Industry Skills Australia

Jobs and Skills Councils
An Australian Government Initiative

Transport and Logistics Industry

2024 Workforce Plan

People first, for a future-fit supply chain workforce

About ISA

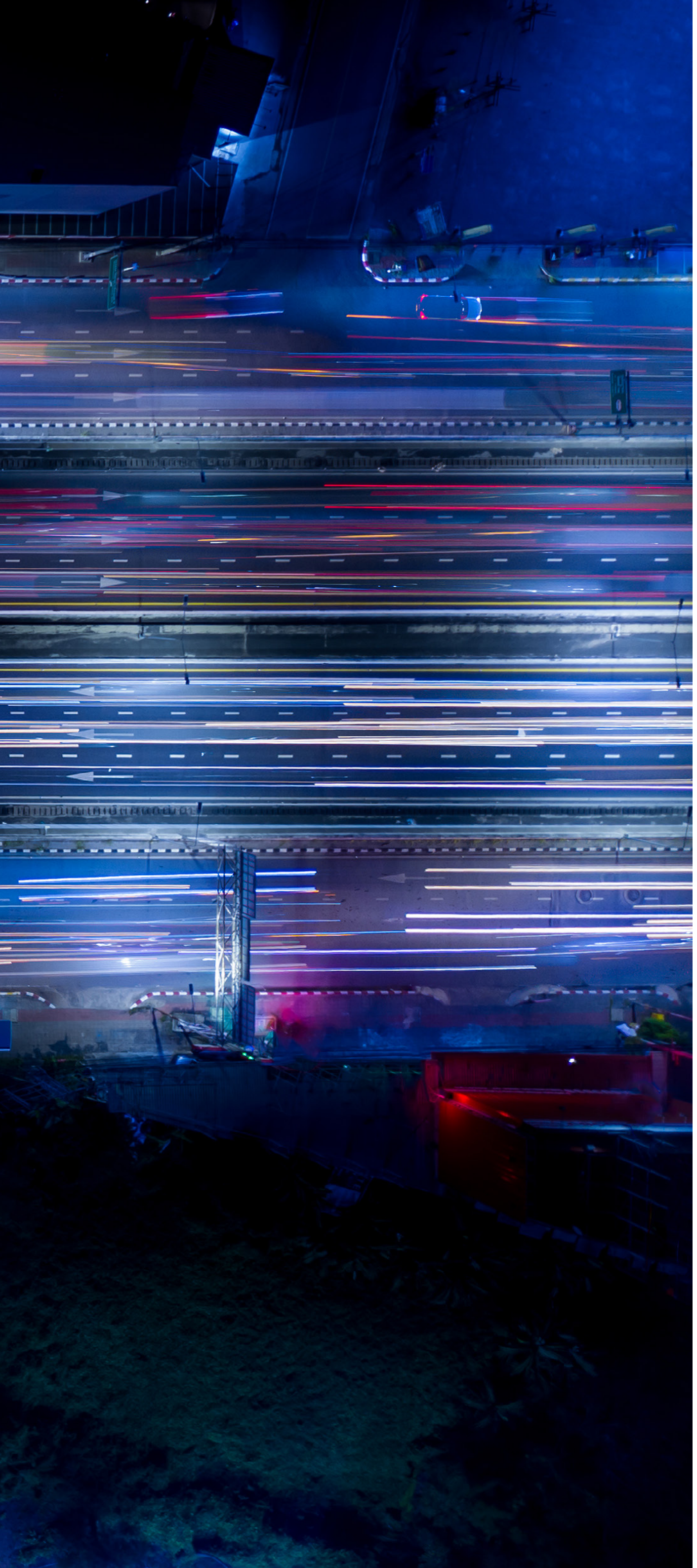
Industry Skills Australia (ISA) has been established as the Jobs and Skills Council (JSC) for the Transport and Logistics industry sectors, which includes Aviation, Maritime, Rail, Transport and Logistics, the emerging Omnichannel Logistics and Distribution, and Air and Space Transport and Logistics.

Owned and led by industry, our JSC is committed to building a world-class supply chain workforce to increase productivity, create better jobs and build opportunities for individuals.

We will do this through:

- leveraging our more than 30-year history with the transport and logistics industry,
- undertaking research and data analysis to inform workforce planning,
- advocating for a workforce development approach in tackling industry skills issues, and
- developing priority training package products.

Acknowledgements
Industry Skills Australia Limited acknowledges and thanks representatives of the industry that provided their assistance in developing the Transport and Logistics Industry, 2024 Workforce Plan with funding from the Department of Employment and Workplace Relations under the Jobs and Skills Council Program.



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About the Workforce Plan

Purpose

Workforce Planning is the strategic centrepiece for Jobs and Skills Councils to inform and establish each of their other functions. The Workforce Plan serves as a guide to identifying the contemporary drivers and challenges within Australia's Transport and Logistics industry and developing forward-thinking actions to address those challenges. Drawing upon a rich blend of data sources, including industry reports, stakeholder consultation and the direction from Strategic Workforce Planning Committee, it outlines the current obstacles impeding the industry's progress and proposes practical actions to overcome these hurdles.

The Workforce Plan begins the groundwork for ongoing evaluation and strategy refinement. It aims not only to diagnose current challenges but also to anticipate future trends and opportunities. This proactive approach ensures that the Australian Transport and Logistics industry remains agile and responsive to changing conditions.

A crucial aspect of this document is its collaborative nature, emphasising the value of stakeholder input. By incorporating diverse perspectives from industry experts, policy makers, and practitioners, the strategies presented are both robust and attuned to the real-world dynamics of the Transport and Logistics sector.

The Workforce Plan will be used to further engage with stakeholders, with the feedback received incorporated into future iterations of the Plan. As Jobs and Skills Councils mature and as the Workforce Plan is updated each year, it will seek to better understand current, emerging and future workforce challenges and opportunities, including skills gaps and shortages for all industries within Industry Skills Australia's remit, including small, niche and regional sectors and to develop appropriate strategies and advice for addressing diagnosed challenges. This also includes working with Jobs and Skills Australia to better understand the outlook for employment for each industry sector.

The Workforce Plan 2024 is not just a snapshot of the present but a roadmap for the future, guiding stakeholders in collectively navigating and shaping the evolving landscape of Australia's Transport and Logistics industry.

JSC Obligations

In 2023, the Australian Government established ten (10) Jobs and Skills Councils to address the many workforce planning and skills development challenges facing Australia, and to ensure that our national skills system meets the rapidly evolving needs of industry, individual employers, and the workforce.

Jobs and Skills Councils have four formal roles:

1. Industry Stewardship which involves gathering industry intelligence to reliably represent the views and needs of industry back to the VET system and its decision-makers;
2. Workforce Planning which enables industry to identify its workforce development issues and design high-impact solutions, which are then captured in the national Workforce Plan for the industry;
3. Training Product Development which focusses on improving the quality, speed to market and responsiveness of training products to employer and workforce needs;
4. Implementation, promotion and monitoring which is a broad role that involves supporting training providers, promoting careers, and monitoring how well the system is meeting the needs of industry and learners.

Jobs and Skills Councils are funded by the Australian Government (Department of Employment and Workplace Relations) but work collaboratively with a wide range of bodies.

Foreword

The Transport and Logistics Strategic Workforce Planning Committee (SWPC) is a dedicated group of senior industry leaders established by Industry Skills Australia (ISA), the Jobs and Skills Council (JSC) for the Transport and Logistics (T&L) Industries. The Committee forms the central mechanism through which industry is empowered to identify the immediate and emerging skill needs and the responses needed by the national skills system, industry and government. The Committee works on behalf of industry to shape and oversee the development of the Transport and Logistics National Workforce Plan based on intelligence and consultation with key stakeholders from across Australia.

The Committee held its inaugural meeting in November 2023. During this and subsequent meetings, we have delved into the challenges and drivers for our industry including the key priorities and explored opportunities that could further enhance solutions for our industry.

Drawing upon the wealth of first-hand industry intelligence and experience possessed by our committee members, we are ideally positioned to guide the formulation of a comprehensive long-term forecast and progression plan for the T&L industry. Leveraging ISA's robust stakeholder engagement, we are committed to ensuring a strategic approach to workforce development.

Moving forward, our Committee will continue to monitor the industry landscape to identify and prioritise areas requiring support, ensuring the development of a resilient and agile workforce for the T&L sectors.

> Thank you for your ongoing support as we work together to shape the future of our industry.

Tim Dawson
Chair, Transport and Logistics Strategic Workforce Planning Committee

Exec Summary

The Transport and Logistics (T&L) industry comprises road transport, logistics, and stevedoring. It is characterised by a wealth of diversity in occupations, workforce development needs, business types and sizes, and locations.

Transport is one of Australia's critical infrastructure sectors, defined as an essential service for the country's social and economic wellbeing. An efficient supply chain and transport network is vital for the movement of products and people which contributes to the growth of the Australian economy and the liveability of our cities and regions. Many other industries rely on the T&L industries for their survival, such as agricultural producers who depend on transport services to deliver their products to market. Transport functions are an intrinsic part of the Australian economy and as such, the industry's overall condition is a commonly used indicator for gauging the broader strength of the economy.

Understanding the key factors impacting the supply and demand of workers in the T&L industry assists in the identification of workforce issues and potential solutions.

Four megatrends have been identified that are impacting the Australian economy, businesses, and people. They are:

- Digital technology and automation
- Decarbonisation
- Workforce supply challenges
- Industry skills development

These megatrends duplicate many of the specific T&L industry drivers/challenges that are explored further in that section of the Workforce Plan. The most significant workforce challenges influencing the supply and demand of workers in the T&L industry at the urban, regional and remote level include:

- National labour shortages and high competition for all available labour
- Limited attraction and retention strategies implemented by industry
- Shortages of skilled heavy vehicle drivers
- Poor industry image
- Increasing importance of compliance
- Shortages of VET trainers and assessors
- Skills for emerging industries
- Data gaps

The 2023 Initial Workforce Plan has been used to engage with stakeholders and gather real-time workforce intelligence to inform evidence based and industry supported Proposed Actions for the 2024 Transport and Logistics Workforce Plan. The plan will be refreshed and developed further each year, with work on the 2025 version already underway.

Proposed Actions

The **Proposed Actions** in the Workforce Plan have been developed and designed to address some of the key industry challenges as a priority. Each proposed action is a high-level description of a project and will be fully scoped, planned and implemented in consultation with relevant stakeholders. These include:

Industry Challenge/ Driver	Proposed Action
The Importance of Compliance	**Chain of responsibility training updates** – ensure current heavy vehicle regulations relating to chain of responsibility are reflected in the TLI Transport and Logistics Training Package. This project has already commenced.
Skills Gaps in Emerging Industries	**Omnichannel Logistics and Distribution** - Determine the emerging skills and training requirements for the Omnichannel Logistics and Distribution sector.
Attraction and Retention in the Transport and Logistics Sectors	**School to work pathway pilot** – trialling a program to attract students to T&L careers and provide training resources for secondary school delivery to create sustainable pathways into the T&L industry. **Improve T&L industry career information** – Work with the National Careers Institute to provide up to date and relevant T&L career, training and employment information on the Your Career website.
Shortages of Trainers and Assessors	**Furniture removal training pathways** – Incorporate furniture removal specific training into existing TLI Transport and Logistics qualifications to enable expanded access to training delivery for the sector.

Future Research and Consultation

The **Future Research and Consultation** activities identified in this Workforce Plan will be used to inform drivers and challenges in the 2025 Transport and Logistics Workforce Plan and potential workforce actions. These include:

Industry Challenge/Driver	Proposed Further Research and Consultation
Attraction and Retention in the Transport and Logistics Sectors	• **Pre-vocational training program development** - Consult with industry to determine essential skills required for employment in the road transport and warehousing sectors. Develop a pre-vocational training program with skill sets delivering training in these core skills for direct entry in the T&L industry. • **Transport management training** - Consult with industry to identify key skills required for transport leadership and management roles. Analyse existing available training products to determine if training product development is required for the provision of consistent pathways. • **Skilled migration** - Advocate for the inclusion of T&L occupations experiencing shortages in the Skilled Occupation List. Identify options for industry to utilise skilled migration opportunities to address workforce shortages. Scope the potential for training product or program development to provide core skills and training to assist integration of overseas heavy vehicle drivers. • **Increasing industry diversity** - Identify barriers to T&L workforce participation for under-represented cohorts. Engage with industry and relevant support organisations to determine potential strategies to assist in connection to employment.
Heavy Vehicle Driver Shortages	• **Heavy vehicle driver licensing** - Coordinated approach to support proposed reforms outlined in the National Heavy Vehicle Driver Competency Framework (HVDCF) and identify where training product development or review may be required. • **Skilling heavy vehicle drivers** - Identify the core skills and knowledge required by employers for workers to be deemed job ready after gaining their licence. Supporting the continued establishment of the heavy vehicle driver apprenticeship. • **High productivity vehicle upskilling program** - Consult with regional enterprises and training providers to scope potential development of a pilot program aimed at delivering intensive training and licence testing to fill the gap in high productivity vehicle drivers in regional areas. • **Job share pilot** - Investigate opportunities to develop a job share pilot and skill gap training program to enable more workforce participation from underutilised cohorts. • **Passenger transport driver training** - Review the Certificate III in Driving Operations qualification to create a training pathway that is relevant for drivers of passenger transport vehicles and aligns with reforms to the Disability Standards for Accessible Public Transport 2002 (Transport Standards).
The Importance of Compliance	• **Specialist compliance training development** - Consult with industry and regulators to verify the skills and knowledge required for specific compliance tasks and develop specialist training to provide a nationally consistent learning pathway for compliance personnel engaged in T&L enterprises.

Industry Challenge/Driver	Proposed Further Research and Consultation
Shortages of Trainers and Assessors	• **VET Reforms** - Ongoing engagement and support will be required to progress and implement priorities set out as part of the National Skills Reform agenda. • **Improving regional training delivery** - Engage with regional stakeholders to explore and develop strategies to address the limited access to T&L training in regional areas. • **Livestock transport training development** - Consult with relevant livestock transport stakeholders to determine the demand and skill requirements to inform the development of a skill set to enable a nationally consistent approach and improved access to training in animal handling techniques and the safe transport of livestock. • **Qualification update** – Motor Vehicle Driver Training - Update superseded units of competency in the Certificate IV in Motor Driver Training Instruction to ensure the qualification is current and relevant to support training of heavy vehicle driving instructors.
Skills Gaps in Emerging Industries	• **Transition to net zero** - Ongoing consultation with industry stakeholders to determine the skill requirements associated with the implementation and adoption of zero emission vehicles and technologies. This will also be informed by the development of the Transport and Infrastructure Net Zero Roadmap and Action Plan. • **Automated technologies** - Identify new or updated skill requirements for sectors implementing automated vehicles, systems or equipment. • **Digital transformation** - Ongoing monitoring of industry's current digital capabilities, areas which require upskilling and programs or initiatives that will assist in the digital transformation. • **Port operations** - Assess skill requirements for port operations including specialised training to respond to technological advancements and offshore wind projects, including review of the existing Stevedoring qualifications.

Existing Workforce Strategies and Initiatives

This plan also identifies a number of related **existing workforce strategies and initiatives** and maps them to industry challenges and drivers. Where relevant, the 2024 Workforce Plan will seek to align with, or contribute to, these strategies and initiatives, or collaborate with those responsible for their implementation.

Industry Overview

The Transport and Logistics (T&L) industry comprises road transport, logistics, and stevedoring and includes a vast range of businesses engaged in the movement of freight and passengers and the systems that facilitate this.

The activities of the industry can be categorised into three (3) Occupational Areas (with further details in **Appendix A**):

Road Transport - operating and coordinating road vehicles for the transportation of passengers or freight by road.

Logistics - planning, operating, and coordinating the flow of passengers or freight by any mode of transport. Includes warehousing, freight forwarding, mobile crane operations, inventory management, demand and supply planning.

Stevedoring - loading or unloading vessel cargo, stacking and storing on the wharf, and receiving and delivering cargo within the terminal or facility. Includes loading of trucks and trains that transport the cargo to the consignee.

Omnichannel Logistics and Distribution is an emerging sector experiencing significant growth, particularly as a result of the recent pandemic. An increasing number of businesses are incorporating omnichannel strategies into their operations to enhance the overall customer experience. Omnichannel Logistics and Distribution is a term used in e-commerce and retail to describe a business strategy that aims to provide a seamless shopping experience across all channels, including in store, mobile, and online. It synchronises inventory, logistics and distribution across sales channels to meet consumer demand. ISA will analyse workforce functions and requirements for this emerging industry to determine what new skills and pathways are required.

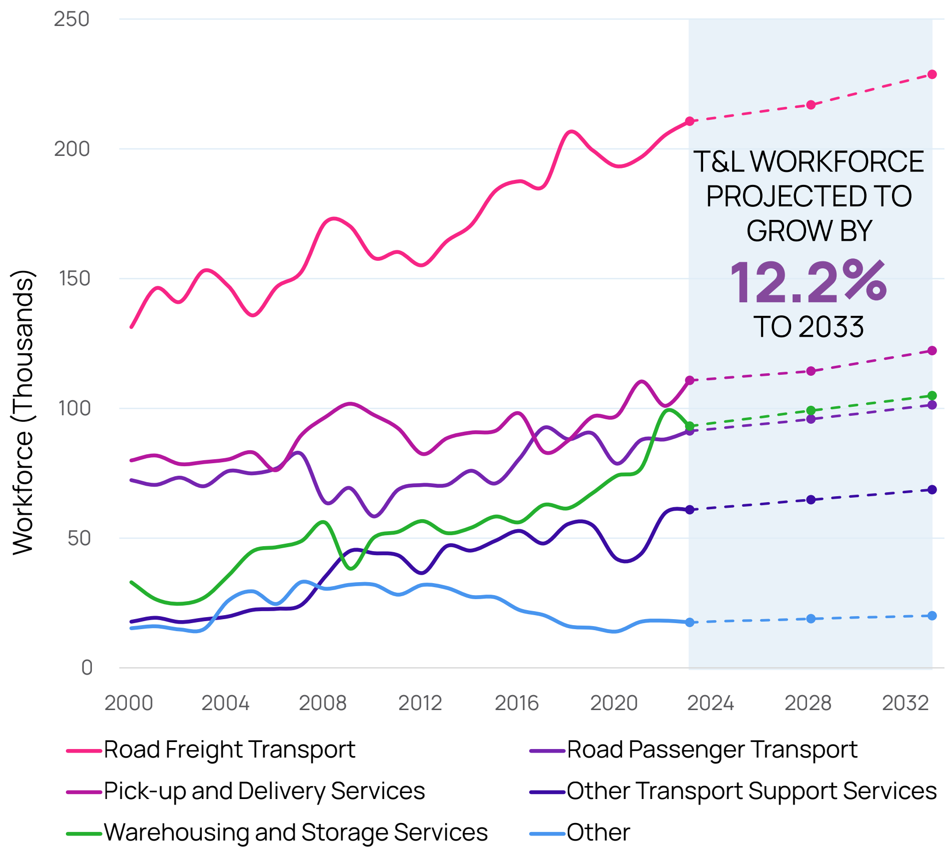
The Australian T&L industry workforce is projected to show a growth trajectory from 2021 to 2026 at an annual growth level of 4.6%.[1] This is mainly due to rapid infrastructural development which has led to services being able to reach previously inaccessible areas such as non-metropolitan regions.

There is a diverse array of occupations in the T&L sectors that offer job security, opportunities for career progression, variety of work and strong future growth in an industry that provides a crucial contribution to the economy and communities of Australia.

[1] Modor Intelligence (2022) Australia Freight and Logistics Market Size

The industry employed over 583,0000 people in 2023 across its major subsectors: road transport, logistics, and stevedoring and the workforce is projected to grow by 5.7% to 2028 and 12.2% to May 2033 (**Figure 1**).

Figure 1: Transport and Logistics Industry Workforce, 2000 - 2033



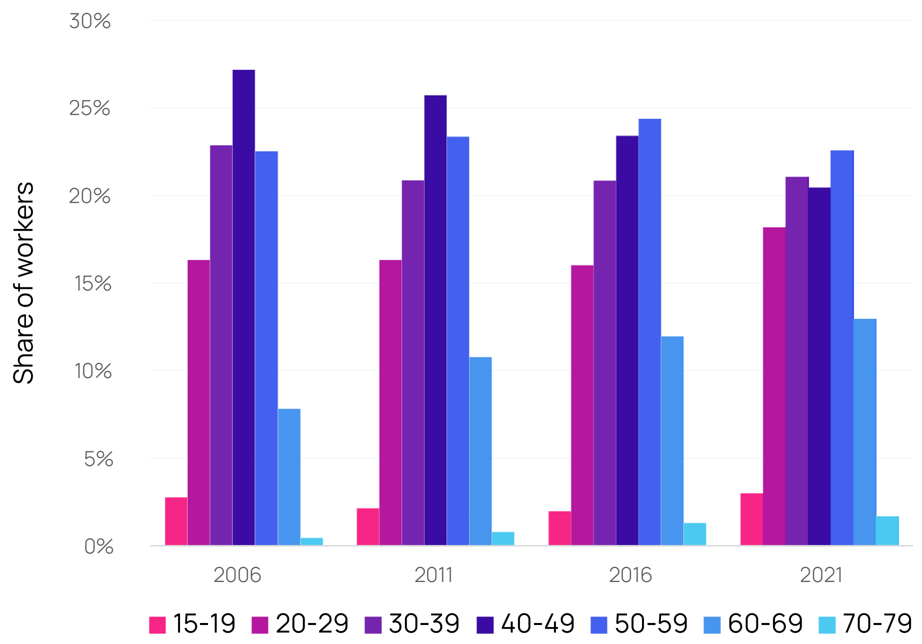
Source: ABS Labour Force/JSA Employment Projections

The median age of T&L operational workers in general was 43 years old in Census 2021, a little older than the national median of 40, but this masks considerable variation among occupations within the T&L sector. For example:

- Charter and Tour Bus Drivers recorded a median age of 60 years old
- Truck Driver's Offsiders recorded a median age of 27 years old

In terms of cohorts, (**Figure 2**) there have been slight increases in workers below 40 years old (41.9% in 2006 and 42.3% in 2021) but also increases in workers above 60 years old (from 8.31% in 2006 to 14.65% in 2021).

Figure 2: Transport and Logistics Workers Age Profile, 2006 – 2021

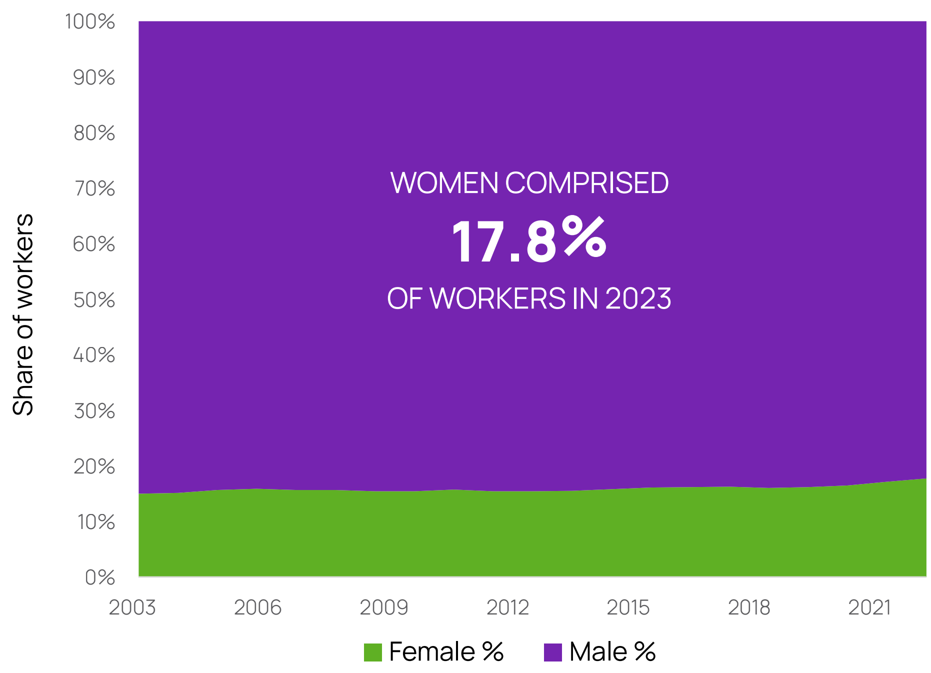


Source: ABS Census 2006 to 2021

THE % OF WORKERS ABOVE 60 WAS **14.7%** IN 2021

Women made up 17.8% of operational workers in 2023 (**Figure 3**), which represents only a slight improvement on the 15.0% share 20 years prior. Women are most highly represented in administrative roles in T&L, such as Logistics Clerks (44.8%) and Mail Sorters (41.2%) with low representation among operational roles like Truck Driver (5.2%) and Forklift Driver (3.6%).

Figure 3: Female Employment Share 2000 - 2023



Source: ABS 6291.0.55.003 - Labour Force, Australia, Detailed (four-year rolling average)

TRANSPORT & LOGISTICS BUSINESS NO.

206,327

176 with **200+ employees**

1,858 with **20-199 employees**

204,293 with **0-19 employees**

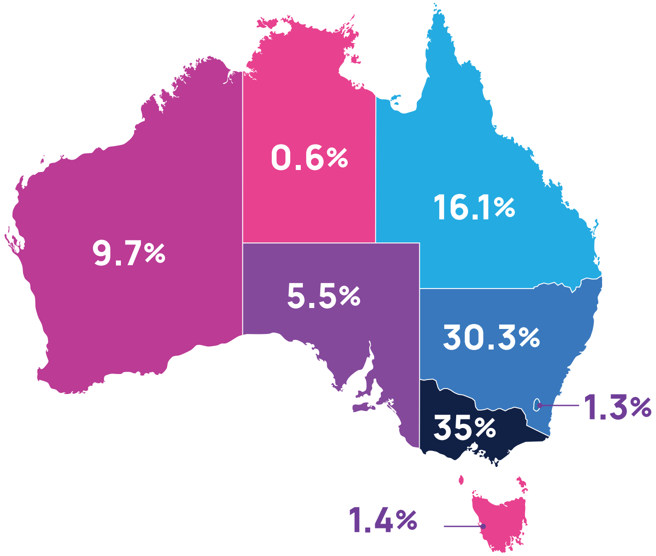
AUSTRALIAN HOUSEHOLDS MAKING AN ONLINE PURCHASE IN 2022

82%

COMMERCIAL VEHICLES ON AUSTRALIAN ROADS IN 2023

4.6 MILLION

BUSINESS DISTRIBUTION BY STATE %



TONNE KILOMETRES OF ROAD FREIGHT MOVED 2022-2023

239 BILLION

GDP CONTRIBUTION $B 2022-2023

2.3%

TRUCK DRIVERS

7th

MOST NUMEROUS OCCUPATION IN AUSTRALIA

DOMESTIC FREIGHT TASK GROWTH (PROJECTED TO 2030)

16.40%

T&L INDUSTRY ESTIMATED ANNUAL REVENUE $B 2024

142.5

See page 70 for sources

WORKFORCE‡

583K

22.3% Female

1.7% Aboriginal & Torres Strait Islander

1% With a disability

WORKFORCE NEARING RETIREMENT (AGED 56-66)

18.6%

MEDIAN AGE

43

‡ All employees in T&L businesses, see Explanatory Notes to Data

QUALIFICATION ENROLMENT 2022

36,022

TOP 5 OCCUPATIONS

Truck Driver 148,284

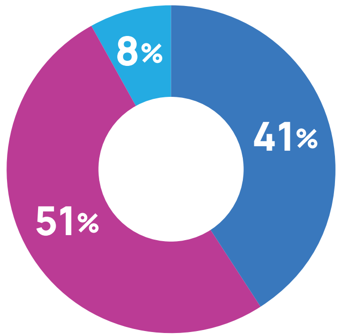
Storeperson 134,598

Delivery Driver 69,982

Forklift Driver 55,980

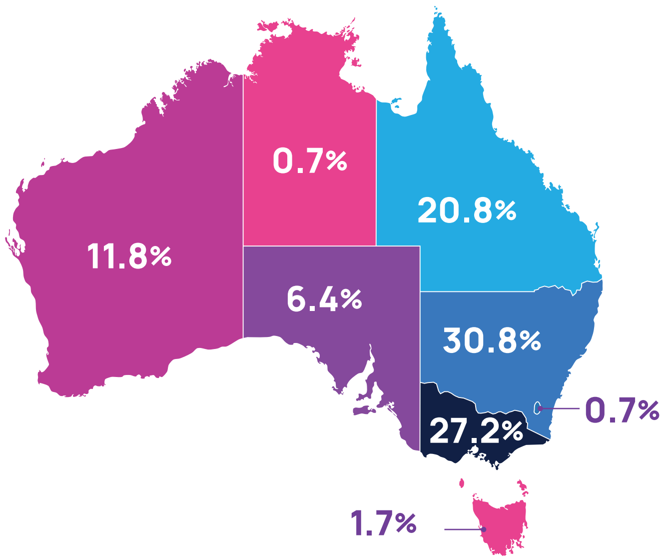
Bus Driver 34,190

RESIDENTIAL DISTRIBUTION OF WORKERS



Major cities Regional Remote

WORKFORCE DISTRIBUTION



See page 70 for sources

Megatrends

Megatrends are overarching, transformative shifts that are reshaping the workforce, economies, and the global environment, exerting profound impacts across all transport sectors. These trends, which include digital transformation, automation, decarbonisation, and workforce supply/demand issues, pose cross-sector challenges that demand innovative and adaptive responses, including skills development and improvements in diversity and inclusion in the workplace. Understanding these megatrends is crucial for addressing industry-specific challenges and leveraging the opportunities they present in shaping the future of transportation. The megatrends identified in this section represent cross-cutting issues that are evident across Industry Skills Australia's four main industry sectors.

Digital Technology and Automation

The adoption of high-performance computing, AI, machine learning, sensors, the Internet of Things (IoT), robotics and other Industry 4.0 technologies is growing globally. The next wave of digital innovation is expected to generate $10–15 trillion globally, and currently available technologies could contribute $140–250 billion to Australia's GDP by 2025.[2]

There is a drive to increase the technical capabilities of Transport and Logistics using IoT, data analytics and automation to boost efficiencies and productivity.[3] The increasing integration of smart technologies, driver assistance and other safety systems play a key role in improving the road transport sector's ability to enhance efficiency, safety and productivity. Unsurprisingly, logistics companies are turning to technology to reduce costs and improve productivity in transportation and warehousing.[4]

New technologies and increased levels of digitalisation and automation are continuously being introduced to the Maritime industry for reasons of safety, efficiency, and the environment.[5] However, the changes brought about by rapid technological development need to ensure that seafarers are required to reskill and upskill to new tasks and embrace emerging job opportunities.[6]

The Aviation industry is on the verge of new revolution, propelled by incorporating cutting-edge technologies such as Uncrewed Aircraft Systems (UAS), remote digital tower technology[7] , OneSky (a harmonised civil and military air traffic management system)[8] and Satellite-Based Augmentation System (SBAS).[9] Similarly, the Rail industry is operating autonomous trains, smart devices and automated asset inspections using various technologies including LiDAR (Light Detection and Ranging) in asset management. As a result, by 2027 nearly 40% of the existing rail workforce will need to learn new digital skills, with the number of specialised digital workers needed, projected to grow by 84%.[10]

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Digital connectivity and advanced capabilities offer significant opportunities to diversify and strengthen regional and remote economies. These advancements can attract and retain a more skilled workforce, contributing to regional economic growth and sustainability.[11] However, this potential is hindered by underlying issues in these areas, including:

- A notable lack of local professionals with the necessary technical skills, which impedes the development and maintenance of digital infrastructure.
- Limited or unreliable internet access hampering the adoption of digital technologies and skilling opportunities.

This urban/rural divide is becoming increasingly critical as metropolitan areas surge ahead with rapid digital advancements.[12]

At the national scale, 2.7 million Australian jobs are at risk of being lost due to automation in almost all industry sectors by 2034.[13] However, almost twice as many jobs as those lost to automation (4.5 million) will be augmented by automation requiring upskilling, reskilling and digital skills to provide a pathway to a future-ready workforce.[14]

Decarbonisation

The Australian Government is investing $24.9 billion in the next seven years to support the development of new clean energy industries and the decarbonisation of existing ones.[15] Around 7 in 10 business leaders recognise the need for Australia to achieve 'net zero' carbon emissions to keep up economically, while almost 8 in 10 believe that sustainable transformation is driving a competitive edge for companies.[16]

According to the DCCEEW,[17] the transport industry was responsible for nearly a quarter (24.6%) of energy consumption in 2020-21 (**Figure 4**) and will need to be a major focus of emissions targets. In the years to 2050, emissions from the Transport industry can be reduced due to electrification of the light vehicle fleet as adoption of electric vehicles (EVs) increases from less than 2% of Australian car sales to more than 55% by 2030.[18] Decarbonisation of long distance and heavy transport is expected to accelerate through 2030-2040[19] with trials for zero-emissions hydrogen fuel-cell battery trucks (FCEV)[20] and electric battery trucks (BEV)[21] already under way for long range applications in Australia. The passenger transport sector's transition to zero emission vehicles is well underway with battery electric or hydrogen fuel cell buses already introduced into fleets across the country. The majority of states and territories have established policy commitments to transition their public transport fleets to zero emission vehicles with set target dates. The International Maritime Organization (IMO) has been working to steward the decarbonisation of the sector and has set targets to reduce shipping emissions intensity by at least 40% by 2030 and reduce greenhouse gas emissions to net zero by around 2050.[22] The use of hydrogen and fuels such as ammonia is also gaining traction in the maritime industry with trials already underway.[23] Additionally, in line with the Government's climate change agenda, the Maritime Emissions Reduction National Action Plan (MERNAP) developed by the Australian Government in collaboration with the Maritime industry will set strategic direction and recommend actions to achieve net zero emission.[24]

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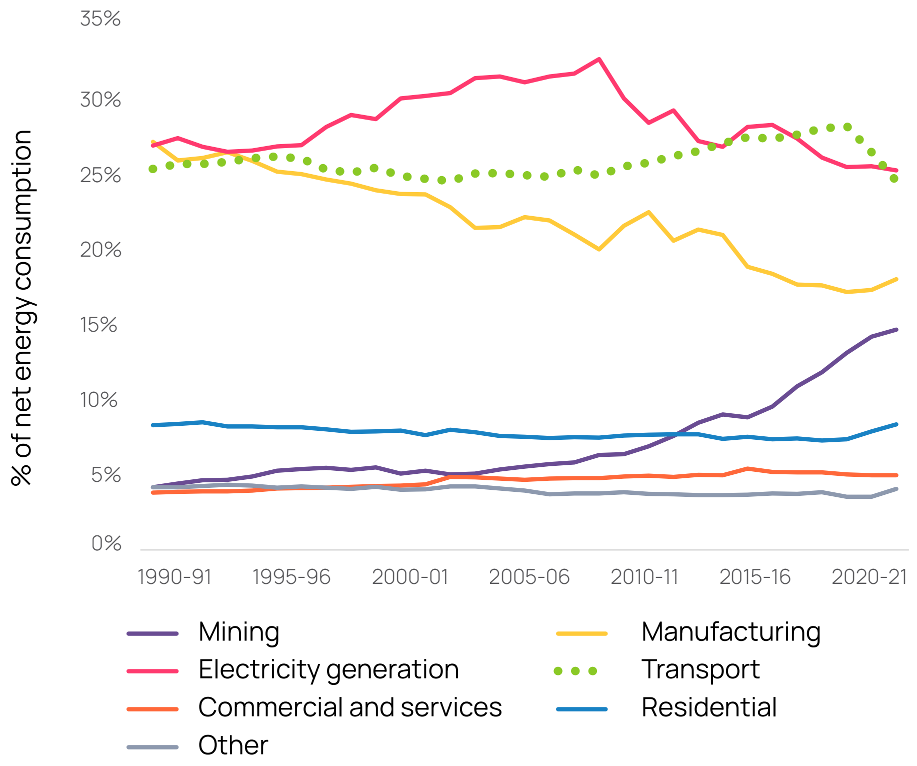
Figure 4: Energy Consumption in Australia



Source: DCCEEW (2022), Australian Energy Statistics, Table E

TRANSPORT ACCOUNTS FOR

1/4

OF AUSTRALIA'S ENERGY USE

SAF (Sustainable Aviation Fuel) is expected to play a significant role in the decarbonisation of the aviation industry to 2050.[25] Also, electric, hydrogen-electric, and hydrogen powered fixed wing aircraft are considered the most attractive long-term solution to full industry decarbonisation, but the implementation may take some time.[26] Rail transport using electricity is projected to double by 2050 from 12% in 2020.[27] Battery electric trains and hydrogen fuel cells are emerging options to displace the existing diesel fleet in the coming decades.

The Australian Government has committed to more than $525 million to invest in regional hydrogen hubs and $500m for electric vehicle charging infrastructure and hydrogen highways,[28] creating new jobs in regional areas. In Australia, about a quarter of businesses have reported an increasing need for emerging skills related to the green economy.[29]

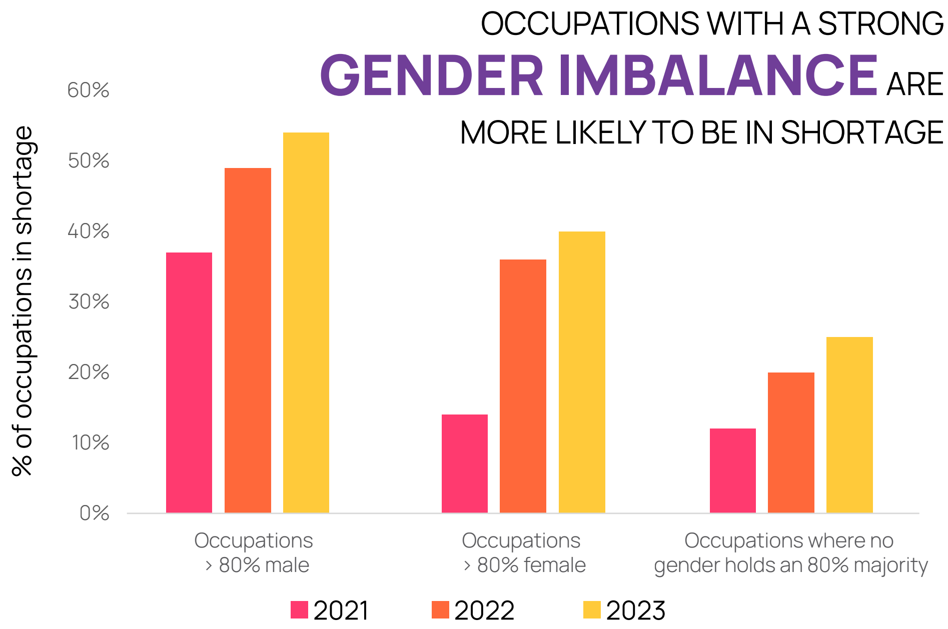
Every country and sector contribute to emissions, either directly or indirectly, through day-to-day production and consumption. Integrating new technologies in diversification programs, reskilling, and redeployment programs may help address the socioeconomic impacts of digitalisation.[30]

Workforce Supply Challenges and Diversity, Inclusion

The 2023 JSA's Skills Priority List (SPL) shows that 36% of occupations are in national shortage and about 5% higher than 2022 (31% of occupations).[31] JSA's Annual Jobs and Skills Report 2023, showed that occupations with a strong gender imbalance were more likely to be in shortage (**Figure 5**). The rise in shortages reflects the cumulative impacts of recruitment challenges, stemming from a persistently tight labour market which began tightening from late 2021. Addressing diversity and inclusion is essential for tackling skills shortages among transport occupations, where diversity is notably lacking. Australian businesses are investing in staff training, developing skills, and attracting young people and women into traditionally male-dominated industries and occupations.[32] Fostering equality, diversity and inclusion in industries is about challenging traditional mindsets and adopting more innovative work practices to attract and retain more diverse workforces.[33]

25 Department of Infrastructure, Transport, Regional Development, Communications, and the Arts. (2023). Scenario Analysis of the Future of Australian Aviation
26 Department of Infrastructure, Transport, Regional Development, Communications, and the Arts. (2023). Scenario Analysis of the Future of Australian Aviation
27 CSIRO. (2023). Pathways to Net Zero Emissions – An Australian Perspective on Rapid Decarbonisation
28 Australian Trade and Investment Commission. (2020). Transition to net zero
29 AiGroup. (2022). 2022 Skills Survey: Listening to Australian businesses on skills and workforce needs
30 McKinsey. (2022). The net-zero transition
31 JSA. (2023). Skills priority list
32 Infrastructure Magazine. (2023). Gender diversity is critical to addressing our sector's skills shortages
33 McKinsey. (2023). Diversity Matters Even More: The Case for Holistic Impact

Figure 5: Occupational Shortages by Gender Balance



Source: National Skills Commission, Skill Priority List 2021 and 2022; Jobs and Skills Australia, Skills Priority List 2023

> *We need to be encouraging more women and first nations peoples to our industry to ensure our workforce is representative of our communities.*
>
> Stakeholder feedback

In the Transport industry, a shortage of truck and bus drivers is reported across every state and territory in Australia according to the latest Skills Priority List.[34] The presence of truck and bus drivers on the national Skills Priority List for 2 years is a strong indication of the current and future demand for these occupations.[35] There is also a reported shortage of deck officers, engineers and ratings across Australia. With a current global shortfall of 35,020 officers, projected to rise to 55,685 by 2027, Australia's seafarer demand is unlikely to be met solely through migration.[36]

The Aviation industry has faced significant challenges and operational issues such as cancellation or long delays of flights due to a shortage of ground crew, pilots,[37] or air traffic control staff.[38] The pilot shortage has impacted regional airlines even more severely.[39] While skills shortages are not new in rail, the current convergence of challenges and threats to workforce capability means this will be a critical issue for the industry over the next three years.[40] The rail industry has also reported occupational shortages in key roles such as train drivers, controllers, or signalling technicians.[41]

34 JSA. (2023). Skills priority list
35 JSA. (2023). Skills priority list
36 Department of infrastructure, transport, communications and arts. (2023). Strategic fleet taskforce report
37 Financial Review. (2023). The 'alarming' workforce trend causing flight delays. February 2023
38 The Sydney Morning Herald. (2023). Airlines call for action on air traffic controller shortage as flight delays continue. August 2023
39 Simple Flying. (2023). Rex flying solo to fix Australian pilot shortage. May 2023
40 Australasian Railway Association. (2023). 2023/24 Strategic plan
41 Australasian Railway Association. (2022). Building Australian Rail Skills for the Future

Skills Development

The Vocational Education and Training (VET) system today remains an effective and efficient way of imparting the skills needed for employment. Work-based learning models will be more important in the future as technology-driven changes need to be quickly transmitted across industries and around workplaces.[42] However, barriers such as perceptions of the VET sector[43] and a growing shortage of vocational trainers impacts on the attractiveness of the sector and on learner outcomes.[44]

Delivering VET in regional and remote Australia to deal with occupational shortages faces several barriers, [45] including:

- a lack of high-quality training facilities
- up-to-date training equipment
- a lack of RTOs
- appropriately qualified trainers/assessors
- increased costs of training delivery
- numeracy and digital literacy
- the need for cultural competency in working with First Nations communities.

Additionally, one of the biggest challenges to achieving successful outcomes with disadvantaged groups is the high rate of attrition in attendance as a result of other factors such as health, housing, transport and family issues.[46] The lack of appropriate housing in particular was highlighted by stakeholders as a significant barrier to support the future workforce in regional and remote Australia.[47]

The National Skills Agreement reflects a commitment by the Commonwealth, state and territory governments by investing $12.6 billion to support the VET sector with capacity to deliver skills for critical and emerging industries.[48] Creating greater flexibility within the VET system can yield better results by attracting more learners and leading to improved learner outcomes.[49] Supporting this approach, the Australian Universities Accord Final Report[50] outlines the importance of VET and higher education to meet the nation's skill demands and ensuring fair access to high-quality education.

Skills Ministers have agreed to progress some early changes to the current standards for RTOs which will come into effect from March 2024, including;

- New and updated training products from the updated Training and Education (TAE) training package.
- Enable people who hold an educational degree to be engaged as trainers/assessors.
- Allow people actively working towards the Certificate IV or Diploma to deliver training/assessment under supervision.
- Enable broader use of industry experts.
- Align the changes to Fit and Proper Person requirements.
- Implement minor amendments towards validation, language, and inclusion of wellbeing services to educational and support services.

42 Department of the Prime Minister and Cabinet. (2019). Expert Review of Australia's Vocational Education and Training System
43 Parliament of Australia. (2023). Inquiry into the Perceptions and Status of Vocational Education and Training. Terms of Reference.
44 Department of the Prime Minister and Cabinet. (2019). Expert Review of Australia's Vocational Education and Training System
45 Tabatha, G. & Andrahannadi, U. (2023). VET delivery in regional, rural and remote Australia: barriers and facilitators, NCVER
46 Department of the Prime Minister and Cabinet. (2019). Expert Review of Australia's Vocational Education and Training System
47 Regional Australia Institute (2023). Against the odds - Realising regional Australia's workforce potential. Retrieved from https://regionalaustralia.org.au/Web/Shared_Content/Smart-Suite/Smart-Library/Public/Smart-Library-Viewer.aspx
48 Department of Employment and Workplace Relations. (2023). National skills agreement – Reforming the national VET system
49 The Regional Australia Institute. (2023). 2023-2024 Federal Government Pre-Budget Submission.
50 Australian Government. (2024). Australian universities accord final report

Conclusion

The intersection of digital technology, decarbonisation, and workforce challenges marks a transformative era for Australia's transport sectors. Rapid digital advancements are significantly altering the economic landscape, bringing the prospect of automation-related job displacement and new employment opportunities. Government and industry commitments to decarbonisation are also reshaping transportation's future. Addressing workforce issues, particularly in remote areas, and prioritising diversity and inclusion are key to industry growth and innovation. The VET system is central to this shift, adapting to industry needs and ensuring a future-ready skilled workforce.

> Aligning these elements is crucial for Australia to effectively navigate and leverage these major trends.

Key Challenges and Drivers

A. Attraction and Retention in the Transport and Logistics Sectors

Attraction and retention have become serious concerns for the T&L industry, with far-reaching implications for businesses, supply chains, and the overall Australian economy. Businesses across all sectors of the industry, from warehousing, logistics and road transport, through to maintenance and support staff, are struggling to find suitably skilled workers to operate productively and profitably. While there is evidence that job ad demand softened in 2023 (**Figure 6**), online job ads for T&L workers are still elevated, being higher over the past two years than at any other point since the Global Financial Crisis.

Figure 6: Transport and Logistics Workers and Online Job Ads, 2006 - 2023

Source: ABS Labour Force/Jobs and Skills Australia (2023). Internet Vacancy Index, three-month moving average

HIGHEST JOB AD DEMAND IN

15 YEARS

Road freight enterprises experience significant financial impacts as a result of heavy vehicle driver shortages, which leads to increased freight costs and limits their ability to meet contractual requirements. Shortages of warehousing and support workers and skilled maintenance technicians also contributes to delays in road freight productivity.

Passenger transport operators are similarly affected by the lack of experienced and suitably qualified drivers.[51] A key finding of the recently formed NSW Bus Industry Taskforce is "that most cancellations and other service failures are a direct result of driver shortages. Some depots are significantly understaffed." [52] This issue is replicated nationwide in the passenger transport sector.

Employers in the **warehousing** sector are also grappling with a shortage of skilled and reliable workers that is exacerbated by the increasing popularity of online shopping. Internet shopping has significantly transformed warehouses in Australia, with the effects likely to persist and evolve. This growth means that the demand for warehouse workers will continue to increase. In 2022, 82% of Australian households made an online purchase, with an average of 5.6 million households making an online purchase every month. E-commerce is also growing in outer rural and remote Australia with a 6.4% and 5.7% increase in online shopping in 2022 respectively.[53] The share of online retail in Australia had been rising exponentially prior to COVID, when it experienced two super-exponential peaks in 2020 and 2021, reaching a peak of 15.3% of total retail turnover in Australia in September 2021. Since then, the exponential curve in online retail has flattened somewhat reaching a lower peak of 12.7% in November 2023. [54]

There has been a significant growth of 51.4% in the Warehousing and Storage Services workforce size in the past five years, with the sector currently employing around 93,000 people, of which 24.3% are female.[55]

Warehousing operations require flexible workforce solutions for fluctuating demand, particularly in e-commerce. Warehouses increasingly rely on casual workers for cost-effective, scalable labour during peak periods which can pose challenges in terms of workforce training and retention. To stay competitive, warehouses are adopting automation and technology, enhancing last-mile logistics, and addressing sustainability concerns.

Technology can play a crucial part in optimising warehouse operations. The adoption of advanced technologies such as automation, robotics and warehouse management systems will assist in enabling improved efficiencies, reduced delivery times, decreased operating costs and minimising instances of manual error. Implementation of new technologies will also help alleviate skilled labour shortages, while at the same time, changing the skill requirements for new and existing workers, including increased digital capabilities.[56] It will also see an increasing demand for appropriately trained technicians to maintain and service these new systems in warehousing operations.

In the **Stevedoring** sector, although there have been improvements in shipping vessel reliability in the 2022-2023 year, Australia's major ports continue to experience congestion issues where delays and bottlenecks cause significant disruption and contribute to overall supply chain delays.[57] Achieving optimal efficiency and productivity is crucial for the stevedoring sector, as delays in cargo handling and vessel turnaround times can impact the competitiveness of Australian ports.

The **Freight Forwarding** sector also report challenges in the recruitment and retention of quality staff. [58] Freight Forwarders are increasingly incorporating warehousing and customs broking services to expand their business offerings and remain competitive. Concerns particularly surround the Customs Broker occupation, where a large portion of the current workforce is nearing retirement and 54.8% of Customs Brokers are over the age of 50.[59] Replacing existing experienced staff takes time due to the stringent training and licensing requirements associated with becoming a Customs Broker.

We need to make the job prospect more attractive.

Stakeholder feedback

51 New South Wales Government. (2023). Bus Industry Taskforce. hthttps://www.transport.nsw.gov.au/system/files/media/documents/2023/Six-immediate-actions-to-address-the-bus-driver-shortage-in-NSW.pdf (accessed April 2024)

52 NSW Bus Industry Taskforce Report (2023)

53 eCommerce Industry Report – 2023 Inside Australian Online shopping, Australia post. (2023)

54 Australian Bureau of Statistics (2023) Retail Trade, Table 23 - Online retail turnover as a percentage of total Australian retail turnover

55 Australian Bureau of Statistics, Detailed Labour Force Survey, EQ06 - Employed persons by Industry group of main job, November 2023 (annual average of original data)

56 DHL Insights – Future of Work in Logistics (2021/2022)

57 Container stevedoring monitoring report 2022-23

58 Freight Forwarding & Customs Broking Industry Report (2022)

59 Freight & Trade Alliance (FTA) submission to the Australian Border Force (ABF) Customs Broker Licensing Conditions Review (2023)

Stakeholder feedback consistently emphasises the limited funding support available for training and employment in the Transport and Logistics industries, which has a substantial impact on efforts to attract, skill and retain workers.

Overall, there is a general lack of awareness as to the vast number of career opportunities and pathways across the T&L sectors. This requires a comprehensive attraction and retention strategy to target schools and more diverse pools of potential workers, promote career pathways, improve community perception of the industry and assist employers to retain existing workers. We propose to trial a suite of attraction approaches to establish what works well and is sustainable for the industry.

To tackle attraction and retention issues, enhance early school education and promote the industry with consistent messagings.

Stakeholder feedback

Elements of this strategy might include:

Identifying career pathways with opportunities for progression aligned with a nationally consistent approach to training

- Fostering relationships with schools, industry associations and educational institutions to raise awareness about the diverse career opportunities available in the sector
- Empowering industry to host site visits, participate as guest speakers at careers events, and offer work experience to attract young talent and develop interest at an early stage
- Collaborating with educational institutions to develop industry-specific pre-employment training programs that equip individuals with the necessary skills for T&L careers
- Promoting and supporting the use of flexible working arrangements, which can provide numerous benefits for both employees and the companies for which they work
- Encouraging apprenticeships, traineeships, and work-based learning programs to provide hands-on experience
- Promoting the benefits of job roles in the industry, such as competitive wages, job security, and opportunities for career progression, to help change the perception of the industry and attract a wider pool of candidates.

It is critical employers understand what motivates the modern workforce in order to source and retain the right candidates. Work-life balance has become increasingly important, particularly in recent years. Although the Transport and Logistics sectors generally have limited opportunity to offer remote or hybrid working arrangements, other strategies can be implemented to encourage greater participation from job seekers who may not normally consider a role in this industry or to improve retention of the existing workforce. Strategies could include:

- offering flexible or part-time work hours where possible
- job sharing
- training or career development opportunities
- health and wellbeing programs
- the ability to purchase additional leave
- ensuring workplace facilities are suitable for all workers
- recognition and celebration of effort

Incorporating retention strategies and understanding what is important to different demographics as part of workforce planning, is key to enhancing attraction to industry, improving workers' sense of value and reducing employee turnover.

As an example, a recent study was undertaken by Monash University to examine the factors that impact Australian truck driver's physical and mental health. The Driving Health Project[60] highlighted key components contributing to driver stress, anxiety, depression and overall health. The findings recognised the fact that drivers experience higher levels of poor mental and physical health in comparison to workers in other occupations and are less likely to access health services when needed. Promotion of existing resources as developed by the Healthy Heads in Trucks and Sheds, Health in Gear, Driving Health and Steering Healthy Minds programs, would assist both enterprises and their entire workforce in connecting with and utilising tailored industry

60 Driving Health Project – Monash University

support services. These programs offer robust support, mental health resources, and access to healthcare services focussed on improving health and wellbeing.

Proposed actions include:

- **School to work pathway pilot**
- **Improve T&L industry career information**

Further areas for research and consultation to inform the development of future strategies include:

- **Pre-vocational training program development**
- **Transport management training**
- **Skilled migration**
- **Increasing industry diversity**

B. Heavy Vehicle Driver Shortages

The **heavy vehicle driver shortage** in Australia has significant implications for the economy and logistics system. Key issues include disruptions to the supply chain, increased costs for businesses due to delays, rising freight expenses caused by the need for higher driver wages, safety risks from overworked drivers, supply chain interruptions affecting just-in-time inventory systems, passenger transport delays and cancellations and a disproportionate impact on regional areas that rely on road transportation.

A heavy vehicle driver apprenticeship is ideal to compete with other trades as a recognised qualification and justification of value for a professional career pathway.

Stakeholder feedback

Truck drivers are among the most numerous occupations in Australia[61] (7th largest) and among the most in-demand (19th most advertised position in 2023), with online ads tripling since May 2020[62]. Over the five years to 2028, the freight task carried by road is projected to increase by 11.6%[63], further escalating the demand for drivers.

According to Jobs and Skills Australia's 2023 Skills Priority List, both truck and bus Drivers have been in shortage for two consecutive years in every state and territory and three consecutive years in the Northern Territory.[64]

The factors contributing to driver shortages are varied.

An **ageing demographic profile** for certain key occupations across the T&L industry is a symptom not only of Australia's ageing population, but of a failure to attract new and retain existing staff. In the road transport sector, many experienced bus and truck drivers are nearing retirement age, and there are not enough young drivers entering the profession to fill the vacancies. The share of truck drivers above 50 years of age increased from about a third (33.8%) in Census 2006 to nearly half (47%) in 2021 (**Figure 7**). The share of bus drivers above 50 is even more extreme, being 60.8% in 2006 and more than two thirds (68.4%) in 2021. Without an adequate pipeline of new recruits, the disparity between supply and demand will grow, exacerbating current shortages and costing industry.

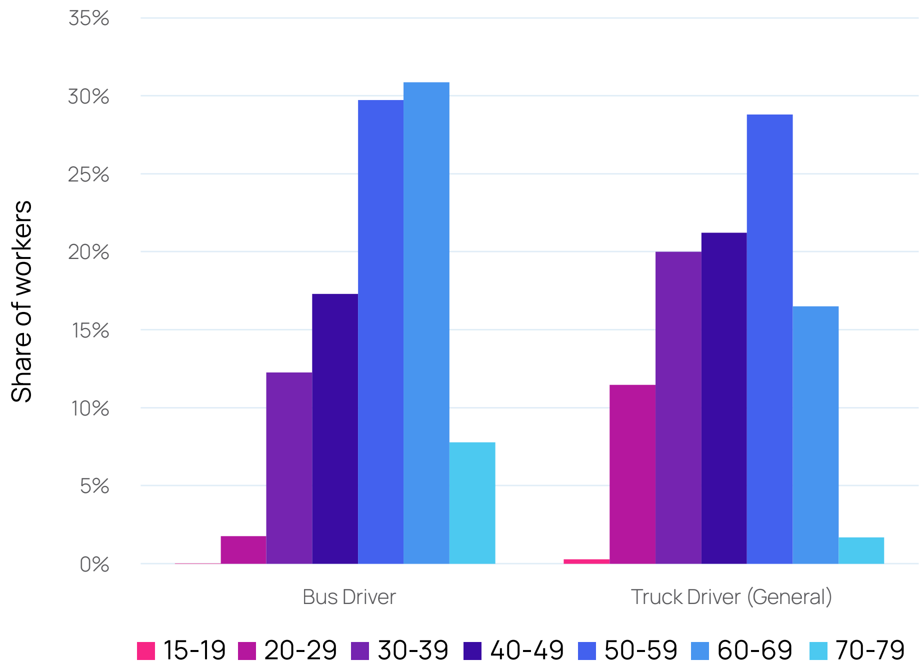
61 Australian Bureau of Statistics, Detailed Labour Force Survey, EQ08 - Employed persons by Occupation unit group of main job, November 2023 (annual average of original data)

62 Jobs and Skills Australia (2023). Jobs and Skills Australia (2023). Internet Vacancy Index, three-month moving average

63 BITRE Australian Aggregate Freight Forecasts, 2022 update

64 Jobs and Skills Australia. (2023). 2023 Skills Priority List

Figure 7: Bus and Truck Drivers Age Profile 2021

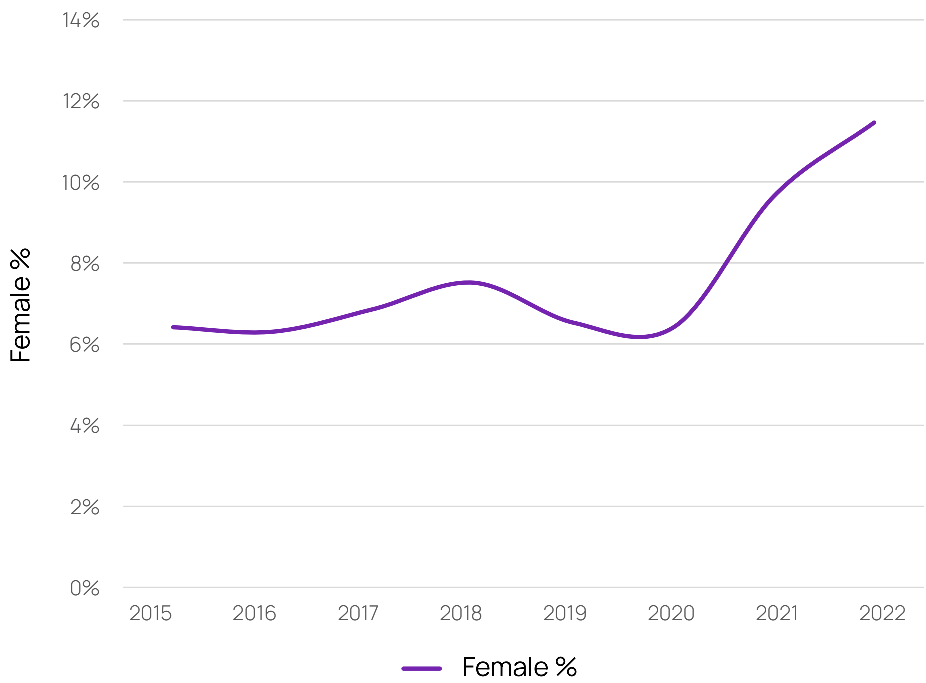


Source: ABS Census 2021

IN 2021,
47%
OF TRUCKIES AND
68.4%
OF BUS DRIVERS
WERE OVER 50

Given the median age of truck drivers was 48 years in Census 2021[65], with women making up only 5.2% of drivers in 2023[66], enhanced recruitment efforts targeting schools, women, and younger recruits are required to create the necessary demographic shift. This is no less true for bus drivers, being significantly older on average (54.5 in 2021),[65] and recording only 11.6% female drivers in 2023.[65] Some good news can be found on the supply side, as the share of females undertaking heavy vehicle training has increased from 6.4% in 2020 to 11.5% in 2022 (**Figure 8**), being as high as 14.6% in Western Australia in 2022.

Figure 8: Female Share of Driving Operations Qualification Enrolments



Source: NCVER Total VET Activity

THE % OF FEMALES IN HEAVY VEHICLE TRAINING WAS
11.5% IN 2022

[65] Australian Bureau of Statistics (2021) '2021 Census - Employment, income and education', TableBuilder
[66] Australian Bureau of Statistics, Detailed Labour Force Survey, EQ08 - Employed persons by Occupation unit group of main job, November 2023 (annual average of original data)

Heavy vehicle driving presents numerous **perceived** challenges and a poor image, which can deter potential candidates, especially those from a wider, more diverse demographic. However, the basis for these perceptions is often based on a misunderstanding of the roles.

The public perception of heavy vehicle driving as a low-status occupation has also contributed to the shortage.[67] Work-life balance and wellbeing initiatives could help redefine the industry's image, while raising awareness of the benefits and opportunities within the industry which is essential to attract a broader range of candidates.

The lack of suitable and safe rest facilities, particularly for long haul heavy vehicle drivers, works as a deterrent in attracting new workers to the driving role. It also impacts existing drivers as they strive to meet their fatigue management requirements with limited access to appropriate rest areas. Addressing the availability and standards for adequate rest areas is a crucial element for attracting and retaining the driving workforce, especially as industry seeks to encourage greater female participation in the occupation.

Stringent licensing requirements to obtain a heavy vehicle driver's licence involve substantial costs and rigorous training and testing. At the same time, there are numerous skills required of heavy vehicle drivers that are not tested or trained for as part of the licensing process, such as load restraint, loading and unloading, completion of work diaries, compliance with regulations, road law, Chain of Responsibility, fatigue management, and skills for the specific vehicle type. Some licensed heavy vehicle drivers are not employed because employers do not have confidence that training and licensing processes have provided all the necessary skills to operate heavy vehicles safely and efficiently.

> *Access to funding to support training programs is essential. Many small businesses do not invest in training as they are often unaware of the funding support available.*
>
> Stakeholder feedback

This suggests the need for additional training for heavy vehicle drivers. While there has been growth in the number of truck drivers, distribution among licence types has not been even. According to BITRE, the number of truck drivers in 2022 with full heavy combination (HC) licences has declined by 13.7% since 2013[68] despite increases in all other licence types (particularly multi-combination) that more than offset the decline in HC licence holders. There is no mandatory requirement to gain a heavy combination (HC) licence in some jurisdictions, before progressing on to a multi-combination (MC) licence. Workers may see better value for money in going straight to an MC licence which offers a greater range of work opportunities. To date, the industry has been unable to set standards to address the link between training, job-readiness and licensing progression.

The passenger transport sector is additionally impacted by the requirement for drivers to obtain a Driver's Authority in the state in which they work, along with various other items such as a police check, driving history check, working with children/vulnerable people approval and medical assessments. Obtaining all the required approvals can be a time consuming and costly process, further contributing to delays in being able to access suitably certified drivers. A person is generally not eligible to apply for a Drivers Authority until they are 20 years old or have held their open licence (not provisional) for at least one year. This restricts industry's ability to attract younger workers into the profession. Although there is some mutual recognition of a Driver's Authority across borders, it does not apply to all states and territories and does not apply to other required background checks and approvals. Industry has stated a desire to make the Driver's Authority and other required approvals be recognised nationally to facilitate greater workforce mobility across the states and territories.

Stakeholder feedback has also recommended reviewing the Certificate III in Driving Operations qualification to ensure training and assessment components can be delivered as relevant to the passenger transport sector. This would include incorporating elective units to train for skills in areas such as customer service and conflict management. Training for the transport of passengers with disabilities will also need to align with proposed changes as part of the Reform of the Disability Standards for Accessible Public Transport 2002.

The higher insurance premiums associated with employing heavy vehicle drivers under the age of 25, impedes industry's ability to attract and engage younger workers for driving roles in both the road freight and passenger transport sectors. This is continuously raised through stakeholder engagement as a major obstacle for industry.

Austroads have been undertaking a review of the National Heavy Vehicle Driver Competency Framework[69] to develop reforms aimed at increasing the number of skilled and safe heavy vehicle drivers. Extensive consultation with relevant stakeholders has been completed and the proposed reforms outlined in the National Heavy Vehicle Driver Competency Framework Decision Regulation

[67] Hino. (2023). The Future of the Transport Workforce: Addressing the Driver Shortage. https://www.hino.com.au/blog/the-future-of-the-transport-workforce-addressing-the-driver-shortage/ (accessed April 2024)
[68] BITRE Australian Infrastructure and Transport Statistics - Yearbook 2023
[69] Review of the National Heavy Vehicle Driver Competency Framework

Impact Statement (Decision RIS)[70], were approved in-principle by Transport Ministers in December 2023.

Changes proposed in the Decision RIS include:

- strengthening heavy vehicle driver skills and knowledge through redesigned learning and assessment requirements specific to each licence class.
- requiring minimum course lengths and minimum behind-the-wheel time
- delivering some training and assessment online to allow licence applicants flexibility to undertake the training when and where it best suits them and reduce costs.
- Introducing new experience-based licence-progression pathways to allow drivers to gain higher licence classes more rapidly. For each licence upgrade, drivers would be able to choose a different pathway option: tenure, driving experience, or completion of a supervision program.

The proposed changes will enable drivers to upgrade to higher levels of heavy vehicle licences more rapidly. This will be under-pinned with minimum standards for training and practical experience to ensure drivers have the required skills and knowledge associated with the level of licence they obtain.

This will assist in providing confidence for employers that candidates are job ready.

ISA will engage with key stakeholders including Austroads, industry employers, industry peak bodies, training providers, Government regulators, state and territory licensing and training authorities, to develop a coordinated approach for the implementation of these reforms and determine where changes to the Transport and Logistics Training Package may be required.

Whilst the bus driver and truck driver occupations are confirmed as being in shortage on the Skills Priority List, they are not currently included on the Skilled Occupation List, meaning overseas workers cannot be sourced to help meet the demand for heavy vehicle drivers. New Zealand introduced a Transport Sector Agreement in 2022, which provides a 'work to residence pathway' for truck and bus drivers to support the public transport, waste collection and supply chain industries. This enables employers to recruit suitably skilled drivers from overseas and offers a pathway to permanent residency for retention of these workers. Using international models such as the New Zealand Transport Sector Agreement, can provide a basis for developing a similar program in Australia to help ease critical driver shortages.

> *Candidates should have greater access to pre-employment training and practice so that they come with experience, not just a licence.*
>
> Stakeholder feedback

[70] National Heavy Vehicle Driver Competency Framework Decision Regulation Impact Statement (Decision RIS)

Industry stakeholder feedback indicates strong support for skilled migration as an option to source heavy vehicle drivers in both the road freight and bus sectors. This will require the inclusion of the heavy vehicle driver occupations in the Skilled Occupation List. The need for a more streamlined process for recognising overseas heavy vehicle licences has also been highlighted. There is potential to develop resources or training for overseas drivers that develop skills and knowledge on Australian Heavy Vehicle National Law or other state/territory regulatory requirements, transport terminology, safety culture and how the industry operates in Australia. This could also include cultural competency resources for employers to support the integration of migrant workers into the workforce.

Collaboration between government and industry stakeholders should be considered to explore migration pathways, however this should not detract from continuing efforts and commitments to safe and sustainable standards for the T&L industry, investments in the existing workforce and attraction and retention strategies.

The industry wide labour shortages and the shortage of heavy vehicle drivers is a complex issue that demands a multifaceted approach Emphasising the benefits, enhancing training programs, improving work conditions, leveraging technology, and fostering collaboration are all essential components of a comprehensive strategy to address the shortage and secure the industry's future success.

An important part of this will be to progress the establishment of the Heavy Vehicle Driver apprenticeship around the country.

Australian Industry Standards undertook extensive consultation with industry in 2021 around the proposed establishment of a Heavy Vehicle Driver apprenticeship delivering training in the Certificate III in Driving Operations. The proposal received significant industry support as an avenue to provide a structured work-placed training option through which an apprentice can gain both the core skills and practical experience required by employers in the operation of heavy vehicles. The apprenticeship has since been declared in Tasmania and Queensland, and future work will include supporting the remaining states to establish the apprenticeship.

The apprenticeship addresses key factors facing the road transport sectors, including:

- Raising the profile of the heavy vehicle driving profession and improving public perception of the role
- Recognition of the skills required to become a driver of modern heavy vehicles
- An avenue to provide training in essential skills and gain on-the-job practical experience
- Training via the apprenticeship will support changes proposed under the National Heavy Vehicle Driver Competency Framework
- Demonstration of industry's commitment to creating a safer environment for workers and the community as a whole
- Providing a valid career pathway and a structured training environment to assist in attracting workers to the industry

Although the Certificate III in Driving Operations attracts partial training funding subsidies in most states and territories around the country, the traineeship/apprenticeship model of training is not eligible for the majority of incentives under the Australian Apprenticeships Incentives System. Including the Certificate III in Driving Operations and its associated driving occupations in the Australian Apprenticeships Priority List would support employers with the financial costs involved in skilling new drivers. It would also incentivise workers to undertake a traineeship or apprenticeship in an occupation that is recognised and supported as a high priority for the country.

The Australian Government is undertaking a review of the Australian Apprenticeship Incentive System. The Review will look at how the System can best provide support for apprentices, trainees and employers to enable successful training and employment outcomes. The Review is open for public consultation until 15 May 2024 and is an opportunity for industry stakeholders to identify areas where extra support is required.

Further areas for research and consultation to inform the development of future strategies include:

- **Heavy vehicle driver licensing**
- **Skilling heavy vehicle drivers**
- **High productivity vehicle upskilling program**
- **Passenger transport driver training**

C. The Importance of Compliance

The Transport and Logistics industry is highly regulated and compliance personnel play a critical role in ensuring that companies operate within legal and regulatory frameworks. Compliance personnel engaged in road transport enterprises, are responsible for managing and implementing often complex systems and programs to ensure the business is maintaining compliance with legal and regulatory requirements and is operating safely and efficiently.

Training to upskill T&L workers in compliance requirements, safety practices, and regulatory changes is required, as an increasing number of occupations operate in high-risk environments.

The National Heavy Vehicle Regulator (NHVR) administers and monitors compliance with the Heavy Vehicle National Law (HVNL) and its regulations. In addition to the compliance function, NHVR provides education and information to the heavy vehicle industry and manages a number of schemes designed to improve safety.

It works with commonwealth bodies to establish and update vehicle standards and publishes and updates the National Heavy Vehicle Inspection Manual which sets benchmarks for meeting those standards. NHVR has also launched a new fatigue management system to support the heavy vehicle industry access safe and tailored fatigue risk management options.

To ensure compliance with chain of responsibility requirements under the HVNL or applicable state/territory law and regulations, various aspects need be reflected in relevant TLI Transport and Logistics Training Package products. ISA has commenced a project to update two chain of responsibility units of competency and associated qualifications to ensure they align with current regulatory requirements. Reviewed training products are due for submission to the Assurance Body in April 2024.

> *Developing Compliance specific training is critical as there is a definite need to improve knowledge and skills in the area with an ability to update as these requirements change.*
>
> Stakeholder feedback

Figure 9: Timeline of Changes to Training and Regulations

JUNE 2020	CHAIN OF RESPONSIBILITY UNITS UPDATED
OCTOBER 2021	NATIONAL HEAVY VEHICLE INSPECTION MANUAL AMENDED
JUNE 2023	ADVANCED FATIGUE MANAGEMENT (AFM) DIGITAL APPLICATION PACK LAUNCHED

COR UNITS HAVE NOT BEEN UPDATED FOR NEARLY

4 YEARS

Specialised training development is also required to support industry roles where compliance is the central function and would provide a consistent approach to skilling workers for these critical tasks. This may focus on areas such as:

- Key Aspects of Compliance Roles
- Regulatory Compliance
- Policies and Procedures
- Licensing and Permits
- Auditing and Monitoring
- Incident Response and Investigation
- Industry Advocacy.

There is potential to develop compliance specific training for inclusion in existing T&L qualifications, to provide a specialised learning pathway for personnel performing these duties.

Proposed actions include:

- **Chain of Responsibility training updates**

Further areas for research and consultation to inform the development of future strategies include:

- **Specialist compliance training development**

D. Shortage of Trainers and Assessors

While shortages of 'Vocational Education Teachers' are being reported in all States and Territories (**Table 1**)[71], rural, regional, and remote areas face significant challenges in finding qualified trainers, which impacts the delivery of VET. There is a particular difficulty in finding trainers with specialised skills or experience, such as those capable of delivering training to Indigenous communities.[72]

Table 1: Vocational Education Teacher Shortages by State/Territory

State/Territory	2021	2022	2023
Australian Capital Territory	No Shortage	Shortage	Shortage
New South Wales	No Shortage	Shortage	Shortage
Northern Territory	Shortage	Shortage	Shortage
Queensland	No Shortage	Shortage	Shortage
South Australia	No Shortage	Shortage	Shortage
Tasmania	No Shortage	Shortage	Shortage
Victoria	No Shortage	Shortage	Shortage
Western Australia	No Shortage	Shortage	Shortage

Source: Skills Priority List (20 December, 2023)

The national shortage of trainers and assessors is seriously affecting rural, regional, and remote areas of Australia, exacerbating existing educational disparities. These areas face unique challenges due to their geographical isolation and limited access to resources, and the scarcity of qualified vocational practitioners compound these issues. This is particularly relevant to the T&L industry where 54.6% of workers are employed in regional or remote locations.

A lack of trainers and assessors restricts the range of VET courses that can be offered locally, hindering the ability of learners to acquire skills aligned with their interests and local industry and community demands. For example, Tasmania has only one RTO available to deliver heavy vehicle licence testing in the state. The limited numbers of trainers make it challenging to get new drivers on the road and to upgrade existing licences.

Limited training availability for certain sectors has also been highlighted through recent engagement with industry. For example, the furniture removal sector is experiencing challenges in accessing training that meets the skills needs specific to their sector, due to limited training provider availability. This could potentially be addressed by moving furniture removal units of competency into existing T&L qualifications, enabling broader access to training providers delivering these qualifications and increase skill transferability across sectors.

The livestock transport sector has also expressed a desire for formal training options to address the skills needs for the safe handling and transport of livestock. Accessing training providers who can deliver both the animal handling and transport aspects of the required training has proved a challenge in the past. A bespoke program was developed and delivered in Queensland using non-accredited training, which has experienced significant industry participation and support. There is opportunity to develop a Skill Set to provide nationally consistent training to support livestock transport. This will require further engagement with livestock transport stakeholders to identify appropriate units for inclusion in the Skill Set that reflect industry best practice and the specific skills needs. It will also be an avenue for cross collaboration with Skills Insight (the Jobs and Skills Council for Animal Care).

The Certificate IV in Motor Vehicle Driver Training qualification is used to train heavy vehicle driving instructors. Currently this qualification includes two core units of competency from the Training and Education Training Package which are now superseded. This will require an update to ensure all units are current and the qualification provides appropriate training for roles that may see increasing demand with the proposed licensing reforms.

Additionally, the shortage of VET practitioners contributes to a brain drain from rural areas, as potential trainers and assessors are drawn to urban centres where more opportunities and amenities are available. This perpetuates a cycle of limited local expertise, impacting the capacity for skill development and economic growth in rural communities.

The costs associated with regional training delivery can be prohibitive for both an RTO and employer. A solution could include identifying opportunities for regional employers to pool together and engage training providers for localised training delivery. This would make training in the regions more financially viable for the RTO when there is a verified group of student enrolments, resulting in lower training fees for workers and/or employers. Utilising new training technologies such as augmented and virtual reality, simulators and online training systems assists in reducing the amount of face-to-face teaching time, particularly for non-practical components of training.

[71] Jobs and Skills Australia. (2023). 2023 Skills Priority List

[72] Tabatha, G. & Andrahannadi, U. (2023). VET delivery in regional, rural and remote Australia: barriers and facilitators, NCVER

More focus should be placed on how to utilise experienced workers who are nearing retirement or are willing to engage in the transfer of knowledge, in the training and mentorship of younger or less experienced workers. This would include working with government and training providers to enable more flexibility in the use of industry experts for partial training delivery, which may in turn alleviate the pressure resulting from the lack of formal VET trainers and assessors.

This has also been highlighted as part of the National Skills Reform agenda – Quality Reforms - Revision of RTO Standards. [73] Skills Ministers have agreed to progress some of the proposed changes to the RTO Standards ahead of the broader implementation date of January 2025. [74] Some of these early changes include:

- Adding a new Certificate IV in Training and Assessment and Diploma of VET to the TAE Training Package
- Enabling those holding a range of new and updated skill sets to deliver training under supervision.
- Enabling industry experts to deliver and assess training alongside a trainer and/or assessor.

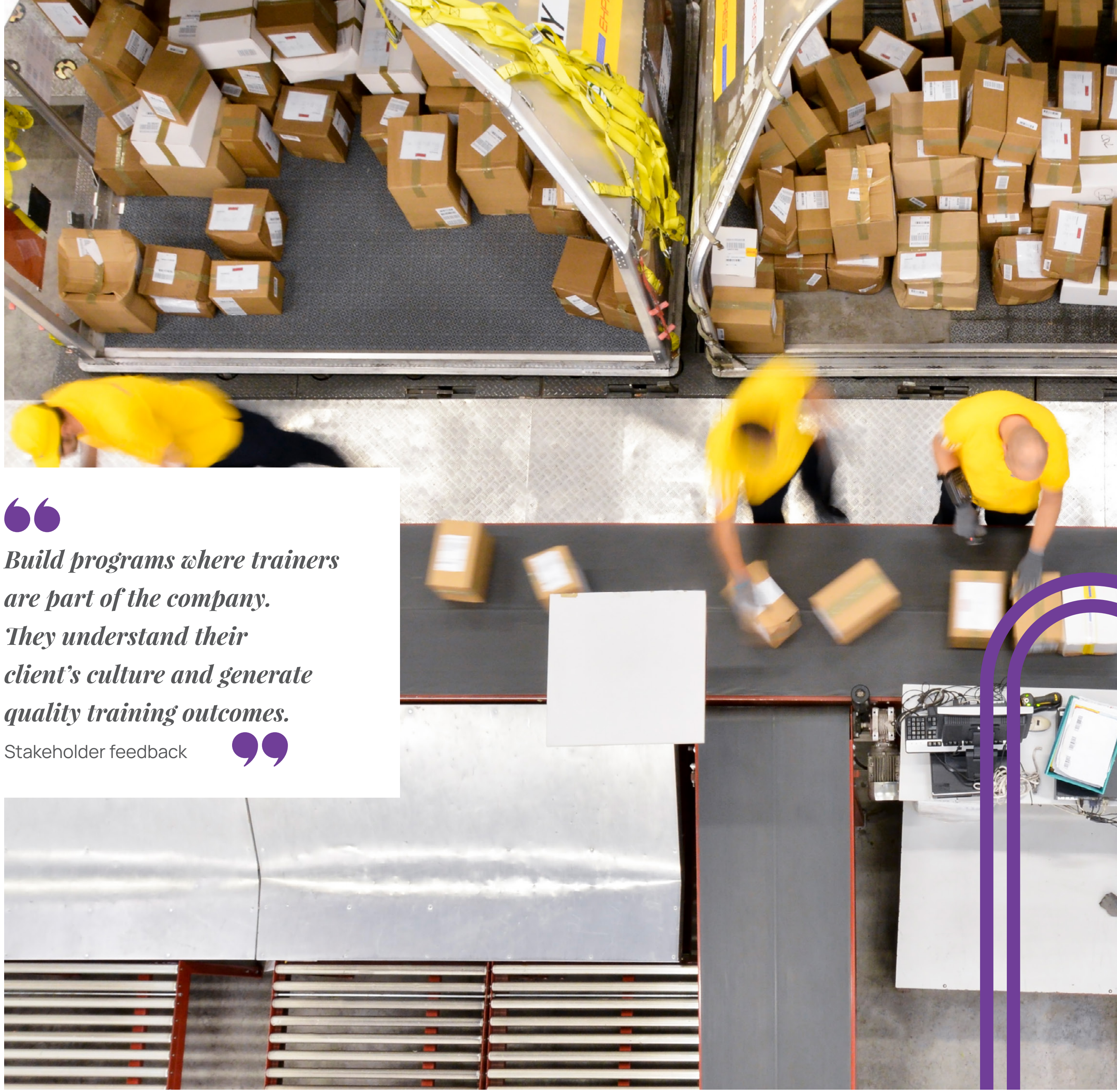
These changes are anticipated to commence in March 2024 and will be accompanied by additional guidance for the VET sector.

Proposed actions include:

- **Furniture removal training pathways**

Further areas for research and consultation to inform the development of future strategies include:

- **VET Reforms**
- **Improving regional training delivery**
- **Livestock transport training development**
- **Qualification update - Motor Vehicle Driver Training**

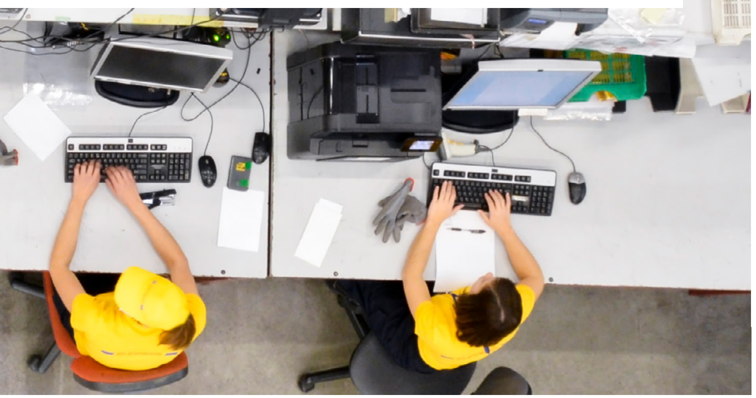


Build programs where trainers are part of the company. They understand their client's culture and generate quality training outcomes.

Stakeholder feedback

[73] Quality Reforms - Revising the Standards for RTOs
[74] Early Changes to the Current Standards for RTOs (2024)

> We are experiencing gaps for trained technicians to maintain new technologies and automated systems, which will continue to emerge as an issue for the Omnichannel sectors.
>
> Stakeholder feedback



E. Skills Gaps in Emerging Industries

Omnichannel Logistics and Distribution is an emerging industry which seeks to synchronise and optimise product distribution across multiple channels, including online and offline, to provide customers with a seamless shopping experience. It involves efficient inventory management, order fulfilment, and technology integration to ensure products are available and delivered promptly, meeting the expectations of customers who seek convenience and flexibility in their shopping journeys. The specific nature of skills and roles involved in omnichannel logistics is yet to be defined. There is a need to determine the requirements for this emerging industry and what qualifications and training pathways will be required. Industry Skills Australia will consult and engage with industry stakeholders in this process.

Transport contributes to around one fifth of Australia's total carbon emissions, with the majority coming from road transport. [75] With the national target of net zero by 2050, industry will need to make significant changes to help achieve this goal. This will include the application and adoption of a range of new technologies including battery electric and hydrogen fuel cell vehicles and equipment, and the transition to sustainable fuels. Transport and Logistics businesses are increasingly experiencing pressure from customers or suppliers, to demonstrate their scope 3 emissions and to have a sustainability or decarbonisation plan in place as part of their Environmental, Social and Governance (ESG) commitments.

There are a growing number of enterprises who are integrating zero emission vehicles into their operations, particularly in the passenger transport and last mile delivery sectors, however the use of these vehicles will expand as technology evolves, supporting infrastructure is built and confidence increases in the suitability of zero emission vehicles and alternative fuels for longer transport applications. Further analysis will seek to determine changing skill requirements required in the operation and maintenance of zero emission vehicles to ensure a safe and productive working environment. There will also be opportunities for collaboration with other Jobs and Skills Councils such as the Mining and Automotive Skills Alliance and Powering Skills Organisation, to ascertain areas where training development may be relevant across the sectors and to assist in the development of suitably qualified maintenance and first responder staff to support industry's transition to zero emission vehicles.

Technological advancements, the move towards decarbonisation and the emerging offshore wind industry is transforming port operations worldwide. Further analysis will be required to determine how these changes will affect workforce training and skill requirements. This should also include an assessment of the Certificates II, III and IV in Stevedoring qualifications to determine whether they are fit for purpose or require review to ensure they can respond to current and emerging skills needs.

Proposed actions include:

- **Omnichannel logistics and distribution – skills gap analysis**

Further areas for research and consultation to inform the development of future strategies include:

- **Transition to net zero**
- **Automated technologies**
- **Digital transformation**
- **Port Operations**

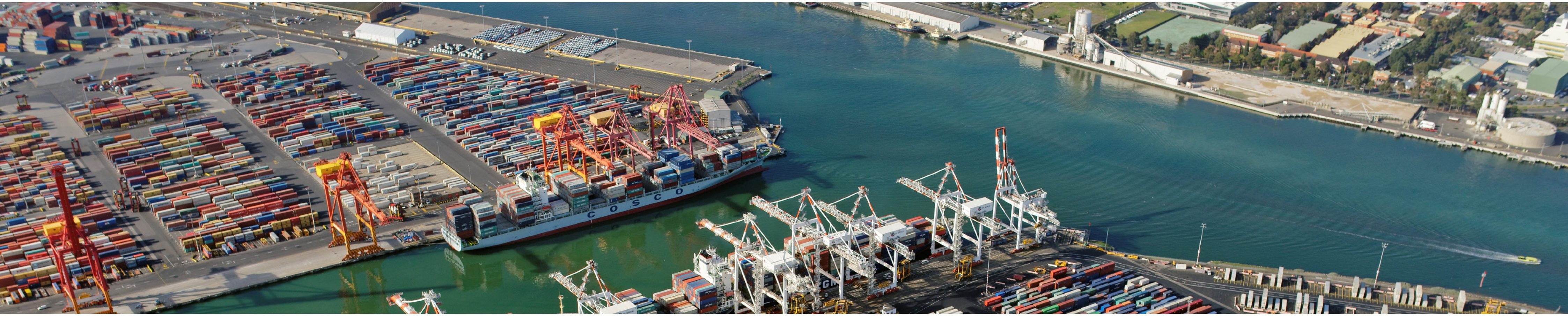
[75] The Clean Energy Generation: workforce needs for a net zero economy (2023)

Proposed Actions

The 2024 Workforce Plan identifies the following proposed actions developed in consultation with industry to address the sector-specific and cross-sector issues.

Table 2: Proposed Actions to Address Challenges and Drivers

Chain of Responsibility training updates		
Labour Market Dynamics	**Proposed Action/Strategy**	**Key Stakeholders**
Driver/Challenge • C. The Importance of Compliance – outdated Chain of Responsibility training products **Symptom** • Skills shortage	**Activity:** Ensure current heavy vehicle regulations relating to chain of responsibility are reflected in the TLI Transport and Logistics Training Package. **Components:** • update two chain of responsibility units as requested by the National Heavy Vehicle Regulator (NHVR) • support training providers in the implementation of revised training products **Impact:** Training products updated to align with current NHVR requirements. This project has commenced with reviewed training products due for submission to the Assurance Body in April 2024 – Chain of Responsibility Project. **Anticipated Timing:** September 2023 – June 2024	• National Heavy Vehicle Regulator (NHVR) • Industry peak bodies/ associations • T&L enterprises • Industry unions • SafeWork Australia



Omnichannel logistics and distribution – skills gap analysis		
Labour Market Dynamics	**Proposed Action/Strategy**	**Key Stakeholders**

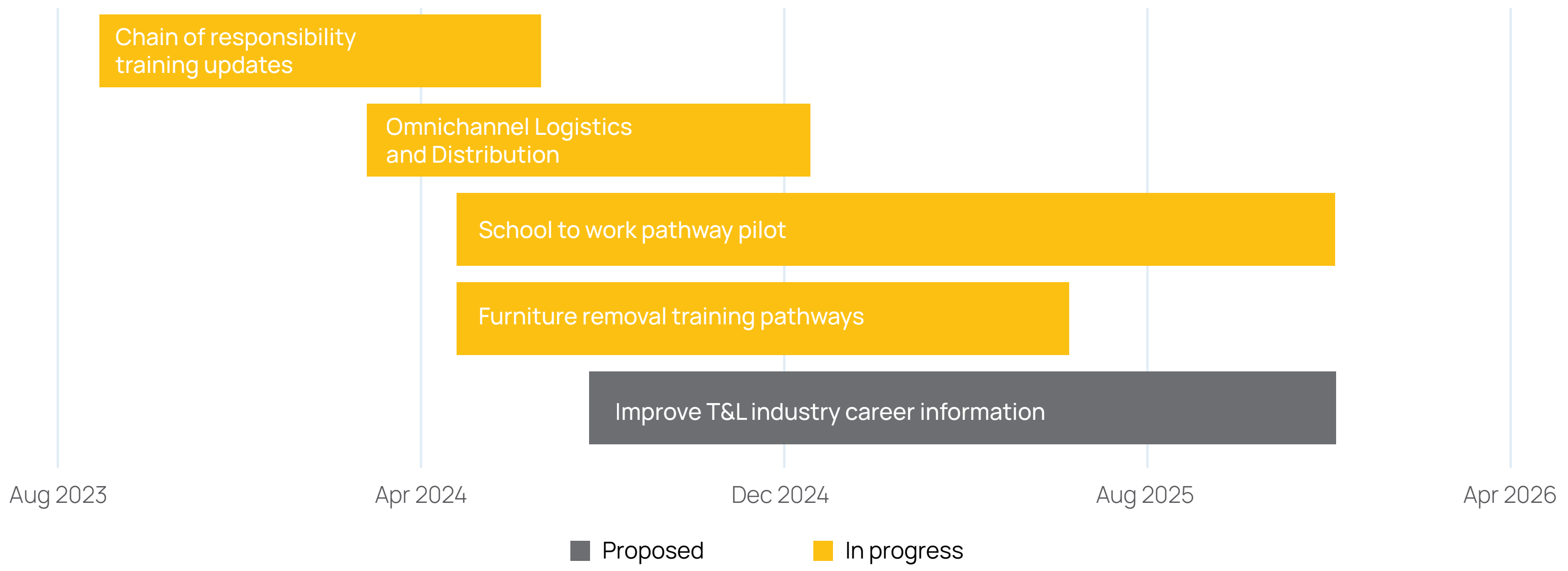
Driver/Challenge
• **E. Skills Gaps in Emerging Industries** – information required on the emerging skills needs for the omnichannel logistics industry.
Symptom
• Skills shortage
	Activity: Research, analysis and consultation to determine the emerging skills and training requirements for Omnichannel Logistics and Distribution
	Components:
	• work with the T&L Strategic Workforce Planning Committee and key stakeholders to determine the workforce needs for the omnichannel logistics sector.
	• analyse and investigate:
	  • the scope of Omnichannel Logistics and Distribution
	  • the skills and job roles required for Omnichannel Logistics and Distribution
	  • the role of the VET sector in supplying the required skills
	  • the possibility of developing training initiatives
	  • the possibility of promoting Omnichannel Logistics and Distribution foundational skills in schools.
	Impact: ISA seeks to determine the role of the vocational sector in supplying the skills and knowledge required for the growing Omnichannel Logistics and Distribution sector. This will inform our future workforce planning and where training product development may be required.
	Anticipated Timing: March 2024 to June 2024
		• T&L Strategic Workforce Planning Committee
		• Transport & logistics enterprises
		• Industry peak bodies/ associations
		• Industry unions
		• JSA
		• State and territory industry advisory bodies

School to work pathway pilot		
Labour Market Dynamics	**Proposed Action/Strategy**	**Key Stakeholders**
Driver/Challenge • **A. Attraction and Retention in the Transport and Logistics Sectors** - lack of young people entering the T&L industry to address ageing workforce and labour shortages. **Symptom** • Under attractive occupations	**Activity:** Pilot an attraction and training program for secondary schools to create a sustainable pathway to the T&L industry **Components:** • work with secondary schools and industry employers to provide support in setting up T&L pathways in schools. • consult with employers to identify appropriate qualifications for entry to industry • develop supporting training materials for VET in Schools delivery • develop career pathway resources for the schools to use • create careers in the T&L industry promotional resources for schools to use, including case studies and enterprise videos • cultivate connection between schools and industry employers for work experience, site visits, guest speaking opportunities and work placements. **Impact:** Increase in students studying T&L qualifications in a secondary school environment and subsequently taking up careers in T&L. Evidence for a sustainable model that can be rolled out nationally **Anticipated Timing:** May 2024 to December 2025	• Secondary schools • RTOs • T&L enterprises • Industry peak bodies/ associations • Industry unions • State and federal government training bodies • State and territory industry advisory bodies

Furniture removal training pathways		
Labour Market Dynamics	**Proposed Action/Strategy**	**Key Stakeholders**
Driver/Challenge • **D. Shortage of Trainers and Assessors** – limited availability of training providers who can deliver furniture removal specific training **Symptom** • Skills shortage	**Activity:** Increase access to training relevant to the furniture removal sector **Components:** • work with industry to determine units of competency that can be incorporated into existing T&L qualifications to provide improved access to training and flexibility for the furniture removal sector • consult furniture removal stakeholders to identify suitable units that deliver required skills • updating existing training products to include identified units • work with training providers to support delivery of specialised skills • leverage stakeholder network to promote availability of industry specific training **Impact:** Will provide a learning pathway for furniture removal workers to gain accredited qualifications with skills that are highly transferable across industry sectors. **Anticipated Timing:** May 2024 to June 2025	• Industry peak bodies/ associations • Furniture removal enterprises • RTOs State and territory industry advisory bodies

Improve T&L industry career information		
Labour Market Dynamics	**Proposed Action/Strategy**	**Key Stakeholders**
Driver/Challenge • **A. Attraction and Retention in the Transport and Logistics Sectors** – poor perception of industry and lack of awareness of career options **Symptom** • Under attractive occupations	**Activity:** Develop up to date and current resources to promote T&L career information. **Components:.** • work with the National Careers Institute to update T&L career information on the Your Career website to be an accurate and comprehensive resource for potential job seekers. • identifying relevant T&L occupations for update • providing support and information on career and training requirements for T&L occupations • facilitating connection to industry to develop case studies and video/image resources • use known communication channels to promote career information and resources **Impact:** Provide a central point of reference with current and relevant training and career pathway information for employment in the T&L sectors to improve attraction to industry. **Anticipated Timing:** August 2024 to December 2025	• National Careers Institute • T&L enterprises • Industry peak bodies/ associations • Industry unions • State and territory industry advisory bodies

Proposed Action Schedule



Future Research and Consultation

Additional engagement, research and consultation activity has been identified to assist in the development of future strategies or initiatives to inform the 2025 Workforce Plan. These focus areas cover the key themes associated with our challenges and drivers and are not an exhaustive list as industry may raise additional issues as we work with them in 2024.

A. Attraction and Retention in the Transport and Logistics Sectors

Pre-vocational training program development
Consult with industry to determine essential skills required for employment in the road transport and warehousing sectors. Develop a pre-vocational training program with skill sets delivering training in these core skills for direct entry in the T&L industry.

Transport management training
Consult with industry to identify key skills required for transport leadership and management roles. Analyse existing available training products to determine if training product development is required for the provision of consistent pathways.

Skilled migration
Advocate for the inclusion of T&L occupations experiencing shortages in the Skilled Occupation List. Identify options for industry to utilise skilled migration opportunities to address workforce shortages, including Labour Agreements, Designated Area Migration Agreements and other temporary or permanent skilled work visas options under the recently released Migration Strategy. Scope the potential for training product or program development to provide core skills and training to assist integration of overseas heavy vehicle drivers.

Increasing industry diversity
Identify barriers to T&L workforce participation for under-represented cohorts. Engage with industry and relevant support organisations to determine potential strategies to assist in connection to employment.

B. Heavy Vehicle Driver Shortages

Passenger transport driver training
Review the Certificate III in Driving Operations qualification to create a training pathway that is relevant for drivers of passenger transport vehicles and aligns with reforms to the Disability Standards for Accessible Public Transport 2002 (Transport Standards).

Heavy vehicle driver licensing
Coordinated approach to support proposed reforms outlined in the National Heavy Vehicle Driver Competency Framework (HVDCF) and identify where training product development or review may be required.

Skilling heavy vehicle drivers
Identify the core skills and knowledge required by employers for workers to be deemed job ready after gaining their licence. Supporting the continued establishment of the heavy vehicle driver apprenticeship.

High productivity vehicle upskilling program
Consult with regional enterprises and training providers to scope potential development of a pilot program aimed at delivering intensive training and licence testing to fill the gap in high productivity vehicle drivers in regional areas.

Job share pilot
Investigate opportunities to develop a job share pilot and skill gap training program to enable more workforce participation from underutilised cohorts.

C. The Importance of Compliance

Specialist compliance training development
Consult with industry and regulators to verify the skills and knowledge required for specific compliance tasks and develop specialist training to provide a nationally consistent learning pathway for compliance personnel engaged in T&L enterprises.

D. Shortages of Trainers and Assessors

VET Reforms
Ongoing engagement and support will be required to progress and implement priorities set out as part of the National Skills Reform agenda.

Improving regional training delivery
Engage with regional stakeholders to explore and develop strategies to address the limited access to T&L training in regional areas.

Livestock transport training development
Consult with relevant livestock transport stakeholders to determine the demand and skill requirements to inform the development of a skill set to enable a nationally consistent approach and improved access to training in animal handling techniques and the safe transport of livestock.

Qualification update – Motor Vehicle Driver Training
Update superseded units of competency in the Certificate IV in Motor Vehicle Driver Training to ensure the qualification is current and relevant to support training of heavy vehicle driving instructors.

E. Skills Gaps in Emerging Industries

Transition to net zero
Ongoing consultation with industry stakeholders to determine the skill requirements associated with the implementation and adoption of zero emission vehicles and technologies. This will also be informed by the development of the Transport and Infrastructure Net Zero Roadmap and Action Plan.

Automated technologies
Identify new or updated skill requirements for sectors implementing automated vehicles, systems or equipment.

Digital transformation
Ongoing monitoring of industry's current digital capabilities, areas which require upskilling and programs or initiatives that will assist in the digital transformation.

Port operations
Assess skill requirements for port operations including specialised training to respond to technological advancements and offshore wind projects.

Approach to Consultation

Transport and Logistics industries are characterised by extremely high numbers of industry stakeholders at a national and state level, each with different perspectives and priorities. The sectors are highly diverse, comprising businesses ranging from complex national and global companies through to a multitude of small one and two person businesses. Over 99% of enterprises within our coverage are small business.

Not all of these stakeholder groups will want to engage in the workforce planning process. As part of our user-centred approach, we will work with our stakeholder groups and individual stakeholders to determine the level of involvement they would like and to what degree. If and when a stakeholder's focus shifts, we will adjust our engagement with them accordingly.

A listing of key stakeholder groups with which we will engage, including industry bodies and government related entities, can be found at **Table 2**.

Table 3: Key Stakeholder Groups

STAKEHOLDER GROUPS	KEY STAKEHOLDER IDENTITY
INDUSTRY	• Enterprises • Industry peaks • Industry associations • Innovation sector • Unions • Occupational licensing/regulatory bodies • Professional bodies
INDIVIDUALS	• Existing workers • Apprentices/trainees • Learners • Job seekers
VET SYSTEM	• Registered Training Organisations • Individual VET practitioners • Jobs and Skills Councils • Industry Training Advisory Bodies (and equiv.) • VET regulators • Training Product Assurance Body
SCHOOLS SECTOR	• Secondary schools • Individual teachers • Secondary education authorities • Careers associations
HIGHER ED.	• Universities
GOVERNMENTS	• Dept. of Employment and Workplace Relations • Jobs and Skills Australia • National Careers Institute • NCVER • Dept. of Inf, Trans, Reg. Dev, Comms and the Arts • Regional Australia Institute • Regional Development Australia • State Training Authorities • National Transport Commission

Consultation and engagement with different groups of stakeholders will inform ongoing development of our Workforce Plans, including deepening our understanding of key workforce drivers and challenges, expanding our breadth and depth of data sources, filling evidence gaps, validating and providing context to workforce data, and developing effective actions/strategies to address workforce drivers and challenges.

The following key elements will form part of our consultation and engagement approach.

Industry Skills Australia Committees
ISA is establishing a range of mechanisms to provide input and advice into the Workforce Plans.

Strategic Workforce Planning Committees
The Strategic Workforce Planning Committees (SWPCs) are responsible for the development of the Workforce Plans, with a focus on identifying, forecasting and responding to workforce challenges, opportunities and emerging skills needs. They will shape and prioritise our actions through their Workforce Planning advice. The SWPCs comprise leaders from each major industry to ensure buy-in and leadership from across the industry (geographic, sector and business scale).

Our Strategic Workforce Planning Committee, comprising representatives of industry and unions, is a key mechanism for the collection and validation of industry intelligence, as well as strategy development.

Industry Advisory Council
ISA's Industry Advisory Council (IAC) will provide advice on leading trends from adjacent industries/client industries (e.g., online retail and its transformation of logistics). The IAC comprises of senior supply chain executives and industry leaders from a range of industries where supply chain effectiveness is core business or a key contributor to productivity.

It operates as a dynamic advisory mechanism to the Board and SWPCs by providing cutting-edge business intelligence and strategic insights from across the economy.

Industry Engagement
Broader industry stakeholder engagement will involve consulting with stakeholder groups in **Table 2**.

Commencing from the development of the Year 2 Workforce Plan that is due in April 2024, we will implement a full cycle of industry consultation as per **Figure 10** below.

JSC Engagement
ISA will engage and collaborate with the other Jobs and Skills Councils on shared workforce planning and skills development priorities. We will also consult and advise when ISA-led workforce planning strategies will impact on another JSC's scope of work, such as the usage of imported units and workforce development.

WORKFORCE PLAN CYCLE (2025)

Figure 10: Full Workforce Plan Development Cycle

PROCESS & INDICATIVE TIMING	DATA COLLECTION & DRAFTING Jun - Jul 2024	INITIAL CONSULTATION Aug – Sep 2024	DRAFTING & CONSULTATION Oct 2024 - Jan 2025	SIGN OFF, SUBMISSION & PUBLICATION Feb– Mar 2025	IMPLEMENTATION & MONITORING April 2025 onwards
KEY STEPS	• Consolidate intelligence gathered from implementation and monitoring • Undertake further research and consultation where required • Refresh & review baseline data, previous year's megatrends, and new qualitative reports • **Consolidate input from SWPC, other ISA committees and key stakeholders**	• Prepare Industry Skills Priorities Paper for initial stakeholder input • Confirm Industry Skills Priorities with SWPC and key stakeholders • **Consult with stakeholders on Industry Skills Priorities Paper** • Analyse and respond to feedback • Undertake further research/ consultation as required	• Prepare first draft of the Workforce Plan, including proposed actions • SWPC review draft, provide input and advice on proposed actions and priorities • **Release draft Workforce Plan on ISA website for public consultation** • Moderate, consolidate and analyse feedback • Update Workforce Plan based on feedback	• SWPC review, validate and sign off final Workforce Plan • Submit Workforce Plan to DEWR for formal approval • Prepare and submit proposed actions • Publish and promote Workforce Plan and activities/projects on ISA website	• Undertake promotion, build collaboration across stakeholders to deliver Workforce Plan priorities • Implement approved actions (activities/ projects) • Monitor and evaluate activity/project progress/outcomes • **Engage stakeholders to monitor the responsiveness of the national skills system**
WHO WE CONSULT	• Strategic Workforce Planning Committee • Industry • VET System • Schools Sector • Higher Education • Individuals	• Strategic Workforce Planning Committee • Governments • Industry	• Strategic Workforce Planning Committee • Governments • Industry • VET System • Schools Sector • Higher Education • Individuals	• Strategic Workforce Planning Committee • Governments	• Industry • VET System • Schools Sector • Higher Education • Governments
HOW WE CONSULT	• Meetings • Webinars • Emails • Surveys	• Internal meetings and input from SWPC • Internal meetings	• ISA website • Webinar • Email and social media	• ISA website • Webinar • Email and social media • Meetings • Conference presentations	• ISA website • Webinar • Surveys • Conference presentations • Meetings

Bold – key points of consultation with stakeholders

Existing Workforce Strategies and Initiatives

Our implementation of the research, consultation and activities outlined above will be informed by existing workforce strategies and initiatives. Where relevant, we will seek to align our work with, or contribute to, these strategies and initiatives, or to collaborate with those responsible for implementing them.

Below is a mapping of the workforce strategies and initiatives that we have identified as relevant to the T&L Industry and the key issues and evidence gaps outlined in this Workforce Plan. We will continue to add to this list as we consult further with industry.

MAPPING KEY:

A - Attraction and retention are still the number one issues for the T&L industry

B - Heavy Vehicle Driver shortages continue to create significant challenges for the road transport sector.

C - Compliance roles are becoming critical

D - Shortage of Trainers and Assessors

E - Data gaps

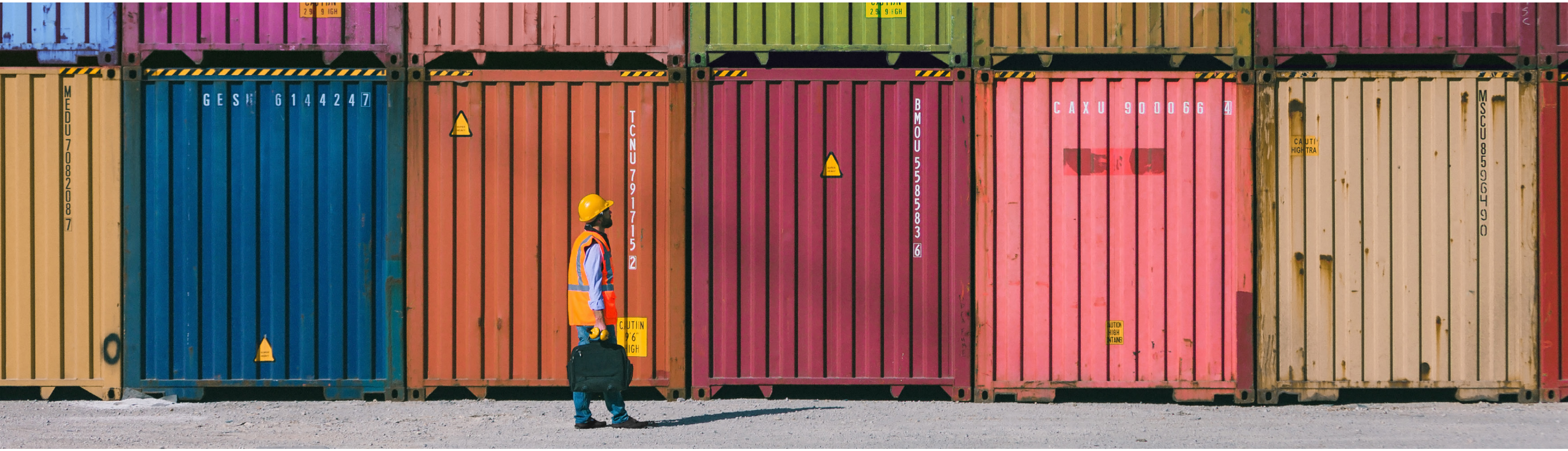
Title	Mapping	Description	How it will impact/inform the WFP
National Skills Agreement The Department of Employment and Workplace Relations	D, E Also addresses issues identified in Megatrends.	A 5-year joint national agreement to strengthen the VET sector and address critical skills and workforce shortages. Agreed national priorities are: • gender equality • Closing the Gap • supporting the Net Zero transformation • sustaining essential care services • developing Australia's sovereign capability and food security • ensuring Australia's digital and technology capability • delivering reforms to improve the regulation of VET qualifications and quality. An agreed National Skills Plan will be published in June 2024 and jurisdictional plans, including a Commonwealth plan, by November 2024. The VET Workforce Blueprint development will be finalised by early 2024. A 10-year foundational skills strategy will be agreed to by the end of 2024.	As part of the JSC stewardship model, ISA will provide support to achieve priorities set out in the National Skills Agreement. This will include: • Supporting measures to strengthen the VET workforce and implementation of the VET Workforce Blueprint • Engagement with the National TAFE Network • Supporting various workforce initiatives Improvements planned as part of the Enhanced VET Data and Evidence initiative will assist ISA with the provision of more up to date and comprehensive data used to inform project planning and reporting.

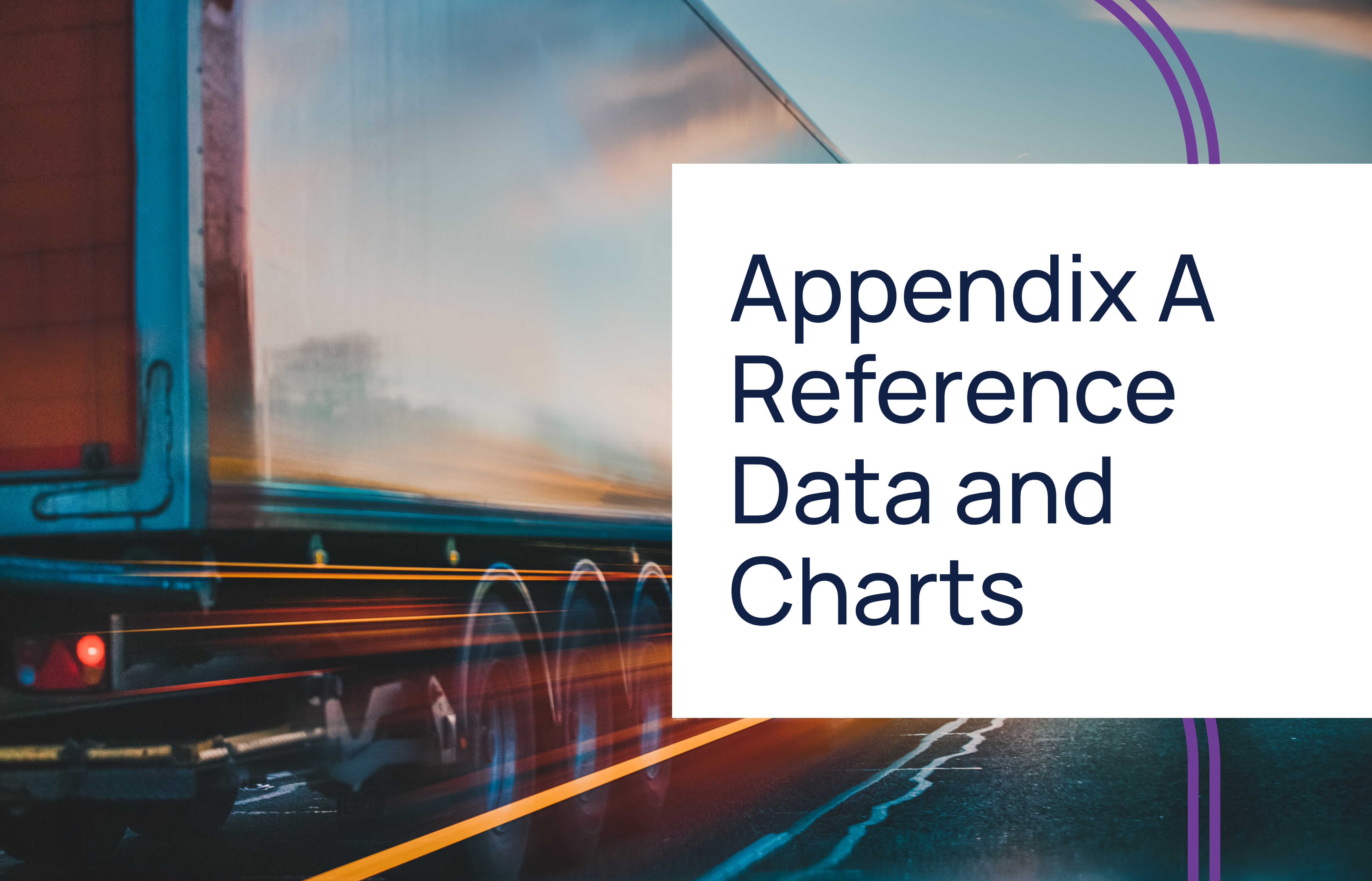
Heavy Vehicle Driving Apprenticeship Proposal Previous Transport and Logistics Industry Reference Committee / Australian Industry Standards (now ISA)	B	National initiative to lead the establishment of a Heavy Vehicle Driving apprenticeship aligned to the Certificate III in Driving Operations, in each state and territory. The initiative commenced in September 2021 and aims to build safety and overall professionalism of the heavy vehicle driver occupation.	Identify any updates required to the Certificate III in Driving Operations to reflect industry skills needs and ensure rigour and depth of knowledge required for apprenticeship qualification. Support required for the various state training authorities, employers, RTOs and other relevant stakeholders to implement the apprenticeship.
National Freight and Supply Chain Strategy The Department of Infrastructure, Transport, Regional Development, Communications and the Arts	A, B,C, D	A Federal government strategy developed to increase the productivity and efficiency of Australia's freight and supply chains. The Strategy commits to action in four critical areas: • smarter and targeted infrastructure • enable improved supply chain efficiency • better planning, coordination and regulation • better freight location and performance data The Strategy was first introduced in 2019 and a review was performed in mid-2023 with the Review report to be provided to infrastructure and transport ministers by the end of 2023. A refreshed Strategy is due for development in the first half of 2024. The Strategy provides an agenda for action across all the supply chain sectors to deliver nationally coordinated and well-planned freight systems.	The Strategy will assist in identifying workforce issues in the various supply chain sectors and potentially inform our future research. Key actions focussing on current and future workforce needs may provide opportunities for collaboration to achieve common goals. Key workforce actions highlighted in the Strategy include: • review the state of the freight sector workforce to identify current skills shortages and understand future long-term workforce needs and barriers, and options to address workforce challenges • work with the education and training sector to ensure that programs deliver future skills required by the freight sector • Work with industry to build diversity in the freight sector to address short-term and long-term workforce needs • Ensure that regulation delivers desired workforce outcomes

Towards a new Heavy Vehicle National Law (HVNL) National Transport Commission	B,C	A Federal government review of the Heavy Vehicle National Law aimed at simplifying the law and enhancing safety while delivering productivity and flexibility. The new legislation will – • give flexibility to operators wanting to innovate, and certainty for operators wanting simplicity. • adapt quickly to changing needs and take an outcomes-driven approach. • supports improvements to road network access systems and processes • simplify fatigue management providing clarity of obligations and fairness in enforcement • clarify primary duty and parties covered by the chain of responsibility The new law is currently under development and is expected to be presented to Ministers in late 2024.	Changes may need to be reflected in the Transport and Logistics Training Package.
Transport and Infrastructure Net Zero Roadmap and Action Plan The Department of Infrastructure, Transport, Regional Development, Communications and the Arts	A	The Federal Government will be developing a Transport and Infrastructure Net Zero Roadmap and Action Plan to support reducing transport emissions. The Roadmap and Action Plan will provide a clear strategy to: • reduce emissions across the transport and infrastructure sectors • support national and international commitments to reduce greenhouse gas emissions • maximise on economic and productivity opportunities • provide investors with future investment certainty • deliver a nationally consolidated approach to accelerate decarbonisation for key sectors. Public consultation to inform the development of the Roadmap and Action Plan, is due to take place in early 2024.	New skill requirements may emerge with the adoption of new transport technologies and to adhere to new policies. The Roadmap and Action Plan will provide a guide to assist in identifying where training updates may be required to support industry in the transition to battery electric and hydrogen fuel cell vehicles and equipment.
Clean Energy Capacity Study Jobs and Skills Australia	A, C	Jobs and Skills Australia have undertaken a capacity study on the workforce needs for Australia's transition to a clean energy economy. The Clean Energy Generation report was released on 3 October 2023 and provides an analysis of the existing and future needs of the clean energy workforce, training and education pathways, and opportunities to transform existing sectors through decarbonisation. The Report includes 50 recommendations which also apply to the Transport and Logistics sectors.	The Report provides guidance and recommendations for skills gaps analyses and areas for future training development to assist in ensuring workers are appropriately skilled for the transition to clean energy vehicles and equipment.

Automated Vehicle Program National Transport Commission	B, C	The Automated Vehicle Program is developing an end-to-end regulatory framework to enable the safe, commercial deployment of Automated Vehicles (AVs) to Australian roads. The aim of the framework is to: • make sure AVs will operate safely on the roads, and risks will be addressed, and • minimise unnecessary costs, barriers and burdens that are placed on industry, so that the Australian market is open to automated vehicle technology. The NTC, state and territory governments and the Australian Government have worked together since 2016 to develop a flexible and safety-focused regulatory framework. This includes the ongoing development of a new Commonwealth safety law; complementary reforms to state and territory laws relating to road rules; and identification of other areas of regulatory reform.	The Program is working towards enabling deployment of AVs to the Australian market. Once AVs are deployed, workforce impacts will need to be assessed (including identification of any new skills and training requirements) in accordance with the emerging market.
Review of the National Heavy Vehicle Driver Competency Framework Austroads	A, B, C	Austroads has undertaken a program of work to extensively review the National Heavy Vehicle Driver Competency Framework (NHVDCF). Four key areas of change are being proposed to the NHVDCF: • **Managing individual driver risk** - ensuring only drivers without serious driving offences are eligible to hold a heavy vehicle licence. • **Strengthening skill and knowledge** - making competency requirements specific to each licence class, setting minimum course length, and recognising the extra skill needed to drive the most complex vehicles. • **Embedding behind-the-wheel experience** - requiring minimum behind-the-wheel time pre-licence. • **Introducing experience-based progression options -** enabling those drivers who can demonstrate driving and work experience to progress to higher licence classes more rapidly. The recommendation for an updated framework was agreed to in-principle by Australia's Transport Ministers on 19 December 2023. Austroads will be leading a national program of work in conjunction with the states and territories to support harmonised implementation of the reforms, noting that this is expected take a number of years.	This will require ISA engagement with Austroads, industry stakeholders, government entities (regulators and training authorities) and training providers, to support the implementation of reforms outlined in the NHVDCF and identify changes that may be required to the Transport and Logistics Training Package.

VET Quality Reforms Department of Employment and Workplace Relations (DEWR)	D	DEWR is developing a VET Workforce Blueprint to support and grow a quality VET workforce as part of the National Skills Reform agenda. The Blueprint will identify effective strategies for: • growing and diversifying the VET workforce • attracting a high-quality VET workforce • identifying effective retention strategies • capability and career development • succession planning A Steering Group has been established to provide strategic guidance and oversight to inform the development of the Blueprint. Additionally, DEWR is developing revised standards for RTOs to strengthen the focus on quality outcomes for learners and employers and allow for more flexibility and innovation in training delivery. Skills Ministers have agreed to progress some changes to the Standards ahead of the broader implementation date of January 2025. The approved early changes are anticipated to commence in March 2024.	Strategies identified in the Blueprint and revised RTO Standards will assist ISA in supporting industry through improved training delivery and capability.

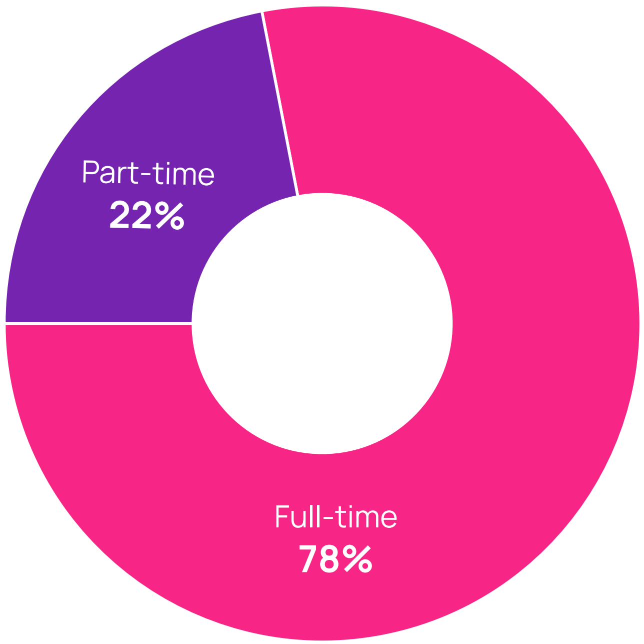




Appendix A Reference Data and Charts

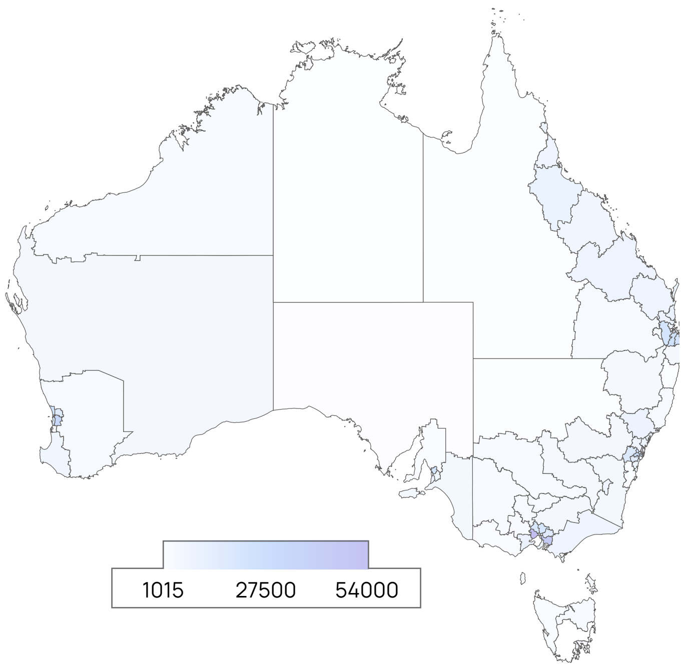
Employment and Distribution

Figure 11: Employment Status 2023



Source: ABS Labour Force Survey

Table 4: Distribution and Growth of Transport and Logistics Workers by Residence



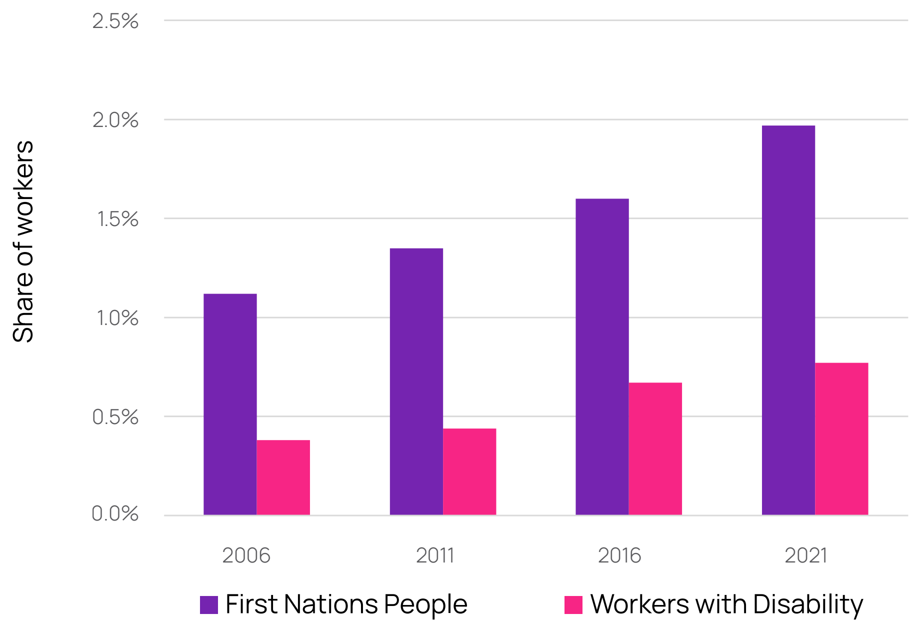
Source: JSA, NERO 2023

Residence	% of workers (2021)	Growth (since 2016)
Major City	64.7%	16.0%
Regional	26.3%	17.4%
Remote	3.7%	8.0%
Transitory[1]	5.3%	18.8%

Source: ABS Census, 2016 and 2021

Occupational Demographics

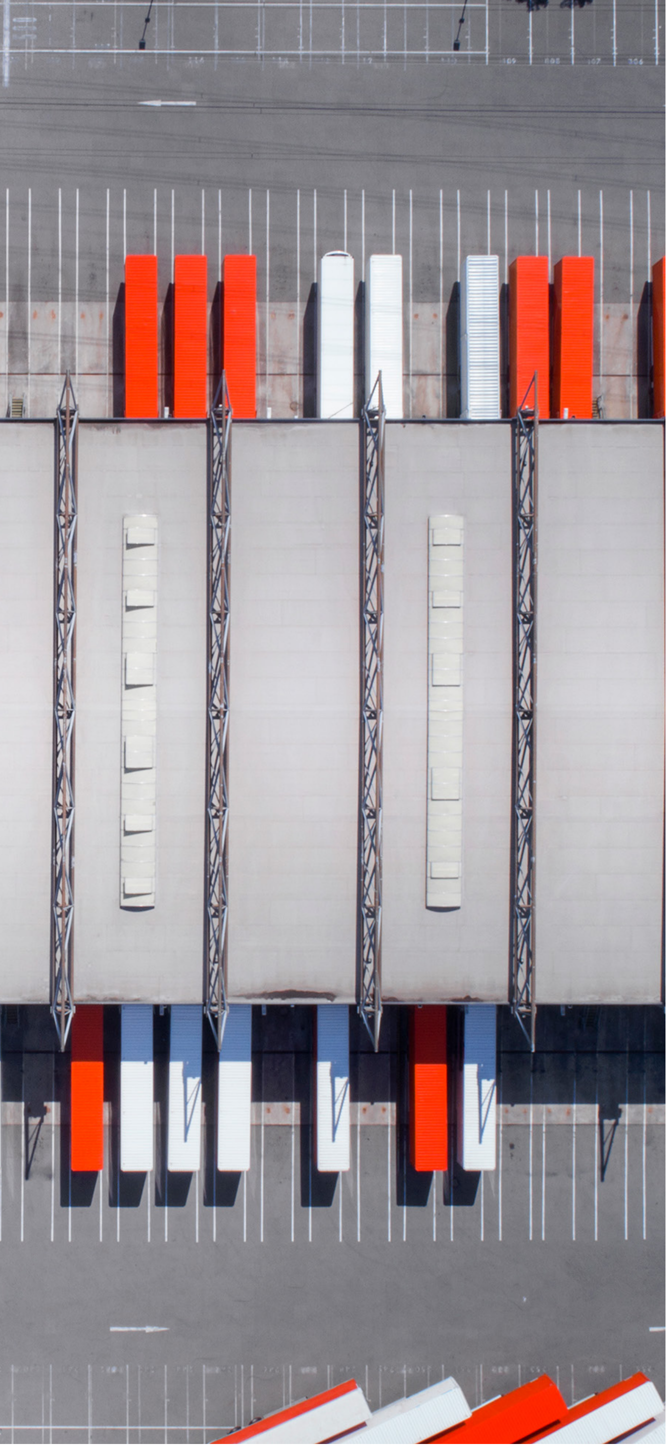
Figure 12: First Nations People and Workers With Disability, 2006 - 2021



Source: ABS Census 2006 to 2021

IN 2021, FIRST NATIONS INDIVIDUALS AND WORKERS WITH DISABILITIES COMPRISED

1.97% AND **0.77%** OF WORKERS



Occupational Demand

Table 5: Top Employing T&L Occupations, Growth and Demand

Occupation	2006	2011	2016	2021	Ave. Growth[76]	Future demand*
Truck Driver (General)	120924	135287	137148	148284	1.37%	Below average
Storeperson	96843	102456	108191	134598	2.22%	Average demand
Delivery Driver	31664	32995	40892	69982	5.43%	Average demand
Forklift Driver	39308	44258	48898	55980	2.39%	Average demand
Bus Driver	20212	25221	32906	34190	3.57%	Below average
Supply and Distribution Manager	23159	27663	24405	30040	1.75%	Average demand
Despatching and Receiving Clerk	18449	22528	22461	25809	2.26%	Average demand
Automobile Drivers nec	1174	1469	6947	20061	20.83%	Below average
Warehouse Administrator	12912	14904	16619	19834	2.90%	Average demand
Stock Clerk	15256	15459	17314	19269	1.57%	Average demand
Purchasing Officer	13479	16777	14542	15731	1.04%	Average demand
Order Clerk		15615	13313	14144	-0.98%	Average demand
Taxi Driver	24435	26318	27136	13767	-3.75%	Below average
Transport Company Manager	11352	10841	11591	11149	-0.12%	Average demand
Crane, Hoist or Lift Operator	8393	10277	10071	10702	1.63%	Average demand
Procurement Manager			7239	9855	6.36%	Average demand
Furniture Removalist	4904	5256	5186	5783	1.11%	Below average
Import-Export Clerk	5427	5643	4936	5001	-0.54%	Average demand
Driving Instructor	3377	4409	4939	4733	2.28%	Average demand
Production Clerk	4961	4233	4338	4360	-0.86%	Average demand
Tanker Driver	2121	2703	2820	3744	3.86%	Below average
Fleet Manager	1702	2427	2956	3247	4.40%	Average demand
Importer or Exporter	4557	3928	3696	3046	-2.65%	Average demand
Tow Truck Driver	1342	1796	2207	2578	4.45%	Below average
Chauffeur	1915	2560	3698	1818	-0.35%	Below average
Passenger Coach Driver	1447	1361	2262	1734	1.21%	Below average
Charter and Tour Bus Driver	6159	6926	2070	1509	-8.95%	Below average
Supply Chain Analyst ⁂						Above average

Sources: ABS Census, Skills Priority List (20 December 2023)

[76] Compound Annual Growth Rate (CAGR) has been employed to estimate the average annual growth in employment over intercensal periods

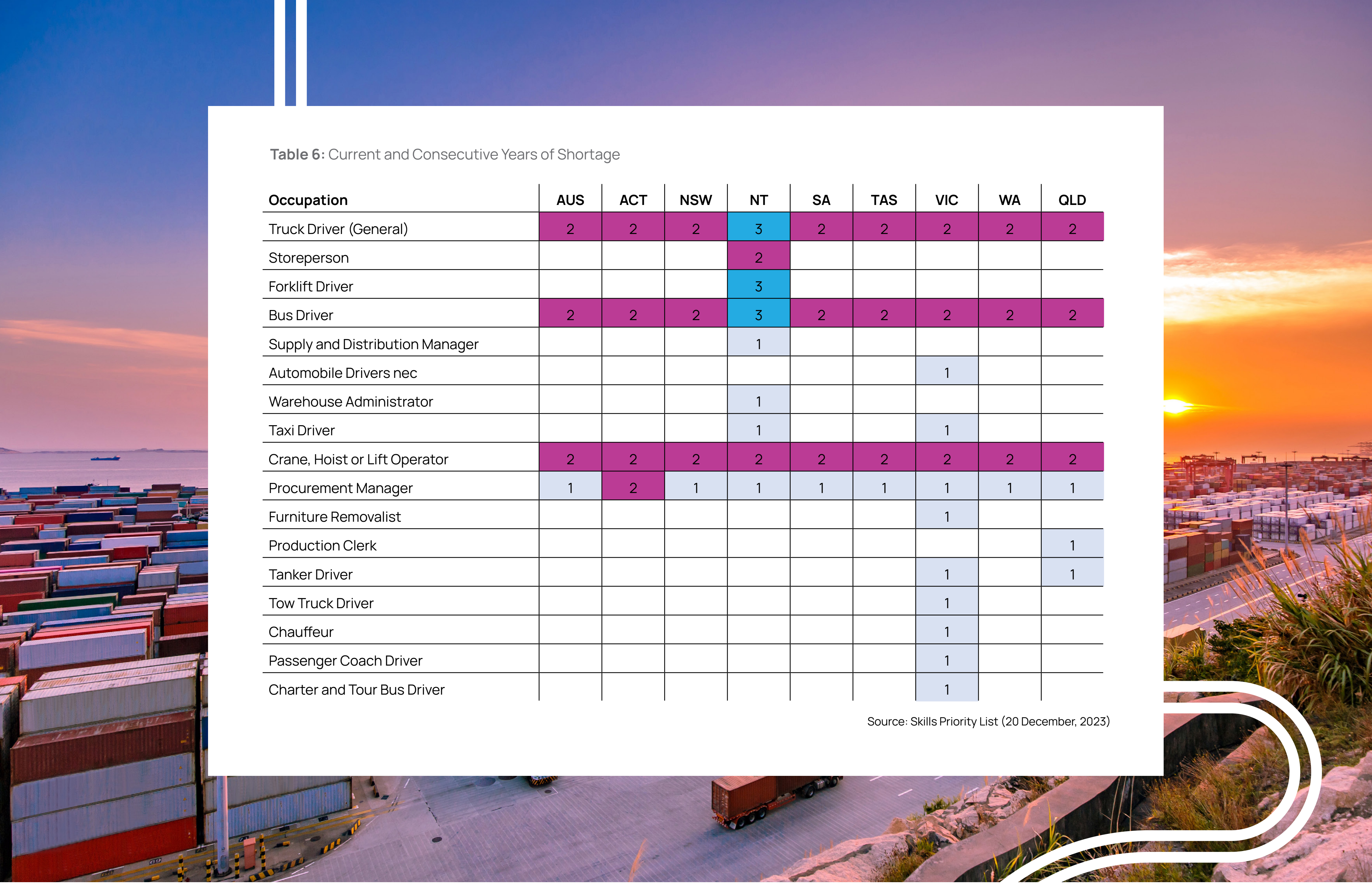


Table 6: Current and Consecutive Years of Shortage

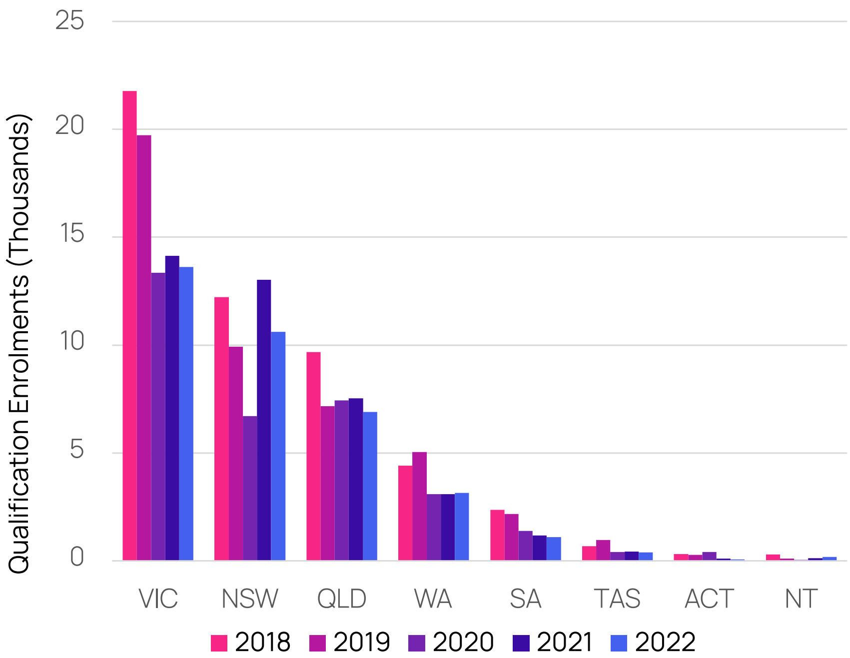
Occupation	AUS	ACT	NSW	NT	SA	TAS	VIC	WA	QLD
Truck Driver (General)	2	2	2	3	2	2	2	2	2
Storeperson				2					
Forklift Driver				3					
Bus Driver	2	2	2	3	2	2	2	2	2
Supply and Distribution Manager				1					
Automobile Drivers nec							1		
Warehouse Administrator				1					
Taxi Driver				1			1		
Crane, Hoist or Lift Operator	2	2	2	2	2	2	2	2	2
Procurement Manager	1	2	1	1	1	1	1	1	1
Furniture Removalist							1		
Production Clerk									1
Tanker Driver							1		1
Tow Truck Driver							1		
Chauffeur							1		
Passenger Coach Driver							1		
Charter and Tour Bus Driver							1		

Source: Skills Priority List (20 December, 2023)

Training

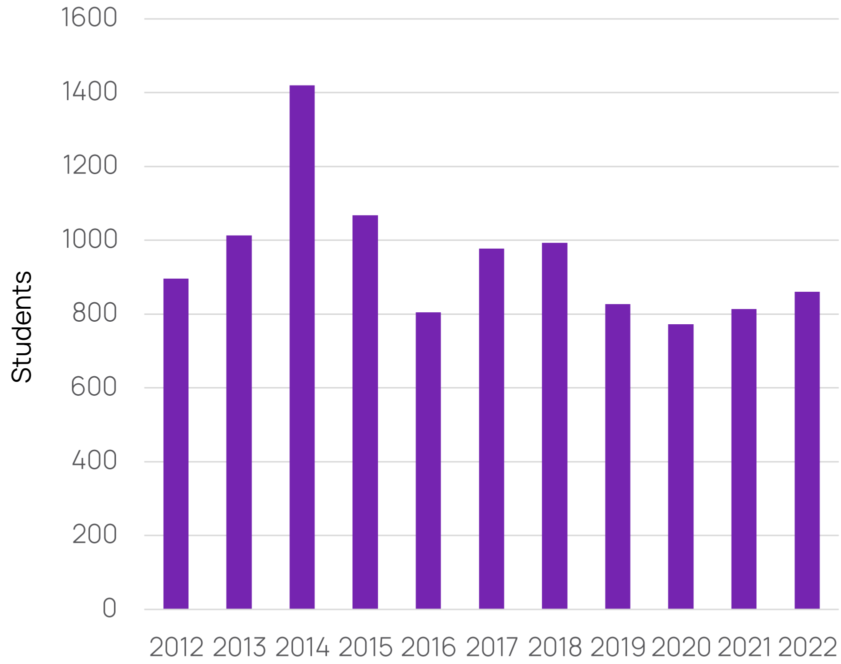
Please refer to 'Training system data' for a list of relevant VET and university qualifications associated with the charts.

Figure 13: Commencing Transport and Logistics Qualification Enrolments, 2018 – 2022



Source: NCVER Total VET Activity

Figure 14: Transport and Logistics VETiS Students, 2012 - 2022



Source: NCVER VET in Schools

ONLY NSW AND NT HAVE REGAINED THEIR

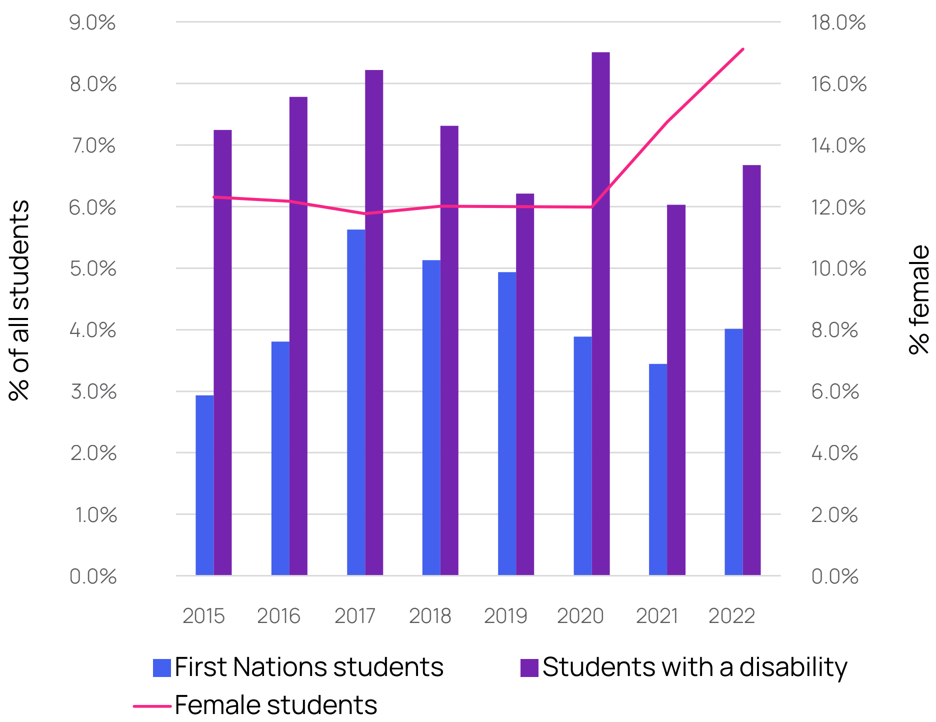
PRE-PANDEMIC ENROLMENT LEVELS

VETIS STUDENT ENROLMENTS HAVE

INCREASED BY 11.2%

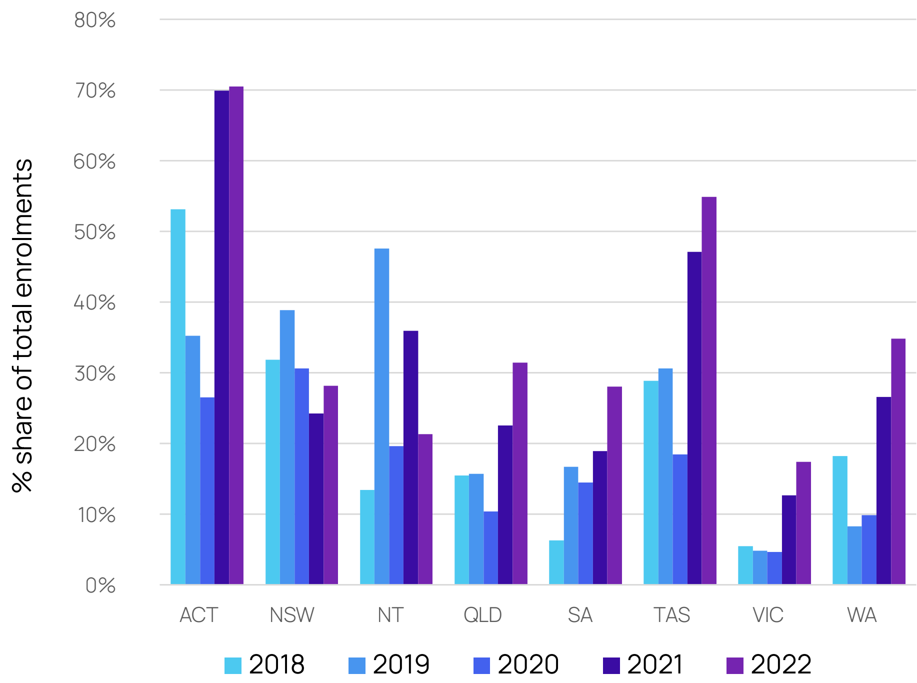
SINCE COVID

Figure 15: Share of Qualification Enrolments by Diversity Measures



Source: NCVER Total VET Activity

Figure 16: Apprenticeships/Traineeships Share of Total Enrolments

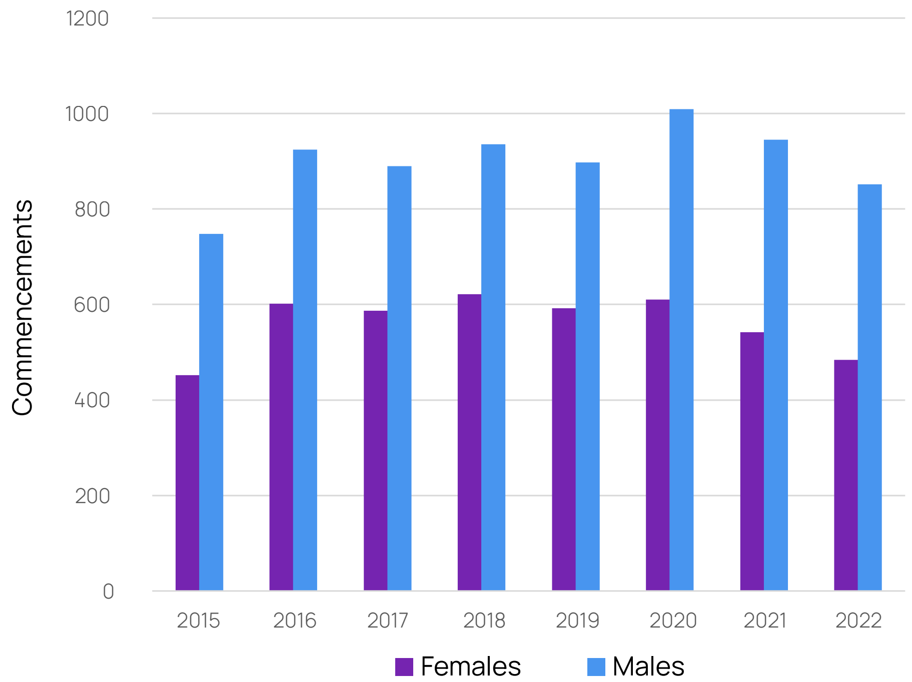


Source: NCVER Total VET Activity

THE SHARE OF **FEMALE STUDENTS** HAS INCREASED BY ABOUT 43% SINCE 2020, HAVING BEEN CONSTANT SINCE 2015. **FIRST NATIONS STUDENT** NUMBERS STEADILY DECREASED FROM A 2017 PEAK UNTIL THE DECLINE WAS HALTED IN 2022. A SIMILAR PEAK AND DECLINE CAN BE SEEN FOR **STUDENTS WITH A DISABILITY**

TLI APPRENTICESHIPS/TRAINEESHIPS ARE NOTABLY WELL-SUPPORTED IN THE ACT, REACHING UP TO **70% OF ALL ENROLMENTS**

Figure 17: Commencements in Transport-Related University Qualifications by Gender



Source: Australian Government Department of Education

WHILE BOTH MALE AND FEMALE STUDENTS COMMENCEMENTS HAVE DECLINED SINCE 2020, THE SHARE OF FEMALES HAS FALLEN FASTER, FROM

39.9% IN 2018 TO **36.2%** IN 2022

Training System Data

Qualification Enrolments[77]

Qualification	2018	2019	2020	2021	2022
TLI11321 Certificate I in Supply Chain Operations	133	107	59	110	33
TLI20221 Certificate II in Road Transport Terminal Operations	0	0	0	0	0
TLI20321 Certificate II in Stevedoring	135	38	16	2	0
TLI20421 Certificate II in Supply Chain Operations	5352	4880	3383	3784	3384
TLI21221 Certificate II in Driving Operations	761	947	476	42	17
TLI22421 Certificate II in Furniture Removal	78	3	0	0	0
TLI30122 Certificate III in Mobile Crane Operations	1593	1553	753	566	814
TLI30219 Certificate III in Stevedoring	148	103	0	18	0
TLI30321 Certificate III in Supply Chain Operations	23905	18245	12645	13269	12935
TLI31222 Certificate III in Driving Operations	14723	14435	12968	18325	15975
TLI31321 Certificate III in International Freight Forwarding (Operator)	97	73	41	192	246
TLI33321 Certificate III in Furniture Removal	15	27	4	0	0
TLI40122 Certificate IV in Specialist Driving Operations	699	732	288	147	132
TLI40221 Certificate IV in International Freight Forwarding (Senior Operator)	17	11	7	18	23
TLI40321 Certificate IV in Supply Chain Operations	2408	885	375	554	315
TLI40421 Certificate IV in Stevedoring Operations	0	0	0	0	0
TLI40521 Certificate IV in Traffic Control Room Operations	0	9	40	35	17
TLI40722 Certificate IV in Mobile Crane Operations	191	1267	91	172	167
TLI41222 Certificate IV in Motor Vehicle Driver Training	754	939	1025	1206	1129
TLI41522 Certificate IV in Materiel Logistics	0	0	10	0	0
TLI50119 Diploma of International Freight Forwarding	41	47	38	13	19
TLI50221 Diploma of Logistics	759	1027	525	997	641
TLI50422 Diploma of Materiel Logistics	0	0	0	0	0
TLI50716 Diploma of Bus and Coach Operations	0	0	2	0	0
TLI50822 Diploma of Customs Broking	178	195	151	209	185
TLI60122 Advanced Diploma of Materiel Logistics	0	5	0	0	0
TLI60222 Advanced Diploma of Supply Chain Management	132	128	2	104	180
Grand Total	**52119**	**45656**	**32899**	**39763**	**36212**

Note: enrolment numbers include all versions of the qualification across the years they were available
(e.g. TLI20221 Certificate II in Road Transport Terminal Operations includes enrolments for TLI21710 and TLI21716.)

[77] NCVER VOCSTATS ‹https://www.ncver.edu.au/research-and-statistics/vocstats›, extracted on December 2023

Qualification Completions[78]

Qualification	2018	2019	2020	2021	2022
TLI11321 Certificate I in Supply Chain Operations	544	27	27	32	20
TLI20221 Certificate II in Road Transport Terminal Operations	0	0	0	0	0
TLI20321 Certificate II in Stevedoring	0	0	10	1	0
TLI20421 Certificate II in Supply Chain Operations	1581	1482	1368	1480	1278
TLI21221 Certificate II in Driving Operations	611	815	407	12	0
TLI22421 Certificate II in Furniture Removal	4	0	0	0	0
TLI30122 Certificate III in Mobile Crane Operations	45	13	0	0	0
TLI30219 Certificate III in Stevedoring	9	16	0	16	0
TLI30321 Certificate III in Supply Chain Operations	6879	5393	4238	2962	2064
TLI31222 Certificate III in Driving Operations	3277	2862	2269	1842	1172
TLI31321 Certificate III in International Freight Forwarding (Operator)	35	60	51	43	39
TLI33321 Certificate III in Furniture Removal	10	17	0	0	0
TLI40122 Certificate IV in Specialist Driving Operations	195	0	0	5	0
TLI40221 Certificate IV in International Freight Forwarding (Senior Operator)	14	10	3	0	23
TLI40321 Certificate IV in Supply Chain Operations	1237	372	297	248	243
TLI40421 Certificate IV in Stevedoring Operations	0	0	0	0	0
TLI40521 Certificate IV in Traffic Control Room Operations	2	14	22	13	36
TLI40722 Certificate IV in Mobile Crane Operations	59	0	0	0	0
TLI41222 Certificate IV in Motor Vehicle Driver Training	688	846	899	1018	1071
TLI41522 Certificate IV in Materiel Logistics	0	0	7	0	0
TLI50119 Diploma of International Freight Forwarding	20	14	10	2	0
TLI50221 Diploma of Logistics	324	324	302	181	304
TLI50422 Diploma of Materiel Logistics	0	0	0	0	0
TLI50716 Diploma of Bus and Coach Operations	0	0	0	1	0
TLI50822 Diploma of Customs Broking	75	38	33	52	17
TLI60122 Advanced Diploma of Materiel Logistics	0	5	0	0	0
TLI60222 Advanced Diploma of Supply Chain Management	50	61	51	54	47
Grand Total	**15659**	**12369**	**9994**	**7962**	**6314**

78 NCVER VOCSTATS ‹https://www.ncver.edu.au/research-and-statistics/vocstats›, extracted on December 2023

Number of RTOs scoped to deliver Transport and Logistics Qualifications[79]

Qualification	RTO count
TLI11321 Certificate I in Supply Chain Operations	6
TLI20221 Certificate II in Road Transport Terminal Operations	1
TLI20321 Certificate II in Stevedoring	1
TLI20421 Certificate II in Supply Chain Operations	45
TLI21221 Certificate II in Driving Operations	7
TLI22421 Certificate II in Furniture Removal	1
TLI30122 Certificate III in Mobile Crane Operations	6
TLI30219 Certificate III in Stevedoring	5
TLI30321 Certificate III in Supply Chain Operations	138
TLI31222 Certificate III in Driving Operations	67
TLI31321 Certificate III in International Freight Forwarding (Operator)	2
TLI33321 Certificate III in Furniture Removal	1
TLI40122 Certificate IV in Specialist Driving Operations	2
TLI40221 Certificate IV in International Freight Forwarding (Senior Operator)	3
TLI40321 Certificate IV in Supply Chain Operations	27
TLI40421 Certificate IV in Stevedoring Operations	3
TLI40521 Certificate IV in Traffic Control Room Operations	2
TLI40722 Certificate IV in Mobile Crane Operations	8
TLI41522 Certificate IV in Materiel Logistics	2
TLI50119 Diploma of International Freight Forwarding	2
TLI50221 Diploma of Logistics	27
TLI50422 Diploma of Materiel Logistics	2
TLI50716 Diploma of Bus and Coach Operations	1
TLI50822 Diploma of Customs Broking	3
TLI60122 Advanced Diploma of Materiel Logistics	1
TLI60222 Advanced Diploma of Supply Chain Management	4

79 Training.gov.au (as at 20 December 2023)

Transport-related university qualifications[80]

Qualification Type	Course Name
Associate Degree	Logistics
Bachelor	Business (Logistics and Supply Chain Management) (Applied)
Bachelor	Business (Logistics and Supply Chain Management)
Bachelor	Business (Logistics and Supply Chain Management) (BachelorIBusiness (Logistics & Supply Chain Management))
Bachelor	Business (Logistics And Supply Chain Management)
Bachelor	Business (Logistics And Supply Chain Management) (Masters Pathway)
Bachelor	Business (Logistics And Supply Chain Management) (Masters Pathway
Bachelor	Business (Logistics And Supply Chain Management) (Masters Pathway Management Business Analytics)
Bachelor	Business (Supply Chain Management)
Bachelor	Business Administration (Logistics & Supply Chain Management)
Bachelor	Business MajoringlSupply Chain Management
Bachelor	International Logistics (Freight Forwarding)
Graduate Certificate	Business Information and Logistics Management)
Graduate Certificate	Business Management (Supply Chain Management)
Graduate Certificate	Emerging Technologies For Supply Chain
Graduate Certificate	Global Logistics And Supply Chain Management
Graduate Certificate	Logistics And Supply Chain Management
Graduate Certificate	Logistics Management
Graduate Diploma	Management (Integrated Supply Chain Management)
Graduate Certificate	Operations And Supply Chain Management
Graduate Certificate	Public Transport
Graduate Certificate	Supply Chain and Logistics Management
Graduate Certificate	Supply Chain Innovation
Graduate Certificate	Supply Chain Management
Graduate Certificate	Supply Network Management
Graduate Certificate	Supply Chain & Logistics Management
Graduate Certificate	Sustainable Supply Chain Management
Graduate Certificate	Transport Management
Graduate Certificate	Transport Safety Investigation
Master	Engineering (Transport Technologies)
Master	Business (32) (Supply Chain Management)
Master	Business (Erps)/MasterISupply Chain Management
Master	Business (Supply Chain & Logistics)
Master	Business Administration (Logistics & Supply Chain Management)
Master	Business Administration (Supply Chain Management
Master	Business Administration (Supply Chain Management)
Master	Business Information and Logistics Management) - Coursework
Master	BusinessI(Supply Chain & Logistics)
Master	BusinessIOperations And Supply Chain Management Extended
Master	Engineering (Civil And Transport)
Master	Engineering (Transport Systems Engineering)
Master	Engineering(Transport)
Master	Information Systems/MasterISupply Chain Management
Master	Information Systems/MasterISupply Network Management
Master	Logistics Management
Master	Logistics Management (Advanced)
Master	Management (Supply Chain And Logistics)
Master	Management (Supply Chain Management)
Master	Marketing/MasterISupply Chain Management
Master	Marketing/MasterISupply Network Management
Master	Science (Logistics And Supply Chain Management)
Master	Science (Logistics)
Master	Strategic Supply Chain Management
Master	Strategic Supply Chain Management (Extension)
Master	Supply Chain & Log Management
Master	Supply Chain & Log Management (MasterISupply Chain & Logistics Man)
Master	Supply Chain Innovation (Advanced)
Master	Supply Chain Management (Professional)
Master	Supply Chain Management
Master	Transport
Master	Transport And Traffic
Master	Transportation Systems
Doctor	Philosophy (Supply Chain & Logistics)
Doctor	Philosophy (Transport Engineering)

80 Australian Government Department of Education

Transport and Logistics Occupational Areas

Industry Skills Australia acknowledges that the ANZSCO codes used by the VET system to identify occupations in the Transport and Logistics industry do not always correspond with the way in which the industry describes itself. The table below describes job roles in terms that industry will recognise. We have developed this framework as a starting point to assist in conversations with industry stakeholders and will further refine it over time in collaboration with the Strategic Workforce Planning Committees. Job roles that have no clear ANZSCO alignment are identified with a dash, '-'.

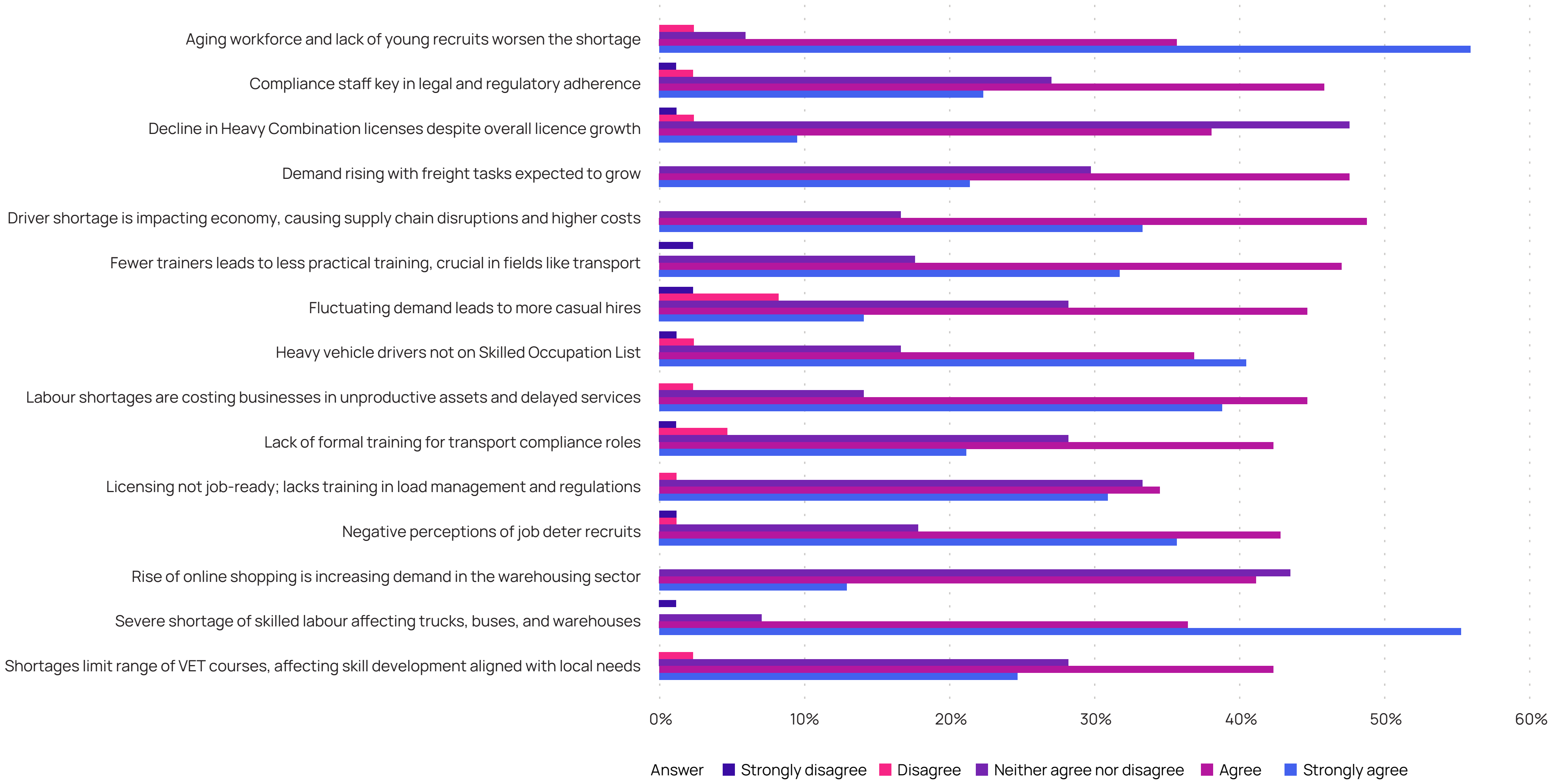
Occupational Area	ANZSCO Occupation Titles	Job Roles
1. Road Transport	133611 Supply and Distribution Manager, 149411 Fleet Manager	Fleet Manager, Operations Manager, Passenger Service Delivery Manager, Service Delivery Manager
	741111 Storeperson, 891111 Freight Handler (Rail or Road), 721311 Forklift Driver	Storeperson, Freight Handler, Intermodal Terminal Worker, Pick Packer, Receival and Despatch Worker, Specialised Cargo Handler, Trade Assistant, Administration Assistant, Equipment Operator, Loader, Load/Unload Supervisor, Pick Packer, Reach Truck/Forklift Driver, Warehouse General Hand, Warehouse Operator, Warehouse Supervisor, Yard Person, Yard Supervisor
	733111 Truck Driver (General), 731111 Chauffeur, 731112 Taxi Driver, 731199 Automobile Drivers nec, 731211 Bus Driver, 731212 Charter and Tour Bus Driver, 731213 Passenger Coach Driver, 732111 Delivery Driver, 733115 Tow Truck Driver, 891112 Truck Driver's Offsider, 899923 Road Traffic Controller, 733114 Tanker Driver, 561211 Courier, 561212 Postal Delivery Officer	Bitumen Tanker Driver, Chemical Tanker Driver, Fuel Tanker Driver, Heavy Vehicle Recovery Driver, Liquid Petroleum Gas (LPG) Tanker Driver, Transport Supervisor, Bus Driver, Coach Driver, Commercial Driver, Concrete Agitator Driver, Courier Driver, Light Rigid Driver, Line Haul Driver, Pickup and Delivery Driver, Pilot Vehicle, Driver, Ride Share Driver, Taxi Driver, Tip Truck Driver, Tow Truck Driver, Waste Vehicle Driver, Mail Carrier, Livestock Transporter, Coach Captain, Logging Truck Driver, Heavy Recovery Tow Truck Driver, Waste Collector, Waste Removalist, Drivers' Assistant
	451211 Driving Instructor	Car Driving Trainer, Heavy Vehicle Driving Trainer, Motorcycle Rider Trainer
	599914 Radio Despatcher	Open Road Operator, Tunnel Road Operator
	733113 Furniture Removalist	Furniture Removalist, Team Leader

Occupational Area	ANZSCO Occupation Titles	Job Roles
2. Logistics	591116 Warehouse Administrator, 591211 Despatching and Receiving Clerk, 591115 Stock Clerk, 591117 Order Clerk, 591113 Purchasing Officer, 591112 Production Clerk, 561411 Mail Clerk, 561412 Postal Sorting Officer, 224714 Supply Chain Analyst	Despatch Clerk/Officer, Despatch Supervisor, Distribution Centre Supervisor, Inventory Clerk, Inventory Controller, Logistics Assistant, Logistics Coordinator/Supervisor, Logistics General Hand, Logistics Operator, Receiving Clerk, Receiving Supervisor, Supply Chain Administration Officer, Supply Chain Administration Operator, Team Leader, Transport Allocator, Transport Clerk, Logistics Officer, Procurement Officer, Transport Scheduler, Integrated Logistics Support Officer, Inventory Controllers, Product Support Officer, Purchasing/Commercial Officer, Supply Chain Officer, Supply Chain Analyst, Support Systems Officer, Technical Logistics Officer, Mail Clerk, Postal Sorting Officer
	133611 Supply and Distribution Manager, 133612 Procurement Manager, 149413 Transport Company Manager	Commercial Manager, Fleet Manager, Integrated Logistics Support Manager, Logistics Engineer Or Ram Engineer, Materiel Logistics Director, Materiel Logistics Executive Manager, Materiel Logistics Program Manager, Materiel Logistics Senior Manager, Materiel Sustainment Manager, Product Support Manager, Supply Chain Manager, Support Systems Manager, Technical Logistics Manager, Facility Manager, Supply Chain Executive Manager, Supply Chain Program Manager, Supply Chain Senior Manager, Logistics Manager
	712111 Crane, Hoist or Lift Operator	Mobile Crane Leading Hand, Mobile Crane Operator, Mobile Crane Supervisor, Dogger
	591212 Import-Export Clerk, 133311 Importer or Exporter	Licenced Customs Broker, Importer or Exporter, Freight Forwarder
3. Stevedoring	891111 Freight Handler (Rail or Road), 712111 Crane, Hoist or Lift Operator	Crane Operator, Equipment Controller, Equipment Operator
	891113 Waterside Worker	Stevedore, Stevedore Shift Manager, Stevedore Supervisor, Stevedore Team Leader

Stakeholder Survey Summary

The stakeholder survey was conducted between December 2023 to January 2024 and was designed to test the identified challenges and drivers and to capture proposed strategies from industry. There were 86 transport and logistics industry respondents, with the highest number of participants coming from New South Wales and Western Australia.

Stakeholder Consensus on Workforce Issues



Impact on organisations

Survey participants were queried about the impact of the identified drivers and challenges on their organisations. The following presents a summary of these key insights.

A. Attraction and Retention: Difficulty attracting younger workers and retaining experienced staff due to competitive industries and the industry's negative perception.

B. Heavy Vehicle Driver Shortages Concerns: Service cancellations and operational constraints due to insufficient qualified drivers, leading to higher operational costs.

C. Growing Importance of Compliance Concerns: Increased training demands and regulatory complexities deterring potential recruits and adding to operational burdens.

D. Shortage of Trainers and Assessors Concerns: Shortages of qualified trainers and assessors hinder the timely training and upskilling of staff, affecting service quality and compliance.

Proposed solutions

Respondents were asked for recommended solutions to tackle the identified drivers and challenges. Below is a summarised overview of these recommendations.

A. Attraction and Retention
- Influence more women and semi-retired men to join the industry through part-time work opportunities.
- Modify income and tax regulations to make work more lucrative.
- Reduce the cost of obtaining a medium rigid licence.
- Create clear career pathways for youth, possibly through apprenticeships.
- Increase government support for training and sustainability programs.
- Improve industry image to make it more attractive.

B. Heavy Vehicle Driver Shortages Concerns
- Encourage more part-time workers into the industry.
- Provide fee-free training in areas of demand.
- Offer incentives for companies to train drivers.
- Increase focus on security and maintain suitably trained staff.
- Streamline and standardise bus industry requirements.

C. Growing Importance of Compliance Concerns
- Ensure training is relevant to the role, including non-accredited training on industry software.
- Improve auditing to focus on actual application, not just record keeping.

D. Shortage of Trainers and Assessors Concerns
- Government funding to assist with creating more training centres and to support the trainers' costs.
- Encourage more accessible and less expensive training programs for trainers.

Other key drivers

Respondents were invited to discuss any other significant drivers and challenges influencing skills and workforce development within their sector. The following provides a summary of these critical issues.

- Further research needed to better understand disengagement causes and insufficient promotion of training opportunities.
- Limited encouragement of VET over traditional education by schools and parents, affecting talent influx.
- Eligibility criteria for equipment operation deter workforce participation.
- Many small businesses are unaware of available training support, limiting investment in workforce development.
- Competitiveness in wages and hours challenges worker attraction and retention.
- Essential to uplift training standards and industry professionalisation to attract a broader workforce.
- Discrepancy between VET training outcomes and industry standards hampers skill acquisition.
- The need for dual incomes due to high living costs impacts casual workforce availability.
- AI and automation uncertainties, alongside competition from large international firms, affect job security.
- Negative views on workforce education and operational inefficiencies, including tech barriers, obstruct efficiency.
- Promoting workforce diversity, including opportunities for women and First Nations peoples, is vital.
- Adjusting immigration policies to recruit internationally for unmet domestic demand.
- Pandemic-induced workforce and knowledge losses underline the training need for sector recovery.
- Addressing job misperceptions and promoting transport and logistics as attractive career paths.
- Diverse regulations and high compliance costs deter entrants and complicate interstate operations.
- Negative public perception and inconsistent government support affect industry appeal and functionality.
- Importance of robust training infrastructure and acknowledging transport and logistics roles in strategic planning and policy.

Public Consultation Summary

Draft Workforce Plans were published on the Industry Skills Australia website in March 2024 and feedback invited from the 2,024 Transport and Logistics email subscribers and 2,474 LinkedIn subscribers.

The following table describes the main feedback themes and how they were responded to in the Workforce Plan.

Feedback Theme	Response in the Workforce Plan
Limited funding availability for training. Stakeholder feedback consistently highlights the lack of financial incentives available to the Transport and Logistics sectors, to assist with training or upskilling workers.	Additional commentary has been included in the Workforce Plan to reflect this recurring theme and to include details of the Strategic Review of the Australian Apprenticeship Incentive System. The Review is currently inviting submissions and is an opportunity for industry to advocate for improved financial supports for the engagement of apprentices and trainees.
Training challenges for the passenger transport sector. The ability to access training that is relevant to passenger transport operation and covers the unique skills required for bus and coach drivers, was raised as a major obstacle for this sector.	Narrative has been expanded to highlight training barriers for passenger transport as a key challenge for this sector. An item has also been added for development in the Future Research and Consultation section. It proposes to review the Certificate III in Driving Operations qualification to identify a training pathway that meets the skills needs of passenger transport operators and will support recommended changes as part of the Reform of the Disability Standards for Accessible Public Transport 2002.
Better engagement with schools and promotion of industry. Stakeholders would like to see increased promotion of Transport and Logistics careers and pathways, particularly in school environments, to encourage more young workers to the industry and assist with overall attraction strategies.	Activities included in the Workforce Plan will work to address these points. The School to Work Pathway Pilot and Improving T&L Industry Career Information projects will focus on improving school to industry connection and better awareness of careers and pathways, including resource development.
Insurance premiums for young heavy vehicles drivers. The higher insurance premiums applicable to heavy vehicle drivers under 25 years old was raised as being a major obstacle to increasing the employment of a younger workforce.	Additional commentary highlighting this issue has been included in the Heavy Vehicle Driver Shortages key challenge. This will also serve to inform strategies to support the increased establishment of the Heavy Vehicle Driver Apprenticeship across the country and whether premiums can be negotiated for workers undertaking structured training.
Increased access to overseas workers. The ability to use skilled migration opportunities to assist in addressing workforce shortages, continues to be a major barrier for industry looking to address workforce shortages where occupations aren't included in the majority of skilled visa options.	The existing item included in the Future Research and Consultation section has been expanded to include review of options in the Migration Strategy which industry may be able to utilise to access visas for overseas worker employment in occupations at lower skill levels.

ANZSCO and ANZSIC Classifications

This section provides a detailed breakdown of the Australian and New Zealand Standard Classification of Occupations (ANZSCO) and the Australian and New Zealand Standard Industrial Classification (ANZSIC) as they have been used in this document to quantify occupations and industry.

ANZSCO data is presented at two levels of detail. The highest level of detail (6-digit) is available for Census and Skills Priority List data while 4-digit data is available for the quarterly Labour Force data, Employment Projections and the Internet Vacancy Index and others.

ANZSIC data is also presented at two levels of detail. The highest level of detail (4-digits) is available for Census, Counts of Australian Businesses and IBISWorld Industry Class reports, that approximately align to 4-digit ANZSIC while 3-digit data is available or the quarterly Labour Force data, Employment Projections and others.

Note: 'nec' stands for 'not elsewhere classified' and 'nfd' stands for 'not further defined'. If the Census/Survey respondent didn't provide enough information to categorise the occupation/industry at the highest level of detail, 'not further defined' is used and the respondent is still counted.

ANZSCO Code	Title	Level of Detail
133300	Importers, Exporters and Wholesalers, nfd	6-digit
133311	Importer or Exporter	6-digit
133600	Supply, Distribution and Procurement Managers, nfd	6-digit
133611	Supply and Distribution Manager	6-digit
133612	Procurement Manager	6-digit
149400	Transport Services Managers, nfd	6-digit
149411	Fleet Manager	6-digit
149413	Transport Company Manager	6-digit
224714	Supply Chain Analyst	6-digit
451211	Driving Instructor	6-digit
561200	Couriers and Postal Deliverers, nfd	6-digit
561211	Courier	6-digit

ANZSCO Code	Title	Level of Detail
561212	Postal Delivery Officer	6-digit
561400	Mail Sorters, nfd	6-digit
561411	Mail Clerk	6-digit
561412	Postal Sorting Officer	6-digit
591000	Logistics Clerks, nfd	6-digit
591100	Purchasing and Supply Logistics Clerks, nfd	6-digit
591112	Production Clerk	6-digit
591113	Purchasing Officer	6-digit
591115	Stock Clerk	6-digit
591116	Warehouse Administrator	6-digit
591117	Order Clerk	6-digit
591200	Transport and Despatch Clerks, nfd	6-digit
591211	Despatching and Receiving Clerk	6-digit
591212	Import-Export Clerk	6-digit
712111	Crane, Hoist or Lift Operator	6-digit
721000	Mobile Plant Operators, nfd	6-digit
721311	Forklift Driver	6-digit
721900	Other Mobile Plant Operators, nfd	6-digit
731100	Automobile Drivers, nfd	6-digit
731111	Chauffeur	6-digit
731112	Taxi Driver	6-digit
731199	Automobile Drivers, nec	6-digit
731200	Bus and Coach Drivers, nfd	6-digit
731211	Bus Driver	6-digit
731212	Charter and Tour Bus Driver	6-digit
731213	Passenger Coach Driver	6-digit
732111	Delivery Driver	6-digit

ANZSCO Code	Title	Level of Detail
733100	Truck Drivers, nfd	6-digit
733111	Truck Driver (General)	6-digit
733113	Furniture Removalist	6-digit
733114	Tanker Driver	6-digit
733115	Tow Truck Driver	6-digit
741111	Storeperson	6-digit
891000	Freight Handlers and Shelf Fillers, nfd	6-digit
891100	Freight and Furniture Handlers, nfd	6-digit
891111	Freight Handler (Rail or Road)	6-digit
891112	Truck Driver's Offsider	6-digit
891113	Waterside Worker	6-digit
899923	Road Traffic Controller	6-digit
1333	Importers, Exporters and Wholesalers	4-digit
1336	Supply, Distribution and Procurement Managers	4-digit
1494	Transport Services Managers	4-digit
4512	Driving Instructors	4-digit
5612	Couriers and Postal Deliverers	4-digit
5614	Mail Sorters	4-digit
5910	Logistics Clerks, nfd	4-digit
5911	Purchasing and Supply Logistics Clerks	4-digit
5912	Transport and Despatch Clerks	4-digit
7121	Crane, Hoist and Lift Operators	4-digit
7213	Forklift Drivers	4-digit
7310	Automobile, Bus and Rail Drivers, nfd	4-digit
7311	Automobile Drivers	4-digit
7312	Bus and Coach Drivers	4-digit
7320	Delivery Drivers, nfd	4-digit
7321	Delivery Drivers	4-digit
7330	Truck Drivers, nfd	4-digit
7331	Truck Drivers	4-digit
7400	Storepersons, nfd	4-digit
7410	Storepersons, nfd	4-digit
7411	Storepersons	4-digit
8910	Freight Handlers and Shelf Fillers, nfd	4-digit
8911	Freight and Furniture Handlers	4-digit

ANZSIC Code	Title	Level of Detail
4600	Road Transport, nfd	4-digit
4610	Road Freight Transport	4-digit
4620	Road Passenger Transport	4-digit
4621	Interurban and Rural Bus Transport	4-digit
4622	Urban Bus Transport (Including Tramway)	4-digit
4623	Taxi and Other Road Transport	4-digit
5029	Other Transport , nec	4-digit
5100	Postal and Courier Pick-up and Delivery Services	4-digit
5101	Postal Services	4-digit
5102	Courier Pick-up and Delivery Services	4-digit
5200	Transport Support Services, nfd	4-digit
5211	Stevedoring Services	4-digit
5290	Other Transport Support Services	4-digit
5291	Customs Agency Services	4-digit
5292	Freight Forwarding Services	4-digit
5299	Other Transport Support Services , nec	4-digit
5300	Warehousing and Storage Services	4-digit

ANZSIC Code	Title	Level of Detail
5301	Grain Storage Services	4-digit
5309	Other Warehousing and Storage Services	4-digit
I000	Transport, Postal and Warehousing, nfd	4-digit
460	Road Transport, nfd	3-digit
461	Road Freight Transport	3-digit
462	Road Passenger Transport	3-digit
510	Postal and Courier Pick-up and Delivery Services	3-digit
520	Transport Support Services, nfd	3-digit
529	Other Transport Support Services	3-digit
530	Warehousing and Storage Services	3-digit
I00	Transport, Postal and Warehousing, nfd	3-digit
5210	Water Transport Support Services, nfd[†]	4-digit
521	Water Transport Support Services[†]	3-digit
5000	Other Transport, nfd	4-digit
5010	Scenic and Sightseeing Transport [†]	4-digit
501	Scenic and Sightseeing Transport [†]	3-digit

Explanatory Notes to Data

Occupational data (Workers) vs Industrial data (Workforce)

When analysing the workforce and industry data in Australia, two classifications are commonly used: ANZSCO and ANZSIC.

- ANZSCO (Australian and New Zealand Standard Classification of Occupations) categorises occupations based on skill level and specialisation.
- ANZSIC (Australian and New Zealand Standard Industrial Classification) classifies businesses into industry sectors. This groups companies based on the primary activities they are engaged in.

In simple terms, ANZSCO is about what people do in their jobs, and ANZSIC is about the industry or sector where businesses operate. They are used for different purposes and are not directly comparable.

In this document, we use the term 'Workers' when referring to occupational data (ANZSCO) and industry 'Workforce' when referring to industrial data (ANZSIC).

Occupational shortage vs skills shortage

In this document, we distinguish between occupational shortages and skills shortages.

- Occupational shortage: This occurs when employers struggle to fill vacancies for a specific occupation or can't find employees with specialised skills needed in that occupation. Essentially, there aren't enough qualified people available to do the job.
- Skills shortage: This refers to a situation where the existing workforce does not possess the right skills to meet the demands of their sector or occupation. It's not about the number of employees, but about the quality or suitability of their skills.

Business Count

In the Counts of Australian Businesses data, industries are classified by the main industry linked to a business ABN. This method has limitations. Firstly, businesses operating in several States/Territories are counted only once, making enterprise figures appear low in some areas. This does not mean that there are no enterprises in those regions; rather, that their headquarters are located elsewhere. Secondly, if an organisation operates in multiple industries, it is only counted in one, leading to potential inaccuracies in industry classification.

Training Data

Total VET Activity (TVA) data is collected from all types of RTOs and not only those in receipt of Commonwealth or State funding.

Employment projections

Jobs and Skills Australia provides employment projections for specific quarters, spanning from May 2023 to May 2033. In contrast, we use the annual average of employment figures from all quarters to smooth the data. To ensure internal consistency, we apply the projected percentage growth rates to the annual average employment figures from the Labour Force Survey. This method avoids discrepancies that might arise from using the specific employment levels of May 2023, which can differ from the annual average.

Endnotes/Special References

† Scenic and Sightseeing Transport is an industrial category that covers all transport modes, and the workforce is split proportionately among the transport sectors according to historical Census distributions.

*Future demand is calculated by Jobs and Skills Australia for each occupation by looking at two things: how many more jobs there will be in the future and how many people will leave their current jobs. Occupations are then given a rating like "Above average," "Average," or "Below average," based on these predictions compared to all other occupations.

⁂ The Supply Chain Analyst occupation was added to ANZSCO in 2022 and is therefore missing from historical data.

Data Gaps

Developing evidence-based actions to all the challenges is impacted by limitations in the data available. Outside of Census years, the resolution of labour force data is not high.

The Australian Bureau of Statistics (ABS) is currently undertaking a comprehensive review of the Australian and New Zealand Standard Classification of Occupations (ANZSCO) to reflect the contemporary labour market, the first major review since 2006. From October to December 2023, the focus was on occupations in road transport, warehousing, postal, courier, pick-up and delivery services. ISA has provided feedback, gained through industry engagement, on the accuracy of current occupation skill levels and descriptions and occupations anticipated to emerge in the next 5 to 10 years. This includes a recommendation to update heavy vehicle occupations to correspond to the level of skill, experience, and training required by these professions and to ensure they are reflective of the current labour force. There will be additional opportunities for industry consultation as preliminary proposed changes are released for this round of consultation later in 2024. Improvements to ANZSCO will enable more comprehensive and accurate data collection on workforce employment in the industry.

The Labour Force Survey significantly underrepresents the true size of the workforce in the Transport and Logistics industry. While the survey confines its count to those working specifically within the Transport, Postal and Warehousing Industry, it overlooks the fact that Transport and Logistics workers are prevalent across all sectors.

Fewer than half (42%[81]) of these workers are employed in their 'home' industry, with the majority dispersed in various other sectors. For example, the forklift driver occupation would traditionally be considered a Transport and Logistics occupation. However, a worker performing this role may be engaged by a business who primarily operates in the Manufacturing, Wholesale Trade, Retail Trade or Public Administration and Safety industries.

The Australian Bureau of Statistics has developed an Australian Transport Economic Account [82] which provides a more comprehensive view of transport by consolidating elements of transport activity performed throughout the Australian economy in both transport and non-transport industries. This in turn provides a clearer picture of the true extent of transport activities in Australia, its overall contribution to the national economy and the number of workers performing transport and logistics functions. This account shows that the total transport activity across industries, was the second largest industry contributor to the Australian economy in 2020-2021, behind mining. It also shows that there were an estimated 1.2 million people employed in transport related employment across the economy in 2020-2021. [83]

Appendix A lists **Qualification Completions**; however, these figures should not be compared with enrolment numbers to ascertain completion rates. Instead, completion rates[84] are calculated by the National Centre for Vocational Education Research (NCVER), reflecting the proportion of qualifications that are ultimately completed. It's important to note that these rates are available for all qualifications collectively, but not for specific training packages or individual qualifications.

81 ABS Census 2021
82 ABS - Australian Transport Economic Account (2023)
83 ABS - Australian Transport Economic Account (2023) – Transport related employment (2023)
84 NCVER 2023, VET qualification completion rates 2022, NCVER, Adelaide

Appendix B Glossary of Terms

Gap analysis - The process of quantifying and identifying the difference between current workforce and skills needs and what will be required into the future.

Labour shortage - Where the demand for unskilled labour (entry level or otherwise) is greater than the supply of those available and willing to work under existing industry conditions

Registered Training Organisation - Organisations that are approved by ASQA, WA TAC or VRQA to deliver nationally recognised training in the VET sector

Reskilling - Involves learning new skills outside of a person's existing skillset which are often closely adjacent to their current function, but can be geared toward a different path entirely

Skill Set - A single unit of competency or a combination of units of competency from a training package that link to a licensing or regulatory requirement, or a defined industry need

Skill shortage – where the demand for specific skills (or knowledge) is greater than available within the current workforce

Occupational shortage - Where the demand for employees in specific occupations is greater than the supply of those who are qualified, available and willing to work under existing industry conditions

Training Provider - Any organisation or individual providing education or training services

Upskilling - Undertaking learning to expand a person's existing skill set. Upskilling enhances a worker's performance in their current role, potentially advancing them along their career path

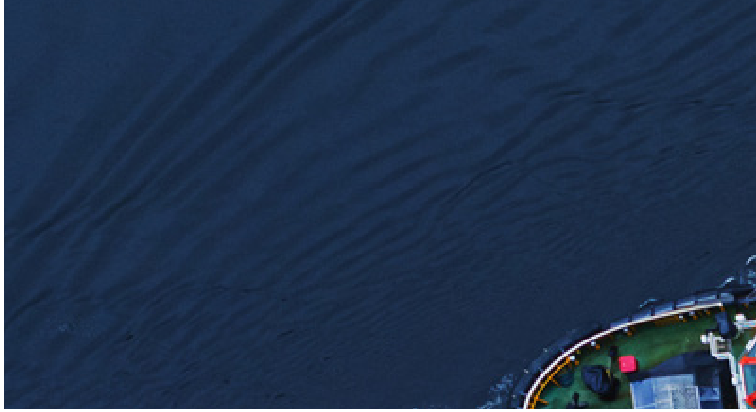
Workers - The term refers to occupational data (ANZSCO)

Workforce development - Design or delivery of initiatives to build the skills and capability of the workforce. May include but is not limited to: skills audits and skills analyses; on or off-the-job training; skills recognition; recruitment, job design and career pathways; assessment and evaluation.

Workforce Plan - The repeated, systematic and cyclical identification, analysis and planning of workforce skill needs at the enterprise (micro) or sector/region (meso) or whole of industry/economy (macro) level

Workforce Planning - Analysis, research and strategies to identify, forecast and respond to the current, emerging and future workforce challenges and opportunities

Workforce - The term refers to industrial data (ANZSIC)



Appendix C Methodology

The Workforce Plan adopts a comprehensive approach to understand and address workforce driver and challenges in our industries. Our methodology is designed to be evidence based, industry supported and actionable, ensuring that the insights we generate are both relevant and practical.

1. Generating Hypotheses

Initially, we formed "hypotheses" about the workforce. A hypothesis is an idea that is proposed so that it can be tested to see if it might be true. For example, we might hypothesise that the demand for truck drivers is high due to ongoing issues with attracting and retaining employees in these roles. Individual hypotheses are grouped into narrative sections, for example "A. Attraction and retention in the Transport and Logistics sectors". These hypotheses guide our research and analysis, helping us to focus on specific areas of interest.

2. Data and Research Support

To validate our hypotheses, we draw on both qualitative and quantitative sources, including labour market reports, academic studies, news articles and a wide variety of data. This step is crucial for grounding our hypotheses, ensuring that the problems we have identified are backed by solid evidence.

3. Stakeholder Survey

The stakeholder survey is designed to test our hypotheses with industry. For each hypothesis we:

- measure agreement among stakeholders.
- gain an understanding of how the identified issues are impacting organisations.
- capture suggested responses to the issues.
- identify any additional key drivers not previously considered.

The insights gathered from stakeholders play a pivotal role in shaping the Plan. Their feedback not only tests the relevance of the identified challenges but also enriches the development of Proposed Actions with practical solutions.

4. Developing Proposed Actions

A key part of our methodology involves the Labour Market Dynamics and Potential Strategies Mapping tool. This tool allows us to:

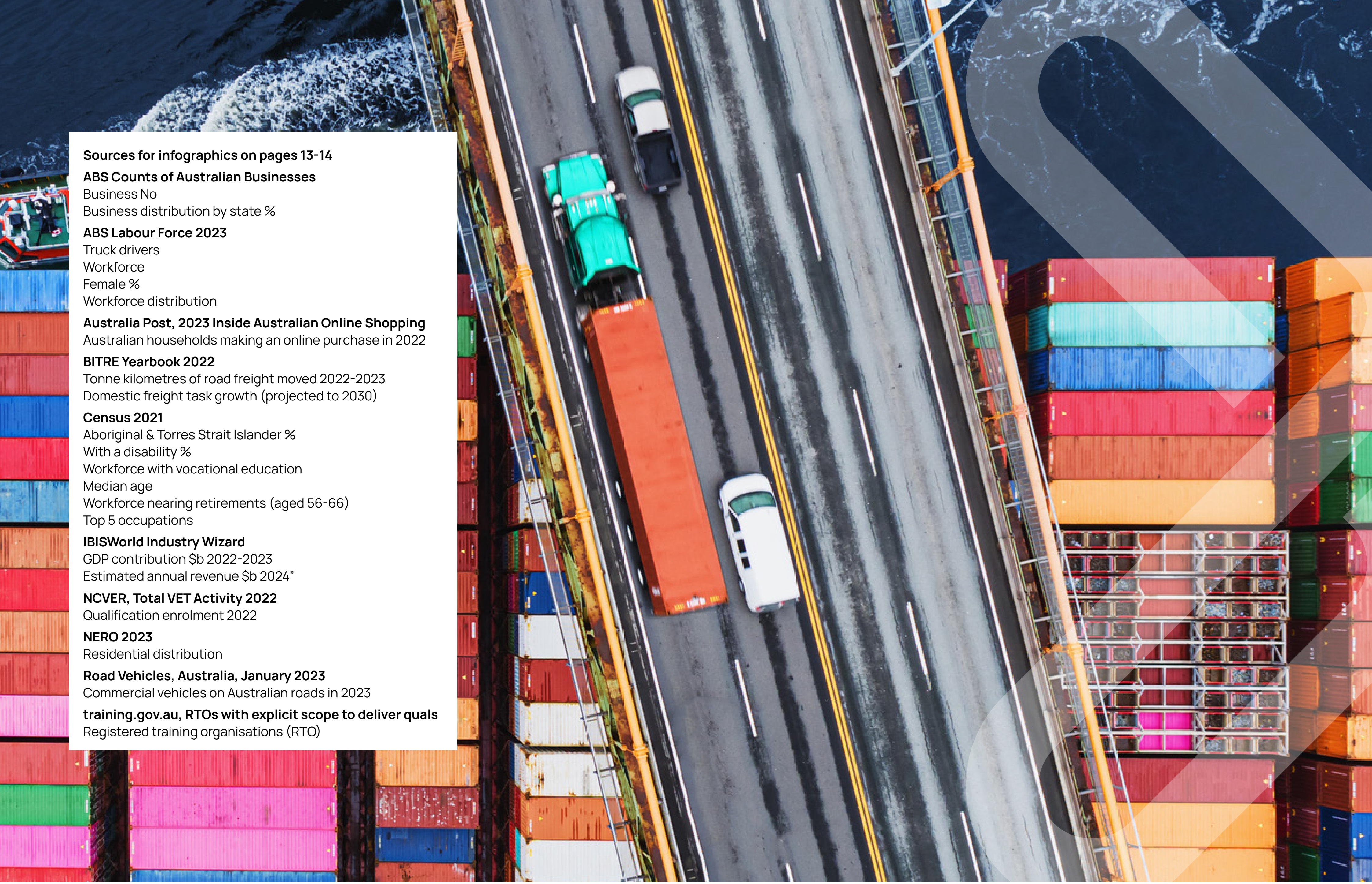
- Diagnose our hypotheses as having one or more 'symptoms', symptoms being categories of shortages/surpluses of skills and workers. These symptoms indicate how the labour supply is meeting demand.
- Identify potential strategies to respond to the identified issues.
- Evaluate existing initiatives, identifying any that are aligned with our hypotheses. This helps to ensure our Proposed Actions complement, rather than duplicate, existing efforts.

5. Incorporating Feedback

Prior to public consultation, we seek feedback from the relevant industry SWPC (Strategic Workforce Planning Committees). This step is crucial for ensuring our findings and recommendations are relevant, practical, and aligned with the needs and priorities of industry.

6. Public Consultation

A draft of our report is made available for public consultation, allowing a broader audience to contribute their insights and feedback via a feedback form. This phase enables us to fine-tune our challenges/drivers and validate Proposed Actions through direct engagement with our stakeholders.



Sources for infographics on pages 13-14

ABS Counts of Australian Businesses
Business No
Business distribution by state %

ABS Labour Force 2023
Truck drivers
Workforce
Female %
Workforce distribution

Australia Post, 2023 Inside Australian Online Shopping
Australian households making an online purchase in 2022

BITRE Yearbook 2022
Tonne kilometres of road freight moved 2022-2023
Domestic freight task growth (projected to 2030)

Census 2021
Aboriginal & Torres Strait Islander %
With a disability %
Workforce with vocational education
Median age
Workforce nearing retirements (aged 56-66)
Top 5 occupations

IBISWorld Industry Wizard
GDP contribution $b 2022-2023
Estimated annual revenue $b 2024"

NCVER, Total VET Activity 2022
Qualification enrolment 2022

NERO 2023
Residential distribution

Road Vehicles, Australia, January 2023
Commercial vehicles on Australian roads in 2023

training.gov.au, RTOs with explicit scope to deliver quals
Registered training organisations (RTO)

Industry Skills Australia

www.industryskillsaustralia.org.au