



Ovens Murray
Regional Skills
Demand profile
2023



**Victorian
Skills Authority**



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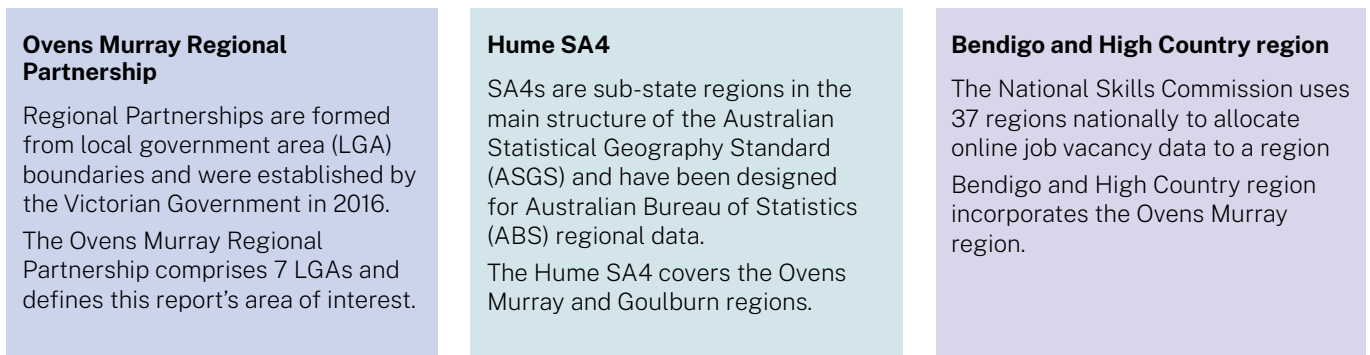
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The Victorian Skills Authority (VSA) has a critical role to play in understanding and communicating the skills needed to ensure Victoria can meet current, emerging, and future skills and industry demands that enable inclusive growth and prosperity for all Victorians. Working together with key stakeholders across industry, employers, providers, unions, communities and learners, the VSA seeks to deliver skills-led solutions, drive reform and collaborate to improve skills and employment outcomes.

The Ovens Murray region sits within the Hume Statistical Area (SA4) region and the Bendigo and High Country region of the National Skills Commission. Figure 1 below shows the relationship between the regions.^{1,2} This report relies on data at all 3 levels, using the most granular data available where reliable.

Figure 1: Relationship between regions and the 3 levels of data



The Ovens Murray profile is complementary to the Ovens Murray Regional Economic Development Strategy (REDS). The profile draws on the REDS in addition to other sources. Due to the specific focus and need of the profile, alternative data has been required for aspects of the analysis. As a result, some data and information may differ between the REDS and the profile. The data and information in the profile has been validated and adjusted with a taskforce comprised of industry leaders and education providers from across the region.

Data in this profile

The Victorian Skills Plan provides the Victorian Government and skills and training system with high-quality information to best meet industry and community needs. The VSA is committed to building data and insights year on year through the annual Victorian Skills Plan and updates to the employment forecast dashboard.

This profile reflects most up to date data and statistics available in 2022, during the period of taskforce meetings and profile development. The data is aligned to the 2022 Victorian Skills Plan and various reputable sources were incorporated, as referenced throughout the profile.

The projections reflect the economic outlook and uncertainty of the time. The pace of the pandemic recovery, return of migration, supply chain issues, inflationary pressures and the Russian invasion of the Ukraine have all contributed to a rapidly changing economic and labour market outlook in the last 18 months.

The VSA is currently updating its data for the 2023 Victorian Skills Plan. The update will reflect the changed economic conditions noted above, as well as improvements in the modelling techniques used to estimate employment across the regions. For this reason, the data in the profiles is likely to change with the release of the new Victorian Skills Plan, set to be released in late 2023.

To access the latest data, readers are directed to the Victorian Skills Authority employment forecast dashboard: www.vic.gov.au/victorian-skills-plan and the Regional Economic Development Strategies (REDS) interactive data dashboards: <https://www.rdv.vic.gov.au/resources/regional-economic-development-strategies>.





Contents

Executive summary	6
Acknowledgements	14
Introduction	15
Strategic context	17
Key industries across Ovens Murray	20
Key opportunities for the region	24
Key challenges facing the region	28
Opportunities to deliver a skilled workforce	32
Future workforce and skills requirements	36
Implementation considerations and next steps	50
Appendix A: Industry profiles	52
Health and community services	53
Manufacturing	59
Tourism, accommodation, food and retail	64
Agriculture and forestry	70
Transport and logistics	76
Construction	82
Appendix B: Data sources	88
Appendix C: References	92

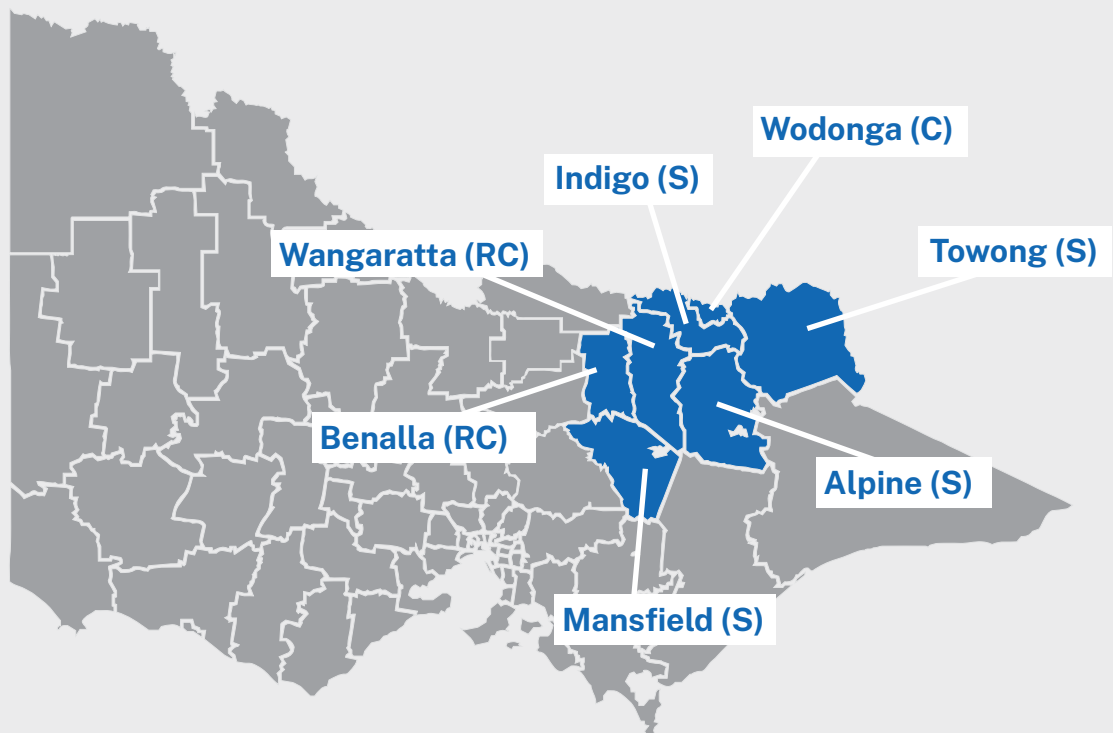
Executive summary

This profile focuses on a 3-year outlook for Ovens Murray, and the education and training opportunities that can help to develop the workforce required for the region.

About the Ovens Murray region

The Ovens Murray region is in the north-east of Victoria, encompassing the local government areas (LGAs) of Benalla Rural City, Mansfield Shire, Wangaratta Rural City, Alpine Shire, Indigo Shire, Wodonga City and Towong Shire. The region is home to the Taungurung, Yorta Yorta and Gunaikurnai Nations, as well as other Traditional Owner groups who are not formally recognised, who have lived, worked and cared for their Country and resources for many thousands of years.

Figure 2: Local government areas (LGAs) in the Ovens Murray region¹



The Ovens Murray Region is at an economic crossroads

Strategically located, with a wealth of natural assets, the region has long promised to be a strong contributor to, and driver of, Victoria's economic prosperity. The pandemic and wider social and economic conditions have only served to reinforce the natural advantages of the region. However, the Ovens Murray Regional Skills Taskforce has found there is one key missing ingredient: workers.



Population is the key to prosperity

Presented with a generational opportunity through heightened domestic tourism, disrupted international supply chains and interest in a regional lifestyle, employers in the region are eyeing the potential for significant short term and sustained longer-term growth as they reposition and reshape the local economy.

Regional prosperity is within their grasp but can only be achieved if there are the people to support it. This is not the problem of one industry or town. It extends to the entire region and potentially beyond.

Historically, many employers have turned to immigration to meet their need for workers. The pandemic border restrictions limited this option and while domestic migration is growing it is insufficient to meet identified needs. The solution to the region's challenges must therefore be local. Business as usual will not suffice with significant changes required as to how needs are surfaced, and services put in place to meet them.

This starts with closer relationships between education providers and employers. While pockets of excellence exist, a lack of connection between employers, schools and tertiary education providers is evident.

This begins with awareness of local careers through to opportunities for placements and work experience and extends to undertaking the right education after school and having targeted options to effectively support the skilling, upskilling and reskilling of workers. Existing government commitments to improve careers advice and training will support this, but more can be done.

Connections are vital between education and business

The pieces are in place, but they are not consistently connected. This contributes to underlying fragility in the local economy, which is compounded by the risks of labour shortage. This is not just about big businesses; the challenges are most acute for the small to medium businesses dispersed across the region. Many of these businesses, in the heart of the region's towns, offer the greatest potential for growth but are also the most disconnected. Towns and their businesses want to prosper but cannot achieve this without people.

The solution starts with parties coming together, but it also needs changes in how education is offered and delivered. The region's youth and workforce deserve a system that provides access to the education they need to stay in the region, earn a decent living and contribute to the local economy. Beyond education, housing, transport and access to services are also critical to securing the required workers.

The insights and opportunities identified by this report provide a starting point. Industry, TAFEs, adult and community education and Learn Local providers, other registered training providers (RTOs), universities, schools and government will be integral to providing the skills and pathways required to meet future economic demand. Strong partnerships, linkages and sustained collaboration are necessary to address systemic challenges and to ensure training opportunities for the people of Ovens Murray are efficient, equitable and aligned to employment outcomes.

Economic indicators reflect a diverse and interconnected region

The economy of Ovens Murray is diverse and highly interconnected. The region's natural assets—including mountains, waterways and pastures—support strong agriculture and tourism industries that serve national and international markets. A large manufacturing industry, dominated by food processing, builds on the region's agricultural strengths. The region's strategic location between Sydney and Melbourne supports a significant transport and logistics industry.

The flow of income from the workforce and households creates demand for service industries in the region, such as construction, energy and utilities, health and community services and education and training. Growth in one industry has flow on effects to others, leading to increased opportunities for local investment. The region is also interconnected with neighbouring regions, in particular the Riverina in New South Wales (NSW) due to its position on the border.

Demographic and socioeconomic context

The demographic profile of the region poses potential labour supply challenges. An ageing population and a low proportion of people of working age compared with the Victorian average is compounded by high youth out-migration, with many people born in the region leaving to pursue education and work opportunities in other parts of Australia.

These challenges are offset by high labour force participation rates across all working age groups and a relatively low unemployment rate. However, low levels of literacy and digital capability across the region can make finding workers with the right skills challenging.

Outlook on jobs growth

2020 was a turbulent year for many industries, with the pandemic and bushfires affecting the performance of key industries, such as agriculture and tourism, and reducing demand for workers. Throughout 2021, there was a temporary surge in demand in industries such as tourism and construction, but activity remained disrupted and volatile.

As the region continues to recover from the pandemic, most industries have the potential for steady and sustainable growth over the next one to 3 years, building on strong investment in the region. Taskforce estimates identify demand for an additional 3,850 to 5,300 workers between 2022 and 2025.³

Table 1 provides taskforce estimates of growth across industries. This is in addition to an estimated 7,000 workers required across industries to replace workers likely to retire in the next 3 years.⁴ These estimates are not intended to be precise, therefore a range is offered. Overall, the total number of jobs that need to be filled will be higher due to existing vacancies.

Table 1 | Preliminary outlook on job growth by industry

Industry group	Estimated people in 2022 ³	VSA estimate growth 2022–25 (CAGR) ¹ ³	Taskforce estimate growth 2022–25 (CAGR) ¹ ⁵	Taskforce estimate growth 2022–25 (people) ⁵
Agriculture and forestry	~5,400	-0.5%	+ 0.0–0.5%	+ 0–00
Health and community services	~11,750	+ 2.7%	+ 2.5–4.0%	+ 850–1,400
Construction	~6,250	+ 2.0%	+ 2.5–3.5%	+ 500–700 ²
Manufacturing	~10,100	+ 0.3%	+ 1.5–2.5%	+ 400–650
Retail	~6,450	+ 1.2%	+ 1.0–1.5%	+ 200–300
Accommodation and food services	~4,950	+ 4.7%	+ 3.5–4.5%	+ 500–650
Transport and logistics	~2,950	+ 2.1%	+ 2.0–3.0%	+ 200–300
Other	~23,800	+ 1.4%	N/A	+ 1,200
Total	~71,650	+ 1.6%	N/A	+ 3,850–5,300

Challenges

There is a delicate balance between labour demand and supply in the region. Many industries already face persistent challenges attracting and recruiting experienced and entry-level workers. Data suggests there is likely to be a continued labour shortage in the region if all available workers are not mobilised, including migrants, school leavers and the unemployed.

¹ Compound annual growth rate (CAGR)

² Excludes the temporary workforce required for construction of infrastructure projects in the region such as Inland Rail.



Securing the required workforce is a shared challenge

To address labour shortages, additional workers must be found and mobilised. While enablers of domestic and international migration, such as housing and immigration policy, should be explored in the medium to long term, the most immediate opportunity for the region is to tap into under-utilised potential workers in the local labour market. This includes connecting school leavers and unemployed people with opportunities in the region.

Securing the required workforce requires more effective collaboration between employers, education providers and intermediaries. Relationships between employers and education providers are mostly transactional. There are a multitude of intermediaries in the region, and the number of parties involved creates a complex landscape for jobseekers and employers.

New models of education delivery will also be required, as the region is currently struggling to retain young people and build their skills. This will need to start in the school system, connecting students to local careers. It will also be critical to ensure training is aligned with demand and adequately tailored to employers' needs.

Opportunities

Three key opportunities for the region are outlined below, and further opportunities are discussed in detail in later sections:

- mobilise labour supply by reducing barriers to immigration and re-engaging people who are unemployed
- build better connections and engagement across the region between employers, education providers and intermediaries
- improve education delivery to support Ovens Murray residents to learn and work where they live.

Taskforce and industry leaders across Ovens Murray identified several opportunities unique to each industry group. The skills system, in collaboration with industry, needs to play an important role in addressing these opportunities to ensure that the training and skilling needs of industry are met. Key opportunities for each industry are outlined below and further discussed in detail in later sections.



Table 2 | Key opportunities

Industry	Challenge	Opportunity
Health and community services	Entry-level careers in the community services sector are not attractive to young school students.	Promote existing training pathways within school, for example school-based apprenticeships. Work with local schools, industry and training providers to develop and offer industry tasters and work experience. Continue to explore recruitment pathways for non-school leavers including the Entry into Care Roles Skill Set as a pathway into the industry.
	There is a shortage of experienced frontline health care workers in the region.	Work with local employers, adult and community education and Learn Locals, TAFEs and universities to promote and support upskilling pathways within the sector.
	The current workforce is challenged by physically demanding roles.	Explore options to retain older and more experienced workers by partnering them with trainees.
	The Certificate III in Individual Support no longer includes a core subject on assisting clients with medication, despite it being valuable to employers.	Continue to offer the elective unit within the Certificate III in Individual Support 'assist clients with medications' as a separate skill set or add on.
Manufacturing	Many new workers do not persist with manufacturing roles due to the time required to progress to more senior roles.	Map the different career pathways within industry to enable clear communication to prospective workers about career progression.
	Staff with experience or training are challenging to recruit.	Create structured on-the-job supervision and mentoring approaches.
	Management roles are hard to fill.	Develop and deliver skill sets focused on management roles tailored to the industry.
	Some cohorts are vulnerable to restructuring that requires higher skill.	Assist vulnerable cohorts to transition into high-skilled work or into other employment opportunities through specialised programs.
Tourism, accommodation, food and retail	The remote location of some regions, such as the alpine resorts, constrains their ability to access courses.	Support collaboration between training providers and employers to offer onsite training for a collection of workers in the region.
	There is likely untapped potential to engage workers in the industry such as students or mature aged people looking for a career change or to enter the workforce for the first time.	Deliver targeted training for cohorts of prospective workers to provide them with job skills and confidence to succeed in the industry.
	The industry struggles to recruit some roles such as chefs, front-of-house workers and managerial positions.	Support workers to upskill and promote career pathways to fill managerial or specialised positions. This may also require changes to workforce practices to improve retention.



Industry	Challenge	Opportunity
Agriculture and forestry	The fixed delivery and timing of qualifications is a barrier for students to engage in continuous learning and upskilling.	Explore a flexible approach to deliver qualifications that provides students with choice in the composition and timing of their training.
	General trainers are not always able to deliver the technical skills required by industry.	Onboard and support specialised trainers to meet gaps in technical capability.
	Smaller industries, such as viticulture, struggle to reach the student numbers required to be viable for training providers.	Work through Office of TAFE Coordination and Delivery to identify lead TAFEs for thin market qualifications.
	The industry is struggling to attract young people due to a perceived lack of career opportunities.	Explore opportunities to integrate agriculture into the school curriculum in local schools to stimulate interest in the industry and the variety of career options.
	Farm consolidation and increased employment of non-family labour has increased demand for farmers with managerial skills.	Develop skill sets targeted at managers in the agriculture industry.
Transport and logistics	There is a significant shortage of drivers within the industry, particularly with multi combination and heavy combination licences.	Better promote training programs for targeted cohorts supporting foundational skills and literacy, such as Wodonga TAFE's Driver Education Centre of Australia (DECA) based in Barnawartha.
	There are limited entry-level positions available for school leavers due to age constraints on obtaining licences and gaining insurance.	Encourage employers to develop entry-level positions in other areas of the business and provide multi-year pathways to obtaining licences.
	The industry struggles to attract people due to negative associations with long-haul driving and the narrow perceptions of available roles in the industry.	Develop information materials to promote the industry to prospective workers.
	Obtaining a truck licence is not confirming competency of the workers to operate the vehicle in high-risk environments.	Develop mentoring and supervision programs for newly licenced truck drivers. Explore opportunities for new truck drivers to gain on-the-road experience on receipt of their licence.
Construction	Stimulus incentives have been effective in encouraging employers to take on mature aged apprentices, but more can be done to encourage the delivery of quality apprenticeships.	Encourage industry-led initiatives to continue to expand high-quality apprenticeship opportunities.
	Training pathways are not available for some specialisations, for example in shed building and window construction.	Support the industry to work with the relevant Commonwealth Jobs and Skills Council to ensure suitable pathways exist for the full range of roles.
	The industry is struggling to attract school students to apprenticeships due to negative perception of the industry as a career path.	Promote and support training pathways within school, for example school-based apprenticeships.
	Training materials have not kept pace with industry best practice in construction.	Work with local training providers to update course program and learning material to reflect industry best-practice.
	There is an increasing shift to workplace-based training delivery, yet providers are not always equipping employers with an understanding of what is expected.	Work with local training providers to establish guidance for employers.
	The industry is struggling to recruit prepared and job-ready apprentices.	Support aligned recruitment practices between apprentice providers and employers.

Continued collaboration will be required to support implementation

Industry, TAFEs, RTOs, universities, schools and government will play an essential role in addressing labour supply, aligning the skills system with future economic demand and realising benefits for the regional economy.

It is expected that leaders across the region will continue the conversation within and between their industries to support implementation and taskforce members will be champions for change within their sector.

To address specific skills needs, collaboration at an industry level – rather than a coordinated regional response – is likely to offer greater success. To address broader enablers and labour supply, collaboration across state, federal and local governments will be required, supported by strong industry engagement.

Next steps

While many labour supply and skilling challenges will take time to address, there are a number of cross-sector initiatives that can be implemented over the next 6 to 12 months to address the urgent labour and skilling challenges. These quick wins include:

- raising awareness among local employers about local community-based networks that can be used to attract unemployed jobseekers
- identifying short-term opportunities to leverage existing infrastructure for accommodation
- advocacy to the Australian Government on the skills priority list to reflect critical skills gaps in the region, for example truck drivers
- promoting local career opportunities within schools and expanding on promising programs that link school students with work experience
- establishing delivery partnerships between employers and vocational and education training (VET) providers to utilise employers' existing infrastructure and equipment to support industry-wide and tailored training initiatives
- developing a recruitment campaign for apprentices in the region.

Quick wins specific to individual industries are discussed further in the body of the report.



'To address specific skills needs, collaboration at an industry level is likely to offer greater success.'

Acknowledgements

Acknowledgement of Country

The Victorian Skills Authority (VSA) acknowledges and recognises the Traditional Owners of the Ovens Murray lands, including the Taungurung, Yorta Yorta and Gunaikurnai Nations. We pay our respect to their Elders past and present and extend that respect to all Aboriginal and Torres Strait Islander peoples.

Acknowledgement of support to undertake this work

The Regional Skills Demand Profiles have been prepared with support from Regional Development Victoria. The profiles are a valuable resource for regional Victoria, the Department of Jobs, Skills, Industry and Regions, the Department of Education and broader government. The VSA will work closely with stakeholders to address the opportunities and issues identified in the profiles.

Acknowledgement of Regional Skills Taskforce members

The VSA acknowledges the time, contribution and insights of the taskforce (Table 3) and additional representatives from industry, local government, education and training institutions and related agencies, including in recent consultations held by the VSA to validate the profile. The findings in this profile would not be possible without their openness, generosity, expertise and commitment to the regional economy and community.

Table 3 | Regional Skills Taskforce members

Member	
Amanda Vogt	Mt Buller and Mt Stirling Resort Management Board
Bobbi McKibbin	Solar Integrity Albury Wodonga
Corina Wendnagel	Tallangatta Meat Processors (Smiths TMP)
Eliza Brown	All Saints Winery
Graeme Church	Alpine MDF Industries
John Dodson	HVP Plantations
Leigh Rhode	Gateway Health
Lloyd Johnson	VISY
Mark Dixon	Wodonga City
Mark Parry	Ron Finemore Transport
Mick Clewes	North East Water
Robert Hawkings	Indigo Vineyard
Rupert Shaw	Bright Brewery
Serene Gray	Zauner Construction
Stuart Crosthwaite	Hermitage Dairy (also Alpine Valley Dairy Committee)
Tracy McCrohan	Albury Wodonga Health
Other	
Matt Nelson	Regional Development Victoria

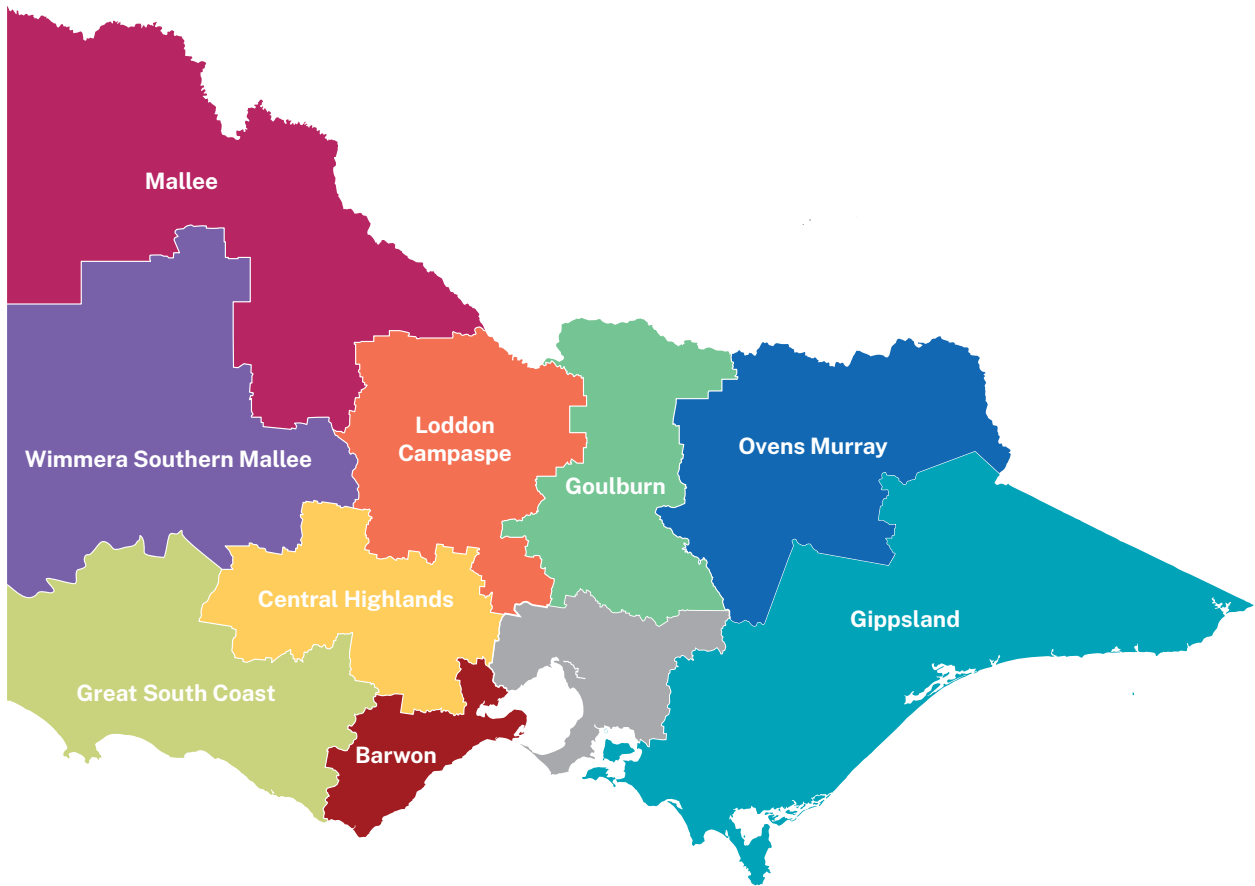


Introduction

The Victorian Skill Authority (VSA) has a critical role to play in understanding and communicating the skills needed to ensure Victoria can meet current, emerging and future skills and industry demands that enable inclusive growth and prosperity for all Victorians.

Regional Victoria is critical to a thriving Victoria, and the Regional Skills Demand Profiles are an important element of setting the regions up for success.

Figure 3: Victorian Regional Partnerships map



The purpose of the profiles is to provide a robust evidence base that draws on a wide range of data and information that is supplemented by the valuable insights and experience of key stakeholders, brought together through dedicated taskforces and industry roundtables.

The profiles are developed through a collaborative and robust process, with a focus on providing local insights and a tailored and actionable response to support decision-makers to understand broad workforce trends, challenges and opportunities. This profile has been established with the intention of being accessible, practical and valuable to a range of stakeholders, including government departments and agencies, employers, training providers, local industry and the region.

This profile focuses on the 3-year outlook for the Ovens Murray region, and the education and training opportunities that can assist in developing the required workforce. While the profile acknowledges that many factors contribute to economic development, this work is centred on the skills and training responses (to engage, train and retain the workforce) rather than other levers that are also essential to secure labour and ensure the region's prosperity.

Connection to the Victorian Skills Plan

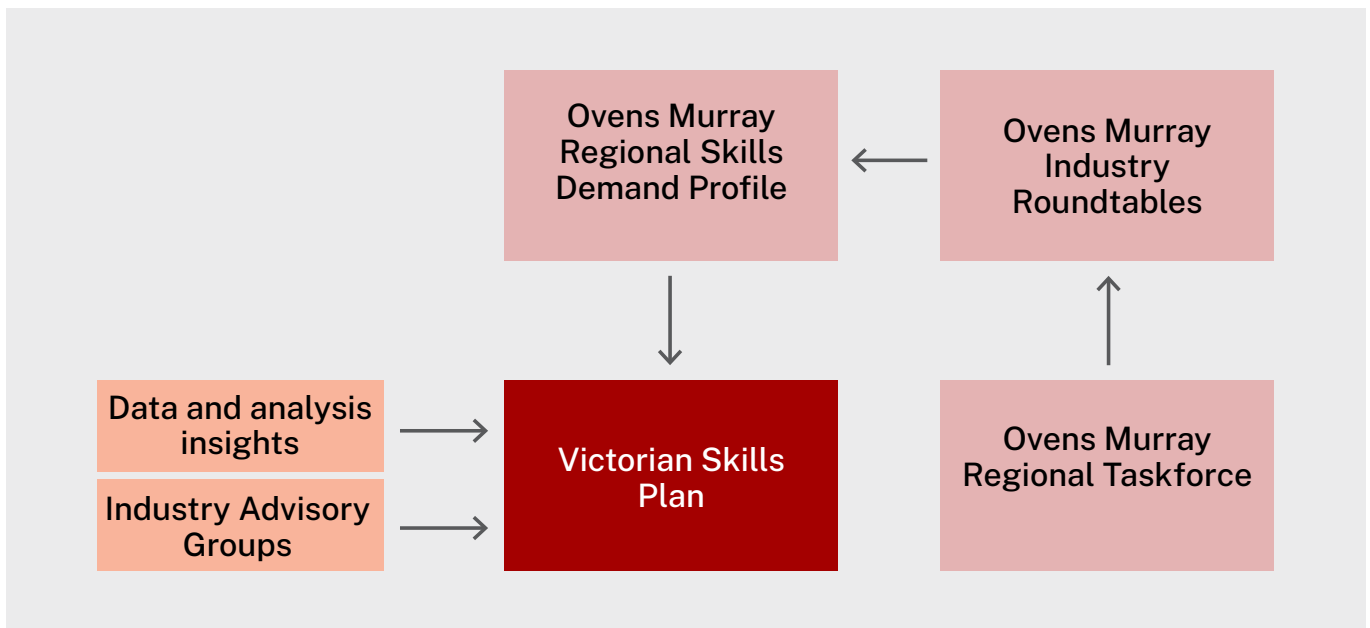
The Victorian Skills Plan defines current and emerging skills needs and labour market shortages across the state at both industry and local levels to direct and enable more targeted investment that ensures a Victorian skills system which can meet the current, emerging and future demands of industry and the community.

As the first of many, the inaugural plan, alongside the development of the profiles, highlights the need for an ongoing conversation and collaboration across the sector to address current and emerging skills requirements.

While the plan covers the current landscape of the Ovens Murray region and industry needs, the profile focuses more deeply on the localised challenges and opportunities for the Ovens Murray region.

The plan will be continually refined, building on data and insights year on year, with a clear focus on driving better collaboration and innovation across the state and in each of Victoria's regions.

Figure 4: Connection between the Regional Skills Demand Profile and the Victorian Skills Plan



The data used in this profile is based on the latest available information at the time of its development. Updated data and insights can be accessed via the Victorian Skills Authority website where appropriate or through various data sources, as referenced throughout the profile.



Strategic context

The Victorian Government is committed to tackling the challenges the state is facing, through investment, planning and delivery of strategic initiatives that have a positive and sustainable impact on Victorian regions.

The Skills for Growing Victoria’s Economy Review by Jenny Macklin (the Macklin Review) and the Review into Vocational and Applied Learning Pathways in Senior Secondary Schooling by John Firth (the Firth Review) highlight the need for sector reforms and transformation to ensure a future-proof skills system that can deliver the skills of the future.

In line with key recommendations from the Macklin Review, government is prioritising improvements to Victoria’s skills system to ensure the sector can continue to innovate and meet the changing needs of students and industry in creative and collaborative ways.⁶

Committed to skill-led economic recovery for the state, the government’s skills reform agenda seeks to transform the delivery of senior secondary education and vocational education and training.

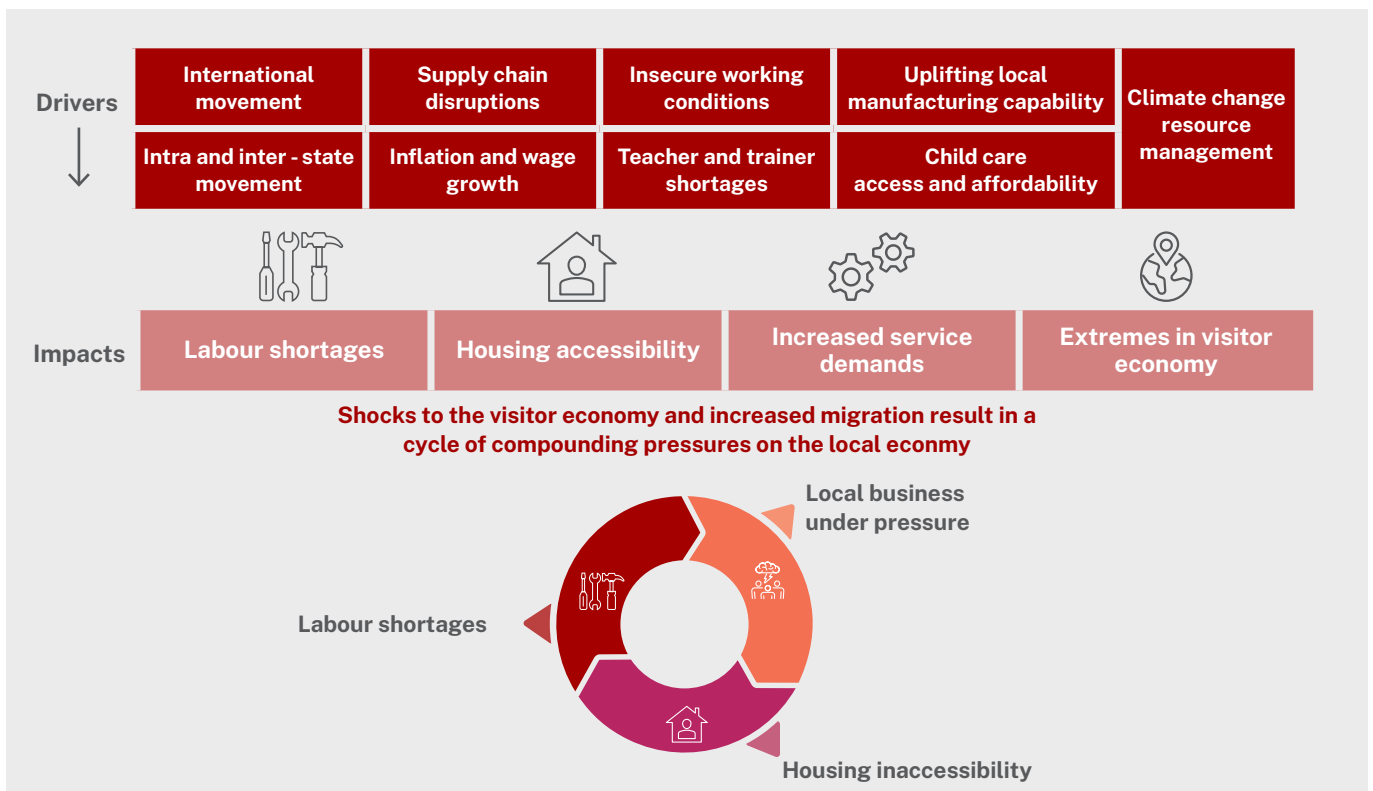
This agenda will ensure Victorians have access to high quality education and training that supports the attainment of meaningful jobs and careers, while simultaneously increasing access to a skilled workforce for industry and employers, supporting the social and economic prosperity of individuals and the community.

Statewide trends and the impact on the Ovens Murray region

This profile is being prepared in a complex and challenging period that goes beyond the skills system and skills policy. The Australian and Victorian economies are being impacted by cost of living pressures, significant labour shortages and the continued recovery from the pandemic that has exacerbated many underlying challenges.

These conditions are recognised as megatrends as they are present across diverse sectors and contexts. Certain megatrends present pressure for businesses and residents, globally, within Victoria and in a localised context unique to Ovens Murray.

Figure 5: Megatrends impacting the Victorian economy



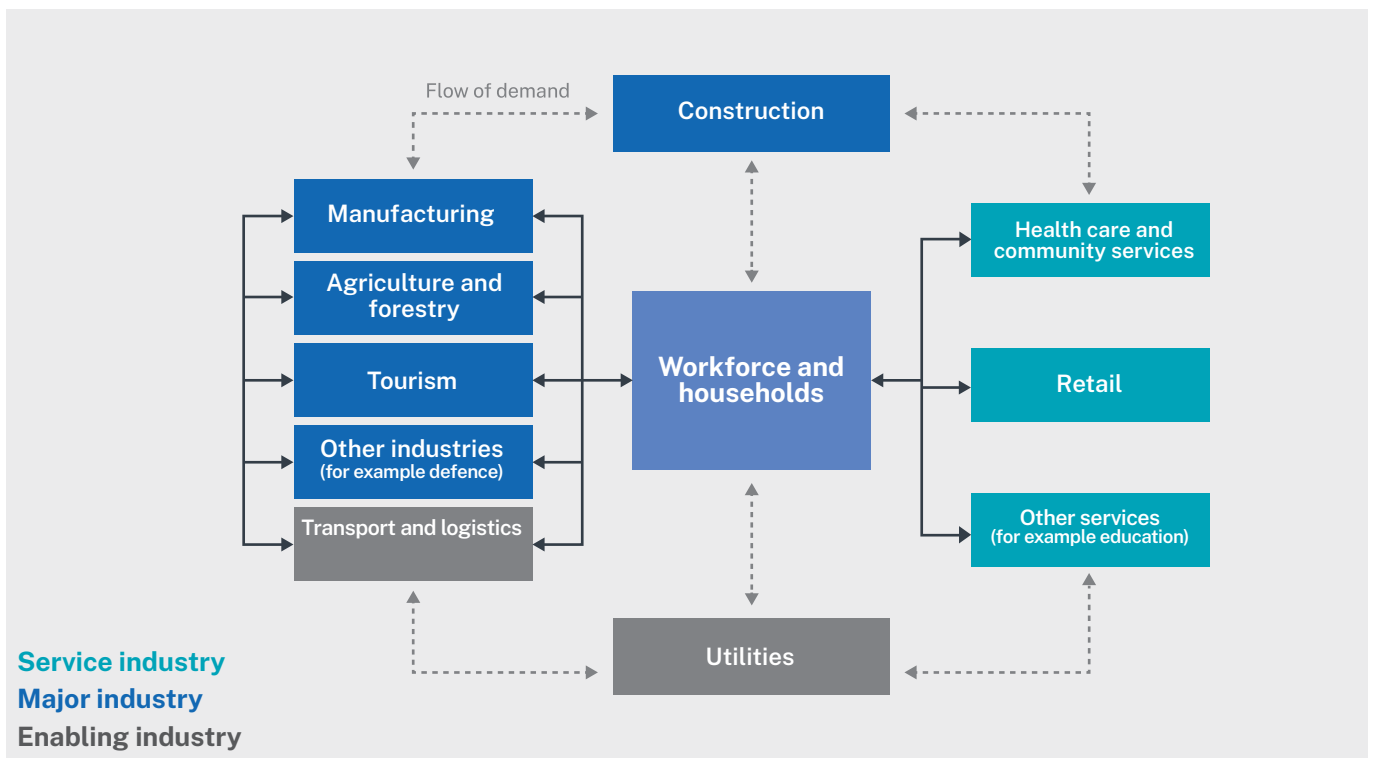
Economic indicators reflect a dynamic and interconnected region

The Ovens Murray economy is dynamic and highly interconnected. The region's natural assets, including mountains, waterways and pastures, support strong agriculture and tourism industries that serve national and international markets. A large manufacturing industry dominated by food processing builds on the region's agricultural strengths, and Ovens Murray's strategic location between Sydney and Melbourne supports a significant transport and logistics industry which moves goods to market. The flow of income from the workforce and households creates demand for service industries in the region, such as construction, energy and utilities, health and community services and education and training.

Ovens Murray is also highly interconnected with neighbouring regions. While the focus of this report is the Ovens Murray region, strong connections with the Riverina in New South Wales, the Goulburn region encompassing Shepparton and the Melbourne metropolitan area influence the region's output and available labour supply. Many businesses in Ovens Murray serve a wide geographic zone beyond the region. The cross-border city of Albury Wodonga, recognised as one of Australia's 18 major cities, has a large number of service businesses, such as Albury Wodonga Health, providing services across the border.

Ovens Murray also has high movement of workers between regions, particularly across the border between Victoria and New South Wales. In March 2022, the Australian Government, Albury City and the City of Wodonga committed over \$128 million towards a regional deal for Albury Wodonga. This deal will support further cross-border collaboration and joint projects across the community.⁷

Figure 6: Overview of Ovens Murray's interconnected economy





'Ovens Murray's strategic location between Sydney and Melbourne supports a significant transport and logistics industry which moves goods to market'

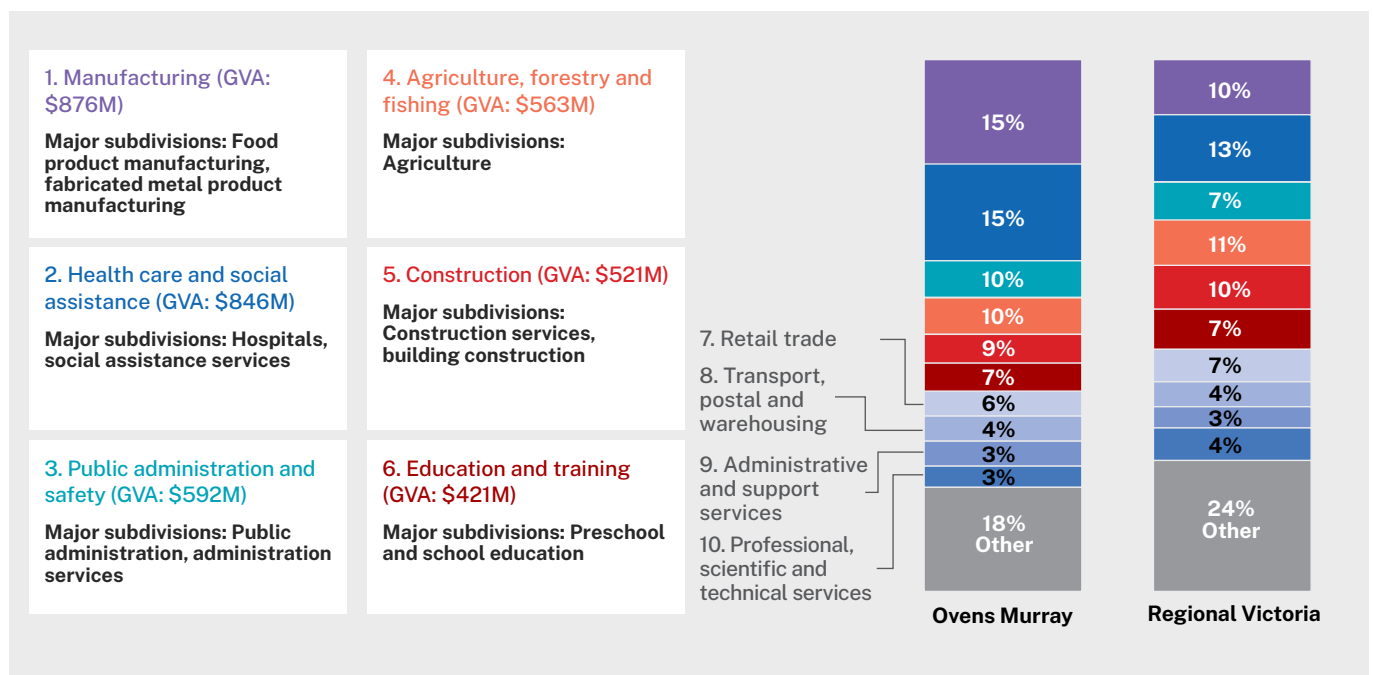
Key industries across Ovens Murray

This Ovens Murray profile has in-depth analysis of the economic and workforce outlook for 6 industries over the next 3 years, acknowledging that the region also has other important and connected industries. The 6 industries are:

- health and community services
- manufacturing
- tourism, accommodation, food and retail
- agriculture and forestry
- transport and logistics
- construction.

These have been selected because of their economic contribution to the region, and the critical dependence they have on securing a workforce with the right skills. Not all are among the top employing industries (or gross value added) for the region but were identified by taskforce members as having both current and potential growth opportunities. They broadly align with strategic directions identified in the Ovens Murray Regional Economic Development Strategy (REDS) with the addition of construction. The industry profiles in Appendix A provide a snapshot of their outlook, occupation requirements and challenges and opportunities which impact on their workforce.

Figure 7: Industry gross value add (GVA) 2021⁸





Manufacturing

The region is built around a strong manufacturing industry, which makes the greatest contribution to its economic output (15% of the region's economic output) and plays a disproportionately large role in the economy when compared with other parts of regional Victoria. The economic output of the manufacturing industry is dominated by food and beverage production (55% of the region's manufacturing industry). Large national and multinational companies operate in the region such as MARS, Asahi and Uncle Tobys. Other key sectors include metal and machinery manufacturing, which makes up 17% of manufacturing industry economic output, and wood product manufacturing, which makes up 6.5% of manufacturing industry economic output.

Agriculture and food manufacturing

Food manufacturing and processing builds on the region's agriculture strength. The beef, sheep and dairy industries account for 73% of Ovens Murray's total value of agricultural production. The area also produces grapes, hops and some grain crops. Many producers build on their core production to include elements of agritourism. Farm, meal, winery and brewery experiences are an important attraction to the region for visitors.

Tourism

The region's location is an important contributor to the success of Ovens Murray. A wide range of natural assets such as waterways, parklands and alpine regions with the tallest peaks in Victoria lead to a thriving tourism industry.* The 4 alpine resorts, Falls Creek, Mount Buller, Mount Hotham and Mount Buffalo, attracted approximately 4.1 million High Country visitors in the year ending in September 2019, prior to the pandemic.⁹ Ovens Murray is also being increasingly viewed as a four-season destination, with visitors attracted by cycling, water-based recreation, gourmet food, wine and brewery experiences. The tourism industry drives activity in other, related sectors. High visitation supports success in accommodation and food services and retail.

* Note: tourism is supported by the accommodation and food services industry and the retail industry

Transport and logistics

The region is strategically located on major transport routes to Sydney, regional New South Wales and Melbourne. The transport and logistics industry supports the manufacturing and agriculture industries through distribution of goods to market. The region is home to substantial transport and logistics hubs including LOGIC in Wodonga, which has the ability to transport goods to 75% of Australia's population within 24 hours. Transport is also a critical enabler of

tourism, with local bus lines supporting movement of tourists across the region.

Construction

Major industries also rely on a strong residential construction industry to supply housing for local workers and to support self-contained accommodation for tourists. The tourism, education and health industries also drive demand for civil and commercial construction in the region, including education and health care facilities and tourism infrastructure such as resorts and walking and cycling paths.

Defence

Although a low contributor in terms of economic output, the defence industry has a strong presence in Ovens Murray. There are barracks at Bandiana and significant defence manufacturing in Benalla. The barracks at Bandiana is a centre for defence training nationally and provides large service contracts for training to organisations such as Wodonga TAFE in the areas of health, mechanical engineering and trades, and transport. Reflecting the defence presence in the region, Regional Development Australia (RDA) Hume commissioned a study to analyse the value of the defence sector in the region, which advocates for further initiatives to support defence readiness.¹⁰

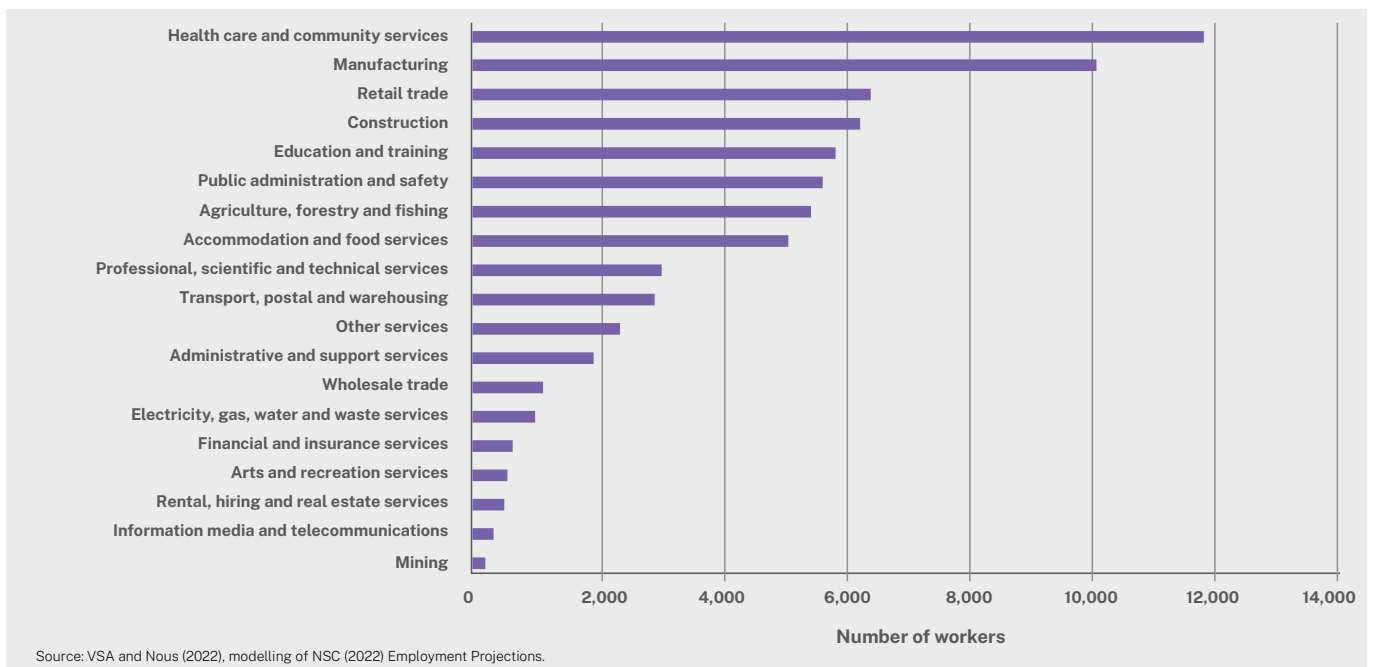
Health and community services

The flow of income from businesses, their workforce and households creates further demand for service industries in the region. An ageing population and relative socioeconomic disadvantage in some local government areas (LGAs) results in high per capita demand for health and community services, accounting for 15% of economic output. The region has the largest health service between Melbourne and Sydney and the second largest regional health service in Victoria. The sector is largely located in Wodonga but also includes a network of regional services. Other service industries include public administration and safety, education and training, and retail. As a border region, Ovens Murray also provides services to, and receives services from, Albury in New South Wales.

Workforce location across Ovens Murray

In 2022 approximately 72,000 jobs existed in the region, mostly with small to medium enterprises. Health and community services is the largest employing sector in the region, accounting for 16% of total jobs, closely followed by manufacturing at 14%, construction and retail trade at 9% and public administration and safety, education and training and agriculture, forestry and fishing all at 8%.³

Employment is clustered around the major towns of Wodonga and Wangaratta with large manufacturing businesses and a concentration of health and retail services. The alpine region has a noticeably higher proportion of workers in accommodation and food services aligned with their strong focus in tourism.





Ageing workforce and high participation rate reflect potential for labour supply challenges

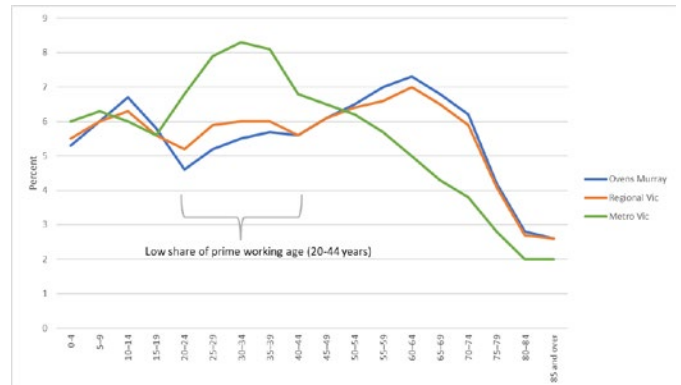
The region had an estimated population of 134,593 people in 2021, with a nearly one third of this population residing in Wodonga.¹² Population growth between 2019 and 2020 was largely driven by inward migration to the region from within Australia, particularly Greater Melbourne, in addition to small natural increases.¹³

Ovens Murray Regional Skills Taskforce members described an increase in this trend over the past year, with people moving into the area pursuing an alternative lifestyle or a ‘treechange’ following the pandemic. This is confirmed by residential water usage data. North East Water anticipated a 101% increase in applications for new water connections in 2021 compared to the previous year, a 33% increase in tenancy applications and a 73% increase in ownership applications, suggesting that more people are moving to the region as buyers and renters and more new properties are being built.¹⁴

Population growth between 2021 and 2036 is expected to vary significantly between local government areas.¹⁵ Major growth will be focused in Wodonga, at 33.4%. Other regional centres are expecting high to medium growth, such as Mansfield (9.7%), Indigo (9.7%) and Wangaratta (8.4%).¹⁶ Alpine (4.5%), Benalla (3.5%) and Towong (2.4%) are expecting limited population growth to 2036, although this may change if the region continues to see increased migration following the pandemic.

The region has an ageing population and a low proportion of people of working age compared with the Victorian average (Figure 9). It experiences high youth out-migration, with many people born in the region leaving to pursue education and work opportunities in other parts of Australia, particularly Melbourne, before often returning after the age of 35. This tendency for younger workers to return to the region has been noted as increasing over the last 10 years. Some sectors have a very high proportion of ageing workers, most notably the agriculture and forestry industry, where almost a third of workers are over 65. An ageing workforce in agriculture is common across the state but is almost 15% higher in Ovens Murray, potentially because the region contains many small farms with ageing owner managers. An ageing workforce across many industries increases the risk of a high proportion of workers choosing to retire. This could result in a large shift in workforce composition in the near future.

Figure 9 | Population in each age group as a percentage of total population, 2021¹⁷



The working population in Ovens Murray is also porous with other regions. While approximately 43,000 people in Ovens Murray work and live in the region, the majority within their home local government areas (LGAs) about 10,500 people living in Ovens Murray travel to other regions and 7,700 workers come into the region from other regions. Most notably, the labour markets for Wodonga, Indigo and Albury are highly interconnected due to geographical proximities. Over 10,000 people live in Wodonga LGA and work in New South Wales (NSW) or vice versa, accounting for just over half of total movement to and from Ovens Murray.¹⁸

The Hume region as a whole has high labour force participation rates across all working age groups compared to regional Victoria. The participation rate for the prime working age group of 25–44 is considerably higher than the statewide average.¹⁹ In line with the ageing workforce, the region also sees comparatively high rates of participation in the 55 and above age groups. Participation among the 15–24 age group is lower than other working age groups in Ovens Murray but still higher than the statewide average. The region has a smoothed unemployment rate of 3.0% for December 2021, the lowest in the last decade for the region and comparably low to the state average of 4.1%.²⁰ Low unemployment coupled with the high participation rates, an ageing workforce and slow population growth indicates labour supply challenges for the region.

Key opportunities for the region

There is strong growth potential if labour supply challenges are addressed

Many industries in the region have strong potential for growth as the region recovers from the effects of the pandemic and the bushfires of early 2020. However, there is a fine balance between labour demand and supply in the region, and all available sources of labour will need to be mobilised to achieve economic growth.

Recent years have been turbulent for many industries

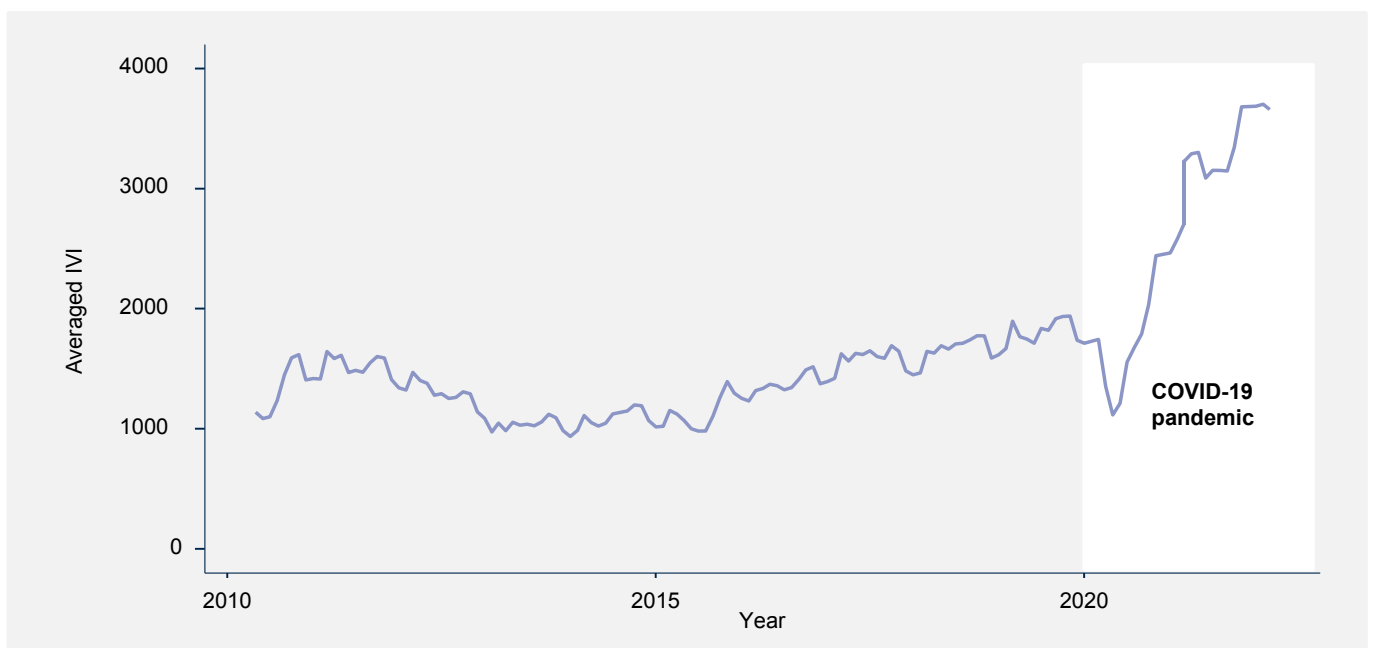
The Ovens Murray region faced a number of challenges to its economy and workforce in recent years. Off the back of severe drought, North-East Victoria was affected by severe bushfires in late 2019 and early 2020, which had a profound impact on key industries in the region, in particular tourism, agriculture and forestry. Between 2019 and 2020, visitor expenditure decreased by as much as 45%, from \$1 billion to \$547 million.¹³

Over 1,300 farm businesses were directly affected by the 2019–20 Victorian bushfires, predominantly beef cattle and sheep production and to a lesser extent dairy. Smoke taint also reduced the grape harvest by approximately \$21.8 million, which is a 74% decrease compared with pre-fire projections. In the forestry industry, 6,393 hectares of plantation were burnt. Regrowth of plantations and agricultural pastures will take many years.⁹

Like many other parts of Australia, the Ovens Murray region was also affected by the pandemic across 2020–21, resulting in reduced economic output across many industries. While regional Victoria did not experience the same level of restrictions as Melbourne, border closures between Victoria and NSW and restrictions on movement within Victoria reduced the number of visitors coming to the region with significant flow-on effects on tourism and related sectors such as retail, accommodation and food services. Other industries such as manufacturing and construction also faced some restrictions on capacity during the pandemic, which reduced economic output.

The pandemic has been a turbulent period. Throughout 2020 many employers had a reduced demand for workers during the pandemic and advertised jobs reduced sharply in early 2020. The region saw some recovery in demand across 2021, reflected by a significant increase in job advertisements (Figure 10). For some industries, such as tourism, the year was volatile, with activity fluctuating in line with restrictions. Other industries, such as construction, have experienced a temporary surge in demand, which is expected to return to sustainable, yet still strong levels, through 2022 and beyond. The number of unemployed people accessing the JobSeeker payment peaked at an increase of 74% throughout the pandemic restrictions compared with December 2019. The region has since recovered with the number of people now accessing JobSeeker nearly the same as pre-pandemic levels.^{21,3}

Figure 10: Internet vacancy index of Bendigo and High Country region, 3-month moving average, 2010–March 2022²²



3 Note: December 2019 figures utilised as pre-pandemic level baseline



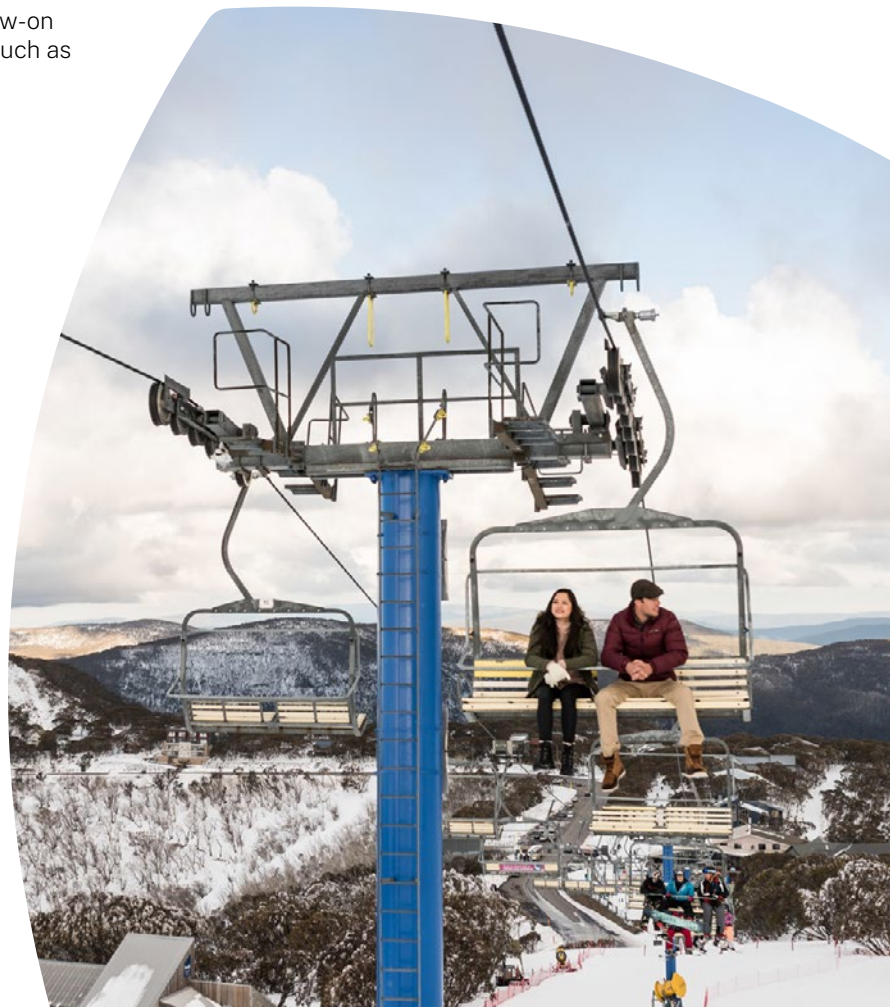
There is strong growth potential for the region

As the region recovers from the pandemic there has been a recent surge of demand across some industries. Demand is expected to remain strong for most industries over the next 3 years. The tourism industry is one industry likely to experience strong demand over holiday periods, as many Australians are choosing to holiday locally in response to the pandemic. Tourist activity is usually highly concentrated at certain times of the year, particularly around Christmas and Easter, and Ovens Murray Regional Skills Taskforce members expect steady demand through the year. The tourism industry in the region caters largely to Australians, with a high number of Victorian visitors and some visitors from other states and territories; therefore, reduced international visitors are unlikely to limit growth.

Strong growth in residential construction is expected to continue. Stimulus from the 2021 HomeBuilder Grant led to a backlog of new builds, generating demand for housing. In addition, following the pandemic, taskforce members noted the trend of Victorians moving to the regions from Melbourne as working arrangements became more flexible throughout 2020 and 2021. Tourism growth also contributes to demand for housing, as many residential properties have been converted into self-contained accommodation which is rented through platforms such as Airbnb. Growth in Ovens Murray's resident and tourist populations will have flow-on effects for other supporting industries in the region, such as retail.

While the long-term impact of the pandemic is still to be measured, most industries have the potential for steady and sustainable growth over the next one to 3 years, building on strong investment in the region. Tourism operators in the region are seeing increased demand for outdoor activity, including high intensity activity in the alpine region such as snow sports, cycling and hiking, but also middle intensity activities such as bushwalking and snow play.

The region is also rapidly developing new tourism products centred around nature-based activities in walking and adventure tourism. This includes utilising assets such as Mount Buffalo for rock climbing and abseiling and the iconic Falls Creek to Hotham Alpine crossing walking trail. The development of a 57 km walk through the Alpine Region from Falls Creek to Mount Hotham will involve upgrades and an extension to the existing track network.²³ Further, \$10.3 million has also been invested to upgrade walking and cycling tracks along the Murray River Adventure Trail and \$35 million has been allocated over 4 years for regional creative infrastructure projects including the Benalla Art Gallery redevelopment.^{24,25} Private sector investment is continuing at Mount Buller and there is untapped potential in the alpine region across the summer months.²⁶



While residential construction may not sustain its post-pandemic peak, performance is expected to remain steady over coming years. For example, \$50 million has been committed to the construction of social and affordable housing in Wangaratta and Wodonga, as part of the Victorian Government's Big Housing Build²⁵. However, increasing material shortages pose an increasing risk to potential growth. The region's expansive natural assets and sustainability priorities will also drive the continued expansion of newer industries related to renewable energy and waste management. Four solar farms are either in development or in the pipeline across the region, including Winton Solar Farms, Kennedys Creek, Goombarat and Glenrowan West.

Construction growth will drive demand in some parts of the manufacturing industry, including manufacturing of metal and wood products that are commonly used in houses and commercial buildings. The company XLam has recently completed construction of a high-tech plant in Wodonga that manufactures cross laminated timber (CLT) Panels, following a \$30 million investment.²⁷ CLT is increasing in demand in commercial and residential construction as a sustainable product, and XLam exports across the Asia-Pacific region.²⁸

Employers are also positive about growth in food and beverage manufacturing, with beverage manufacturers seeing strong growth in demand as consumers seek out craft beer products.

There is significant potential for the transport and logistics sector to grow in the Ovens Murray region, building on unprecedented movement of goods during the pandemic period. The region is in a strategic location on the east coast transport route, and it will benefit from broader national growth and investment in transport and logistics. The Australian Government is investing up to \$14.5 billion in partnership with the private sector to build a 1,700 km rail freight project, Inland Rail, which connects Melbourne and Brisbane passing through Albury Wodonga.²⁹ This project will connect regional producers to markets and aims to keep pace with Australia's increasing freight demands. The Tottenham to Albury section of Inland Rail will upgrade 305 km of existing rail corridor between metropolitan Melbourne and the Victoria-New South Wales border at Albury Wodonga. The first stage of the project to enhance 12 sites along the North East Rail from Beveridge to Albury is underway.

The agriculture industry predicts a relatively steady performance for most sectors, with potential conservative growth in livestock production. Grape production is expected to outstrip growth in other sectors, building on strong demand from domestic consumers and its close links with the tourism, accommodation and food services industries. There is strong demand for forestry products, but plantations will take up to 5 years to recover from bushfires and growth estimates are therefore conservative.

The region is also seeing a longer-term trend in demand for health and community services, stimulated by population growth but also population ageing. The \$22.9 million Wangaratta Hospital redevelopment was completed in December 2022. The redevelopment has delivered multiple facilities including a 12-bed intensive care unit, an expanded emergency department and a paediatric ward.³⁰ In addition, \$57 million has been committed to the Glenview Community Care facility rebuild.³¹ Major reforms, driven by royal commissions into family violence, mental health, aged care and disability, are creating further demand for health and community services.

Other services are also experiencing increased demand. The Australian Government committed \$22 million towards the Heavy Vehicle Technology Program at the Wodonga TAFE.³² The program will deliver facilities in heavy vehicle training and experimentation, as well as technical training courses in areas such as robotics and mechatronics.³³ In addition, public administration services are expanding in the region. The 2021/22 Victorian Budget allocated \$29 million towards the development of a new Benalla Police Station.³⁴ The facility is expected to be operational early 2024.³⁵

Table 4 provides an indicative estimate of workforce demand across key industries in the region, based on taskforce estimates. The projections assume sustainable growth post-pandemic, resulting in an additional 3,850 to 5,300 workers required in the region between 2022 and 2025.³ Overall, the number of total jobs that need to be filled will be higher due to the number of existing vacancies. From February 2021 to February 2022 the number of job ads grew by 13%.³⁶ Table 4 provides the 2021 share of gross value added (GVA) and 2022 total workforce for each key industry group. The table also highlights the Victorian Skills Authority (VSA) estimated compound annual growth rate (CAGR) which can be compared to the taskforce estimates for growth.



Table 4 | Preliminary outlook on job growth by industry

Industry group	Share of GVA 2021 ⁸	Share of total workforce 2022 ³	Estimated people in 2022 ³	VSA estimate growth 2022–25 (CAGR ⁴) ³	Taskforce estimate growth 2022–25 (CAGR ⁴) ⁵	Taskforce estimate growth 2022–25 (people) ⁵
Agriculture and forestry	9.8%	7.5%	~5,400	-0.5%	+ 0.0–0.5%	+ 0–100
Health and community services	14.8%	16.4%	~11,750	+ 2.7%	+ 2.5–4.0%	+ 850–1,400
Construction	9.1%	8.7%	~6,250	+ 2.0%	+ 2.5–3.5%	+ 500–700 ⁵
Manufacturing	15.3%	14.1%	~10,100	+ 0.3%	+ 1.5–2.5%	+ 400–650
Retail	6.1%	9.0%	~6,450	+ 1.2%	+ 1.0–1.5%	+ 200–300
Accommodation and food services	2.4%	6.9%	~4,950	+ 4.7%	+ 3.5–4.5%	+ 500–650
Transport and logistics	4.2%	4.1%	~2,950	+ 2.1%	+ 2.0–3.0%	+ 200–300
Other	38.3%	33.2%	~23,800	+ 1.4%	N/A	+ 1,200
Total	100%	100%	~71,600	+ 1.6%	N/A	+ 3,850–5,300

4 Compound annual growth rate (CAGR)

5 Excludes the temporary workforce required for construction of infrastructure projects in the region such as Inland Rail.

Key challenges facing the region

There are likely to be labour shortages over the next 3 years

While the outlook for local industries across Ovens Murray is positive, its economic potential is dependent on adequate labour supply. Employers currently face challenges filling entry-level roles such as farm workers, production workers, labourers, kitchenhands and aged and disability carers.

Employers also experience challenges attracting experienced labour across industries and filling middle management and frontline leadership roles. Further sector-specific issues include:

- in manufacturing, roles such as production operators, stainless steel fabricators, fitters and machinists and brewers and distillers are difficult to fill
- in agriculture, farm consolidation, retirement of owner managers and reduced interest from the next generation of family farmers means the industry is seeing increased demand for farm managers
- in the transport industry there is very high demand for heavy combination and multi combination licenced drivers
- in accommodation and food services, qualified chefs and managers are in short supply
- in health and community services there is high demand for registered nurses and allied health professionals.

Data suggests there is likely to be a continued labour shortage in the region even if all available workers are mobilised. Approximately 7,150 workers are predicted to leave the workforce over the next 3 years to retire. The region has several potential pools of labour to draw upon to replace these workers and achieve industry growth estimates, including a net migration to the region of an estimated 1,000 to 3,000 people, 3,000 school leavers and approximately 4,000 people currently accessing JobSeeker.³⁷

While it may not be possible to re-engage all unemployed people in the region, re-engaging these workers, along with retaining school leavers and attracting a continued flow of migrants, will be necessary to achieve an adequate balance between labour supply and demand.³⁸

Securing the required workforce is a shared challenge

There is an imperative to build a strong workforce to address the critical labour shortage and ensure businesses can capitalise on growth opportunities. Labour supply challenges in the region extend beyond the availability of workers with accredited qualifications. Many businesses are willing to take on any worker, regardless of experience, to fill vacancies. While the focus of this report is on the skills system, it is clear that an education and training response alone will not be sufficient to meet the region's needs. Skills and education initiatives will need to occur in parallel with other initiatives to stimulate labour supply.

Additional workers must be found and mobilised

There are 3 main potential pools of labour that employers can draw from to address labour supply shortages: international migrants from outside Australia, domestic migrants from within Australia and local jobseekers or those not currently participating in the labour market.

In the past, employers have sought to address labour shortages with international labour. The agriculture industry has been reliant on seasonal labour to fill key roles such as picking grapes, while sectors such as health care, hospitality and transport have relied on international labour to fill vacancies. The pandemic restrictions slowed international arrivals in the short-to-medium term; however, even prior to these restrictions the region has faced barriers to international migration. Changes to the Temporary Work (skilled) visa (subclass 457) mean that it no longer provides a direct pathway to citizenship. This has greatly diminished its attractiveness to international workers to fill roles in the region such as chefs. The skills priority list also does not reflect the high demand for some occupations such as truck driving. Adjustments to immigration policy to incentivise migrants working in regional areas may present a viable option to attract labour to the region in the medium to long term.

There are also barriers to attracting workers from other parts of Australia to work in the region. Employers report strong interest from prospective workers to relocate to the region and enjoy its lifestyle benefits and natural assets. In the second quarter of 2021, Alpine experienced the second largest increase in migration out of the 37 councils within Rural Councils Victoria.³⁹

However, across industries, taskforce members identified lack of affordable housing as a critical barrier to attracting and retaining domestic migrants. This is compounded by the competitive landscape for land generally in the region which is also recognised as a barrier to growth for industries such as agriculture. As the region has experienced an influx of new residents and tourists, house prices have dramatically increased. For instance, Alpine towns such as Bright, Myrtleford and Mount Beauty experienced over 45% growth in house prices throughout 2021.⁴⁰ Taskforce members report that purchasing of properties for conversion to accommodation with the rise of Airbnb has had a particularly strong impact on prices and housing supply in tourist regions such as the Alpine Shire, Bright, Beechworth and the King Valley. Supply of affordable housing is currently limited by planning regulations which prevent higher density forms of housing and resistance from some residents to higher density housing models.

In addition, many parts of Ovens Murray are poorly connected by public transport and require employees to own a car, particularly in order to live in more affordable parts of the region. Lack of public transport infrastructure also creates barriers for young school leavers to seek out jobs across the region and across a diverse range of industries such as agriculture and manufacturing. There is also limited availability of community services such as child care in smaller regional towns. This is an especially significant barrier to attracting those of prime working age with young families.

Planning required to attract workforce

Attracting additional workers to the region requires strategic long-term regional development planning. However, in light of the situation outlined above, short-and medium-term solutions to housing are needed to stimulate the labour supply. In the immediate term there is an opportunity to stimulate activity in areas where accommodation already exists, for example across the summer in the Alpine areas where sites are largely vacant. Other opportunities, such as use of temporary camps across the region, could also be explored. Employers in the region, especially across the health sector and in seasonal workplaces such as wineries, have shown strong interest in onsite accommodation.

In the medium term there is a need for additional housing developments to provide accommodation options. Employers in the Bright region, for example, are working with council to release land for affordable housing developments. Other councils such as Benalla and Wodonga have also recently released land. Town planning could also consider the re-purposing of existing under-utilised buildings for group employee accommodation.

The most feasible immediate opportunity for the region is to tap into the local labour supply. This will depend on mobilising the unemployed, in particular people on the JobSeeker payment. This approach must ensure the right supports are in place to allow all people to succeed at work, including people living with disability.

Some successful approaches that could be leveraged include traineeships aimed specifically at unemployed jobseekers, which have been trialled in the community services sector. Immediate and intensive models to fast-track unemployed jobseekers into roles in priority industries could also be considered. Table 5 provides a list of opportunities for mobilising labour across the region, including international and domestic migrants and local labour supply. Changes to business models and practices will also be needed to lift productivity and address workforce constraints. Opportunities likely exist to support businesses to adopt new business models and technology to ease demand for labour.

Table 5 | Opportunities for increasing labour supply

Situation	Opportunities
There are barriers to attracting overseas immigrant labour, including the effect of pandemic restrictions on travel trends and broader immigration policy.	Advocate for changes to immigration policy: advocate to the federal government to address barriers to international migrants working in the regions, including by updating the Priority Skills List to reflect critical skills gaps, for example truck drivers.
Attracting domestic labour to the region is limited by housing affordability and availability of other services such as transport.	<p>Undertake long-term regional development planning: work across local government areas to identify and address critical infrastructure and service gaps that create barriers to domestic migration, including by stimulating private investment in affordable housing.</p> <p>Identify short-term opportunities to leverage existing infrastructure for accommodation: work with local councils and employers to identify available accommodation that could house groups of workers and support growth in particular industries and locations (for example, camps or site specific accommodation).</p>
4,000 people on JobSeeker.	Intensive support for the unemployed: establish a short-term intensive support model over the next 6 to 12 months to fast-track workers into jobs in industries with high immediate demand for workers.



'Changes to business models and practices will be needed to lift productivity and address workforce constraints.'

Opportunities to deliver a skilled workforce

Across the region, employers and education providers share similar challenges and are all seeking to achieve the same goal of connecting jobseekers to the right jobs. However, relationships between these parties are fragmented and transactional. Some schools and training providers may have strong relationships with local employers, but this is often a result of the time and effort of passionate individuals rather than being embedded across the region.

There are a range of intermediaries in the region who are focused on linking jobseekers, employers and education providers. The Australian Government’s Workforce Australia employment services focus on connecting a broad range of jobseekers with work, its Disability Employment Services (DES) help people with disability find a job and keep work, and the Victorian Government’s Jobs Victoria Employment Services (JVES) help Victorians who face barriers to employment into jobs. There are also multiple organisations that facilitate linkages with education providers: Skills and Jobs Centres are based in TAFEs and provide expert advice on training and employment opportunities as well as professional and independent careers counselling with multiple sites across the region; Local Learning and Employment Networks (LLENs) focus on school-employer engagement activities in local government areas; Group Training Organisations (GTOs) hire apprentices and trainees and place them with host employers; and the Australian Apprenticeship Support Network (AASN) and the Victorian Government’s Apprenticeship Support Officers (ASOs) provide free advice and support to employers and apprentices.

New approach required to link labour and employers

While these intermediaries play a helpful role, the number of parties involved creates a complex landscape for employers and jobseekers. A new approach is required to actively facilitate better connection between available local labour and local employers who have job vacancies. This could involve closer regional collaboration between intermediaries and an effective triage or coordination mechanism for jobseekers and employers so they can access the right intermediary. Grassroots job networks could also be leveraged. Some employers reported success in engaging unemployed jobseekers using community Facebook pages.

In addition, there are opportunities for collaboration between employers to address shared challenges. Many employers have a highly seasonal demand for labour, including in the tourist industry and the agricultural sector. This seasonality means that jobs may not be attractive to workers and these roles have often been filled by backpackers. However, demand for seasonal workers does not align across sub-sectors. Agricultural products are more intensive at different times of year and sub-sectors of tourism (for example, snow or agritourism) also experience peaks in demand at various time of the year. A collaboration between employers within or across industries could support continuity of employment and would increase the attractiveness of roles to potential workers.

Table 6 | Opportunities for better connection

Situation	Opportunities
Relationships between employers, education providers and intermediaries are transactional and the number of intermediaries operating in the region creates confusion for jobseekers and employers.	<p>Promote better connections across the region: create a new regional approach to triage employers and workers to the right intermediary to meet their needs.</p> <p>Support and promote grassroots job networks: raise awareness among local employers about local community-based networks that can be used to attract unemployed jobseekers.</p>
Some industries, in particular agriculture and tourism, struggle to attract labour to fill short-term or part-time jobs created by casual or seasonal workforce demand.	Explore opportunities for collaboration between employers: employers could explore sharing a casual workforce or provide a sequence of work through consecutive seasons (such as a skills passport). There is potential to collectively train a pool of workers and offer contracts for the equivalent of full-time ongoing work with multiple employers.



New models of education delivery required to support the entire region

The region's level of education and training attainment is on par with regional Victorian averages, but the region is struggling to retain young people and build their skills. Only 44% of Ovens Murray's adult population have completed Year 12, with the lowest levels of school attainment being in Towong and Benalla.⁴¹ While younger people are more likely to have finished school, parts of the region continue to have a high proportion of young people who are disengaged in terms of educational attainment. In 2021, 51% of students in Towong Shire and 50% in Benalla did not complete Year 12. This is notably higher than the statewide average of 17%.⁴²

Ovens Murray has seen higher engagement of young people in employment over the last year. The unemployment rate of people aged 15–24 years has more than halved in the last year, now sitting at low single figures.¹⁹ Still, the number of students who do not go on to further education or training has remained steady—40% of students who completed Year 12 in 2020 did not go on to any further education or training. The remaining 60% pursue further education, with 29% undertaking accredited training (over half of those undertook an apprenticeship) and 31% enrolling in a bachelor's degree.⁴³ Where young people do complete further study they often leave the region to do so. One reason cited for young people leaving the region is access to education, with opportunities available in the region concentrated around Wodonga and Wangaratta.

A model is needed that enables Ovens Murray residents to learn and work where they live. This will have the dual benefit of building a skilled future workforce while also retaining workers to perform seasonal and casual roles that are able to be easily paired with education. Efforts will need to start in the school system with strong career advice and industry linkages. Large companies currently report few challenges attracting entry-level workers due to their name, reputation, work conditions and opportunities for professional development. However, young people have little awareness of the range of job opportunities available with small and medium-sized employers, who make up the majority of businesses in the region. Many key industries in the region, such as manufacturing, agriculture and transport and logistics, also have poor reputations with school leavers, despite offering strong opportunities for progression and career growth. This lack of awareness can be addressed in school by supporting students, and their parents, to understand the wide range of pathways and opportunities in the region.

There are some promising examples of schools supporting pathways to local careers and training, which could be built upon in the future. School-based apprenticeships in health and community services are also increasing, through

partnerships with industry such as Indigo Health. Other initiatives will also build on strong efforts over recent years to strengthen career advice and pathways in schools, including \$86 million to improve the quality of secondary vocational pathways.⁴⁴

The training system will also play a key role in skilling workers and retaining them in the region. In construction, metal manufacturing and health and community services, vocational education and training (VET) qualifications or higher education are required for many roles. Other industries have relatively low utilisation of the training system but value vocational training for career progression or specific skill sets.

Analysis of training data from across the region reveals that there is the right level of training activity to support growth across key sectors; however, access to training is limited in remote parts of the region. Wodonga has a high proportion of training activity relative to the population, accounting for 40% of total enrolments in 2020 for 35% of the Ovens Murray working age population. Wangaratta has 19% of the region's enrolments for 22% of the working age population. Other local government areas (LGAs) especially Mansfield and Alpine, have low training activity relative to population. This reinforces the importance of strong transport infrastructure to enable take up of local training and onsite training initiatives where appropriate. Onsite training may be particularly appropriate in industries such as hospitality and tourism where facilities may be available for training outside of peak tourism seasons.

While training opportunities in the various industry sectors are broadly aligned to employment in those sectors, there is not always effective matching between graduates and employers. A strategic approach will be required to ensure that graduates and employers are better connected. It will also be critical to ensure that current training provision is adequately tailored to employers' needs through ongoing engagement between providers and employers. Employers also emphasised the importance of clear upskilling pathways to develop more senior expertise. A common need identified across many industries was tailored management and leadership training. Upskilling pathways may also include higher education, for example enrolled nurses studying to become registered nurses or farmers studying agricultural science. Finally, digital skills are becoming increasingly integral to industry, and will need to be embedded in courses, or delivered in targeted skill sets.

Government has already made significant investments to improve the quality of accredited training in Victoria. \$81.3 million has recently been allocated to improving the coordination and efficiency of the TAFE system. This investment includes \$66.6 million to support delivery of the new TAFE funding model and \$11.3 million to improving resource sharing and capabilities.⁴⁵

Taskforce and industry representatives across the Ovens Murray region have identified common opportunities to support the alignment of skills and training with current and future industry needs (Table 7 below).

Table 7 | Opportunities for education delivery

Situation	Opportunities
<p>Career pathways within the region are often unclear to students.</p>	<p>Promote local career opportunities in schools: build on government investment in careers education to raise awareness of the range of career options available within the region and different models of career progression by developing and disseminating information and resources for students. This may include materials already developed by the department and the Victorian Skills Authority and services such as the Victorian Skills Gateway.</p>
	<p>Develop programs in schools that support pathways to local careers and training, considering a broad range of industries. This will give students better information on the range of career options available and practical work experience within relevant industries.</p>
<p>Trained graduates in the region are not always connected to real job opportunities.</p>	<p>Establish strategic skilling partnerships: a new form of strategic partnership, beyond the transactional approach, is required between employers and training providers to respond to workforce shortages. The strategy must deal with innovative new approaches to connecting graduates to job opportunities.</p>
<p>Training is not always tailored to the needs of employers and may not use the latest technology or equipment.</p>	<p>Establish delivery partnerships between employers and providers: establish agreements between providers and employers to utilise employers' existing infrastructure and equipment to support industry-wide and tailored training initiatives in key sectors. This could include delivering training onsite in Alpine regions before the start of the snow season, hospitality training in the wine region, or using employers' trucks for truck driver training.</p>
<p>Many employers struggle to develop skilled frontline managers or to recruit to more senior roles.</p>	<p>Support workers to upskill through higher education: Establish partnerships between vocational and education training (VET) and higher education providers to support clear and seamless upskilling pathways.</p>
	<p>Support upskilling with targeted skill sets: where industries do not tend to rely on full qualifications, make short skill sets available to address specific upskilling needs, including management.</p>



'Analysis of training data from across the region reveals that there is the right level of training activity to support growth across key sectors; however, access to training is limited in remote parts of the region.'

Future workforce and skills requirements

Consultations with leaders and representatives across key industry groups in the region have identified opportunities to better align the vocational education and training (VET) system with industry forecast workforce demand and skills requirements. This section provides a snapshot of each industry's outlook, job requirements, challenges and opportunities. The following industries are addressed:

- health and community services
- manufacturing
- tourism, accommodation, food and retail
- agriculture and forestry
- transport and logistics
- construction.

Please refer to Appendices for more detailed commentary on each industry.



'The region has the largest health service between Melbourne and Sydney and the second largest regional health service in Victoria.'

Health and community services

An ageing population and major reforms will drive strong growth

Snapshot	~ 11,750 workers employed in 2022	+ 850–1,400 new workers required in this sector by 2025	16.4% share of Owen Murray's workforce	15% workers in this sector aged 60 and over
Profile	An ageing population and relative socioeconomic disadvantage in some local government areas (LGAs) results in high per capita demand for health and community services. Services are delivered by a range of small and large organisations including hospitals, clinics and non-for-profit and for-profit organisations. Many health services in the region are delivered by Albury Wodonga Health, a cross-border health service operating under the jurisdiction of the Victorian Department of Health. Albury Wodonga Health is the biggest health service between Melbourne and Sydney and the second largest regional health service in Victoria.			
Outlook	The region's ageing population is driving demand for health and community services. In addition, major reforms, such as the ongoing implementation of the National Disability Insurance Scheme (NDIS) and responses to the royal commissions into family violence, mental health and aged care will continue to drive demand over coming years. Workforce supply is currently not keeping pace with demand. Most employers are facing challenges to recruit frontline workers across all parts of the sector, and supply will be further challenged by the effect of the pandemic on travel trends.			

Top occupations (ANZSCO)	Current workforce (people)	Forecast 3-year growth (people)
Registered nurses	~2,209	+320–420
Aged and disabled carers	~1,866	+220–280
Nursing support and personal care workers	~528	+90–110



Demand for training will increase to support future growth

Skills and Training Local training will be critical to support the future supply of skilled disability support workers, aged care workers, allied health assistants, enrolled nurses and community services workers. Key community services qualifications will include the Certificate III in Individual Support, the Certificate IV in Disability and the Certificate IV in Ageing Support. Key health qualifications include the Diploma in Nursing, the Certificate III in Health Services Assistance and Allied Health Assistance, the Certificate III and IV in Allied Health Assistance, Certificate III in Individual Support, Certificate IV in Disability and Diploma of Nursing. Employers value workers with strong interpersonal skills and an inherent interest in people and helping others. Specific technical skills are also important, including in administering medication. In addition, many employers value versatile and multi-skilled professionals such as enrolled nurses with qualifications in allied health assistance.

Industry situation	Opportunities for the vocational education and training system
Entry-level careers in the community services sector are not attractive to young school students.	<p>Promote existing training pathways within school, for example school-based apprenticeships.</p> <p>Work with local schools, industry and training providers to develop and offer industry tasters and work experience.</p> <p>Continue to explore recruitment pathways for non-school leavers including the new Entry into Care Roles Skill Set as a pathway into the industry.</p>
There is a shortage of experienced frontline health care workers in the region.	Work with local employers, adult and community education and Learn Local, TAFEs and universities to promote and support upskilling pathways within the sector.
The current workforce is challenged by physically demanding roles.	Explore options to retain older and more experienced workers by partnering them with trainees.
The Certificate III in Individual Support no longer includes a core subject on assisting clients with medication, despite it being valuable to employers.	Continue to rollout the elective unit within the Certificate III in Individual Support ‘assist clients with medications’ as a separate skill set or add on.

Manufacturing

The region can expect strong growth if the right conditions are met

Snapshot	~ 10,100 workers employed in 2022	+ 400–650 new workers required in this sector by 2025	14.1% share of Ovens Murray workforce	11% workers in this sector aged 60 and over
Profile	Ovens Murray is built around a strong manufacturing sector, which represents a higher proportion of economic output when compared to other parts of regional Victoria and is interconnected with industries such as agriculture and transport and logistics. Economic output of the industry is dominated by food and beverage production, with large national and multi-national companies operating in the region. The metal and wood manufacturing sectors also make a large contribution to economic output and employ many staff in the region.			
Outlook	The manufacturing industry has potential to grow if the industry can attract the workforce required to support this growth. The outlook is particularly positive in food and beverage manufacturing, which performed strongly during the pandemic. Other forms of manufacturing such as wood and metal manufacturing also have growth potential to support increased demand for construction. To achieve this growth the industry needs a strong supply of entry-level factory workers, process workers and packers. Qualified and experienced staff are in particularly high demand, including production managers, stainless steel fabricators, fitters and machinists, wood machinists and distillers and brewers.			

Top occupations (ANZSCO)	Current workforce (people)	Forecast 3-year growth (people)
Metal fitters and machinists	~604	+50-70
Food and drink factory workers	~429	+40-50
Paper and wood processing machine operators	~612	+30-40
Structural steel and welding workers	~599	+40-50



Demand for training in engineering and middle management roles will increase

Skills and training	<p>While training is not necessarily required for general factory workers, process workers and packers, it is valued for trades. Apprenticeships and training in the Certificate III in Engineering –Fabrication Trade and the Certificate III in Engineering –Mechanical Trade are common pathway for welders, fitters and machinists and boilermakers in metal manufacturing trades. The Certificate IV in Engineering is also a valued upskilling pathway. Employers are also seeking skilled middle managers who understand the end-to-end production process and have experience leading teams and managing performance.</p>
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Industry situation	Opportunities for the vocational education and training system
Many new workers do not persist with manufacturing roles due to the time required to progress to more senior roles.	Map the different career pathways within industry to enable clear communication to prospective workers about career progression.
Staff with experience or training are challenging to recruit.	Create structured on-the-job supervision and mentoring approaches.
Management roles are hard to fill.	Develop and deliver skill sets focused on management roles tailored to the industry.
Some cohorts are vulnerable to restructuring that, which may require roles to have higher skills	Assist vulnerable cohorts to transition into high-skilled work or into other employment opportunities through specialised programs.

Tourism, accommodation, food and retail

Increased visitation and strong tourism investment will flow into growth in accommodation, food and retail

Snapshot Accommodation and food	~ 4,950 workers employed in 2022	+ 500–650 new workers required in this sector by 2025	6.9% share of Ovens Murray workforce	10% workers in this sector aged 60 and over
Snapshot Retail	~ 6,450 workers employed in 2022	+ 200–300 new workers required in this sector by 2025	9% share of Ovens Murray workforce	11% workers in this sector aged 60 and over
Profile	Expansive natural and cultural assets attract a high number of visitors to the Ovens Murray region and lead to a prominent tourism industry. High visitation to the area generate strong output in the accommodation, food services and retail industries. The workforce is diverse and has a high proportion of seasonal or casual workers to accommodate fluctuations in demand.			
Outlook	The region is experiencing a large surge in visitation following a downturn resulting from the pandemic. This, coupled with strong investment in tourism, will likely lead to substantial growth in the industry, especially over the coming 12 to 18 months. High visitation will mostly translate to strong growth in accommodation and food services, while predicted growth in retail is relatively conservative. Strong growth will lead to high demand across all roles, especially to accommodate current shortages in front-of-house staff, chefs and cleaners.			

Top occupations (ANZSCO)	Current workforce (people)	Forecast 3-year growth (people)
Retail sales assistants	~2,326	+180–200
Waiters	~764	+110–130
Bar attendants and baristas	~387	+80–90
Chefs	~633	+50–60



Additional training will be required to support new workers and upskill existing workers

Skills and training Employers mostly hire for service attributes but value training for specific regulatory or occupational requirements, including the Responsible Service of Alcohol (RSA) Certificate and the Certificate III in Commercial Cookery. Demand for other training, such as certificates in hospitality, largely depends on the maturity and capacity of the business. Employers have noted a lack of basic work skills for entry-level positions and have struggled to provide internal training due to increased business and inability to take time away from work to do training. Demand for general and specific skill-based training will likely increase to fill this gap and support the large supply of labour required by the industry over the coming 3 years.

Industry situation	Opportunities for the vocational education and training system
The remote location of some regions, such as the alpine resorts, constrains their ability to access courses.	Support collaboration between training providers and employers to offer onsite training for a collection of workers in the region.
There is likely untapped potential to engage workers in the industry such as students or mature aged people looking for a career change or to enter the workforce for the first time.	Deliver targeted training for cohorts of prospective workers to provide them with job skills and confidence to succeed in the industry.
The industry struggles to recruit some roles such as chefs, front-of-house workers and managerial positions.	Support workers to upskill and promote career pathways to fill managerial or specialised positions. This may also require changes to workforce practices to improve retention.



Agriculture and forestry

Steady output is expected across the industry with potential growth in dairy and grape production

Snapshot	~ 5,400 workers employed in 2022	+ 0–100 new workers required in the sector by 2025	7.5% share of Ovens Murray workforce	40% workers in the sector aged 60 and over
Profile	Industry output is focussed on agricultural production in beef, sheep and dairy. Forestry is a small but important sub-sector of the local economy, with most processed timber remaining in the Hume region. The region has a high proportion of family-owned and operated businesses compared to other parts of Victoria. Businesses employ a diverse range of permanent roles but are also large employers of seasonal workforces to fill field positions.			
Outlook	Output is expected to be steady, constrained by farm size and the availability of resources. However, some sub-sectors such as dairy and grape production are likely to see above average industry growth over the coming 3 years. Even with relatively steady growth the industry will likely require a reasonable supply of workers in the coming 3 years. Almost a third of workers are over 65 years of age, indicating that the industry is on the verge of a high proportion of retirements. The industry is also experiencing a significant shortage in workers to fill seasonal positions with a reduced backpacker workforce following the pandemic.			

Top occupations (ANZSCO)	Current workforce (people)	Forecast 3-year growth (people)
Livestock farmers	~2,714	+280–320
Livestock farm workers	~534	+50–60
Crop farmers	~259	+30–40
Forestry and logging workers	~37	+0–10
Chemists, and food and wine scientists	~38	+0–10



Relevant, flexible training is essential to fill gaps in industry skill sets

Skills and training Employers tend to hire for attributes including work ethic and attitude, as well as ability to meet the physical requirements of the role. Accredited training is rarely valued for entry-level workers. Where training is utilised, it is often industry-led through online initiatives such as Dairy Learning and the Wine & Spirit Education Trust (WSET). Despite current low utilisation of training, employers have highlighted gaps in particular skill sets that need to be filled with relevant, flexible training options. These skill sets include animal health and management, environment conservation, machinery diagnostics and operation, data analytics, technician skills and farm management.

Industry situation	Opportunities for the vocational education and training system
The fixed delivery and timing of qualifications is a barrier for students to engage in continuous learning and upskilling.	Explore a flexible approach to deliver qualifications that provide students with choice in the composition and timing of their training.
General trainers are not always able to deliver the technical skills required by industry.	Find new ways to onboard and support specialised trainers to meet gaps in technical capability.
Smaller industries, such as viticulture, struggle to reach the student numbers required to be viable for training providers.	Work through Office of TAFE Coordination and Delivery to identify lead TAFEs for thin market qualifications.
The industry is struggling to attract young people due to a perceived lack of career opportunities.	Explore opportunities to integrate agriculture into the school curriculum in local schools to stimulate interest in the industry and the variety of career options.
Farm consolidation and increased employment of non-family labour has increased demand for farmers with managerial skills.	Develop skill sets targeted at managers in the agriculture industry.

Transport and logistics

Investment in logistics infrastructure will drive strong growth

Snapshot	~ 2,950 workers employed in 2022	+ 200–300 new workers required in the sector by 2025	4.1% share of Ovens Murray workforce	20% workers in the sector aged 60 and over
Profile	Ovens Murray's strategic location along major transport routes and its strengths in agriculture and manufacturing generate strong demand for transport and logistics. The region is home to substantial transport and logistic hubs and is saturated with freight companies, who are mostly focused on the transport of food, produce and manufactured goods. Drivers make up the vast majority of labour in the transport and logistics industry.			
Outlook	Strong investment in logistics infrastructure both nationally and within Ovens Murray will likely drive growth in transport and logistics. The region has also experienced good output in both manufacturing and agriculture, which flows through to demand for services in transportation. A significant shortage of drivers is constraining output and creating a highly competitive labour market. The shortage is unlikely to be met in the immediate term from locals, given the time required to build the skills of drivers. International migration may provide an opportunity to increase supply, and consideration should be given to listing truck drivers on the skills priority list to facilitate migration. Other roles, such as in warehousing and storage, are also in high demand, although these largely entry-level positions have been notably easier to fill.			

Top occupations (ANZSCO)	Current workforce (people)	Forecast 3-year growth (people)
Truck drivers	~825	+130–160
Bus and coach drivers	~307	+80–90
Couriers and postal drivers	~167	+40–50
Store persons	~214	+50–60



Demand for transport training will increase

Skills and training	<p>Licences are a regulated requirement for many roles in the industry, such as truck driving. Most employers require licences prior to hiring but support progression of workers to additional licences following experience. Employers raised concern that the licence requirements do not always confirm the competency of workers to operate a vehicle in high-risk environments and often look to additional training to provide further experience. The Certificate III in Driving Operations and other driver training opportunities will be an important enabler of the development of highly skilled truck drivers. Additional training in warehousing and storage is not essential to employers, although strong historic enrolments in these qualifications are likely to continue to support the large workforce.</p>
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Industry situation	Opportunities for the vocational education and training system
There is a significant shortage of drivers within the industry, particularly with multi combination and heavy combination licences.	Better promote training programs for targeted cohorts supporting foundational skills and literacy, such as Wodonga TAFE’s Driver Education Centre of Australia (DECA) based in Barnawartha, and continue plans for \$100 million Heavy Vehicle Training Program as part of Wodonga TAFE.
There are limited entry-level positions available for school leavers due to age constraints on obtaining licences and gaining insurance.	Encourage employers to develop entry-level positions in other areas of the business and provide multi-year pathways to obtaining licences.
The industry struggles to attract people due to negative associations with long-haul driving and the narrow perceptions of available roles in the industry.	Develop information materials to promote the industry to prospective workers.
Obtaining a truck licence is not confirming competency of the workers to operate the vehicle in high-risk environments.	Develop mentoring and supervision programs for newly licenced truck drivers. Explore opportunities for new truck drivers to gain on-the-road experience on receipt of their licence.

Construction

Strong growth bolstered by residential stimulus packages and infrastructure investments

Snapshot	~ 6,250 workers employed in 2022	+ 500–700 new workers required in the sector by 2025	8.7% share of Ovens Murray workforce	16% workers in the sector aged 60 and over
Profile	Demand for residential, commercial and civil construction is interconnected with other industries. Residential construction is an important enabler of growth, supplying housing for large workforces and accommodation for tourists. Investments in tourism, education and health industries generate demand for civil and commercial construction. Large civil and commercial projects tend to rely heavily on government investment. Businesses in the construction industry are diverse, comprising sole traders, small businesses, subcontractors, large corporations and registered commercial builders.			
Outlook	Strong growth is expected in both residential, commercial and civil construction, following investment in the region. Stimulus from the 2021 HomeBuilder Grant has also led to a backlog of new builds, generating further demand for housing. Major infrastructure investments and economic activity across other sectors and additional government investments will continue to sustain strong growth in commercial and civil construction. A large supply of tradespeople and apprentices will be required to support industry growth, in addition to contractual workforces required for short-term infrastructure projects. Employers are currently experiencing significant labour shortages, especially for less-attractive trades such as bricklaying.			

Top occupations (ANZSCO)	Current workforce (people)	Forecast 3-year growth (people)
Carpenters and joiners	~926	+90-110
Electricians	~533	+80-100
Plumbers	~739	+70-90
Construction managers	~760	+90-100



There is strong demand for apprenticeships across the diversity of trades

Skills and training

There are 2 main entry pathways to the sector. The first is as a trades apprentice undertaking accredited training, and the second is as a labourer. The construction industry is a large user of vocational education and sees the quality of training and skills received at the apprenticeship stage as essential to the quality of future construction work. There will likely be strong demand for a range of trade qualifications to support additional workforce requirements. While immediate demand will need to be met by the current pipeline of tradespeople in training, building the skills of workers is essential to support the sustainability of the industry. Employers value technical skills developed through apprenticeships, although they have concerns about the breadth of skills developed by apprentices in some highly specialised businesses. There are also gaps in training for some bespoke pathways, such as shed building and window construction.

Industry situation	Opportunities for the vocational education and training system
Stimulus incentives have been effective in encouraging employers to take on mature aged apprentices, but more can be done to encourage the delivery of quality apprenticeships.	Provide additional resources to encourage industry-led initiatives to continue to expand high-quality apprenticeship opportunities.
Training pathways are not available for some specialisations, for example in shed building and window construction.	Support the industry to work with the relevant, forthcoming Australian Government industry cluster to ensure suitable pathways exist for the full range of roles.
The industry is struggling to attract school students to apprenticeships due to negative perception of the industry as a career path.	Promote and support existing training pathways within school, for example school-based apprenticeships.
Training materials have not kept pace with industry best practice in construction.	Work with local training providers to update course program and learning material to reflect industry best practice.
There is an increasing shift to workplace-based training delivery, yet providers are not always equipping employers with an understanding of what is expected.	Work with local training providers to establish guidance for employers.
The industry is struggling to recruit prepared and job-ready apprentices.	Support aligned recruitment practices between apprenticeship providers and employers.

Implementation considerations and next steps

While many labour supply and skilling challenges will take time to address, there are a number of initiatives that can be implemented immediately over the next 6 to 12 months to address the urgent labour and skilling challenges in the post-pandemic recovery period.

These quick wins are listed in Table 8 below. They include cross-industry initiatives and initiatives specific to particular industries.

Table 8 | Quick wins

Sector	Initiative
Cross industry	Support and promote grassroots job networks: raise awareness among local employers about local community-based networks that can be used to attract unemployed jobseekers
Cross industry	Promote local career opportunities within schools: raise awareness of the range of career options available within the region and different models of career progression by developing and disseminating information resources for students. This may include use of materials already developed by the department and the Victorian Skills Authority and services such as the Victorian Skills Gateway.
Cross industry	Identify short-term opportunities to leverage existing infrastructure for accommodation and utilities: work with local councils and employers to identify available accommodation that could house groups of workers and support growth in particular industries and locations.
Cross industry	Develop programs in schools that support pathways to local careers and training, considering a broad range of industries. This will give students better information on the range of career options available and practical work experience within relevant industries.
Cross industry	Foster delivery partnerships between employers and providers: establish agreements between providers and employers to utilise employers' existing infrastructure and equipment to support industry-wide and tailored training initiatives in key sectors. This could include delivering training onsite in Alpine regions before the start of the snow season, hospitality training in the wine region, or using employers' trucks for truck driver training.
Cross industry	Stimulate recruitment of apprentices: work with industry associations on a recruitment campaign for apprentices in the region. This could support the supply of apprentices in construction and metal manufacturing.
Health and community services	Offer a skill set on administering medications: work with training providers to rollout the elective unit within the Certificate III in Individual Support 'assist clients with medications' as a separate skill set.
Transport	Explore new training models to build the capability of truck drivers: explore opportunities for new truck drivers to gain on-the-road experience on receipt of their licence. Employers could contribute trucks to support training.

Other initiatives will take longer to implement, and broader challenges will be referred to the Ovens Murray Regional Partnership for consideration and action. An appropriate governance structure will also be established to monitor implementation and support the preparation and maintenance of a regional economic prospectus for the region.

The Victorian Skills Authority will collaborate with industry and government to provide training providers with progress on projects recommended in this skills demand profile. Training opportunities in transport and logistics and health and community services are high priorities due to the immediacy and, or scale of required workforce growth or shortages.



Continued collaboration will be required to support implementation

Key success criteria for implementation include:

- **industry-focused collaboration provides opportunities to address workforce challenges:** the ability to address localised training needs will be strengthened by collaboration between local employers, in particular small employers.
- **sustained collaboration with TAFEs, RTOs, universities, schools and government is important:** to sustain ongoing collaboration with key stakeholders, engagement with representatives from TAFEs, RTOs, universities, schools and government is critical. Opportunities are emerging, including through GOTAFE's recent industry engagement strategy.

- **better data can support planning and policy:** there is an opportunity to leverage the richness of training and workforce data to support planning and policy for local stakeholders. Developing and maintaining tailored career planning materials can facilitate this. Industry-driven input and validation can ensure joint ownership.

The Victorian Skills Authority is committed to work with the region to address the opportunities identified in this report. Collaboration at an industry level – rather than a coordinated regional response – is likely to offer greater success at addressing specific skills needs. To address broader enablers of labour supply, collaboration across state and local government will be required, supported by strong industry engagement.





Appendix A: Industry profiles



Health and community services

The region's ageing population is driving demand for health and community services⁶. In addition, major reforms, driven by royal commissions into family violence, mental health, aged care and disability, are currently driving demand and will continue to do so over coming years. Workforce supply is not currently keeping pace with demand. Most employers are facing challenges to recruit frontline workers across all parts of the sector, and supply will be further challenged by effect of the pandemic on travel trends.

Local training, in partnership with industry, will be critical to support the future supply of skilled disability support workers, aged care workers, allied health assistants, enrolled nurses and community services workers. Key community services qualifications will include the Certificate III in Individual Support, the Certificate IV in Disability and the Certificate IV in Ageing Support. Key health care qualifications include the Diploma in Nursing, the Certificate III in Health Services Assistance and Allied Health Assistance, the Certificate III and IV in Allied Health Assistance.

Employers value workers with strong interpersonal skills and an inherent interest in people and helping others. Specific technical skills are also important, including in administering medication. In addition, many employers value versatile and multi-skilled professionals, such as enrolled nurses with qualifications in allied health assistance.

An ageing population and major reforms will drive industry growth

Health and community services is the largest industry in the region, with a gross value add of 14.8% of the region's total output. Key sectors include health care, aged care and disability support. Services are delivered by a range of small and large organisations including hospitals, clinics and non-for-profit and for-profit organisations. Many health services in the region are delivered by Albury Wodonga Health, a cross-border health service operating under the jurisdiction of the Victorian Department of Health. Albury Wodonga Health operates across 17 sites in North-East Victoria and New South Wales and delivers a range of primary, sub-acute and acute health services.

The region's ageing population and major reforms in mental health, disability, aged care and family violence will drive demand for health and community services. This is reflected in recent growth and investment across the region. Albury Wodonga Health is seeing growth in patients of approximately 3 to 5% per year. Work has also commenced on the new \$36 million emergency department, adding 25 extra points of care and 12 new short stay beds.⁴⁶ The \$22.9 million Wangaratta Hospital redevelopment was completed in December 2022 and delivered multiple facilities including a 12-bed critical care unit, an expanded emergency department and a paediatric ward.³⁰ In addition, \$65 million has been committed to the Glenview Community Care facility rebuild³¹ While emergency services are provided in Albury Wodonga, the health services in small towns play a key role in general nursing and recovery. The ageing population will also drive demand for aged care across all parts of the region. The royal commission into aged care quality and safety may also stimulate investment.

There has been recent investment in disability services and mental health services, and funding has been allocated for a new mental health unit. In Ovens Murray, 31% of adults have been diagnosed with anxiety or depression, compared with a Victorian average of 27%, and Albury Wodonga Health is experiencing bed block arising from mental health needs each day. Mental health is expected to be an ongoing area of investment in the context of the royal commission into Victoria's mental health system.

Another key area of demand in the region is family violence services, as the response to the royal commission continues to be implemented. Albury Wodonga Health recently implemented a new model of care to respond to violence, abuse and neglect. This new model involves integrated crisis counselling, medical and forensic responses to sexual assault, child abuse and neglect, and domestic and family violence patients presenting to hospital.⁴⁷

⁶ This profile excludes early childhood education and care due to lack of representation in the roundtable

Table 9 | Health and community services: key labour market indicators and estimated growth 2022–2025^{3,5,8,16}

Share of region gross value added (GVA)	Share of total workforce	% of workers between 15 and 24	% of workers aged 60 and over	Estimated people in 2022	Estimated growth 2022–2025 (people)	Estimated growth 2022–2025 (CAGR)
14.8%	16.4%	6.9%	15.1%	~11,750	+850–1,400	+2.5–4.0%

Employers anticipate strong demand for workers in allied health, aged care and disability

Health and community services employs the greatest number of staff of any industry in the region, and workers make up 16.4% of the total regional workforce. Health professionals include registered nurses, general practitioners, dentists, psychologists and allied health professionals such as physiotherapists, occupational therapists and speech therapists. This workforce is supported by enrolled nurses, personal support workers and allied health assistants. Given its size and scale, the health care sector is also supported by a large workforce in non-health care roles, such as cleaners, receptionists and kitchenhands.

Allied health and nursing staff work across the aged care and disability care sectors as well as the health-care sector. In these sectors they are supported by aged care workers and disability support workers in addition to enrolled nurses and allied health assistants. Across other social services sectors, professionals include social workers, who are supported by community services workers.

The ageing population in the region and major reforms across multiple service sectors will increase demand across all sectors. Employers have reported significant challenges to recruitment of allied health professionals, including physiotherapists, speech therapists and occupational therapists. Recruiting allied health professionals with specialist expertise, for example, in child physiotherapy, is even more challenging, and employers rely on recruiting from outside the region.

Employers also face challenges recruiting to key supporting roles such as aged care workers, disability support workers and allied health assistants. Due to the increased demand for health professionals across the region and the time involved in training these professionals, health and allied health assistants play a particularly critical role in supporting clients and enabling health professionals to support more clients. Health and allied health assistants can be particularly critical in regional areas, where they can support a client face to face while health professionals participate via videoconference. The supply of enrolled

nurses is adequate, but registered nurses remain in strong demand, suggesting that many enrolled nurses are not choosing to or are not easily able to pursue further training to progress into registered nurse roles.

While the National Disability Insurance Scheme (NDIS) is now fully implemented in the Albury Wodonga region, ongoing workforce growth is expected. In the Ovens Murray region only 67% of supports funded by the NDIS are currently being utilised by participants, suggesting that current providers are not meeting demand in the region.⁴⁸ Employers also report recruitment challenges in family violence and mental health roles.

In the past many employers across the industry have relied heavily on immigration to fill workforce gaps. However, the recent effects of the pandemic on travel trends has intensified current workforce shortages. The health and community services workforce is also ageing, with 15% of the total workforce aged above 65 years. The retirement of many workers is likely to exacerbate workforce shortages over coming years.

Table 10 describes the occupations with the highest number of staff in the region and estimated growth in these occupations over the next 3 years. This focuses on health and community service roles and excludes supporting roles such as receptionists.



Table 10 | Health and community services: top occupations and forecast demand^{3,5}

Top occupations ⁷ (based on ANZSCO)	Estimated workers in 2022 (people)	3-year forecast growth (people)
Registered nurses	~2,209	+320-420
Aged and disabled carers	~1,866	+220-280
Nursing support and personal care workers	~528	+90-110
Enrolled and maternal and child health nurses	~187	+30-40
Generalist medical practitioners and resident medical officers	~354	+40-50
Welfare support workers	~318	+40-50
Physiotherapists	~192	+30-40
Ambulance officers and paramedics	~139	+20-30
Midwives	~103	+20-30
Social workers	~243	+20-30
Nurse managers	~12	+20-30

⁷ Supporting roles such as receptionists, kitchenhands and commercial cleaners have been excluded.

Demand for training will increase to support future growth

Strong workforce growth will translate to demand for entry-level roles and training pathways for current entry-level workers to increase their skills and grow their careers in the industry. Not all aged care workers and disability support workers require formal training, but the Certificate III in Individual Support is a common entry-level pathway into both sectors.

Workers may also undertake a Certificate IV in Disability or Ageing Support where they are working in more complex settings such as residential care. A number of skill sets are also available to support attainment of core knowledge on how to work safely in the sector prior to undertaking a full qualification, including the Introduction to the NDIS skill set and the Entry into Care Roles Skill Set. These workers may go on to undertake a Certificate III.

The Certificate III and IV in Allied Health Assistance, the Diploma of Nursing and the Certificate III in Health Service Assistance are common entry pathways for allied health assistants, enrolled nurses and health service assistants. Employers note that workers with multiple qualifications in health are particularly valuable due to their versatility, for example allied health assistants who also have a Diploma in Nursing.

Diploma of Nursing qualifications are popular, especially given they are funded under the government's Free TAFE policy, however, upskilling pathways from enrolled nurse to registered nurse through the higher education system will also be important to meet employer demand for registered nurses.

Table 11 | Health and community services: key qualifications and training requirements⁴⁹

Occupation groups (based on ANZSCO)	Top qualifications	2020 enrolments	Anticipated training requirement
Therapy aides	Certificate III in Health Services Assistance	~80	Increase
	Certificate III in Allied Health Assistance	~115	Increase
	Certificate IV in Allied Health Assistance	~50	Increase
Enrolled nurses	Diploma of Nursing	~415	No change
Aged and disabled carers	Certificate III in Individual Support	~335	Increase
	Certificate IV in Disability	~200	Increase
	Certificate IV in Ageing Support	~60	Increase
	Certificate IV in Leisure and Health	~50	No change
Community workers	Diploma of Community Services	~175	Increase
Family support workers	Certificate IV in Community Services	~130	Increase
Residential care officers			
Youth workers	Certificate IV in Child, Youth and Family Intervention	~50	No change



There are opportunities to improve the delivery of training

Industry leaders and employers in the region have identified specific opportunities for the sector with regard to vocational training. Table 12 provides an outline of key findings.

Table 12 | Opportunities for the health and community services industry

Situation	Opportunities
<p>Entry-level careers in the community services sector (for example, disability and aged care) are not attractive to young school leavers and there is a lack of awareness of the diversity of career pathways in the .</p>	<p>Promote existing training pathways within school, for example, school-based apprenticeships.</p> <p>Work with local schools, industry and training providers to develop and offer industry tasters and work experience.</p> <p>Continue to explore recruitment and training pathways for non-school leavers including supported work placements for jobseekers with the right attributes.</p> <p>Support and promote the new Entry into Care Roles Skill Set as a pathway into the sector prior to completion of a Certificate III in Individual Support.</p>
<p>There is a shortage of experienced frontline health care workers in the region, in particular registered nurses and allied health professionals.</p>	<p>Promote Certificate in Allied Health Assistance qualifications for enrolled nurses to support a multiskilled frontline workforce.</p> <p>Promote and support upskilling pathways within the sector including:</p> <ul style="list-style-type: none"> • support workers to enrolled nurses, • enrolled nurses to registered nurses, • allied health assistants into allied health professionals. <p>Work with local employers, adult and community education and Learn Local, TAFEs and universities to provide a more seamless pathway for students to progress from enrolled to registered nurse.</p> <p>Establish a strategic partnership between health care and training providers to jointly identify and address future workforce needs.</p>
<p>The current workforce is ageing and is challenged by physically demanding roles. At the same time, employers have limited capacity to support and supervise work placement students and trainees due to funding challenges and existing workforce capacity issues.</p>	<p>Explore options to retain older and more experienced workers by partnering them with trainees who can learn from them and also support them with more physically demanding duties.</p>
<p>The Certificate III in Individual Support no longer includes a core subject on assisting clients with medication, despite it being valuable to employers.</p>	<p>Continue to rollout the elective unit within the Certificate III in Individual Support ‘assist clients with medications’ as a separate skill set or add on.⁸</p>

⁸ Revision of the Certificate III in Individual Support with specialisations in ageing and disability, along with the Certificate IV in Ageing Support and the Certificate IV in Disability Support, is currently underway, but the initial consultation draft did not propose changes to the units on administering medication.



'Local training, in partnership with industry, will be critical to support the future supply of skilled disability support workers, aged care workers, allied health assistants, enrolled nurses and community services workers.'



Manufacturing

The manufacturing industry has potential to grow if industry can attract the workforce required to support this growth. The outlook is particularly positive in food and beverage manufacturing, which performed strongly during the pandemic. Other forms of manufacturing, such as wood and metal manufacturing, also have growth potential to support increased demand for construction. To achieve this growth the industry needs a strong supply of entry-level factory workers, process workers and packers. Qualified and experienced staff are in particularly high demand, including production managers, stainless steel fabricators, fitters and machinists, wood machinists and distillers and brewers.

While training is not necessarily required for general factory workers, process workers and packers, it is valued for trades. Apprenticeships and training in the Certificate III in Engineering – Fabrication Trade and the Certificate III in Engineering – Mechanical Trade are common pathways for welders, fitters and machinists and boilermakers in metal manufacturing trades. The Certificate IV in Engineering is also a valued upskilling pathway. Employers are also seeking middle managers who understand the end-to-end production process and have experience leading teams and managing performance.

Manufacturing has strong potential if the right conditions are met

Manufacturing is the largest industry in the Ovens Murray region by economic output, with an annual economic output of \$876 million, making up 15% of the region's total output. Manufacturing plays a larger role in the local economy of Ovens Murray than in regional Victoria overall, in which it makes up 15% of gross value added (GVA).

Manufacturing in the region is connected to economic activity in other sectors. Food, beverage and tobacco manufacturing dominate regional manufacturing, drawing to some extent on local agricultural production. The region's transport and logistics capability also enable large national and multinational companies to manufacture in the region and transport products to market. Food manufacturers such as Mars, Uncle Tobys and Vitasoy operate in the region and are supported by packaging manufacturing companies such as Visy and Orora. There is also a strong local metal manufacturing sector, and there are a number of forestry and wood product manufacturers, drawing on the production capacity of local forestry plantations. These manufacturers play a strong role in supporting the construction industry.

Food and beverage manufacturing is experiencing strong demand, with particular growth in alcoholic beverage manufacturing in recent years. Large food manufacturers in the region are mostly performing strongly; however, Uncle Tobys has recently scaled back its presence in the region.

Continued growth in wood and metal manufacturing is expected across the region to support the growth in the construction industry. Manufacturers are currently unable to fill orders and many report a 12-month backlog. The company XLam also recently finished construction of a high-tech plant manufacturing Cross Laminated Timber (CLT) Panels.²⁷ CLT is in increasing demand in commercial and residential construction as a sustainable product, and XLam exports across the Asia-Pacific region.²⁸

Government investment and stimulus may also provide a boost for the industry over coming years. The Australian Government's \$1.5 billion Modern Manufacturing Strategy is expected to generate investment across the region, particularly in areas where manufacturing plays a dominant role, such as Ovens Murray.

The government is also supporting investment in advanced manufacturing capability to position the region as a centre of excellence and innovation in manufacturing. Recently more than \$100 million in funding has been awarded by the Australian Government through the Australian Renewable Energy Agency's (ARENA) Renewable Hydrogen Deployment Funding Round. The successful applicants included Australian Gas Infrastructure Group (AGIG) for up to \$32.1 million towards a 10 MW electrolyser at AGIG's Murray Valley Hydrogen Park in Wodonga. New skills will be needed to support the development of this advanced manufacturing capability.⁵⁰

Defence is an important purchaser within the manufacturing industry. Although demand remains strong, the number of manufacturing contracts held within Ovens Murray has reduced as other regions actively pursue the work. There are opportunities to reinstate the proportion of local contracts by facilitating engagement and contracts between small to medium businesses and defence. The defence industry is also supporting the development of advanced manufacturing capability.

Table 13 | Manufacturing: key labour market indicators and estimated growth 2022–2025^{3,5,8,16}

Share of region gross value added (GVA)	Share of total workforce	% of workers between 15 and 24	% of workers aged 60 and over	Estimated people in 2022	Estimated growth 2022–2025 (people)	Estimated growth 2022–2025 (CAGR)
15.3%	14.1%	12.4%	11.1%	~ 10,100	+400-650	+1.5-2.5%

There is unmet demand for manufacturing workers at all levels

The manufacturing industry in Ovens Murray is a major employer and accounts for 14% of jobs in the region. The industry is diverse and comprises a range of different roles and occupations across different sectors. The manufacturing workforce is dominated by food product manufacturers (34%), followed by wood product manufacturers (15%), beverage and tobacco manufacturers (10%), machinery and equipment fabricators (9%) and fabricated metal product manufacturers (8%).

In food and beverage manufacturing, key roles include factory workers and packers, who report to managers. In some parts of the industry, for example in beverage manufacturing, there are also specialist roles such as brewers and distillers. In wood and metal manufacturing production workers may report to leading hands, production managers and site supervisors. There are also a range of specialist roles including wood machinists, boilermakers, steel fabricators, patternmakers, coremakers, welders, fitters and machinists.

Table 14 | Manufacturing: top occupations and forecast demand^{3,5}

Top occupations ⁹ (based on ANZSCO)	Estimated workers in 2022 (people)	3-year forecast growth (people)
Metal fitters and machinists	~604	+50–70
Food and drink factory workers	~429	+40–50
Paper and wood processing machine operators	~612	+30–40
Structural steel and welding trades workers	~599	+40–50
Forklift drivers	~650	+40–50
Production managers	~471	+60–70
Packers	~203	+30–40
Cabinetmakers	~137	+20–30
Meat, poultry and seafood process workers	~90	+20–30

Employers in the industry already face persistent challenges filling roles, and this is currently limiting their ability to meet demand and achieve desired growth. Employers noted that roles requiring experience are particularly challenging to recruit, including production managers, stainless steel fabricators, fitters and machinists, wood machinists and distillers and brewers. However, employers also struggle to recruit entry-level roles, noting that many workers do not persist with roles in the industry due to the length of time required to progress to more senior roles. For many new workers, the career pathways and options within the industry are unclear, which causes challenges for recruitment and retention.

Table 14 describes the occupations with the highest number of staff in the region and estimated growth in these occupations over the next 3 years.

⁹ supporting roles such as ICT workers and analysts have been excluded.



Demand for training in engineering and middle management roles will increase

Many pathways within the manufacturing industry do not require accredited training. In food and beverage manufacturing a common pathway into the sector is as a factory worker or process worker. Workers may gradually progress to work across different areas of production and come to understand the end-to-end production process. Over several years they may ultimately move into roles that require a greater depth of knowledge and frontline management roles where they supervise teams. As workers progress their careers in the sector, they may also supplement on-the-job learning with formal training. For example, in beverage manufacturing certificates in brewing and distilling may be undertaken.

Wood manufacturing workers, including wood machinists, are also likely to enter the sector without training and learn on the job over a number of years. In metal manufacturing, there are multiple pathways into the sector. Some workers may enter the sector without formal training in production worker roles, and their career pathway may be similar to food and beverage workers. Over several years workers may progress into roles as leading hands and production managers. A tradesperson, such as a boilermaker, patternmaker, coremaker, welder, fitter or machinist enters through an apprenticeship. Some prospective apprentices will undertake a Certificate II in Engineering Studies as a pre-apprenticeship course, before then undertaking their apprenticeship in either a Certificate III in Engineering – Mechanical Trade or Certificate III in Engineering – Fabrication Trade. The chosen certificate is dependent on the relevant trade. Workers may then progress to undertake a Certificate IV in Engineering.

Across all sectors of manufacturing, employers also identified a gap in leadership and management training that is adequately tailored to the industry. Training could play a role in supporting the development of skilled people managers within the industry.

Table 15 | Manufacturing: key qualifications and training requirements

Occupation groups (based on ANZSCO)	Top qualifications	2020 enrolments	Anticipated training requirement
Mechanical and engineering trades workers Fabrication engineering trades workers	Certificate IV in Engineering	~225	Increase
	Certificate III in Engineering – Mechanical Trade	~200	Increase
	Certificate III in Engineering – Fabrication Trade	~90	Increase
	Certificate III in Engineering – Electrical or Electronic Trade	~110	Increase
Food trades workers	Certificate II in Meat Processing (Abattoirs)	~40	Increase
	Certificate II in Food Processing	~5	No change
	Certificate III in Baking	~30	No change
	Certificate III in Food Processing	~10	No change

There are opportunities for alternative models of training in skill sets and mentoring

Industry leaders and employers in the region have identified specific opportunities for the sector with regard to vocational training. Table 16 provides an outline of key findings.

Table 16 | Opportunities for the manufacturing industry

Situation	Opportunities
Many new workers do not persist with manufacturing roles due to the time required to progress to more senior roles.	Map the different career pathways within the industry to enable clear communication to prospective workers about required experience, their likely career trajectory and opportunities to grow their career within the industry.
Roles requiring experience are challenging to recruit, including production managers, stainless steel fabricators, fitters and machinists, wood machinists and distillers and brewers.	In sectors where accredited training is not commonly used, such as food manufacturing, create structured on-the-job supervision and mentoring approaches for entry-level workers to support progression into more senior roles.
Management roles are hard to fill, which requires growing these workers within the business, but many of these workers do not have the skills to succeed in a management role.	Advocate for the development and delivery of skill sets focused on management roles within the manufacturing industry that are tailored to the manufacturing industry.
Some cohorts are vulnerable to restructuring that requires higher skill, particularly older workers	Assist vulnerable cohorts to transition into high-skilled work or into other employment opportunities following company restructuring, through specialised programs and training.



'The manufacturing industry in Ovens Murray is a major employer and accounts for 14% of jobs in the region. The industry is diverse and comprises a range of different roles and occupations across different sectors.'

Tourism, accommodation, food and retail



Ovens Murray is experiencing a large surge in visitation following a downturn from the 2019–20 bushfires and the pandemic. This, coupled with strong investment in tourism, will likely lead to substantial growth in the industry, especially over the coming 12 to 18 months. Increased visitation will mostly translate to strong growth in accommodation and food services, while predicted growth in retail is relatively conservative. The industry is unable to meet current demand due to labour supply challenges across all roles but especially in chefs, front-of-house staff and cleaners. Many employers are having to operate at reduced capacity and are unable to capitalise on the growth opportunity, particularly in areas with smaller permanent populations relative to tourism demand, like Alpine Shire.

Employers mostly hire for service attributes but value training for specific regulatory or occupational requirements, including the Responsible Service of Alcohol (RSA) Certificate and the Certificate III in Commercial Cookery. Demand for other training, such as certificates in hospitality, largely depends on the maturity and capacity of the business. Employers have noted a lack of basic work skills for entry-level positions and have struggled to provide internal training due to increased business and inability to take time away from work to do training. Demand for general and specific skill set-based training will likely increase to fill this gap and support the large supply of labour required by the industry over the coming 3 years.

Increased visitation and strong investment will drive growth in tourism

Expansive natural and cultural assets attract a high number of visitors to the Ovens Murray region and lead to a prominent tourism industry. Increased visitation to the area generates strong output in the accommodation and food services and retail industries. Although making up just 2.4% and 6.1% of total economic output respectively, these industries are an important contributor to many local government areas (LGAs) such as Alpine and Mansfield, which rely strongly on the visitor economy. Food and beverage retailing, and services makes up half of economic output across the industry.

The region's natural assets include waterways, parklands and Alpine regions with the tallest peaks in Victoria. Most notably, the snow is a major driver of tourism, accounting for approximately 25% of all visitation. Prior to the pandemic, the 4 Alpine resorts of Falls Creek, Mount Buller, Mount Hotham and Mount Buffalo attracted approximately 4.1 million High Country visitors in the year ending in September 2019, with approximately \$1.3 billion in-region visitor spend.^{9,51} Ovens Murray is being increasingly viewed as a 4-season destination, with visitors attracted by cycling, water-based recreation and gourmet food and wine experiences. The region is classified as Australia's premium cycling location and is home to 2 of the 5 major wine regions

in Victoria: the King Valley and Rutherglen. Many vineyards and wineries within the region are expanding to include food and accommodation services. The historic towns of Bright and Beechworth are also major attractions to visitors. The region mostly attracts visitors from Melbourne (approximately 60%) and interstate (approximately 30%) and has a small market for international tourism. Tourism is mostly concentrated at certain times in the year, particularly around Christmas and Easter for summer activities and over winter for snow tourism.

Increased visitation and regional investment are expected to drive strong growth in tourism over the next 3 years. The industry has been experiencing strong growth, and it is likely this will continue following a spike over the next 12 to 18 months. Visitation grew at 0.5% annually between 2015 and 2019, however, the total number of domestic daytrip and overnight visitors, as well as international overnight visitors, fell from 4.0 million to 2.1 million between 2019 and 2020.¹³ Despite a significant downturn in visitation as a result of the 2019–20 bushfires and the pandemic, the industry is now experiencing a substantial surge in demand.

A high number of Victorians are looking to regional Victoria as a holiday destination. In addition, many workers accrued high amounts of annual leave during pandemic restrictions. The region has historically reached full capacity across peak periods in the year. However, the region has also seen a substantial increase in visitations in typically quieter months such as December and February. Registrations for regional events such as Tastes of Rutherglen in March and Winery Walk About in June have greatly surpassed previous years. Although strong demand is occurring for most of the industry, there have been some exceptions. Some organised tourism companies focused primarily on international travel have seen a reduction in demand and shift in their work to deal mostly with administrative reimbursements rather than travel planning.



The region is also investing heavily in tourism experiences. Large investments in cycling infrastructure have continued over a sustained period but have been notably high in the recent years. Planning and assessments are currently underway in relation to the development of a 57 km walk through the Alpine region from Falls Creek to Mount Hotham, following a \$15 million investment by the Victorian Government. The development will involve upgrades and an extension to the existing track network.²³ \$10.3 million has also been invested to upgrade walking and cycling tracks along the Murray River Adventure Trail.^{24,52} The Activating the King Valley Prosecco Road project is in development, following \$4.3 million in funding from the Victorian Government in the 2020/21 Budget.

In addition, \$35 million in funding has been allocated over 4 years for regional creative infrastructure projects including the Benalla Art Gallery redevelopment.²⁵ Private sector investment is continuing at Mount Buller despite the recent pandemic, and there is untapped potential in the Alpine region across the summer months.²⁶

Increased visitation and tourism investment are likely to translate to significant growth in the accommodation and food services industry (Table 17). In contrast, while output in retail mostly remained strong throughout the pandemic, supported by high demand for goods and strong community support of local businesses, the experience of retail companies since has been turbulent. The retail industry will benefit from higher visitation although is likely to see more conservative growth in the coming years (Table 18).

Table 17 | Accommodation and food services: key labour market indicators and estimated growth 2022–2025^{3,5,8,16}

Share of region gross value added (GVA)	Share of total workforce	% of workers between 15 and 24	% of workers aged 60 and over	Estimated people in 2022	Estimated growth 2022–2025 (people)	Estimated growth 2022–2025 (CAGR)
2.4%	6.9%	37.4%	9.7%	~4,950	+500–650	+3.5–4.5%

Table 18 | Retail: key labour market indicators and estimated growth 2022–2025^{3,5,8,16}

Share of region GVA	Share of total workforce	% of workers between 15 and 24	% of workers aged 60 and over	Estimated people in 2022	Estimated growth 2022–2025 (people)	Estimated growth 2022–2025 (CAGR)
6.1%	9.0%	25.8%	11.1%	~6,450	+200–300	+1.0–1.5%

The industry has high demand for workers especially to accommodate existing shortages in front-of-house staff and chefs

The tourism, accommodation, food and retail collectively employs 15.9% of workers in Ovens Murray, a high proportion of employment in the region relative to the economic contribution. Employment is particularly high in key tourism locations of Alpine and Mansfield. The industry has a significant proportion of seasonal or casual workers to accommodate fluctuations in demand and employs a high proportion of young workers aged between 15 and 24 years old.

The tourism workforce is also highly diverse, comprising hospitality and food trade workers, accommodation staff, management and support staff. Hospitality workers include front-of-house staff such as waiters, baristas and bar attendants and food trade workers such as chefs, cooks and kitchenhands. Accommodation providers rely on a strong supply of supporting roles such as cleaners and receptionists. The retail industry is a large employer, with roles across sales assistants, check out operators and shelf fillers. There are a number of managerial positions across the industry, and the workforce is supported by roles in administration and accounting.

In addition to external recruitment, roles such as chefs and experienced managers can be filled through progression of entry-level staff. Food trade workers will often commence as a kitchenhand before progressing through training pathways to a chef or cook position. Similarly, front-of-house staff may transition to managerial positions following experience.

Strong growth in the accommodation and food industry will lead to high demand across all roles, especially to accommodate current shortages in front-of-house staff, chefs and cleaners. Employers are already reporting high vacancies, with many having to reduce output, such as restaurant and accommodation capacity or menu range, due to a lack of staff. Shortage of chefs has been an ongoing challenge for the region but has become more acute as the industry experiences substantial growth. There is also great concern about the industry's ability to meet future seasonal demand, such as ski seasons. Historically the industry has come to rely on the highly mobile backpacker workforce. The absence of this labour source throughout the pandemic has led to a large shortage of workers. The industry is also often perceived as an interim option rather than a career pathway, resulting in many workers moving on to other industries as opportunities arise.

Table 19 describes the occupations with the highest number of staff in the region and estimated growth in these occupations over the next 3 years.

Table 19 | Tourism, accommodation, food and retail: top occupations and forecast demand^{3,5}

Top occupations (based on ANZSCO)	Estimated workers in 2022 (people)	3-year forecast growth (people)
Retail sales assistants	~2326	+180-200
Retail managers	~877	+140-160
Waiters	~764	+110-130
Checkout operators and office cashiers	~529	+60-70
Accommodation and food sales assistants	~401	+40-50
Bar attendants and baristas	~387	+80-90
Kitchenhands	~505	+80-90
Chefs	~633	+50-60
Shelf fillers	~441	+40-50
Cafe and restaurant managers	~241	+70-80
Hotel and motel managers	~97	+60-70
Pharmacy sales assistants	~142	+10-20
Fast food cooks	~201	+30-40
Cooks	~148	+40-50



Additional training will be required to support new workers

Employers in the industry mostly hire for personal attributes but value training for specific regulatory or occupational requirements. This includes Responsible Service of Alcohol (RSA), Responsible Gambling Services, occupational health and safety courses and certifications for chefs. Some accredited qualifications are also valued by some employers, such as the Certificate III in Commercial Cookery and the Certificate III in Hospitality. There are also a number of pre-apprenticeships with high enrolments. Demand for training will likely increase to accommodate demand for new workers. Demand for other training in hospitality, tourism or retail largely depends on the maturity and capacity of the business. Established businesses in the wine industry, for example, require highly skilled hospitality workers to provide fine dining experiences to visitors. Other businesses are satisfied with workers with strong work ethic, communication skills and service qualities.

Across businesses, employers noted a shortage of entry-level workers with general work skills. Transferable soft skills are important to the industry, including presentation skills, initiative, problem solving and collaboration. Where staff possess these qualities, employers are willing to engage with workers to provide basic training and upskilling for career progression. Developing the supply of skilled labour, however, has been challenging due to high demand in typically quieter months of November and December, which has prevented internal training of new staff onboarded for the summer season. Additional training may be required to fill this gap.

Table 20 | Tourism, accommodation, food and retail: key qualifications and training requirements

Occupation groups (based on ANZSCO)	Top qualifications	2020 enrolments	Anticipated training requirement
Cooks Fast food cooks Kitchenhands	Certificate II in Kitchen Operations	~290	Increase
Chefs	Certificate III in Commercial Cookery	~105	Increase
Waiters	Certificate III in Hospitality	~90	Increase
Bar attendants and baristas	Certificate II in Hospitality	~290	No change
Café and restaurant managers	Certificate I in Hospitality	~40	Increase
Retail sales assistants	Certificate III in Retail	~110	Increase
Retail managers	Certificate II in Retail Services	~20	Increase
Tour guides Accommodation and food sales assistants	Certificate III in Tourism	~25	No change

There is an opportunity for industry collaboration to deliver targeted training

Industry leaders and employers in the region have identified specific opportunities for the sector with regard to vocational training. Table 21 provides an outline of key findings.

Table 21 | Opportunities for the tourism, accommodation, food and retail industry

Situation	Opportunities
<p>The remote location of some regions, such as the alpine resorts, constrains their ability to access courses. The increased use of online learning throughout the pandemic has helped make these courses more accessible.</p>	<p>Encourage and support collaboration between training providers and employers in a region to offer onsite training for a collection of students working for multiple employers. This could be hosted by large employers, in both the Alpine region and the wine region. Training could be timed to align with seasonal demands. Online training could continue to be supported where appropriate for specific training such as the Responsible Service of Alcohol (RSA) Certificate.</p>
<p>There is likely untapped potential to engage workers in the industry, such as students who have become disengaged with the school system or mature aged people looking for a career change or to enter the workforce for the first time.</p>	<p>Deliver targeted training for cohorts of prospective workers to provide them with the support, basic job skills and confidence to succeed in the industry. This may include:</p> <ul style="list-style-type: none"> • working with schools to develop job preparation courses • programs specific to mature-aged workers.
<p>The industry struggles to recruit some roles such as chefs, front-of-house workers and managerial positions.</p>	<p>Support entry-level workers to upskill and progress in a career to fill managerial positions or obtain training for specialised roles such as chefs. This may also require changes to workforce practices to improve retention.</p>
	<p>Stimulate supply of training for front-of-house hospitality roles.</p>
	<p>Promote the career pathways within the industry, for example from kitchenhand to chef.</p>



'The tourism, accommodation, food and retail industry has a significant proportion of seasonal or casual workers to accommodate fluctuations in demand and employs a high proportion of young workers aged between 15 and 24 years old.'

Agriculture and forestry



Output for agriculture and forestry is expected to be steady, constrained by farm size and the availability of resources. However, some sub-sectors such as dairy and grape production are likely to see above average industry growth over the coming 3 years.

Employers in the industry tend to hire for attributes including work ethic and attitude, as well as ability to meet the physical requirements of the role. Accredited training is rarely valued for entry-level workers; however, employers have highlighted significant gaps that could be filled by targeted skill sets such as animal health and management, environment conservation, machinery diagnostics and operation and data analytics.

Output is expected to be steady for most of the industry

Agriculture and forestry contribute 9.8% of economic output in Ovens Murray, enabled by the expansive productive land in Ovens Murray and strengths in the supporting industries of manufacturing and transport. The region has large food production businesses and strategic transport routes which provide important capability from a national agriculture perspective to drive imports and exports.

The vast majority of output in the industry is focused on agricultural production in beef, sheep and dairy. The region also produces grapes for wine production and hops for beer, with many enterprises expanding their core business to include elements of agritourism such as cellar doors and restaurants. Other cropping includes various productions of grain crops, apples, pears and stone fruits.

Forestry, although it contributes just 4% of total agriculture and forestry industry output, is an important sub-sector of the local economy. Most timber harvested in Ovens Murray is processed within the Hume region. Timber products include cross-laminated-timber (CLT), used in mid-rise buildings in residential construction, particle board, ply, mouldings and packaging. There is also emerging demand for biofuels made from woodchips as consumers seek more sustainable fuels.

Most agricultural enterprises in the region are family owned and operated; there is not a strong presence of corporate agriculture businesses compared to other parts of Victoria. Farms are relatively small, often not big enough to efficiently supply to large produce buyers such as supermarkets. Although trends of intensification indicate potential growth, opportunities for entry or expansion based on purchasing new land are limited due to land affordability. The industry experiences land pressures from the expanding regional centres of Albury Wodonga, resulting in a competitive and expensive market for land. This is a challenging competing priority for the region. Employers highlight that affordable housing developments are essential to the supply of labour. There is also a high proportion of people migrating to the region willing to pay premium prices to pursue hobby farming. This has contributed to the inflated price of agriculture land and a 'patch-work' of farms across the region.

The government has prioritised improving water security to support the continued strength of the agriculture industry, including modernising irrigation, recycled water sources, and upgrading Victoria's emergency water network. This, coupled with the relatively high rainfall in the region, indicates that the security of water will be less of a constraint to industry growth.

Although there is strong demand for wood products stimulated by expected growth in construction, the forestry industry is significantly supply constrained. The 2019–20 bushfires resulted in a large asset loss, with over 6,000 hectares of plantation burnt across the Hume and commercial native timber harvesting will end late 2023.



While overall output is expected to be steady, the experiences of sub-sectors are likely to be highly diverse. Historically the region has experienced significant growth in dairy production. Some businesses experienced a tripling of production and doubling of workforce in recent years. Dairy production is expected to continue to be strong, based on improvements in farming technology allowing for intensification and a strong outlook for the global dairy market.

Production in grapes and hops is also expected to be moderate to strong. The grape industry has been experiencing strong historical growth, which is anticipated to continue with the expansion of agritourism and gourmet food and wine experiences. The outlook among employers remains positive, although cautious, following trade restrictions from China and reduced harvests of 31% across the north-east wine-producing region following the bushfires. The smaller, boutique wineries, which are a high proportion of the industry in the region, have minimal reliance on exports and expect little change to their growth projections. Once previously niche, consumption of craft beer has been expanding rapidly, leading to demand for specialised crops.

Table 22 | Agriculture and forestry: key labour market indicators and estimated growth 2022–2025^{3,5,8,16}

Share of region gross value added (GVA)	Share of total workforce	% of workers between 15 and 24	% of workers aged 60 and over	Estimated people in 2022	Estimated growth 2022–2025 (people)	Estimated growth 2022–2025 (CAGR)
9.8%	7.5%	7.2%	40.1%	~ 5,400	+0-100	+0.0–0.5%

An ageing workforce will generate high demand for new workers

The agriculture and forestry industry employs 7.5% of workers in Ovens Murray. Permanent roles in agriculture include agronomy, livestock farmers, growing crops, and machinery operation and maintenance. Additional roles in the grape industry include winemakers of varying skill level and cellar hands. The industry also employs a large workforce in field positions, such as crop and livestock farm workers, milkers, tractor drivers and machine operators, which are dependent on seasonal requirements. Supporting roles are also important in the sector, including management, accounting, compliance and risk assessment and monitoring.

In the forestry industry, many tasks are highly automated requiring skilled machine operators; however, planting of trees is highly manual and is also seasonal. A core team of planters is employed all year round, but additional staff are recruited in summer to meet demand. Many planters move up and down the eastern seaboard working for different companies, as different geographical locations have their own seasonal peaks.

Even with relatively steady growth the industry will likely require a large supply of additional workers in the coming 3 years. Almost a third of workers in the agriculture and forestry industry are over 65. An ageing workforce in agriculture is a common trend across the state, but the ageing workforce is 15% higher in Ovens Murray than in Victoria. With an ageing workforce the industry is on the verge of a high proportion of retirements.

In addition, the industry is experiencing a significant shortage of workers to fill seasonal positions. Many employers have previously utilised the backpacker workforce, but changes to visa regulations and the recent pandemic significantly reduced labour supply. Some employers estimate a reduction in the available casual labour pool of roughly 80% compared with the pre-pandemic situation. Local labour is often not interested in arduous, seasonal work and recruitment from other regions, such as Melbourne, is challenging given barriers such as availability of affordable housing and transport. Adoption of new technology often fills this need, but it also changes the technology skills required of workers. The forestry industry struggles to attract staff because work involves working in isolated locations with antisocial hours. The industry competes for staff with the construction and civil industries.

Table 23 describes the occupations with the highest number of staff in the region and estimated growth in these occupations over the next 3 years.

Table 23 | Agriculture and forestry: top occupations and forecast demand^{3,5}

Top occupations (based on ANZSCO)	Estimated workers in 2022 (people)	3-year forecast growth (people)
Livestock farmers	~2,714	+280–320
Livestock farm workers	~534	+50–60
Crop farmers	~259	+30–40
Mixed crop and livestock farmers	~366	+40–50
Crop farm workers	~242	+30–40
Farmers and farm managers	~20	+0–10
Agricultural, forestry and horticultural plant operators	~51	+20–30
Agricultural and forestry scientists	~391	+10–20
Forestry and logging workers	~37	+0–10
Chemists, and food and wine scientists	~38	+0–10



Relevant, flexible training is essential to fill gaps in industry skills

Employers in the agriculture and forestry industry tend to hire for attributes including work ethic and attitude, as well as ability to meet the physical requirements of the role. Willingness to learn was also an important factor that indicates potential to upskill entry-level positions to fill higher-level roles. Generally, the agriculture and forestry industry have relatively low utilisation of training. The role of training providers has been diminishing. Employers have indicated that existing training options have not kept pace with advances in technology, machinery and industry best practice. There are no providers of forestry training in the north-east, and employers are required to bring trainers in from other regions. Even this training is not always valuable because employers use highly specific technical equipment and training is not tailored to include the use of this equipment.

Where training is utilised it is often industry led. The dairy industry takes a leading role in upskilling its workers, aggregating training opportunities to a national level through online initiatives such as Dairy Learning. In the grape industry training is also highly valued for all roles to deliver a premium product. There is strong demand for Wine & Spirit Education Trust (WSET) Level 3 Award in Wines for many roles from wine makers to cellar hands.

Despite current low utilisation of vocational and education training (VET) employers have highlighted significant gaps in particular skill sets that need to be filled with relevant, flexible training options. These skill sets include animal health and management, environment conservation, machinery diagnostics and operation and data analytics. Additional training is also likely to be required to support existing farm workers to build skills in management, as there is an increasing dependence on non-family labour for employment leading to an increase in the number of professional farm managers.

Table 24 | Agriculture and forestry: key qualifications and training requirements

Occupation groups (based on ANZSCO)	Top qualifications	2020 enrolments	Anticipated training requirement
Farmers and farm workers	Certificate III in Agriculture	~115	Increase
	Certificate II in Agriculture	~130	Increase
	Certificate II in Animal Studies	~70	Increase
	Certificate II in Horticulture	~30	Increase
	Certificate III in Horticulture	~60	No change
Farmers and farm managers	Certificate IV in Agriculture	~45	No change
	Certificate IV in Agribusiness	~10	Increase
Arborists	Certificate III in Arboriculture	~20	No change
Grape crop farmers	Diploma in Viticulture	~10	No change
Forestry workers	Certificate III in Forest Growing and Management	<5	No change

There are opportunities for more relevant, flexible models of training delivery

Industry leaders and employers in the region have identified specific opportunities for the sector with regard to vocational training. Table 25 provides an outline of key findings.

Table 25 | Opportunities for the agriculture and forestry industry

Situation	Opportunities
The fixed delivery and timing of qualifications is a barrier for students to engage in continuous learning and upskilling.	Explore a flexible approach to addressing technical skills gaps in areas such as animal health and management, environment conservation, machinery diagnostics and operation and data analytics.
General trainers are not always able to deliver the technical skills required by industry.	Onboard and support specialised trainers to meet gaps in technical capability. This may include investigating opportunities to utilise private trainers for specialised, industry specific skills, or investigating opportunities to use technical experts who are not trained teachers.
	Establish relationships with industry to improve accessibility to modern technology and machinery during training for students.
With low numbers for enrolments, smaller industries, such as viticulture, struggle to reach the student numbers required to be viable for training providers.	Establish a partnership with industry to plan and sequence required training over a multi-year horizon. A collective industry plan would enable training providers to continue to offer localised courses in demand, even with low enrolment numbers. Highly specialised courses could be offered on a rotating basis (such as every 2 to 3 years).
	Work through Office of TAFE Coordination and Delivery to identify lead TAFEs for thin market qualifications.
	Consider reviewing funding incentives and maximum payable hours for the Diploma of Viticulture, in consultation with employers, to encourage a continuous supply for this course, which is highly-valued in the viticulture industry.
The industry is struggling to attract young people due to a perceived lack of career opportunities.	Explore opportunities to integrate agriculture into the school curriculum to stimulate interest in the industry and the variety of career options and provide pathways to entry-level positions. For example:
	A specialist agricultural P-12 school could be developed modelled on the Timboon Agriculture Project (TAP) in South-West Victoria, which integrates agriculture into the curriculum by tailoring all learning to the agricultural sector. Mansfield Secondary College's pre-agriculture partnerships Rural Education Program links students with farmers in an apprenticeship-style relationship.
Farm consolidation and increased employment of non-family labour has increased demand for farmers with supporting skill sets beyond farming, such as managerial skills.	Develop skill sets targeted at managers in the agriculture industry. This has potential to upskill roles such as farm hands into technical or managerial positions to lift farm productivity. Supporting skill sets could include people management, business management, accounting, quality assurance, compliance, diagnostics of machinery and data analytics and interpretation.



'Agriculture and forestry contribute 9.8% of economic output in Ovens Murray, enabled by the expansive productive land in Ovens Murray and strengths in the supporting industries of manufacturing and transport.'



Transport and logistics

Strong investment in transport and logistic infrastructure both nationally and within Ovens Murray will likely drive growth over coming years. The region has also experienced good output in both manufacturing and agriculture, which flows through to demand for transportation of goods. The industry is currently experiencing a significant shortage of drivers of heavy combination and multi-combination vehicles, which is constraining output and creating a highly competitive labour market for businesses in the region. Employers felt that negative perceptions of the transport industry and lack of entry-level positions caused by age licensing restrictions and insurance premiums are likely contributing to the difficulty with recruitment. Other roles in areas such as warehousing and storage, are also in high demand, although these largely entry-level positions have been notably easier to fill.

Licences are a regulated requirement for many roles in the industry, such as truck driving. Most employers require licences prior to hiring but support progression of employers to additional licences following experience. Employers raised concern that the licence requirements do not always confirm the competency of workers to operate a vehicle in high-risk environments. Employers often look to additional training to provide further experience. The Certificate III in Driving Operations and other driver training opportunities will be important enablers of the development of highly skilled truck drivers.

Investment in logistic infrastructure will drive strong industry growth

The transport and logistics industry contributes just 4.2% of economic output in the region, but it is an important enabler of productivity in other sectors such as manufacturing and tourism. Given its strategic location along major transport routes, the region is also an important enabler of national output and growth. The transport and logistics industry supports the manufacturing and agriculture industries through distribution of goods to market. As a high export region, strong output in these sectors flows on to demand for transport and logistics services. Transport is also a critical enabler of tourism, as local bus lines support movement of tourists across the region.

Half of economic output in the industry is through road transportation, which reflects the region's position along major roads to Sydney, regional New South Wales and Melbourne. The strategic location of the region is attractive to major national freight companies, who utilise Ovens Murray to service their nationwide network. Ovens Murray has many freight companies, mostly focused on the transport of food, produce and manufactured goods. Other businesses also provide transportation of construction materials such as concrete and timber. The region is also home to substantial transport and logistics hubs including LOGIC in Wodonga, which has the ability to reach 75% of Australia's population within 24 hours. Warehousing and storage services is also a key sector, making up 30% of transport and logistics activity, with major businesses such as Woolworths Distribution Centre based in the region. Some manufacturing businesses have expanded to include warehousing and logistic capability.

The industry has potential for significant growth driven by increased demand for transportation of goods, investment in logistics infrastructure and strong output in other industries. Demand for transport and logistics services nationally has surged, especially throughout the pandemic, which prompted increased demand for transportation of goods. Given the strategic location of the region, nationwide growth drives increased demand within Ovens Murray. Growth in small goods such as parcel delivery has been notably high. This may increase Ovens Murray's relatively low share of postal and courier pick-up.

Growth is also driven by increased investment in logistics infrastructure both nationally and within Ovens Murray. The Australian Government is investing up to \$14.5 billion in partnership with the private sector to build a 1,700km rail freight project, Inland Rail, which connects Melbourne and Brisbane, passing through Albury Wodonga^v. This project will connect regional producers to markets and aims to keep pace with Australia's increasing freight demands. The Tottenham to Albury section of Inland Rail will upgrade 305 km of existing rail corridor between metropolitan Melbourne and the Victoria–New South Wales border at Albury Wodonga. The first stage of the project is to enhance 12 sites along the North East Rail from Beveridge to Albury and is currently underway.



Within Ovens Murray the set-up and success of the LOGIC centre has driven strong activity for the industry. Large businesses continue to invest in the strategic location to support national growth, and they are expanding their service offerings. Historically transport from this region has focused on direct transport routes up to eastern capital cities, although some businesses have capability and interest to expand to service east to west routes through to areas such as Perth.

Finally, recent strong output in agriculture, manufacturing and tourism is driving activity in this industry. Recent harvests in agriculture provide a good pipeline of produce to distribute nationally. Following the 2019-20 bushfires, Regional Development Victoria is also investing in salvaging burnt timber generating demand for transport of construction materials.

Table 26 | Transport and logistics: key labour market indicators and estimated growth 2022–2025^{3,5,8,16}

Share of region gross value added (GVA)	Share of total workforce	% of workers between 15 and 24	% of workers aged 60 and over	Estimated people in 2022	Estimated growth 2022–2025 (people)	Estimated growth 2022–2025 (CAGR)
4.2%	4.1%	6.2%	20.3%	~ 2,950	+200–300	+2.0–3.0%

Industry output relies on a strong supply of drivers

Transport and logistics employ 4.1% of the workforce in Ovens Murray. The transport sector employs a large proportion of the industry workforce relative to the output, while warehousing and storage has relatively small employment. This potentially reflects the ability to utilise machinery and automation in logistics.

Drivers make up the vast majority of labour in the transport and logistics industry. Most businesses employ drivers directly, although some utilise owner-driver models. Long-haul freight largely requires truck drivers in heavy and multi combination vehicles. There is also a high proportion of drivers in other medium or heavy rigid vehicles, such as for towing, local postal and courier services or passenger coaches. Drivers may also perform additional functions including production of materials such as concrete or providing customer service. Although technology has provided significant safety improvements to the transport industry, roles such as truck drivers are unlikely to be reduced by automation in the near future. Businesses focused on warehousing and storage mostly employ casual labour for packing. Many roles, such as packers, cross over into other industries such as manufacturing and agriculture. Other more specialised roles are employed on an as-needs basis, such as team leaders, system specialists and safety leads.

The transport sector is experiencing labour shortages across most roles. Employers have identified current vacancies of up to 10–20% to meet current demand. Most notably, the availability of truck drivers has been a progressively worsening challenge for the region. The industry is now reaching a pivotal point of concern where growth potential can only be realised with a large increase of truck drivers into the region. Age requirements for licences and high insurance premiums means the industry struggles to provide entry-level positions to attract school leavers into driving roles. Employers instead look to attract older workers from other industries. The shortage is especially high for heavy and multi combination vehicles, compounded by the high-risk activity and perceived nature of long-haul driving. For owner-drivers the investment required for these vehicles is a significant barrier to entry.

The industry is also seeing growth in non-operational supporting roles such as management and finance. Labour shortages in warehousing and storage are less acute. Although demand for casual floor staff such as packers continues to grow, employers experienced increased applications throughout the pandemic. This may result from the strong attractiveness of large employers with good entry-level working conditions.

Table 27 describes the occupations with the highest number of staff in the region and estimated growth in these occupations over the next 3 years.

Table 27 | Transport and logistics: top occupations and forecast demand^{3,5}

Top occupations ¹⁰ (based on ANZSCO)	Estimated workers in 2022 (people)	3-year forecast growth (people)
Truck drivers	~825	+130–160
Bus and coach drivers	~307	+ 80–90
Couriers and postal deliverers	~167	+ 40–50
Store persons	~214	+50–60
Automobile drivers	~107	+10–20
Forklift drivers	~154	+20–30
Delivery drivers	~191	+30–40
Transport services managers	~29	+0–10
Supply, distribution and procurement managers	~225	+10–20

¹⁰ Supporting roles such as receptionists, kitchenhands and commercial cleaners have been removed



Demand for transport training will increase

Increased demand for drivers will have flow-on demand for heavy vehicle licences and supporting training to build the competency of new entrants. Most employers in the transport sector require heavy vehicle licences prior to hiring and support progression of workers to different vehicles following sufficient experience. This could include light, medium or heavy rigid vehicles or heavy or multi-combination vehicles, depending on the type of transport required. Employers highlighted that a licence alone does not always confirm competency to operate the vehicle in high-risk environments. Unlike probationary licences, a heavy vehicle licence does not require proof of practice; an applicant must hold a licence for a designated period of time and pass a driving assessment. Employers often seek a worker with 12 months experience and conduct additional assessment and training in-house to confirm competency. Some large employers have substantial training capability with dedicated training machinery or vehicles. The Certificate III in Driving Operations is a valued qualification to support licences, providing additional knowledge on important concepts such as load constraints, especially given the high-risk nature of the activity. Although it is a valued qualification, workers and employers are unable to dedicate time to studying while working full-time, presenting a significant barrier to enrolment.

Driver shortages are unlikely to be met in the immediate term by locals, given the time required to build the skills of drivers. Any efforts to increase the supply of truck drivers will therefore rely on measures beyond the training system. International migrants could be an effective solution for sourcing labour, but there are currently immigration policy barriers. Consideration should be given to listing truck drivers on the skills priority list to better facilitate migration.

Employers in warehousing and storage mostly hire for attributes to fill entry-level roles. Additional training, such as the Certificate III in Logistics, demonstrates interest and capability but is not essential to hiring for many entry-level workers. Training can be utilised to upskill existing entry-level staff to fill team leader or management positions or to fill roles requiring technical expertise, such as forklift operation. Warehousing and storage businesses are typically large employers and are willing, and often prefer, to provide training internally before seeking necessary licences if required. There are a number of warehousing and logistics qualifications with high enrolments in the region, but these qualifications are largely offered to the defence industry rather than being valued by local logistics employers.

Table 28 | Transport and logistics: key qualifications and training requirements

Occupation groups (based on ANZSCO)	Top qualifications	2020 enrolments	Anticipated training requirement
Transport service managers	Certificate III in Warehousing Operations ¹¹	~40	Increase
	Certificate III in Logistics ¹¹	~50	Increase
	Certificate II in Warehousing Operation ¹¹	~45	No change
Truck, bus and coach drivers	Certificate III in Driving Operations	~170	Increase
	Certificate III in Heavy Commercial Vehicle Mechanical Technology	~260	Increase
	Certificate III in Light Vehicle Mechanical Technology	~90	Increase

¹¹ Certificate II and III in Warehousing and Certificate III in Logistics are likely also utilised by other industries such as manufacturing

There are opportunities for targeted programs to attract and train drivers

Industry leaders and employers in the region have identified specific opportunities for the sector with regard to vocational training. Table 29 provides an outline of key findings.

Table 29 | Opportunities for the transport and logistics industry

Situation	Opportunities
<p>There is a significant shortage of drivers within the industry, particularly with multi-combination and heavy combination licences.</p>	<p>Consider expanding driver training programs for targeted cohorts such as the Superior Heavy Vehicle Licensing (SHVL) Program for women at Wodonga TAFE. This program has been successful in attracting and training prospective drivers that may not otherwise have entered the industry. Other programs may support foundational skills and literacy for other cohorts including culturally and linguistically diverse people and licence applicants with low language, literacy and numeracy assessment scores.</p> <p>Continue and expand opportunities for partnerships with the training sector to deliver local transport training that builds the supply of workers. This can build on Australian Government's commitment towards the Heavy Vehicle Technology Program at the Wodonga TAFE.³³ This \$100 million program is currently in planning.</p> <p>Develop and promote training pathways to support heavy-rigid drivers to upskill to multi and heavy combination. Highlight the growth opportunities to encourage workers with a heavy-rigid licence to remain in the industry rather than shifting to other industries utilising the heavy-rigid licences.</p>
<p>There are limited entry-level positions available for school-leavers due to age constraints on obtaining licences and gaining insurance. The industry resorts to attracting workers from other industries.</p>	<p>Encourage employers to develop entry-level positions in other areas of the business and provide multi-year pathways to obtaining licences, which may include a Certificate III in Driving Operations.</p>
<p>The industry struggles to attract people due to negative associations with long-haul driving and the narrow perceptions of available roles in the industry.</p>	<p>Develop information resources to promote the industry to prospective workers. This may include collaborations with the industry to demonstrate 'on-the-job' experience, demonstrating the variety of roles available, including in areas of finance and business management, and working with schools to feed students into graduate programs. The graduate program in Queensland for example takes students through a Certificate III in Transport and Logistics with 2 to 3 days onsite with an employer, with an opportunity for hiring at the end of the program.</p>
<p>Obtaining a truck licence is not confirming competency of the workers to operate the vehicle in high-risk environments. Employers often look to hire workers with 12 months experience and conduct additional assessment or training in-house.</p>	<p>Develop mentoring and supervision programs for newly licenced truck drivers, including partnering new drivers with semi-retired drivers to support them to understand load constraints and work in a high-risk environment.</p> <p>Explore opportunities for new truck drivers to gain on-the-road experience on receipt of their licence. Employers could contribute trucks to support training.</p>



'The Ovens Murray region is ideally located on the national distribution and transport freight corridor creating potential for significant growth. Increased demand for transportation of goods, investment in logistics infrastructure and strong output in agriculture, manufacturing and tourism is driving this growth.'

Construction



Strong growth is expected in both residential and commercial construction, following investment in the region. Stimulus from the 2021 HomeBuilder Grant led to a backlog of new builds, generating further demand for housing. Growth is expected to continue following this surge provided land becomes available for additional housing developments. Economic activity across other sectors will also continue to sustain strong growth in commercial construction. Additional government investment in infrastructure for tourism, transport and the emerging industries of renewable energy and waste management will generate additional demand for commercial construction.

A large supply of tradespeople and apprentices will be required to support industry growth, especially over the coming year. Employers are currently experiencing significant labour shortages, especially for less attractive trades such as bricklaying. Additional workers will also be required for short-term infrastructure projects in the region. There will likely be strong demand for a diversity of trade qualifications to support additional workforce requirements. Employers value technical skills developed through apprenticeships, although they have concerns for the breadth of skills developed by apprentices in some highly specialised businesses.

Strong growth will be bolstered by stimulus programs and infrastructure investments

Construction is the fourth largest industry in the region and accounts for 9.1% of economic output. The industry serves residential, commercial and civil markets including houses, hospitals, schools, offices, retail trade as well as transport facilities and infrastructure. Residential construction businesses are more likely to be regionally based, whereas commercial and civil construction businesses work widely across the region and beyond.

The residential construction industry is an important enabler of growth in other sectors, supplying housing for large workforces and supporting self-contained accommodation for tourists. The tourism, education and health industries also drive demand for civil and commercial construction in the region, including education and health care facilities and tourism infrastructure such as resorts and walking and cycling paths.

Residential house prices have increased strongly in the region, and it is anticipated that this growth will continue. Alpine towns such as Bright, Myrtleford and Mounby Beauty experienced over 45% growth in house prices throughout 2021.⁴⁰ House prices alone do not suggest demand for residential construction activity; however, there are strong indicators from employers that more people are seeking to enter the region for the attractive lifestyle, increasing demand for new housing developments. The regional city of Wodonga has strong potential for expansion of residential developments. It is estimated that future medium-to-long term developments could accommodate up to 35,000 additional people over the next 20 to 50 years¹⁶. Strong ongoing growth in residential construction will be dependent on the release of land for housing developments.

In addition, the industry is experiencing a backlog following the HomeBuilder Grant.⁵³ The program stimulated the construction industry following reduced operations throughout the pandemic restrictions. In the 6 months following the announcement, businesses in residential construction sold up to 4 times their usual output. Although this program has generated a sizeable growth opportunity for the region, it has also created a number of challenges for employers who are experiencing significant supply constraints in materials. Material shortages in timber, Laminex and Polytechs extend beyond Ovens Murray and are a concern for the national industry, exacerbated by reduced international supply as a result of the pandemic. The material shortage disproportionately affects smaller businesses, who are unable to compete with large companies for strong supply contracts. Ability to capitalise on this growth opportunity will also depend on the availability of labour.



Strong growth and expansion prospects in other industries of health and community services, education and tourism are expected to drive continued growth in commercial and civil construction. Large infrastructure investments in the region include the construction of a new emergency department for Albury Wodonga Health, new walking and cycling routes to support the tourism industry, government priorities to upgrade power supply infrastructure and the North East Rail Line Upgrade.⁴² Construction is currently underway to enhance 12 sites along the North East Rail Line from Beveridge to Albury as part of the Inland Rail project. This 1,700km rail freight project will connect Melbourne and Brisbane, passing through Albury Wodonga.

Strong infrastructure developments will also be required to support the renewable energy and waste management industries. Four solar farms are currently under construction or in the pipeline across the Region, Winton Solar Farm, Kennedys Creek, Goorambat and Glenrowan West.^{54,55,56,57} In addition, Infrastructure Victoria’s advice on recycling and resource recovery recommends that between 5 and 10 of 87 sites for infrastructure investment to be developed in Ovens Murray. New infrastructure is likely to include paper separation plants, plastic processing plants, glass sand or aggregate plants and organic composting facilities.¹³

These major infrastructure projects are flooding the market with work in construction. Demand is currently exceeding supply, with many projects unable to get a response in tenders.

Table 30 | Construction: key labour market indicators and estimated growth 2022–2025.^{5,17}

Share of region gross value added (GVA)	Share of total workforce	% of workers between 15 and 24	% of workers aged 60 and over	Estimated people in 2022	Estimated growth 2022–2025 (people)	Estimated growth 2022–2025 (CAGR)
9.1%	8.7%	15.8%	10.9%	~ 6,250	+500–700 ¹²	+2.5–3.5%

¹² Excludes the temporary workforce required for construction of infrastructure projects in the region such as Inland Rail and solar farms.

Trades workers and apprentices will be required to meet the surge in demand

The construction industry employs 8.7% of the workforce in Ovens Murray. Businesses in the construction industry are diverse, comprising sole traders, small businesses, subcontractors and large corporations. Sole traders or subcontractors perform specialised roles onsite, such as concreting or electrical work. Small to medium businesses often hire directly, employing between 10 and 30 workers and subcontracting out work where required. Large corporations can employ large workforces directly but most often subcontract trades.

The commercial industry also includes registered commercial builders, who often win tenders for new builds. Registered commercial builders typically do not employ tradespeople or labourers, instead controlling the planning, administrative and site management components of large builds and managing subcontractors, who are often hired through a tender process.

Depending on the project type and trade requirements, businesses may employ a range of carpenters, joiners, electricians, plumbers, painters, fencers, plasterers and concreters as well as related labourers and technicians. Other roles include surveyors, construction managers and roles in earthmoving and truck driving. Apprenticeships are the most common pathway into entry-level positions in construction. Experienced workers in construction may then transition to surveyor or manager roles. Businesses also employ a variety of support staff, including in accounts, sales, marketing, personal assistants and other related roles.

Table 31 | Construction: top occupations and forecast demand^{3,5}

Top occupations ¹³ (based on ANZSCO)	Estimated workers in 2022 (people)	3-year forecast growth (people)
Carpenters and joiners	~926	+90-110
Plumbers	~739	+70-90
Construction managers	~760	+90-100
Electricians	~533	+80-100
Painting trades workers	~233	+40-50
Earthmoving plant operators	~308	+60-70
Concreters	~258	+20-30
Plasterers	~94	+10-20
Building and plumbing labourers	~189	+20-30
Bricklayers and stonemasons	~103	+10-20
Architectural, building and surveying technicians	~150	+10-20

¹³ Excludes workforce requirements of large short-term projects in the region (for example. solar construction).

Strong growth expectations will drive demand for workers across all roles. Demand for trade workers is expected to be particularly strong over the coming 6 months. The industry is currently experiencing significant shortages in trade workers and apprenticeships. Employers are concerned that without sufficient workers the industry will not be able to meet existing contracts. Many employers are unable to meet existing building contracts or are having to operate at reduced output. The shortage has also led to a very competitive labour market with flow-on effects on wage inflation. Some employers are seeing low return on investment from apprenticeships as workers pursue higher pay opportunities following completion, with businesses willing to pay a premium to secure labour. The trade shortage is acute across perceived less attractive trades such as bricklaying. Employers often need to use additional incentives, such as same-day payment, to attract and retain these roles.

Across commercial construction demand for operations and site management roles will likely increase to meet growth expectations. Additional workers are also expected to be required for the construction phase of infrastructure projects in the region. The construction of solar farms, for example, will comprise of solar accredited electricians, tradesmen, apprentices and labourers. In civil construction employers note a shortage of professionals with higher qualifications such as civil engineering.



There is strong demand for apprenticeships across the diversity of trades

There are 2 main entry pathways to the sector. The first is as a trades apprentice undertaking accredited training, and the second is as a labourer. The construction industry is a large user of vocational training, accounting for 14% of total training activity in the region despite employing only 10% of the region's workforce. Apprentices are often hired for attributes including attitude, work ethic, willingness to learn and capacity to meet the physical requirements of the role.

The Certificate III in Carpentry is the most utilised trade qualification. It is offered widely across the region. High enrolments are also noted in the Certificate III in Civil Construction Plant Operations relative to the size of the civil construction industry in the region. High enrolments in these 2 qualifications suggest that residential, commercial and civil construction are expanding in the region.

Given the 3 to 4-year training period required to complete an apprenticeship, it is likely that the industry will need to rely on the existing pipeline of apprentices to meet immediate demand for tradespeople. Even so, demand for licenced trades and apprenticeships is expected to increase to support the development of a sustainable, skilled workforce for continued growth in the construction industry. The industry emphasised the importance of quality apprenticeships, indicating that the quality of future construction work depends on the training and breadth of skills base received at the apprenticeship stages. However, many employers were concerned that the increasing use of contracted work and specialisation of businesses is reducing the exposure of apprentices to the diversity of skills required, diluting the overall skill set of the industry.

Businesses providing a specialised service, such as solar installation, desire apprentices but struggle to provide a well-rounded apprenticeship experience. This has also been noted by large commercial or civil businesses, who may hire no or few apprentices due to the lack of sufficient breadth received through multi-year contracts. There has also been an increasing tendency to delivery models that support training onsite rather than through a traditional block release. Employers value the development of intensive site skills for apprentices and often prefer to retain apprentices onsite to contribute to workload. However, they acknowledged that many were not getting the training they need and that expectations on employers need to be clear.

Employers also noted that there are training gaps for some specialisations within the industry, such as window installation and shed building. These trades require specific skills and competencies, but there is no linked qualification beyond a standard carpentry apprenticeship. Workers may have their experience in these specialisations recognised after 4 years of experience, but employers find it challenging to retain workers for this period of time without an accredited qualification. Additional qualifications or skill sets may be required to service these specialisations.

While apprenticeships are preferred by most employers as the primary pathway, there are an increasing number of builders, particularly in finishing trades, that look to labourers to fulfil entry-level roles. There are fewer barriers to entering the sector as a labourer, as no formal training is required; however, some employers indicated difficulty recruiting workers in roles such as concreting and plastering, which are often performed by labourers.

Table 32 | Construction: key qualifications and training requirements.

Occupation groups ¹⁴ (based on ANZSCO)	Top qualifications	2020 enrolments	Anticipated training requirement
Mobile plant operators	Certificate III in Civil Construction Plant Operations	~300	No change
Construction trade workers	Certificate III in Civil Construction	~35	Increase
	Certificate III in Carpentry	~335	Increase
	Certificate III in Electrotechnology Electrician	~195	Increase
	Certificate III in Plumbing	~125	Increase
	Certificate IV in Building and Construction (Building)	~95	Increase
	Certificate III in Painting and Decorating	~25	Increase

¹⁴ Certificate III in Civil Construction Plant Operations is likely also utilised by other industries such as agriculture



There are opportunities to improve the pipeline and delivery of quality apprenticeships

Industry leaders and employers in the region have identified specific opportunities for the sector with regard to vocational training. Table 33 provides an outline of key findings.

Table 33 | Opportunities for the construction industry

Situation	Opportunities
<p>Stimulus incentives have been effective in encouraging employers to take on some apprentices, including mature aged apprenticeships, but more can be done to encourage the delivery of quality apprenticeships.</p>	<p>Provide additional resources to encourage industry-led initiatives to continue to expand high-quality apprenticeship opportunities. This may include:</p> <ul style="list-style-type: none"> ensuring apprenticeship intermediaries fulfil their role as conduit between training providers and employers, acting as a ‘champion’ for apprentices ensuring quality supervisors and mentors are available to pass on best-practice expertise through generations of workforce exploring opportunities for sharing apprentices between employers to provide sufficient exposure to a range of skill sets across specialised businesses monitoring the effectiveness and rollout of the independent assessment pilot.
<p>Training pathways are not available for some specialisations. For example, shed building and window construction are having to use other less relevant qualifications or navigate difficult requirements to demonstrate certification.</p>	<p>Support the industry to work with the relevant, forthcoming Australian Government industry cluster to ensure suitable pathways exist for the full range of roles that exist in the industry such as shed and window installation.</p>
<p>The industry is still struggling to attract school students to apprenticeships due to negative perception of the industry as a career path.</p>	<p>Promote and support existing training pathways within school, for example school-based apprenticeships.</p>
<p>While there has been strong investment in training materials, providers and materials have not kept pace with industry best practice in construction.</p>	<p>Work with local training providers to update course program and learning material to reflect industry best practice in context of significant government investment in new courseware (for example, GOTAFE updating plumbing).</p> <p>Establish an ongoing partnership between employers and industry to regularly assess and update training programs and material.</p>
<p>There is an increasing shift to workplace-based training delivery, yet providers are not always equipping employers with an understanding of what is expected to ensure meaningful training.</p>	<p>Work with local training providers to establish guidance for employers, especially on delivering high-quality apprenticeships that deliver appropriate breadth of skills.</p>
<p>The industry is struggling to recruit prepared and job-ready apprentices.</p>	<p>Support aligned recruitment practices between apprenticeship providers and employers and develop programs that improve the job-readiness of incoming employees.</p>



Appendix B: Data sources



Employment estimates

Source: Victorian Skills Authority (VSA), Nous (2022), modelling of NSC (2022) Employment Estimates.

This modelling estimates employment by ANZSIC3, ANZSCO4 and SA2 (usual place of residence) at quarterly periods that match the historical Labour Force Survey.

Census 2016 data by ANZSIC3, ANZSCO4 and SA2 is used as the base data. Iterative proportional fitting has been used to adjust the 2016 Census using the marginal tools of:

Total employment (that is, without any industry or occupation dimension) by SA2 from the Small Area Labour Market (SALM) estimates

State by ANZSIC3 from the Labour Force Survey

State by ANZSCO4 from the Labour Force Survey

The net effect is that the broad interaction pattern of industry and occupation from the time of the Census is unchanged; growth in total employment at the regional level is matched from the SALM estimates; growth in particular industries and occupations in the state is matched from the Labour Force Survey.

Where an SA2 spans multiple partnership regions estimates have been apportioned on geographic area.

Detail on sources

Table 34 provides the sources used to input to the Nous (2022) modelling.

Table 34 | Data sources used to model SA2 employment estimates

Insight	Data source
Census data 2016 and 2021 (subject to released data)	Census data on employment by ANZSIC3, ANZSCO4 and SA2 usual place of residence.
Total employment by SA2	SA2 smoothed employment published by the National Skills Commission, calculated from the 'Smoothed SA2 labour force' sheet and 'Smoothed SA2 unemployment sheet of the 'SALM smoothed SA2 datafiles'.
State x ANZSIC3	ABS Quarterly Detail cube published by the ABS, EQ06. Full-time and part-time are added together.
State x ANZSCO4	ABS Quarterly Detail cube published by the ABS, EQ08. This cube does not distinguish between full-time and part-time

While the SA2 seed data is smoothed, the weighting is to marginal totals from ABS Quarterly Detail cubes. The end result is the historical employment estimates by SA2 are not seasonally adjusted but best estimates of the employment in the industry/occupation in the reference week for that quarter of the Labour Force Survey.

Employment forecasts

Source: Victorian Skills Authority (VSA), Nous (2022), modelling of NSC (2022) Employment Projections.

This modelling creates sets of forecasts by ANZSIC3, ANZSCO6, BGTOCC (Burning Glass Technologies Occupation Classification) and state that match published Australian Government forecasts. A separate exercise is conducted for each forecast publication year.

Burning Glass data by ANZSIC3 x ANZSCO6 by BGTOCC is used as the base data. This is scaled to match ANZSIC3 x ANZSCO3 x state totals for 2016 from the 2016 Census. These values are then scaled in turn with iterative proportional fitting to match National Skills Commission Labour Market Insights forecasts of employment by ANZSCO4 for Australia and ANZSIC1 x state.

The ANZSIC3 by ANZSOC4 forecasts are then allocated to LGA. This approach is:

Base data comes from the 2016 Census as ANZSIC3 and ANZSCO4.

Base values are scaled to total employment area from the Small Area Labour Market Estimates and to the ANZSIC3 and ANZSCO4 forecast totals, creating 2 data sets for each projection year: employment area by ANSZIC3 and employment area by ANZSCO4.

A new set of base data from the 2016 Census – employment by place of residence by ANZSIC3 and ANZSCO4 – is now scaled to match the 2 data sets.

Employment forecasts are a best estimate of industry and occupation growth by region. They provide an indication of change but do not, and cannot, tell the full story of the region's economy. Extensive stakeholder consultation has been conducted to supplement the quantitative approach. A taskforce comprised of industry leaders and education and training institutions from across the region have provided and approved adjusted forecasts that reflect the circumstances in the region.

Detail on sources

Table 35 provides the sources used to input to the Nous (2022) modelling.

Table 35 | Data sources used to model state and local government area (LGA) employment forecasts

Insight	Data source
Census data 2016 and 2021 (subject to released data)	Census data on employment by ANZSIC3 and ANZSCO3. Census data on employment by place of residence by ANZSIC3 and ANSZCO4.
Employment by occupation forecast	Labour Market Insights employment projections
Employment by industry forecast	Labour Market Insights employment projections. The given industry forecast period is often not available until some months after the occupation forecasts. As at May 2022 there were no 2021 to 2026 ANZSIC1 by state forecasts available. The 2020 to 2025 ANZSIC1 by state forecasts were used and scaled up to match the Australian total employment numbers in the ANZSCO4 forecasts.
Total employment by SA2	SA2 smoothed employment published by the National Skills Commission, calculated from the 'Smoothed SA2 labour force' sheet and 'Smoothed SA2 unemployment sheet of the 'SALM smoothed SA2 datafiles'.



Retirement estimates

Source: VSA, DAE and Nous (2022), Retirement projections 2022–2025.

Retirements are estimated by applying occupation-specific retirement rates to the employment forecasts outline above.

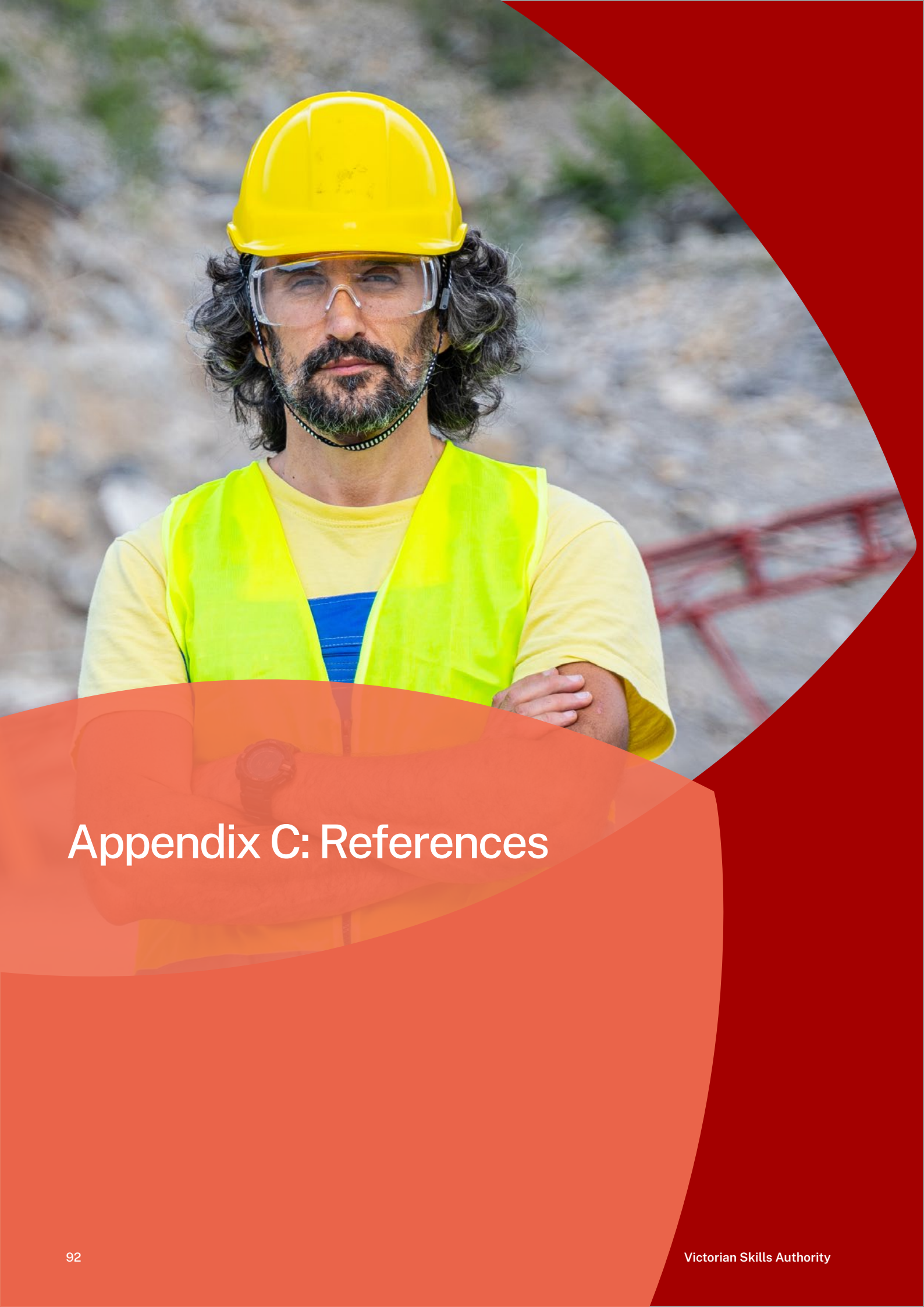
Using the Australian Census Longitudinal Dataset, an estimate of the size of the labour force aged 50 and over in 2016 was taken and compared to the size of the labour force aged 45 and over in 2011. After adjusting for migration, the gap is assumed to be a measure of retirement across the 5 years between 2011 and 2016. The relative age structures of occupations in the Census 2011 were then used to estimate retirements at the detailed occupation level (ANZSCO4).

The outputs were used to estimate an occupation-specific retirement rate, calculated as:

Retirement rate = retirements between periods t and t+1 / employment at t

The retirement rates to employment forecasts outlined above to estimate the number of retirements between 2021 and 2025 at the region (Regional Partnerships), industry (ANZSIC1) and occupation (ANZSCO4) level.





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