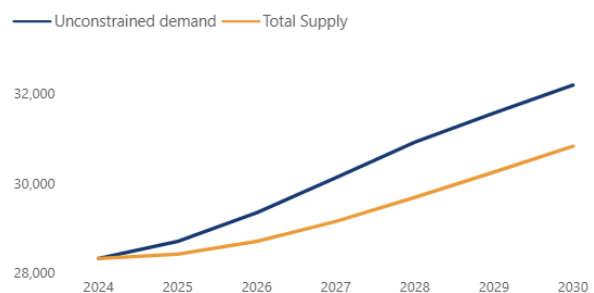
Business - Office Administrative Services

Sector workforce supply and demand, FY24-FY30



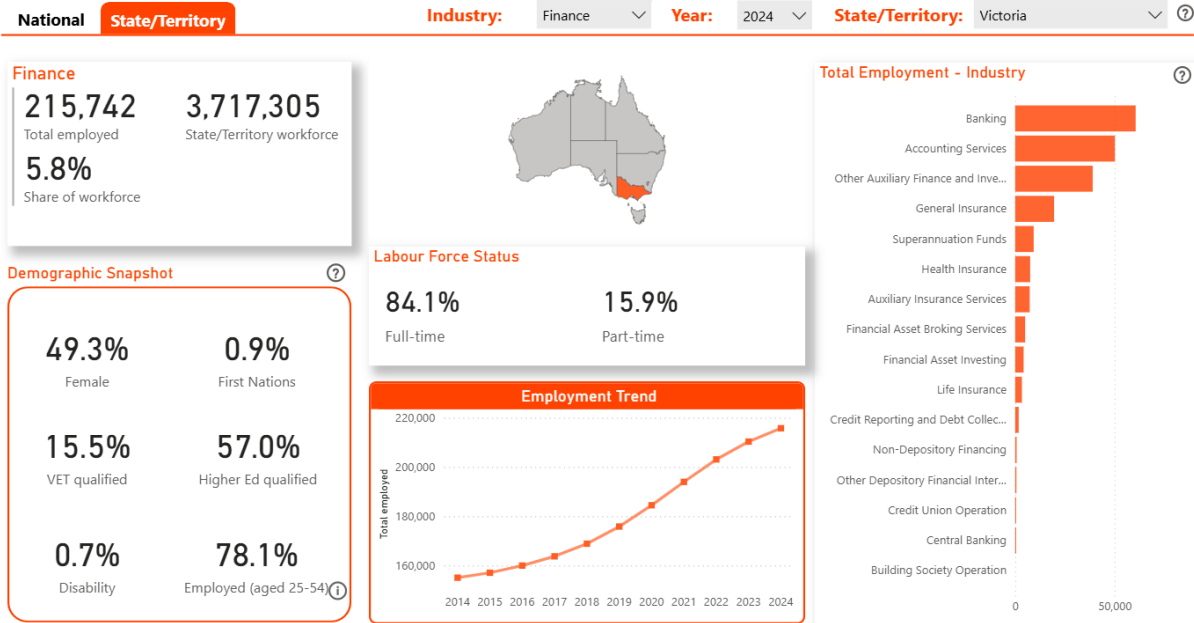
Business - Scientific Testing and Analysis Services

Sector workforce supply and demand, FY24-FY30

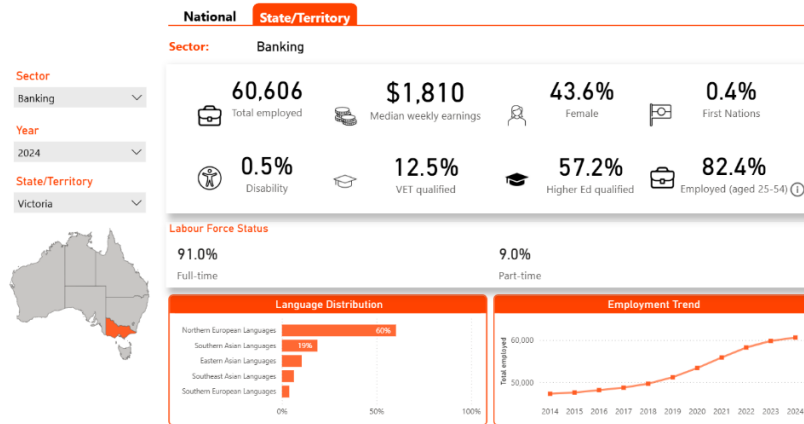


FTB industry overview 2024 Victoria

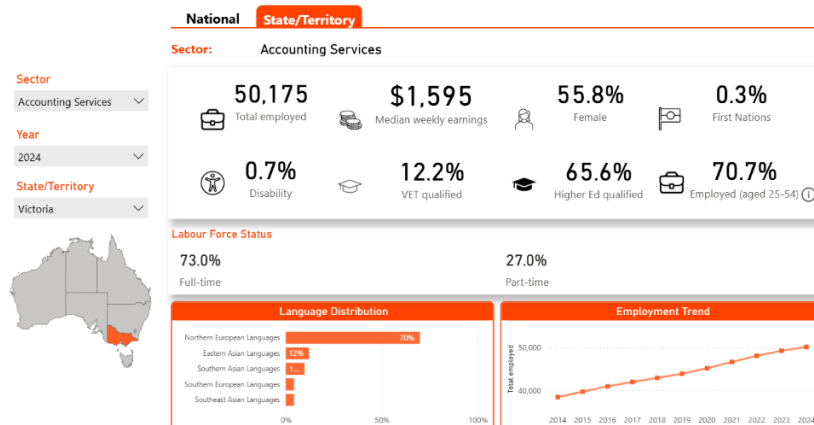
Victorian Finance Sector – with the two sectors with highest employment



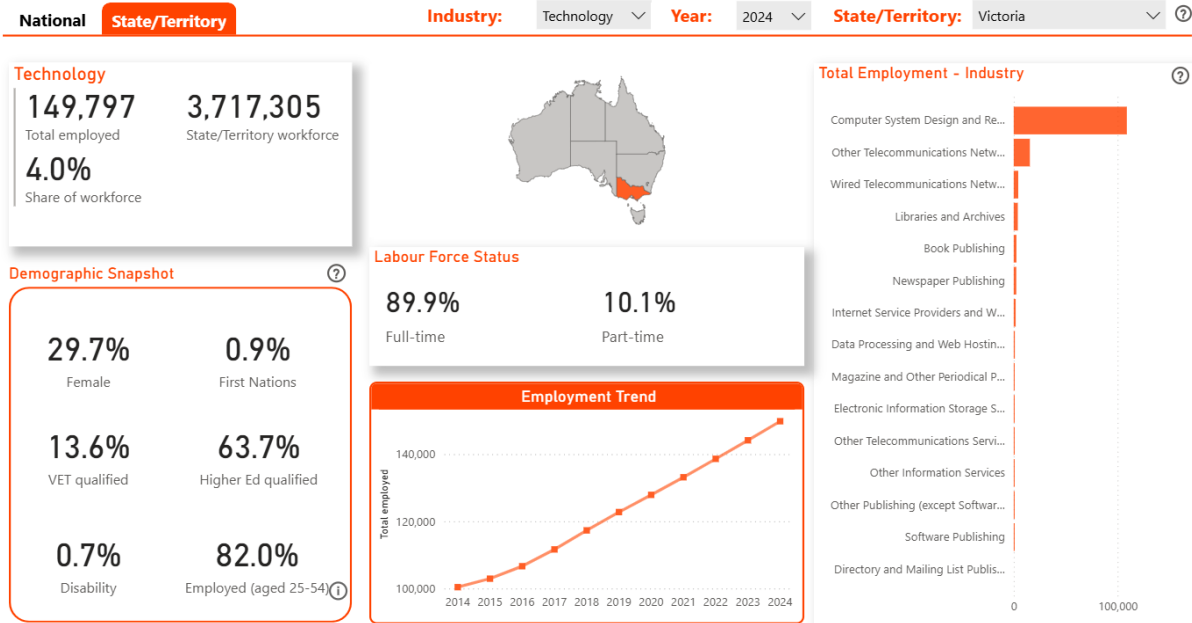
Banking



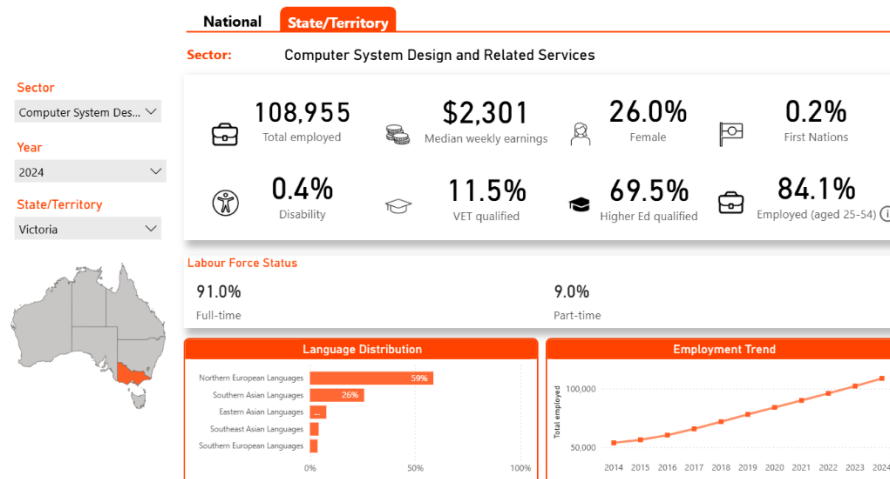
Accounting Services



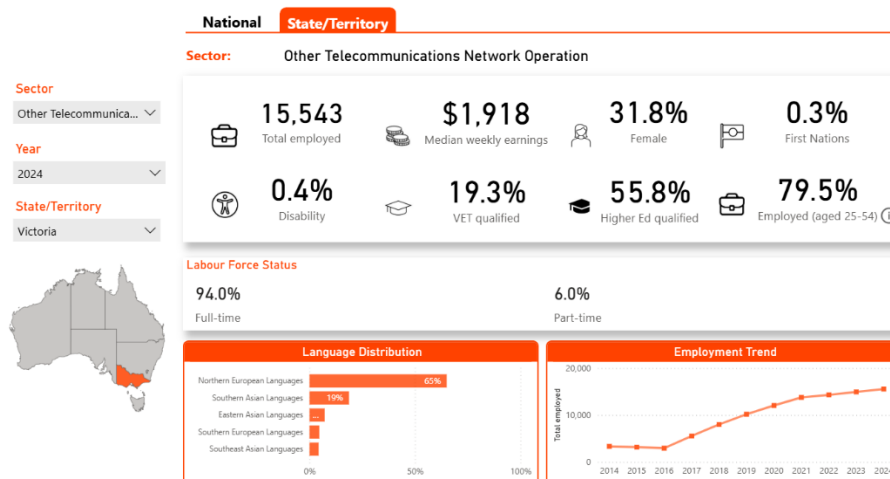
Victorian Technology Sector – with the two sectors with highest employment



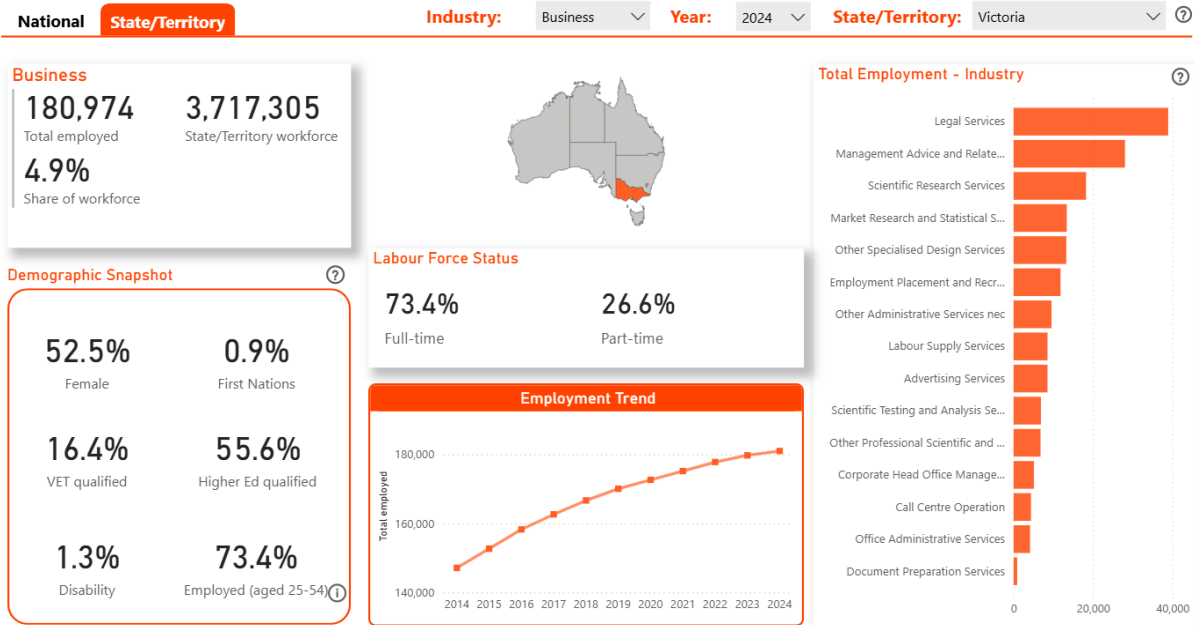
Computer System Design and Related Services



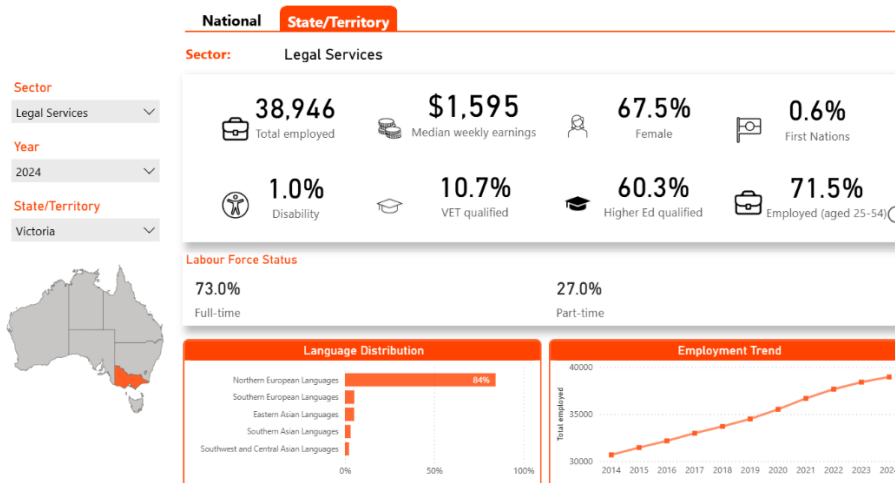
Other Telecommunications Network Operation



Victorian Business Sector – with the two sectors with highest employment



Legal Services



Management Advice and Related Consulting Services

