




Loddon Campaspe
**Regional Skills
Demand Profile**
2023



**Victorian
Skills Authority**



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and Regions



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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 Loddon Campaspe Regional Skills Demand Profile is complementary to the Loddon Campaspe 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 provided in the profile has been validated and adjusted with a Regional Skills 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 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>





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Executive summary

About the Loddon Campaspe region

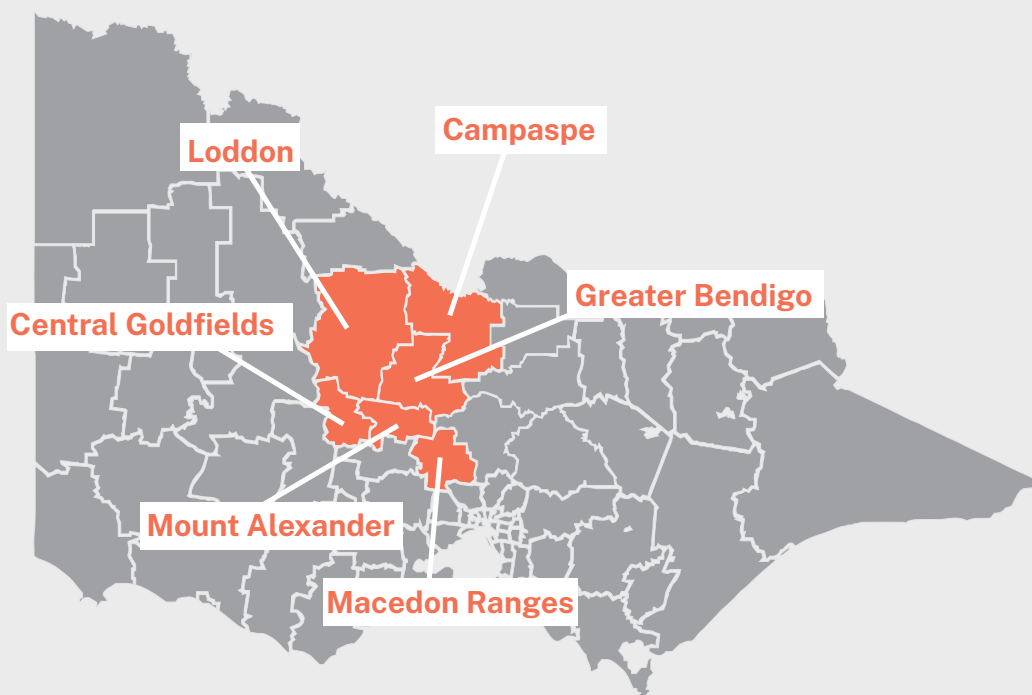
The Loddon Campaspe region is situated in central Victoria with a population of more than 253,000 people.¹ The region is home to the Dja Dja Wurrung, Taungurung, Baraba Baraba, Ngurraillam, Wurundjeri and Yorta Yorta peoples.

The Loddon Campaspe region is a diverse region that extends from the peri-urban fringes of Melbourne through to the Murray River on the New South Wales (NSW) border. At the centre of the Loddon Campaspe region is Bendigo, Victoria's third largest city. The region has a rich history that dates back to the gold rush. Historic towns, diverse natural landscapes, and rich cultural and creative experiences make the Loddon Campaspe region home to some of Victoria's top tourist destinations.

Running through the centre of the region is the employment and innovation corridor which connects Melbourne to Bendigo and through to Echuca. It provides road and fast rail connectivity through much of the region and is underpinned by enabling physical and digital infrastructure. This corridor has provided the platform for significant population and industry growth, and many towns along the southern parts of the corridor are now within commuting distance of Melbourne. With a population that is 17% higher than in 2011,² demand for service-based industries, such as education and health care, is growing, construction demand is booming to keep pace with residential and commercial growth, and the professional services sector is expanding to create employment hubs across the region.

Loddon Campaspe has a well-established food and fibre sector that prides itself on its reputation as a UNESCO City of Gastronomy. The agricultural industry is experiencing intensification and adopting new innovations to drive productivity, which is changing the nature of skills and training required in the region. Food product manufacturing is also a key driver of economic growth and jobs in the region, while manufacturing more broadly is becoming increasingly advanced as industry transitions towards higher value manufacturing, particularly in circular economy and renewable technologies. Loddon Campaspe is home to Victoria's largest gold mine and the ground released for further gold exploration in 2021 is expected to generate significant economic growth and jobs in mining and exploration.

Figure 1a: Overview of the Loddon Campaspe region

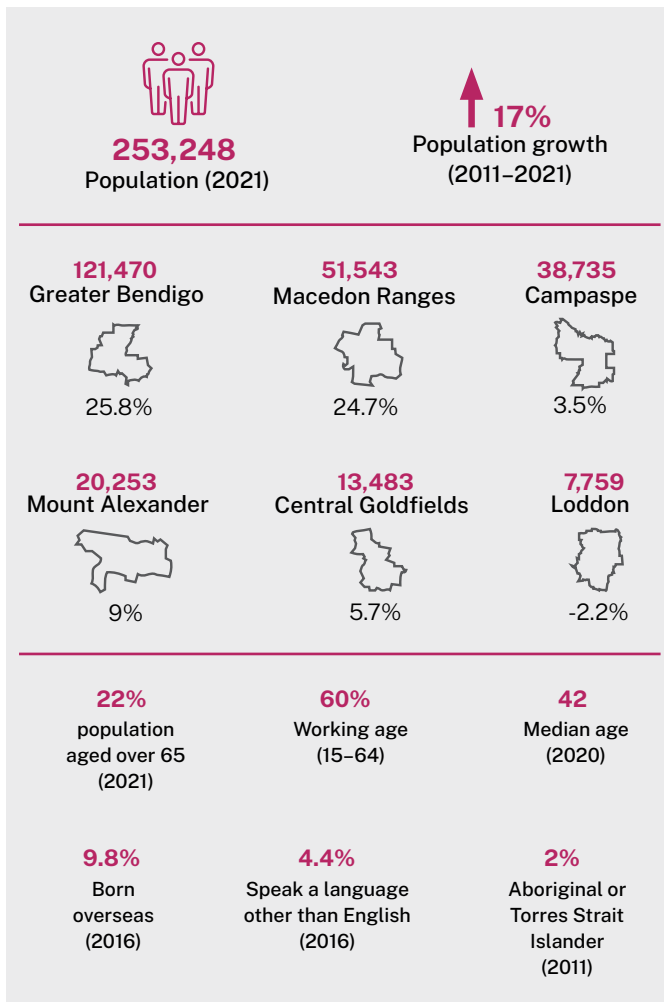




A regional population on the rise

It is estimated that the Loddon Campaspe region will experience projected population growth of approximately 19% between 2021 to 2036,⁶ reaching an estimated population of 300,770 by 2036.⁷ The Greater Bendigo region is set to grow by 25.8% by 2036, outpacing the average expected population growth across the state, which highlights the continued importance of Bendigo to the region and the broader Victorian economy.

Figure 1b: Overview of the Loddon Campaspe region.^{3,4,5}



A regional economy with growth potential

Loddon Campaspe’s economic strength makes the region an attractive location for population and industry growth. In 2021,⁸ the region had a gross value added (GVA) of \$9.2 billion, making it the third largest regional economy in Victoria.

Following a period of fluctuating economic growth over the last 20 years, due in part to the impacts of the Millennium Drought in agriculture concentrated areas,⁹ there is growing industry investment and a desire for growth within Loddon Campaspe. Coupled with a population on the rise, Loddon Campaspe will require greater investment in social infrastructure and services and a skilled workforce to support current and emerging industry growth.



There are a range of factors and initiatives at a local, state, and federal level informing and driving the strategic directions for the Loddon Campaspe region. The Loddon Campaspe Regional Economic Development Strategy (REDS) released by Department of Jobs, Skills, Industry and Regions (DJSIR) in May 2022 lays out the medium to long-term strategic directions for driving socioeconomic growth and development across the region:

- support growth in agriculture and food product manufacturing to enhance value adding throughout the supply chain
- pursue diversification of the tourism sector by leveraging natural, cultural, and built endowments
- maximise gains in the 'employment and innovation corridor' to attract professional services workers and entrepreneurial activity
- foster better links between education providers, industry, research, employers and students to develop career pathways and a workforce that meets the future needs of the region

- leverage local opportunities to strengthen value chains and diversify into new industries, including in mining, renewable energy, and waste processing.

The development of a skilled supply of local workers is vital to enable sustainable industry growth and innovation, which will in turn continue to enhance social and economic prosperity for the Loddon Campaspe region.

Key to supporting Loddon Campaspe's continued success is the need for a skilled, future-proof workforce that can grow and develop with the region to meet the current, emerging, and future community and industry needs.





Outlook on jobs growth

The Victorian Skills Authority (VSA) 3-year employment projections show that there is significant demand for workers in the region – with over 6,900 additional new workers required in the 3 years between 2022 and 2025.¹⁰ Also, at least 5,600 workers will be needed to replace retirements.¹¹ Table 1 provides estimates of job growth across the 7 key industries in Loddon Campaspe.

Discussions with the Loddon Campaspe Regional Skills Taskforce and industry roundtable participants highlighted a range of additional factors that need to be considered alongside these forecasts – suggesting that the impact of recent government policies and industry investment across the region is likely to drive higher demand for workers than forecasted. Additionally, current labour shortages and vacancies across the region are not captured in the projected demand. The type of skills required by industry is also becoming more complex, highlighting the need to ensure workers are equipped with the skills that meet industry’s evolving needs.

Table 1: Estimated new job demand outlook for 2022–25 by industry

Industry ¹	Estimated current workers 2022 ²	New workers to fill new jobs ⁶	New workers to fill retirements ¹³	Total new workers needed ²
Cultural, creative and visitor economy	20,970	1,640	970	2,650
Heavy industries	9,210	80	610	730
Health care and community services	23,150	1,890	830	2,730
Infrastructure	12,520	640	500	1,160
Food and fibre	12,840	70	430	530
Business, professional, and public administration services	19,390	1,350	1,060	2,490
Education and training	11,610	770	470	1,260
Other	16,430	460	740	1,290
TOTAL Please note totals may not add due to rounding	126,110	6,910	5,610	12,820






1 See Appendix C for details on the mapping of Loddon Campaspe’s key industries to ANZSIC industry classifications

2 Note that total new workers needed may not necessarily be the sum of new workers to fill new jobs and new workers to fill retirements. Totals may not add due to rounding.

Priority skills needs for Loddon Campaspe

Most industries are reporting the need for high-level skills, especially with the increasing use of digital and automation technologies to respond to clean economy adaptation, new markets, and higher consumer expectations. Many of these emerging skills can be transferred across occupations and industries which will entail a new approach to skilling which is important for a region like Loddon Campaspe. Education

and training organisations also need the flexibility to deliver skilling interventions that can meet these needs. While each industry has identified gaps and additional requirements for sector-specific skills and capabilities, there are common priority requirements across all major industries in the Loddon Campaspe region. These relate to key capabilities that industry representatives believe individuals should have an awareness of when they enter the workforce and should focus on developing as their career progresses.

		
Core competencies	Digital and technology skills	Leadership skills
<p>The importance of soft skills is reflected in the framing of these skills as core competencies. Common personal and social skills include interpersonal communication skills, emotional intelligence, conflict resolution skills and an ability to collaborate and work in teams.</p>	<p>Jobs will increasingly involve humans working with machines, which means that future work will require people with technical, digital, and interpersonal skills that empower individuals to work with new technological and communication processes.</p>	<p>There is an identified need to uplift capabilities of existing workforces to meet current gaps in leadership and management positions, ranging from younger workers with limited experience, as well as qualified staff to step into more senior management positions.</p>
		
Business development skills	Localised knowledge	
<p>Strong demand across many sectors has led to a steady pipeline of work and potential for growth. To take advantage of these opportunities, individuals and businesses require business development and engagement skills and competency in sales and marketing to tap into new markets. Additionally, a growth mindset that demonstrates problem solving and critical thinking capabilities is likely to extend the lifespan of the current opportunities.</p>	<p>Loddon Campaspe is a unique region with a strong history, passionate people, and a mixture of both natural and industrial assets. Individuals and organisations can capitalise on this point of difference to attract and retain workers to the area. Localised knowledge includes an appreciation of Aboriginal continued connection to Country and culture, understanding of the legacy of heritage industries and passion for environmental conservation.</p>	



Key challenges and opportunities

This profile is being prepared in a complex and challenging period. Like other parts of Victoria, Loddon Campaspe is facing cost-of-living pressures, significant labour shortages, and the continued recovery from the pandemic. These are exacerbated by underlying challenges in the region such as housing accessibility, access to child care, teacher and trainer shortages and access to public transport.

At the same time, feedback indicates that the education and skills system, as well as industry itself, also needs to transform to meet changing needs of students, workers, industry, and the community.

The Loddon Campaspe Regional Skills Taskforce and industry roundtables raised a number of common challenges related to workforce skills and training in Loddon Campaspe. This provides a clear set of opportunities to address cross-cutting workforce and skills needs.

Challenge	Opportunity area
Perceptions of jobs across the major industries	1. Promote the benefits and opportunities within key industries
Greater coordination across education providers and industry can promote the benefits and attractiveness of industries in the region. This includes breaking down stereotypes often associated with traditional industries and pointing to the new types of jobs emerging across the region as a means of attracting and retaining workers in the region.	
Limited understanding of industry growth and career pathways	2. Promote awareness of industry activity and associated career pathways
Targeted initiatives can increase understanding about industry growth areas within Loddon Campaspe's major industries and increase visibility of possible career pathways. This includes pathways within and across industries built on transferable skills, which also need to be promoted and communicated more to employers.	
Alignment between education and training and workforce needs	3. Leverage industry experience to develop innovative training approaches
Employers and industry representatives can play a more active role in the design, planning and delivery of innovative education and training approaches, such as transferable and future skills, to help with mobility of workers for easier movement between jobs in the region.	
Barriers to accessing education and training	4. Identify and address the barriers to participation in education and training and transition to employment
Investment in innovative education and training approaches and supports, including non-traditional pathways, can help address declining enrolments that are impacting the readiness of the future workforce and improve workforce participation and engagement among underrepresented cohorts.	
Inter and intra-sector workforce competition	5. Promote greater inter and intra-sector collaboration amongst businesses
Facilitating collaboration between businesses through alternative approaches that focus on growing the skilled workforce, rather than competing for the same, limited workforce, presents an opportunity for sustainable solutions to addressing current labour shortages.	
Risk of a low-skilled workforce	6. Increase opportunities for continual learning and development
Advocacy, promotion, and facilitation of opportunities for life-long learning through micro-credentials ³ , short courses and personal and professional skills development has been identified as a key solution to address skills gaps. This is particularly important in an environment where labour shortages are leading employers to recruit under-qualified employees and, or employees with no experience or relevant qualifications.	

³ Micro-credentials are shorter style courses (and in some instances accredited qualifications including Skills First Skill Sets) that demonstrate skills, knowledge, and, or experience in a given subject area or capability.

Next steps to address regional skills and workforce needs

The specific actions across the 6 key response areas are summarised below. The Loddon Campaspe Regional Skills Taskforce identified the timeframe for each action (immediate, medium, or long-term), and how complex each

action may be to implement (low, medium, or high). Some are actions the VSA will seek to address over the coming year, while others will require coordinated action by industry, government, and the education sector. An action plan will be developed in collaboration with the community.

		Immediate impact (1–2 years)	Complexity
Opportunity area	1.	Provide capability, organisational and administrative support to strengthen connections across the region between education, industry, and non-traditional experience pathways across Loddon Campaspe’s major industries	Low
	2.	Targeted engagement with students, vulnerable and underrepresented communities, and industry to build awareness of education and training and career pathway opportunities	Low
		Publication of industry data and trends for current and prospective students, parents, and career counsellors	Medium
	3.	Provide wider access to existing industry-specific training materials and facilities to prepare students and prospective employees for employment	Medium
		Collaboration across industry and education and training institutions to design and deliver industry recognised short courses, including micro credentials	High
	4.	Undertake explorative research to better understand the data, trends and factors affecting participation in education and training	Medium
		Prepare prospective students to enter formal learning through non-traditional program pathways	Medium
	5.	Actively support the Bendigo Education Plan ¹⁴	Low
		Provision of data and insights to support workforce planning	High
		Facilitate peer learning and cross-business mentoring	Medium
	6.	Review and redesign recruitment processes to prioritise core (soft) skills, alongside technical competency	Medium
		Promotion of micro-credential courses that can meet industry and employee skill development needs	Low
		Design and delivery of micro-credential courses to upskill employees	Medium



Medium-term impact (2–5 years)		Complexity	
Opportunity area	1.	Support the Senior Secondary Pathways' reform agenda through facilitation of local opportunities to improve VET within the region	Medium
	2.	Expand engagement activities with students and their networks	Medium
		Develop and improve visibility of cross-industry career pathways	Medium
	3.	Work with the VET Development Centre (VDC) and industry expertise to support teacher training and development	Medium
		Encourage industry and education providers to take a place-based approach to course design and delivery	Medium
	4.	Highlight the opportunities and benefits of lifelong learning	Medium
	5.	Advocate for simplifying participation pathways for workers in transition across industries or mature and retiring cohorts	High
		Shared recruitment pools across organisations where appropriate or feasible	High
	6.	Increase access and provision of support for Aboriginal people to enter education, training, and employment through working closely with Traditional Owners	Medium
		Promote a culture of learning through establishing communities of practice around different industries, technological innovations, or skill level cohorts	Medium

Longer-term impact (in 5+ years)		Complexity	
Opportunity area	1.	Promote the successes of industries or sectors in the Loddon Campaspe region and appropriately recognise the value of 'everyday' jobs that enable other activity	Low
		Facilitate recruitment and support activity for underrepresented and non-traditional cohorts	Medium
	2.	Provide local insights to support the development of the annual Victorian Skills Plan	Low
		Facilitate a smooth flow of teachers between industry and training	Medium
	3.	Partner with regional, community and other industry bodies to improve access to a holistic suite of support services for students completing their studies	Medium
		Advocate and support local initiatives to address housing accessibility challenges that are impacting participation in education and training, employment and upskilling of current and prospective learners and workers	High
	4.	Future skill requirement planning and mapping	High

This profile acknowledges the issues facing the region and industry go beyond the identified workforce and skills challenges. Industry roundtables identified broader responses are required to support future growth in the region, including state and federal government policies and funding. The Victorian Skills Authority (VSA) will continue to raise these with relevant areas of the Victorian Government.

Approach to developing Loddon Campaspe Regional Skills Demand Profile

The profile was developed through research, qualitative and quantitative data analysis and consultation about the region's economy, population, workforce, and education and skills environment. Consultation involved the Loddon Campaspe Regional Skills Taskforce and representatives from key industries, as well as education representatives within the region. The perspectives of other community stakeholders, including Aboriginal people and Elders were captured in the profile. The data presented was obtained and analysed from various reputable sources, as referenced throughout the profile, and represents the latest accurate data at the time of taskforce meetings and profile development.

The insights and opportunities identified are a starting point for industry, education and training institutions, and government to forge responses. The onus remains on all stakeholders to sustain collaboration, so that the people of Loddon Campaspe have access to skilling opportunities that help them to develop their skills and prosper.



'Most industries across Loddon Campaspe are reporting the need for high level skills, especially with the increasing use of digital and automation technologies.'

Acknowledgements

Acknowledgement of Country

The Victorian Skills Authority (VSA) acknowledges and recognises the Traditional Owners of the land. The region is home to the Dja Dja Wurrung, Taungurung, Baraba Baraba, Ngurrailam, Wurundjeri and Yorta Yorta' peoples, their connections to land, sea and community. 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 (RDV). 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.

The Loddon Campaspe profile complements and draws on to the Loddon Campaspe Regional Economic Development Strategy (REDS) and other sources.

Due to the specific focus and needs of the profile, alternative data has been required for some aspects of the analysis. As a result, some data and information between the REDS and the profile may differ. The data and information provided has been validated and adjusted with a Regional Skills Taskforce comprised of industry leaders, education providers and other stakeholders from across the region. The analysis and insights gathered throughout the development of this profile has also served as a critical input to the development of the inaugural Victorian Skills Plan.

Refer to the introduction for further information on the Regional Skills Demand Profile and connection to the Victorian Skills Plan.





Acknowledgement of Regional Skills Taskforce members

The VSA acknowledges the time, contribution, and insights of the Loddon Campaspe Regional Skills Taskforce (Table 2) and additional representatives from industry, local government, training providers, and related agencies who contributed to the development of this profile.

The findings in this profile would not be possible without their openness, generosity, expertise, and commitment to the regional economy and community.

Table 2: Regional Skills Taskforce members

Member	Organisation	Member	Organisation
Andrea Noonan	Bendigo Health	Luke Martin	Bendigo Trades Hall Council
Brett Hosking	Grain Growers Association and Farmer	Marnie Baker	Bendigo and Adelaide Bank
Dave Richardson	Bendigo Kangan Institute of TAFE	Mick Josey	Fairbrother
Deanne Armstrong	Committee for Echuca Moama	Nickola Allan	Maryborough District Health Services
Dominique Trickey	Crossroads Town Planning	Rachel Lee	Regional Development Victoria (Department of Jobs, Skills, Industry and Regions)
Julie Rudner	La Trobe University	Roslyn Hames	Clear Dynamics
Kate Nuttall	Don KR Castlemaine	Steve Wroe	Daylesford Macedon Ranges Tourism
Kathryn Mackenzie	Echuca, Moama and District Tourism Association	Sue Mills	Agnico Eagle

The following delegates were also involved in the Regional Skills Taskforce meetings: Robert Musgrove (Bendigo and Adelaide Bank), Ann Lansberry and Mark Costello (Dja Dja Wurrung) and Hayley Cail (Regional Development Victoria).

The VSA acknowledges and thanks the industry representatives who have participated in the industry roundtables and provided direction and guidance on the development of this profile.

Introduction

Purpose and scope of the Regional Skills Demand Profile

The VSA has a role 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.

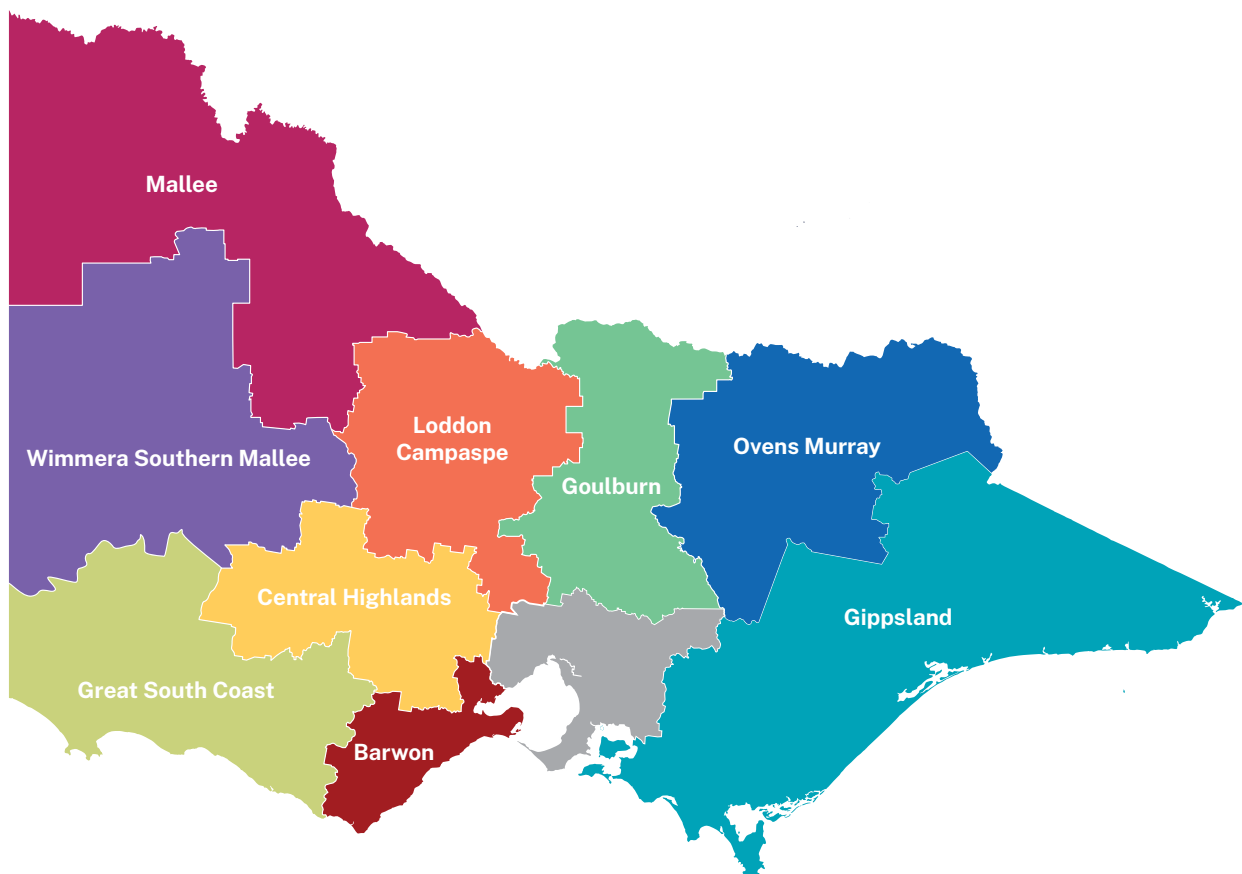
A strong regional Victoria is an integral contributor to fostering a thriving Victoria, and the Regional Skills Demand Profiles are an important element of setting the regions up for success.

The purpose of the profiles is to provide a robust evidence base of skills and workforce demands to guide education and skills responses in the region. It draws on a wide range of data and information supplemented by insights and experience of key stakeholders, brought together as a Regional Skills Taskforce and industry roundtables.

The profiles are developed through a collaborative 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 developed 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 Loddon Campaspe 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.

Figure 2: Victorian Regional Partnerships map



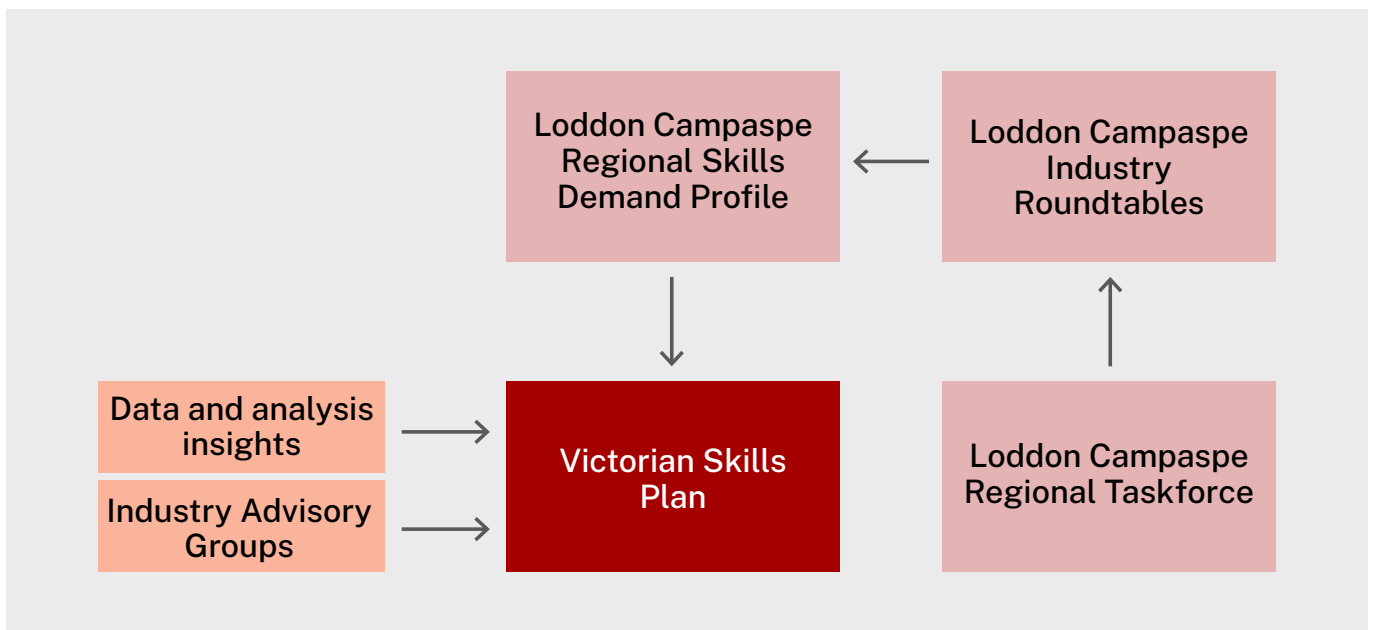


Connection to the Victorian Skills Plan

The Victorian Skills Plan outlines current and emerging skills needs and labour market shortages across the state, at both industry and local levels, to direct more targeted investment so the Victorian skills system can meet the current and emerging demands of industry and the community.

As the first of many, the inaugural plan, alongside the profiles, highlights the need for ongoing conversation and collaboration to address current and emerging skills requirements. While the plan covers the current landscape of the Loddon Campaspe region and industry needs, this profile focuses more deeply on the localised challenges and opportunities for the Loddon Campaspe region.

Figure 3: Connections between the Regional Skills Demand Profiles 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

Loddon Campaspe: a diverse region

The Loddon Campaspe region is situated in central Victoria, encompassing the Local Government Areas (LGAs) of Campaspe, Central Goldfields, Greater Bendigo, Loddon, Macedon Ranges and Mount Alexander, with a population of more than 253,000 people.¹⁵ The Loddon Campaspe region is a diverse region that extends from the peri-urban fringes of Melbourne through to the Murray River on the New South Wales (NSW) border.

Before British settlement and continuing today, the region is home to the Dja Dja Wurrung, Taungurung, Baraba Baraba, Ngurraillam and Yorta Yorta peoples. There are several heritage sites across the region which hold spiritual, social, environmental, and economic value and a strong ongoing focus on embedding Indigenous history and culture in new investments throughout the region. Delivered through collaboration between Mount Alexander Shire Council, the Victorian Government, Sharing Stories Foundation and Nalderun Education Aboriginal Corporation, the Welcome to Country, multi-layered display in the Castlemaine Market building (Visitor Information Centre) showcases the historic and contemporary stories of the local Jaara people of the region.¹⁶

At the centre of the Loddon Campaspe region is Bendigo, Victoria's third largest city. Bendigo is an historic, vibrant city founded in the mid-1800s. Bendigo is a cultural hub that hosts a wide program of festivals, events, cultural and heritage activities, as well as world-class exhibitions at the Bendigo Art Gallery that attracts tourists from all over the country. The Greater Bendigo region is set to grow in population by 25.8% by 2036,¹⁷ outpacing the average expected population growth across the state, which highlights the continued importance of this city to Victoria.

The southern parts of the Loddon Campaspe region border the peri-urban fringes of Melbourne. Towns like Gisborne, Macedon, Woodend and Kyneton in the Macedon Ranges Shire, as well as Bendigo, are well-connected via road and rail, and are now within commuting distance of Melbourne. As such, population growth in the southern parts of the region has been particularly strong over recent years, as people move to regional areas for 'tree-changes' while working flexibly. In the south-west, towns like Maryborough, Dunolly and Talbot are closer to other regional centres such as Ballarat in the Central Highlands region.

The Loddon Campaspe region also extends out to the north to border NSW, and westward towards the Mallee region. Key towns in the northern parts of the region include Boort, and the Murray River town of Echuca which forms the northern point of the region's innovation and employment corridor. The latter faces unique challenges with respect to education and training such as course eligibility, with students in both Echuca and Moama (NSW) in proximity to institutions in either state.

The Loddon Campaspe region prides itself on its reputation as a UNESCO City and Region of Gastronomy, and this is the foundation for its strong food and fibre sector. The agricultural sector has historically been one of the largest industries in the region due to its fertile land and access to domestic and export markets. Food manufacturing and hospitality (including farm to table and food tourism) is also a significant focus for the region.

Loddon Campaspe is a historic gold mining region sharing a deep history dating back to the Gold Rush. Today, the region is home to Victoria's largest gold mine, Fosterville. The ground released for further gold exploration in 2021 is expected to generate significant economic growth, and jobs in mining and exploration.

Figure 4: Map of the Loddon Campaspe region





The Victorian Government is committed to investing, planning and delivering strategic initiatives that have a positive and sustainable impact

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 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.¹⁸

The government’s skills reform agenda seeks to transform the delivery of senior secondary education and vocational education and training.

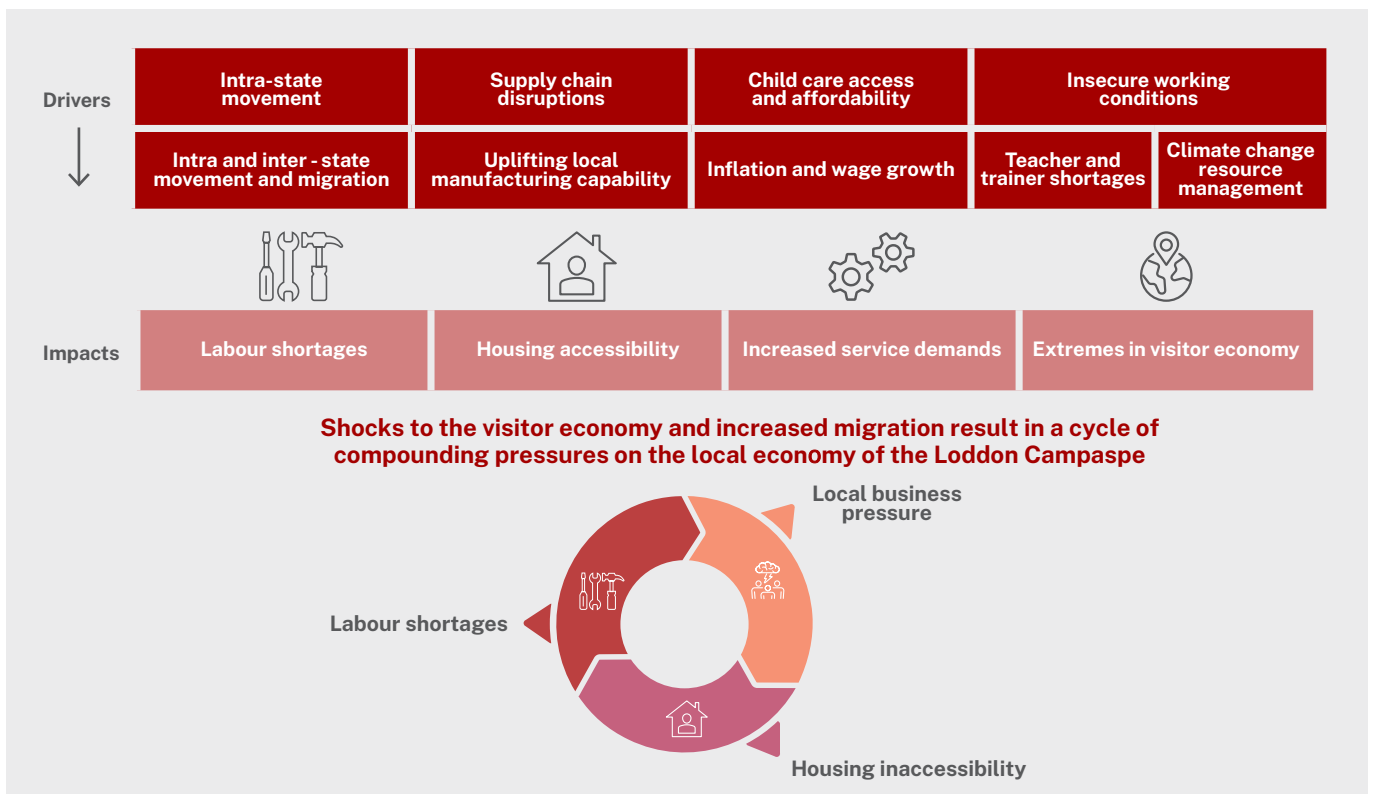
This agenda will ensure Victorians have access to high-quality education and training to seek out meaningful jobs and careers, industry and employers have access to a skilled workforce. In combination these lead to individual and community wellbeing and economic prosperity.

State-wide trends and the impact on the Loddon Campaspe region

This profile has been prepared in a complex and challenging period. 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 existing challenges.

Conditions being experienced locally result from the impact of these megatrends such as supply chain disruptions. These provide the context for the skills and workforce challenges outlined in this profile.

Figure 5: Megatrends impacting the Victorian economy



Strategic directions for the Loddon Campaspe region

The Loddon Campaspe region is unique in its strengths and future opportunities. While this profile explores the current and emerging skills needs of the region, it is essential to note the wider planning that is informing the strategic directions for the region.

Figure 6: Strategic directions of the Loddon Campaspe region

Invest Loddon Mallee local priorities

Local	City of Greater Bendigo (UNESCO City of Gastronomy) 'Connected, creative, culturally strong. Bendigo is highly-liveable and proactively growing its surging and progressive economy.'	Macedon Ranges 'Progressive, flourishing, outward looking. Sustainability is at the heart of the region's vision of economic development.'	Central Goldfields 'Strategically placed between Bendigo and Ballarat, but with more space to grow. Join a diverse and dynamic business community burgeoning across industry sectors.'
	Loddon 'Space, character, ambition. The place for next gen agribusiness supported by a professional services sector growing five times faster than the Victorian average.'	Mount Alexander 'Where creativity and innovation are driving economic growth across sectors, and sustainable development is a community priority.'	Campaspe 'One of Victoria's most dynamic and diverse agriculture and food production regions. Campaspe is also experiencing huge growth in its mining sector.'
State	DJSIR Regional Economic Development Strategy for Loddon Campaspe (REDS), June 2022.		
Federal	Local jobs plan Increasing participation and training programs		Region strengths and weaknesses report Identifying the infrastructural pipeline.





The Loddon Campaspe REDS identifies 5 strategic directions for the region, which have been used to support the identification of future skills needs.

The Loddon Campaspe REDS,¹⁹ released by Department of Jobs, Skills, Industry and Regions (DJSIR) in May 2022, sets out the medium to long-term strategic directions for socioeconomic growth and development across the region. These are founded in an evidence base that considers the region's unique attributes, existing and emerging industries, and socioeconomic context.

1. Support growth in agriculture and food product manufacturing to enhance value adding throughout the supply chain

The Loddon Campaspe region has opportunities to increase the value of local supply chains as a result of new and emerging technologies and advanced manufacturing capabilities, particularly related to agriculture and food product manufacturing.

2. Pursue diversification of the tourism sector by leveraging natural, cultural, and built endowments

Cultural tourism, heritage, food and gastronomy is integral to the region's tourism industry. Loddon Campaspe is well positioned with opportunities to offer unique experiences backed by a strong Aboriginal history, cultural significance, natural landscapes, and local creativity that can be leveraged to actively pursue diversification of the region's tourism sector.

3. Maximise gains in the 'employment and innovation corridor' to attract professional services workers and entrepreneurial activity

Entrepreneurship, business collaboration and population movement will drive opportunities to attract and retain professionals and continue to develop the region as a finance hub.

Investment across Loddon Campaspe and the changing consumer and community preferences is growing the attractiveness of the region as a place to work and live. This is supported by the increasing presence of major employers, given that the region borders NSW and has access to the Bendigo Airport.

4. Foster better links between education providers, industry, research, employers and students to develop career pathways that meet the future needs of the region

Loddon Campaspe is home to leading local education and training institutes that are supporting increased access and transformation in the sector to support lifelong learning for current and prospective students and workers.

There is significant breadth of existing activities, initiatives and programs within the region that could be better leveraged to strengthen collaboration and coordination across the jobs' ecosystem.

5. Leverage local opportunities to strengthen value chains and diversification into new industries, including in mining, renewable energy and waste processing

Local innovation and advanced manufacturing capabilities present opportunities to drive investment in mining and exploration value chains and promote the growth of bioenergy generation and circular economy processing in the region.

More broadly, there are a range of factors and initiatives at a local, state and federal level informing and driving the strategic direction and focus on skill development within the Loddon Campaspe region.

The Greater Bendigo Economic Development Strategy (2020–2030) frames the strategic vision of the region for 2030 ‘to shape an inclusive, sustainable and prosperous community where all people can thrive’.

The strategy focuses on the criticality of developing a region that brings a global perspective and reach while remaining attuned to the importance of local community, identity and networks. In close alignment with the REDS, the Greater Bendigo Economic Development Strategy identifies 4 strategic directions which are to: grow sustainable jobs and investment; increase liveability in the region; strengthen links between employment, education, skills and training offerings with the city and region’s needs; and be widely envied as a leader in innovation, environmental and climate change initiatives.

Local tourism and education focus

The Loddon Campaspe Regional Partnership outlined several long-term, strategic areas of focus, including a strong, diverse economy, active communities, and safe, supported and engaged young people.²⁰

The region has a strong, existing commitment to ‘growing from within’ while attracting the right investment into traditional and social infrastructure that will enable sustainable growth for current and future generations within the region.

Bendigo as a UNESCO City of Gastronomy is recognised as a ‘foodie and creative hub’ with over 120 wineries and breweries, more than 395 small-scale, niche and artisanal producers in the region and 16 regular community and farmers markets; the region is a hotspot for local residents, day trippers and tourists alike.²¹ The towns of Bendigo, Echuca, Heathcote and Mount Macedon were recognised in the 2022 Top Tourism Town Awards for their respective categories, including gold and silver for the former 2 towns. Awards such as these reflect the strong reputation of the region as a tourism destination.

With gaps in access and historical challenges with participation in education and training, the Bendigo Education Plan brings together a range of key stakeholders to develop and implement a localised 10-year plan (2018 to 2028) to increase access to educational opportunities and outcomes for the region in line with the Education State vision.²²

Other key initiatives across the region include the Early Years Language and Literacy Strategy and the Keep in Touch (KIT) Initiative, a program co-designed by young people in the region to better support young people’s mental health.²³

Agriculture and food production focus

Growth in agriculture and food product manufacturing is another core priority for the Loddon Campaspe region.

The Victorian Infrastructure Plan 2021²⁴ lays out the government’s infrastructure priorities across 8 sectors, including significant projects, reform directions and funding over the next 5 years and beyond. The plan also responds to each of Infrastructure Victoria’s 94 recommendations in Victoria’s Infrastructure Strategy 2021–2051. The 30-year strategy includes specific recommendations for Loddon Campaspe including road and rail upgrades, increased access to health services, greater digital connectivity, increased social housing and the development of a Youth Foyer in Bendigo.

Infrastructure Australia’s regional strengths and weaknesses report²⁵ outlines the pipeline for future investment in the Loddon Mallee Region⁴ which complements the strategic direction of the region.

The Loddon Campaspe region’s local communities and industries are well positioned to attract and develop a future-fit workforce

⁴ Loddon Campaspe and Loddon Mallee regions overlap, and the region borders differ, depending on state and federal level strategy

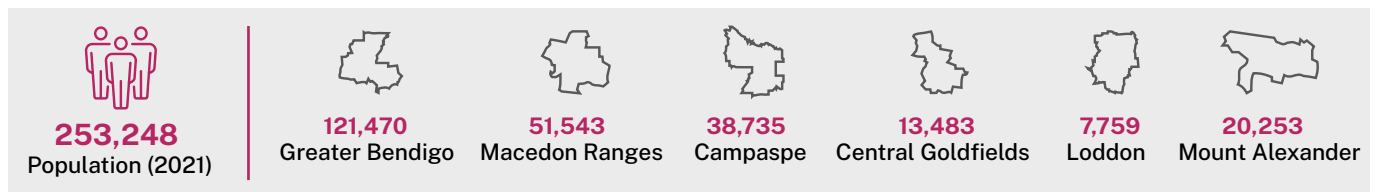


'Entrepreneurship, business collaboration and population movement will drive opportunities to attract and retain professionals.'

Loddon Campaspe's current landscape

This section provides an overview of Loddon Campaspe's current landscape with respect to its population, economy, workforce, and demographic characteristics.

A regional population on the rise

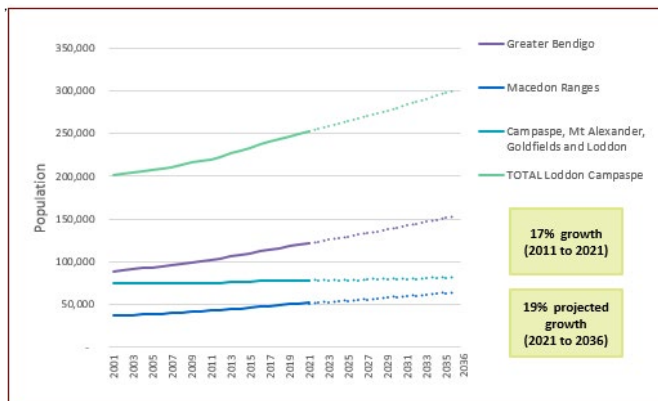


As of 2021, over 253,000 people live in the Loddon Campaspe region.²⁶ The region has grown significantly since 2011, increasing by almost 35,000 people, or 17%.²⁷

Each local government area (LGA) in Loddon Campaspe has experienced steady population growth over this period. The Macedon Ranges grew fastest at 23%, while Bendigo experienced the largest total population increase with more than 20,000 new residents from 2011 to 2021.

This growth is set to continue, with current projections suggesting that Loddon Campaspe will reach an estimated population of 300,770 by 2036, an increase of 19%.²⁸ This equates to an average rate of 1.2% per annum across the region, with Greater Bendigo and the Macedon Ranges growing fastest at 1.6% and 1.5%, respectively.²⁹ These LGAs will outpace the growth of other parts of regional Victoria which are set to experience an average population growth of 1.0% and are broadly consistent with average projected growth rate of Greater Melbourne (1.6%).³⁰

Figure 7: Population actual and projected growth by LGA, 2001–2036.^{31,32}

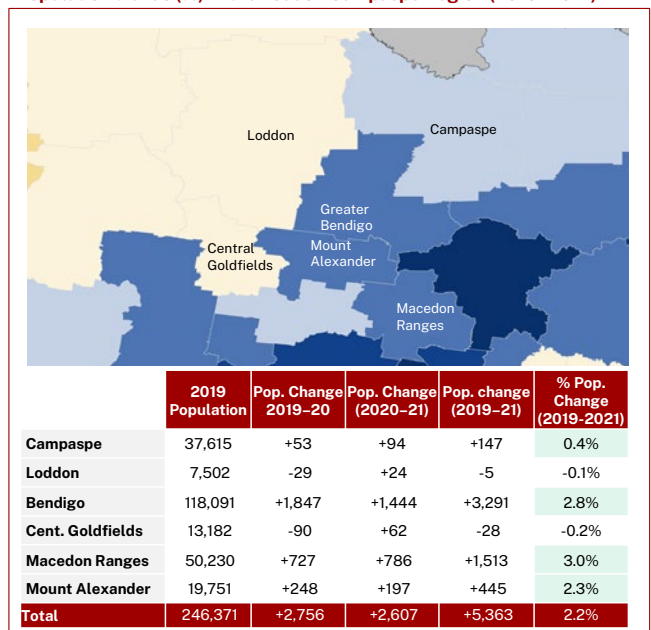


Recent migration patterns have changed the trajectory of population growth in the region.

Between 2019 and 2021, the Loddon Campaspe region experienced a total population increase of 2.2% a total of 5,363 new residents across the 6 LGAs. Greater Bendigo, Mount Alexander and the Macedon Ranges experienced the highest increases. During the same period, Victoria's total population decreased by 1%.³³ This suggests changing migration patterns and preferences towards living in regional areas, which has implications on the regional workforce composition, service requirements and education provision.

Figure 8: Loddon Campaspe population changes between 2019 and 2021.³⁴

Population trends (%) in the Loddon Campaspe Region (2019–2021)



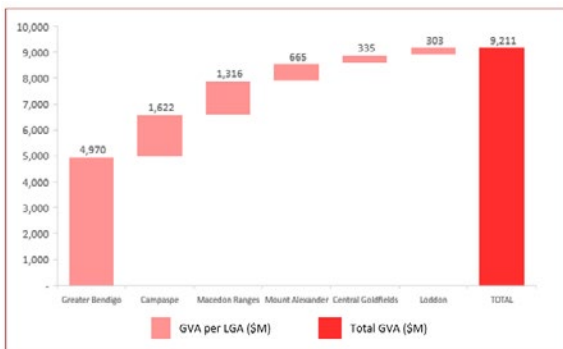


A regional economy with growth potential

Loddon Campaspe’s economic strength continues to make the region an attractive location for population and industry growth. In 2021, Loddon Campaspe’s gross value added (GVA) was worth \$9.2 billion and was the third largest regional contributor to the total State GVA. The health care and social assistance,⁵ financial and insurance service, manufacturing and construction industries are the 4 key drivers of Loddon Campaspe’s overall economic output, contributing a combined \$4 billion in GVA.

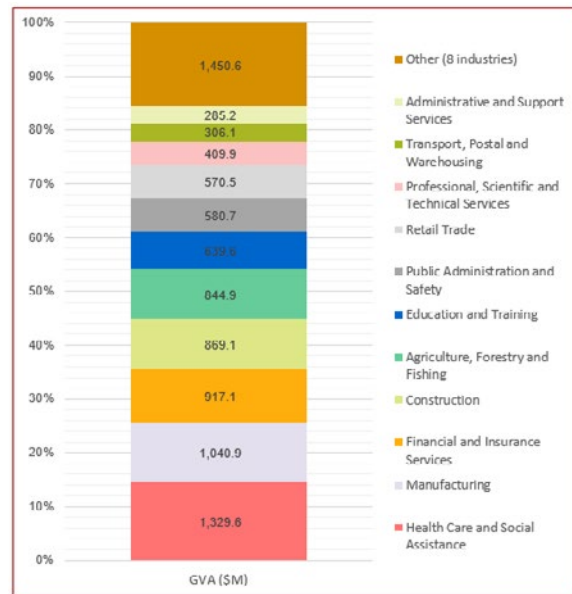
Loddon Campaspe has experienced fluctuating economic growth over the last 20 years due, in part, to the impacts of the Millennium Drought in particularly agriculture concentrated areas of the region like Campaspe³⁵. Since 2000, gross regional product (GRP) has declined, except for a short period of growth between 2013 and 2015.³⁶ There is acknowledgement from industry and Loddon Campaspe Regional Skills Taskforce members that the current period represents a time in flux where changing sustainability pressures and available technologies may act as a springboard for new, innovative activity in the economy.

Figure 9: Contribution to Loddon Campaspe GVA (2020)³⁷



Output in the Loddon Campaspe region is also impacted by a number of residents living in the area but working remotely for urban-based jobs in Melbourne. This results in their economic activity being attributed to other regions. In closer proximity to Melbourne, LGAs such as the Macedon Ranges and Mount Alexander are popular as holiday or investment properties which can obscure a seasonal population.

Figure 10: GVA by key industries in Loddon Campaspe (2021)³⁸



As the regional centre, Greater Bendigo LGA accounted for approximately 54% of the region’s total GVA in 2020⁶, generating \$4.9 billion. Financial and insurance services and health care and social assistance were the highest value industries in the LGA. Campaspe contributed approximately 18% of the region’s GVA, predominantly through food and non-food manufacturing, and agricultural activity. Macedon Ranges contributed \$1.3 billion to GVA, primarily driven by high levels of construction activity.

Mount Alexander, Central Goldfields and Loddon collectively accounted for 14% of the region’s GVA which reflects, in part, their smaller populations. Agriculture, forestry, and fishing was the single highest contributor to GVA in the Loddon Shire at \$157 million (52% of total GVA). Manufacturing is the highest value industry in Mount Alexander while health care and social assistance is the largest industry by GVA in Central Goldfields.

⁵ ‘Health Care and Social Assistance’ is an ANZSIC industry classification used for data analysis that is later described in the report as ‘Health Care and Community Services’.

⁶ At the time of drafting this profile, the latest available data on gross value added by LGA is 2020.

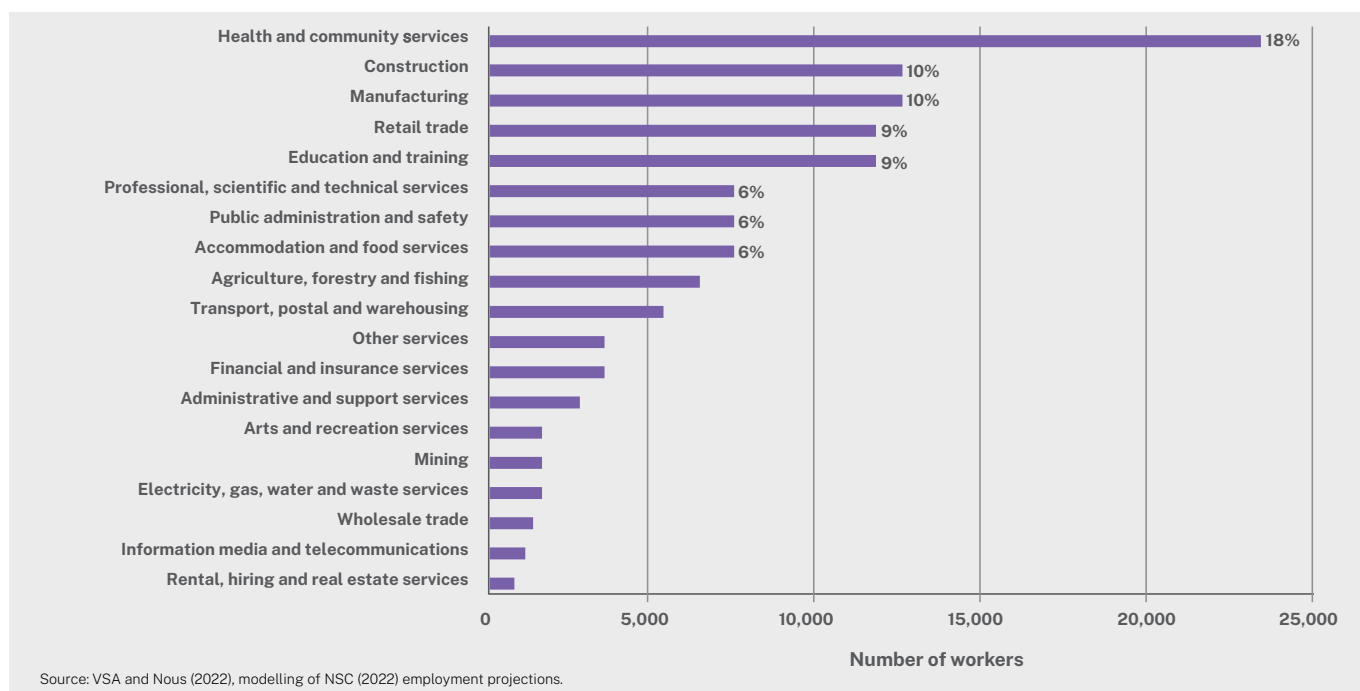
There are approximately 126,100³⁹ people employed in the Loddon Campaspe region, reflecting about 61% of the working age population and 50% of the general population.⁷

The health care and social assistance industry is the largest employer in Loddon Campaspe, employing about 18% of the workforce. This is followed by construction and manufacturing employing 10% of the workforce each. Over the last 20 years, employment in these industries has risen significantly, indicating growth in response to the increasing population across the region and rising demand for goods and services. These industries also have a higher proportion of employment relative to the average across Victoria, highlighting the significance of these industries to the Loddon Campaspe economy.⁴⁰

Employment growth has outpaced the state average in 7 (of 19) industries across the Loddon Campaspe in the past 5 years, most prominently:^{41,8}

- agriculture, forestry and fishing (+17.6 percentage points)
- mining (+11.4 percentage points)
- retail Trade (4.0 percentage points)
- health care and social assistance (3.8 percentage points)
- accommodation and food services (1.7 percentage points)
- manufacturing (1.3 percentage points)

Figure 11: Loddon Campaspe employment by industry (2022)⁴²



7 Note that this data may not account for individuals who travel to the Loddon Campaspe region for work.

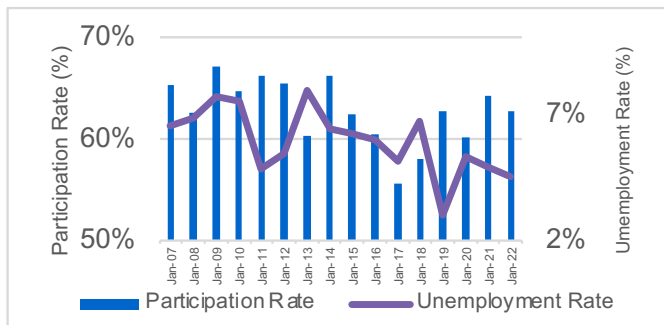
8 An increase or larger change in percentage points means that a higher proportion of workers are working in these sectors in the Loddon Campaspe region compared to the state as a whole. However, the actual number of workers is likely to be larger in the broader state due to the larger population size.



A region with potential for greater employment participation

Loddon Campaspe’s workforce participation rate has been trending upwards since 2017, and in May 2022, workforce participation was 62.7%.⁴³ In the same period, the unemployment rate in Loddon Campaspe was 4.5%, one of its lowest levels in 15 years.⁴⁴ This has led to the creation of a tight labour market in the region and is contributing to significant labour shortages across many sectors.

Figure 12: Loddon Campaspe unemployment and participation rate (Jan 2007–2022)⁴⁵



With significant labour shortages being felt by industry in Loddon Campaspe, there are opportunities to engage under-represented cohorts and increase workforce participation across major industries

Workforce participation in Loddon Campaspe is strong and overall unemployment is relatively low, however participation is below the Victorian average of 67%,⁴⁶ and unemployment remains higher than other areas in Victoria – the average regional Victorian unemployment rate in May 2022 was 3.3%, and metropolitan Melbourne’s was 3.8%.⁴⁷ This highlights the opportunity to identify strategies that can support training and participation of under-represented cohorts understand barriers to workforce engagement.

Part-time employment and underemployment

Approximately 37% of Loddon Campaspe’s workforce is employed on a part-time basis. This is higher than the regional Victoria average of 32%.⁴⁰ Part-time employment is particularly high in some of Loddon Campaspe’s key industries, including health care and social assistance, retail services, accommodation and food services, and arts and recreation, that employ upwards of 50% of staff in part-time arrangements.⁴⁸

Unemployment rates also hide the rates of underemployment, where barriers may be preventing people from working more hours than desired.⁹ These barriers may include caring responsibilities, illness, or no jobs with suitable conditions.⁴⁹

Youth unemployment

In August 2022, youth unemployment was 10.8% in the Bendigo SA4 region.⁵⁰ This is significantly higher than youth unemployment in the rest of regional Victoria, with the exception of La Trobe–Gippsland where it is 14.7%. In bordering North West and Ballarat SA4 regions, youth unemployment is 6.6% and 7.9% respectively. This highlights employment challenges amongst younger cohorts and emphasises the need to ensure training is equipping young people with the skills they need to enter the workforce.

Workforce participation by gender

While there is an equal proportion of men and women in the workforce, there are clear gender biases across many sectors. Health care and community services, education and training, and accommodation and food services have significantly higher female representation in their workforces, while construction and manufacturing are male-dominated fields.⁵¹ There is a need to address historical stereotypes, promote greater gender diversity and inclusion practices and environments within industry, and reduce barriers to female participation in traditionally male dominated industries, through measures such as increased access to child care and flexible working arrangements.

Figure 13: Breakdown of workforce participation by gender across key Loddon Campaspe industries (November 2021)⁵²

	Workers	Male	Female
Cultural, creative and visitor economy	15,400	40%	60%
Business, professional and public admin.	13,300	45%	55%
Food and fibre	4,600	61%	39%
Heavy industries	9,700	79%	21%
Infrastructure	7,100	94%	6%
Education	7,200	29%	71%
Health care and community services	16,000	19%	81%

⁹ The ABS defines an employed person most generally as a person 15 years and older working for at least one hour a week for pay or other similar benefit. A person may also be underemployed if they are willing and able to work additional hours but are unable due to find extra employment or have worked fewer hours for economic reasons including insufficient work available).

The continued demand for workers in Loddon Campaspe

The VSA's recent 3-year employment projections highlight that there is significant demand for workers in the region – with at least 6,900 new workers required in the 3 years between 2022 and 2025.⁵³

The employment forecasts in Table 3 below project the underlying demand for workers in the region over the next 3 years, based on population growth trends, changes in industry, and historical employment trends. However, there are also a range of additional factors that need to be considered in assessing the forecasts. This includes, but is not limited to, the impact of government policies and more recent investment across the region that is likely to add to the forecasted demand for workers in each industry.

Importantly, these forecasts do not capture the supply-side challenges in meeting current demand for workers across most industries in the region. Current labour shortages and vacancy rates across the region are not captured in the projected demand. Additionally, the forecasts do not account for turnover rates and instead reflect the net additional labour requirements

With the projected level of retirements between 2022 to 2025 sitting at around 5,800 workers, it is expected that the total number of new workers required in the Loddon Campaspe region is approximately 12,800.⁵⁴

Forecasts suggest that accommodation and food services sector will experience the largest average annual growth between 2022 to 2025 at a rate of 5% per annum, while the health care and social assistance industry is forecast to experience the highest total employment growth of over 1,900 workers. This is consistent with the region's projected population growth as key services also expand to keep up with demand.

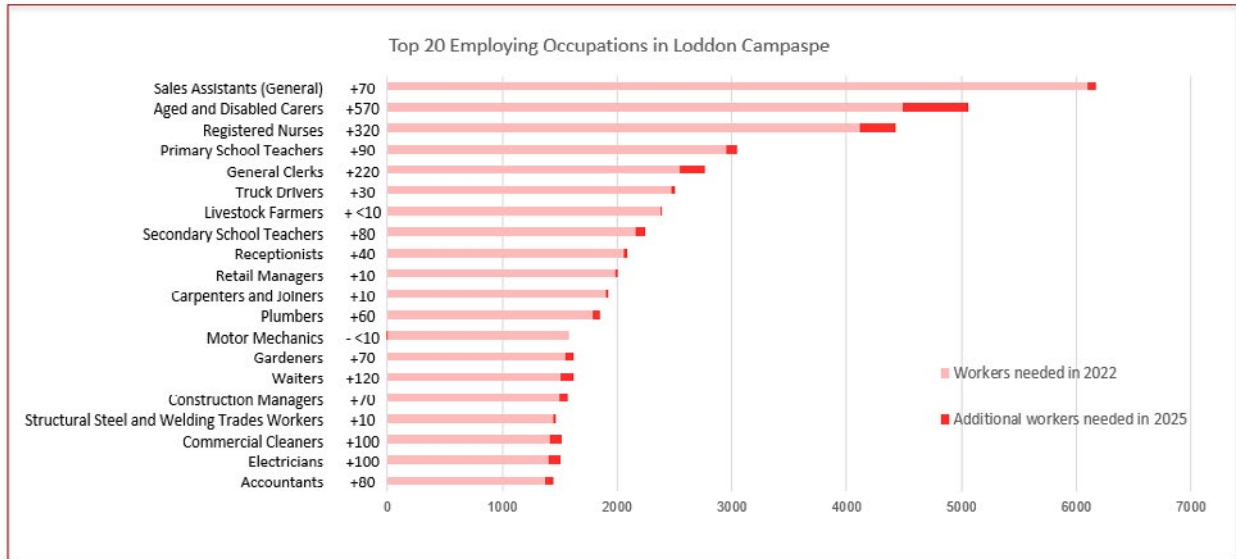
Projected decreases in the information, media and telecommunications industry could be driven by reduced demand for traditional media employment being felt more broadly across the state, while the projected fall in agriculture, forestry and fishing may reflect the longer-term downward employment trend as industry moves towards becoming more intensified and productive.



Table 3: Employment growth and new workers required by industry in Loddon Campaspe

Industry	New workers required 2022-25**	Retirements between 2022-2025	Total new workers required by 2025	Employment growth 2022-25 (AAGR)**
Accommodation and Food Services	+1,070	340	+1,420	4.7%
Health Care and Community Services	+1,890	830	+2,730	2.9%
Professional, Scientific and Technical Services	+700	390	+1,100	2.6%
Arts and Recreation Services	+130	90	+230	2.4%
Education and Training	+770	470	+1,260	2.4%
Rental, Hiring and Real Estate Services	+80	30	+120	2.4%
Financial and Insurance Services	+460	340	+840	2.0%
Transport, Postal and Warehousing	+780	260	+550	2.0%
Construction	+640	500	+1,160	1.9%
Electricity, Gas, Water and Waste Services	+50	60	+110	1.2%
Administrative and Support Services	+100	140	+270	1.1%
Retail Trade	+440	540	+1,000	1.1%
Public Administration and Safety	+200	330	+540	0.8%
Manufacturing	+160	580	+780	0.4%
Mining	+10	60	+80	0.4%
Wholesale Trade	+20	90	+130	0.4%
Other Services	+20	140	+180	0.2%
Agriculture, Forestry and Fishing	- 70	340	+290	-0.4%
Information Media and Telecommunications	40	60	+40	1.0%
Total	+ 6,910	5,610	+12,820	1.8%

Figure 14: New workers required across the top 20 employing occupations in Loddon Campaspe¹⁰



¹⁰ 'New workers' and 'workers needed' refers to the number of new workers to be employed in the region during the period. These are not full time equivalent (FTE) but consistent with the ABS definition of employed persons (15 years and older, more than one hour of work a week). The worker forecasts in Table 1 are also defined in this way.

Discussions with industry roundtables highlighted additional demand side factors that could contribute to higher demand than forecasted across key industries. The type and profile of skills required by industry is also becoming more complex, meaning workers need to be equipped with the skills to meet the evolving needs of industries.

Cultural, creative and visitor economy

Local strategies to boost tourism activities, such as the Greater Creative Bendigo plan, will guide investment (financial and socially) into this sector over the next 4 years. A successful bid for World Heritage status for the Central Victorian Goldfields would elevate the region even further and attract greater visitation, investment and interest.

Health care and community services

The health care and community services sector is facing significant worker shortages and continued pressure to meet the needs of a growing population. Registered nurses and aged and disabled carers are the occupations in highest demand by 2025, while increased investment into mental health, disability, early learning and reforms to aged care and in home care will drive significant demand for workers across the industry beyond forecasts.

Education and training

Recent policy reforms such as the introduction of the Senior Secondary Vocational Major, additional funding to kindergarten reforms announced in the 2022-2023 Victorian Government budget⁵⁵ and the Mental Health in Primary Schools Program are likely to drive demand for workers in the education and training industry beyond the current forecasts. The industry is also experiencing significant labour shortages and work pressures, which may impact the ability of institutions to attract new workers into the future across all roles.

Infrastructure

In addition to significant expected demand for private housing, construction in the region will also be impacted by requirements associated with planned infrastructure investments, such as hotels, and government and justice buildings. Growth in the heavy industries is also likely to require additional support as new opportunities are realised.

Heavy industries

Forecasts of employment in manufacturing do not reflect the significant projected growth of large national businesses in the region, and small to medium-sized organisations that are scaling operations. The proposed development of Marong Business Park, potential investments in rail infrastructure and steam rail (and the associated local manufacture, maintenance and housing of the rolling stock in areas such as Castlemaine and Maldon) could also boost employment in the region. Employment forecasts in mining are likely to be understated, recognising the volume and growth of exploration activity that is resulting from the North Central Victorian Goldfield ground release.

Across mining and manufacturing, digitisation and automation are changing operating models and lifting profitability. It remains to be seen how this will impact the required number of workers, as it is likely that increased technology use will boost efficiency and require workers with a more complex skill mix that are not included in the ABS occupation classifications that have informed the development of these forecasts. There is also a need for workers with multidisciplinary skills to realise the innovative opportunities in the energy, waste and utilities space as a growing population increases service demand.

Food and fibre

Although forecasts suggest decreased demand for workers in agriculture over the next 3 years, projected increases in the food manufacturing component of this sector are set to rise. Coupled with several years of favourable harvest, reliable demand for Australian exports overseas, and popularity of sustainable farm to table practices, it is likely that demand for workers in the food and fibre sector will increase. This includes in administrative roles outside of primary and secondary production, such as compliance, and occupational health and safety.

Business, professional and public administration services

A growing population and steady transition into higher value business or technologically advanced production is likely to see an increase in cross-disciplinary technical jobs with management capabilities as these transferable skills can enable operations in other sectors.

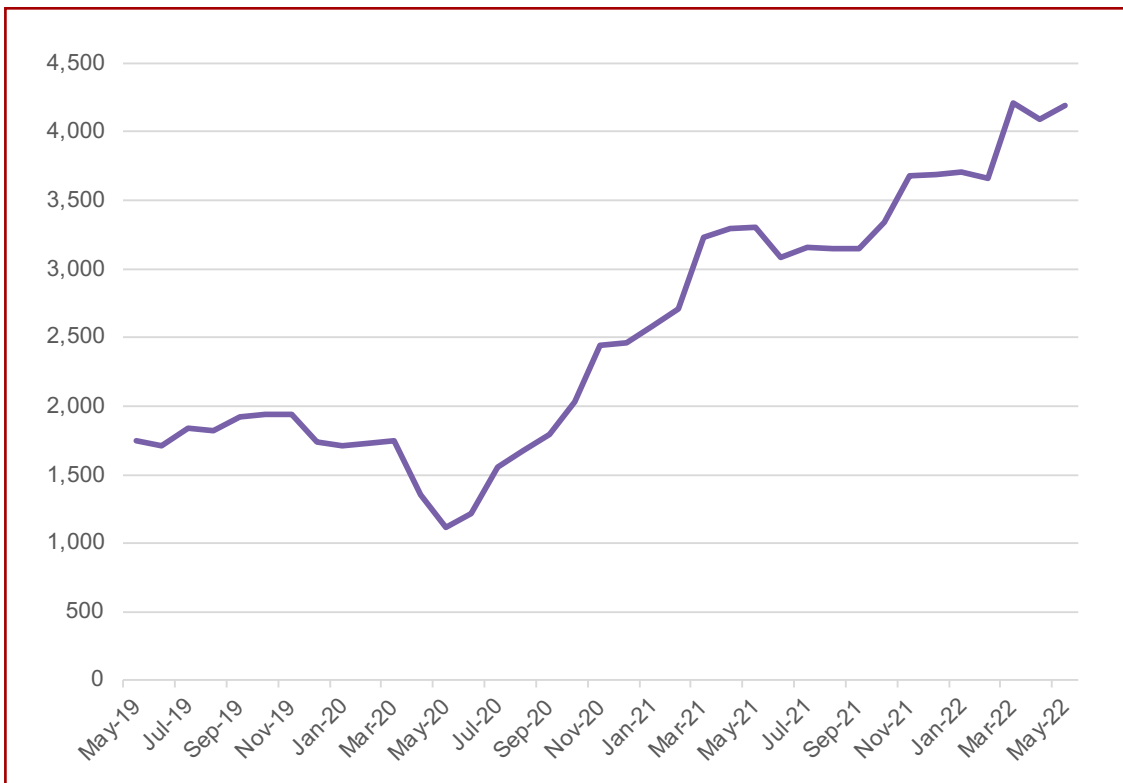


The demand-side employment forecasts do not reflect the current levels of labour shortages in the region. Labour shortages across most key industries mean that there is likely to be greater worker demands than forecasted.

Discussions with industry roundtables and the Loddon Campaspe Regional Skills Taskforce highlighted acute staff shortages across most industries –most notably in health care and community services, hospitality and education. The number of online job advertisements within the Loddon Campaspe region have almost tripled since May 2020 to May 2022, from 1,117 to 4,190.⁵⁶

This experience is not unique to Loddon Campaspe but, being a regional area, there are additional layers of challenge due to sparser populations, remote working enabling increased service demand but not supply, and housing supply challenges. The decrease in migration in the past 2 years across Victoria,⁵⁷ has a flow on reduction in the number of graduates and skilled migrants available for positions, with the effect likely to be felt in coming years.

Figure 15: Online job advertisements across the Loddon Campaspe region (May 2019–May 2022)



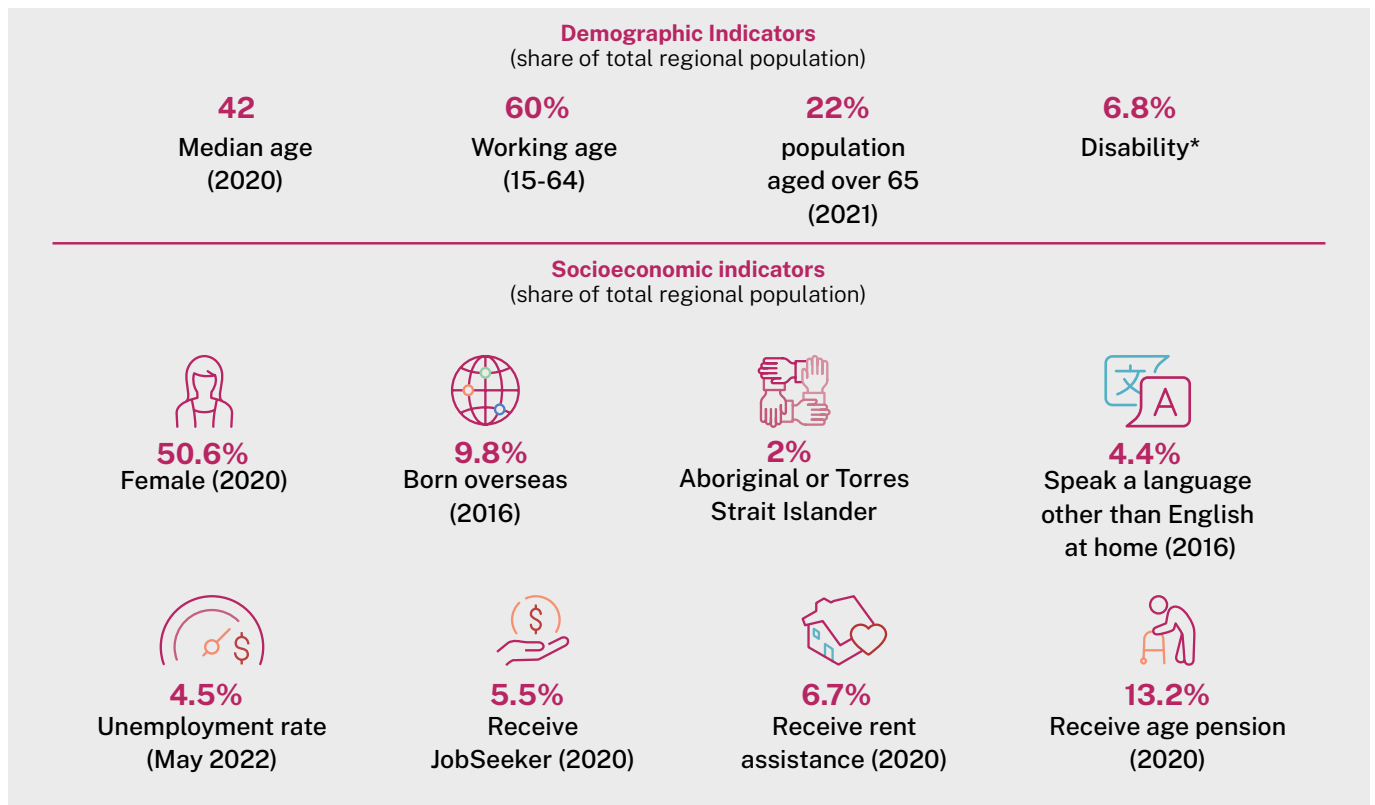
Source: LMIP IVI Vacancy Data (Bendigo and High Country)

Demographic and socioeconomic context

Demographic considerations

Current worker shortages in Loddon Campaspe highlights a need to engage and upskill the existing population, while looking to grow the future workforce.

Figure 16: Overview of Loddon Campaspe's demographic and socio-economic context,^{58,59,60}



Loddon Campaspe's population is older, on average, than metropolitan Melbourne and Victoria. Central Goldfields, Loddon, and Mount Alexander have the highest proportion of their population above the age of 65, with 31%, 29% and 28% respectively, compared to an average of 22% in Loddon Campaspe as a whole.⁶¹ Young people (aged 15–24) are also migrating out of Loddon Campaspe LGAs at higher rates than regional averages, except for the Greater Bendigo LGA.⁶² An ageing population in the region will impact workforce supply through increasing retirement and higher demands on essential services such as health care. This highlights the need to keep older populations engaged in the workforce for as long as possible and for industry to support the building of knowledge and skills for younger workers.

6.8% of the Loddon Campaspe population identifies as having a disability,^{63,11} demonstrating the importance of considering employment opportunities that enable individuals with disability to thrive and succeed. This is critical to the attraction and retention of individuals with disabilities across all industries. Approximately 10% of Loddon Campaspe's population was born overseas and over 4% speak a language other than English at home.⁶⁴ It is important to recognise and consider multiculturalism across the region, alongside diversity and inclusion for Loddon Campaspe's migrant population.

Loddon Campaspe will also need to continue exploring ways to attract new people to live and work in the region, including skilled migrants and international students. Total arrivals within Australia in the first 3 months of 2022 were just 16% of that in 2019, and long-term visitor arrivals (which captures international students and temporary workers) sat at around 70% of pre-pandemic levels.⁶⁵

¹¹ Disability is defined as a person with either a disability, a profound or severe, or a mild and core activity limitation.

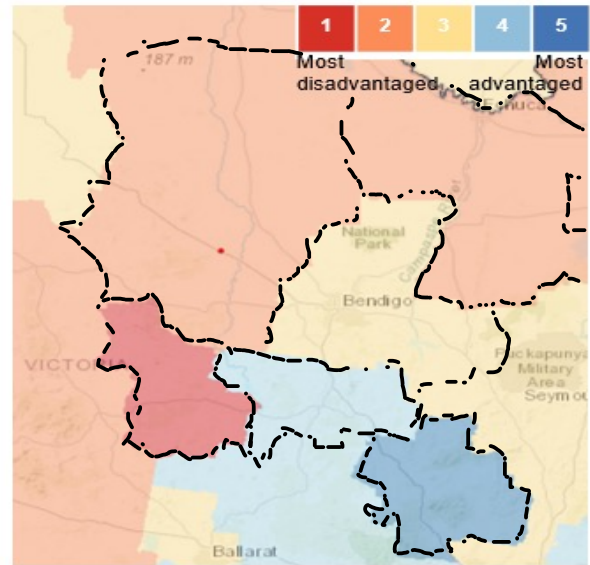


Socioeconomic considerations

The Loddon Campaspe regional economy is thriving, however there are still pockets of disadvantage. Macedon Ranges and Mount Alexander are the amongst the most advantaged LGAs in the region, while Central Goldfields is the most disadvantaged LGA in Victoria.⁶⁶ The areas with higher disadvantage have limited access to education and training relative to other parts of the region and limited access to public transport to enable access to employment, education and social services. This highlights the importance of programs and supports to encourage inclusive employment opportunities for population cohorts that have lower participation rates.

In 2016, approximately 49% of Loddon Campaspe's population had no post-school qualifications,⁶⁷ relative to 44% across Victoria as a whole. This suggests there are opportunities to improve individual and community outcomes through skills and training that enable people to gain employment and build meaningful careers.

Figure 17: Loddon Campaspe by index of relative disadvantage¹²



¹² Note that this data reflects the 2016 Census but remains accurate in relation to SEIFA 2021.



Key industries, challenges and priority skills needs within Loddon Campaspe

This section provides a summary of the 7 key industries of focus identified by the Loddon Campaspe Regional Skills Taskforce and explores the common workforce and skills related challenges facing these major industries. This section also details the priority skills needs that have been identified as critical to enable these major industries to grow and thrive in the future.

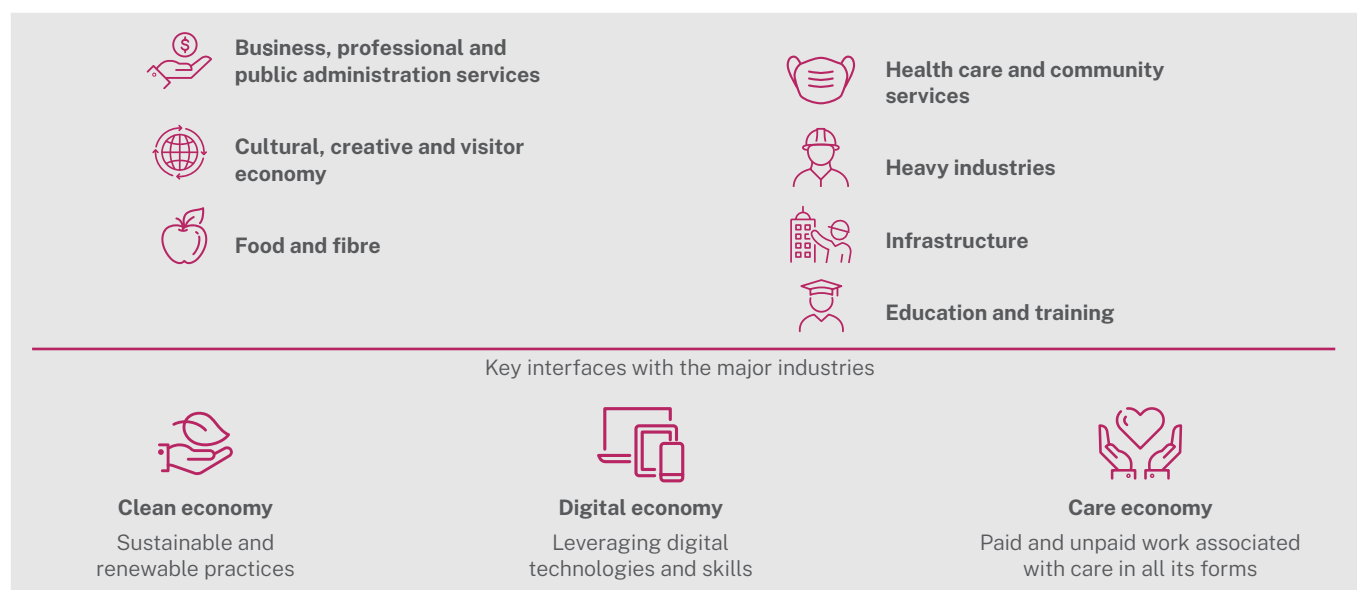
Loddon Campaspe 7 key industries of focus

The Regional Skills Taskforce identified 7 industries of focus within Loddon Campaspe

The 7 key industries have been informed by the current relative contribution in employment or income to the local economy, potential for future growth, and alignment with strategic growth opportunities for the region, including the Bendigo Economic Development Strategy (2020–2030). Further detail on each industry is provided in Appendix A as part of the detailed industry profile for each industry (see Appendix C for further detail on industry groupings).

These industries are highly interconnected and intersect with other parts of the economy

Key industries in the Loddon Campaspe region are diverse yet interconnected. The 7 key industry groupings have been organised to reflect existing local strategies, view of linkages by Loddon Campaspe Regional Skills Taskforce members and, in some cases, industry supply chains. There are also points of intersection and connectivity between industries that support broader supply chains and outcomes for the community and economy.



Business, professional and public administration services



The business, professional and public administration services (BPPS) industry comprises many professional services, including legal, accounting, digital services, scientific research, and public administration services, including state, federal, local government and public safety services.¹³

These industries make up 15% of Loddon Campaspe's total workforce, employing approximately 19,400 people in the region.⁶⁸ It is the largest contributor of GVA funnelling over \$1.9 billion to the local economy in GVA in 2021 or about 21% of total GVA.⁶⁹

The industry is heavily centred around the southern LGAs of the Loddon Campaspe region and Bendigo. Construction of Galkangu or the Bendigo GovHub is currently underway, and its development will provide a \$131 million boost to the local economy, creating 200 jobs during construction and housing 1,000 employees when completed.⁷⁰ Development of the Bendigo GovHub involved extensive collaboration with the Dja Dja Wurrung Clans Aboriginal Corporation and has seen the inclusion of Aboriginal design elements and language in the architecture, landscaping and spaces within the building.⁷¹

The region also has cutting edge research facilities and is home to La Trobe University's Rural Health School, a dedicated centre for research about issues facing regional Victorians by regional Victorians. There are also growing professional service capabilities in the region, anchored in large part by the Bendigo and Adelaide Bank, and specialised consulting and technology companies.

As people move to the region from urban areas, there is opportunity to capture these new workers and expertise in the local jobs. The growing Loddon Campaspe population is also increasing demand for key council and government related services, in turn raising the need for workers in the public administrative sector.

Current projections suggest the workforce will grow by around 1,350 workers between 2022 to 2025, with an additional 1,000 workers to replace the retiring workforce.⁷²

Key skills needs include child care workers, maternal child and health workers and town planners, although it is recognised that rate capping may limit net employment growth within the public administration sector.

Attracting young workers into locally based professional jobs remains challenging, due to low awareness of opportunities, limited housing and child care, and a pool of workers moving to the region but retaining urban jobs through virtual work arrangements. Realising the goals of the Loddon Campaspe Regional Digital Plan may help to address this by increasing connectivity and reliability in the region.

Adding to and safeguarding the supply of labour in this sector is necessary to take advantage of growth opportunities in other industries with which business and professional services interact and enable.

Key intersections across industries

Health care and community services	Research and education	Construction
Intersects with local government community service delivery	Home to education and research, and industry development alliances	Planners, architects, and engineers are a critical component of the construction sector

¹³ Note that employment and GVA data includes the total 'Scientific, Professional, and Technical Services' ANZSIC industry classification, which includes architecture and design, engineering and planning, which are discussed in the Infrastructure section.

Cultural, creative and visitor economy



The Loddon Campaspe region has a vibrant cultural, creative and visitor economy (CCVE). Stretching from the leafy ranges of Macedon and Mount Alexander, through historic goldfields and country, up to the NSW border along the Murray River, Loddon Campaspe provides diversity of experiences and attractions. Bendigo was recently named Victoria's top tourism town ahead of Echuca in second place, highlighting the importance of tourism to the region and the pride of those who work in it.⁷³

There are several heritage sites across the region which hold spiritual, social, environmental, and economic value and that have a strong ongoing focus on embedding Indigenous history and culture in new investments throughout the region, including the Welcome to Country multi-layered display in the Castlemaine Market building (Visitor Information Centre) and cultural history embedded in the Bendigo GovHub. More recently, investment for stages 2 and 3 of the Indigenous Interpretive Garden in Central Goldfields through the Regional Tourism Infrastructure Fund will foster recognition and respect of Dja Dja Wurrung culture and become a new and beautiful outdoor component of the visitor experience to the Gallery.⁷⁴

In recent years, Bendigo has undergone a significant reinvention as an arts and culture destination with social and infrastructure investments, including the Bendigo Art Gallery, that has earned the city international recognition and a growing reputation as a cultural and creative hub and the title of a UNESCO City of Gastronomy. The significance of the CCVE sector to Bendigo can be seen in the Greater Creative Bendigo plan, a strategy to nurture the city, already home to destination galleries, gardens, and title.⁷⁵ Currently in process, a successful bid to UNESCO World Heritage status of the Victorian Goldfields is likely to cement the region as a heritage destination on the global stage.

Towards the north, the region is rich with activity including the annual Winter Blues Festival, the Riverboats Festival, the Southern 80 ski race, Moama Lights and paddle steamer cruises in Echuca Moama, and beverage producers in Harcourt.

To the south of the region, towns such as Woodend, Kyneton, Castlemaine and Maldon attract significant numbers of day trippers and weekend stays for the food and wine culture, its heritage and history, while Mount Macedon, Hanging Rock and the surrounding wine region are also popular tourist attractions.

These industries collectively account for just under 21,000⁷⁶ jobs and contributed over \$885 million to the local economy (GVA) in 2021.⁷⁷

There were 3.7 million fewer visitors to the Loddon Campaspe region from 2019 to 2020, causing visitor expenditure to decline by almost half to \$675 million in 2020. Revitalised attractions and events are supporting tourism to rebound, for example the 2022 Elvis Exhibition at the Bendigo Gallery of Art which saw more than 219,000 visitors – around 50,000 more visitors than previous major exhibitions held prior to 2020.

While the visitor economy has rebounded, capitalising on this demand is constrained by worker shortages leading to reduced trading hours. This shortage is exacerbated by fewer younger people in, or moving to, the region who are more likely to work in customer facing and hospitality roles (28% aged between 15–34).⁷⁸

Despite these challenges, **the creative, cultural and visitor economy has significant potential for growth, with current forecasts suggesting more than 1,600 jobs in the sector will be required over the next 3 years.⁷⁹** An additional 900 workers will be needed to fill retirements.⁸⁰ Opportunities that will help fuel this growth further include engaging with visitors seeking novel experiences, increasing average spend within the region through overnight and after dark experiences, and better promoting all areas of the region.

Key intersections across industries

Specialised manufacturing	Construction	Food manufacturing	Digital technology
Locally made goods and unique retail offerings attract visitors	Access to quality accommodation can increase volume and duration of overnight stays	Food and wine tourism, 'farm to table' offerings and sustainable farming is a high growth tourism area	Interactive and innovative experiences enhances visitor engagement



Food and fibre

The food and fibre industry in Loddon Campaspe covers the agriculture, forestry and fishing, and food manufacturing sectors.¹⁴

The industry employs over 12,800 people in the region, making it the fourth largest employer in the area, with food manufacturing responsible for most of this activity.⁸² The sector generates at least 16% of the region's GVA, or upwards of \$1.4 billion in 2021.⁸³

Favourable farming conditions over the last 3 years and a diverse mix of landscapes enables the region to produce 11% of Victoria's dairy, 13% of lamb and 7% of beef output.⁸⁴ Organisations in the region vary in scale with large companies, including Don KR in Castlemaine, Eaglefoods in Bendigo, True Foods in Maryborough, Eat Well Foods in Kyneton, and smaller family-run businesses including those such as Salute Oliva in Boort. Hay production activity is also significant in the region, with companies such as Hay Australia being a significant exporter of hay and fodder. Several food manufacturing companies also provide the infrastructure and production facilities for multiple brands.

For example, Foodmach in Echuca provides automation, robotics, integration products and turnkey operations to customers, demonstrating the potential for innovation and new market offerings in the sector and region.

Estimates suggest that approximately 70 new workers are required over the period 2022 to 2025. Most of this change is fuelled by activity in the food manufacturing sector which covers a projected decline in the agricultural subsector.⁸⁵

An additional 400 workers are projected to be needed to fill retirements.⁸⁶ These figures could, in part, reflect an efficiency gain due to intensification of the agricultural process as fewer, but more highly trained, workers are required to operate agricultural technologies. Areas of growth include capitalising on the demand for quality Australian produce, strengthening sustainability activities, and optimising production using innovative technologies and infrastructure. Realising these opportunities is likely to be dependent on attracting and retaining new workers across all areas of the industry.

Key intersections across industries

Key intersections across industries		
<p>Sustainability and climate change management</p> <p>Responsible resource management can reduce the risk of extreme weather events</p>	<p>Hospitality and tourism</p> <p>Food and wine tourism, 'farm to table' offerings and sustainable farming is a high growth tourism area</p>	<p>Transport and logistics</p> <p>Expanding businesses by diversifying into transport and logistics operations themselves</p>

¹⁴ 'Food and Fibre' within this Profile includes 'Agriculture' and an estimated proportion of food manufacturing employment within 'Manufacturing' ANZSIC industry classifications. Due to a lack of available data at a sub-industry level in 2022, the proportion of employment in the sub-sectors 'Food Product Manufacturing' and 'Beverage and Tobacco Product Manufacturing' relative to total Manufacturing employment from 2020 was applied to the 2022 data. As a result, the figures presented are approximations of the employment in the sector in 2022.

Health care and community services



The health care and community services (HCCS) industry is an integral component of the Loddon Campaspe economy for both its direct role as an employer and indirect flow on effect of the wellbeing of the community at large. The HCCS sector includes private and public institutions, clinical and allied health care, and community services. **It is the single largest employing industry in Loddon Campaspe, employing around 23,000 people,⁸⁷ and contributes to 14% of GVA to the regional economy in 2021, at approximately \$1.3 billion.⁸⁸**

Falling mainly within the Murray Primary Health Network (PHN) region with the exception of Central Goldfields Shire and western parts of Loddon Shire which sit within the Western Victoria PHN region, key service providers include Bendigo Health, Echuca Regional Health, Maryborough District Health, Castlemaine Health, the YMCA, and National Disability Insurance Scheme providers such as Intereach. The Loddon Campaspe Health Sector Skills and Pathways Roadmap confirms that as the region grows, ability to provide reliable access to quality and timely health care or community services is increasingly important. Industry roundtable members wanted to explore opportunities for preventative and early intervention services across clinical and allied health services.

The pandemic amplified difficulties already in the health care system, including staff shortages fuelled by burnout, relatively uncompetitive pay, and inefficiencies in recruitment. Each of these are challenges that must be addressed to identify and support the current workforce and the **approximately 1,890 new workers needed between 2022 to 2025.⁸⁹** A further 820 workers are projected to be needed to replace retiring workers.⁹⁰ These figures are unlikely to include current shortages across disability support, nurses and aged care workers. Reforms to the aged care and mental health system across the state, and preferences for at-home care and investment in telehealth treatments are likely to place increasing demands on the sector.

Industry roundtable members noted that the HCCS sector is facing difficulty in attracting and retaining staff, in part due to a perceived lack of recognition and reward for demanding work. Improving training, recruitment and remuneration would help address this. Creating pathways from volunteer to worker was also identified as another key approach to encourage employment in the sector.

Key intersections across industries

Manufacturing	Construction	Digital technology	Education and training
Securing supply chains of critical HCCS related goods (for example, masks, contrast dye) to ensure continuity of quality care	The quality of the built environment can influence mental and physical health	Advancing research and use of technology to develop innovative ways to understand and care for mental ill health, disability and other chronic or recurring conditions	Increasing opportunities for marginalised groups to engage economically and socially with a positive impact on health



Heavy industries

Loddon Campaspe has a historically significant mining base clustered around Bendigo and the Central Goldfields areas. This is a legacy that continues today with the region home to Fosterville (formerly Kirkland Lake) Mine, one of the top 5 gold producers in Australia.⁹¹ In addition to mining activities, the heavy industries sector, for this profile, includes advanced manufacturing and utility and waste services.

The sector is reaching a critical juncture and time of transition as technological, environmental and service demands due to population increases, is stimulating innovation and growth. **The heavy industries sector is the seventh largest employer in the region and employs more than 9,000 workers.**⁹² Primary metal and metal product manufacturing is worth \$65.3 million in regional exports and roughly half of that for machinery and equipment manufacturing.⁹³

A robust pipeline of workers is required due to large-scale, established businesses expanding operations, increasing interest in onshore supply chains, the need for sustainable operations, and the continuation of mineral exploration. In particular, the exploration activity from the North Central Victorian Goldfield ground

release is expected to generate significant demand for workers in this industry. Potential investments in rail along the Kerang–Echuca corridor, steam rail, and in tram and train rolling stock is also likely to drive demand for workers in the region to locally manufacture, maintain and house the rolling stock. **While forecasts suggest upward of 70 new workers will be required over the next 3 years, more than 600 additional workers will be needed to fill projected retirements. These projections are also unlikely to account for current shortages, potential growth areas and responses to recent exploration opportunities.**⁹⁴

Outdated perceptions of certain occupations in the heavy industries have hindered attraction to the sector, while a limited understanding of potential career pathways – particularly new ones through the recent adoption of technologies – have impacted retention. The Regional Engineering and Advanced Manufacturing Skills Roadmap (2019) provides an optimistic outlook for the sector, noting that opportunity is almost limitless, but is dependent on leveraging improved technologies and infrastructure, including Bendigo Airport, and training processes to support scalability of existing and emerging businesses.

Key intersections across industries

Digital technology	Environmental sustainability	Public administration	Circular economy
Industry 4.0, including artificial intelligence (AI), machine learning and nanotechnologies are increasing the need and uptake of innovation	A strong need to minimise environmental impact in an increasingly climate aware business landscape, for example, nondischarge mines	Councils, other levels of government and utility providers have a responsibility to provide access to quality and timely essential services related to Heavy Industries	The manufacturing and waste sectors have an important role to play in closing the gap to recycle and reuse waste as part of an increased focus on circular economy measures



Infrastructure

The infrastructure industry in Loddon Campaspe is primarily comprised of private, commercial and transport infrastructure, construction, construction services such as plumbing and electrical, as well as related services such as planning, architecture and design, and engineering and technical services.¹⁵ **The infrastructure sector is the fifth largest employer in Loddon Campaspe employing more than 12,500 workers⁹⁵ and contributing around 9% of the region's GVA in 2021, or almost \$870 million.⁹⁶**

Construction in Loddon Campaspe is increasing across all subsectors and was highest in the Macedon Ranges and Mount Alexander LGAs, in the south of the region in 2020.⁹⁷ This is likely to reflect their proximity to Melbourne and popularity as both a permanent and holiday destination, as well as higher levels of household income compared to elsewhere in Loddon Campaspe.

Increased investment in infrastructure and accommodation is adding to the existing pressures on the sector and emphasises the need for a strong labour pipeline. Difficulty in attracting new workers was identified by industry roundtable representatives as the main driver of low worker supply.

Given that there is a current shortage of skilled labour in many trades across the sector and **forecasts suggest 640 new workers will be required over the next 3 years, with an additional 500 more needed to fill retirements,⁹⁸** there is opportunity to leverage high wages, flexible work, training placements including through earn and learn models offered by apprenticeships, to recapture a sustainable workforce that meets current demand and future growth.

Key intersections across industries

Mental and physical health	Renewable and clean energy	Public administration	Professional and technical services
The quality of the built environment can influence mental and physical health	Increased desire for energy efficient design and retrofitting or transformation for clean energy purposes	Large public works to house key government and law services in the region. Private construction requires planning permits	Integrating public buildings frees up space for private businesses to operate in areas close to where their services are required

Construction is also recognised as an enabler across all sectors, underpinning physical form and infrastructure requirements across all industries.

¹⁵ Note that while services such as planning, architecture and design, and engineering and technical services are included within the infrastructure industry for the purpose of this profile, from an employment data perspective, employment in these services is captured in the Professional, Scientific and Technical Services ANZSIC industry classification (which is included within the Business, Professional and Public Administration Services industry category).



Education and training

The education and training industry in Loddon Campaspe includes early childhood, primary and secondary schools, vocational training, higher education, and adult and community education. **The sector employs over 11,600 people in the region, making it the sixth largest employer in the area.⁹⁹ It generates almost 7% of the region's GVA or approximately \$640 million in 2021.¹⁰⁰**

Parts of the Loddon Campaspe region are well equipped with access to high-quality education and training facilities, including a local university, dual sector, public and private training providers. However, there is limited higher education and vocational provision outside of Bendigo. Limited public transport, rising fuel costs and lower car ownership are presenting barriers for students accessing post-secondary education in the region, resulting in young people choosing to move elsewhere or choosing not to study or undertake training.

The education and training sector plays a unique role in the Loddon Campaspe economy as it is both an employer and a key mechanism through which the worker pipeline for most major industries is developed. For this reason, shortages in teachers and trainers, including casual relief and support teachers, are likely to have a significant impact on maintaining the future workforce and skills.

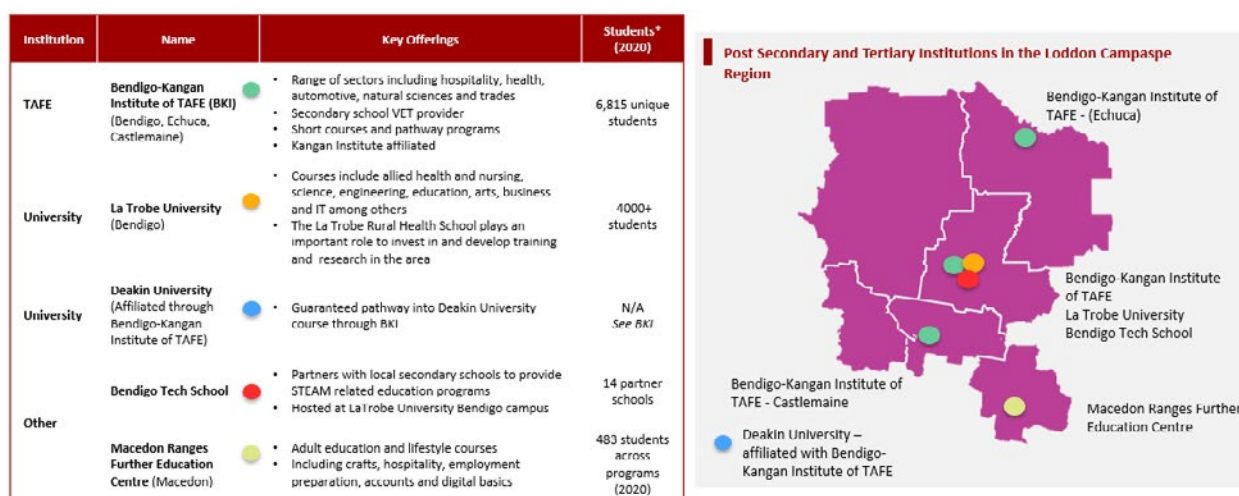
While teacher shortages are a nationwide issue, Loddon Campaspe is facing additional challenges in attracting and retaining workers in regional areas, coupled with increasing demand due to population growth. Access to housing for teachers is a key challenge facing the sector, particularly for towns outside Bendigo and other major employment hubs in the region.

Forecasts suggest that over 770 new workers and an additional 470 workers to fill retirements will be required over the period 2022 to 2025,¹⁰¹ but this is unlikely to account for existing shortages and turnover. While secondary school and kindergarten reforms are likely to improve the worker pipeline, it is also likely that this will increase demands on current teachers, administrators, and early childhood educators as they respond to policy changes.

Key opportunities to strengthen the education and training industry include increasing connections between business and providers and greater mental health support for students and teachers. The centrality of Loddon Campaspe creates opportunities for inter-institutional collaboration in the delivery of educational resources and programs to more rural areas.

Key intersections across industries		
<p>Digital technologies</p> <p>Online learning and use of digital tools to enhance learning is more important than ever</p>	<p>Health care</p> <p>Early childhood education has a significant impact on health outcomes</p>	<p>Community services</p> <p>Intersections between schooling and community services for at-risk populations</p>

Figure 18: Higher education and training institutions and facilities across the Loddon Campaspe region





'Loddon Campaspe's economic strength makes the region an attractive location for population and industry growth.'

Workforce challenges

Loddon Campaspe is experiencing challenges that are resulting in barriers to education, training and workforce participation, attraction and retention.

Child care access and affordability

Access and affordability of childcare acts as a barrier for those wanting to enter the workforce or increase their hours of work, particularly women who are under-represented in the workforce. Access to child care is significantly lower in regional Victoria than in metropolitan Melbourne. Lowest levels of access are in the Loddon and Campaspe Shires, and south-east and south-west of Bendigo.¹⁰²

Housing accessibility

Housing affordability across the Loddon Campaspe region has become more acute, particularly in Bendigo where median house prices increased by 27.2% from December 2020 to 2021, which was greater than the increase in metropolitan Melbourne within the same period (21.5%). Loddon Campaspe had one of the highest number of applications for public housing of all regional areas in Victoria in 2019. This makes it more difficult for skilled prospective employees to move to the region to take up work.

Teacher and trainer shortages

The school system is reporting ongoing shortages of school teachers across most subject areas. Also, current skills shortages risk being long term due to shortages of trainers. Factors such as job instability, lack of clear entry and progression pathways, retirement of older workers, salary and the attractiveness of jobs are all reported contributors to this shortage.¹⁰³

Access to transport

Access to transport limits the opportunity to take up training or job opportunities. In all LGAs excluding Greater Bendigo, fewer than half of residents can access public transport.¹⁰⁴ Access to transport is particularly important for smaller LGAs in the Loddon Campaspe region that do not have higher education or VET within close proximity, and areas like Echuca Moama that are further from a regional centre, suggesting alternative delivery models are needed.

Digital connectivity

Lack of reliable and fast broadband or digital connection in some regional and rural communities limits education responses and access to services and job opportunities. It also acts as a brake on business productivity and growth. Loddon Campaspe has 312 registered blackspots, placing it as the second-most connection-poor region in Victoria's regions.¹⁰⁵

Labour shortages

Job vacancies have increased to record levels across many occupations in Loddon Campaspe, doubling to 9,270 from February 2020 to 2022.¹⁰⁶ This has placed upward wage pressure on some industries and is reducing capacity to deliver services and impacting output from the region. Other factors, such as workforce fatigue and a lower than expected rebound in international working holiday visa holders, is exacerbating current shortages, particularly in sectors such as health care and hospitality.

Employment security and working conditions

Employees are looking for more secure working conditions and flexible working arrangements, placing additional pressure on businesses that have relied on casual and shift work arrangements. This is particularly acute for Loddon Campaspe's arts, public administration, real estate, tourism and health sectors, with many workers seeking more secure working conditions.¹⁰⁷

Increased service demand

A 17% increase in population (2011 to 2021) in the region has increased demand and pressure on all essential services and industries in the local economy. This includes, but is not limited to, health, education, and retail and has increased pressure on infrastructure requirements such as internet access and network coverage.

Skills challenges

Consultation with Loddon Campaspe's major industries highlighted several common challenges affecting workforce participation and skills requirements in the region.

Perceptions of jobs across the major industries

Traditional stereotypes within major industries may be hindering the ability of businesses to attract and retain talent. Industry representatives reflected on common misconceptions among students and the wider community, for example that jobs in manufacturing and mining involve 'dirty' work, studying a trade is not for 'smart kids', and that the hospitality and tourism sectors do not provide career pathways. This points to the need to increase collaboration between the education and skills system and industry to raise awareness of the breadth of opportunities available in the region. Helping employers overcome gender-based stereotypes may increase the pool of available workers as would a welcoming and inclusive culture, particularly for non-traditional and vulnerable cohorts such as neurodiverse people and other people with disabilities, women and migrants.

Limited understanding of industry growth and associated career pathways

Industry representatives believe there is limited understanding about the breadth of career pathways and opportunities within and across sectors in the Loddon Campaspe region, which is impacting attraction and retention. Many students don't have the right information to make informed decisions regarding their prospective education, training, employment and career pathways. Some industry roundtable members reported this as being due, in part, to less exposure or opportunity to engage with students such as at career fairs or within schools. This can result in young people leaving the region for careers or study if they do not see possibilities locally.

Alignment between education and training and workforce needs

Industry roundtable and Loddon Campaspe Regional Skills Taskforce members reflected that training does not always prepare graduates with the full set of skills required for a job. This can lead to a significant mismatch between student expectations of the job and the actual requirements of the role and result in poor retention of young workers. Industry and learning institutions must be aligned so training meets the needs of the local employers and prepares students for jobs.

Barriers to accessing education and training

Many industries are feeling the effects of declining enrolments in VET and higher education in the region. This is a consistent challenge across Victoria and is driven by a number of factors, including reduced international students and a tight labour market with more unskilled workers securing jobs that would traditionally require qualifications. In Loddon Campaspe, underlying challenges such as difficulty in accessing consistent transport to and from training, unaffordability of courses for lower socioeconomic populations and a lack of access to enabling services such as child care were raised by the industry roundtable and Loddon Campaspe Regional Skills Taskforce members as significant barriers to the uptake and completion of training. For example, some courses, although offered locally, require travel to a Melbourne campus for completion.

Inter and intra-sector competition for workers

Labour shortages have led employers within and across industries to compete for the same, limited pool of potential workers. This is particularly relevant in the health care and professional services sectors (particularly in relation to advanced digital and technology skills), where skills requirements and occupations are similar amongst employers in the region. Increased remote working opportunities mean some industries are facing increased competition for locals being employed by metropolitan firms. The complexities of current Recognition of Prior Learning (RPL) and Recognition of Current Competency (RCC) processes is also seen by industry to be limiting opportunities to recognise skills and capabilities of current and prospective employees and hindering their ability to take up new job opportunities within the region.

Risk of unskilled future workforce

The current labour shortages are pushing employers to recruit under-qualified employees. While this has been a temporary solution, employers are already recognising the implications this will have on developing and retaining a skilled workforce that can meet emerging and future workforce requirements. This is particularly important with approximately 49% of Loddon Campaspe's population having no post-school qualifications.¹⁰⁸



Priority skills for the region

The Loddon Campaspe Regional Skills Taskforce and industry roundtables identified a common set of priority skills requirements across all major industries in the Loddon Campaspe region. These priority skills relate to capabilities that industry representatives believe individuals should

have when they enter the workforce and should focus on developing as their career progresses. The specific skills and training requirements identified through engagement in the region are included in each industry profile at Appendix A which build on the Department of Education (DE) Jobs and Training Needs Report 2022 – Loddon Mallee.¹⁶

Figure 19: Priority skills needs across Loddon Campaspe's major industries



Core competencies

The need to complement technical skills with interpersonal skills was consistently raised in industry roundtable discussions. The importance of these skills is reflected through their framing as core competencies. Common personal and social skills needed included interpersonal communication, emotional intelligence, conflict resolution, collaboration and teamwork. The pandemic also shone light on the need for skills such as resilience, flexibility and adaptability. As the Loddon Campaspe region becomes more diverse, there is also a need for workers to be culturally inclusive.

Digital and technology skills

Digital skills are required across all industries to meet consumer expectations and increase business productivity. Increasingly, jobs will involve humans working with machines, which means that future work will require people with technical, digital, and interpersonal skills that empower people to work with new technological and communication processes. Needs range from basic digital literacy skills (for example, use of tablets or computers), applications to digital marketing, to more technical skills (for example, software and hardware activities to support automation of food manufacturing and mining in particular). The need to connect digital competency with other industry-specific expertise is exemplified by changes to clinical operations in the health care sector, for example, digital patient records and clinical coding.

Leadership skills

Industry roundtables identified a need to uplift capabilities of existing workforces to meet current gaps in leadership and management positions, ranging from younger workers with limited experience, as well as qualified staff to step into more senior management positions. This is particularly relevant for family businesses growing from small to medium-size enterprises. It is important to note that leadership extends beyond direct operation of the business, to also creating effective, inclusive and sustainable working environments.

Business development skills

Strong demand across many sectors has led to a consistent flow of work and potential for growth. To take advantage of these opportunities, individuals and businesses must have business development and engagement skills, and competency in sales and marketing to tap into new markets. Additionally, a growth mindset that demonstrates problem solving and critical thinking capabilities are more likely to extend the lifespan of the current opportunities. In this dynamic and, at times, uncertain business environment, workers' business development skills should include an understanding of risk management and governance skills. These are skills that may be found explicitly within the professional services sector as well as in other industries.

Localised knowledge

Loddon Campaspe is a unique region with fertile land and water access, a reputation for quality cultural attractions, innovative culture, engagement in cutting edge research and global markets, and transport connections to domestic markets. Local advantages include an appreciation of Aboriginal continued connection to Country and culture, understanding of the legacy of heritage industries and passion for environmental conservation. Businesses can capitalise on these points of difference to attract and retain workers to the area.

¹⁶ The Loddon Mallee Jobs and Training Needs Report captures additional LGAs not included in the Loddon Campaspe region as classified in this profile.

Opportunities to address workforce and education outcomes

This section presents potential responses and solutions to address the key regional challenges and skills requirements including case studies and examples where the region is already tackling the issues.

Overview of potential responses







Consultation across the region identified a range of potential education and training responses across Loddon Campaspe to address the current and emerging challenges facing major industries.

This profile acknowledges broader issues, policy and funding solutions that could support the Loddon Campaspe region to address workforce and skills requirements. Proposed responses within this profile specifically focus on skills and education related responses within the remit of the Victorian Skills Authority (VSA) and Loddon Campaspe Regional Skills Taskforce.







The VSA has engaged (and will continue to engage) across government to share feedback and input to broader megatrends impacting the region, and the Loddon Campaspe Regional Skills Taskforce acknowledges the need to continue engaging in advocacy activities to address some of these issues.

An overview of the common skills-related challenges and overarching opportunities are outlined below, with further detail on potential actions.

Figure 20: Overview of challenges and overarching responses across the major industries

Common workforce and skills challenges	 Perceptions of jobs across the major industries	 Limited understanding of industry growth and associated career pathways	 Alignment between education and training and workforce needs	 Barriers to accessing education and training	 Inter and intra sector workforce competition	 Risk of low skilled workforce
Overarching solutions	Promote the benefits and opportunities within key industries	Promote awareness of industry activity and associated career pathways	Leverage industry experience to develop innovative training approaches	Identify and address the barriers to participation in education and training and transition to employment	Promote greater inter and intra-sector collaboration	Increase opportunities for continual learning and development

To support next steps and further discussions in relation to these proposed actions, including further implementation planning, each of the actions is examined in terms of complexity and impact.

Complexity relates to the effort required to implement the proposed responses. Implementation considerations include factors such as resourcing, funding and number of steps and additional consultation required to commence activities.	Impact horizon relates to how long it will take for the benefits of the proposed response to be realised. This is intended to identify responses that will have an immediate impact over the next 1-2 years, compared to those that will start to see results over the medium term (3-5 years) and long-term horizon (5+ years).
<p>Key</p> <p>Little to no complexity </p> <p>Some complexity </p> <p>Complexities present </p>	<p>Key</p> <p>Short-term impact </p> <p>Medium-term impact </p> <p>Long-term impact </p>



'Bendigo as a UNESCO City of Gastronomy is recognised as a "foodie and creative hub." '

Key Response Area 1: Promote the benefits and opportunities within key industries in Loddon Campaspe





New approaches which promote the benefits and attractiveness of traditional or high growth industries are required to help shift perceptions of some of Loddon Campaspe's major industries and skills pathways.

While there are already information resources available, there is a need to increase the coordination, scale, accessibility, and promotion of these resources to address negative perceptions, and to better target messaging for parents, teachers and careers counsellors who have a significant influence on students' perceptions.

Proposed solutions to promote the benefits and opportunities within key industries in Loddon Campaspe

Potential actions within the remit of the Victorian Skills Authority	Complexity of implementation	Impact horizon
<p>Support the Senior Secondary Pathways reform agenda through facilitation of local opportunities to improve VET within the region</p> <p>The Department of Education is enhancing vocational focused education and training in senior secondary schools, including focusing VET delivery in schools to occupations in demand (to grow supply of school graduates to industry) and through the VCE Vocational Major offering broader preparation for careers and work-readiness.</p> <p>The VSA is supporting the reforms with guidance on occupations and industries in demand and advice, to be developed, on the nature of skills needed for the future. These skills vary on a regional basis across Victoria, depending on concentrations of industries so context relevant information can assist in targeting vocational learning. The region is well positioned with several facilities and institutions, including the Bendigo Tech School and Bendigo-Kangan TAFE locations across the region in Echuca and Castlemaine to deliver VET to secondary school students. There are opportunities for local education and training institutions to work together to plan and expand skills development and work exposure experiences.</p>		
<p>Strengthen connections between education, industry, and non-traditional experience pathways across Loddon Campaspe's major industries.</p> <p>Raising awareness and increasing exposure to career opportunities can help increase the supply of workers. The Girls in STEAM Electrical Car Project delivered at the Bendigo Tech School¹⁰⁹ is one example of programs in the region that are designed to showcase the exciting opportunities presented by industry and that break down traditional stereotypes to attract a future workforce. Similarly, the Maryborough Energy Breakthrough is held annually for students in the region and beyond (detailed in the case studies below). While there is no shortage of programs on offer in the region, there are limitations to the number of participants who can benefit from such activities due to funding and scaling challenges, particularly in areas outside major cities or towns in the region.</p> <p>The Loddon Campaspe Regional Skills Taskforce can use its unique position to aid coordination, quality and reach of organisations, such as Skills and Jobs Centres, the Local Learning and Employment Networks (North Central, Campaspe Cohuna and Goldfield) and Learn Locals in Loddon Campaspe, to increase provision and accessibility of services.</p>		



Potential actions that can be achieved through collaboration across the region and with broader partners and stakeholders	Complexity of implementation	Impact horizon
<p>Promote successes of industries or sectors in Loddon Campaspe and recognise the value of ‘everyday’ jobs that enable other activity</p> <p>The Loddon Campaspe region can work through the taskforce and other channels to respond to negative perceptions of some major industries and highlight the new employment and career opportunities within the region. While students are a key audience for these activities, parents, teachers and career counsellors are equally important given the role they play in influencing perceptions. Success stories should include communication about industry advancements and wins that help contextualise the sector within the broader economy.</p> <p>For example, RPM Pipes manufactures pipes from recycled bottles to close one loop in the circular economy (detailed in the case studies below). Industry, education and training institutions and local government can play a role in providing this new (rather than historic) lens into industry. This may include work to identify existing and new channels for communication to the target audience.</p> <p>More specific examples to promote successes within each industry are provided in the industry profiles in Appendix A.</p>		
<p>Facilitate employment of underrepresented and non-traditional cohorts</p> <p>Strengthening recruitment, onboarding support and retention activities and wrap around support is critical to assist employment of diverse groups within industry. These groups can include women who may be returning to work after caring responsibilities and are considering non-traditional industries, or those from CALD and Aboriginal and Torres Strait Islander communities. Support would be in collaboration with existing Commonwealth and state employment programs and could include targeted mentoring programs, specific training and skills development or mutual support from colleagues with similar lived experiences. There is opportunity to expand on localised engagement with those groups, such as the growing Karen community in Bendigo, to promote economic and social inclusion. Noting the growing population of people born overseas, and identifying as living with a disability, extra care should be taken to develop targeted messaging to reach these segments, and intersecting groups. Examples of engagement activities include mentoring programs, specific training and skills development programs, access to colleagues with similar lived experiences and backgrounds.</p>		

Case study: Energy Breakthrough Maryborough

Since 1991, Maryborough has hosted the Energy Breakthrough for students, teachers, parents and local industry to work together to design and construct a vehicle, a machine or innovation. Ranging from the design and construction, display, and presentation, and finally trials stages, the learning experience exposes participants to the opportunities of science, technology, engineering, the arts and math (STEAM). More than 300 teams from 150 schools participate each year to foster a community of passionate young innovators and showcase the Maryborough region as a centre for collaboration and technology.

Case study: RMP pipes

The heavy industries and related fields such as manufacturing are still often perceived as environmentally unfriendly when this is largely no longer the case. Based in Kyabram, RPM Pipes transforms plastic waste such as milk bottles into robust and fully recycled pipes for irrigation and earthworks. RPM has demonstrated how local firms in the 21st century can embrace the circular economy by closing the loop on waste, utilising solar power and engaging in sustainable water use practices.







'Re-skilling and upskilling is an increasingly critical way to secure employment opportunities and progress meaningful careers.'





Key Response Area 2: Promote awareness of industry activity and associated career pathways

Campaspe region and career pathways available within the region; a common barrier to increased skills development, attraction, and retention into major industries across the region.

Engagement across the region flagged that there is limited understanding about the major industries in the Loddon

Proposed ways to promote awareness of industry activity and associated career pathways		
Potential actions within the remit of the Victorian Skills Authority	Complexity of implementation	Impact horizon
<p>Publication of industry data and trends for current and prospective students, parents and career counsellors</p> <p>The Victorian Skills Authority (VSA) can work with local industry, education and training providers and local government to develop and share data and insights in a student-friendly manner that can support greater understanding of job and career opportunities within the region, enabling more informed education and employment decisions. This data should be shared among students, mid-career workers, teachers, career counsellors, parents and other networks who influence students' decision making. Reach and impact of this work can be accelerated through the Victorian Skills Gateway, Skills and Jobs Centres and leveraging existing forums and work underway as part of the Bendigo Education Plan.</p> <p>Linked to this is a role for the VSA to present this industry data alongside the relevant courses and qualifications that are available locally. Providing this information in a readily accessible way would support clearer understanding of educational pathways and encourage students to study in the region.</p>		
Potential actions that can be achieved through collaboration across the region and with broader partners and stakeholders		
<p>Expand engagement activities with students and their networks</p> <p>Forums and programs can open up opportunities for industry to partner with schools and students to build more tangible understanding of employment and career opportunities within the region. School leavers rarely make training decisions in isolation and are often influenced by peers, parents, and teachers. Similar to the opportunities created by the Local Learning and Employment Network (LLENs) monthly industry-to-education 'influencer' dialogues and the Goldfields LLEN Passion and Pathways Program (detailed in the case studies below), there are opportunities to leverage existing partnerships and connections to expand the reach of industry-employer engagement with students at schools, TAFEs and universities. Engagement can extend beyond formal recruitment opportunities and include broader visibility in the community, such as through supporting public events or sponsorship to build business interest and awareness.</p>		



Potential actions that can be achieved through collaboration across the region and with broader partners and stakeholders	Complexity of implementation	Impact horizon
<p>Targeted engagement with students and vulnerable communities to build awareness of education and training and career pathway opportunities</p> <p>Tailored and targeted programs to engage students and vulnerable cohorts into education, training and employment is needed for vulnerable job seekers and early school leavers This can be achieved through:</p> <ul style="list-style-type: none"> • City of Greater Bendigo programs supported by the Community Employment Connector to engage young and multicultural workers • situational learning opportunities and work placements that enable students to learn while earning an income, thereby reducing a cost barrier to train, such as The Placement Circle programs through WomenCAN (detailed in the case study below) • work placements and work exposure experiences to provide the practical understanding of work skills and expectations of employers. • identifying supports for vulnerable students as they transition into senior secondary school, in order to ensure young people have more opportunities to access pathways which better meet their interests, ambitions and support needs. 		
<p>Expand information campaigns to improve understanding of cross-industry career pathways</p> <p>Employer engagement within a community helps attract new workers. The opportunity for professional development and progression is a key factor in the choices people make about their careers. In a region with small firms with low employee numbers and progression opportunities, workers may need to seek employment with other businesses in the region to continue their own development. Better and more consistent recognition of skills and their application across businesses in the region is needed. Showcasing successful leaders and individuals with diverse, impactful, and rewarding careers across industries, or in different roles within industry, can help attract prospective workers, retain younger workers and highlight the endless opportunities for career development for those seeking a change.</p>		

Case study: WomenCAN earn and learn

WomenCAN is a not-for-profit organisation committed to the independence and empowerment of women, specifically through vocational training and employment pathways. The Placement Circle facilitates training for in-demand fields, including aged care, carpentry, and plumbing. In offering courses in non-traditional female fields, WomenCAN helps to change perceptions about key industries in Loddon Campaspe and, importantly, provides an opportunity to 'earn and learn' in the process. Reducing the cost barrier to training and work incentivises greater participation in these initiatives.

Case study: Passions and Pathways

Passions and Pathways is a primary school-based program that aims to expose children to potential career pathways—especially those which may be considered non-traditional or with less visibility. This program is hands on and connects students with real life business and entrepreneurial projects in order to start conversations and spark aspirations about what they'd like to be when they grow up. Not only for students, the program also works to coordinate teachers and industry as to how they can best support students in their training journey. Notably, this program is founded upon self-discovery, core competencies (soft skills) and imagination which promotes an attitude of continual learning.



'Working in collaboration with industry representatives and employers, the VSA can support the Loddon Campaspe region with workforce planning through the sharing of data and insights between the VSA and the region.'






Key Response Area 3: Leverage industry experience to develop innovative training approaches

meet emerging and future industry needs. Improved training experiences are also likely to increase attraction to continued training.

Employers and industry representatives can play a more active role in planning and delivering education and training that upskills the current and prospective workforce to

Proposed ways to leverage industry experience to develop innovative training approaches		
Potential actions within the remit of the Victorian Skills Authority	Complexity of implementation	Impact horizon
<p>Provide local insights to support the development of the annual Victorian Skills Plan</p> <p>The Victorian Skills Plan consists of a suite of products that can support the facilitation of targeted and purposeful collaboration across industry and training providers to address emerging and future skills needs.</p>		
<p>Work with the VET Development Centre (VDC) and industry expertise to support teacher training and development</p> <p>The new and deeper skills taskforce members highlighted as priority for the region will require new vocational education teaching capability. The Victorian Skills Plan highlights the need for strategy to lift VET teacher capacity for future skills. The VDC is also able to develop programs to bring the latest in industry skills to teachers through professional programs and raise the professional standing of the VET workforce.</p>		
Potential actions that can be achieved through collaboration across the region and with broader partners and stakeholders		
<p>Encourage industry and education providers to take a place-based approach to course design and delivery</p> <p>Vocational education providers indicated that accreditation rules for some VET qualifications and associated funding limited their ability to deliver vocational programs aligned to the needs of the region, or specific requirements lead to high-cost structures given limited student numbers. The new organisational arrangements for VET in Victoria focusing on planning for future skills need to consider how delivery can be best organised at a regional level.</p> <p>Travel to Bendigo (for those who live outside the city) or to Melbourne to complete courses can be a barrier to completion, draw valuable workers away from the region, and compromise regional relevance of content. This issue is particularly acute with limited educational provision in areas outside Bendigo, low car ownership and limited public transport in areas outside of the major towns in the region.</p> <p>Education providers also face challenges running courses at scale and in locations outside of larger regional cities or towns. Integrated educator or industry initiatives need to play a greater role in addressing some of these gaps, such as the Department of Jobs, Skills, Industry, and Regions (DJSIR) Digital Jobs program¹¹⁰ that supports mid-career workers to gain industry experience; and La Trobe University's CityStudio program currently delivered in Bendigo.¹¹¹</p>		



Potential actions that can be achieved through collaboration across the region and with broader partners and stakeholders	Complexity of implementation	Impact horizon
<p>Provide wider access to existing industry-specific training materials and facilities to prepare students and prospective employees for employment</p> <p>A concern of some current training methods is that some courses do not adequately prepare students for work in industry. An increasing number of medium and large organisations have developed their own internal training, and there are opportunities for industry to increase awareness about their sector and develop fundamental competencies prior to starting a job by making their courses available. Some examples of internal industry training programs include the Feedlot TECH online program, and the internal ‘universities’ for upskilling staff at the Bendigo and Adelaide Bank and Clear Dynamics (detailed in the case studies section). Enabling public access and, or collaboration across companies has the potential to add considerable value to the training sector.</p>		
<p>Facilitate a smooth flow of teachers between industry and training</p> <p>Increasing attraction and retention of accredited trainers with relevant, up-to-date industry experience can help address skills gaps and development opportunities for current and future higher education and VET students. There are opportunities for industry to partner with education and training institutions across the region to plan and deliver relevant and engaging education that equips graduates with contemporary skills for a successful transition into employment.</p>		
<p>Collaboration across industry and education and training institutions to design and deliver industry-recognised short courses, including micro credentials</p> <p>The Loddon Campaspe region has a number of education and training institutions that have the skills, technologies and capabilities to work collaboratively with industry to design and deliver short courses that address niche skills gaps and, or can focus on core interpersonal, digital and sustainability skills relevant to the respective industry. La Trobe University’s Rural Health School, in partnership with the TAFE sector, has already been identified as one such provider of micro-qualifications in the health sector. The Bendigo Tech School also provides opportunity to work through short, structured programs (detailed in the below case studies). In the absence of formalised micro-credentials that focus on meeting these skills requirements, there are still opportunities for industry and education and training providers to work together to trial and deliver courses that can help upskill existing employees.</p>		

Case study: Bendigo Tech School

The Bendigo Tech School is a 'technology hub' that facilitates programs and working relationships that emphasise and enable the vital science, technology, engineering, arts and mathematics (STEAM) skills needed for the 21st century. Bendigo Tech School complements the education delivered by partner secondary schools through providing access to the latest technologies, state-of-the-art facilities, and innovative learning programs. Programs are developed in partnership with local industry, community, and schools. The school is currently only accessible for students within the Bendigo catchment area.

Case study: internal training programs: Bendigo and Adelaide Bank, Clear Dynamics







Bendigo and Adelaide Bank and Clear Dynamics are 2 large firms operating in the Loddon Campaspe region and beyond. Both organisations offer internal training programs and qualifications to staff to facilitate upskilling, understanding about the business, and a standard level of competencies for staff. For Clear Dynamics,, training is a core part of engaging with work itself as completion of specific modules grants clearance to work on jobs to a certain level of complexity. This program is coordinated by a dedicated learning and enablement lead. Internal programs can help workers keep up with rapidly changing work environments – especially relevant in technology related fields.







'Advocacy, promotion, and facilitation of opportunities for life-long learning through micro-credentials, short courses and personal and professional skills development has been identified as a key solution to address skills gaps.'

Key Response Area 4: Identify and address barriers to participation in education and training and transition to employment

Understanding the specific challenges for Loddon Campaspe's current and prospective learners is critical to adequately address the barriers to participation in education and training and a transition to employment in the region.

Proposed ways to identify and address barriers to participation in education and training and transition to employment		
Potential actions within the remit of the Victorian Skills Authority	Complexity of implementation	Impact horizon
<p>Undertake explorative research to better understand the data, trends and factors affecting participation in education and training</p> <p>High levels of educational attainment have broad social and economic impacts in a region. Lower levels in these areas risk people being excluded from the opportunities arising from business and industry expansion. A better understanding of the data, trends and factors affecting participation in education and training with the region can enable more appropriate responses to address and increase participation in education and training and transition to employment.</p>		
Potential actions that can be achieved through collaboration across the region and with broader partners and stakeholder		
<p>Highlight the opportunities and benefits of lifelong learning</p> <p>There is opportunity to engage and support targeted initiatives focusing on particular age groups, cultural groups and geographies which position training and skills development as an inherent part of the life-journey and as a passport to a range of employment opportunities and career development. The Victorian Skills Authority (VSA) can work with local education providers in Loddon Campaspe, as well as the Office of the TAFE Coordination and Delivery, to deliver this response and promote initiatives to reposition the narrative surrounding training.</p>		
<p>Partner with regional, community and other industry bodies to improve access to a holistic suite of support services for students completing their studies</p> <p>While further training and education is a pathway for many students into career pathways, there are others for whom continuing and completing training is particularly challenging in and of itself due to circumstantial factors. These may include generational disengagement from employment or training, health-related barriers, carer commitments, or competing financial demands. Given that many of these determinants cut across social, economic and health concerns, there is opportunity for regional, community and industry to collaborate to improve access to a holistic suite of support services. This may include language support, mentoring or buddy systems, financial advice and support and flexible working arrangements.</p>		



Potential actions that can be achieved through collaboration across the region and with broader partners and stakeholder	Complexity of implementation	Impact horizon
<p>Advocate and support the coordination of local initiatives to address housing accessibility challenges that are impacting participation in education and training, employment and upskilling of current and prospective learners and workers</p> <p>Consultation across industry and with the Loddon Campaspe Regional Skills Taskforce Members highlighted the significant impact of housing accessibility and affordability within the region on education, training and workforce participation. While housing and other related policy is not within the remit of the VSA, the Loddon Campaspe Regional Skills Taskforce reflected on the importance of addressing these challenges to enable success across broader skills and workforce participation. Key strategic investment within the region is likely to accelerate accessibility to housing and accommodation. Investment in housing and accommodation within the region leaves opportunity for innovative solutions to the challenge, such as:</p> <ul style="list-style-type: none"> • opportunities to expand and upgrade intern and training accommodation at local hospitals • identifying areas for medium density developments that are close to public transport and central activity hubs • identifying surplus government-owned land that could be repurposed for housing • opportunities to incentivise motels, caravan parks or other accommodation providers to provide permanent or semi-permanent accommodation for workers in the region • supporting faster housing construction solutions, such as modular housing, to reduce length of time to build houses. • encourage accommodation options outside of traditional regional centres that are serviced by additional transport to support special events <p>The VSA can help advocate for investment across government, including with Homes Victoria, and support identification and coordination of innovative solutions similar to the ones identified above to address this challenge.</p>		
<p>Prepare prospective students to enter formal learning through non-traditional program pathways</p> <p>While training and education are key pathways to upskilling and developing skills needed for employment, there are also some for whom studying and training in a traditional classroom setting is not attractive. Further investment and support to expand new ways of learning can support a broader range of people to access the skills and employment they need to build rewarding careers. Existing examples include the NCLLEN Youth Take Over project and Head Start, both of which have seen considerable success in the Loddon Campaspe region by providing hands on, tailored, and supported placements as a central part of a broad, skills-focused learning program (detailed in the below case studies).</p>		

Case study: Youth Take Over – Local Learning and Employment Network

The Youth Take Over program is an opportunity for young people in Loddon Campaspe aged between 17 to 25 to work with businesses in solving real challenges. Aimed at school leavers, programs are highly localised and facilitated by passionate experts, which helps keep participants engaged and equipped with the transferable technical, social, and professional skills to fuel interest in further study or work opportunities.

Case study: Head Start

Head Start is a government Initiative which complements school-based education with an apprenticeship or traineeship. Enrolments and completion rates for Head Start in Loddon Campaspe have been particularly high creating a strong platform for the expansion of the program from 2022.



'As the Loddon Campaspe region becomes more diverse, there is also a need for workers and businesses to be culturally inclusive.'

Key Response Area 5: Promote greater inter and intra-sector collaboration among businesses in Loddon Campaspe

There are clear opportunities for employers to work collaboratively on workforce attraction, upskilling, re-skilling and retention, through shared workforce planning.

Proposed ways to promote greater inter and intra-sector collaboration among businesses in Loddon Campaspe		
Potential actions within the remit of the Victorian Skills Authority	Complexity of implementation	Impact horizon
<p>Provision of data and insights to support workforce planning</p> <p>The Victorian Skills Authority (VSA) collects and reports on data and insights that can be shared to support workforce planning across the Loddon Campaspe region. Working in collaboration with industry representatives and employers, the VSA can support the Loddon Campaspe region with workforce planning through the sharing of data and insights between the VSA and the region. This could include workforce data at a holistic perspective and more closely focusing on gender, diversity, and inclusion measures with time.</p>		
<p>Actively support the Bendigo Education Plan</p> <p>The VSA can collaborate with the working groups progressing the goals of the Bendigo Education Plan and connect the Loddon Campaspe Regional Skills Taskforce with this work to bring fresh momentum and leveraging the insights gained through the development of this profile. In particular, the working group focused on the goal of ‘collaborating with community, business and industry to lift engagement, learning and developmental outcomes’ is looking at opportunities for education services to work with the community more broadly, including industry and businesses and other local organisations. Increased collaboration to ensure young people have more opportunities to access pathways which better meet their interests, ambitions and needs are likely to improve outcomes for young people as they transition into senior secondary education.</p>		
Potential actions that can be achieved through collaboration across the region and with broader partners and stakeholders		
<p>Advocate for simplifying participation pathways for workers in transition across industries or mature and retiring cohorts</p> <p>Current Recognition of Prior Learning (RPL) and Recognition of Current Competency (RCC)¹⁷, credit transfer and recognition of local and international qualification standards within Victoria can often be challenging given the time, financial and process constraints. This often acts as a deterrent from enabling individuals with skills and capabilities to uptake job opportunities and progress their careers. The VSA can advocate for relevant changes at the state and federal level.</p> <p>Initiatives that lead to greater recognition of non-traditional knowledge and skills acquirement, including through on-the-job learning and work experience, can support greater attraction across Loddon Campaspe’s industries where occupations and skills are in demand. Similarly, initiatives to reconnect recently retired workers to flexible working arrangements without substantial impacts to pension or superannuation payments, for example, is another way that industry can retain expertise without added costs of re-upskilling or training employees.</p>		

¹⁷ Recognition of Prior Learning (RPL) and Recognition of Current Competency (RCC) means that knowledge and skills acquired through work or life experiences may be recognised as equivalent to some specified course outcomes.







Potential actions that can be achieved through collaboration across the region and with broader partners and stakeholders	Complexity of implementation	Impact horizon
<p>Shared recruitment pools across organisations where appropriate or feasible</p> <p>Minimising the flow of workers from the region to metropolitan areas remains a constant challenge in organising the local workforce. Loddon Campaspe representatives flagged the opportunities for greater coordination and collaboration between businesses' recruitment processes and practices within the region. One possible approach is development of an industry-led centralised 'bank' of employee applications that streamlines the application and recruitment process. From an employer perspective, this allows assurance that even if a candidate is qualified but not of best fit, there are assisting frameworks that allow them to be matched to a company of better fit and to stay in Loddon Campaspe. Coordinated in this way, there is also potential for models of shared employment where organisations can look to leverage individuals with niche and, or transferable skills across more than one business.</p> <p>While there are potential risks and tax limitations associated with individuals having multiple employers, identifying the success factors of previously implemented shared recruitment models would help to ensure the appropriate mechanisms are in place for any models considered.</p>		
<p>Facilitate peer learning and cross-business mentoring</p> <p>Under-employment and inconsistency of working hours is not uncommon, particularly in industries with seasonal demand such as the creative, cultural and visitor economy (CCVE) sector. Additionally, short courses are not always appropriate, tailored or feasible for workers to undertake.</p> <p>Upskilling staff in different aspects of operations (for example, front of house, online marketing, accounts) through mentor partnerships with other local businesses enables workers to develop a portfolio of skills that are less seasonally dependent, thereby boosting potential hours worked and minimising the need to hire additional staff. Opportunities for larger businesses to support smaller businesses to offer on-the-job mentoring could also be explored by Loddon Campaspe Regional Skills Taskforce members. In other industries, such as infrastructure, heavy industries and food manufacturing, this mentor partnership can also occur on a business-to-business – rather than individual-to-individual – basis, by facilitating partnerships between small and large contractors in the delivery of key projects. This allows the smaller company both to provide support and to gain exposure to jobs on a larger scale. This will be particularly helpful where smaller companies are transitioning from family operated to more public operations.</p>		

Key Response Area 6: Increase opportunities for continual learning and development

Lifelong learning is critical to ensure the development of a future-proof workforce that can continue to grow and adapt to emerging industry and technological skills and requirements. Advocacy, promotion, and facilitation of opportunities for life-long learning through micro-credentials, short courses and personal and professional skills development has been identified as a critical solution to address skills gaps.

Proposed ways to advocate and promote lifelong learning for a future-fit workforce		
Potential actions within the remit of the Victorian Skills Authority	Complexity of implementation	Impact horizon
<p>Increase access and provision of support for Aboriginal people to enter education, training and employment through working closely with traditional owners</p> <p>Building on existing initiatives and collaboration across the region, the Victorian Skills Authority (VSA) is seeking to increase engagement and provision of support for Aboriginal people to support them to enter into education, training and employment and ensure education and training is meeting the current, emerging and future skills needs of Aboriginal people. Through this engagement, the VSA will focus on a range of areas, including (but not limited to):</p> <ul style="list-style-type: none"> • understanding the barriers to engaging in education, training and employment, • ensuring education and training opportunities are packaged and communicated with Aboriginal people across Loddon Campaspe through existing effective channels, including organisations that already deliver these services 		
<p>Future skill requirement planning and mapping</p> <p>Advances in big data techniques which can identify work skills from job advertisements and other sources has given rise to a focus on skills needed for work to complement qualifications.</p> <p>The VSA is exploring ways to better map and showcase skills in relation to occupations, working with industry and education and training providers. Developments in this area can assist with skills-based recruitment for employers in the region.</p>		
<p>Promotion of micro-credential courses that can meet industry and employee skill development needs</p> <p>Re-skilling and upskilling is an increasingly critical way to secure employment opportunities and progress meaningful careers. Employers and employees are expected to look to short, sharp and focused skill development opportunities that address emerging skills requirements with both a time and financial consideration at play. The VSA is engaging across industry and the region to understand and plan for the development of the right skills sets. This work can leverage existing localised developments, such as the Loddon Campaspe Health Sector Skills and Pathways Roadmap, Greater Bendigo Economic Development Strategy, and the Regional Engineering and Advanced Manufacturing (REAM) Roadmap which detail the skills needed now and into the future.</p>		



Potential responses that can be achieved through collaboration across the region and with broader partners and stakeholder	Complexity of implementation	Impact horizon
<p>Design and delivery of micro-credential courses to upskill employees</p> <p>There is opportunity for industry to work with local education and training providers to design and deliver courses that meet the skills requirements required to upskill existing employees. This may include, but is not limited to, leadership training, conflict management and resolution, and foundational and advanced digital skill development. Refer to the responses under the heading ‘Leverage industry experience to develop innovative training approaches’ for further detail. Noting that there is often a mixed level of skill required within a sector, there is also opportunity to identify the factors, mechanisms and supports required to successfully transition from unskilled to skilled roles.</p>		
<p>Review and redesign recruitment processes to prioritise core (soft) skills, alongside technical competency</p> <p>Numerous industry roundtable discussions highlighted a preference in candidates with an aptitude to learn and an interest in the subject of work over pure technical knowledge. As a result, recruitment and application processes should reflect this preference. This could include informal interview portions of the process, relaxing of qualification requirements (where appropriate), and involving operational staff in the recruitment process alongside human resources (HR) or similar teams.</p>		
<p>Promote a culture of learning through establishing communities of practice around different industries, technological innovations or skill level cohorts</p> <p>Establishing communities of practice for entry and mid-level workers provides an opportunity for workers to connect, learn and upskill. Because of the interactive and collaborative nature found in many communities of practices, participants are empowered to take ownership of their learning journey. Additionally, strengthening of personal relationships is also likely to increase employee retention within a company and region once those networks are created. Buddy or mentor programs also encourage continual learning specifically in mid-level roles as management and interpersonal skills can be further developed. Matching a junior and manager brings the added benefit of creating channels between ‘on the ground’ and strategic roles.</p>		



Appendix A: Industry profiles



This section includes detailed industry profiles for each of the 7 major industries across the Loddon Campaspe region.

The following information is provided within each of the industry profiles

- an overview of the industry, its composition and presence in the region
- top occupations and forecast demand
- current education and training trends
- current, emerging and future skills requirements
- opportunities to improve education, training and workforce outcomes

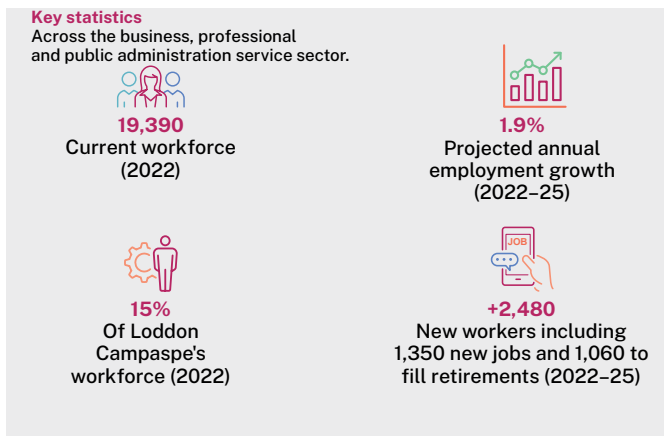
While this profile acknowledges and references the broader issues, policy and funding solutions that could support the Loddon Campaspe region to address the enabling and fundamental workforce and skills requirements, the proposed responses within this profile specifically focus on skills and education related solutions within the remit of the Victorian Skills Authority (VSA) and the Loddon Campaspe Regional Skills Taskforce.

Business, professional and public administration services industry profile

The business, professional and public administration services (BPPS) sector includes a wide range of professional services such as legal, accounting, architectural and design, engineering, and digital or technology services; scientific research; financial and insurance services; and public administration services including state, federal and local government and public safety services.

Together, these industries make up almost 15% of Loddon Campaspe's total workforce, employing approximately 19,400 people in the region.¹¹² This industry is also the largest contributor of GVA to the value of \$1.9 billion to the local economy in 2021, which is about 21%.¹¹³

Figure 21: Loddon Campaspe's business, professional and public administration services (BPPS) industry snapshot



Key strengths

Broader industry diversity in the Loddon Campaspe region means that there are many opportunities for employment in the BPPS sector. For example, tech companies that support other businesses in data processing and management, planners that enhance usability of community spaces, and agronomic consulting services that facilitate effective agricultural practices.

BPPS actors in the Loddon Campaspe region have the breadth of knowledge to capitalise on the opportunities presented by the growing focus on governance, compliance, and reform across the State more broadly. From a research perspective, the Loddon Campaspe region benefits from the presence of La Trobe University in Bendigo which is home to the Violet Vines Marshman Centre for Rural Health Research, Advanced Manufacturing and Innovation Hub, and Food and Fibre Centre of Excellence as detailed in the health care and community services, heavy industries and food and fibre industry sections respectively. A robust framework for research and innovation allows production in this region to increase its value proposition.

The current construction of Galkangu – also known as the GovHub for the Loddon Campaspe region – will provide a \$131 million boost to the local economy, create 200 jobs during construction and eventually house 1,000 employees upon completion.¹¹⁴

Key challenges and opportunity areas

The ubiquity of professional service associated skills and jobs including accounting and computer science to the function of all business mean that the reach and value of jobs in this sector can often be integrated into other industry activity and not an independent sector. Emphasising the transferability and diverse application of such skills is likely to increase interest in the sector.

Opportunities to increase attraction and retention through improving understanding of local career pathways

Industry roundtable members reflected that the BPPS sector can often be overlooked by prospective workers due to limited understanding of the breadth of industries and opportunities available in the sector. The challenge of securing the future pipeline is further compounded by demand for BPPS workers in metropolitan Melbourne and across other regional cities.

The issue of retention in the area is complex and, in some cases, external to the choice of the prospective worker. For example, it was raised that international students studying BPPS related courses in Loddon Campaspe may be unable to remain in the region due to visa requirements. For others, limited access to appropriate and affordable accommodation and internet connectivity issues poses as a barrier.

Activities to improve internet access throughout the region, as detailed in the Loddon Campaspe Regional Digital Plan Summary¹¹⁵ including the 100G Bendigo program,¹¹⁶ are likely to facilitate growth in local BPPS operations with better connectivity. While this further enables 'work from home' opportunities for local residents with BPPS businesses outside of the region, local businesses have an opportunity to build and promote the value proposition and benefits of local career opportunities through improved connectivity capabilities of the network.

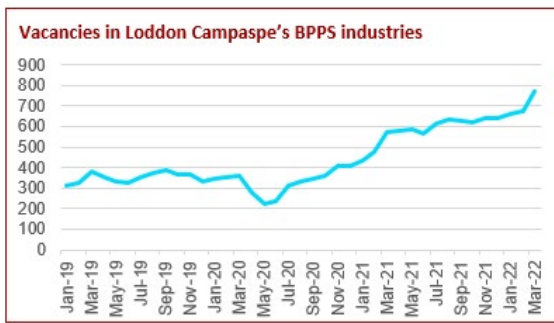


Inter and intra-sector competition for a limited workforce pool

Industry roundtable members noted that there is significant competition amongst businesses for qualified workers of best fit. There is a particular need for staff with competencies in risk, audit, strategic planning, and environmental, sustainability and governance (ESG) specialists.

Vacancy trends across the BPPS sector have continued to increase, with twice the number of advertisements in March 2022 than in March 2019.¹¹⁷

Figure 22: Business, professional and public administration services (BPPS) industry related vacancy changes in Bendigo and the High Country



Source: LMIP I/VI Vacancies Data
 Includes: Chief Executives, Managing Directors & Legislators; Corporate Managers; ICT Professionals; Legal, Social and Welfare Professionals; Business, Finance and Human Resource Professionals; Information Professionals; Sales, Marketing & Public Relations Professionals; Transport and Design Professionals, and Architects; Science Professionals and Veterinarians; Engineering, ICT and Science Technicians; Numerical Clerks; Clerical and Office Support Workers; Other Clerical and Administrative Workers; Office Managers, Administrators and Secretaries

Industry roundtable members reflected on the importance of developing clear frameworks that allow people to study, work and spend in the region. Mapping activities conducted in other sectors such as the health care and community services (HCCS) sector provide one such approach to realising this goal.

Promote continual skills and training development opportunities to support industry growth

The BPPS landscape in Loddon Campaspe is evolving, both with respect to areas of expertise and methods of delivery.

With increasing use of technology and automation across all sectors, digital and IT skills are fundamental competencies for the BPPS sector to utilise in its support of other industries. Within public administration, data is moving at faster speeds, with higher sensitivity and larger volumes than previously. Knowledge of how to harness technology is likely to improve efficiencies within the management process.

While these technical skills are increasingly important, industry roundtable members emphasised that they should enhance, and not replace, the service orientated aspects of BPPS fields. More simply, that the core (soft) skills such as business development (including marketing and networking), analytical and creative thinking are the true value base for workers.

Interface with other industries and emerging sectors

The BPPS sector in Loddon Campaspe interfaces with a range of other industries.

Table 4: Key intersections across Loddon Campaspe's business, professional and public administration services (BPPS) sector

Health care and community services
Local councils have an important role to play in providing essential services to residents that impact and improve both mental and physical health.
Research and education
Research institutions like La Trobe allow Loddon Campaspe locals to identify and solve the issues facing the region, by those who know it best. There is opportunity to leverage cutting edge, nationally important institutions into the education sector such as through the Central Victorian Advanced Manufacturing Alliance and partnership with the German based Fraunhofer Institute.
Law, justice and community services
The region is home to several corrective institutions, including HM Prison Tarrengower and Loddon Prison, as well as courts and non-traditional, justice-based programs. There is opportunity to reduce recidivism and upskill and support offenders and victims through connecting institutions with the education and community sector.
Professional services and construction
There is a substantial level of private and public construction work occurring in Loddon Campaspe which leads to demand for professional services such as planners, architects, and engineers.

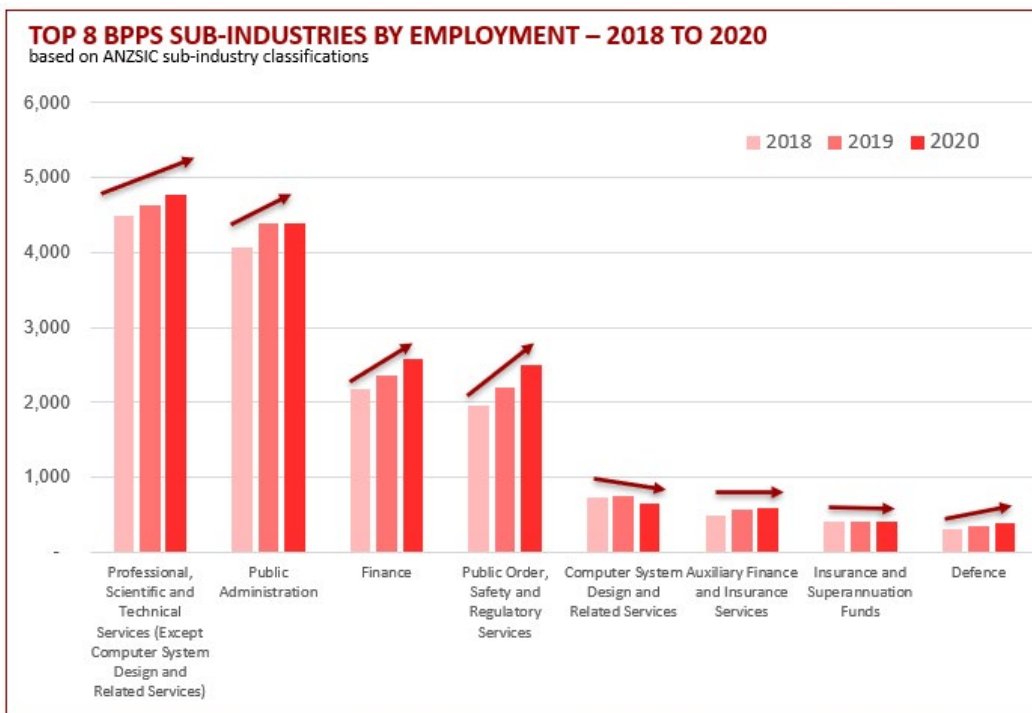
Recent and forecasted industry growth

Largest sub-industries by employment

Loddon Campaspe’s BPPS sector is comprised of several sub-industries. The professional, scientific, and technical sub-sector is the largest in Loddon Campaspe, comprising research services, engineering, veterinary and statistical services among others.¹¹⁸ The growth and net number of employees is larger than for the public administration sub-sector, likely a reflection of the key supportive role of BPPS in enabling other industries and growing population in the region.¹¹⁹

While data suggests that computer system design and related services is in a slight decline¹²⁰ despite the increasing use of technology in the economy, it may be that workers in this area are captured in other employment categories as jobs become more complex and the required skill sets integrate a range of competencies.

Figure 23: Top 8 business, professional and public administration services (BPPS) sub-industries by employment



Source: NIEIR Bendigo Regional Data, 2020



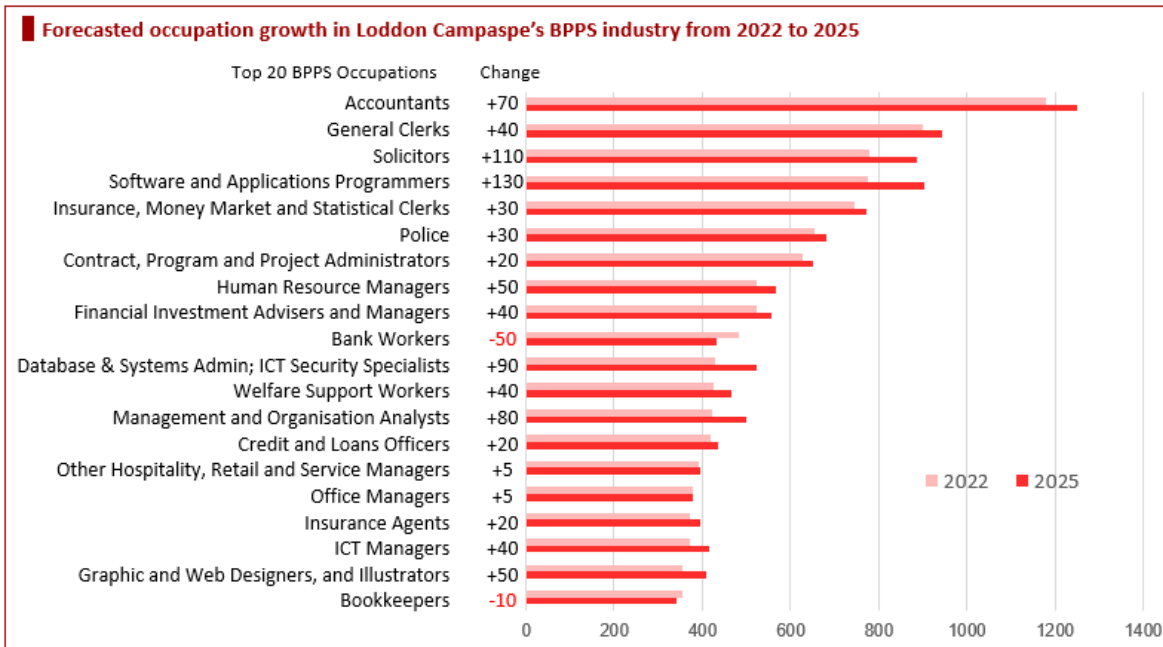
Forecasted growth by occupation

Current projections suggest that the BPPS workforce will grow by over 1,350 new workers between 2022 to 2025, but industry expects even more rapid growth.¹²¹ The attractive lifestyle proposition that the region offers for working professionals is a drawcard for future employees and employers to set up operations in the region.

This may be enhanced by working closely with other industries to provide attractive working options for family units and not just individuals. An additional 1,000 workers will be needed to replace the retiring workforce.¹²²

Forecasted occupation growth across this sector for the top 20 occupations (as classified by the ABS) is included below.¹⁸

Figure 24: Forecasted occupation growth in Loddon Campaspe’s business, professional and public administration services (BPPS) sector (2022–2025)



Source: Victorian Skills Authority Employment Forecasts, April 2022

¹⁸ This graph is not exhaustive (top 20 occupations only) and may not include other major roles and responsibilities as identified by industry.

Skills and occupation requirements

Beyond forecasted occupations based on ABS classifications, industry roundtable members raised a number of skills needs and capabilities required in the next 1–2 years (immediate needs) and 3–5 years (emerging needs).

	Immediate needs (1–2 years)	Emerging needs (3–5 years)
Business, professional and public administration	<p>Specific roles or occupations:</p> <ul style="list-style-type: none"> • financial crime expert • risk, governance and compliance • financial analysts and auditors • credit specialists • strategic and statutory planning • maternal and childhood health workers • environmental, social and governance (ESG) specialists (development and implementation or assurance) 	<p>Soft skills including:</p> <ul style="list-style-type: none"> • business development, marketing, sales and networking • thinking on the job • initiative • resilience awareness and techniques • analytical and creative thinking <p>Technical and digital skills:</p> <ul style="list-style-type: none"> • data analysts • cloud engineers • systems integration skills • IT ‘generalists’ • cyber security
		<ul style="list-style-type: none"> • Strategic planning – ESG specialists, risk and governance, strategic thinkers, growth planning • Business development – sales management, marketing and lead generation talent • Soft skills – consulting skills, stakeholder and shareholder relationship development





Opportunities to address workforce and education outcomes

Consultation across the region identified a range of potential responses to address the current and emerging challenges facing the BPPS sector across the Loddon Campaspe region.

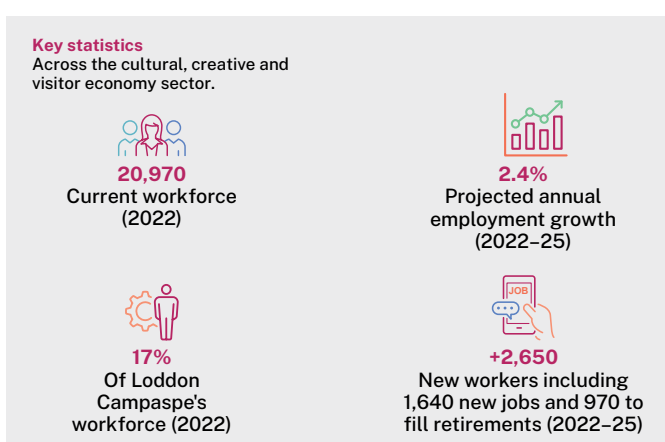
Table 5: BPPS sector proposed responses and solutions

Business, professional and public administration services sector proposed responses and solutions
Proposed responses within the remit of the Victorian Skills Authority
<ul style="list-style-type: none"> • Access to student, parent and career counsellor-friendly data and insights to help guide current and prospective students into the right education and training courses for occupations and skills in demand across the sector • Support strengthened links between providers, schools and employers through bringing together in BPPS industry representatives, VET and higher education providers in industry roundtable discussions to build greater understanding of industry needs and provide complementary courses • Work with industry and education and training providers to map skills to occupations and training packages
Proposed responses to be achieved through broader collaboration across the region and with broader partners and stakeholders
<ul style="list-style-type: none"> • Advocate for Digital Jobs program to engage mid-career workers • Explore opportunities for work integrated industry-based learning and paid internships • Look for more opportunities to employ first and second year university students to embed them in the organisation during their studies across the industry more broadly • Encourage industry engagement in strategic and long-term planning to foster strong relationships between industry and schools • Facilitate ‘open house’ events and careers nights to attract greater participation across the industry and from current and prospective students • Support industry to leverage social media platforms as a way to connect directly with school leavers and prospective workers • Advocate for government to consider a HECS debt forgiveness program linked to working regional to incentivise moving or staying in the area • Prioritise development of core competencies in schools, education and training institutions and during employment • Strengthen mentoring and networking industry groups to attract more workers, learners and prospective employees • Reconnect recently retired workers with flexible working arrangements to provide expertise and development support for other workers • Capitalise on remote working arrangements to capture workers who want to ‘work for’ but not necessarily ‘in’ the region • Advocate for amendments to visa requirements to allow students to work more hours while studying • Provide social support for relocating workers and their families • Coordinate employer networks such that skilled prospective workers who are not best fit for one business can be employed elsewhere and remain in the region

Creative, cultural and visitor economy profile

The creative, cultural and visitor economy (CCVE) sector is defined in this profile as being the industries that support tourism in the region, including accommodation, hospitality, retail, and arts and recreation, and cultural activities. These industries together provide for over 21,000 jobs in the region¹²³ and contributed over \$855 million in GVA to the local economy in 2021.¹²⁴

Figure 25: Loddon Campaspe’s creative, cultural and visitor economy (CCVE) industry snapshot



Key strengths

Loddon Campaspe’s CCVE sector is enabled by a breadth of attractions and experiences across diverse natural assets, the arts, historical and culturally significant sites, as well as growing agritourism offerings. These include activities on and around the Murray River, such as the historic paddle steamers, Bendigo Art Gallery, state and national parks, and a strong calendar of music and art festivals. The location of the region attracts many visitors, including international, interstate and domestically from urban Melbourne and New South Wales (NSW).

Bendigo was also recently named Victoria’s Top Tourism Town and Echuca took the silver award, which will increase tourist activity in the region.¹²⁵ The sector has an opportunity to encourage more frequent, and longer overnight stays. There is also opportunity to promote visitation to all areas of Loddon Campaspe outside of the immediate Greater Bendigo region.

The Greater Creative Bendigo Strategy also emphasises the role of digitisation, maintaining a unique regional perspective and taking advantage of international opportunities as an enabler to realising these growth activities.

Beyond attractions and underpinning visitation to the region, food and agritourism experiences remain an important part of the sector with the Bendigo region a UNESCO City of Gastronomy and internationally recognised wine regions including Macedon Ranges and Heathcote providing high quality cellar-door experiences. Accommodation and retail continue to be significant employment subsectors in the region, providing jobs for upwards of 14,000 people in 2020.¹²⁷

Key challenges and opportunity areas

Loddon Campaspe’s CCVE sector is faced with seasonal variability in demand, boosting visitation in peak periods such as school holidays, but also on weekends and long weekends more generally. Labour shortages amidst increasing service demand challenge the sustainable operation of the sector in the current environment. Labour shortages raised by Loddon Campaspe Regional Skills Taskforce and industry roundtable members range from more generalised positions such as wait staff or retail assistants, to those requiring niche technical skills such as paddleboat captains and maintenance staff.

Promoting the value of the creative, cultural and visitor economy (CCVE) sector to the Loddon Campaspe region amidst growing demand for current and new workers

Industry roundtable and Loddon Campaspe Regional Skills Taskforce members frequently noted perceptions about CCVE employment as temporary and transient, and relatively unskilled, instead of a rewarding career pathway. Although Loddon Campaspe’s more ‘traditional’ industries are seeing a resurgence, the value of experiential and service-based activity in the economy cannot be underestimated with upward of 2,600 tourism businesses in the region.¹²⁸ With 74% classified as employing 4 or fewer people, the CCVE sector has an abundance of workers with specialised, time-honed experience.¹²⁹

Increasing awareness of career pathways to improve attraction and retention of workers

Increasing awareness of career pathway opportunities within the sector is paramount to addressing current shortages and supporting the diversification of the tourism sector—a central pillar in the strategic direction within the Loddon Campaspe REDS.

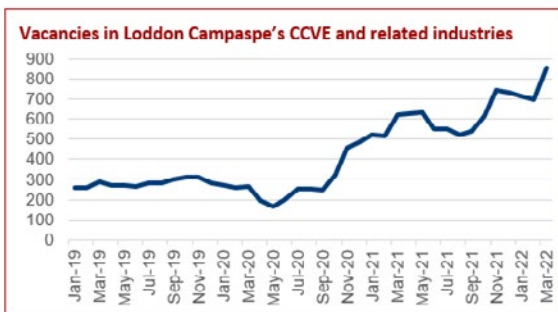


There are a number of initiatives that can better support the attraction and retention of workers in the region, including the Victorian Government arrangement for trainees completing a Certificate III in Hospitality or Tourism to receive 12-month secure employment while undertaking placement across regional businesses and receive a paid wage supplement up to \$10,000 above the relevant industry award alongside one-on-one mentoring.¹³⁰

Inter and intra-sector competition for a limited workforce pool

Employment disruptions and uncertainty during the pandemic led to worker exits and temporary or permanent business closures. This has resulted in increased competition for a limited pool of workers between businesses in a recovery period. Vacancies in the sector have almost tripled from March 2020 to March 2022. While this poses clear challenges for the sustainability of many businesses in the sector, it highlights the need for innovative skills and employment solutions. For example, upskilling workers across multiple areas of operations to boost working hours and engaging in profit or premises sharing to minimise costs.

Figure 26: Creative, cultural and visitor economy (CCVE) vacancies in the Bendigo and High Country area (January 2019 to May 2022)



Source: I MIP R/I Vacancies Data
 Includes: Hospitality, Retail and Service Managers; Arts and Media Professionals; Jewellers, arts and Other Trades Workers; Hospitality Workers, Sales Assistants and Salespersons, Cleaners and Laundry Workers; Food Preparation Assistants

Promote continual skills and training development opportunities to enable sustainable industry growth

Visitors are increasingly knowledgeable about the area and aware of their preferences and expectations when engaging in activities, experiences and attractions. To remain a desirable destination, operators in the Loddon Campaspe region must maintain an attractive value proposition. This can include digital and marketing capabilities, specialised knowledge of the region, product or attraction, and cultural awareness and sensitivity to the needs of diverse visitor groups. Consequently, workers in this sector require excellent core (soft) multidisciplinary and transferable skills.

Education and training are critical to developing well-rounded workers who are suitable for contributing and supporting businesses to maintain a future-fit workforce. This can occur in both formal and informal settings. For example, the Bendigo-Kangan Institute of TAFE offers courses in hospitality and commercial cookery, while La Trobe University delivers business qualifications with a specific tourism and hospitality focus. Outside of training institutions, mentoring and crosssector partnerships, such as those between professional service firms and small businesses, can provide targeted upskilling opportunities.

Interface with other industries and emerging sectors

While accommodation, hospitality, retail, arts, cultural and heritage activities are the key subsectors of the CCVE industry, there are several intersecting industries that contribute to the attraction of tourists to the region.

Table 6: Key intersections across Loddon Campaspe's cultural, creative and visitor economy (CCVE)

<p>Specialised manufacturing</p> <p>Unique retail offerings and shopping areas attract visitors looking for specialised or cultural purchasing experiences. This includes homewares, clothing, upcycled or circular economy-based production and Aboriginal crafts.</p>
<p>Construction</p> <p>Out of town visitors, seasonal residents, day trippers, and international tourists seek quality, experience-enhancing accommodation in the region.</p> <p>The share of construction GVA contribution is largest in the southernmost LGAs of Loddon Campaspe – in the Macedon Ranges and Mount Alexander (15% and 11% respectively) which is largely unsurprising given their relative proximity to Melbourne and popularity as seasonal holiday destinations.</p>
<p>Agriculture and food manufacturing</p> <p>Bendigo's status as a UNESCO City of Gastronomy recognises the quality produce, agriculture, creative businesses, and innovation in the region. Agri and farmgate tourism is a growing component of the economy due to increasing popularity in farm to table experiences, preference for sustainable farming and growing interest in produce provenance. Harcourt and Castlemaine are home to independent distilleries, while the Echuca region boasts dairy and dairy products.</p>

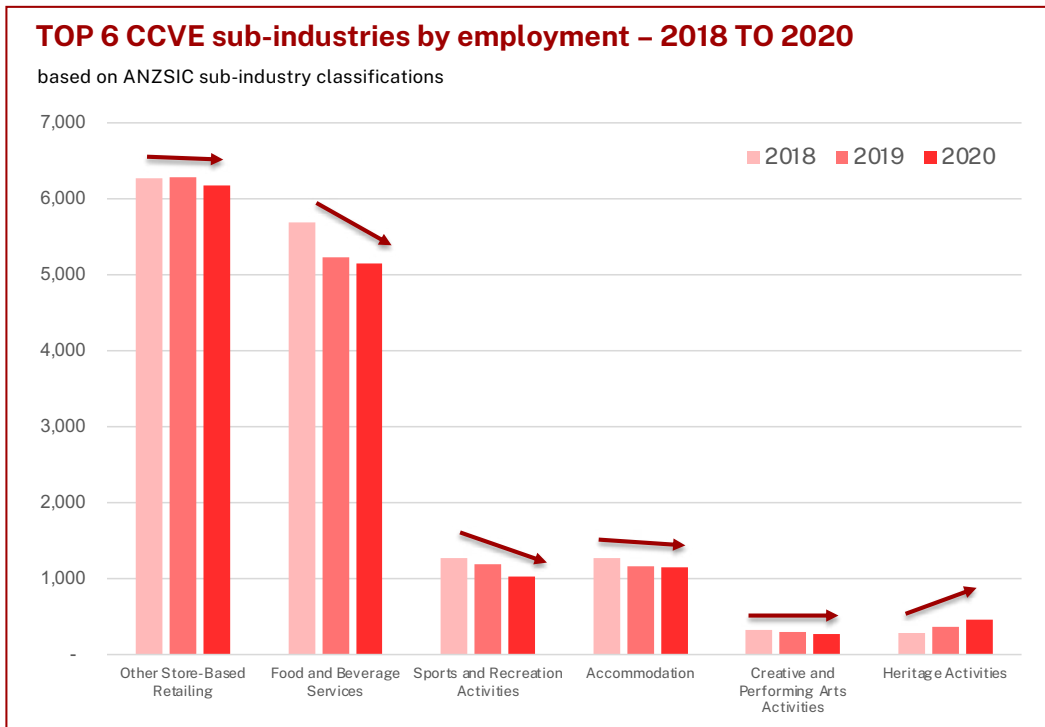
Recent and forecasted industry growth

Largest sub-industries by employment

A breakdown of employment by key sub-industries within Loddon Campaspe's CCVE sector (based on ABS industry classifications) reveal slight employment declines in 2020 across all major sub-industry (excluding heritage activities).

In 2020, other store-based retailing was the largest employing sub-industry, employing more than 6,000 workers, followed by food and beverage services at about 5,000 workers.¹³¹

Figure 27: Top 6 creative, cultural and visitor economy (CCVE) sub-industries by employment



Source: NIEIR Bendigo Regional Data, 2020



Despite the declining trends through the 2019-2020 period, it is likely that employment will rebound in an upward pattern. This is demonstrated through the increase in job vacancies and current labour shortage challenges.

Forecasted growth by occupation

The creative, cultural and visitor economy (CCVE) sector has significant potential for growth, with current forecasts suggesting more than 1,600 new jobs in the sector will be required over the next 3 years.

The ongoing bid for UNESCO World Heritage listing of the Victorian Goldfields region if successful, is also likely to increase employment in the sector as the profile of Loddon Campaspe on the global stage attracts new visitors.¹³²

Other activities such as the redevelopment of cultural precincts, and the realisation of creative and diversification strategies in the sector are also set to boost worker demand. An additional 900 workers will be needed to fill retirements¹³³.

Forecasted occupation growth across this sector for the top 20 occupations (as classified by the ABS) is included below.¹⁹ While this list is not exhaustive, it provides a snapshot of the key occupations in demand and highlights a majority of existing jobs across the sector will continue to be required.

Figure 28: Forecasted occupation growth in Loddon Campaspe’s creative, cultural and visitor economy (CCVE) sector (2022–2025)



Source: Victorian Skills Authority Employment Forecasts, April 2022

¹⁹ This graph is not exhaustive (top 20 occupations only) and may not include other major roles and responsibilities as identified by industry.

Skills and occupation requirements

Beyond forecasted occupations based on ABS classifications, industry roundtable members raised a number of skills needs and capabilities required in the next 1-2 years (immediate needs) and 3-5 years (emerging needs).

	Immediate needs (1-2 years)	Emerging needs (3-5 years)
Cultural, creative and visitor economy	<p>Specific roles or occupations:</p> <ul style="list-style-type: none"> • baristas, food and beverage handling workers • tour bus drivers and tour guides <p>Soft skills including:</p> <ul style="list-style-type: none"> • communication • teamwork • planning and problem solving • initiative and entrepreneurial skills • willingness to learn and work <p>Technical and digital skills:</p> <ul style="list-style-type: none"> • marketing and promotional skills (including photography, social media, third-party applications) <p>Niche or specific skills:</p> <ul style="list-style-type: none"> • workers from multicultural and diverse backgrounds 	<ul style="list-style-type: none"> • Cross sector collaborations – ability to secure and sell local product with knowledge of the point of difference • Project management skills – support and execute higher quality large scale events in the region • Administrative skills – such as bookkeeping, inventory management, costing and pricing





Opportunities to address workforce and education outcomes

Consultation across the region identified a range of potential responses to address the current and emerging challenges facing the creative, cultural and visitor economy (CCVE) across the Loddon Campaspe region.

Table 7: Creative, cultural and visitor economy (CCVE) industry proposed responses and solutions

Creative, Cultural and Visitor Economy – proposed responses and solutions
Proposed responses within the remit of the Victorian Skills Authority
<ul style="list-style-type: none"> • Further research to identify the factors that hinder participation in education and training, in order to find solutions that increase participation and transition into employment • Review the current approach to work placements and support increased practical placements such as high school work experience and placement programs through TAFE and industry partnerships • Development of the annual Victorian Skills Plan and broader engagement to support greater alignment of TAFE courses with industry requirements
Proposed responses to be achieved through broader collaboration across the region and with broader partners and stakeholders
<ul style="list-style-type: none"> • Advocate to increase access to Adult Community and Further Education (ACFE) funded short courses in remote parts of the region that focus on practical skill sets • Coordinate and better leverage existing mentoring and buddy programs to support worker attraction and retention • Foster partnerships with local professional and business service providers to provide on the job, tailored, relevant and accessible training opportunities • Advocate for greater investment in existing programs that engage young workers such as in Youth Take Over Programs (partnership of regional Local Learning and Employment Networks) • Develop soft skill workshops to help jobseekers strengthen and promote their technical skills • Explore ways to leverage digital technologies to enhance but not replace CCVE activity • Invest in a rebranding campaign to attract workers into the sector • Advocate for increased government support to increase provision of training relevant to the CCVE sector within the region • Explore and identify positive learnings from the European hospitality model –not a servile sector but a respected professional service • Encourage and coordinate the organisation of local product knowledge fairs where exhibitors can show industry their products and skill • Work with industry to support greater investment in the upskilling and multiskilling of workers • Provide on the job training or micro courses to encourage workers to have multi-skill sets in industries that can be seasonal or reduce underemployment.

Food and fibre industry profile

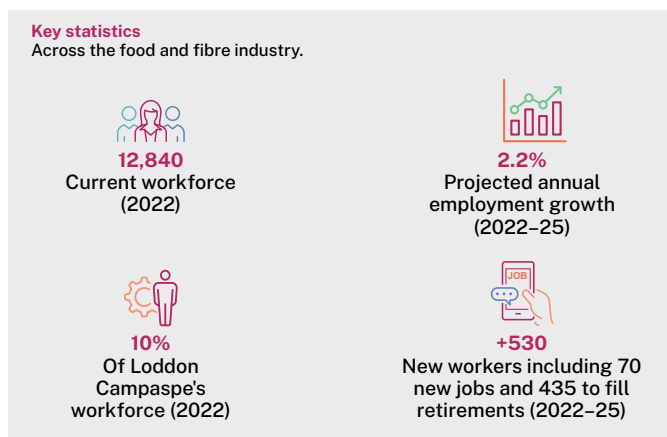
The food and fibre industry in Loddon Campaspe is comprised of agriculture, forestry, fishing, and food manufacturing. This sector is categorised in this way to better reflect the interconnectedness of primary and secondary production in the region.

Upwards of 12,800 people are employed in this combined industry,²⁰ making food and fibre the fourth largest employer (10% of the workforce). The sector generates at least 16% of the region's GVA, or upwards of \$1.4 billion in 2021.¹³⁴

There is mixed projected growth in the sector as primary production employment within agriculture, forestry and fishing is projected to fall by -0.4% per annum over the next 3 years,¹³⁵ while employment in food manufacturing is expected to grow by 8.6 percentage points, faster than the Victorian average in the same sector.¹³⁶ This suggests agriculture employment is expected to fall by around 70 workers,¹³⁷ while food manufacturing employment is expected to increase by at least 240 people.¹³⁸

The importance of the food and fibre sector is further emphasised by its identification of increasing value add in agriculture and food product manufacturing in the first strategic direction in the REDS goal for the Loddon Campaspe region.¹³⁹

Figure 29: Loddon Campaspe's food and fibre industry snapshot



Key strengths

The variance in Loddon Campaspe's topography and geography means that it is amenable to a range of crops and products. Indeed, the region represents 11% of Victoria's agricultural land and produces 11% of dairy, 13.4% of sheep meat and 7.4% of beef in the State.¹⁴⁰ Food manufacturing in the region is diverse and operations vary in size. Examples include Don KR (Castlemaine), Eagle Foods (Bendigo), Salute Oliva (Boort), and Eat Well Foods (Kyneton).

Loddon Campaspe has a strong reputation for quality food product and is increasingly capitalising on the gains afforded by greater automation and intensification through the production process. This has allowed producers to increase efficiency, reduce costs, and maintain a high standard of food outputs to customers domestically and abroad. In 2020, food product manufacturing represented \$590.5 million in export value reflecting the strong demand for Victorian produce. Throughout the pandemic, the renewed interest in local and sustainable supply chains signalled a stable domestic market.¹⁴¹

The close proximity of Loddon Campaspe to urban centres as well as transport infrastructure, such as rail, sea and airports, facilitates this movement of goods and represents both an existing strength as well as an area of increased growth through the expansion of trucking and haulage activities.

Key challenges and opportunity areas

Given its reliance on the soil and weather, changes in environmental conditions due to climate change remain a key challenge in the food and fibre sector. While an increasing number of producers are investing in sustainable practices and leveraging technologies, the industry will remain sensitive to factors they cannot control such as weather or unforeseen international trade sanctions.

Promoting the value of the food and fibre sector amidst growing demand for current and new workers

Food and fibre is an important component of the Loddon Campaspe economy; however, industry roundtable members reflected that it is still thought of as low value or without long-term career prospects within the broader community. There are opportunities to transform perceptions of working in the sector amongst the local community, current and prospective learners and nontraditional workers including urban dwellers seeking a tree change in regional areas.

²⁰ Available industry data includes food manufacturing as a component of the broader manufacturing industry. Relevant data has been separated out here where possible.



Improving attraction and retention by increasing the understanding of career pathways within Loddon Campaspe’s food and fibre sector

Industry roundtable members noted that many operators in the Loddon Campaspe have increased the use of automation and smart machinery. Implementation of these technologies increases the need for workers with diverse, technical and, at times, niche skills in coding, maintenance, and robotics. Effectively communicating the new skills needs across the sector and showcasing the modern operating processes is one way that new workers can be attracted to the sector. This transformation of the sector also provides a potential mechanism to retain staff, as workers may begin in lower skilled roles but upskill to more technical areas through on-the-job learning.

The industry roundtable members noted that clear pathways for development are needed not just for individual workers, but for owner employer businesses –of which many begin as smaller, family-operated businesses. Mentoring and partnership between more established businesses can assist in developing the technical elements needed to scale a business, as well as the management skills required to ensure that the growth is sustainable.

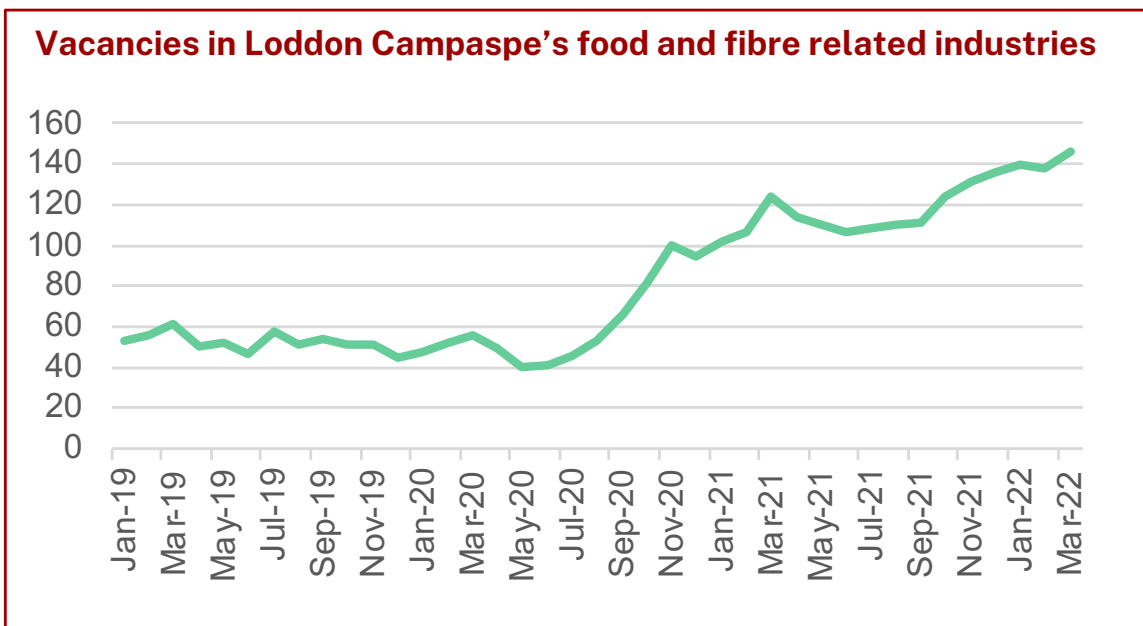
Given the direct potential impact of climate change on primary and secondary production, the food and fibre sector is well placed to provide a solution through investment in the circular economy to reuse and transform production-related waste into high-value goods.

Inter and intra-sector competition for a limited workforce pool

The food and fibre sector has not escaped the current labour shortages prevalent across most industries in the economy. The challenge to find workers is further compounded by the unique skill set required that combines traditional farming skills with digital competency to manage automated production methods. There is also a shortage of staff at the middle management levels, which is further compounded by the seasonality of work in some subsectors.

Vacancy trends across the food and fibre sector, although lower than other industries, have continued to increase in recent years, and have more than doubled between 2019 to 2021 (62 to approximately 186 online job advertisements).¹⁴²

Figure 30: Food and fibre industry related vacancy changes in Bendigo and the high country



Source: LMIP IVI Vacancies Data

Includes: Farmers and Farm Managers; Skilled Animal and Horticultural Workers; Farm, Forestry and Garden Workers

Industry roundtable members reflected that training must be standardised given that workers are now less likely to stay with one company for their entire career. The need for a united industry approach to pool resources to market, train and retain workers, especially from underrepresented groups such as women, was recognised.

Access to local education and training that builds a skilled future workforce to support continuous growth of the sector

The food and fibre sector remains a dynamic industry, in part due to its overlap with other sectors, including the heavy industries and professional services and public administration service sectors. This means that workers in this sector require competencies in a variety of areas, including farming skills, understanding of machinery, and risk and safety training. Many of these competencies are also requirements to working in the sector. Industry members reflected on barriers to engagement where courses are not accessible to regional audiences or not tailored to a regional context, as can be the case if training is based in Melbourne. The Food and Fibre Centre for Excellence¹⁴³ housed at Bendigo TAFE provides a focal point for integrated, continued learning opportunities in the region. It was completed in 2018 with a veterinary clinic, e-learning facilities and horticulture labs on campus.

Interface with other industries and emerging sectors

The food and fibre industry in Loddon Campaspe interacts with several other industries via the production supply chain.

Table 8: Key intersections across Loddon Campaspe’s food and fibre industry

Heavy Industries	As primary and secondary production increases in scale, intensification and automation, there is a parallel need for the enabling tools. These can be built and maintained by workers in the heavy industries.
Hospitality and tourism	Agriculture has clear linkages with the food manufacturing sector and food-based tourism which is a growing industry in the region. The Bendigo region is also a UNESCO City of Gastronomy.
Transport and logistics	As the primary production aspect of agriculture begins to slow, some farmers are themselves expanding their businesses by diversifying into transport and logistics operations.
Public administration	Food production, and for export markets in particular, is tightly regulated by government and industry bodies. Quality assurance processes require trained staff and a shortage of such workers can lead to bottlenecks in production.
Sustainability and climate change management	Bushfire, flood and extreme weather events are a threat to all areas of Victoria but are acutely felt in the regions. Responsible and appropriate resource management can reduce the risk of such events, or minimise the impact of human activity on the land, such as through responsible water management, conservation and protection of land, controlled burns, and culling of pests



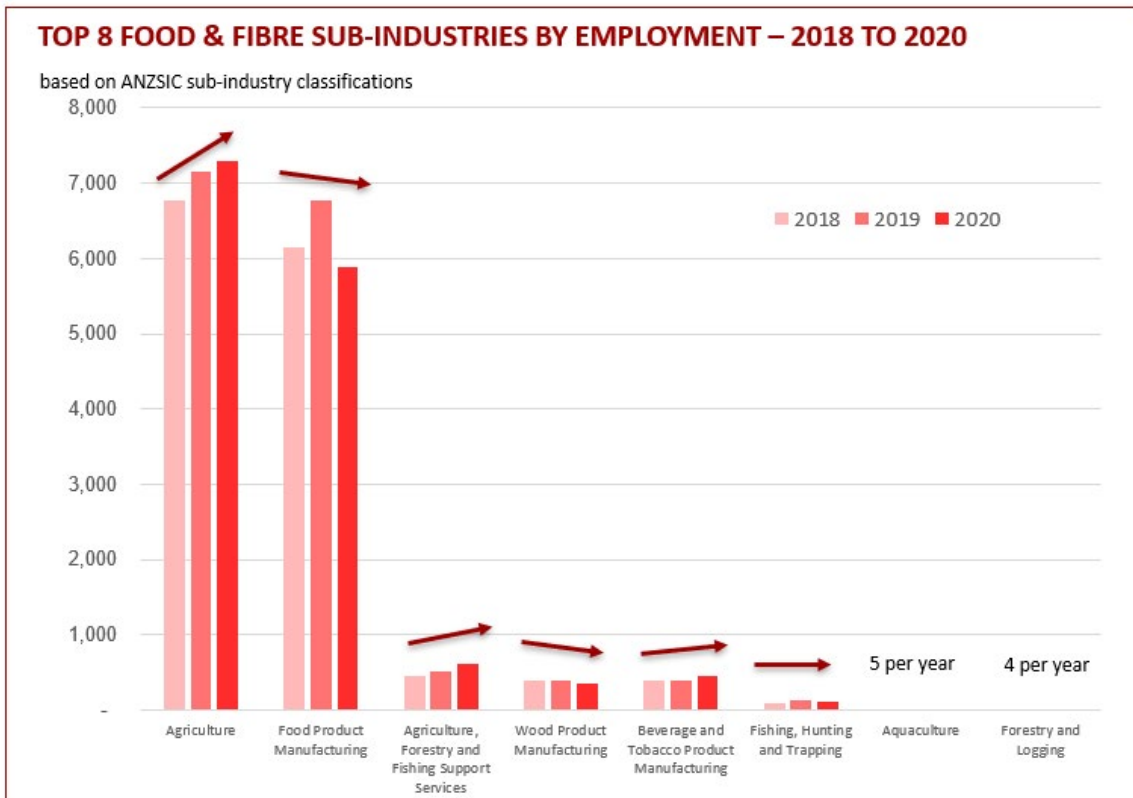
Recent and forecasted industry growth

Largest sub-industries by employment

The food and fibre sector in Loddon Campaspe is comprised of several sub-industries. The largest employment subsector is agriculture which has been increasing steadily over recent years.¹⁴⁴ In 2020, more than 7,200 people were employed in the growth of food, floral and other crop production.¹⁴⁵

Although food manufacturing is the largest driver of economic growth in this sector, the data in Figure 31 shows that employment in food manufacturing decreased by around 13% in 2020.¹⁴⁶ Industry roundtable members reflected on a possible explanation being an increased uptake of automation and technological methods during production which requires fewer workers.

Figure 31: Top 8 food and fibre sub-industries by employment



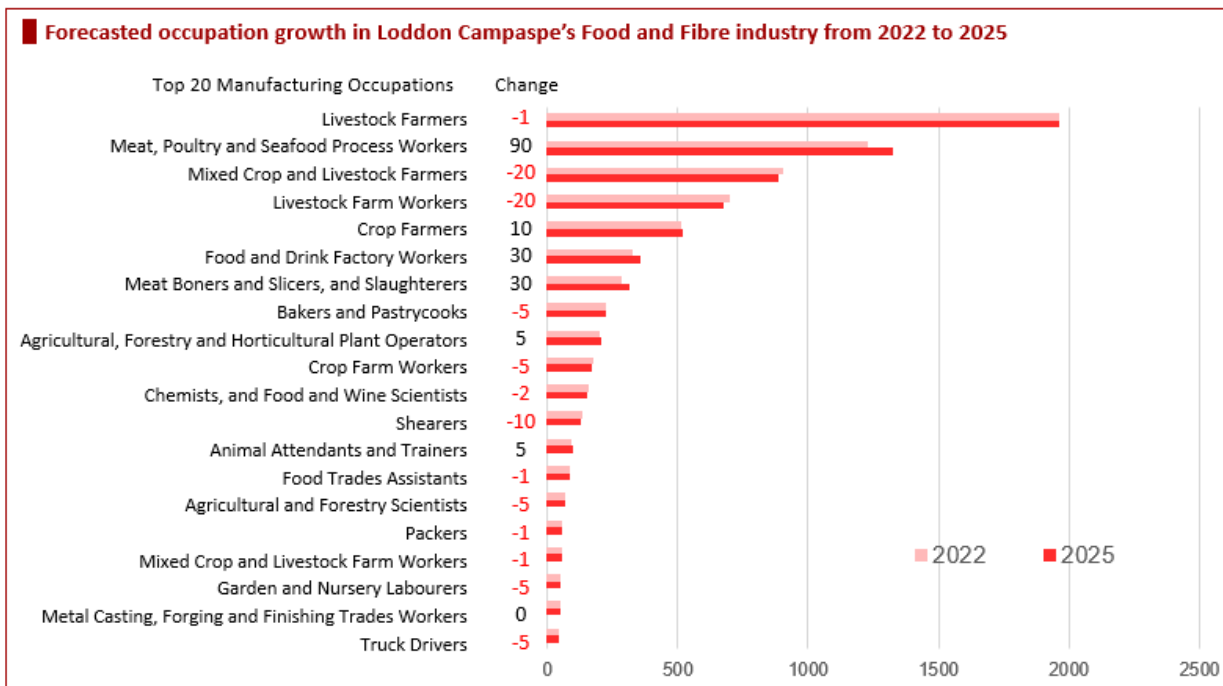
Source: NIEIR Loddon Campaspe Regional Data, 2020

Forecasted growth by occupation

Current projections suggest the food and fibre workforce will grow by over 70 new workers between 2022 to 2025,¹⁴⁷ but this is likely to be conservative given current activity in the sector, strong continued demand, and its identification as a strategic focus for the region. An additional 400 workers are projected to be needed to fill retirements.¹⁴⁸

Forecasted occupation growth across this sector for the top 20 occupations (as classified by the ABS) is included below.²¹

Figure 32: Forecasted occupation growth in Loddon Campaspe's food and fibre sector (2022–2025)



Source: Victorian Skills Authority Employment Forecasts, April 2022

²¹ This graph is not exhaustive (top 20 occupations only) and may not include other major roles and responsibilities as identified by industry.



Skills and occupation requirement

Beyond forecasted occupations based on ABS classifications, industry roundtable members raised a number of skills needs and capabilities required in the next 1-2 years (immediate needs) and 3-5 years (emerging needs).

	Immediate needs (1-2 years)	Emerging needs (3-5 years)
Food and fibre	<p>Specific roles or occupations:</p> <ul style="list-style-type: none"> • mechanical and electrical trade jobs, mechanical fitters • engineers • telehandlers and forklift drivers (and trainers) • product sorters and packers • warehousing • agronomists • operational supervisors • middle management and junior staff supervisors <p>Soft skills including:</p> <ul style="list-style-type: none"> • leadership skills <p>Technical and digital skills:</p> <ul style="list-style-type: none"> • robotics and engineering specialists • basic computer applications (Word, Excel, etcetera) <p>Niche or specific skills:</p> <ul style="list-style-type: none"> • qualifications in courses that improve safety outcomes including farm safety and chemical handling • dairy processing (evaporation, heat treatment, cheese making, etcetera) • livestock handling, horse skills 	<ul style="list-style-type: none"> • Quality and assurance workers – AAO, government veterinarian to support meat processors • Professional services – human resources, IT specialists to support automation • Creating an effective working environment – team management skills, occupational health and safety awareness, leadership skills • Scaling operations – supply chain specialists in advanced manufacturing • Environmental specialists

Opportunities to address workforce and education outcomes

Consultation across the region identified a range of potential responses to address the current and emerging challenges facing the food and fibre industry across the Loddon Campaspe region.

Table 9: Food and fibre industry proposed responses and solutions

Food and fibre industry proposed responses and solutions
Proposed responses within the remit of the Victorian Skills Authority
<ul style="list-style-type: none"> • Access to student, parent and career counsellor-friendly data and insights to help guide current and prospective students into the right education and training courses for occupations and skills in demand across the sector • Support strengthened links between providers, schools and employers through bringing together food and fibre industry representatives, VET and higher education providers in industry roundtable discussions to build greater understanding of industry needs and provide complementary courses • Work with industry and education and training providers to map skills to occupations and training packages
Proposed responses to be achieved through broader collaboration across the region and with broader partners and stakeholders
<ul style="list-style-type: none"> • Undertake a targeted campaign to promote the food and fibre sector as an exciting and varied career pathway • Facilitate site tours and visitor days to demystify processes and shift negative perceptions of the sector • Connect with career advisor communities and industry fairs to promote the sector as a suitable employment opportunity for current and prospective students • Develop and communicate clear pathways for students into the agricultural sector prior to leaving school • Improve promotion of agriculture as a career for school leavers outside the region • Expand existing engagement programs such as Local Learning and Employment Networks and Head Start • Identify pathways for minors into the sector (occupational health and safety restrictions) • Extend career counsellor role from job identification to pathway coaching • Deliver targeted soft skill training courses that support individual and team development • Invest in leadership training and support for management levels to facilitate growth within and of the business itself • Formalise mentor programs or networking opportunities in the sector • Promote greater collaboration between TAFE providers and local business to support development of tailored training courses that meet worker and employer needs • Provide mentoring and skills development opportunities for smaller or family run businesses • Establish local training centres for key courses to increase accessibility • Work with training providers and industry to tailor training packages to industry needs with accessible delivery • Promote industry training programs prior to entering industry learning institution (for example, Feedlot TECH)



'Employers and industry representatives can play a more active role in the design, planning and delivery of innovative education and training approaches, such as transferable and future skills.'

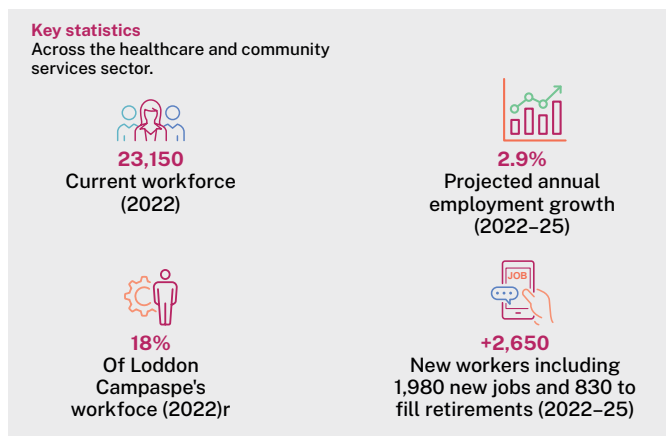
Health care and community services industry profile

The health care and community services (HCCS) sector is the largest employer in the Loddon Campaspe region, employing upwards of 23,000 people across private, public, clinical, allied and community sectors (18% of Loddon Campaspe's workforce).¹⁴⁹ The industry is the third largest economic contributor to the region, valued at \$1.3 billion which is 14% of the region's GVA.¹⁵⁰ The HCCS sector is integral to the sustainability and development of the Loddon Campaspe region and surrounds as a healthy economy underpins continued growth in the region.

The top 4 sub-industries of the HCCS industry are:

1. Hospitals.
2. Medical and other health care services (including allied health, diagnostic and pathology services, general and specialist care, and ambulance services).
3. Community services (comprising child care services and other social assistance such as adoption, aged care assistance services and welfare counselling services).
4. Residential care services.

Figure 33: Loddon Campaspe's health care and community services (HCCS) industry snapshot



Key strengths

The region has a strong foundation for health and care services with major employers and service providers operating both in regional centres and in smaller communities. Bendigo Health alone employs more than 4,000 staff across specialist, allied and mental health care services.¹⁵¹ Many of the health services operating across the region oversee in situ teaching and training programs to increase the number of skilled and specialist staff within their own organisations and the sector as a whole. This focus is critical for ensuring that the region and surrounds get access to the quality care needed, given that people in regional areas consistently record lower health outcomes across a variety of conditions, including diabetes complications, cardiovascular disease, and cancer.¹⁵²

While there are already a myriad of care offerings and providers in the region, there is scope to capitalise on preventative and allied health opportunities to reduce pressure on HCCS services, as well as include a wider range of workers to tackle health care and community services at a more holistic level.

Key challenges and opportunity areas

Factors impacting attraction and retention of workers across the HCCS sector

Promoting the diversity of need in the community may help to raise the profile of a career in the HCCS sector and attract more workers who may be hesitant to work in clinical settings.

Industry roundtable members emphasised the importance of core (soft) skills within the sector and the ability to train and work in a variety of social contexts, including with children and young adults, domestic violence, homelessness and Aboriginal and CALD background clients. Members reflected that while HCCS qualifications can be gained through several avenues such as diploma or certificate pathways as well as specific certificates, they may not all be viewed with equal weight. Adequately communicating the need for a range of skills and experiences can help boost recruitment activity.

Creating job pathways for potential workers who identify as living with disabilities, chronic illness, or mental ill-health, can have the multiple effect of boosting the workforce, increasing economic and social inclusion, and strengthening the HCCS sector by incorporating the insights of those with lived experience to improve care

Work placement is an essential part of developing a practical understanding of a job, skills and confidence for student and employers alike. Industry roundtable members identified limitations on the practical capacity to host entry level employees as they often require supervisors who are also likely to be in short supply or tending to other responsibilities.

Across the country, men are paid almost \$400 more per week on average than women in the HCCS sector.¹⁵³ Given that 81% of HCCS workers in Loddon Campaspe are female and almost half of all employment in this sector occurs through part-time arrangements,¹⁵⁴ industry roundtable members reflected on the need to review and address gender-pay gap challenges.

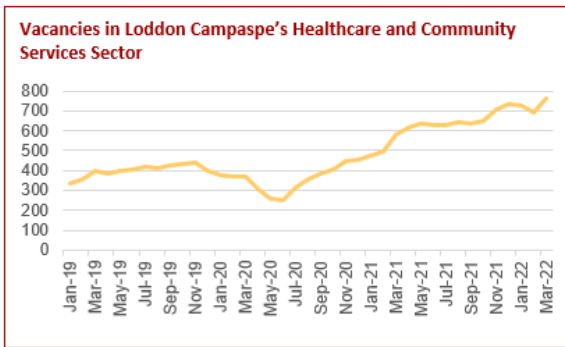
Reviewing and addressing barriers and limiting factors of attracting and retaining a diverse workforce in the region is necessary to continue to build a pipeline of skilled workers that can meet the region's growing needs.



Inter and intra-sector competition for a limited workforce pool

Online job advertisements more than doubled between (March 2020 – March 2022),¹⁵⁵ highlighting the clear increase in demand for workers. Considering this was not matched by a similar growth in skilled workers in the same period, there has been increased competition for a limited pool of workers in the region.

Figure 34: Health care and community services (HCCS) vacancy changes in Loddon Campaspe



Source: LMIP IVI Vacancies Data
 Includes: Health, Education, ICT and Other Managers; Health Diagnostic and Therapy Professionals; Medical Practitioners and Nurses; Health and Welfare Support Workers; Carers and Aides

Promote continual skills and training development opportunities to enable sustainable industry growth

One way to mitigate the effects of unbalanced demand and supply is through developing and strengthening the pipeline of workers. New and innovative ways to ensure continued growth in the uptake of HCCS related studies, and in work learning and development, are a priority for the sector. The Loddon Campaspe Health Sector Skills and Pathways Roadmap¹⁵⁶ identifies several approaches to aid this. One way is through recognition that not all potential workers are ready for university study, but instead require additional support such as through TAFE or newer, non-traditional pathways. Volunteer roles, where appropriate, were raised by Loddon Campaspe Regional Skills Taskforce members as an alternate route into the sector. The roadmap also highlights the formal pathways for current and prospective workers to progress in this sector, thereby creating aspirations for continued engagement.

Worker shortages can increase the risk of overreliance on less experienced or underqualified workers, for example in aged care or nursing roles, which can decrease confidence of both patients and providers. There is need for the industry to pivot model of care delivery to deal with these shortages in the short term such as through telehealth, but also to ensure a safe, equitable and accessible HCCS environment well into the future.

Interface with other industries and emerging sectors

The HCCS sector is diverse, unique and critical in the way it intersects and interfaces with other industries and fosters collaboration within its own ecosystem of providers, services and institutions. This means that changes, challenges and opportunities across various industries and sectors have flowon effects in other industries around the region.

Table 10: Key intersections across Loddon Campaspe's health care and community services (HCCS) sector

Health equipment manufacturing
Secure supply chains of critical HCCS related goods (for example, personal protective equipment (PPE) and ventilators) ensure continuity of quality care. The pandemic highlighted the need for secure, reliable, and quality supply chains to produce critical equipment for the health sector, such as PPE and vaccines.
Safe physical environment through construction
The quality of the built environment can determine mental and physical health. Access to secure and affordable housing, high quality health care infrastructure and services are a key determinant of mental health given the significance of environmental safety for individual and community wellbeing.
Digital technology to improve health care
Advancing research to develop innovative ways to understand and care for mental ill health is vital to ensure a leading industry that can continue to evolve within the region. This includes the use of telehealth and at-home integrated services.
Community services and support to enable education and training
Education and training have a significant part to play in providing people with renewed purpose, opportunities and is also often a way to participate in general society and programs, such as the language classes at Bendigo TAFE. Access to high-quality, affordable and close-to-home child care is essential for greater workforce participation, particularly for women.

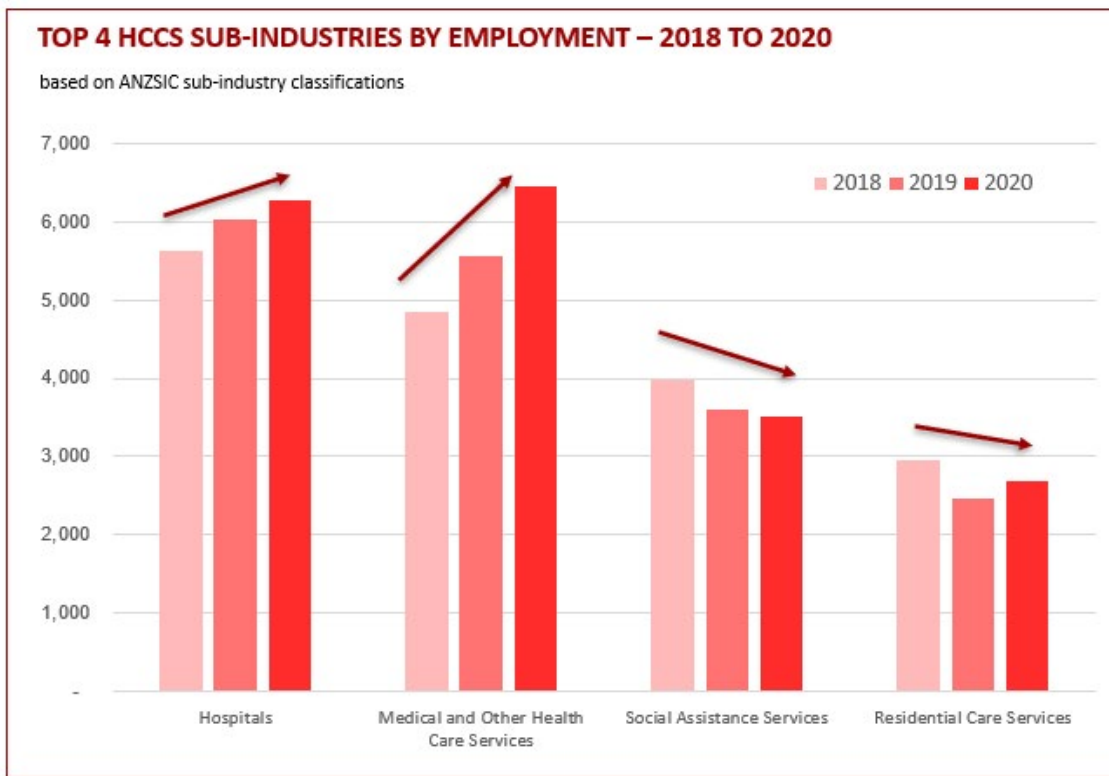
Recent and forecasted industry growth

Largest sub-industries by employment

Hospitals are the largest sub-employer in the region.¹⁵⁷ Medical and other health care services which include allied, diagnostic and pathology services was the largest sub-sector employer in 2020, and industry representatives

reflected on the increased focus on preventative care as one of the drivers of growth in this area. Employment in the social assistance services sub-sector declined between 2018 to 2020;¹⁵⁸ however, it is likely that this trend will be impacted as recommendations from the Royal Commission into aged care are implemented.

Figure 35: Top 4 health care and community services (HCCS) sub-industries by employment



Source: NIEIR Bendigo Regional Data, 2020

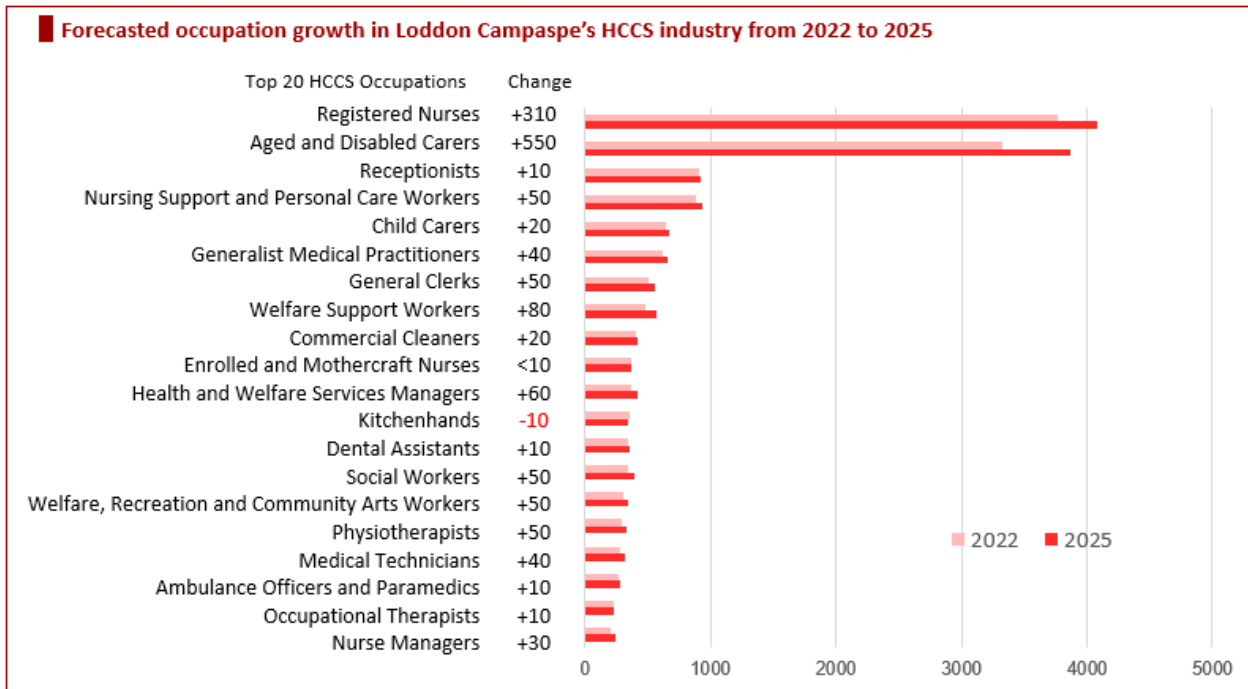


Forecasted growth by occupation

With population expected to continue to grow, it is likely jobs in the HCCS sector will also increase to meet this demand. Over the next 3 years, a least 1,890 workers will be required.¹⁵⁹ A further 820 workers are projected to be needed to replace retiring workers.¹⁶⁰ These forecasts do not consider current shortages, activity in the pipeline or policy changes and, as such, are likely to be larger than predicted.

Forecasted occupation growth across this sector for the top 20 occupations (as classified by the ABS) is included below.²² The top skills and occupations required in the HCCS industry include nurses (across multiple specialties), aged care and disabled workers reflecting significant demand and growth in this sub-sector in response to reforms, child care workers, and general practitioners.

Figure 36: Forecasted occupation growth in Loddon Campaspe’s health care and community services (HCCS) sector (2022–2025)



Source: Victorian Skills Authority Employment Forecasts, April 2022

²² This graph is not exhaustive (top 20 occupations only) and may not include other major roles and responsibilities as identified by industry.

Skills and occupation requirements

Beyond forecasted occupations based on ABS classifications, industry roundtable members raised a number of skills needs and capabilities required²³ in the next 1–2 years (immediate needs) and 3–5 years (emerging needs).

	Immediate needs (1–2 years)	Emerging needs (3–5 years)	
Health care and community services	<p>Specific roles or occupations:</p> <ul style="list-style-type: none"> aged care workers disability support workers allied health in child care physiotherapists nurses in a range of specialties, for example, aged, critical, acute care hr professionals financial professionals personal care assistants cleaners catering staff counsellors preventative health staff drug and alcohol clinicians volunteers 	<p>Soft skills including:</p> <ul style="list-style-type: none"> training for specific circumstances, for example, social work in the context of early childhood, domestic violence, homelessness, Aboriginal health and community context leadership skills monitoring, instructing, negotiation, persuasion service orientation social perceptiveness <p>Technical and digital skills:</p> <ul style="list-style-type: none"> clinical coding IT professionals with health experience 	<ul style="list-style-type: none"> Area directors and multi-site managers Digital competency – enhanced digital skills; health professionals with IT skills Teaching staff – Diploma and Certificate III qualified staff as co-educators; early childhood teachers to meet increasing program delivery hours Nurse practitioners Level 3 workers in health-related jobs

²³ Skills needs are further detailed in Loddon Campaspe Health Sector: Skills and Pathways Roadmap



Opportunities to address workforce and education outcomes

Consultation across the region identified a range of potential responses to address the current and emerging challenges facing the HCCS industry across the Loddon Campaspe region.

Table 11: Health care and community services (HCCS) proposed responses and solutions

Health care and community services proposed responses and solutions
Proposed responses within the remit of the Victorian Skills Authority
<ul style="list-style-type: none"> • Access to student, parent and career counsellor-friendly data and insights to help guide current and prospective students into the right education and training courses for occupations and skills in demand across the HCCS sector • Bringing together HCCS industry representatives, VET and higher education providers in industry roundtable discussions to build greater understanding of industry needs and provide complementary courses • Analysis and matching of skills need and course and training package offerings (including curriculum and units on soft and digital skills) • Engage with job seekers more directly to understand the current challenges, needs and skills available
Proposed responses to be achieved through broader collaboration across the region and with broader partners and stakeholders
<ul style="list-style-type: none"> • Expand reach and quality of student placement opportunities across private and public providers • Cement strategic and operational relationships with key players in the industry including Human Services Skills Organisation (HSSO), Aboriginal Health Practitioners (AHP), health aged care, further investment in earn and learn and similar programs and Local Care Workforce program, and Local Jobs program • Engage with local councils, broader community unions and organisations in and outside of the HCCS sector • Boost industry attractiveness and promote the career opportunities and possibilities within the sector through sharing success stories of individuals with lived experience • More regular reviews and opportunities to update training packages in line with industry feedback and needs • Promote and enhance rotations of new graduates through Bendigo and rural services to support on-the-job training and learning from others • Explore opportunities to establish clear pathways from volunteering to employment to encourage employment in the sector • Promote employer networks to develop sector instead of employer-based career pathways • Design and disseminate an accessible 'how to' guide for employers about strategies and activities that address common workforce and skills challenges • Shift perception of sector to emphasise its place as a rewarding, valuable and essential career choice • Advocate for greater provision of government subsidies or benefits for every supernumerary trainee that is trained • Provide taster experiences to increase awareness and understanding about the sector prior to entry • Redefine course entry requirements and course design to support non-traditional entrants entering the field • Greater support for students to ensure they are job-ready, including focus on core competency skills across all courses

Heavy industries profile

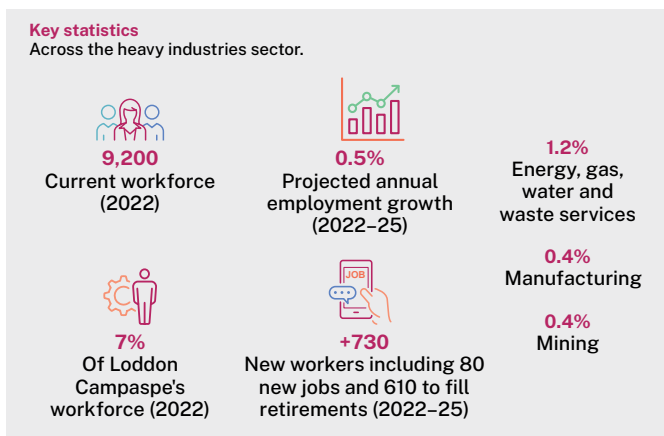
There is a strong history of mining in the Loddon Campaspe region, with gold first discovered in Bendigo and Castlemaine in 1851.¹⁶¹ Resplendent with civic buildings, cathedrals and gardens, the economic impact of this legacy is still prevalent in Bendigo and areas across the Goldfields region today. Mining still forms an important part of the Loddon Campaspe economy, alongside non-food manufacturing²⁴; machinery and transport maintenance; and energy, gas, waste, and water services (EGWW), which make up the heavy industries sector for the purpose of this profile.

Combined, the heavy industries are the seventh largest employer in the region with upward of 9,200 workers.¹⁶² Non-food manufacturing is the largest component of the sector, with approximately 63% of all heavy industries employment.¹⁶³ The industry contributed approximately \$760 million to regional gross value added (GVA) in 2021 which was equivalent to 8% of all contributions.¹⁶⁴ The export value of manufacturing was approximately \$270 million in 2020.¹⁶⁵

Mining in the region is centred around Bendigo with 2 well established mining operations in use, dealing in gold, silver, and antimony. Exploration and expansion activities in this area represent significant potential for economic inflows with \$85–\$95 million generated by the Fosterville Mine in 2021 alone.¹⁶⁶

Manufacturing is highly concentrated northwards of central Bendigo with businesses such as Hoffmann Engineering, Thales Group, and GE Silos enabling other sectors through quality, locally made products. As the Loddon Campaspe population grows, there is increased demand on the provision of key utilities such as water, electricity, and connectivity services. The possibilities of new investment and continued growth in the region may see a corresponding rise in the projection of demand for new workers.

Figure 37: Loddon Campaspe's heavy industries snapshot



Key strengths

The reputation and history of the heavy industries—more specifically, mining, in the Loddon Campaspe region—provides a strong base for new developments in this sector in the 21st century. Existing collaboration and connection between organisations in this industry, such as through the Bendigo Manufacturing Group, the Minerals Council of Australia and Loddon Campaspe Regional Partnership, are a testament to the future mindedness of key players in the region to identify and capitalise on emerging opportunities in the sector.

The region is well equipped to continue to thrive in the heavy industries given this integrated sector approach and innovation mindset that sees workers in this space eager to scale current activities. Loddon Campaspe is also well connected to domestic and international markets through arterial railways, a local airport and relative proximity to the Port of Melbourne, which facilitates export of many goods. Rail expansion activities in themselves also provide opportunities for work in the sector as upgrades to Bendigo and Echuca tracks require passing loop and signaling operations as well as rolling stock, while steam rail is also flagged as a potential investment. Supported by local leading facilities, such as the Bendigo Tech School and the Bendigo-Kangan Institute of TAFE, there is opportunity to further transition the sector with the required future workforce and skills needs.

Key challenges and opportunity areas

Promoting the value of the heavy industries to the Loddon Campaspe region amidst growing demand for current and new workers

Although the sector has transformed significantly from the days of the first Gold Rush, consultation suggested some people still conceptualise the heavy industries as 'dirty', environmentally un-friendly, and largely manual or unskilled work. While traditional manufacturing production and processes are still present in the sector, new roles and opportunities centring around automation, innovation and sustainability have emerged. Furthermore, circular economy activities are likely to be intensified as Recycling Victoria enacts each of its 11 commitments for a smarter, cleaner Victoria.¹⁶⁷

Raising the profile of opportunities across the sector in the modern environment is critical to addressing the current and growing worker demands in the region.

²⁴ Note that food manufacturing is captured in the food and fibre industry section.



Limited awareness of career pathways impacts attraction and retention of workers

There is a need to build greater awareness of the career pathway opportunities across the sector, including more non-traditional pathways. For example, beginning a career within the sector as a low-skilled worker and progressing into higher job opportunities through undertaking education and training opportunities while working. This enables workers to upskill in the use of new technology, build managerial capabilities and develop more well-rounded, transferable skills for different sub-industries and sectors across the region. Industry roundtable members also noted an opportunity to strengthen recruitment and on-the-job support for workers from non-traditional cohorts, including women or those from diverse communities.

Inter and intra-sector competition for a limited workforce pool

The competition for workers is exacerbated by the evolving skills and regulatory requirements of workers. In addition to the growing need for technological and technical competencies, a strong understanding of occupational health and safety requirements is also necessary. Developing new workers in this sector is particularly important given that more than 600 workers are expected to retire between 2022 and 2025. This is likely to result in a loss of more workers and critical experience and knowledge if not transitioned appropriately. Ensuring overlap between ‘generations’ of workers, as well as the migrant workforce, is a way to ensure that workers in the sector are efficient and effective.

While online job vacancies cannot provide the full picture of what is occurring in the region, there is a trend in increased vacancies, with online job advertisements almost 2.5 times the number in March 2022 than in March 2019.¹⁶⁸

Figure 38: Heavy industries vacancy changes in Loddon Campaspe



Source: LMIP IVI Vacancies Data

Includes: Engineers; Engineering, ICT and Science Technicians; Automotive and Engineering Trades Workers; Electrotechnology and Telecommunications Trades Workers; Machine and Stationary Plant Operators; Mobile Plant Operators; Drivers and Storepersons

Promote continual skills and training development opportunities to enable sustainable industry growth

The Loddon Campaspe region benefits from a variety of formal and non-traditional training programs designed to encourage young people and school leavers into the sector, such as WomenCAN, the Girls in STEAM Electrical Car Project delivered at the Bendigo Tech School¹⁶⁹ and Passion and Pathway programs.²⁵ While ensuring this early-stage career pipeline is secure, it is also important to ensure that there are ongoing upskilling opportunities for those already in the sector to continue learning and developing their skills. Local provision of all elements of education and training courses is also likely to encourage uptake of training as well as retain new graduates in the region. Additionally, mentoring programs at both an individual and business-to-business level can further enable continued learning and development.

In 2021, the Australian Government committed \$2 million to the establishment of an Advanced Manufacturing and Innovation Hub, in partnership with the Bendigo Manufacturing Group, City of Greater Bendigo and La Trobe University.¹⁷⁰ Continuing the theme of collaboration, the hub will be supported by Germany’s renowned Fraunhofer Institute for Experimental Software Engineering. Investments such as this into the sector likely to raise the profile and transform perceptions of the heavy industries, foster innovation, attract industry experts, and create new export opportunities that benefit the entire region.

²⁵ Refer to the 'Opportunities to address workforce and education outcomes' section for further detail about these programs and initiatives.

Interface with other industries and emerging sectors

The heavy industries are a diverse collection of sub-sectors and operations. The sector is a key enabler of other sectors and activities including energy and transport infrastructure. It is important to recognise the ways heavy industries intersect and interface with other industries and emerging sectors. Changes, challenges, and opportunities have flow on effects across the region.

Table 12: Key intersections across Loddon Campaspe's heavy industries

Health equipment manufacturing

The pandemic highlighted the need for secure, reliable and quality supply chains to produce critical equipment for the health sector. The shifted focus on local manufacturing capability for a number of areas, including hospital care, has highlighted a gap in local skills and capabilities to address such shortages.

Digital technology for advanced manufacturing

The shift to the Industry 4.0 focus, including AI, machine learning and nanotechnologies, are enabling innovation across industries. Research and innovation will continue to be critical to support advanced manufacturing growth in the region.

Defence manufacturing

Production of specialist and customisable components for the defence sector will continue to be a key interdependency in the region given the importance of businesses like the Thales Group in the region.

Tourism

The Victorian Goldfields Railway is a heritage steam trail currently running between Castlemaine and Maldon with proposed expansion to Echuca. Technical expertise is required to maintain and operate these locomotives.

Public administration

Local councils, other levels of government and utility providers have a responsibility to provide access to quality and timely essential services, including energy, gas, water, and waste services. Operators in this space include Coliban Water and Goulburn–Murray Water.

Renewable practices and clean energy

The manufacturing and waste sectors have an important role to play in the circular economy, which is a growing area of focus for Victoria as seen through the establishment of Recycling Victoria. There is also opportunity to develop sustainable, best practice through the operations themselves. Care must also be taken to manage potential impacts on surrounding land and water sources.



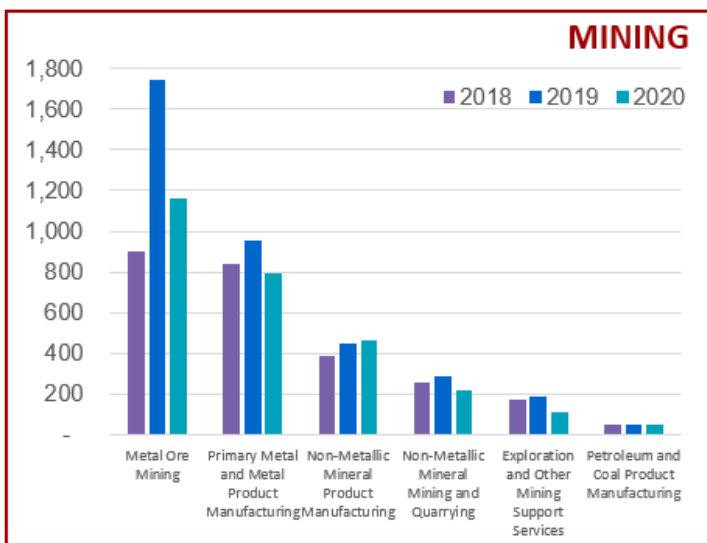
Recent and forecasted industry growth

Largest sub-industries by employment

Loddon Campaspe's heavy industries is comprised of 3 key sectors. Manufacturing in particular, is now more diversified and operates in a range of more high-value niche markets.

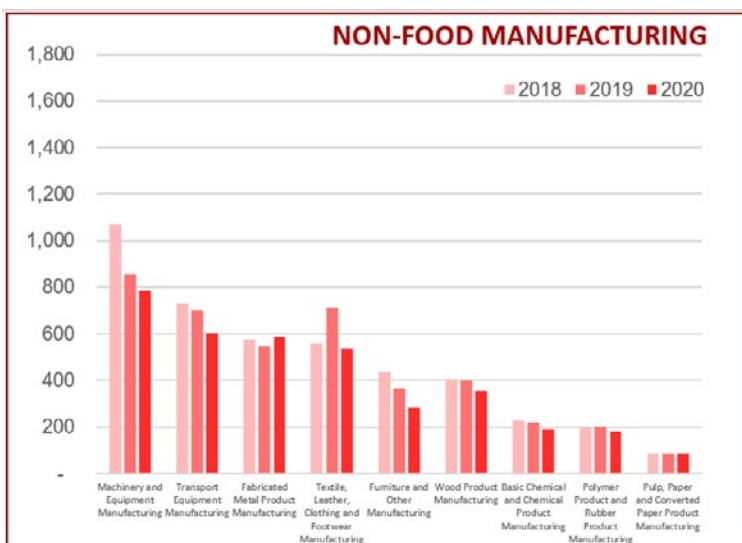
Key sub-industries within mining include metal ore mining, primary metal and metal product manufacturing, and exploration and other mineral mining and quarrying.¹⁷¹

Figure 39: Top mining sub-industries by employment



Non-food manufacturing is largely composed of machinery and equipment manufacturing, transport equipment manufacturing, and fabricated metal product manufacturing.

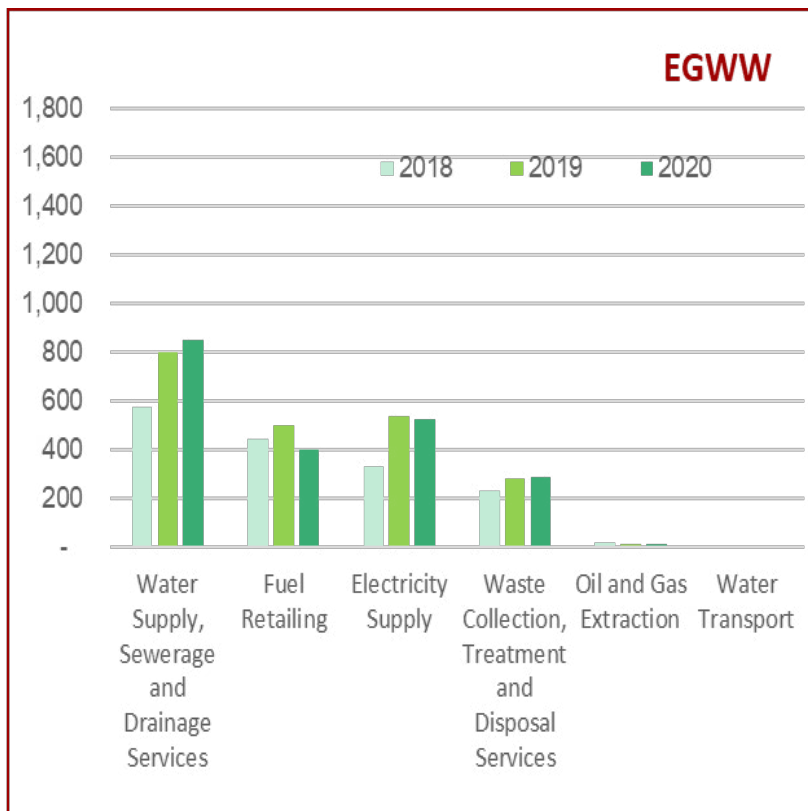
Figure 40: Top non-food manufacturing sub-industries by employment



Although employment appears to be in decline across both mining and manufacturing more broadly, industry roundtable members noted that this may represent a period of flux rather than a new state due to changes in sustainability, workplace culture and technology, given that the future pipeline of work seems steady.

Energy, gas, waste and water (EGWW) related sub-sectors identified increases to water supply and waste management service employment is likely due to population growth.

Figure 41: Top energy, gas, waste and water services sub-industries by employment





Forecasted growth by occupation

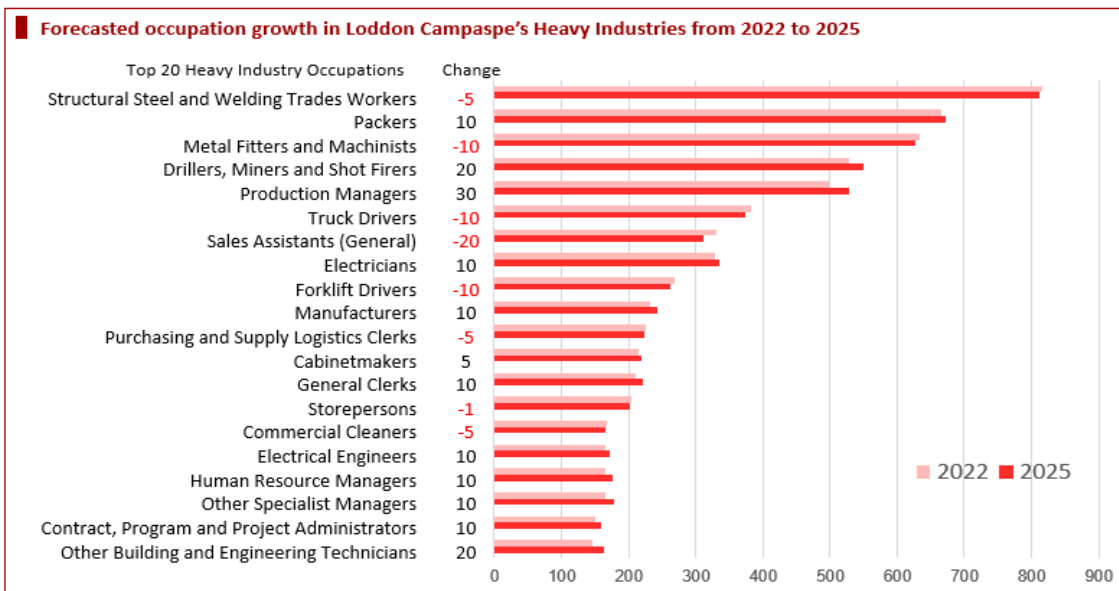
Forecasts suggest that at least 70 new workers²⁶ will be required over the next 3 years to meet demand.¹⁷² Discussion suggests that this number is likely to be substantially higher than projected by industry due to exploration and investment including as outlined in plans such as the Regional Engineering and Advanced Manufacturing (REAM) Skills Roadmap,¹⁷³ and the Rediscover Victoria¹⁷⁴ mining policy platform developed by the Minerals Council of Australia that sets out the sector direction at a macro and micro level for the years to come.

Forecasts of employment in manufacturing do not reflect the significant projected growth of large national businesses in the region, and small to medium sized organisations that are scaling operations. The proposed development of Marong Business Park, potential investments in rail infrastructure and steam rail (and the associated local manufacture, maintenance and housing of the rolling stock in areas such as Castlemaine and Maldon) could also boost employment in the region. Employment forecasts in mining may also be understated, recognising the volume and growth of exploration activity that is resulting from the North Central Victorian Goldfields Ground Release.¹⁷⁵

Industry roundtable members reflected on the ways that digitisation and automation are changing operating models and profitability of production across mining and non-food manufacturing sub-industries. This may further impact the required number of workers, as it is likely that increased technology use will boost efficiency and require workers with more complex skill sets that are not currently included in the ABS occupation classifications informing these forecasts. There is also a need for more workers with multidisciplinary competencies to realise the innovative opportunities in the energy, waste and utilities space as a growing population increases service demand.

Forecasted occupation growth across this sector for the top 20 occupations (as classified by the ABS) is included below.²⁷

Figure 42: Forecasted occupation growth in Loddon Campaspe's heavy industries (2022 to 2025)



Source: Victorian Skills Authority Employment Forecasts, April 2022

²⁶ Note that this does not account for the current worker shortages experienced across the sector.

²⁷ This graph is not exhaustive (top 20 occupations only) and Note that this does not account for the current worker shortages experienced across the sector. This graph may not include other major roles and responsibilities as identified by industry.

Skills and occupation requirements

Beyond forecasted occupations based on ABS classifications, a number of skills needs and capabilities are required in the next 1–2 years (immediate needs) and 3–5 years (emerging needs).

	Immediate needs (1–2 years)	Emerging needs (3–5 years)
Heavy industries	<p>Specific roles or occupations:</p> <ul style="list-style-type: none"> welders course supervisors and trainers boilermakers electricians fitters and machinists controls or software engineers mining exploration labourers <p>Soft skills including:</p> <ul style="list-style-type: none"> ability to deal with mental health, personal issues as well as work 	<ul style="list-style-type: none"> leadership skills, mentoring, coaching, get best out of others professional development in transitioning to manager critical thinking skills management skills <p>Niche or specific skills:</p> <ul style="list-style-type: none"> basic hand and power tool use safety and hazards awareness driver licence literacy and numeracy
		<ul style="list-style-type: none"> programming and data entry skills technology training industry 4.0 requirements managerial skills: communication, teamwork, problem solving, initiative and enterprise, planning and organising, self-management, learning skills and technology digitisation project management linking industry to academia, working with students and universities to solve problems





Opportunities to address workforce and education outcomes

Consultation across the region identified a range of potential responses to address the current and emerging challenges facing the manufacturing industry across the Loddon Campaspe region.

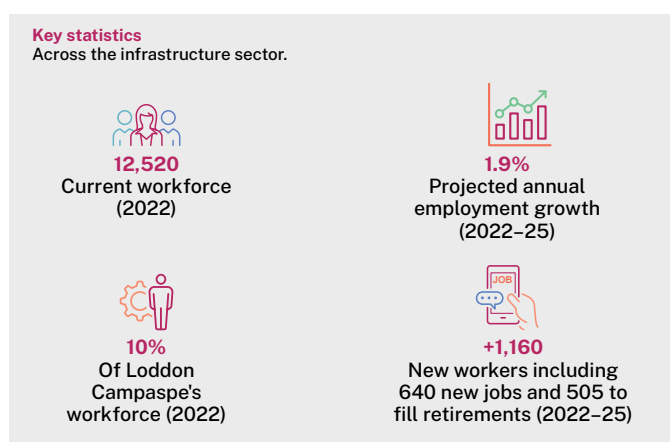
Table 13: Heavy industries proposed responses and solutions

Heavy industries proposed responses and solutions
Proposed responses within the remit of the Victorian Skills Authority
<ul style="list-style-type: none"> • Promote greater collaboration across industry and training providers to build awareness of new technologies to maximise their benefit from a safety, employment and efficiency perspective in the sector • Foster better information sharing about common business needs and challenges to facilitate collaboration and cross pollination • Connect similar organisations across the region to increase staff skills and experiences that support scalability of operations and production
Proposed responses to be achieved through broader collaboration across the region and with broader partners and stakeholders
<ul style="list-style-type: none"> • Continue to support and expand pathway programs including Adult Community and Further Education (ACFE) courses; Girls of Steel; Empowered Women in Trades; WomenCAN Australia; Local Recovery Fund; Innovation Fund; earn and learn; North Central Local Learning and Employment Network (LLEN) Youth Take Over; Passion and Pathways program; Head Start; Regional Opportunities Australia (ROA) • Continue to engage influential decision makers via Local Jobs program • Promote both skilled and non-skilled jobs in the sector to increase attraction • Strengthen recruitment and on the job support for female workers and those with diverse or migrant backgrounds • Establish mentoring programs to develop junior or new workers • Work to increase provision of specific support to mature age workers as the industry transitions in production and operation for example, via Skills Checkpoints • Develop targeted programs that help family businesses scale up • Advocate and support the development of leadership courses for all levels • Facilitate apprenticeships to train students and inject new workers or knowledge into the organisation • Advocate to ensure course offerings are fully regional that is, students do not have to travel to Melbourne to complete components of their courses • Strongly communicate the success stories across the sector to attract more current and preceptive learners and workers to pursue training and employment aligned with a career across the heavy industries sector • Industry and school partnerships to facilitate industry tours for careers counsellors across the sector so they can more actively support shifting negative perceptions and promoting innovation and technological advancements in the sector to current and prospective students • Shift focus on the sector within schools and training institutions as a pathway not collection of individual jobs

Infrastructure industry profile

The infrastructure sector in Loddon Campaspe is primarily comprised of private, commercial and transport infrastructure construction, construction services such as plumbing and electrical, as well as related services such as planning, architecture and design, engineering and technical services.²⁸ This industry is currently experiencing a period of significant growth as intrastate migration and investment generates a stable pipeline of work.¹⁷⁶

Figure 43: Loddon Campaspe's infrastructure industry snapshot



Key strengths

Loddon Campaspe's Infrastructure sector is the fifth largest employer in the region, employing more than 12,500 workers¹⁷⁷ and contributing around 9% of the region's gross value added (GVA) in 2021, or about \$870 million.¹⁷⁸

Construction in Loddon Campaspe is increasing across all sub-sectors but was highest in the Macedon Ranges and Mount Alexander local government areas (LGAs), in the south of the region in 2020.¹⁷⁹ This is likely to be reflective of population growth in the past 2 years within the region and continued growth given the LGAs proximity to Melbourne and therefore popularity as both a permanent and holiday destination, as well as higher levels of social advantage compared to elsewhere in Loddon Campaspe.

Key challenges and opportunity areas

False perceptions of the infrastructure sector and jobs amidst a growing demand for current and new workers

Industry roundtable members reflected that there are significant opportunities to attract more students into infrastructure industries by improving understanding of the diverse range of jobs within the sector amongst school leavers, teachers and parents.

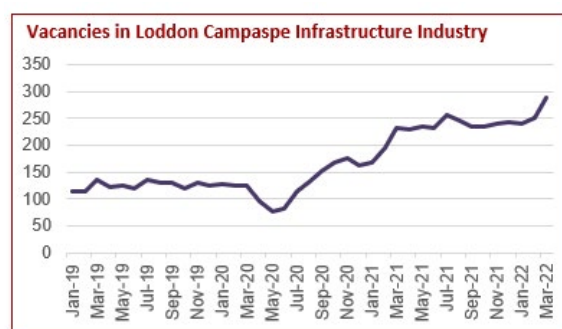
Attraction and retention challenges exacerbated by a lack of understanding of industry growth and career pathways within Loddon Campaspe's infrastructure sector

Industry roundtable members reflected on the difficulties associated with attracting and further retaining new workers if they are not adequately mentored or welcomed into what can be quite an isolating work environment on site. Attracting the next generation of construction workers is critical and must be supported by relevant and engaging training and career pathway promotion that reflects the true breadth of opportunities available to encourage young workers and vulnerable cohorts to remain in the sector.

Inter and intra-sector competition for a limited workforce pool

With online job advertisements within the region more than doubling in the past 2 years (2019–January 2022),¹⁸⁰ there is an evident demand, coupled with strong projected growth for the industry in coming years. Noting 94% of infrastructure workers are male,¹⁸¹ particular focus on how to engage women in the diverse range of jobs across the construction sector is paramount to the sustainability of the sector.

Figure 44: Infrastructure vacancy changes in Loddon Campaspe



Source: LMIP IVI Vacancies Data

Includes: Construction, Production and Distribution Managers; Engineers; Engineering, ICT and Science Technicians; Construction Trades Workers construction and Mining Labourers

²⁸ Note that while services such as planning, architecture and design, and engineering and technical services are included within the infrastructure industry for the purpose of this profile, from an employment data perspective, employment in these services is captured in professional, scientific and technical services industry classification (which is included within the business, professional and public administration services industry category).



Emerging skills needs critical to the ongoing success of the sector

Technical, management and professional competencies have been identified as key overarching skills gaps across the sector. As a region with many attractions relying on natural assets, the Loddon Campaspe region has a strong general awareness of climate change, energy efficiency and the need for environmentally safe practices in all areas of the economy. Embracing the opportunity to be a leader in the sustainably clean and circular economy space is a key strength and opportunity area for the region and sector.

Interface with other industries and emerging sectors

As the infrastructure sector focuses on the built environment, the sector interfaces several other major industries. An efficient and effectively designed infrastructure system can enable broader social and economic prosperity as it is easier for communities to come together.

Table 14: Key intersections across Loddon Campaspe's infrastructure industry

Construction vis-à-vis renewable and clean energy

Energy efficient design and retrofitting are transformed for clean energy purposes. New buildings can be designed with energy use and renewable energies in mind to reduce their carbon impact.

Similarly, retrofitting older structures or transforming manufacturing facilities can assist advancements in the renewable and clean energy sector.

Safe physical environment through construction

The quality of the built environment can determine mental and physical health. Access to secure and affordable housing, high quality health care infrastructure and services are a key determinant of mental health given the significance of environmental safety for individual and community wellbeing.

Commercial construction for business, professional and public administration services and cultural, creative and visitor economy sectors

The ABS classifies architectural, engineering and technical services as part of the professional and technical services sector. These services are essential to the safe delivery of construction work in the region. The build of new hotels and broader accommodation will likely increase construction activity, and promote the region as a place to work, visit and live.

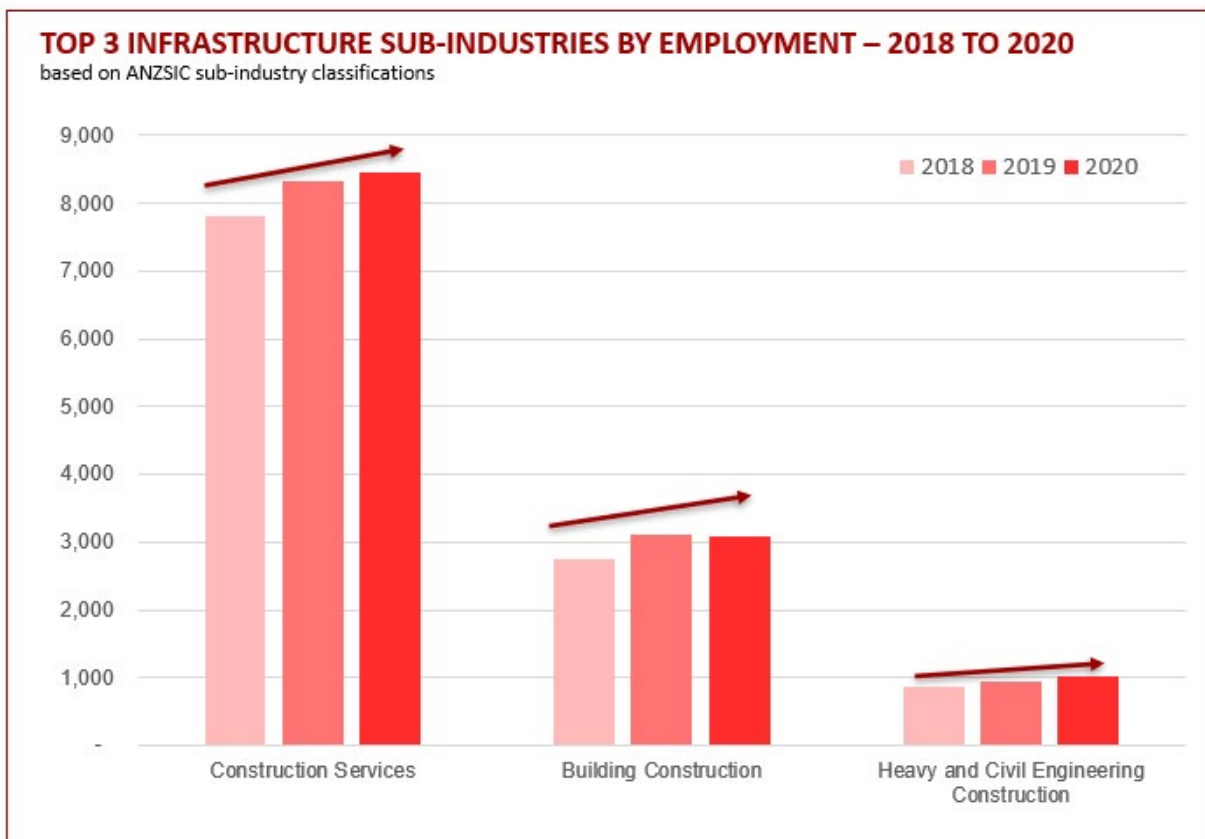
Recent and forecasted industry growth

Largest sub-industries by employment

Key sub-industries within Loddon Campaspe’s construction infrastructure sector include construction services, building construction and heavy and civil engineering construction. These sectors all experienced steady employment growth

between 2018 and 2020 and strong projected growth into the future, with construction services as the largest employer across 2018 to 2020.²⁹ This sub-sector includes development and site preparation, building structure, building installation, building completion and other construction services.²⁹

Figure 45: Top 3 infrastructure sub-industries by employment



Source: NIEIR Bendigo Regional Data, 2020

²⁹ Other construction services include landscape and hire of construction machinery.

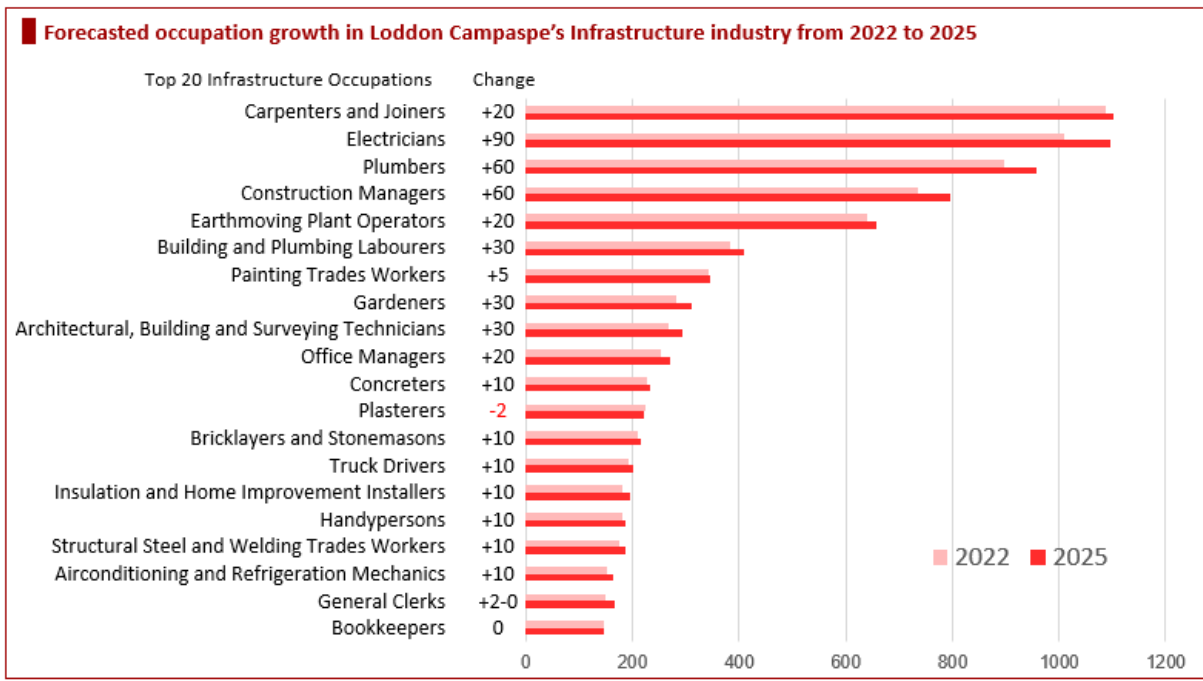


Forecasted growth by occupation

With major population and infrastructure growth projected to increase, it is likely that infrastructure related jobs will also increase to meet this demand.

Over the next 3 years, at least 640 workers will be required.³⁰ Forecasted occupation growth for the top 20 occupations (as classified by the ABS) is included below.³⁰

Figure 46: Forecasted infrastructure occupation growth in Loddon Campaspe's (2022–2025)



Source: Victorian Skills Authority Employment Forecasts, April 2022

The skills required in the construction industry are becoming increasingly multidisciplinary, with changes in the purposes of construction as well as materials and processes.

³⁰ This graph is not exhaustive (top 20 occupations only) and may not include other major roles and responsibilities as identified by industry.

Skills and occupation requirements

Beyond forecasted occupations based on ABS classifications, industry roundtable members raised a number of skills needs and capabilities required in the next 1-2 years (immediate needs) and 3-5 years (emerging needs).

	Immediate needs (1–2 years)	Emerging needs (3–5 years)
Infrastructure	<p>Specific roles or occupations:</p> <ul style="list-style-type: none"> • jobs across all trades to replace the ageing workforce • planning related jobs • electrical roles and electricians • mechanics and diesel mechanics • quarry operators • engineering and geo-science graduates • plant operators • project administrators 	<p>Soft skills including:</p> <ul style="list-style-type: none"> • attitude and aptitude to learn • communication, teamwork • problem solving, initiative taking • planning and organising • learning mindset • articulating own value proposition to prospective employers <p>Technical and digital skills:</p> <ul style="list-style-type: none"> • openness to learning new technologies • driver licence
		<ul style="list-style-type: none"> • Enhanced digital skills – training in future technologies and electrical • Professionals with degrees – including laboratory technicians, engineers • Increased number of teaching staff – specifically technical teachers in mainstream and technical schools • Mentors – with adequate training and experience to support new workers to the industry





Opportunities to address workforce and education outcomes

Consultation across the region identified a range of potential responses to address the current and emerging challenges facing the infrastructure industry across the Loddon Campaspe region.

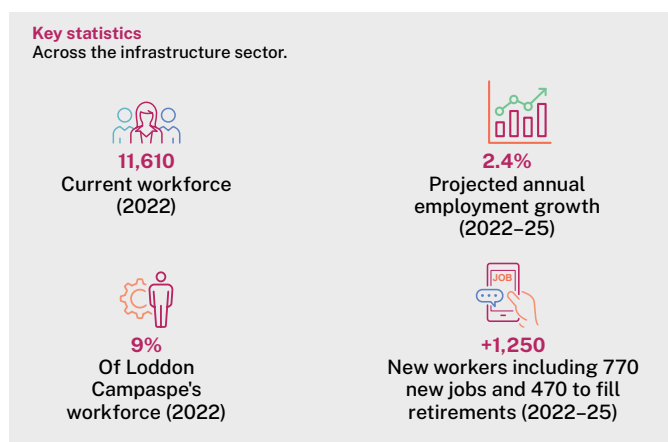
Table 15: Infrastructure industry proposed responses and solutions

Infrastructure industry proposed responses and solutions
Proposed responses within the remit of the Victorian Skills Authority
<ul style="list-style-type: none"> • Explore ways to maintain ongoing communication channels with students pre-graduation to encourage continued engagement and flow of information about pathways and opportunities in the sector • Access to student, parent and career counsellor-friendly data and insights to help guide current and prospective students into the right education and training courses for occupations and skills in demand across the sector • Bringing together infrastructure industry representatives, VET and higher education providers in industry roundtable discussions to build greater understanding of industry needs and provide complementary courses • Analysis and matching of skills to occupations and training packages
Proposed responses to be achieved through broader collaboration across the region and with broader partners and stakeholders
<ul style="list-style-type: none"> • Work with industry and training institutions to reposition and promote the industry and pathways to create career aspirations among prospective workers including school leavers • Advocate for greater investment in tech schools and promote as first choice options within the region to support shifting negative perception of the industry • Work with local training providers and higher education institutions to identified shared goals, opportunities and challenges related to workforce skills with goal of future collaboration • Work with industry and training providers to standardise the content and quality of training across the region • Facilitate partnerships between smaller-medium business with larger business to facilitate upskilling opportunities • Advocate for wage increases in the education sector to ensure enough trainers and teachers • Explore ways to increase use of micro-credentials to support upskilling and transition within and across industries • Explore ways to develop and implement short, tailored courses to support upskilling, core competency and leadership opportunities within the sector • Establish mentoring programs with industry bodies to retain workers and support upskilling, motivation and understanding of career pathway options • Explore ways to increase training and support training related to senior roles • Explore opportunities for local incentives that that encourage living and working in the region • Develop and articulate specific pathways for young women within the industry, for example, consultative roles

Education and training industry profile

The education and training industry in the Loddon Campaspe region covers early childhood, primary and secondary schools, vocational training, higher education, and adult and community education. The industry employs over 11,600 people in the region, making it the sixth largest employer in the area.¹⁸⁴ It generates almost 7% of the region's gross value added (GVA) or approximately \$640 million in 2021.¹⁸⁵

Figure 47: Loddon Campaspe's education and training industry snapshot

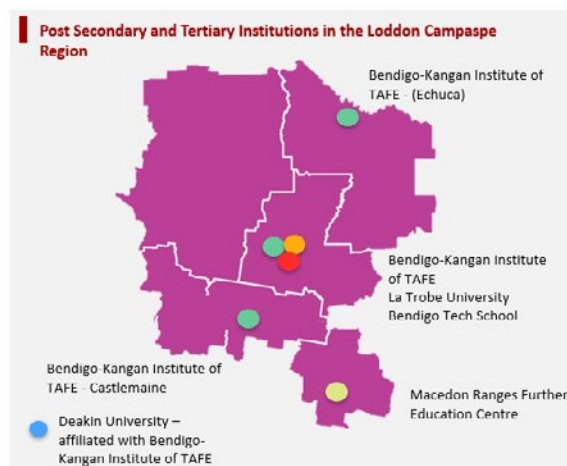


Key strengths

There are almost 25,000 students across approximately 100 primary and secondary schools in the region, alongside La Trobe University and Bendigo TAFE to provide VET and higher education courses. Both institutions have a strong focus on health care and community services (HCCS) courses.^{186,187} Capability in this sector is further enhanced through the Rural Health School on the La Trobe campus which provides an important role in developing training and research for the region.¹⁸⁸ Bendigo is also home to the Bendigo Tech School – a purpose-built facility that provides short vocational learning opportunities to secondary school students.¹⁸⁹

Loddon Campaspe also hosts numerous offerings across alternative training pathway providers at both a mature and school-leaver level. For example, the Head Start apprenticeship program, Learn Local providers across the region, and localised programs offered through community-based organisations such as the 4 Local Learning and Employment Networks (LLENs) which cover the area.³¹ Established training institutions are also well placed to deliver high-quality educational material for other schools and reflect the opportunities schools in the region have to innovate and increase their value proposition to the wider community.

Figure 48: Higher education and training institutions and facilities across the Loddon Campaspe region



Key challenges and opportunity areas

Although there are several well-equipped education and training facilities in Loddon Campaspe, there are no higher education offerings in Loddon or Central Goldfields Shires. Students in these areas are required to seek training outside their immediate locale and this presents a barrier to continued training.

The education and training sector sits in a unique position where it is both an employer and a mechanism through which other industries in Loddon Campaspe develop their pipeline of future workers. For this reason, the significant shortages in teachers and trainers, including support teachers, facing Loddon Campaspe should be prioritised. While challenge is not unique to Loddon Campaspe, the regionality and population trends across the region means that demand for these skills will be particularly acute.

Inter and intra-sector competition for a limited workforce pool

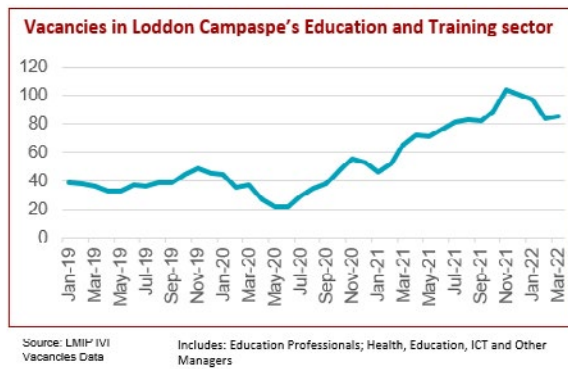
There is a particular need for principals and casual relief teachers (CRT) in the Loddon Campaspe region. Although recent reforms to the education and training sector are encouraging improvements to the education system in the long term, in the immediate period, they can pose an additional level of competition on school employers.

³¹ Refer to the 'Opportunities to address workforce and education outcomes' section for further detail about these programs and initiatives.



Vacancy trends across the education and training sector have continued to steadily increase. While the number of online vacancies is relatively low compared to other sectors in the region, there are clear trends related to recruitment freezes during the beginning of the pandemic in mid-2020 and ongoing increases since that time.¹⁹⁰ It may also be useful to consider other ways that vacancies are communicated to staff that may not be online and are therefore obscured.

Figure 49: Education and training vacancy changes in Loddon Campaspe



From the pipeline perspective, the recent changes to the Year 12 certificates of completion – VCE and VCAL into a singular award – are likely to improve uptake of vocational studies during and after high school as some of the stigma around VCAL as a ‘secondary’ option is minimised, requiring more skilled workers to support increased demand.

Integrating industry with training experience to increase attraction and retention in education and training for both trainers and students to support sustainable growth

Noting that other industries are directly affected by activity in the education and training sector, it is essential that courses and qualifications are relevant to skills needed in industry, particularly in vocational areas of work. One way that this can occur is through partnership between industry workers with training institutions to both design and deliver content. Industry Roundtable members reported the difficulty in retaining experienced staff with the appropriate teaching qualifications where current employment models and legislation does not support dual employment across industry and training. Prospective workers must also contend with periodically satisfying complex regulatory requirements. These challenges are further compounded by a portion of maturing trainers retiring from the sector. Although several suggestions are outside the remit of the Victorian Skills Authority (VSA), the industry roundtable drew particular attention to salary discrepancies between education roles and industry employment, especially in the trades, disincentivising leaving a job on the tools.

The uptake of training is likely to increase with targeted learning pathways and programs for underrepresented groups. This may include people from diverse backgrounds, disadvantaged communities, students who have English as a second language, and ‘first in family’ groups. Improving access to equitable education and training opportunities for all members of Loddon Campaspe is paramount to ensuring social and economic prosperity across the region.

The pandemic has also accelerated the use of new technologies and virtual classes in the delivery of material. Additionally, students themselves are learning in an increasingly digitised environment; therefore, it is important that both teachers and students develop skills in media and digital literacy in order to be prepared for the modern working environment.

Interface with other industries and emerging sectors

The education and training industry interfaces with all other major industries and is interconnected to the broader social and economic prosperity of the Loddon Campaspe region.

Table 16: Key intersections across Loddon Campaspe's education and training industry

Digital technologies
As the future of work moves towards a more digital economy, it is necessary for teachers, trainers and information services to also have digital capabilities in order to support their own and student development.
Pre-school and school education and health care
Early childhood education is a crucial time in a child's life where development occurs at a rapid rate cognitively, emotionally and physically. Experiences from childhood in each of these spheres can also have an impact on a person's health as an adult, for example, a traumatic experience or undiagnosed learning difficulty can affect a person's mental health
Community services
Disruptions to formal schooling may be due to a change in social or economic circumstance, interaction with the justice system or other challenges as noted in the health care and community services (HCCS) section. Disability may also impact access to the necessary education supports.

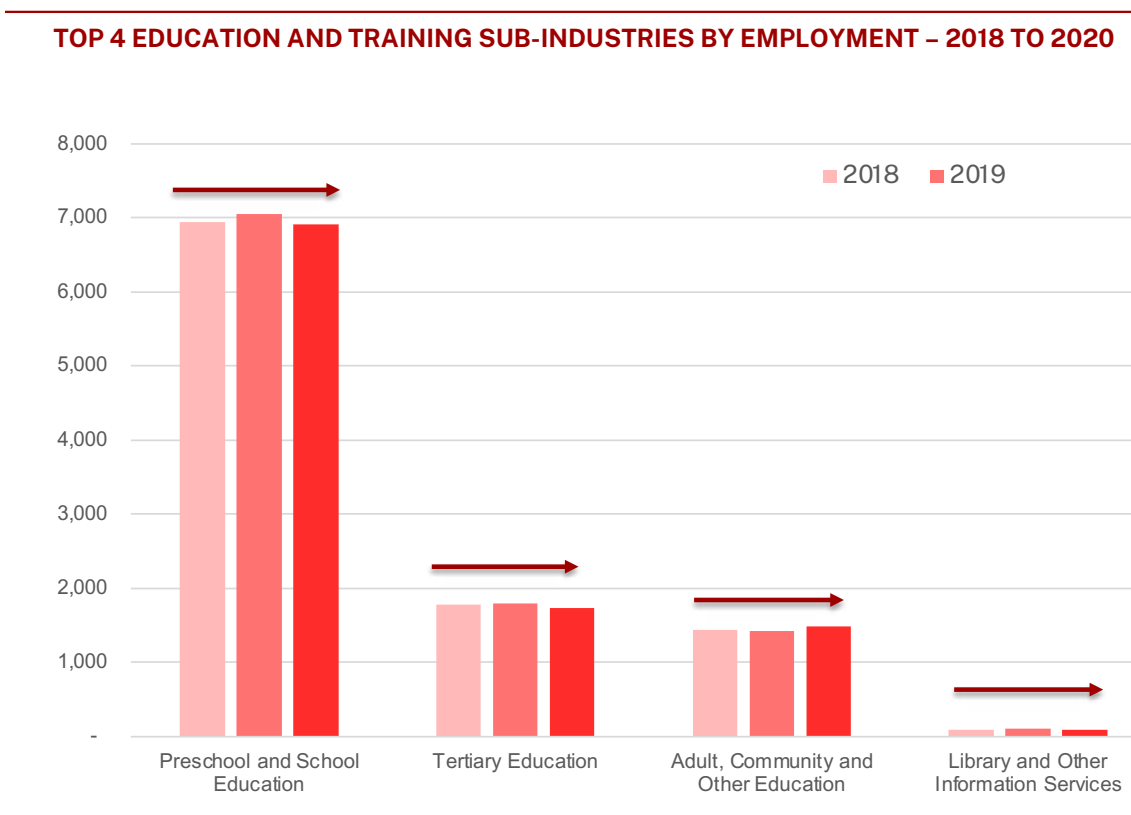
Recent and forecasted industry growth

Largest sub-industries by employment

Key sub-industries within Loddon Campaspe’s education and training sector are pre-school and school education, tertiary education³², adult, community and other education,

and library and other information services. While each sub-sector has remained relatively stable between 2018 and 2020, it is likely that the pandemic has affected this trend.

Figure 50: Top 4 education and training sub-industries by employment



Source: NIEIR Loddon Campaspe Regional Data, 2020

³² The tertiary education sub-sector includes technical and vocational education and training, and higher education



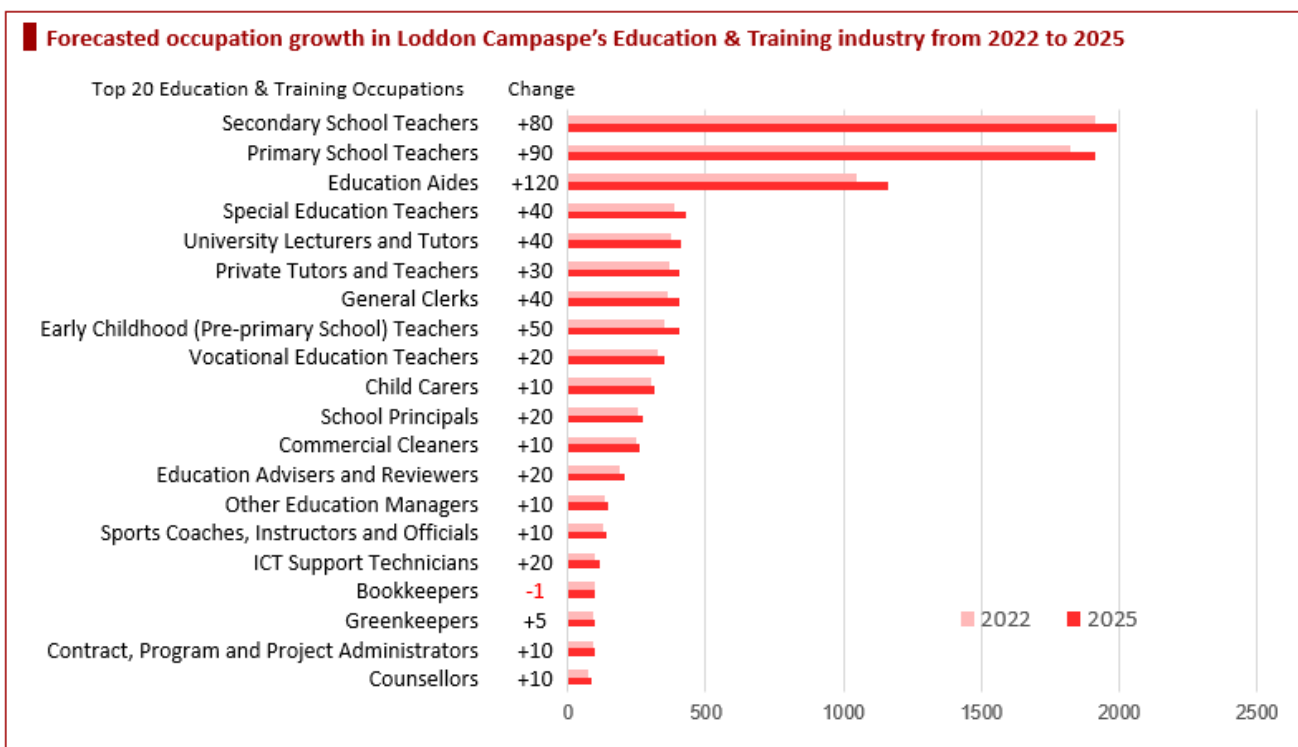
Forecasted growth by occupation

Estimates suggest that over 770 new workers are required over the period 2022 to 2025.¹⁹¹ While it is projected that an additional 470 workers to fill retirements will be required over the period 2022 to 2025,¹⁹² these figures are unlikely to account for existing shortages and the impacts of secondary school educational reforms and workplace

agreements that will increase demands on teacher numbers, particularly VET teachers as part of the new Senior Secondary Vocational Major. Similarly, the recent kindergarten reforms will also increase pressure on early childhood (pre-primary school) teachers.

Forecasted occupation growth across this sector for the top 20 occupations (as classified by the ABS) is included below.³³

Figure 51: Forecasted occupation growth in Loddon Campaspe's education and training sector (2022–2025)



Source: Victorian Skills Authority Employment Forecasts, April 2022

³³ This graph is not exhaustive (top 20 occupations only) and may not include other major roles and responsibilities as identified by industry.

Skills and occupation requirements

Beyond forecasted occupations based on ABS classifications, industry roundtable members raised a number of skills needs and capabilities required in the next 1-2 years (immediate needs) and 3-5 years (emerging needs).

	Immediate needs (1-2 years)	Emerging needs (3-5 years)
Education and training	<p>Specific roles or occupations or industry focus:</p> <ul style="list-style-type: none"> • STEM qualified teachers • VET trainers • teachers –maths, science, english • early childhood and education • principals <p>Soft skills including:</p> <ul style="list-style-type: none"> • trainers with understanding of industry and industry currency activities • teachers who have and can impart creative capabilities including communication, collaboration and design thinking 	<ul style="list-style-type: none"> • Education aides and support staff • Networking and collaborative skills to create partnerships with industry • Technological capability – understanding of how to harness digital platforms to engage students, remotely and in person • Digital marketing skills



Opportunities to address workforce and education outcomes

Consultation across the region identified a range of potential responses to address the current and emerging challenges facing the education and training industry across the Loddon Campaspe region.

Table 17: Education and training industry proposed responses and solutions

Education and training industry proposed responses and solutions
Proposed responses within the remit of the Victorian Skills Authority
<ul style="list-style-type: none">• Access to student, parent and career counsellor-friendly data and insights to help guide current and prospective students into the right education and training courses for occupations and skills in demand across the sector• Support strengthened links between providers, schools and employers through bringing together industry representatives, VET and higher education providers in industry roundtable discussions to build greater understanding of industry needs and provide complementary courses• Work with education and training providers to support unit reviews and mapping of skills to occupations and training packages
Proposed responses to be achieved through broader collaboration across the region and with broader partners and stakeholders
<ul style="list-style-type: none">• Advocate for a review and redesign of the Training and Education (TAE) Training Package requirements to promote complementary industry and trainer employment• Advocate for improvements to the Recognition of Prior Learning (RPL) and Recognition of Current Competency (RCC) processes to attract more industry expertise into the education and training sector• Simplify tertiary pathways for science, technology, engineering, and mathematics (STEM) education teachers joining from industry positions• Develop teaching or learning aspirations early in students through project based, applied learning for years 7-10• Re-evaluate funding models and wage arrangements to attract and retain qualified teachers to the sector• Understanding of need to support the development and training of trainers and teachers themselves• Advocate for increased accessibility to Registered Training Organisations (RTO) especially in the Macedon area• Redesign models of training that are responsive to individual school needs (over rural and regional areas)• Leverage industry support for community enterprise programs that target employability skills among young people• Invest in industry-school partnerships to facilitate continual learning and engagement



Appendix B: Data sources



Quality of data is central to the quality of insights shown through any economic profile. Significant effort has been made to reflect the Loddon Campaspe region robustly and accurately as defined by the Department of Jobs, Skills, Industry and Regions. Nonetheless, it is important to note there are varying definitions of the Loddon Campaspe region and some data is significantly outdated (at the time of developing this profile). Where the reported data does not fit the defined region exactly, inclusion of the data has considered the data type, available insights as well as the jurisdiction represented. Sources and their associated boundaries are denoted by footnote in the profile.

The Loddon Campaspe region

Note that the complete Loddon Campaspe region, as defined by the Department of Jobs, Skills, Industry and Regions, includes the local government areas (LGAs) of Campaspe, Central Goldfields, Greater Bendigo, Loddon, Macedon Ranges and Mount Alexander. For this reason, data disaggregated by LGA contained within this profile is most complete. Data from DJSIR REDS and VSA data dashboard cover the Loddon Campaspe region completely.

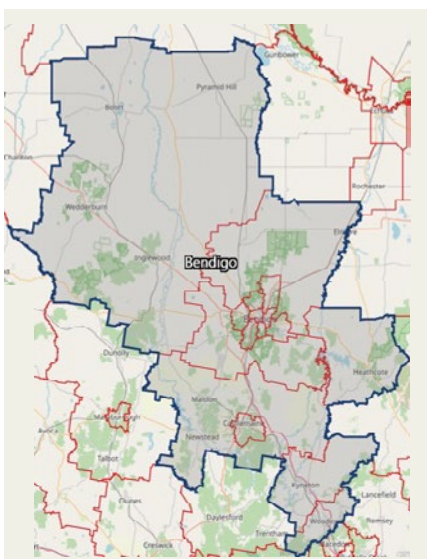


ABS and labour market information portal data coverage

The Labour Market Information Portal (LMIP) and data from other federal level agencies utilise ABS data. While LGA data is occasionally available, the majority of Australian Bureau of Statistics data is provided at an SA4 level. Note

that the referenced Loddon Campaspe region is comprised of multiple SA4 areas which are Bendigo, Melbourne North West, Ballarat and Shepparton. Because only a small section of the latter 3 LGAs make up the Loddon Campaspe region, SA4 Bendigo is occasionally used as a proxy for the entire Loddon Campaspe region and has not been combined with other regional data.

Figure 52: SA4 Bendigo (ABS) and Bendigo region (LMIP)





Employment data

This profile contains both historic and projected employment figures.

- Data on **past employment** for example, sub-industry data is sourced from National Institute of Economic and Industry Research (NIEIR) datasets collated for the VSA
- **Contemporary employment** (2021–2022) figures are collected from the LMIP database –jurisdiction as explained in the paragraph above

Assumptions for employment forecasts

Industry employment forecasts are consistent with the forecasts used for the purpose of the Victorian Skills Plan, and are based on Nous and VSA modelling using data from ANZSIC3, ANZSCO6, BGT0CC (Burning Glass Technologies Occupation Classification). The forecasts consider historical industry growth, population growth and projected industry growth.

As a result of the modelling method and practical limitations of an inability to predict all future conditions, these figures do not account for policy changes or incoming investment that may augment the potential for growth in a sector.

While the industry roundtable discussions provided a qualitative context and lived experience to these numbers, it is important to note that these forecasts are for new workers required due to an increase in production or operations etcetera. It does not include workers needed to fill current labour shortages existing at the same level of output.

Additionally, non-participation (due to discouraged workers for example) or underemployment is unlikely to be represented.












Appendix C: Industry categories



A breakdown of the 7 major industry groupings agreed by the Loddon Campaspe Regional Skills Taskforce and the related sub-sectors for the purpose of this work is included below.

Grouping	Sub-sectors		
 Cultural, creative and visitor economy	Cultural <ul style="list-style-type: none"> • heritage • Indigenous cultural and creative practices 	Creative <ul style="list-style-type: none"> • Performing arts and music • Gardens and recreational spaces • Galleries and Libraries 	Visitor economy <ul style="list-style-type: none"> • Retail • Accommodation • Hospitality
 Health care and community services	Health Services Including hospitals, general and specialist medical services, dental and allied health		Community care services Including aged care, child care, mental health, rehabilitation etcetera.
 Infrastructure	<ul style="list-style-type: none"> • Building construction • Infrastructure construction (including transport infrastructure) 	<ul style="list-style-type: none"> • Construction services (for example Plumbing, electrical, bricklaying etcetera.) • Architectural, engineering, planning, technical services 	
 Education	<ul style="list-style-type: none"> • Early childhood, primary, secondary, vocational training, higher education and adult/community education • Public and private institutions 		
 Heavy industries	<ul style="list-style-type: none"> • Manufacturing (excluding food and beverage manufacturing) • Mining and exploration 	<ul style="list-style-type: none"> • Waste and circular economy management 	
 Food and fibre	<ul style="list-style-type: none"> • Agriculture • Food and beverage manufacturing 	<ul style="list-style-type: none"> • Natural resource management (for example water) 	
 Business, professional and public admin services	Business, professional and scientific <ul style="list-style-type: none"> • Legal, financial, accounting, marketing, advertising and consulting services • Computer, digital and IT services • Research 	Public admin <ul style="list-style-type: none"> • Government administration (local, state, federal) • Public safety 	
Key concepts sitting across all sectors	Clean economy - sustainable and renewable practices including activity in the circular economy		
	Digital economy - leveraging digital technologies and skills		
	Care economy - paid and unpaid work associated with care in all its forms		

Mapping of ANZIC Industry Classifications to key industries defined in this profile:

To estimate the employment and GVA of the key industries using the ANZSIC Industry Classifications, the following assumptions were applied.

Key industry	ANZSIC Industry Classifications
Cultural, creative and visitor economy	<ul style="list-style-type: none"> • Retail trade • Arts and recreation services • Accommodation and food services
Business, professional and public administration services	<ul style="list-style-type: none"> • Professional, scientific and technical services • Public administration and safety • Financial and insurance services
Food and fibre	<ul style="list-style-type: none"> • Agriculture, forestry and fishing • 52% of manufacturing (excluding non-food and non-beverage sub-sectors) <p>Note: due to a lack of available data at a sub-industry level in 2022, the proportion of employment in the sub-sectors 'food product manufacturing' and 'beverage and tobacco product manufacturing' relative to total manufacturing employment from 2020 was applied to the 2022 data. As a result, the figures presented are approximations of the employment in the sector in 2022.</p>
Health care and community services	<ul style="list-style-type: none"> • Health care and social assistance
Heavy industries	<ul style="list-style-type: none"> • Mining • 48% of manufacturing (excluding food and beverage manufacturing sub-sectors) • Electricity, gas, water and waste services
Infrastructure	<ul style="list-style-type: none"> • Construction <p>Note: employment and GVA data at an LGA level for architectural, engineering, planning and technical services was unable to be extracted from the professional, scientific and technical services ANZSIC classification</p>
Education and training	<ul style="list-style-type: none"> • Education and training



'The insights and opportunities identified are a starting point for industry, education and training institutions, and government to forge responses.'



Appendix D: References



Endnotes

- 1 ABS. 2021 Census Population Release.
- 2 ABS. 2021 Census Population Release.
- 3 ABS. 2021 Census Population Release.
- 4 Mapshare Victoria. Boundaries by LGA. <https://mapshare.vic.gov.au/mapsharevic/>
- 5 ABS. 2016 Census.
- 6 Planning Victoria. Victoria in Future 2019 Report. 2020. https://www.planning.vic.gov.au/_data/assets/pdf_file/0032/332996/Victoria_in_Future_2019.pdf
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- 8 RRV Analytics for DJPR. Loddon Campaspe: GVA by Industry. 2022.
- 9 Department of Environment, Land, Water and Planning. Millennium Drought Report. 2016. https://www.water.vic.gov.au/_data/assets/pdf_file/0017/512720/DELWP-MillenniumDrought-web-SB.pdf.pdf
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