



**Victorian  
Skills Authority**

**Victorian Skills Plan**

# **Services Industry Insight**

October 2022



Education  
and Training

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## Introduction

This report on the Services industry forms part of the 2022 Victorian Skills Plan and outlines demand for occupations, education and training directed to meeting the demand and current workforce issues facing the industry.

This report has been prepared by the Victorian Skills Authority (VSA). The VSA was formed in July 2021 in response to the review *Future Skills for Victoria: Driving collaboration and innovation in post-secondary education and training* (known as the Macklin Review). The VSA is charged with preparing an annual Victorian Skills Plan (the Skills Plan) to guide decision-making on skills and training, by the Government, education and training providers, industry and communities.

### The Victorian Skills Plan

The annual Skills Plan sets out Victoria's skills needs for 2022 to 2025 by drawing on data, evidence and insights from a range of system-wide and local sources.

The Government in conjunction with industry, communities and education and training partners brings collaborative action through the Skills Plan which:

- **defines skill needs** with clear statements of required skills and capabilities (current and emerging)
- **sets priorities** for post-school education and training in Victoria
- **communicates to the community** the opportunities education and training can provide to offer careers for individuals that also meet the workforce needs of industry
- **aligns action** across industry and government to support improved outcomes for all Victorians.

The Skills Plan consists of:

- a summary report – the Victorian Skills Plan
- the industry needs of the Victorian economy segmented into 13 insight reports, each comprising like industries – of which this report is one
- profiles of industry and occupations in the regional areas of Victoria which outline priorities for skills development – either as snapshots or Regional Skills Demand Profiles
- current employment and forecast demand to 2025 across Victoria – a user-driven dashboard.

### About Industry Insight Reports

Each industry insight is based on robust research, qualitative and quantitative data collection and analysis and extensive consultation with the Government's Industry Advisory Groups, partners and stakeholders over a period of six months. Each report sets out to:

- profile the **industry outlook**, taking into account sector trends and key drivers of demand
- detail the **workforce and skilling implications** of the industry based on forecasting
- set **industry priorities** in responding to current and future workforce challenges
- provide initial guidance for an **education and training response** to these challenges.

The industries reflected in each report are defined according to their classification within *1292.0 - Australian and New Zealand Standard Industrial Classification (ANZSIC) 2006*, prepared by the Australian Bureau of Statistics. Occupations within industries have been defined using the *Australian and New Zealand Standard Classification of Occupations (ANZSCO)*.

Each industry insight contributes to the conclusions and recommendations of the Skills Plan, focusing on actions for implementation over a three-year period.

The VSA acknowledges and extends sincere thanks to the individuals and organisations that participated in the consultations and contributed to these materials.

### **Using this report**

This is a point-in-time report on the services industry in Victoria and the associated skills and workforce issues.

This report, along with the Skills Plan, has been prepared for industry and provider partners as a summary of demand for occupations and workforce issues. In addition to being used by the Victorian Government to consider responses as a public document it is available to industry and education and training partners to form actions and responses.

The report does not represent the full picture of workforce issues in the industry. Opportunities associated with skills and workforce are longstanding. The information in the report, however, provides the basis for ongoing work on skills demand and responses, including by the VSA and through the Industry Advisory Groups.

### **Feedback**

Feedback on this report, and others, is welcome and can be provided to [SkillsPlan@education.vic.gov.au](mailto:SkillsPlan@education.vic.gov.au). Feedback will contribute to developing insights and actions.

## Report coverage

This industry insight focuses on the services industry as defined under ANZSIC and the occupations relevant to the industry, classified according to ANZSCO. It includes activities covered by multiple service industries as defined under ANZSIC, such as the provision of accommodation and food services, art and recreation services, other services (personal and repair and maintenance) and retail and wholesale trade.

Statistics about an industry and its sub-sectors are collated by the Australian Bureau of Statistics (ABS) from the activity of businesses. Each business is classified to an industry based on their primary activities. Where an individual works for multiple businesses, their main job is used.

Industry classifications rarely encompass the full nature of the work (and therefore skills) associated with a given industry. ABS definitions of industries or sectors may not align with the definitions used by an industry association, while the allocation of businesses on primary activity can result in businesses that perform similar services but with a different emphasis being classified across different industries.

Coverage in this report is limited to employment in the industry and sectors as defined by ABS, noting some occupations are almost exclusively associated with an industry, such as waiters in the services industry, while others, such as accountants and electricians, are associated with many industries. Note, however, that occupational demand for Victoria as reflected in the dashboard is the total of occupational demand for all industries.

Table 1 sets out related activities that may occur within the services industry but are reported formally under other industries. The relevant Industry Insight report is listed.

**Table 1 | Scope of related industry activities and insights related industries**

Activities	Industry insight
<ul style="list-style-type: none"> <li>Operating casting agencies</li> <li>Providing arts or sports event promotional services (without facilities)</li> <li>Organising and conducting fundraising campaigns on a contract or fee basis</li> <li>Cleaning building interiors, cleaning transportation equipment interiors and/or windows, and cleaning carpets, upholstery and rugs</li> <li>Providing gardening services only (without also providing landscaping services)</li> <li>Washing and packing fruits or vegetables</li> </ul>	Administrative and Support Services
<ul style="list-style-type: none"> <li>Installing central heating and air conditioning equipment</li> </ul>	Construction
<ul style="list-style-type: none"> <li>Operating acting, drama, dance and ballet schools</li> <li>Providing sports and recreation education, coaching or instructional services</li> </ul>	Education and Training
<ul style="list-style-type: none"> <li>Production and distribution of motion pictures, videos, television programs or television and video commercials</li> <li>Providing library services</li> <li>Operating motion picture theatres</li> <li>Processing motion picture film for the motion picture and television industries</li> </ul>	Information Media and Telecommunications

<ul style="list-style-type: none"> <li>• Providing medical skin care services</li> <li>• Providing pharmaceutical services not in a retail store</li> </ul>	Health and Community Services
<ul style="list-style-type: none"> <li>• Undertaking public administration activities in relation to national, state or territory, and local parks and reserves</li> <li>• Monitoring security systems</li> </ul>	Public Administration and Safety
<ul style="list-style-type: none"> <li>• Retailing baked goods manufactured on the same premises</li> <li>• Manufacturing food products (including snack foods and prepared meals)</li> <li>• Manufacturing automotive vehicles and trailers or customising those vehicles on an assembly-line basis</li> <li>• Providing factory reconditioning services for motors</li> <li>• Repairing and servicing aircraft and railway rolling stock</li> <li>• Repairing and overhauling at shipyards ships of 50 tonnes and over displacement</li> <li>• Repairing boats of under 50 tonnes displacement</li> <li>• Factory rebuilding of electric motors</li> <li>• Dyeing textiles and clothing</li> </ul>	Manufacturing
<ul style="list-style-type: none"> <li>• Residential caravan accommodation</li> <li>• Renting or leasing (including sub-leading) residential properties or dwellings</li> <li>• Hiring suits or costumes</li> <li>• Hiring of trailers, caravans or household appliances</li> </ul>	Rental, hiring and real estate services
<ul style="list-style-type: none"> <li>• Using transport equipment to provide scenic and sightseeing services</li> <li>• Providing towing services for smashed or damaged automotive vehicles</li> </ul>	Transport, Postal and Warehousing
<ul style="list-style-type: none"> <li>• Selling electricity via power distribution systems operated by others, including electricity retailing and wholesaling</li> </ul>	Utilities

## Executive summary

### Industry outlook

The services industry is one of the most diverse in Victoria, encompassing the provision of goods, services, and recreational activities. Over 822,500 people are employed across arts and recreation, accommodation and food services, other services, retail, and wholesale trade. These sectors are also a key driver of tourism in Victoria.<sup>1</sup>

The COVID-19 pandemic had a disproportionate impact on the services industry due to the shutdown of non-essential services. Despite this, the industry outlook remains strong. The key drivers of future occupation growth in this sector include anticipated return to population growth (particularly in regional areas), shifting consumer demand and increasing use of technology to boost productivity and automation.

### Workforce and skilling implications

On average, across all industries total employment is expected to grow by an additional 211,900 workers to 2025, from 3,538,900 workers in 2022, an annual growth rate of 1.97 per cent<sup>a,2,3</sup> In comparison between 2017 and 2020 employment grew by 2.68 per cent<sup>b</sup> annually.<sup>4</sup>

In the services industry, employment is expected to grow by an additional 52,000 workers to 2025, from 822,500 workers in 2022, an annual growth rate of 1.99 per cent<sup>c</sup> which is higher than the overall Victorian average across all industries.<sup>5,6</sup> In comparison between 2017 and 2020 employment across this industry grew by 0.3 per cent annually<sup>d,7</sup>.

Workforce growth will be required to meet expected demand. By 2025, an estimated 89,400 new workers will be needed.<sup>8</sup> This includes employment growth of 51,700 and replacement of 37,700 retirees.<sup>9,10</sup>

Table 2 identifies the top ten occupations in demand across the industry by 2025. Of these, six occupations (highlighted in table) are expected to experience employment growth at a rate above the overall Victorian average between 2022 and 2025.

**Table 2 | Occupations in demand in the services industry to 2025<sup>e,11,12</sup>**

Occupation	Current employment	Employment growth (2022–25)		Retirements (2022–25)	New workers needed (2022–25)
		Number	Per cent		
Sales Assistants (General)	139,600	3,000	0.8%	4,250	7,250
Waiters	42,250	3,350	3.8%	1,150	4,500
Retail Managers	52,550	850	0.5%	3,550	4,400
Café and Restaurant Managers	11,950	2,850	6.7%	900	3,750
Kitchenhands	23,200	2,450	3.7%	1,100	3,550
Checkout Operators and Office Cashiers	27,150	1,750	1.5%	1,150	2,900

<sup>a</sup> 3-year compound annual growth rate

<sup>b</sup> Computed for 2017 to 2020 employment growth for pre-COVID comparison


<sup>c</sup> 3-year compound annual growth rate

<sup>d</sup> Computed for 2017 to 2020 employment growth for pre-COVID comparison

<sup>e</sup> Due to rounding, some totals may not correspond with the sum of the separate figures

Chefs	32,100	2,250	4.4%	600	2,850
Bar Attendants and Baristas	15,500	1,800	3.0%	700	2,450
Storepersons	21,250	1,150	1.6%	1,250	2,400
Fast Food Cooks	10,950	1,950	4.9%	400	2,350

#### Legend

 Above Victorian employment growth average between 2022 and 2025

The digital transformation occurring across the industry is driving demand for new jobs, including data privacy and cybersecurity engineers, data analysts and risk analysts. In addition, the projected reduction in volunteer numbers will require a greater paid workforce overall.

Industry has also identified changing skill needs. Workers will need a greater understanding of customer data and its privacy implications, making business decisions that consider ethical and environmental concerns, omnichannel retailing and managing difficult customer behaviour becoming more common, among many others specific to each industry.

Meeting this demand will be challenging. A total of 20 occupations were identified as in shortage. Industry reports poor working conditions for some roles, non-competitive remuneration with other industries and insecure employment opportunities as all contributing to this challenge.

#### Workforce priorities

Three priorities are identified to address workforce and skilling needs for the services industries:

1. Build the pipeline of entry-level workers – most roles require limited prior experience or qualifications and is a key entry point for most people into the workforce.
2. Attract and retain workers to industry through providing awareness of career pathway opportunities
3. Upskill existing workers to keep pace with new technologies and consumer behaviour – this will in turn increase employee confidence and retention.

#### Education and training pipeline and workforce response

Pathways to employment in the services industry are split across higher education and VET with between 16.1 and 31 per cent holding a degree or above as their highest level of education (depending on the sector) and between 25.4 and 56.3 per cent holding a VET level qualification as their highest level of education. There were 102,750 enrolments in relevant VET qualifications in 2020 and 22,260 equivalent full-time study load (EFSTL) in higher education in 2019.<sup>13</sup>

Entry points to the industry include the Certificate III in Sport and Recreation, the Certificate II in Kitchen Operations, the Certificate III in Fitness and the Certificate II in Hospitality.<sup>14</sup> While activity is high in some courses, many courses feature low enrolment numbers and opportunities exist to better respond to identified priorities.

Meeting workforce demand is critical not only the services industry, but most other industries as the services industry provides a starting point for many individuals in the world of work. More training for these entry-level workers will enable them to develop lifelong skills that have benefits throughout their careers and in the broader community. Options for more on-site training could lessen the impact of key barriers faced by this industry, such as taking time off work to study.

Many smaller sectors such as horse and dog racing and outdoor recreation struggle to attract workers due to a lack of awareness of the roles available. In response, seeking to diversify the interests and



career pathways of individuals looking for employment is key, as is continuing to support Registered Training Organisations (RTOs) to deliver qualifications in thin training markets.

Opportunities exist to explore the benefits of alternative pathways for building skills, such as through micro-credentials or skill sets, alongside full qualifications. This approach to learning must keep pace with the changing nature of service delivery, the rapid adoption of new technologies, and consumer trends, and supporting the transition into new areas such as hybrid and electric power vehicles.

Finally, some sectors of the industry will need to consider how to further promote the value proposition to potential employees, specifically in relation to job design, rostering and working conditions, otherwise they may continue to face challenges attracting workers.

Table 3 highlights actions that could be adopted by education, industry, and government to meet workforce demand.

### **Table 3 | Actions for consideration for education, industry, and government**

- Provide clear pathways to build the pipeline of workers, including for smaller workforces with vital skills in some service sub-sectors.
- Facilitate and embed training for entry-level roles, which are often taken up by casual and seasonal workers to develop lifelong skills that ultimately benefit all industries and the broader community.
- Review existing qualifications and skill sets to support training and upskilling, appropriate to occupational needs.
- Upskill the existing workforce to better manage the broader workforce transition in line with new technologies and consumer trends.
- Strengthen partnerships with a focus on supporting forward planning and managing the workforce transition in line with new technologies and processes being adopted across each service sector, particularly in automotive repair, maintenance and retail.

## Industry outlook

### The services industry was heavily impacted by COVID-19 and is now starting to rebound

The services industry has the largest workforce in Victoria, employing 23 per cent of the total Victorian workforce (822,500).<sup>15</sup> Across the industry, 50.1 per cent of workers are female (406,300), greater than the Victorian average of 47.2 per cent and 22.3 per cent of the workforce are aged over 50, which is lower than the Australian average of 29 per cent.<sup>16,17</sup>

A strong and vibrant services industry is an integral part of a successful and functioning Victorian economy. The services industry covers a diverse range of sectors, providing Victorians with everyday goods and services and recreational activities. Their activities are critical to the smooth operation of our cities, towns, and households.

The services industry caters to both domestic and international markets and represents a range of business types and services that in many cases are interconnected. Economic activity is extensive across all interrelated sectors and impacts many secondary industries. The industry makeup includes a large proportion of small to medium sized businesses that employ up to 199 people.<sup>18</sup>

Many occupations within the industry provide flexible hours allowing workers to balance other commitments, for example study and caring. A lower annual average salary (between \$33,488 and \$75,613) relative to other industries is influenced by the high proportion of casual and part-time workers in some occupations.<sup>19</sup> Average weekly ordinary time earnings with allowances and loadings range from \$1,201.90 to \$1,331.90 but can be much higher for skilled and senior roles.<sup>20</sup> Given the age profile of workers in the industry, the skills people develop are not only crucial to the services industry, but also to other workforces when individuals move to other industries.<sup>21</sup> Ongoing efforts are being made to promote the industry as a viable career path with long-term opportunities for career advancement.

Tourism is closely interconnected with many other sectors within the services industry. These include arts, recreation food and accommodation while also driving the transportation and retail sectors. Tourism is an important economic driver for Victoria and serves the needs of domestic and international visitors to facilitate personal, leisure and/or business activities away from the 'home environment'.<sup>22</sup> The tourism sector in Victoria was estimated to be worth \$23.4 billion to the economy in Gross State Product prior to the COVID-19 pandemic.<sup>23</sup>

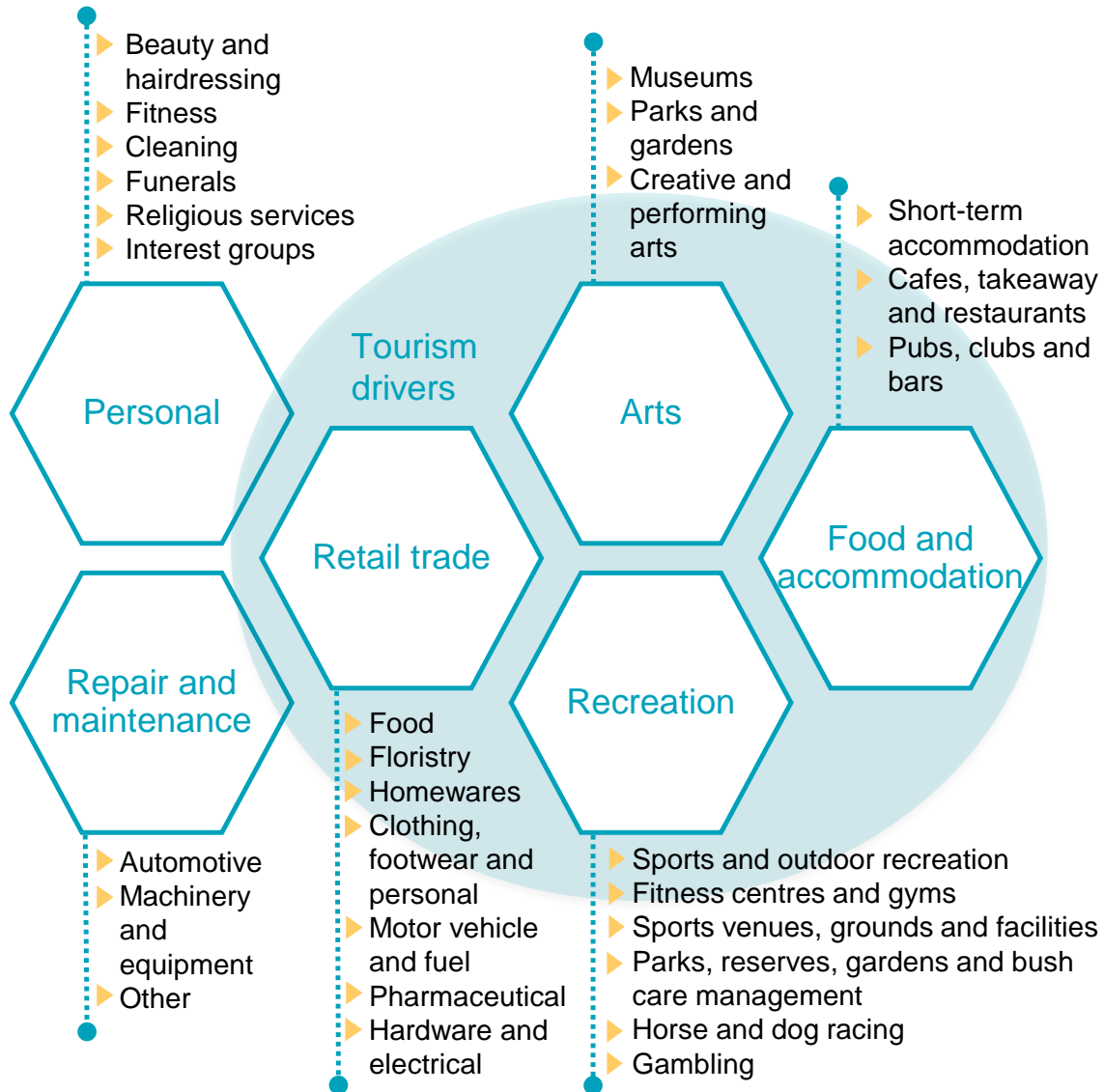
The services workforce is the largest in Victoria, employing 23 per cent of the total workforce, with 822,500 workers.

The industry was one of the most heavily impacted by the COVID-19 pandemic. Lockdowns forced many businesses to close, significantly impacting revenue, whilst the industry relies on the broader community having disposable incomes (generated through work) to purchase goods and services.<sup>24</sup> During the 2020 and 2021 lockdown periods, many individuals and businesses were recipients of government support payments as activities were put on hold while others continued to operate in a reduced capacity. Despite this, the industry continues to provide many jobs, even if some of these jobs have changed to reflect this situation (e.g., wait staff becoming delivery drivers). As businesses gradually reopen and transition to new ways of working, alternative business models and technologies have been adopted which are creating new employment opportunities.

Key sectors within the service industry are shown in Figure 1. The services industry definition is informed by the *Australian and New Zealand Standard Industrial Classification 2006* (ANZSIC). There are 19 broad industry divisions (ANZSIC 1-digit) and 96 industry subdivisions (ANZSIC 2-digit).<sup>25</sup> Key exclusions include travel agency and tour arrangement services, tourist information centres and other ticketing services for events and conferences which currently sit under administrative and support

services.<sup>26</sup> It also does not include the operation of transportation equipment for scenic and sightseeing activities (e.g., cable cars), which are part of the transport industry.<sup>27</sup> Where these services are mainly engaged in providing sports, arts or similar event promotion services, they are included under the relevant arts or recreation sector.<sup>28</sup>

**Figure 1 | Sectors within the service industry**



**Arts and recreation**

The arts and recreation sub-sectors cater to a range of demographics and tastes, providing a range of economic and social benefits. The sector includes a broad range of individuals and organisations engaged in heritage activities, creative and performing arts, sports and recreation and gambling activities. The sector spans across professionals who have many years of training in their respective fields, as well as many people in administrative, support and management roles. The sector closely interacts with the tourism sector to attract domestic and international tourism for events and products.<sup>29</sup>

The arts and recreation sector employs 1.7 per cent of the total Victorian workforce (59,900 workers).<sup>30</sup> Across the sector, 48.4 per cent of workers are female, in line with the Victorian average of 47.2 per cent, and 21.2 per cent of the workforce are aged over 50, lower than the Victorian average of 29.0 per cent.<sup>31,32</sup> Top employing occupations by size include sport coaches, instructors and officials, receptionists, amusement, fitness and sports centre managers, musical professionals, and fitness instructors.<sup>33</sup>

This industry indirectly employs many other groups of people to support the delivery of these services, such as catering.

## Arts

The arts sub-sector produces works for both commercial and social outcomes.<sup>34</sup> It attracts international and domestic tourism for culture events and products in addition to other benefits. The sub-sector includes both heritage activities and creative and performing arts activities.

Heritage activities involve the preservation and exhibition of heritage objects and artefacts with historical, cultural, and/or educational value in art galleries, historical or heritage sites.<sup>35</sup> Creative and performing arts activities include providing or producing live theatrical or musical presentations or performance, the creation of original artistic or cultural workers, providing independent technical expertise necessary for these productions and venue operation.

The percentage of Victorians (approximately 16 per cent) who volunteer in the sector reflects both social benefits to volunteers through building a sense of identity and community, but also an economic benefit to creative and cultural industries which employ the volunteers.<sup>36</sup>

## Recreation

The recreation sector is complex and comprises three main areas: sport and physical recreation activities, horse and dog racing activities, and amusement and other recreation activities.<sup>37</sup>

Sports and physical recreation include health and fitness centres and gymnasias, recreational clubs and venues, aquatic centres and swimming pools, camps grounds and facilities and the administrative services associated with them. The sector employs individuals directly involved in conducting activities, such as outdoor educators and swimming instructors, but also indirectly employs other groups of people to support delivery of the services, such as catering services.

The racing sub-sector incorporates a diverse range of businesses including horse breeding and farming, horse racing (thoroughbred and harness), greyhound racing, and management of the facilities used specifically for those activities.<sup>38</sup> The racing industry is also an important economic driver for Victoria, such as the Melbourne Cup Carnival and broader Spring Racing Carnival driving tourism and boosting local businesses. The industry generates \$4.3 billion to the Victorian economy and more than 121,000 Victorians are directly involved in the racing industry with almost half of all racing participants residing in regional Victoria.<sup>39</sup> This sub-sector also interacts with the manufacturing industry which is responsible for making equipment for horse related activities such as saddles.

The recreation sector also includes activities related to arboriculture, horticulture, and sports turf. These services are responsible for the cultivation and management of trees, shrubs, and gardens for the purpose of shading and decorating. Most workers are involved in maintaining public and private parks, reserves, gardens, turf, natural bushland and community recreation areas for the public benefit. The production of trees, shrubs, turf and plants is covered in the agriculture, forestry, and fishing industry insight report.

Amusement and other recreation activities provide services in the form of amusement parks, arcades or centres. These services operate from a combination of permanent or temporary sites.

Gambling activities such as betting, internet betting, casino activities including gaming (poker machines) and TAB operations are also included within the sector.<sup>40</sup> These sub-sectors provide the

opportunity for involvement in several other sectors listed above, for example bet making in the recreation sector and the organisation of lottery-funded community initiatives. Despite the nature of gambling changing over time, the sector continues to employ many Victorians. For example, staff employed at casinos often work across multiple other areas, including hotels, function rooms, restaurants, and entertainment facilities. Private organisations, alongside government regulation are increasingly looking to explore the relationship between people's participation in gambling, including the products they use, and their risk of experiencing problem gambling.

### **Accommodation and food services**

The food and accommodation sector consists of short-term accommodation for visitors to Victoria and/or meals, snacks, and beverages for consumption by customers both on and off-site.<sup>41</sup> In some instances, two or more of these activities are undertaken by the same business.<sup>42</sup> Excluded from this sector are gambling institutions (casinos), amusement and recreation parks, theatre restaurants, sporting clubs and other recreation or entertainment facilities providing food, beverage, and accommodation which are instead part of recreation services.<sup>43</sup> In Victoria, Crown Melbourne is a major hospitality employer in addition to providing other services such as gaming activities, accommodation, conference and function activities.<sup>44</sup>

The sector employs 5.9 per cent of the total Victorian workforce (208,400 workers).<sup>45</sup> Around 58.1 per cent of workers are female, higher than the Victorian average of 47.2 per cent, and 14.5 per cent of the workforce are aged over 50, significantly lower than the Victorian average of 29.0 per cent.<sup>46, 47</sup> The accommodation sector provides short-term housing for visitors to Victoria, such as hotels, motels, serviced apartments and other short-term arrangements but does not include residential caravan parks.<sup>48</sup> These span luxury, upscale, midscale and economy style arrangements. Primary activities undertaken by this workforce include operations for camping grounds, caravan parks (visitor), holiday houses and flats, motels, hotels, resorts, serviced apartments, ski-lodges, student residences and youth hostels (except boarding schools).<sup>49</sup> Top employing occupations by size include hotel and motel managers, housekeepers, receptionists, and commercial cleaners.<sup>50</sup>

The food sector provides a broad range of services ranging from fine dining restaurants to catering for mining sites and other mass operations.<sup>51</sup> It includes food and beverage serving services for consumption on the premises, such as cafes and restaurants<sup>52</sup>, as well as food and beverage services ready to be taken away for immediate consumption, such as takeaway, mobile vans and juice bars.<sup>53</sup> The sector also encompasses hospitality clubs, bars, hotels, nightclubs, pubs, taverns, wine bars, catering and airline catering services providing food and beverages (including alcoholic) for consumption both on and off premises.<sup>54</sup> Top employing occupations by size include waiters, bar attendants and baristas, kitchenhands, chefs and fast food cooks.<sup>55</sup>

Waiters, bar attendants, baristas, chefs and cooks account for a majority share of this workforce.

### **Other services**

This other services sector includes a diverse range of services and employs 3.5 per cent of the total Victorian workforce (122,100 workers).<sup>56</sup> Across the sector, 44.7 per cent of workers are female, similar to the Victorian average of 47.2 per cent, and 29.1 per cent of the workforce are aged over 50, also in line with the Victorian average of 29.0 per cent.<sup>57, 58</sup>

### **Personal services**

The personal services sub-sector includes a diverse range of businesses, from large companies to sole traders employed by private households.<sup>59</sup> It includes beauty and hairdressing, fitness, cleaning services, providing death care services, promoting or administering religious events or activities and other civic, professional and other interest group services.<sup>60</sup> Top employing occupations by size include hairdressers, beauty therapists and ministers of religion.<sup>61</sup> The sub-sector is primarily made up of micro and small-to-medium sized businesses. Many jobs within personal services require an

apprenticeship or traineeship for employment, however, there are also opportunities for entry-level roles.

### Repair and maintenance

The repair and maintenance sector restores machinery, equipment and other products to working order, and provides general and routine maintenance. It includes services provided to businesses, households, or a combination of both. Primary activities include repairing and maintaining equipment and machinery such as automotive, domestic appliance, electronics, clothing and footwear, and bicycles.<sup>62</sup> Retail stores that undertake repairing of goods as well as retailing new items are not included, alongside repairing and maintaining transport stock and construction activity.<sup>63</sup> Some businesses may have shopfronts while others do not. Top employing occupations by size include motor mechanics, panel beaters, car detailers and vehicle painters.<sup>64</sup>

### Retail and wholesale trade

Retail trade and wholesale trade are two distribution arrangements that constitute a major part of the supply chain. The key difference between each sub-sector is that wholesale sells in bulk quantities to businesses, while retail sells merchandise in small quantities direct to consumers. Each sub-sector also has close links with other industries, such as manufacturing, transport, postal and warehousing which are other key links in the supply chain.

#### Retail trade

The retail trade is responsible for the display and sale of new or used goods to consumers, for personal or household consumption.<sup>65</sup> Main activities include buying and/or selling goods to the public (retail trade) or to businesses (wholesale trade), commission-based buying and/or selling, and the supply of prescription and non-prescription medicine, information and health care services (community pharmacy).<sup>66</sup> The sector is characterised by a highly competitive and open marketplace, attracting small and medium-sized enterprises and international players of all sizes.<sup>67</sup>

Victoria's retail industry is worth over \$73 billion and employs 9.3 per cent of the total Victorian workforce (329,500 workers).<sup>68,69</sup> Across the sector, 51.4 per cent of workers are female, slightly higher than the Victorian average of 47.2 per cent, and 22.4 per cent of the workforce are aged over 50, which is lower than the Victorian average of 29.0 per cent.<sup>70,71</sup> Top employing occupations by size include sales assistants, retail managers, checkout operators and office cashiers, shelf fillers and pharmacy sales assistants.<sup>72</sup> Despite this, many workers in the retail sector are underemployed which ultimately decreases the income each retail worker injects into the broader economy, with estimates suggesting that 25 per cent of workers are looking for a more secure role.<sup>73</sup> This workforce is also more likely to not possess a post-secondary education which limits options.<sup>74</sup>

Retail stores generally operate from premises located and designed to attract a high volume of walk-in customers, have an extensive display of goods, and/or use mass media advertising designed to attract customers (physical or electronic).<sup>75</sup> This includes department stores, specialty stores, supermarkets, convenience stores and e-commerce stores. The goods exchanged can span various industries such as motor vehicles and motor vehicle parts, fuel, furniture, electrical, hardware, recreational goods and clothing, and flowers. The retail sector also includes the buying and/or selling of goods to the public on a fee or commission basis, without taking title to the goods.<sup>76</sup> Examples include commission retailing of books, cosmetics, or health foods.

Victoria's retail industry is worth over \$73 billion (sales per annum) and employs 9.2 per cent of the total workforce.

Community pharmacies are also included under retail and engage in retailing prescription drugs or patent medicines, cosmetics, or toiletries.<sup>77</sup> They play a key role in regional and remote communities by optimising access to health and pharmacy services which can otherwise be limited due to distance and location.<sup>78</sup>

## Wholesale trade

Wholesale trade involves the purchase and on-selling, the commission-based buying, and/or the commission-based selling of goods without the use of a shopfront or physical store presence, including milk vendors, sole e-commerce retailers and direct shopping units.<sup>79</sup> These services typically operate from a warehouse or office and have large storage facilities. Products for wholesaling include machinery and equipment, basic materials, grocery, liquor, tobacco, motor vehicles and parts and other goods.<sup>80</sup>

Wholesale trade currently employs 2.9 per cent of the total Victorian workforce (102,500 workers); however, the share of Victorian employment has declined in recent years due to increased labour productivity in the industry, automation, and the shift to online wholesale activities.<sup>81</sup> Only 37.0 per cent of the workforce are female, significantly lower than the national average of 47.2 per cent.<sup>82</sup> Approximately 31.2 per cent of the workforce are aged over 50, higher than the Victorian average of 29.0 per cent.<sup>83</sup> There are many diverse occupations in the industry, however the top employing occupations by size include store persons, advertising, public relations and sales managers and sales assistant.<sup>84</sup>









## The services industry is undergoing dramatic changes to way it operates

All parts of the service industry have been impacted by the COVID-19 pandemic. Between March to August 2020, the number of jobs in Victoria in accommodation and food services fell by 19.7 per cent, and in the arts and recreation services by 15.4 per cent, compared with the rest of Australia.<sup>85</sup> The shutdown of non-essential services, and introduction of trading restrictions had a particularly large impact on many of these services due to the high levels of personal contact and between and among customers and staff. Despite these challenges, the industry has rebounded strongly driven by a range of factors, set out in Table 4.

**Table 4 | Drivers of demand in services industry**

Driver		Food & accommodation	Retail and wholesale trade	Arts	Recreation	Personal Services	Repair & maintenance
Policy	Government investment and subsidies to stimulate the sector post COVID-19	Medium	Medium	High	High	Low	Low
Economic	Rise in household savings during COVID-19 lockdowns to spend	Medium	High	High	High	Medium	Medium
	Disrupted global supply chains impacting product availability	Low	High	Low	Low	Low	High
	Uncertain demand regarding international visitor numbers	High	Medium	High	High	Low	Low
Social	Rising health and beauty consciousness among consumers	Low	Low	Low	Medium	High	Low
	Increase in outdoor recreation activities amid COVID-19 restrictions that is expected to continue post COVID-19	High	Low	Medium	High	Low	Medium
Technological	Rise in omni-channel customer experiences	High	High	Medium	Medium	Low	Low
	Significant advancements in technology and digitisation, including Artificial Intelligence (AI), Augmented Reality (AR) and Virtual Reality (VR)	Medium	Medium	High	High	Low	Medium



Driver	Food & accommodation	Retail and wholesale trade	Arts	Recreation	Personal Services	Repair & maintenance
<b>Environmental</b> Ethical and environmental considerations are increasingly impacting consumer behaviour and business choices (e.g., using less plastic)	 High	 High	 Medium	 Medium	 Medium	 Medium

Drivers are expected to impact sectors differently across the industry over the next three to five years. Notable trends and influences where relevant to a specific sector only are listed below. Further detail is provided in Appendix A.

### Arts and recreation

The arts and recreation sector was significantly impacted by the COVID-19 pandemic, as many of its services are conducted in person. Despite this, technologies such as virtual reality, augmented reality, online video conferences, live streaming or video on demand enabled many businesses to adapt their operations to allow customers to be more fully immersed in live performances. For example, 73 per cent of Australians sought out artistic experiences online during lockdown.<sup>86</sup> In addition, with restrictions on activities and movement, local outdoor spaces became a focus for the community.<sup>87</sup> Greater expectations and utilisation of these spaces has led to shifting priorities for the use of some land.<sup>88</sup> For example, Darebin Council recently announced the opening of Northcote Public Golf Course for the wider community to access.<sup>89</sup>

The pandemic has also facilitated a rise in demand for horses as people seek new forms of recreation. This includes activities such as polocrosse, rodeo and pony club. The trend has also supported other industries such as repair and maintenance for related equipment upkeep. The Horse and Sports Betting sector has also grown, due to the rising popularity of online and mobile betting platforms. This trend was accelerated during the COVID-19 pandemic as some individuals had surplus savings from lockdown restrictions and time available to participate.

The Victorian Government has committed \$112.9 million to the Positive Start 2022 initiative. The program seeks to re-engage primary and secondary students in activities outside school in the wake of the coronavirus pandemic and remote learning to reconnect with peers and communities.<sup>90</sup> It includes \$84.3 million for the delivery of free camps for students who wouldn't normally have the chance to attend a camp; and \$12.4 million to provide access to a broad range of arts, sporting, and cultural programs and experiences in 2022.<sup>91</sup> This will require an increased demand for workers to meet student ratios, including staff to support the construction and maintenance of equipment and individuals to support wrap-around support services (e.g., mental health and wellbeing).

Across the water recreation sector (which includes swimming pool operation), Victoria has reported a significant increase in fatal drownings in recent years.<sup>92</sup> In response, the government has created the Water Safety Taskforce to collaborate on a new water safety strategy for Victoria.<sup>93</sup> The strategy identified the casualised nature of the workforce and the COVID-19 pandemic as some of the key drivers of workforce shortages in the sector. Workforce shortages have also impacted the availability of swimming classes.<sup>94</sup>

A rise in public concern over environmental issues has increased funding for environmental heritage services and typically increases admission numbers to nature reserves and conservation parks. More individuals are also expected to want to reduce their carbon footprint and opt for more sustainable modes of transportation, including bikes and electric bikes.

The arts and recreation sector are heavily dependent on face-to-face training, which has been impacted by COVID-19 restrictions. The sector now needs to make up for lost training and upskilling to ensure a reliable pipeline of workers.

The arts and recreation sector is heavily dependent on face-to-face training and now needs to make up for lost time building the pipeline of workers due to COVID-19 restrictions.

## Accommodation and food

This sector has grown steadily with growth attributed to factors such as a growing 'foodie' culture, the popularity among many individuals to owning a hospitality business, population growth and an increase in consumer demand.<sup>95</sup> Consumer trends around increasing health consciousness, as well as busier and time poor lifestyles are also positively impacting on the demand for eating out and ordering ready-made meals.<sup>96</sup> This is against the backdrop of recovery from COVID-19 which has brought uncertain demand for food and accommodation services due to ongoing, changing restrictions and supply chain challenges.

Online platforms like UberEATS and Menulog are transforming business operations with online food ordering and delivery enabling restaurants access to a larger customer base, however industry has also noted challenges with high fees charged by these services which see profits decline even as their revenue increases.<sup>97,98</sup> In addition, social media and online reviews and commentary are also shaping how decisions are made about dining, food and beverage choices.<sup>99</sup> The introduction of QR menus has also shifted the role of wait staff in restaurants and cafes.

Ethical and environmental considerations are shaping decisions made in hospitality. This includes avoiding disposable plastics, eliminating unnecessary paper consumption and reducing food waste.<sup>100</sup> In the hospitality sub-sector, simple eco-friendly switches including replacing miniature toiletries with larger, locally sourced dispensers, choosing ethically produced bedsheets made from organic materials and reducing energy consumption with smart bulbs. These are having a large impact when implemented at scale. Increasing vegetarian and vegan options are also having well-documented environmental advantages. These are all driving demand for new products and services across the sector.<sup>101</sup>

Sectors that support tourism, particularly food and accommodation are facing fluctuating demand. They are responding to a growth in domestic visitors, while uncertain international border restrictions and quarantine arrangements (when they were in operation), combined with predictions of an increasing Australian dollar have led to forecasters suggesting a decline in international tourist numbers.<sup>102,103,104</sup>

## Other services

The sector is expected to see consistent growth as the need for locally skilled labour remains a key function of operations. The rise of the gig economy is expected to further impact a sector that already has high levels of sole trader or portfolio-based professions. This has generated debate around workplace protections, employment rights and financial security of gig economy workers.<sup>105</sup>

Personal services and repair and maintenance services will see continued growth as the need for locally skilled labour remains a key function of operations.

## Personal Services

The rise in health consciousness has been an important factor driving demand for services as individuals increasingly access products and services related to enhancing their image.<sup>106</sup> This includes the rise in demand for permanent hair removal services, male grooming salons and organic salons.<sup>107</sup>

The adoption of specialist equipment and technologies in hairdressing and beauty services, such as those used for facial peels, laser hair removal, skin rejuvenation and cosmetic tattooing has allowed businesses to stay at the forefront of business growth strategies.<sup>108</sup>

Funeral services have been impacted by technology developments including webcasts for funeral services and the introduction of QR codes on headstones.<sup>109</sup>

### **Repair and maintenance**

There has been a surge in demand for cars during the pandemic as more Victorians have been undertaking road trips due to international travel restrictions during the pandemic, and people have also been opting to drive instead of catching public transport.<sup>110</sup> This has been coupled with global production delays extending wait times for buyers of new cars and increasing the price for second-hand vehicles.<sup>111</sup> As a result, demand for automotive repair and maintenance will continue as people seek to retain their cars for longer to avoid high prices.

The increasing number of vehicles which feature computer processing equipment will require a new set of skills. The Victorian Government invested \$5.2 million for the first electric vehicle research facility in the southern hemisphere at RMIT.<sup>112</sup> The shift is changing the nature of car servicing as there are fewer mechanical moving parts in electric vehicles resulting in less demand for traditional vehicle mechanics and a greater demand for personnel with IT skills.<sup>113</sup> These skills include:

- coding
- reprogramming vehicle software and firmware updates
- depowering and re-initialising electric battery vehicles
- diagnosing and repairing high voltage rechargeable energy storage systems, and
- diagnosing and repairing high traction motors in battery electric motors.<sup>114</sup>

### **Retail and wholesale trade**

Retail and wholesale trade was another sector significantly impacted by the COVID-19 pandemic. Serious disruptions to global supply chains for some products have affected retailer's ability to provide goods to consumers.<sup>115</sup> Despite this, significant advancements in technology have changed the way consumers and businesses interact with the industry, further exacerbated by the impact of the pandemic. This includes mobile payments, drone delivery, augmented reality, facial recognition, artificial intelligence, and the Internet of Things. However, this has left some smaller businesses behind who are unable to adopt the new technology due to financial and time constraints, and insufficient technical expertise.

The rise in omnichannel retailing has seen retailers develop one strategy that is executed across all channels to create a connected, customer-focused experience. This means a shopper who begins browsing on a brand's website will have the same experience as in-store and customers often move between both online or offline touchpoints (e.g., click and collect, distribution retail centres, personal grocery shopping). This trend has resulted in new types of employment opportunities, such as Omni marketing leads.

## Working and skilling implications

### An estimated 89,400 new workers are needed between now and 2025

On average, across all industries total employment is expected to grow by an additional 211,900 workers to 2025, from 3,538,900 workers in 2022, an annual growth rate of 1.97 per cent<sup>f</sup>.<sup>116,117</sup> In comparison between 2017 and 2020 employment grew by 2.68 per cent<sup>g</sup> annually.<sup>118</sup>

In the services industry, employment is expected to grow by an additional 51,700 workers to 2025, from 822,500 workers in 2022, an annual growth rate of 1.99 per cent<sup>h</sup> which is higher than the overall Victorian average across all industries.<sup>119,120</sup> In comparison between 2017 and 2020 employment across this industry grew by 0.3 per cent annually.<sup>i</sup><sup>121</sup>

The demand for services workers in Victoria is expected to grow by 89,400 new workers in Victoria between 2022 and 2025.<sup>122</sup> This includes 4,600 employment growth and replacement of 3,100 retirees in arts and recreation; 29,300 employment growth and replacement of 8,900 retirees in accommodation and food services; 1,000 employment growth and replacement of 4,400 retirees in other services; 14,000 employment growth and replacement of 15,700 retirees in retail; and 2,800 employment growth and replacement of 5,600 retirees in wholesale trade. The number of retirements does not consider people leaving the industry for other reasons.

Most occupations across this industry will grow in demand for new workers. Table 5 identifies the top ten occupations in demand based on employment growth and replacing retirees by 2025. Of these, six occupations (highlighted in table) are expected to experience employment growth at a rate above the overall Victorian average between 2022 and 2025. These figures are estimates but it is important to note that they may be under-estimated as they do not account for existing vacancies nor take account of changes in the rate of workers leaving the industry,

**Table 5 | Occupations in demand for the services industry<sup>j,k</sup> 123,124**

Occupation	Current employment	Employment growth (2022–25)		Retirements (2022–25)	New workers needed (2022–25)
		Number	Per cent		
Sales Assistants (General)	139,600	3,000	0.8%	4,250	7,250
Waiters	42,250	3,350	3.8%	1,150	4,500
Retail Managers	52,550	850	0.5%	3,550	4,400
Café and Restaurant Managers	11,950	2,850	6.7%	900	3,750
Kitchenhands	23,200	2,450	3.7%	1,100	3,550
Checkout Operators and Office Cashiers	27,150	1,750	1.5%	1,150	2,900
Chefs	32,100	2,250	4.4%	600	2,850
Bar Attendants and Baristas	15,500	1,800	3.0%	700	2,450

<sup>f</sup> 3-year compound annual growth rate

<sup>g</sup> Computed for 2017 to 2020 employment growth for pre-COVID comparison

<sup>h</sup> 3-year compound annual growth rate


<sup>i</sup> Computed for 2017 to 2020 employment growth for pre-COVID comparison

<sup>j</sup> Some roles will also appear in other industries, for example delivery drivers will appear in the Transport and logistics industry insight report

<sup>k</sup> Due to rounding, some totals may not correspond with the sum of the separate figures.

Storepersons	21,250	1,150	1.6%	1,250	2,400
Fast Food Cooks	10,950	1,950	4.9%	400	2,350

**Legend**

 Above Victorian employment growth average between 2022 and 2025

Significant technological advancements across the services industry are driving demand for new and emerging jobs, as detailed in Table 6. Emerging occupations are defined as new, frequently advertised jobs which are substantially different to occupations already defined in ANZSCO.<sup>125</sup> These occupations may or may not be in current shortage.

**Table 6 | Emerging occupations in the services industry<sup>126</sup>**

Emerging occupations	
• Data analysts	• Data architects and engineers
• Data scientists	• Digital marketing specialists
• E-commerce managers	• Pricing analysts
• Social media specialists	• User experience analysts

## Current occupation shortages span from entry-level roles to managerial positions

The services industry faces shortages across a number of occupations, as outlined in Table 7. A shortage exists when employers are unable to fill or have considerable difficulty filling vacancies for an occupation at current levels of remuneration and conditions of employment, and in reasonably accessible locations. Where an occupation specialisation is in shortage, the occupation will be treated as in shortage.

**Table 7 | List of occupation shortages facing the service industry<sup>127,128</sup>**

Occupation shortages	
• Automotive electricians <sup>129</sup>	• Bar staff
• Bistro staff	• Butchers and small goods makers
• Caravan park and camping ground managers	• Cooks and chefs <sup>130</sup>
• Duty managers <sup>131</sup>	• Hairdressers
• Hotel and motel managers	• Kitchen attendants
• Licensed club managers	• Lifeguards <sup>132</sup>
• Managers	• Panel beaters
• Retail attendants	• Sales assistants
• Sports and fitness workers <sup>133</sup>	• Sports turf managers <sup>134</sup>
• Sports turf trades workers <sup>135</sup>	• Swim teachers <sup>136</sup>

**Additional occupations as part of the National Skills Commission's updated Skills Priority List released on 06 October 2022<sup>137</sup>**

• Retail managers	• Cinema or theatre managers
• Hair or beauty salon managers	• Equipment hire managers
• Amusement centre managers	• Vehicle trimmers
• Electronic equipment trades workers	• Beauty therapists
• Electronic instrument trades workers (special class)	• Tour guides
• Baristas	• Travel consultants
• Gymnastics coach or instructors	• Home improvement installers
• Boarding kennel or cattery operators	• Hotel service managers

## Some skills are in immediate shortage, while others will increase in demand

Good interpersonal skills, solid communication skills, organisational skills and the ability to be part of a team are all key attributes of working in services industry. Some of these skills are required immediately while others will be required increasingly in the future. The skills identified in Table 8 are identified as in shortage across the industry and enable employees to work well with others (colleagues or consumers) and help a business be more productive.

**Table 8 | Skill shortages facing the services industry<sup>138,139,140,141</sup>**

Skill shortages	
• Customer service <sup>142</sup>	• Initiative and innovation
• Management and leadership	• Managing stock and logistics
• Planning and organising	• Problem solving
• Risk and quality assurance skills to oversee and verify high ropes on camps	• Teamwork
• Verbal communication	

Shifting consumer preferences and the changing nature of service delivery are also demanding workers have a new set of skills. These trends will have implications for the existing services workforce detailed in Table 9. Some workers may already have these skills while others may be in shortage.

**Table 9 | Emerging skills in the services industry**

Emerging skills	Arts & rec	Accom & food	Personal services	Repair	Retail & wholesale
Analysing data to predict customer behaviour and the corresponding privacy implications		✓			✓
Animal welfare and integrity and ethical conduct <sup>143</sup>	✓		✓		

Emerging skills	Arts & rec	Accom & food	Personal services	Repair	Retail & wholesale
Considering ethical and environmental factors when making business decisions and sourcing products that align with these values	✓	✓	✓		✓
Creating full immersive experiences via virtual reality, augmented reality, online video conferences, live streaming or video on demand	✓				✓
Developing a more connected, customer-focused experience through omnichannel retailing					✓
Fault diagnosis skills <sup>144</sup>				✓	
Entrepreneurial skills, including philanthropy and corporate sponsorship <sup>145</sup>	✓	✓	✓		✓
Making business decisions with consideration to social media, online reviews and commentary	✓	✓	✓	✓	✓
Managing difficult customer behaviour and conflict management	✓	✓			✓
Mechanical and electrical repair skills for modern vehicle systems, including semi-automatic driving technologies like park assist, lane departure warning and autonomous emergency braking <sup>146</sup>				✓	
Reprogramming vehicle software and firmware updates, depowering and reinitialising electric battery vehicles, diagnosing and repairing high voltage rechargeable energy storage systems, and, diagnosing and repairing high traction motors in battery electric motors.				✓	
Skills in artificial intelligence, human machine interfaces, internet of things and application software related to automated and connected vehicles				✓	
Understanding mobile payments, drone delivery, augmented reality, facial recognition, artificial intelligence and the Internet of Things (IoT)	✓	✓			✓



## Education and training pipeline

There were almost 102,750 enrolments in services related VET qualifications in 2020 and 22,260 relevant enrolments in Higher Education in 2019.<sup>147,148</sup> This should translate to almost 81,130<sup>1</sup> graduating students entering the workforce each year with relevant qualifications, presenting a significant opportunity to meet the projected demand, although some will seek employment in other industries. For further detail, see the collaborative response toward the end of this report.

### VET remains a critical pathway for training the services workforce

The services industry provides many opportunities for people with no post-school qualifications, and those with no post-school qualifications currently represent between 27.2 and 56.9 per cent of the workforce depending on the sector.<sup>149</sup> This particularly includes young people in their first job, mature aged workers re-entering the workforce and those requiring flexible work to balance other commitments, such as caring responsibilities.

The top employing occupations across the sector include bar attendants and baristas, checkout operators and office cashiers, café workers and delivery drivers.

VET will likely continue as the primary channel of post-secondary training for the services workforce, particularly for the personal services and repair and maintenance sector, where a VET level qualification is required for many occupations in the industry, such as hairdressers, panel beaters, chefs and florists. Many of these roles require an apprenticeship or traineeship.<sup>150</sup>

In 2020, there were 11 skill sets delivered through VET in Victoria, accounting for approximately 2,990 enrolments.<sup>151</sup> These skill sets are delivered for the purpose of upskilling and professional development and/or to meet a variety of regulatory requirements by industry. The Responsible Service of Alcohol license required for hospitality accounted for over 2,060 of these enrolments.<sup>152</sup> There are also skill sets delivered by industry and/or individual employers not currently captured in the data.

People enrol in VET courses for one of three main reasons:

- to prepare for employment
- to support current employment
- to progress their careers within the industry.

### VET Activity

This equates to training categorised as prior to employment, with employment (as an apprenticeship or traineeship) and upskilling once qualified as shown in Table 10 to 14. These tables show the enrolments in 2020 in VET courses on the Victorian Funded Course List (FCL) and the Victorian Funded Skill Set List (FSSL)<sup>153,154</sup> related to this industry and against each category<sup>m</sup>. The enrolment numbers are drawn from Total VET Activity (TVA) which comprises enrolments supported by public funding or private contribution.

As part of preparing this report, industry representatives have provided their perspectives on the purpose of these qualifications, which is summarised in Figure 2 and helps to read Table 10 to 14.

<sup>1</sup> This number is determined by taking the total number of VET enrolments in courses undertaken prior to employment, combined with 1/3 of the total number of HE enrolments in AQF 5-8 courses (as these courses are traditionally undertaken prior to employment and the average bachelor degree is three years, so therefore only those in their final year of study will enter the workforce the following year).

<sup>m</sup> Note that the Victorian Funded Skill Set List was formally introduced from 2021 onwards.



**Figure 2 | VET pipeline key**

- 'AT' indicates a classroom-based course is also available as an apprenticeship or traineeship option.
- 'Q' indicates industry values the course as a qualification.
- 'SS' indicates industry values the course as a skill set.
- 'EIR' indicates it is an Endorsed Industry Requirement as noted by industry.
- 'OL' indicates the course leads to an Occupational License as noted by industry.

Note: Industry has not provided feedback on all qualifications and where indicated; each value assignment can be reviewed in the future.

## Arts

In 2020, there were close to 10,050 enrolments in arts related VET qualifications prior to employment.<sup>155</sup> There were also 20 enrolments in arts related VET qualifications and skill sets while currently being employed.<sup>156</sup>

A VET level qualification provides pathways to employment in the sector, in occupations such as an artistic director, media producer, presenter, graphic and web designer or illustrator. Most roles do not require a qualification to enter the industry, however there are many courses which provide opportunities for upskilling and professional development. The VET pipeline for the arts sector is shown in Table 10. Courses are listed in the order of highest enrolment.

**Table 10 | VET pipeline for arts in Victoria<sup>n</sup>**

<b>Prior to employment</b>	
Qualifications (10,052 TVA enrolments 2020)	
<b>Advanced Diploma</b>	<b>111</b>
Advanced Diploma of Professional Screenwriting (Q)	111
<b>Certificate II</b>	<b>3,356</b>
Certificate II in Aboriginal and/or Torres Strait Islander Cultural Arts (Q,AT,EIR)	540
Certificate II in Dance (Q,EIR)	1,215
Certificate II in Music (Q)	894
Certificate II in Visual Arts (Q,EIR)	707
<b>Certificate III</b>	<b>6,317</b>
Certificate III in Aboriginal and/or Torres Strait Islander Cultural Arts (Q,EIR)	26
Certificate III in Circus Arts (Q,EIR)	22
Certificate III in Dance (Q,EIR)	112
Certificate III in Design Fundamentals (Q,AT,EIR)	575
Certificate III in Music (Q,AT)	4,645
Certificate III in Prepress Graphic Design Production (Q,AT,EIR)	11
Certificate III in Visual Arts (Q,EIR)	926

<sup>n</sup> VET courses can support a range of occupations across a range of industries, and occupations can also support a range of industries. To present the likely VET trained employment pipeline by industry, enrolments for a course have been assigned to the most common industry in which people seek employment.

<b>Certificate IV</b>	<b>43</b>
Certificate IV in Circus Arts (Q,EIR)	20
Certificate IV in Musical Theatre (Q,EIR)	23
<b>Diploma</b>	<b>225</b>
Diploma of Fashion Styling (Q)	50
Diploma of Social Media Marketing (Q)	175
<b>With employment (apprenticeship and traineeship)</b>	
Qualifications (20 TVA enrolments 2020)	
<b>Certificate III</b>	<b>20</b>
Certificate III in Design Fundamentals (Q,EIR)	<5
Certificate III in Prepress Graphic Design Production (Q,EIR)	17
<b>Upskilling once qualified</b>	
Qualifications (4,423 TVA enrolments 2020, 10 Skill Set enrolments 2020)	
<b>Advanced Diploma</b>	<b>536</b>
Advanced Diploma of Applied Fashion Design and Merchandising (Q,SS,EIR)	31
Advanced Diploma of Creative Product Development (Q,EIR)	14
Advanced Diploma of Graphic Design (Q,EIR)	79
Advanced Diploma of Music (Q,EIR)	178
Advanced Diploma of Screen and Media (Q,EIR)	186
Advanced Diploma of Visual Arts (Q,EIR)	48
<b>Certificate IV</b>	<b>1,502</b>
Certificate IV in Aboriginal and/or Torres Strait Islander Cultural Arts (Q,EIR)	-
Certificate IV in Dance (Q,EIR)	119
Certificate IV in Dance Teaching and Management (Q,EIR)	210
Certificate IV in Design (Q,SS,AT,EIR)	395
Certificate IV in Music (Q,AT)	289
Certificate IV in Screen and Media (Q,AT,EIR)	231
Certificate IV in Visual Arts (Q,EIR)	258
<b>Diploma</b>	<b>2,385</b>
Diploma of Applied Fashion Design and Merchandising (Q,SS,EIR)	93
Diploma of Graphic Design (Q,EIR)	397
Diploma of Live Production and Technical Services (Q,SS,EIR)	67
Diploma of Music (Q,AT)	361
Diploma of Musical Theatre (Q,EIR)	130
Diploma of Professional Dance (Elite Performance) (Q,EIR)	222
Diploma of Professional Writing and Editing (Q)	90
Diploma of Screen and Media (Q,SS,AT,EIR)	693
Diploma of Theatre Arts (Q)	22
Diploma of Visual Arts (Q,EIR)	310
<b>Skill Set</b>	<b>10</b>
Course in Multi-disciplinary Design (Q)	10

Note: Enrolment figures in the table above are as reported by NCVER, Total VET student and courses 2020: program enrolment. There may be instances where program enrolments are not reported by providers to NCVER and therefore not included in the enrolment figures in the total VET training activity data. Total VET activity for 2021 is expected to be released in August 2022.

## Food and accommodation

In 2020, there were more than 18,790 enrolments in food and accommodation related VET qualifications and skill sets prior to employment.<sup>157</sup> There were also around 4,260 enrolments in food and accommodation related VET qualifications while currently being employed.<sup>158</sup>

A VET level qualification provides pathways to employment in the sector, in occupations such as bakers, chefs and baristas. Many roles also require an apprenticeship or traineeship to enter the industry to ensure workers gain the necessary practical skills throughout their training. The VET pipeline for the food and accommodation sector is shown in Table 11.

**Table 11 | VET pipeline for food and accommodation in Victoria<sup>o</sup>**

<b>Prior to employment</b>	
Qualifications (15,947 TVA enrolments 2020, 2847 Skill Set enrolments 2020)	
<b>Certificate II</b>	<b>12,082</b>
Certificate II in Hospitality (Q,SS,AT)	4,549
Certificate II in Kitchen Operations (Q,SS,AT)	7,533
<b>Certificate III</b>	<b>3,595</b>
Certificate III in Asian Cookery (AT)	-
Certificate III in Catering Operations (Q,SS,AT)	182
Certificate III in Commercial Cookery (Q,SS,AT)	2,028
Certificate III in Hospitality (Q,SS,AT)	1,385
Certificate III in Hospitality (Restaurant Front of House) (Q,SS,AT)	-
<b>Certificate IV</b>	<b>270</b>
Certificate IV in Patisserie (Q,AT)	270
<b>Skill Set</b>	<b>2,847</b>
Customer Service Management (SS)	-
Food Handling (SS)	194
Food Safety Supervision (SS)	591
Responsible Service of Alcohol (SS)	2,062
<b>With employment (apprenticeship and traineeship)</b>	
Qualifications (4,262 TVA enrolments 2020)	
<b>Certificate II</b>	<b>23</b>
Certificate II in Hospitality (Q,SS)	21
Certificate II in Kitchen Operations (Q,SS)	<5
<b>Certificate III</b>	<b>3,740</b>
Certificate III in Asian Cookery	17
Certificate III in Catering Operations (Q,SS)	61
Certificate III in Commercial Cookery (Q,SS)	1,557
Certificate III in Hospitality (Q,SS)	2,054
Certificate III in Hospitality (Restaurant Front of House) (Q,SS)	51
<b>Certificate IV</b>	<b>499</b>
Certificate IV in Commercial Cookery (Q)	174
Certificate IV in Hospitality (Q)	253
Certificate IV in Patisserie (Q)	72

<sup>o</sup> VET courses can support a range of occupations across a range of industries, and occupations can also support a range of industries. To present the likely VET trained employment pipeline by industry, enrolments for a course have been assigned to the most common industry in which people seek employment.

<b>Upskilling once qualified</b>	
Qualifications (2,722 TVA enrolments 2020)	
<b>Advanced Diploma</b>	<b>58</b>
Advanced Diploma of Hospitality Management (Q)	58
<b>Certificate IV</b>	<b>2,376</b>
Certificate IV in Commercial Cookery (Q,AT)	742
Certificate IV in Hospitality (Q,AT)	1,634
<b>Diploma</b>	<b>288</b>
Diploma of Hospitality Management (Q)	288

Note: Enrolment figures in the table above are as reported by NCVET, Total VET student and courses 2020: program enrolment. There may be instances where program enrolments are not reported by providers to NCVET and therefore not included in the enrolment figures in the total VET training activity data. Total VET activity for 2021 is expected to be released in August 2022.

### Other services (personal / repair and maintenance)

In 2020, there were over 20,610 enrolments studying other services related VET qualifications prior to employment.<sup>159</sup> There were also almost 7,910 students studying other services related VET qualifications while currently being employed.<sup>160</sup>

A VET level qualification provides pathways to employment in the sector, in occupations such as automotive electricians, air-conditioning and refrigeration mechanics, beauty therapists and hairdressers. Many roles in this sector also require an apprenticeship or traineeship to enter the industry to ensure workers gain the necessary practical skills throughout their training. The VET pipeline for the other services sector is shown in Table 12.

**Table 12 | VET pipeline for other services in Victoria<sup>P</sup>**

<b>Prior to employment</b>	
Qualifications (20,610 TVA enrolments 2020)	
<b>Certificate II</b>	<b>10,115</b>
Certificate II in Animal Care (Q,AT)	2,885
Certificate II in Automotive Body Repair Technology (Q,AT,EIR)	16
Certificate II in Automotive Servicing Technology (Q,AT,EIR)	166
Certificate II in Automotive Vocational Preparation (Q,EIR)	4,489
Certificate II in Computer Assembly and Repair (Q,AT)	142
Certificate II in Retail Cosmetics (Q,SS,AT,OL)	778
Certificate II in Salon Assistant (AT)	1,639
<b>Certificate III</b>	<b>8,590</b>
Certificate III in Agricultural Mechanical Technology (Q,SS,AT,OL)	9
Certificate III in Animal Care Services (Q,AT)	1,138
Certificate III in Animal Technology (Q,SS,OL)	<5
Certificate III in Appliance Service (Q,SS,AT,OL)	<5
Certificate III in Automotive Body Repair Technology (Q,AT,EIR)	13
Certificate III in Automotive Diesel Engine Technology (Q,SS,AT,OL)	<5
Certificate III in Automotive Electrical Technology (Q,SS,AT,OL)	20
Certificate III in Automotive Engine Reconditioning (Q,AT)	-

<sup>P</sup> VET courses can support a range of occupations across a range of industries, and occupations can also support a range of industries. To present the likely VET trained employment pipeline by industry, enrolments for a course have been assigned to the most common industry in which people seek employment.

Certificate III in Automotive Glazing Technology (Q,AT,EIR)	12
Certificate III in Automotive Refinishing Technology (Q,AT,EIR)	13
Certificate III in Automotive Underbody Technology (Q,AT,EIR)	-
Certificate III in Barbering (Q,AT,EIR)	534
Certificate III in Beauty Services (Q,SS,AT,OL)	2,349
Certificate III in Hairdressing (Q,AT,EIR)	1,831
Certificate III in Heavy Commercial Trailer Technology (Q,AT,EIR)	-
Certificate III in Heavy Commercial Vehicle Mechanical Technology (Q,SS,AT,OL)	298
Certificate III in Laundry Operations (Q,AT,EIR)	-
Certificate III in Light Vehicle Mechanical Technology (Q,SS,AT,OL)	766
Certificate III in Make-Up (Q,SS,AT,OL)	1,218
Certificate III in Marine Mechanical Technology (Q,AT,EIR)	5
Certificate III in Mobile Plant Technology (Q,SS,AT,OL)	22
Certificate III in Motor Sport Technology (Q,AT,EIR)	43
Certificate III in Motorcycle Mechanical Technology (Q,AT,OL)	7
Certificate III in Nail Technology (Q,SS,AT)	171
Certificate III in Outdoor Power Equipment Technology (Q,AT,EIR)	<5
Certificate III in Science	45
Certificate III in Security Equipment (Q,SS,AT,OL)	-
Certificate III in Watch and Clock Service and Repair (Q,AT,EIR)	-
Certificate III in Wildlife and Exhibited Animal Care	88
<b>Certificate IV</b>	<b>1,905</b>
Certificate IV in Celebrancy (Q,OL)	747
Certificate IV in Chaplaincy and Pastoral Care (Q)	76
Certificate IV in Science	99
Certificate IV in Veterinary Nursing (Q,AT,EIR)	983
<b>With employment (apprenticeship and traineeship)</b>	
Qualifications (7,908 TVA enrolments 2020)	
<b>Certificate II</b>	<b>211</b>
Certificate II in Animal Care (Q)	21
Certificate II in Automotive Body Repair Technology (Q,EIR)	14
Certificate II in Automotive Servicing Technology (Q,EIR)	157
Certificate II in Salon Assistant	19
<b>Certificate III</b>	<b>7,630</b>
Certificate III in Agricultural Mechanical Technology (Q,SS,OL)	222
Certificate III in Animal Care Services (Q)	97
Certificate III in Appliance Service (Q,SS,OL)	19
Certificate III in Automotive Body Repair Technology (Q,EIR)	319
Certificate III in Automotive Diesel Engine Technology (Q,SS,OL)	8
Certificate III in Automotive Electrical Technology (Q,SS,OL)	230
Certificate III in Automotive Engine Reconditioning (Q)	17
Certificate III in Automotive Glazing Technology (Q,EIR)	47
Certificate III in Automotive Refinishing Technology (Q,EIR)	357
Certificate III in Barbering (Q,EIR)	114
Certificate III in Beauty Services (Q,SS,OL)	80
Certificate III in Hairdressing (Q,EIR)	1,613
Certificate III in Heavy Commercial Trailer Technology (Q,EIR)	16
Certificate III in Heavy Commercial Vehicle Mechanical Technology (Q,SS,OL)	1,024

Certificate III in Light Vehicle Mechanical Technology (Q,SS,OL)	2,730
Certificate III in Marine Mechanical Technology (Q,EIR)	75
Certificate III in Mobile Plant Technology (Q,SS,OL)	335
Certificate III in Motorcycle Mechanical Technology (Q,OL)	101
Certificate III in Outdoor Power Equipment Technology (Q,EIR)	70
Certificate III in Recreational Vehicle Service and Repair (Q,EIR)	45
Certificate III in Security Equipment (Q,SS,OL)	111
<b>Certificate IV</b>	<b>67</b>
Certificate IV in Beauty Therapy (Q,OL)	21
Certificate IV in Veterinary Nursing (Q,EIR)	46
<b>Upskilling once qualified</b>	
Qualifications (2,859 TVA enrolments 2020)	
<b>Certificate III</b>	<b>5</b>
Certificate III in Gravedigging, Grounds and Maintenance (Q,SS,AT)	-
Certificate III in Recreational Vehicle Service and Repair (Q,AT,EIR)	5
<b>Certificate IV</b>	<b>922</b>
Certificate IV in Animal Facility Management (Q)	-
Certificate IV in Animal Regulation and Management (Q,SS,AT,OL)	126
Certificate IV in Automotive Management (Q,EIR)	49
Certificate IV in Automotive Mechanical Diagnosis (Q,EIR)	212
Certificate IV in Automotive Mechanical Overhauling (Q,EIR)	<5
Certificate IV in Beauty Therapy (Q,AT,OL)	514
Certificate IV in Hairdressing (Q)	19
Certificate IV in Motor Sport Technology (Q,EIR)	<5
<b>Diploma</b>	<b>1,932</b>
Diploma of Animal Technology (Q)	55
Diploma of Automotive Management (Q,EIR)	25
Diploma of Beauty Therapy (Q,OL)	1,516
Diploma of Event Management (Q)	302
Diploma of Salon Management (Q,EIR)	34

Note: Enrolment figures in the table above are as reported by NCVET, Total VET student and courses 2020: program enrolment. There may be instances where program enrolments are not reported by providers to NCVET and therefore not included in the enrolment figures in the total VET training activity data. Total VET activity for 2021 is expected to be released in August 2022.

## Recreation

In 2020, there were over 22,980 enrolments in recreation related VET qualifications and skill sets prior to employment.<sup>161</sup> There was also close to 2,080 enrolments in recreation related VET qualifications while currently being employed.<sup>162</sup> Enrolment is concentrated in one key course – the Certificate III in Sport and Recreation.

A VET level qualification provides pathways to employment in the sector, in occupations such as fitness instructors, sports turf workers / managers, sports coaches, and outdoor adventure guides. Many courses require the option of an apprenticeship or traineeship and/or classroom-based study. The VET pipeline for the recreation sector is shown in Table 13.

**Table 13 | VET pipeline for recreation in Victoria<sup>9</sup>**

<b>Prior to employment</b>	
Qualifications (22,900 TVA enrolments 2020, 81 Skill Set enrolments 2020)	
<b>Certificate I</b>	<b>8</b>
Certificate I in Racing (Stablehand) (Q,OL)	8
<b>Certificate II</b>	<b>855</b>
Certificate II in Conservation and Ecosystem Management (Q,AT)	379
Certificate II in Horse Care (Q,AT)	370
Certificate II in Production Horticulture (Q,AT)	-
Certificate II in Racing Industry (Q,SS,AT,OL)	106
<b>Certificate III</b>	<b>17,757</b>
Certificate III in Aquatics and Community Recreation (AT)	131
Certificate III in Conservation and Ecosystem Management (AT)	203
Certificate III in Ecology (Q)	15
Certificate III in Fitness (AT,EIR)	4,496
Certificate III in Guiding (Q,SS,AT,EIR)	-
Certificate III in Horse Care (Q)	17
Certificate III in Outdoor Leadership (Q,SS,AT,EIR)	15
Certificate III in Racing (Stablehand) (Q,AT,OL)	352
Certificate III in Racing (Trackwork Rider) (Q,AT,OL)	90
Certificate III in Sport - Athlete (AT)	-
Certificate III in Sport and Recreation (SS,AT)	12,401
Certificate III in Sports Turf Management (Q,AT)	37
<b>Certificate IV</b>	<b>3,778</b>
Certificate IV in Fitness (AT,EIR)	3,595
Certificate IV in Guiding (Q)	76
Certificate IV in Outdoor Leadership (Q,SS,AT,EIR)	88
Certificate IV in Racing (Jockey) (Q,SS,AT,OL)	<5
Certificate IV in Sport Development (AT)	16
<b>Diploma</b>	<b>502</b>
Diploma of Sport (AT)	502
<b>Skill Set</b>	<b>81</b>
Course in Trackwork Riding for Fast Work (SS,EIR)	40
Course in Trackwork Riding for Jump Outs (SS,EIR)	28
Course in Trackwork Riding for Slow Work (SS,EIR)	13
<b>With employment (apprenticeship and traineeship)</b>	
Qualifications (2,075 TVA enrolments 2020)	
<b>Certificate II</b>	<b>30</b>
Certificate II in Horse Care (Q)	<5
Certificate II in Racing Industry (Q,SS,OL)	29
<b>Certificate III</b>	<b>1,860</b>
Certificate III in Aquatics and Community Recreation	87
Certificate III in Conservation and Ecosystem Management	37

<sup>9</sup> VET courses can support a range of occupations across a range of industries, and occupations can also support a range of industries. To present the likely VET trained employment pipeline by industry, enrolments for a course have been assigned to the most common industry in which people seek employment.



Certificate III in Fitness (EIR)	256
Certificate III in Outdoor Leadership (Q,SS,EIR)	41
Certificate III in Racing (Stablehand) (Q,OL)	71
Certificate III in Racing (Trackwork Rider) (Q,OL)	82
Certificate III in Sport - Athlete	31
Certificate III in Sport and Recreation (SS)	1,024
Certificate III in Sports Turf Management (Q)	231
<b>Certificate IV</b>	<b>185</b>
Certificate IV in Conservation and Ecosystem Management (Q,SS)	<5
Certificate IV in Outdoor Leadership (Q,SS,EIR)	35
Certificate IV in Racing (Jockey) (Q,SS,OL)	12
Certificate IV in Racing (Racehorse Trainer) (Q,OL)	24
Certificate IV in Sport Development	112
<b>Upskilling once qualified</b>	
Qualifications (869 TVA enrolments 2020)	
<b>Certificate IV</b>	<b>321</b>
Certificate IV in Conservation and Ecosystem Management (Q,SS,AT)	206
Certificate IV in Racing (Racehorse Trainer) (Q,AT,OL)	115
Certificate IV in Racing Integrity (Q,SS)	-
<b>Diploma</b>	<b>548</b>
Diploma of Conservation and Ecosystem Management (Q)	403
Diploma of Holiday Park and Resort Management (Q)	18
Diploma of Outdoor Leadership (Q,EIR)	18
Diploma of Sport and Recreation Management	49
Diploma of Sports Turf Management (Q)	60
Note: Enrolment figures in the table above are as reported by NCVER, Total VET student and courses 2020: program enrolment. There may be instances where program enrolments are not reported by providers to NCVER and therefore not included in the enrolment figures in the total VET training activity data. Total VET activity for 2021 is expected to be released in August 2022.	

## Retail and wholesale

In 2020, there were nearly 2,750 enrolments in retail and wholesale related VET qualifications and skill sets prior to employment.<sup>163</sup> There was also around 2,200 enrolments in retail and wholesale related VET qualifications while currently being employed.<sup>164</sup> Enrolment is highest for the Certificate III in Retail, with the rest of VET activity spread across a variety of courses.

A VET level qualification provides pathways to employment in the sector for occupations such as florists, pharmacy sales assistants and retail supervisors. The VET pipeline for the retail and wholesale sector is shown in Table 14.

**Table 14 | VET pipeline for retail and wholesale in Victoria<sup>f</sup>**

<b>Prior to employment</b>	
Qualifications (2,689 TVA enrolments 2020, 56 Skill Set enrolments 2020)	
<b>Certificate II</b>	<b>348</b>
Certificate II in Community Pharmacy (Q,AT,EIR)	27

<sup>f</sup> VET courses can support a range of occupations across a range of industries, and occupations can also support a range of industries. To present the likely VET trained employment pipeline by industry, enrolments for a course have been assigned to the most common industry in which people seek employment.



Certificate II in Floristry (Assistant) (Q,AT)	16
Certificate II in Retail Services (Q,SS,AT)	305
<b>Certificate III</b>	<b>2,341</b>
Certificate III in Automotive Sales (Q,SS,AT,EIR)	15
Certificate III in Business to Business Sales (AT)	88
Certificate III in Community Pharmacy (Q,AT,EIR)	222
Certificate III in Floristry (Q,AT,EIR)	237
Certificate III in Retail (Q,SS,AT)	1,779
<b>Skill Set</b>	<b>56</b>
Community Pharmacy Dispensary (SS)	54
Customer Service Management (SS)	-
Espresso Machine Operation (SS)	-
Manage disrespectful, aggressive or abusive customers (SS)	<5
<b>With employment (apprenticeship and traineeship)</b>	
Qualifications (2,196 TVA enrolments 2020)	
<b>Certificate II</b>	<b>125</b>
Certificate II in Community Pharmacy (Q,EIR)	9
Certificate II in Retail Services (Q,SS)	116
<b>Certificate III</b>	<b>1,936</b>
Certificate III in Automotive Sales (Q,SS,EIR)	146
Certificate III in Business to Business Sales	8
Certificate III in Community Pharmacy (Q,EIR)	244
Certificate III in Floristry (Q,EIR)	45
Certificate III in Retail (Q,SS)	1,493
<b>Certificate IV</b>	<b>135</b>
Certificate IV in Community Pharmacy (Q,EIR)	<5
Certificate IV in Community Pharmacy Dispensary (Q,EIR)	6
Certificate IV in Retail Management (Q,SS)	125
<b>Upskilling once qualified</b>	
Qualifications (220 TVA enrolments 2020)	
<b>Certificate IV</b>	<b>98</b>
Certificate IV in Community Pharmacy (Q,AT,EIR)	8
Certificate IV in Community Pharmacy Dispensary (Q,AT,EIR)	22
Certificate IV in Floristry (Q,EIR)	8
Certificate IV in Retail Management (Q,SS,AT)	60
<b>Diploma</b>	<b>122</b>
Diploma of Floristry Design (Q,EIR)	-
Diploma of Retail Merchandise Management (Q,SS)	52
Diploma of Visual Merchandising (Q)	70

Note: Enrolment figures in the table above are as reported by NCVET, Total VET student and courses 2020: program enrolment. There may be instances where program enrolments are not reported by providers to NCVET and therefore not included in the enrolment figures in the total VET training activity data. Total VET activity for 2021 is expected to be released in August 2022.

## Higher education pathways are less common yet are still valued for business owners and senior level roles

Higher education also supports some pathways into the services industry, with between 16.1 and 31 per cent of workforces across each service sector holding a degree or above as their highest level of education.<sup>165</sup> A higher education qualification may be required for occupations at the manager level or above, such as general managers, amusement, fitness and sports centre managers, retail managers and hotel service managers. Higher education activity is concentrated in the business and management field of education, followed by accounting due to the skills required in finance, business planning and analysis.

In 2019, there were approximately 22,260 equivalent full-time student load (EFTSL) across higher education courses delivered in Victoria that directly build the pipeline of workers in these industries.<sup>166</sup> There are also many other general higher education pathways that can support people to work in the services industry among many others, such as commerce related courses. Enrolment growth in recent years supports the industry in seeking to better promote the wide variety of career pathways available with opportunities for advancement.<sup>167</sup> The higher education services pipeline is shown in Table 15. Only courses with high EFTSL are included as examples.

**Table 15 | HE pipeline for services in Victoria according to narrow field of study<sup>168s</sup>**

<b>Arts Sector - Creative Arts (Broad Field of Study) (21,117 EFTSL)</b>	
<b>Australian Qualifications Framework (AQF) 9+ (e.g., Master and above) (4,176 EFTSL)</b>	<b>AQF 5-8 (e.g., Diploma, Bachelor, Hons) (16,941 EFTSL)</b>
Examples include: <ul style="list-style-type: none"> <li>• Master of Design (468)</li> <li>• Master of Arts and Cultural Management (260)</li> <li>• Master of Fashion (138)</li> </ul>	Examples include: <ul style="list-style-type: none"> <li>• Bachelor of Design (2,765)</li> <li>• Bachelor Fine Arts (1,477)</li> <li>• Bachelor of Music (962)</li> </ul>
<b>Food and Accommodation – Food and Hospitality, Tourism (Narrow Field of Study) (475 EFTSL)</b>	
<b>AQF 9+ (e.g., Master and above) (135 EFTSL)</b>	<b>AQF 5-8 (e.g., Diploma, Bachelor, Hons) (340 EFTSL)</b>
Examples include: <ul style="list-style-type: none"> <li>• Master of International Sustainable Tourism Management (57)</li> <li>• Master of Tourism (57)</li> </ul>	Examples include: <ul style="list-style-type: none"> <li>• Bachelor of Business (Tourism &amp; Hospitality) (213)</li> <li>• Bachelor of Hospitality Management (94)</li> </ul>
<b>Other Services Sector (191 EFTSL)</b>	
<b>AQF 9+ (e.g., Master and above) (61 EFTSL)</b>	<b>AQF 5-8 (e.g., Diploma, Bachelor, Hons) (130 EFTSL)</b>
<ul style="list-style-type: none"> <li>• Master of Engineering (International Automotive Engineering) (61)</li> </ul>	<ul style="list-style-type: none"> <li>• Bachelor of Engineering (Automotive Engineering) (111)</li> <li>• Bachelor of Fitness (19)</li> </ul>
<b>Recreation Sector – Sport and Recreation (Narrow Field of Study) (480 EFTSL)</b>	
<b>AQF 9+ (e.g., Master and above) (53 EFTSL)</b>	<b>AQF 5-8 (e.g., Diploma, Bachelor, Hons) (427 EFTSL)</b>
Examples include:	Examples include:

<sup>s</sup> A course may be allocated to different narrow field of educations by different higher education providers based on the primary purpose of the course. Higher education enrolments reported against a course under a specified narrow field of education reflect only the portion of enrolment allocated to the narrow field of education and are not reflective of the total enrolment for the course.

<ul style="list-style-type: none"> <li>• Master of Sport Science (Football Performance) (27)</li> <li>• Master of Sport Business and Integrity (14)</li> </ul>	<ul style="list-style-type: none"> <li>• Bachelor of Sport Management (235)</li> <li>• Bachelor of Sport Development (184)</li> <li>• Bachelor of Exercise and Sport Science (54)</li> </ul>
<b>Retail and Wholesale Sector (0 EFTSL)</b>	
n/a	n/a

## Workforce priorities

### Increasing awareness of the careers available and keeping workers engaged is a key priority

Key challenges exist to addressing the supply and skill of labour. The services industry and its workforce were disproportionately impacted by the COVID-19 pandemic lockdowns, as activities were put on hold while others continued to operate in a reduced capacity. This has resulted in many individuals losing work or choosing to leave the industry to seek more secure employment, particularly in the face of workforce shortages across nearly all industries. The services industry now needs to recover its pipeline of workers as businesses restart and look to grow their operations.

Responsibility for delivering on these priorities lies with many stakeholders, however education and training has a key role to play (see next section for the collaborative response).

### Build the pipeline of entry-level workers

The services industry provides many opportunities for entry-level workers who do not require prior experience or qualifications. The skills people develop once they are employed are not only crucial to the services industry, but also to other workforces when individuals move to other industries.

**Table 16 | Areas of focus to build the pipeline of entry-level workers**

- Training opportunities for workers with no prior experience or qualifications have been limited during the COVID-19 pandemic due to a lack of in-person contact, which this industry depends on.
- Sectors that are more reliant on overseas migration to fill gaps have struggled to attract to a local workforce, such as hospitality and accommodation, particularly in regional areas.

### Attract and retain workers to industry through providing career pathway opportunities

There are certain occupations within the services industry that have workers who are highly transient, predominantly made up of casual and seasonal staff. However, the return of international students and increased levels of migration should now start to boost labour supply.

Long-term career pathways are available yet not fully appreciated, with many individuals viewing the industry as a pathway to other industries. There is an opportunity to attract and retain workers through raising awareness of these career opportunities. For example, during consultation discussions, representatives of the retail sector provided many examples of digital marketing, procurement, management and leadership roles available across the sector.

**Table 17 | Areas of focus to attract and retain workers**

- The workforce is highly transient in some sectors, with few workers available to progress into managerial and / or senior roles.
- There is limited awareness of the career pathway and progression opportunities available in this industry.
- Employers face challenges and high costs associated with training a highly transient workforce.

## Upskill existing workers to keep pace with new technologies and consumer behaviour

Shifting consumer preferences and the changing nature of service delivery are demanding workers have a new set of skills. Skills in data analytics, omnichannel retailing, compliance and regulation and managing difficult customer behaviour are now increasingly important. The introduction of targeted support and upskilling for existing workers in these areas is expected to increase employee confidence and retention.

Skills in data analytics, omnichannel retailing, compliance and regulation and managing difficult customer behaviour are now increasingly important.

Across the repair and maintenance sector demand is shifting towards a new set of digital skills including, for example, coding, reprogramming vehicle software and firmware updates, and diagnosing and fixing electric battery vehicles.

### Table 18 | Areas of focus to upskill existing workers

- New business models and ways of working require new skills.
- Education and training (including apprenticeships) will need to maintain alignment with contemporary industry needs.
- Opportunities to access further training and study can be limited for existing workers.

## Collaborative response

### The education and training response can support improvement in attracting, developing and utilising talent

The education and training response has a key role to play in helping to address the three key workforce issues for the industry:

1. Build the pipeline of entry-level workers.
2. Attract and retain workers to industry through providing career pathway opportunities.
3. Upskill existing workers to keep pace with new technologies and consumer behaviour.

#### Pathways to attract workers, including in niche sectors

To attract more people to work in the services industry, the education and training response can seek to diversify the interests and potential pathways students undertake. At present, there are a broad range of pathways that are not clearly communicated or promoted, alongside inconsistent and low demand in some sub-sectors. For example, training providers play a key role in delivering qualifications in thin training markets. Smaller sectors by enrolment size are also critical to supporting the Victorian economy, such as outdoor education, horse and dog racing and funeral, crematorium and cemetery services.

Industry emphasised significant challenges in attracting registered training providers (RTOs) to deliver training. This is due to the cost to RTOs in offering new training products for qualifications in thin training markets. For example, the primary difficulty facing the horse racing industry concerns the cost for RTOs to access live animals, stables/kennels, tracks, and equipment. These sectors may deliver training that is not economically viable under current frameworks and require additional funding mechanisms, such as the Regional Specialist Training Fund to ensure RTOs gain access to the appropriate staff, materials and equipment that would constitute a significant capital investment for RTOs.

Educating future workers on the various career pathways available for these roles could be achieved through work experience or providing mentoring opportunities. Providing clear pathways will also support the retention of workers, while also matching employers with the appropriate workforce.

*“There is a distinction between trade roles and more generalist roles in this industry. We are such a huge sector, and each occupation has its own pathway that needs to be recognised”*

Skills Plan Consultation, Industry Advisory Group, 2022

#### Training for entry-level roles to develop transferable skills

Some sub-sectors, such as the food and accommodation, arts and recreation and retail sector face higher than average attrition due to the transient nature of some of the roles, which are predominantly made up of casual and/or seasonal staff.

An education and training response could include providing on-site training for groups of employees working for multiple employers; for example, employees working in a regional town with high tourist activity. This will ensure workers gain the necessary practical skills through their training and improve completions by removing the key barriers faced by this workforce, such as taking time off work to study, and also ensure part-time workers and casual workers are included in the training. However, it is important that this response does not detract from attracting a skilled, core workforce.

### **Use skill sets to build skills, alongside full qualifications**

The education and training response also has a role to play in driving broader reform in relation to educational requirements. This will enable for more targeted training that can move people into roles more efficiently. As an example, there are several full qualifications in retail and community pharmacy that are also valued as skill sets by industry. The education and training response can ensure existing traineeship requirements are not creating a barrier to the uptake of these qualifications and explore alternative pathways for building skills in specific areas through micro-credentials or skill sets. This will require collaborative working between government, industry and education and training providers.

### **Provide training to upskill the existing workforce in-line with changing consumer trends and new technologies**

The quality and uptake of upskilling opportunities and professional development could increase with adjustments to the type and delivery of training. Industry noted that the level of financial support and incentives are often not available to existing workers to the same extent as new workers which presents a challenge.<sup>169</sup> Existing workers will need to keep pace with the changing nature of service delivery and the rapid adoption of new technologies and consumer trends. For example, the transition of traditional automotive mechanic workers to being skilled in hybrid and electric power-vehicles will impact people working in the automotive repair and maintenance sector. These opportunities can support both workers looking to transfer within and between other industries. This will enable the industry to secure a highly capable workforce that keeps pace with new skills.

Upskilling opportunities will need to keep pace with the changing nature of service delivery and the rapid adoption of new technologies and consumer trends.

### **Industry and government can also support enhancing the value proposition and forward planning to embrace industry transition**

The education and training response alone cannot deliver on the three workforce priorities to improve how the service industry attracts, develops and utilises talent.

Wider opportunities for broader consideration concern strengthening the value proposition of working in services related roles, specifically around job design, rostering and working conditions and exploring opportunities to utilise skilled migration to meet skills gaps. Of particular relevance to skills development is forward planning to address the skills required for new technologies and processes impacting the services sector.

### **Forward planning and partnerships to support transition to new technologies and processes**

In the current labour market, all industries are facing labour shortages to a greater or lesser degree. The re-opening of migration pathways and the return of international students will start to ease some of this pressure, but industry workforce planning will be important.

All industries are also experiencing a shift towards new technologies and processes, which is creating demand for new skill sets, making some skills redundant but also providing new career opportunities for individuals. As an example, new generation fuel vehicles and growing numbers of hybrid and electric power-vehicles will impact people working in the automotive repair and maintenance sector. Existing partnerships between industry, education providers (e.g., TAFEs and RTOs) and government can be strengthened to support forward planning and managing the workforce transition, to ensure the right skills training is provided at the right time.

**Actions for consideration for education, industry, and government**

- Provide clear pathways to build the pipeline of workers, including for smaller workforces with vital skills in some service sub-sectors.
- Facilitate and embed training for entry-level roles, which are often taken up by casual and seasonal workers to develop lifelong skills that ultimately benefit all industries and the broader community.
- Review existing qualifications and skill sets to support training and upskilling, appropriate to occupational needs.
- Upskill the existing workforce to better manage the broader workforce transition in line with new technologies and consumer trends.
- Strengthen partnerships with a focus on supporting forward planning and managing the workforce transition in line with new technologies and processes being adopted across each service sector, particularly in automotive repair, maintenance and retail.



## Appendix A Drivers of demand

Driver	Industry / Sector
<b>Policy</b>	<p>The COVID-19 pandemic and subsequent lockdown restrictions have disproportionately impacted the services industry. In response, the Australian and Victorian Government introduced a range of stimulus packages to support businesses to reopen and boost industry growth, including a \$2.27 billion joint Federal and State Government business package for further assistance to support the industry to reopen.<sup>170</sup></p> <p>In addition, the Jobs Victoria Fund provided \$250 million in wage subsidises to assist Victorian businesses to hire from priority groups who have been most impacted by the pandemic, and who are more likely to work in the services industry (e.g., young people aged under 25).<sup>171</sup></p> <p>Changes to visa eligibility conditions reduced access to overseas workers which means employers need to use alternative channels for filling vacancies, including training pools of local employees with the right skills.</p> <p>The 2020-21 Budget provided \$75 million over four years for regulatory reform in Victoria.<sup>172</sup> Priorities for reform include simple and faster approvals processes when dealing with multiple areas of government and more recognition of the pressures that complex or expensive regulation can create for small business. These reforms, once implemented, will play a significant role in supporting small to medium sized businesses across the services industry.</p> <p>The Victorian Economy Recovery and Reform Plan was announced in January 2022, a \$633 million investment to help revitalise and grow Victorian tourism, with the goal of achieving \$35 billion in annual visitor expenditure supporting 300,000 jobs by June 2024.<sup>173</sup> In 2019, the Regional Tourism Review was commissioned to ensure regions get the support and opportunities they need to grow tourism across regional Victoria. The findings will be incorporated in the Visitor Economy Recovery and Reform plan.<sup>174</sup></p> <p><b>Food and accommodation</b></p> <p>The implementation of a complaints process in 2019 to the Owners Corporations Act 2006 enables the Victorian Civil and Administrative Tribunal (VCAT) to impose fines, award compensation and prohibit apartments from being rented out for short-stay accommodation, impacting businesses in the accommodation sector such as Airbnb.<sup>175</sup></p> <p><b>Retail trade</b></p> <p>No Interest Loans (NILs) through the Victorian Government to provide up to \$3000 for low-income households to purchase essential goods and services, such as fridges, washing machines and car repairs.<sup>176</sup></p> <p><b>Arts</b></p> <p>The Building Audiences Fund provides support for up to \$20,000 to build, expand or re-establish audiences or customer bases for creative businesses in Victoria. The fund is available to independent professional creatives and micro-to-small Victorian organisations (no more than 10 FTE).<sup>177</sup></p> <p><b>Recreation</b></p> <p>The Significant Sport Events Program helps sporting, community and event organisations to deliver significant sporting events in Victoria. Grants of up to \$150,000 are available to support event organisers with the operational costs associated with hosting large events.<sup>178</sup></p> <p>The Victorian Government has committed \$112.9 million to the Positive Start 2022 initiative. The program seeks to re-engage primary and secondary students in activities outside school in the wake of the coronavirus pandemic and remote learning to reconnect with peers and communities.<sup>179</sup> It includes \$84.3 million for the delivery of free camps for students who wouldn't normally have the chance to attend a camp; and \$12.4 million to provide access to a broad range of arts, sporting and cultural</p>

	<p>programs and experiences in 2022.<sup>180</sup> This will require increased demand for workers to meet student ratios, including staff to support the construction and maintenance of equipment and individuals to support wrap-around support services (e.g., mental health and wellbeing).</p> <p>The Victorian Government ‘Experience Economy Survival Package’ provided Racing Victoria with \$16.6 million to help them maintain operations that include equine and participant welfare programs during the absence of spectators and other race day revenue streams.<sup>181</sup></p> <p>The Victorian Racing Industry Fund (VRIF) provides funding to the Victorian racing industry to support the sustainability and growth of thoroughbred, harness and greyhound racing.<sup>182</sup> In 2018, the Government made a commitment to provide \$72 million over four years to continue the VRIF to support project that underpin the sustainable growth and viability of the racing industry.<sup>183</sup></p> <p><b>Personal services</b></p> <p>Responsibility for shop regulation and registration for local salons has shifted from the state to local government, leading to an increase in unregulated home-based salons and reducing the supply of appropriately skilled workers.<sup>184</sup></p> <p><b>Repair and maintenance</b></p> <p>The Victorian Government recently invested \$5.2 million for the first electric vehicle facility in the southern hemisphere at RMIT.<sup>185</sup></p>
<p><b>Economic</b></p>	<p>The services industry is expected to rebound strongly, with gross employment returning to pre-pandemic levels off the back of ~366,000 new jobs created in November 2021.<sup>186</sup> An increase in household spending is expected off the back of an estimated \$260 billion of accumulated savings during lockdown restrictions.<sup>187</sup> This is alongside a 22.1 per cent increase in average Australian House prices increasing consumer confidence.<sup>188</sup></p> <p>The sectors that support tourism are facing fluctuating demand as they respond to a growth in domestic visitors, while uncertain international border restrictions, combined with predictions of an increasing Australian dollar forecast a decline in international tourist numbers.<sup>189, 190, 191</sup></p> <p>Many individuals have chosen to leave the industry to seek more secure employment, particularly in the face of workforce shortages across nearly all industries, thereby making the move more viable. The services industry now needs to recover its pipeline of workers as businesses restart their operations.</p> <p><b>Food and accommodation</b></p> <p>An asset-light approach has become increasingly common in the hospitality sector. The separation between the management of operations and real-estate allows hospitality companies to focus on their core business and improve efficiencies, while also adding complexity and the emergence of new jobs (e.g., asset managers).<sup>192</sup></p> <p>There remains significant debate concerning the economic costs and benefits of Airbnb and similar services, and the cost to renters and local jurisdictions compared to travellers and property owners.<sup>193</sup> There is specific concern for the reduced supply of housing as properties shift from serving residents to Airbnb travellers in high tourist attraction areas.<sup>194</sup></p> <p><b>Retail trade</b></p> <p>Serious disruptions to global supply chains for some products have affected retailers’ ability to provide goods to consumers with 8.5 per cent of global container shipping delayed as of October 2021.<sup>195</sup></p> <p><b>Arts</b></p> <p>Artists and workers often rely on multiple sources of income, and their income tends to reflect current economic conditions. Due to the uncertain nature of government funding, workers are increasingly engaging in philanthropy and corporate sponsorship, requiring a new set of entrepreneurial skills.<sup>196</sup></p> <p>The arts are heavily dependent on face-to-face training, which has been impacted by COVID-19 restrictions. The sector now needs to make up for lost training and upskilling to ensure a reliable pipeline of workers.</p>

	<p><b>Recreation</b> There has been a rise in demand for horses during the COVID-19 pandemic as people seek new forms of recreation. This includes activities such as polocrosse, rodeo and pony club. This all supports other industries such as repair and maintenance for related equipment upkeep.</p> <p><b>Personal services</b> The sector is expected to see consistent growth as the need for locally skilled labour remains a key function of operations. However, the rise of the ‘gig’ economy has generated debate around workplace protections, employment rights and the financial security of workers, in a sector that already has high levels of sole trader or portfolio-based professions.<sup>197</sup></p>
<p><b>Social</b></p>	<p>The COVID-19 pandemic has both created and accelerated trends in consumer behaviour, requiring businesses to remain flexible and adapt to new consumer trends, retail formats and increasing competition.</p> <p><b>Food and accommodation</b> This sector has been growing steadily with growth attributed to factors such as a growing ‘foodie’ culture, the popularity among many individuals to owning a hospitality business, population growth and an increase in consumer demand.<sup>198</sup> Consumer trends around increasing health consciousness, as well as busier and time poor lifestyles are also having a positive impact on the demand for eating out and ordering ready-made meals.<sup>199</sup> Growth in demand for licensed serviced apartments as an alternative to hotels due to the greater flexibility they provide.<sup>200</sup></p> <p><b>Retail trade</b> The rise in omnichannel retailing has seen retailers develop one strategy that is executed across all channels to create a connected, customer-focused experience. This means a shopper who begins browsing on a brand’s website will have the same experience as in-store and customers often move between both online or offline touchpoints (e.g., click and collect). This trend has resulted in new types of employment opportunities, such as an Omni marketing lead. There has also been a reported increase in frontline retail workers experiencing abusive behaviour, reaching 59 per cent in 2021, requiring workers to have skills in conflict resolution and management.<sup>201</sup></p> <p><b>Personal services</b> The rise in health consciousness has been an important factor driving demand for services as individuals increasingly access products and services related to enhancing their image.<sup>202</sup> This includes the rise in demand for permanent hair removal services, male grooming speciality salons and organic salons.<sup>203</sup></p> <p><b>Repair and maintenance</b> There has been a surge in demand for new cars during the pandemic as more Victorians undertake road trips due to international travel restrictions and people opt to drive instead of catching public transport.<sup>204</sup> This has been coupled with global production delays extending wait times for buyers and increasing the price for second-hand vehicles.<sup>205</sup> As a result, demand for automotive repair and maintenance will continue as people seek to retain their cars for longer to avoid high prices.</p> <p><b>Retail and wholesale trade</b> As of October 2021, major supermarket retailer Coles ended its in-store butcher service.<sup>206</sup> This has had a significant impact on butchers and meat workers across Victoria.</p>

<b>Technological</b>	<p>Technological expansion is affecting all sectors across the services industry in different ways. While there is the potential for automation in some roles, the nature of the industry will continue to rely heavily on personal interactions and experiences.</p> <p><b>Food and accommodation</b></p> <p>Online platforms like UberEATS and Menulog are transforming the way business is being done, with online food ordering and delivery enabling restaurants access to a larger customer base.<sup>207</sup> In addition, social media and online reviews and commentary are also shaping how decisions are made about dining, food and beverage choices.<sup>208</sup> The introduction of QR menus has also shifted the role of wait staff in restaurants and cafes.</p> <p>New technology and digitisation have meant the required skills of the workforce are changing. Examples include Augmented Reality (AR) and Virtual Reality (VR) being used by businesses for content marketing to enhance customer experience and Artificial Intelligence (AI) Travel Bots are used as virtual chatbots and assistants to address holiday and travel enquiries.<sup>209</sup> M-commerce which includes buying and selling via smartphones and tablets, including purchases made via 'apps' is also increasingly popular.<sup>210</sup></p> <p><b>Retail trade</b></p> <p>Significant advancements in technology have changed the way consumers and businesses interact with retail. This includes mobile payments, drone delivery, augmented reality, facial recognition, artificial intelligence, and the Internet of Things. However, this has left some smaller businesses behind who are unable to adopt the new technology due to financial and time constraints, and insufficient technical expertise.</p> <p><b>Arts</b></p> <p>Evolving technologies such as virtual reality, augmented reality, online video conferences, live streaming or video on demand will allow remote audiences to be more fully immersed in live performances, evidenced by 73 per cent of Australians seeking out artistic experiences online during lockdown.<sup>211</sup></p> <p><b>Recreation</b></p> <p>The Horse and Sports Betting Industry has grown, due to the rising popularity of online and mobile betting platforms. This trend was accelerated during the COVID-19 pandemic as some individuals had surplus savings from lockdown restrictions and time available to participate. Almost 1 in 3 surveyed participants signed up for a new online betting account during COVID-19 and 1 in 20 started gambling online.<sup>212</sup></p> <p><b>Personal services</b></p> <p>The adoption of specialist equipment and technologies in hairdressing and beauty services, such as those used for facial peels, laser hair removal, skin rejuvenation and cosmetic tattooing has allowed businesses to stay at the forefront of business growth strategies.<sup>213</sup> Similarly, funeral services have been impacted by technology developments including webcasts for funeral services and the introduction of QR codes on headstones.<sup>214</sup></p> <p><b>Repair and maintenance</b></p> <p>The increasing number of vehicles which feature computer processing equipment will require a new set of skills. Mechanics now require an increasingly specialist skill set in auto-electrical engineering, alongside skills in artificial intelligence, human machine interfaces, Internet of Things and application software.<sup>215</sup> The shift towards plug-in hybrid and battery electric vehicles (EV) is further accelerating this shift.<sup>216</sup></p>
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<b>Environmental</b>	<p><b>Food and accommodation</b> Ethical and environmental considerations are shaping decisions made in hospitality. This includes avoiding disposable plastics, eliminating unnecessary paper consumption and reducing food waste.<sup>217</sup> In the hospitality sub-sector, simple eco-friendly switches including replacing miniature toiletries with larger, locally sourced dispensers, choosing ethically produced bedsheets made from organic materials and reducing energy consumption with smart bulbs. These changes are having a large impact when implemented at scale. Increasing vegetarian and vegan options are also having well-documented environmental advantages.<sup>218</sup></p> <p><b>Retail trade</b> There has been an increased demand for green and socially conscious service providers with ~70 per cent of Australians willing to pay more for ethically sourced garments.<sup>219</sup></p> <p><b>Recreation</b> A rise in public concern over environmental issues has increased funding for environmental heritage services and typically increases admission numbers to nature reserves and conservation parks. More individuals are expected to want to reduce their carbon footprint and opt for more sustainable modes of transportation, including bikes and electric bikes.</p> <p><b>Personal services</b> Products used for personal use are being made more sustainability and eco-friendly. Consumers will be less attracted to products that contribute to pollution.</p>
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## Appendix B Data methodology

### VSA Employment Model overview

The VSA Employment Model produces estimates of:

- projected employment growth between 2022 and 2025
- projected retirements between 2022 and 2025
- projected total new workers needed between 2022 and 2025.

Table 19 further defines the model outputs and identifies the primary source for each output.

**Table 19 | Employment model outputs**

	Employment growth 2022-25	Retirements 2022-25	New workers needed 2022-25
<b>Definition</b>	Change in the number of workers employed from 2022 to 2025	Workers expected to permanently leave the workforce from 2022 to 2025	Workers needed from 2022 to 2025 to meet demand from growing employment and to replace retirees
<b>Primary source</b>	Benchmarked to the NSC Employment Projections	Derived from retirement rates from Australian Census Longitudinal Dataset	The sum of employment growth and retirements

All outputs are modelled at the occupation, industry and region level:

- occupations are defined by 4-digit occupation unit groups in the Australian and New Zealand Standard Classification of Occupations (ANZSCO)
- industries are defined by 1-digit industry divisions in the Australian and New Zealand Standard Industrial Classification (ANZSIC)
- regions are defined by the nine Regional Partnerships of Victoria as outlined by the Victorian Department of Jobs, Precincts and Regions.

Benchmark data from the NSC give estimates of projected employment growth. Using an approach called iterative proportional fitting, the detailed occupation, industry and region breakdowns are generated by applying the distribution of employment in ABS Census and other data to the benchmark projections.

The model was developed by the VSA with the support of Nous and Deloitte Access Economics (DAE). The sections further below describe how the key outputs were modelled.

The VSA Employment Model gives a best estimate of employment by industry, occupation and region. It provides an indication but does not, and cannot, tell the full story of the region's economy.

### Employment growth, 2022-25

**Source:** VSA and Nous (2022), *modelling of NSC (2022) Employment Projections*

This modelling takes the NSC Employment Projections as the benchmark data for 2022-25 and breaks it down into occupation by industry by region tables.

The benchmark data sources provide ‘control totals’ for occupation, industry and region breakdowns independently. However, they do not provide the interaction between each of the variables. For example, they do not give the breakdown of occupations within industries.

Iterative proportion fitting uses a detailed ‘seed’ data table with the necessary breakdowns from a representative dataset and scales that distribution to control totals in the new dataset. Over many iterations, the seed data is transformed to sum up to the occupation, industry and region control totals.

The seed data comes from the ABS Census 2016. The control totals for occupation and industry come from the NSC’s Employment Projections, and the control totals for region come from the NSC’s Small Area Labour Markets data. Table 20 describes the inputs in detail.

The modelling results in:

- industry and occupation projections that align with the NSC Employment Projections
- regional data that matches the distribution across NSC Small Area Labour Markets
- industry by occupation by region data tables that approximate the distribution within the ABS Census 2016.

**Table 20 | Data sources used to model employment growth from 2022 to 2025**

Type	Data	Source
Seed	Employment x 3-digit industry (ANZSIC3) x 4-digit occupation (ANZSCO4) x Statistical Area Level 2 (SA2)	ABS, <i>Census of Population and Housing</i> , place of usual residence data
Control total	Employment x SA2	NSC, <i>Small Area Labour Markets</i> , ‘SALM smoothed SA2 Datafiles (ASGS 2016) - March quarter 2022’.
Control total	Employment x ANZSIC1	NSC, <i>Employment Projections, 2020-25</i>
Control total	Employment x ANZSCO4	NSC, <i>Employment Projections, 2021-26</i>

Notes:

1. Following the modelling, SA2 data is aggregated up to Regional Partnership region. Where an SA2 spans multiple regions, the estimates have been apportioned based on geographic area.
2. The NSC industry projection is often not available until some months after the occupation projections. As at May 2022, there were no 2021 to 2026 ANZSIC1 by state forecasts available. The previous release of 2020 to 2025 ANZSIC1 by state forecasts were used and scaled up to match the Australian total employment numbers in the ANZSCO4 forecasts.

## Retirements, 2022-25

**Source:** VSA, *Deloitte Access Economics (DAE) and Nous (2022), Retirement projections 2022-2025*

Retirements are estimated by applying occupation-specific retirement rates to the employment projections.

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

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

$$\text{Retirement rate} = \text{retirements between periods } t \text{ and } t+1 / \text{employment at } t$$



The retirement rates were applied to the employment projections to estimate the number of retirements between 2022 and 2025 at the region (Regional Partnerships), industry (ANZSIC1) and occupation (ANZSCO4) level.

## **New workers needed, 2022-25**

New workers needed is the simple sum of employment growth and retirements. It is calculated at the region (Regional Partnerships), industry (ANZSIC1) and occupation (ANZSCO4) level.

**New workers needed is an estimate of demand for workers to join an industry, occupation or region.** In this model, demand comes from growth in employment (as business, government and other employers expand their operations) and the need to replace retirees who leave the workforce.<sup>t</sup>

**New workers needed is not an estimate of skills shortage.** In the VSA Employment Model, demand is always met by supply of new workers who enter the work force from study, unemployment, migration, a change in industry or occupation, or other avenues.

This means that the VSA Employment Model is not suitable for identifying current or future skill shortages. The Victorian Skills Plan draws on the National Skills Commission's Skills Priority List and stakeholder feedback to identify skills shortages within industries and across Victoria.

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<sup>t</sup> This will generally underestimate demand as it does not account for the need to replace workers who leave a job for other reasons, such as switching occupations or migrating out of Victoria.



## Appendix C Victorian VET pipeline methodology

### Enrolment numbers

#### Sources:

National Centre for Vocational Education Research (NCVER) (2021), Total VET students and courses 2020, available [here](#).

Victorian Department of Education and Training (2022), Funded Course List, available [here](#).

Victorian Department of Education and Training (2022), Funded Skill Set List, available [here](#).

The Victorian VET pipeline table estimates the number of enrolments in each qualification and skill set for the 2020 academic year in Victoria. The NCVER total VET students and courses is used as the dataset. Only courses on the Victorian Funded Course List (FCL) and the Victorian Funded Skill Set List (FSSL) are included.

The following steps were taken to develop the table:

1. Each course was reviewed by IAG members and allocated to **only one** of three main reasons for studying: to prepare for employment; to support current employment (apprenticeship or traineeship); and to progress their career. Each course is then listed under their respective allocation.
2. The numbers of students who enrolled in that course in 2020 is then noted in the VET pipeline table.
3. For courses that provide **an apprenticeship and traineeship option and a classroom-based option**, these courses are duplicated twice in the table, with enrolment numbers split across the other two options: the number of apprentice and trainee enrolments are reported under the header 'with employment (apprenticeship and traineeship); the number of classroom-based enrolments is shown under the purpose for completing the classroom-based option (either to prepare for enrolment or to progress their career). An (<sup>AT</sup>) is noted next to these duplicated classroom-based courses to indicate they are also delivered as an apprenticeship or traineeship.
4. Where industry has provided feedback on the value of qualification or skill set, a (<sup>Q</sup>) indicates it is valued as a qualification, while a (<sup>SS</sup>) indicates it is valued as a skill set. A (<sup>EIR</sup>) indicates it is an Endorsed Industry Requirement and (<sup>OL</sup>) indicates it is an Occupational Licence. Industry has not provided feedback on all qualifications and where indicated; and each value assignment can be reviewed in the future.
5. Numbers are then totalled in their respective headers above. For the Skills Plan, the number of enrolments 'prior to employment' is a key focus for industry as it indicates how many students are being trained but are not yet employed.

The 2020 enrolment figures are a best estimate of the pipeline of workers for industry to draw on. The 2020 figures were the latest dataset available from the NCVER at the time of developing the Skills Plan and will be updated in future iterations of this document. They intend to provide an indication of the pipeline but do not and cannot tell the full story of workforce supply. Factors such as completion rates and the COVID-19 pandemic during 2020 are also likely to impact the availability of the future workforce.

## Appendix D Stakeholder engagement process

Stakeholder engagements allowed the Victorian Skills Authority to test, update and validate the content of the services industry insight report. Stakeholders from organisations in government, education and industry were engaged to provide input to the report and the Skills Plan more broadly.

Specifically, stakeholders provided insights on the economic outlook, workforce and skilling challenges and an education and training response across three rounds of consultations. Engagements guided initial thinking and research, as well as opportunities to test and revise the insights. We would like to thank the following organisations for their participation in the stakeholder engagement process.

**Table 21 | Consultation participants**

Organisation
Aquatics and Recreation Victoria
Arts Industry Council Victoria
Australian Association of Floral Designers
Australian Hotels Association
Australian Retailers Association
Australian Services Union
Business Services Industry Advisory Group
Cemeteries and Crematoria Association of Victoria
Creative Victoria
Department of Jobs, Precincts and Regions
Guiding Organisations Australia
Hume City Council
Music Victoria
Outdoors Victoria
Pharmacy Guild of Australia
Primary Industries Advisory Group
Print and Visual Communications Association (Victoria)
Services Industry Advisory Group
Shop, Distributive and Allied Employees Association
Victorian Chamber of Commerce and Industry
Aquatics and Recreation Victoria

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- <sup>2</sup> VSA and Nous (2022), modelling of NSC (2022) Employment Projections.
- <sup>3</sup> VSA and Nous (2022), modelling based on Australian Bureau of Statistics, Labour Force, February 2022.
- <sup>4</sup> ABS (February 2022), Labour Force Quarterly, Employment by industry (Victoria), available [here](#).
- <sup>5</sup> VSA and Nous (2022), modelling of NSC (2022) Employment Projections.
- <sup>6</sup> VSA and Nous (2022), modelling based on Australian Bureau of Statistics, Labour Force, February 2022.
- <sup>7</sup> ABS (February 2022), Labour Force Quarterly, Employment by industry (Victoria), available [here](#).
- <sup>8</sup> Victorian Skills Authority (VSA) and Nous (2022), modelling of National Skills Commission (NSC) (2022) Employment Projections.
- <sup>9</sup> VSA, Nous (2022), modelling of NSC (2022) Employment Projections.
- <sup>10</sup> VSA, Deloitte Access Economics (DAE) and Nous (2022), Retirement projections 2022-2025.
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- <sup>16</sup> ABS (February 2022) Labour Force Quarterly, Employment by industry by sex (Victoria), available [here](#).
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- <sup>22</sup> Australian Industry and Skills Committee (AISC) (2022), Tourism and Travel, available [here](#).
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- <sup>27</sup> ABS (2008), 1292.0 – Australian and New Zealand Standard Industrial Classification (ANZIC), 2006 (Revision 1.0) (Archived issue), Class 5010 Scenic and Sightseeing Transport, available [here](#).
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- <sup>29</sup> AISC (2021), Arts, Culture, Entertainment and Design, available [here](#).
- <sup>30</sup> VSA and Nous 2022, modelling based on Australian Bureau of Statistics (ABS), Labour Force, February 2022.
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- <sup>47</sup> ABS (February 2022) Labour Force Quarterly, Employment by industry by age bracket (Victoria), available [here](#).
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