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Tasmanian Transport and Logistics Workforce Advisory Group (TTLWAG)

Version 1.03  
2 August 2015

While reasonable care has been taken in preparing this publication to ensure that information is true and correct, the Tasmanian Transport Association and the Transport and Logistics Workforce Advisory Group gives no assurance as to the accuracy of any information in this publication.

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Tracey’s Story

Tracey Johnson is featured on the front cover of this report. This is her story.

Tracey is employed at SRT Logistics in Tasmania’s South. Tracey became SRT Logistic’s first female Multi Combination truck driver, following her participation in the 2014 TransTrain / SRT Logistics Job Ready Program.

The program was funded through the Department of State Growth, Skills Tasmania, Skills Fund – Jobseeker Stream and was designed by SRT Logistics and TransTrain to develop a pool of “job ready” trainees from whom SRT and other transport businesses could recruit.

Following a period of growth, SRT faced human resource and compliance challenges, finding it particularly difficult to fill the roles of Heavy Rigid Truck Multi Drop Delivery and Multi Combination Truck drivers. SRT’s employer-led ‘Job Ready Program’ was designed to attract and upskill participants, providing the business with a pool from which to recruit competent drivers.

Trainees were supported to complete initial language, literacy and numeracy assessment. The main program was delivered through practical and knowledge-based sessions conducted within authentic environments at SRT.

Some experienced SRT drivers also received the opportunity to upskill and act as mentors to the trainees.

Tracey joined the program with some background skills and experience in transport, holding a Heavy Rigid Licence. Through the program, Tracey developed further job ready skills in the areas of forklift operations, Multi Combination Driver’s Licence, manual handling, food safety, customer service, emergency procedures and an awareness of the product range, safety systems and work requirements of SRT Logistics.

Tracey has settled in well to her role with SRT and is highly regarded amongst her peers.
Executive Summary

The Tasmanian transport industry is large and diverse. It consists of 1,356 businesses, 53% of which are single person operations.\(^1\) 12,800 people work in the industry across rail, road, aviation and maritime sectors.\(^2\)

From June 2013 to June 2014, the Transport, Postal and Warehousing sector contributed over $1.5 billion to Gross State Product ($1 515 million).\(^3\) According to the Treasury’s publication on State accounts this amounted to 6.1% of GSP.\(^4\)

Efficient logistics infrastructure, staffed by a highly skilled workforce, is essential to reducing the productivity costs of congested roads and ports. There is a drag on the economy if we are not moving goods around efficiently.

When viewed as a whole, the industry is triangle shaped with 53% of the business single person operators, 35% employ up to 20 full time equivalents and only 0.3% employ over 200 staff (yet employ an estimated 11% of the workforce). Clearly the workforce issues for the large companies are far more complex than the single person operations.

The sectors of the industry have similarities in terms of their workforce issues – all facing challenges of an ageing workforce, dealing with compliance and recruiting staff. The sectors differ in terms of the urgency of need for strategies to meet these challenges.

The industry faces a number of challenges:

- Meeting the requirements of the unprecedented growth in demand, such as online shopping – a phenomenon that did not even exist a decade ago;
- Finding innovative ways to cope with an ageing workforce and encouraging young people to make careers in transport and logistics;
- Attracting a more demographically diverse workforce that provides advantages such as new recruitment pipelines;
- Deployment of new technology;
- An increasing compliance burden;
- Responding to the rapid changes and developments in supply chains;
- Continuation of mergers, acquisitions and consolidation of operators;
- Positioning workforce development as an investment not an expenditure.

This report, commissioned by the Tasmanian Transport Association and conducted by David Morgan of The Work Lab with direction and guidance by the Tasmanian Transport and Logistics Workforce Advisory Group (TTLWAG), provides a comprehensive review of the workforce related issues facing the industry at a global, national and local level.

At a global level it is clear that major drivers such as total emission management, slow transport, digital disruption and autonomous driving will all have workforce implications. Forward demand for transport and logistics services nationally remains strong with a number of clear growth opportunities in agriculture, local delivery, containerised freight movement and aviation.
Within Tasmania, growth is more sector specific with job opportunities being very hard to fill for:

- multi combination vehicle drivers
- diesel mechanics
- rail engineers
- trainers and assessors
- passenger bus drivers

The primary challenge of the workforce plan is to consider the best interests of the industry as a whole with strategies for the ongoing development of the owner operator group as well as the mid tier and high tier operators. The number of single employed businesses operating in the industry has dropped by 47% since 2009 however these remain a risk for an industry competing on service, safety, quality and professionalism. The burden of compliance, fuelled by risk management of poor practice, is a poor tool for raising productivity.

The lack of spread of training both across sectors and across qualification levels combined with very low adoption of the national training system to support workforce development is a critical concern to the future productivity of the industry.

All the primary occupations have strict licence and certification requirements. Qualifications from the national training packages, particularly the Certificate III in Driving Operations is not well regarded and the capacity of the training workforce in Tasmania to meet the challenges associated with increasing use and uptake of initiatives using the VET framework is uncertain. The industry, through the TTA and TTLWAG, has established a number of proven workforce initiatives including Job Ready, Careers on the Move and Australian Schools-based Apprenticeships.

The recommendations in this Workforce Plan build on these initiatives to tackle the critical challenges of the industry.

I commend this report to industry, education and government.

Robin Phillips
Executive Officer
Tasmanian Transport Association.
The Transport and Logistics Industry Skills Council

Australia’s transport sectors – Road Transport, Logistics, Rail, Aviation, and Maritime and Ports – play a key enabling role in our economic activity. Without the capacities and capabilities provided by their 820,700-strong workforce, no passengers or freight move.

Our research, published in the 2015 Environmental Scan, identifies that freight volumes have nearly tripled over the past three decades and passenger movements through Australian airports have more than quadrupled. By every measure in every mode, transport and logistics activity continues to grow.

The transport and logistics industry nationally faces a future where it needs a better-skilled workforce working smarter and more efficiently using nationwide infrastructure able to cope with a massive freight task. The transport sectors are facing several common issues in their workforce development needs. Sector-specific trainers and assessors are in shortage; an ageing workforce; plus an image problem in attracting and retaining high-quality new entrants is hampering efforts to upgrade the skills base and reap the full benefits of computerized technologies.

The Transport and Logistics Industry Skills Council (TLISC) is an independent, not-for-profit, stakeholder-focussed organisation delivering innovative, high-quality solutions for the Transport and Logistics Industry. TLISC supports the Transport and Logistics industry to maintain and build a highly skilled and productive workforce through establishing national skills standards and providing strategic workforce development advice.

TLISC supports the Tasmanian Transport and Logistics Workforce Advisory Group and provides critical resource to enable the work of this group.

TLISC has actively supported the industry in Tasmania through a range of targeted initiatives including -

- Facilitating regular workshops and information sessions for Tasmanian transport operators on TLISC activities including latest Industry Intelligence and Training Package information
- Supporting Tasmanian stakeholders to make successful submissions for the National Workforce Development Fund
- Conducting personal development workshops for Tasmanian RTOs and providing updates on Training Package changes
- Ensuring Tasmanian membership and participation in TLISC Advisory Committees and Technical Committees
- Publishing case studies and including articles in TLISC Newsletters to showcase successful and innovative Tasmanian VET programs

Tasmanian transport and logistics organisations have had great success at the annual TLISC Awards for Excellence. In 2014 the Australian Maritime College (AMC) earned the Excellence in Industry Promotion Award while Launceston-based De Bruyn’s Transport received the Chairman’s Award for their whole-of-business workforce development program.
On the back of their success in 2014, AMC were named joint-winners of the 2015 Chairman’s Award for their training program tailored for indigenous communities in the Torres Strait region.

Meanwhile, Hobart-based SRT Logistics won the 2015 award for Innovation and Excellence in Workforce Development – Road Transport. SRT’s ‘Job Ready’ program was created to fill the roles of Heavy Rigid Truck Multi Drop Delivery and Multi Combination Truck drivers following a period of rapid growth.

Robert Adams
CEO
Transport and Logistics Industry Skills Council
Recommendations

1. That TTA lobby Government and the community to support a **business accreditation program**. The program should umbrella all mandatory occupational compliance and add a layer of professional standard (such as service delivery);

2. That **workforce development support material** be developed for key entry occupations. The material should include template ‘How to’ kits for different contexts (business operations) and occupations and build on the Australian Schools-based Apprenticeships ‘stepping stone’ model;

3. That a program to **develop the capacity of workforce development practitioners, trainers and assessors** be developed;

4. That a program to **recognise and market successful workforce development initiatives** through industry ambassadors be developed;

5. That **TTLWAG be formally recognised and appropriately supported** to deliver on the outcomes of this workforce plan.

The report concludes with a series of strategic actions and next steps to implement this Transport and Logistics Industry Workforce Plan for the period 2015 – 2018.
Introduction

The Tasmanian Transport & Logistics Workforce Advisory Group (TTLWAG), with a project grant from Skills Tasmania and through the Tasmanian Transport Association (TTA), has commissioned this research to develop a Transport and Logistics Industry Workforce Plan for the period 2015 – 2018. This report has been written by David Morgan of The Work Lab – a specialist workforce development research company with invaluable support from the TTA project manager, Michelle Harwood.

Tasmania is primarily an export state and therefore the road, rail, air and sea freight transport is crucial for the movement of goods and for the survival of the Tasmanian ‘brand’. The transport and logistics industry in Tasmania is a vital component of the economy with strong growth prospects. It employs 12,800 people through 1,356 businesses\(^5\). The industry faces a number of macro challenges to both sides of its workforce – difficulty recruiting and supporting paths into the industry and an almost certain exit of large numbers of the workforce in the next decade.

The Tasmanian Transport Association is an organisation of transport operators, freight forwarders and shippers operating in Tasmania, with close links to organisations in other states. The Association is committed to promoting efficient, effective transport to, from and within Tasmania by influencing the regulation of transport, the provision of transport infrastructure and the delivery of transport services.

The role of the Tasmanian Transport Association is to service the needs of its members by:

- Lobbying Governments and the Community on members behalf;
- Regular communication with members both to consult and educate on matters affecting their operations and viability;
- Setting professional standards;
- Protecting members interests;
- Assisting members assess and protect commercial viability;
- Ensuring that Association remains accessible to members.

The Tasmanian Transport and Logistics Workforce Advisory Group (TTLWAG) is comprised of industry and government representatives with a specific agenda to work collaboratively on workforce issues. The group has had carriage of a number of successful initiatives and is seen as the primary vehicle to action this report.

The goals for this workforce plan

The purpose of this Transport and Logistics Industry Workforce Plan is to ensure that Tasmania’s businesses, students and educators are prepared for the changing technology, education needs and forecast increase in the transport and logistics activity in Tasmania, which underpins the overall Tasmanian economy. The plan will be considered to have been successful if, when implemented it leads to improved workforce outcomes.

The transport and logistics sector in Tasmania is broad. The scope of this report is across the following sectors:

- Road transport
- Logistics and warehousing
- Rail
- Maritime & Ports
- Aviation

\(^5\) 8165.0 - Counts of Australian Businesses, including Entries and Exits, June 2010 - June 2014
Overview of the Transport Industry

As a large and geographically isolated country, Australia’s ability to sustain economic growth relies heavily on efficient transport and logistics systems.

The Transport and Logistics Industry is characterised by immense diversity in occupations, workforce development needs, business types and sizes, and locations. It directly affects every part of the economy and everyone’s standard of living – from what we buy, to the price we pay for goods, to how we get from place to place.

The industry encompasses activities in logistics and warehousing, road transport, aviation, rail, and maritime and ports.

Big picture items

As demand for the movement of freight and people has grown, so has the size of vehicles, ships and planes. In road transportation, the advent of mega trucks, categorised as LHVs (longer and heavier vehicles), has generated substantial controversy. Regulations around these vehicles vary; in the US and Europe (except Sweden and Finland) trucks travelling on motorways are generally limited to 40 tons, meaning that mega trucks (60 tons) are essentially not permitted. In Canada and Australia, though, LHVs are allowed up to approximately 70 gross tons. Mega trucks theoretically consume less fuel per pallet of goods transported than do standard 40 ton trucks, and could potentially offer energy and cost-saving benefits. In the ship building segment, ultra large container vessels (ULCV) have begun to make in-roads into the container market.

Autonomous, driverless transportation systems have the potential to equip future transport modes with the ability to safely navigate in different environments and transport people and goods without the use of a human driver. Extensive research in this area is already underway, and pilot projects are in place. Automatically guided vehicles and driverless park shuttle systems at airports use existing technologies in order to enable driverless transportation.

Nanotechnology may also play a role in achieving real-time control of the supply chain. Nano-electromechanical Systems (NEMS) may be the next generation of sensors on products and goods. These sophisticated tracking devices are capable of recording temperature and condition throughout the entire logistics chain and calling for action if any disruptions occur.

Most companies will look to reduce energy consumption and the cost thereof.

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Logistics service providers will need to balance energy efficiency together with speed to support supply chains taking into account both factors, as well as other cost concerns such as access to raw materials and labour.

Real-time control systems enable logistics service providers and their customers to monitor and control many business processes through Internet interfaces.

So-called "ubiquitous computing" will be an important part of real-time control and of the entire logistics future.

These items and others are illustrated in the chart below (figure 1), indicating future change across organisations; in transport products and services, finance, process and strategy.

Figure 1: Opportunity radar for transportation and logistics operators

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Australia’s Transport and Logistics Industry workforce is expected to grow significantly, with TLISC research forecasting job openings of 151,100 for the period 2013-17. This is on top of an existing workforce of 820,700 across 165,000 businesses. Most of these new jobs will be within the Logistics/Warehousing and Road Transport sectors.

The Transport and Logistics Industry already contributes an estimated 8.6 per cent to Australia’s GDP ($131.6 billion) and this will grow. The country’s future economic success will be increasingly dependent on Transport and Logistics, which touch every Australian in some way every day – carrying 90.1 million passengers by air, 850 million passengers by rail, handling 38,073 ships in port and 600 billion tonne kilometres of domestic freight.

Clear growth opportunities exist domestically, including:

- Agriculture – With a number of commentators tipping Australia to become

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7 TLISC Escan 2015 p6
8 TLISC Escan 2015, pg 2
9 Ferrier Hodgson, p4
Asia’s ‘food bowl’ there will be significant opportunities in the transport of bulk food commodities and other specialised agricultural products. Asia is set to overtake the combined economic output of Europe and North America within the decade to 2020. There will be more than three billion middle-class consumers in the Asia-Pacific by 2030, up from 500 million today.

- Local delivery – Owing to the structural shift in freight transport driven by the impact of online retail sales, opportunities exist to service the so-called ‘last mile’.

- Containerised freight movement – Port movements of inbound containerised freight have grown by 80 per cent in the last 10 years (3.9 million to 7.1 million containers) and are projected to double over the next 10 years presenting a clear growth opportunity for container handlers.

- Air freight – The online revolution combined with a consumer thirst for instant gratification has led to the delivery of overseas parcels by airfreight as opposed to traditional shipping channels. Industry analysts predict world air cargo traffic will double in the next 20 years as the freight task trends towards faster, smaller and lighter freight.

Amidst this growth, however, the industry is undergoing massive structural change and a number of challenges face operators including:

- Brand and risk-focused customers migrating to ‘one stop shop’ blue chip operators with global scale and multi-modal capabilities.

- Online shopping resulting in the by-passing of traditional supply chains causing stress to margins in businesses servicing the traditional bricks and mortar retail model.

- Significant growth in containerised freight handling occurring at the expense of long distance road freight movements, leaving long haul and line haul transporters of general freight exposed to increasing volume and margin pressures.

- Rising fuel costs and increasing difficulty passing on fuel levies in a competitive market.

- A changing regulatory landscape with increasing compliance workloads and associated cost.

- The recent slowdown of the resource-based economy impacting on businesses that have become increasingly or solely reliant on this sector.

- Infrastructure capacity constraints continuing to tighten with a significant cost to business viability and industry productivity. Infrastructure congestion is estimated to cost $15 billion a year.¹⁰

- A continually ageing workforce and ongoing difficulty attracting quality labour to the industry.

Further, average net profit (after tax) margins have fallen to three per cent of revenue over the past 12-24 months, placing pressure on the free cash flows necessary for industry participants to invest in modern vehicles or provide a visible return on assets tied up in freight and forwarding functions.

Technological advances will continue to be a driving force behind changes in the industry over the next five years.

- Radio-frequency identification (RFID), automatic picking and distribution systems, vehicle tracking and GPS locators already allow for more accurate freight tracking and modelling of efficient distribution routes;

¹⁰ TLISC EScan 2015, pg 11
• Mobile technology in the movement of freight is streamlining the delivery of goods and creating greater organisational efficiencies and better service delivery;

• Vast warehouses have technology that can track, locate and collect goods from shelves;

• Implementation of port automation technology has improved productivity.

More generally, the cost of fuel, overcapacity, and doubts about the sustainability of high-capacity, high-speed assets are key concerns for the industry. Investment in technology and new staff has fallen to low priority status.

Among predictions for the future are a rise in alliances, joint ventures and pool activity, as well as increased market share for today’s dominant operators and owners.12

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Table 1: Snapshot of Australia’s Transport Industry11

<table>
<thead>
<tr>
<th>Sector</th>
<th>Workforce size (National)</th>
<th>Value</th>
<th>Net replacement rate</th>
<th>Emerging skill needs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Logistics</td>
<td>373,500 394,800 forecast 2018</td>
<td>$19.1 Billion</td>
<td>5.7%</td>
<td>Supply chain skills, business management, systems and technological skills</td>
</tr>
<tr>
<td>Road</td>
<td>370,000 391,100 forecast 2018</td>
<td>$73.1 Billion</td>
<td>5.6%</td>
<td>Fleet management, supply chain skills, compliance</td>
</tr>
<tr>
<td>Aviation</td>
<td>37,300 38,200 forecast 2018</td>
<td>$41.3 Billion</td>
<td>2.4%</td>
<td>Systems management</td>
</tr>
<tr>
<td>Rail</td>
<td>22,600 23,100 forecast 2018</td>
<td>$22.7 Billion</td>
<td>2.2%</td>
<td>Mentoring, leadership, infrastructure supervisory skills</td>
</tr>
<tr>
<td>Maritime</td>
<td>17,000 17,800 forecast 2018</td>
<td>$16.9 Billion</td>
<td>4.7%</td>
<td>Automated systems, dredging, offshore-specific requirements</td>
</tr>
</tbody>
</table>

11. TLISC EScan 2015

**The Tasmanian Transport Industry**

From June 2013 to June 2014, the Transport, Postal and Warehousing sector contributed over $1.5 billion to Gross State Product ($1 515 million)$^{13}$. According to the Treasury’s publication on State accounts this amounted to 6.1% of GSP.

The most recent data available indicates that there were 1,356 businesses in operation in Tasmania in the transport, postal and warehousing industry at the end of June 2014. The majority of these businesses operate in the road transport sector; 753 of the total (53 per cent) are non-employing businesses – in other words, ‘one man bands’.

In 2009 there were 1,434 non-employing businesses in the industry. There are now 43% less.

The road freight sector accounts for the majority of the decline in business numbers.

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$^{13}$ Australian National Accounts: State Accounts, June 2014 Table 7

$^{14}$ State Accounts, 2013-14, Dept. of Treasury and Finance Tasmania

$^{15}$ Counts of Australian Businesses, including Entries and Exits, June 2010 - June 2014.
Table 2: Number of Businesses in the Tasmanian Transport, Postal and Warehousing Industry as at end June 2014

<table>
<thead>
<tr>
<th>Industry Subdivision</th>
<th>Non employing</th>
<th>1-19 persons</th>
<th>20-199</th>
<th>200+</th>
<th>Total 2014</th>
<th>Total 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Road freight</td>
<td>364</td>
<td>336</td>
<td>21</td>
<td>0</td>
<td>721</td>
<td>1208</td>
</tr>
<tr>
<td>Rail Transport</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Water Transport</td>
<td>7</td>
<td>5</td>
<td>3</td>
<td>0</td>
<td>15</td>
<td>24</td>
</tr>
<tr>
<td>Air and Space Transport</td>
<td>4</td>
<td>12</td>
<td>0</td>
<td>0</td>
<td>16</td>
<td>18</td>
</tr>
<tr>
<td>Other Transport</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>6</td>
<td>84</td>
</tr>
<tr>
<td>Postal and Courier Pick-up and Delivery Services</td>
<td>118</td>
<td>145</td>
<td>0</td>
<td>0</td>
<td>263</td>
<td>261</td>
</tr>
<tr>
<td>Port and water transport</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Other water transport support</td>
<td>21</td>
<td>9</td>
<td>0</td>
<td>0</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>Airport operations</td>
<td>10</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>Freight forwarding</td>
<td>4</td>
<td>16</td>
<td>3</td>
<td>3</td>
<td>26</td>
<td></td>
</tr>
<tr>
<td>Warehousing and Storage Services</td>
<td>17</td>
<td>11</td>
<td>3</td>
<td>0</td>
<td>31</td>
<td>32</td>
</tr>
<tr>
<td>Taxi and other transport</td>
<td>202</td>
<td>33</td>
<td>0</td>
<td>0</td>
<td>225</td>
<td></td>
</tr>
<tr>
<td>Total Transport, Postal and Warehousing Businesses</td>
<td>753</td>
<td>576</td>
<td>34</td>
<td>3</td>
<td>1356</td>
<td>1628</td>
</tr>
</tbody>
</table>

Consultations for this report would indicate that there are now at least 5 companies in the transport industry employing greater than 200 employees.

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16 Counts of Australian Businesses, including Entries and Exits, June 2010 - June 2014.
Road transport, logistics and warehousing

Road transport dominates the Australian market for non-bulk freight due to its advantages in price, speed, convenience and reliability. Notwithstanding the slowdown caused by the GFC and a decline in Australia’s manufacturing industry, the long-term outlook for the industry is positive, with industry analysts predicting 75 per cent growth in the next 20 years. However, the industry is expected to struggle to maintain profitability as it faces growing cost pressures, skills shortages and fluctuations in fuel price.17

Road transport is a key sector of the supply chain for all components of our traditional economy; however, it is projected to become a smaller contributor to GDP as we progressively skew towards a service-based economy18 and the rise of the ‘quinary sector’.19

Nationally, the logistics industry faces a number of challenges, namely the need for:

• Harmonising regulation and legislation and reducing red tape;
• Securing adequate funding for infrastructure, and investment reform; identifying and then efficiently delivering key infrastructure projects;
• Adopting whole-of-supply chain planning;
• A desire to make greater use of railways;20
• High productivity vehicle access and charging;
• Establishing a network of efficient intermodal facilities;
• Giving freight a voice in urban planning.21

In the Tasmanian context the operations of transport and logistics are combined due to the dominance of transport operations focused on moving goods on and off the island in a timely manner (and not warehousing for further distribution). The 721 businesses in this sector collectively account for registrations of 3,034 light rigid vehicles, 8,698 heavy rigid vehicles and 1,584 articulated trucks.22

The majority of mid-tier road operators will continue to find trading conditions difficult as they struggle to provide a point of differentiation to their customers. They are often unable to compete on price with smaller single-truck operators and on customer service with larger more sophisticated operators. As such, they become price takers and are generally relegated to sub-contractor status.

At the small end of the market, there are generally low barriers to entry, leading to constant competition from many under-capitalised and inexperienced operators.

Niche operators generally are better placed to achieve higher margins than general freight carriers. However, niche operators closely aligned to declining industries are exposed to financial risks if they are unable to redeploy assets (i.e. specialised assets). Businesses with multi-modal capability and scale are becoming favoured.

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17 Ferrier Hodgson, p 6
18 TLISC Escan 2014, p 7
19 An Industry Perspective, IbisWorld, 4/3/2015
20 Tasmanian industry representatives were keen to point out this is not necessarily the case locally
21 ibid pg 17 ref common themes in national and state transport and freight strategies
22 9309.0 Motor vehicle census
Passenger Transport

The passenger transport sector of the industry consists of 225 taxi companies (almost all single operators) and about 200 companies responsible for regular passengers (820 urban services and 79 route passenger services), student-only services (219 services and 272 free to user school bus services), tour and charter services, private and luxury hire car services. In total this sector accounts for 630 full time equivalent employees, over half of which are employed by Metro Tasmania in Hobart.

The Tasmanian capital, Hobart, once had considerable passenger rail infrastructure, with a tram network, operating over eight lines, as well as a commuter train line (running north from Hobart station). Though the tram system was once extensive (reaching most of Hobart’s suburbs) and well patronised (carrying over 25 million passengers per annum during the mid-1940s)\(^\text{23}\), the tramways were closed by 1960, in favour of bus services. By the 1970s, the urban heavy rail passenger services ceased as well.

Urban Passenger Transport in Hobart is now primarily provided by Metro Tasmania (a state owned company that operates bus passenger services in Hobart, Launceston and Burnie). Metro Tasmania currently has a fleet of 218 vehicles, with 154 of these buses used in and around Hobart. Though Metro passenger levels in Hobart had increased by around 8 per cent between 2008 and 2012, the number of annual passenger boardings fell by around 3 per cent during 2013, partially due to several instances of industrial action (Metro 2013). Metro performs over 400 thousand route services per year in Hobart (on 231 bus routes); and in 2013 accounted for close to 10.4 million in-service bus kilometres throughout the Hobart metropolitan area. By comparison, Mersey link provides 10,500 services per year carrying 330,000 passengers with 80% of the travelers being of student or child concession pass holders.\(^\text{24}\)

\(^{23}\) BITRE Urban Public Transport Updated Trends September 2014.pdf pg 16

\(^{24}\) Tasmanian Bus Association Fact Sheet 2014
Rail

Historically, the state governments operated rail freight transport across Australia. However, following deregulation, privatisation and commercialisation of the industry, rail has developed into a competitive national industry. Rail freight’s key strength is the efficient transportation of non-perishable heavy or bulky products over long distances. This freight is typically made up of homogenous products such as coal, iron ore or grain.

Decades of under-investment mean Australia faces a massive task to bring its rail infrastructure up to speed. Higher productivity trains cannot be introduced to Australia, as the rail network suffers from inefficiencies brought about by:

- Bridges that are too low for double-stacked rail cars;
- Passing loops that limit the length of Australian locomotives to 1.8 kilometres.

Australia’s fleet of approximately 2,200 locomotives has an average age of 36 years, one of the oldest and least efficient in the world. This is limiting operators’ ability to provide a competitive alternative to road transport. Replacement costs in the range of $4 million to $6 million per locomotive mean it would cost between $8.6 billion and $13 billion to replace the nation’s aged fleet.

In Tasmania, the State Government owns TasRail but it is run on a commercial basis. Its operations are categorised into four divisions, above rail, infrastructure, rolling stock and corporate support. Its above rail division services seven major customers and is profitable but its other divisions suffer the same challenges as the industry nationally with under investment in infrastructure and rolling stock.

TasRail transports ore from the west coast of Tasmania to the Burnie ship facility, non-perishable products for Toll with an intermodal train from Burnie to Launceston and Brighton, paper for Norske Skog, zinc for Nyrstar, cement from Railton to Devonport and logs and forest products from the southern forests.

The rail industry is influenced by fluctuations in the Australian dollar, fluctuations in fuel prices and in commodity prices for resources (due to its effect on supply and demand for resources). It is also challenged by the ageing workforce with a median age of 48 and 40% of its workforce over 50 years old. Each of TasRail’s operating divisions have been downsizing due to reduced demand as a result of the above factors. However strategically the business is on a growth plan with a new shipping terminal at Bell Bay, an upgrade of its Burnie facility and competing for an increased share of the non-perishable freight market.

The ‘above rail’ division comprises roughly 39% of the business and employs 86 people, 53 train drivers and 25 rail operators and 8 train controllers. Workers in this area follow a homogenous career path from trainee rail operator through to senior driver. The career path and associated competencies and qualification requirements are detail in company’s enterprise agreement and reference national competencies, skill sets and qualifications. The workforce challenge for this division is the lead-time to becoming a professional driver (six to eight months minimum). Drivers are recruited through two paths, either from other States of Australia or through the rail operator ranks. At the lowest level of entry, as a rail operator (shunting) the company has no recruitment problems. There is some evidence of e-literacy issues among a small number of drivers (who have all been issued with iPads to reference work related documentation).

The infrastructure division employs 70 people engaged in track work and maintenance. There are a number of workforce classifications from semi skilled operatives to trade level specialisations in areas such as bridges and signals. The career pathway is also well described in an enterprise agreement detailing competency requirements for labourer through to senior gang leader. There are also no
recruitment difficulties in finding staff to fill positions.

The ‘rolling stock’ workforce also consists of about 70 employees who have a career path from assistant maintainer through to tradespeople and technicians such as electricians, fitters and diesel mechanics. Recruitment into the higher level roles in this division is harder, particularly experienced trade qualified diesel mechanics and fitters. The work requirements have also changed more recently with the replacement of a significant proportion of the company’s rolling stock.

The corporate services area of the business employs engineers, planners, project managers, financial, human resource and environment professionals. This division is predominantly tertiary qualified and staff tend to be recruited from other states or from major rail service companies such as Downer EDI or Worley Parsons. In order to attract suitable candidates the company has to offer very attractive salary packages. The company runs a summer internship program for graduate engineers but would like to strengthen its relationships with the university to provide a better defined path into its operations.
**Maritime and Ports**

Foreign-owned operators dominate shipping transport in Australia. There are 381 Australia-based operators generating $3.8 billion in revenue. Despite forecast revenue growth in shipping volumes, shipping margins will continue to be depressed because new vessels continue to launch (due to the lag between order and delivery of vessels) and continued rises in wages and fuel costs.25

The next generation of maritime workers is in high demand with an industry dominated by workers about to reach retirement.26 However, a recent survey by the Australian Government27 suggests that recruitment, at this point in time, is not an issue for employers in the Offshore Oil and Gas shipping sector but is in the Blue Water sector. Consultations with shipping operators in Tasmania would suggest that recruitment is also not an issue due to the favourable pay and conditions provided to maritime workers.

Port operations are defined as maintaining and leasing port facilities used in land-sea transition of goods and passengers. It is also a term commonly used to describe stevedoring services, i.e. the loading and unloading of cargo from ships.28

Port volumes are forecast to continue their strong growth trend for containerised and non-containerised freight driven by an increasing demand for imported goods.

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25 Ferrier Hodgson p10
26 More vessels but less workers, Sunday Times, 2012
27 Survey of Employer’s recruitment experiences in the maritime industry – oil and gas sector, DEEWR, Pg 2
28 Ferrier Hodgson p11
Table 3: A broad categorisation of jobs at the port

<table>
<thead>
<tr>
<th>Port Development and Administration</th>
<th>Port Marine Operations</th>
<th>Cargo Operations (stevedores) and Logistics</th>
<th>Port Security and Safety</th>
</tr>
</thead>
<tbody>
<tr>
<td>Port manager</td>
<td>Harbour master</td>
<td>Terminal/ manager</td>
<td>Port Security</td>
</tr>
<tr>
<td>Human resource manager</td>
<td>Marine pilot</td>
<td>Ship supervisor/ Team leader</td>
<td>Officer Port Environment Manager</td>
</tr>
<tr>
<td>Port development officers</td>
<td>Marine engineer</td>
<td>Crane operator</td>
<td>Port Safety Officer</td>
</tr>
<tr>
<td>Berth/wharf manager</td>
<td>Tug master</td>
<td>Straddle operator</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Launch coxswain</td>
<td>Forklift driver</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ship scheduler</td>
<td>Lasher Monitors</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Control tower operator</td>
<td>Planners</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Truckers</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Freight-train drivers</td>
<td></td>
</tr>
</tbody>
</table>

29 Gekara p11
Smaller and/or remote regional ports are finding it extremely difficult to attract people with the required skills, since not many of these people prefer to work and live in the remote regional areas with limited and basic facilities. Many tend to gravitate towards wealthier ports which offer higher wages as well as those located in the proximity of the metropolis. Many of the smaller ports cannot afford to pay the current inflated salary rates in the market. Seemingly many of the state-run ports fall under the category of those that are increasingly affected by the shortage.

The second closely related problem is that most of the ports that have been unable to attract people from the existing pool because of restrictions of location and cost, are forced to shoulder a huge and constant training burden without long-term benefits. They often resort to recruiting people lower down the competency scale and investing in further training and skills upgrade. Unfortunately for them, however, they tend to lose these people as soon as they have attained higher qualifications and acquired the necessary experience.30

Many ports struggle to recruit people with the right skills into critical areas of operations

- Marine pilots
- Harbormasters
- Marine engineers31

The Tasmanian Ports Corporation Pty Ltd (Tasports) a registered, private company fully owned by the Tasmanian Government is responsible for the operations and management of all ports in Tasmania. The company was created following the amalgamation of the state’s four port companies – Hobart Ports Corporation Pty Ltd, Port of Launceston Pty Ltd, Port of Devonport Corporation Pty Ltd and Burnie Port Corporation Pty Ltd – on 1 January 2006.

The Tasmanian Ports Corporation facilitates 99% of Tasmania’s interstate and international trade. Tasmania is very much an export state; with export freight usually twice that of import. Exports represent about 65% of Tasmania’s freight trade.32

All of the major seaports facilitate the freight of goods in and out of the state, and Devonport and Hobart also accommodate significant numbers of passenger ships. Generally, each port has its specialties:

- Hobart - Cruise ships, Navy vessels, Antarctic supply vessels, fertilizers, metals
- Bell Bay (Launceston) – Minerals, fuels, timber, timber products, food
- Devonport – Interstate ferries, wheat grain, cement, fertilizers, fuels
- Burnie – bulk minerals, timber, timber products

The Port Services business unit is responsible for the safe and efficient movement of shipping and cargo through Tasmania’s ports. The main functions of Port Services include pilotage, security, navigation and port control.

Three shipping companies, Toll, SeaRoad and TT Line service the state with mostly containerised freight (other than the bulk loads listed above). The 451,304 container equivalent capacity being carried by 1,774 ship movements.33 The market operates at about 84% capacity (May 2015)34 with the potential to sail on Sundays in peak season.

30 Gekara p12
31 SCLAA Presentation Slide 9
33 Tasmanian Freight Stats Q2 2014.pdf
34 Interview with Port Melbourne Authority Business Development Manager
Aviation

The airline industry in Australia is a small player in a global industry dominated by new business models of low cost carrier models outcompeting legacy airlines. Global/macro economic issues such as fluctuations in the Australian dollar (compared to other currencies) and levels of disposable income to expend on travel and tourism drive these models. In Tasmania this is currently a positive picture with visitation growing year on year, airports expanding and flight numbers increasing.

Running an airline is a labour-intensive business with much of the real activity occurring ‘behind the scenes’ away from view of passengers. Launceston airport for example employs 300 people, only 20% are involved in the ground handling of passengers and luggage. Airlines are highly dependent on their staff, particularly skilled employees such as pilots and technical personnel. Behind fuel costs, labour is the single largest operational cost.

Changing the balance of the workforce to match the changing needs of the airline is an important challenge for airlines. In the past, airline executives would tend to pursue a career in the industry or, indeed, inside a single airline. Today’s and tomorrow’s airlines require a much more fluid and multi-disciplinary range of skills and experience. They face stiff competition from other highly developed and well-paid sectors.

A global shortage in skilled pilots is already affecting many airlines’ operations and strategic plans. Pilot gaps are reported to be forcing schedule cancellations and migration of crew around networks to cover rosters. Looking ahead, Boeing’s long-term market outlook forecasts that 498,000 new commercial airline pilots and 556,000 new maintenance technicians will be needed to fly and maintain the new airplanes entering the world fleet over the next 20 years. However, the retirement of experienced pilots is not being offset by a ready pipeline of trained replacements.

Leadership skills are in demand and are also in short supply. On top of this, future innovation has the potential to accelerate shifts in the mix of skills required. As airlines increasingly focus on merchandising and retailing strategies, new skill sets will be required. And as passenger expectations continue to rise, new customer service capabilities, including the incorporation of social media and interactive platforms, will be necessary.  

Figure 2: Top six business threats to growth (in the aviation sector)

Source: Airline CEOs – PwC Global Airline CEO Survey 2014. All CEOs – PwC 17th Annual Global CEO Survey

36 PwC Global Airline CEO Survey 2014
In the Tasmanian transport workforce context, aviation means ground handling of passengers, luggage and freight. There are three ground handling companies with operations in Tasmania, Aerocare (45 employees in Hobart), Oceania (44 employees in Hobart and 26 in Launceston) and Aus Flight Handling (27 employees in Launceston). Each operate under contract to the airline carriers (Qantas, Jetstar, Virgin Australia, Tiger) with their operations dictated by those contracts (and in turn the Civil Aviation Safety Authority (CASA) requirements). The level of service versus cost is the only point of difference between operators – creating an environment of high price sensitivity and an increasing workload being pushed down the supply chain by airlines.

The ground handling company workforce is comprised of front of house and back of house operations. They operate in a highly regulated environment, to an extent that 5% of the workforce manages administrative and compliance related matters. Generally the workforce is relatively young and there are no formal entry requirements into the sector. Employees are recruited with little difficulty through regular channels (employment agencies, internet, print media etc.), and are chosen on their experience and aptitude demonstrated in ancillary industry such as retail or warehousing.

Once engaged staff are put into formal training pathways in certificate II or III ground operations or certificate III in aviation operations. Whilst the pathways have accredited outcomes and certificate III is the benchmark for all staff the content and context is specific for each airline. As a result accredited training that incorporates the airline requirements is not currently available through registered training organisations.

Attrition is the biggest workforce challenge for operators, with a 15% rate within Tasmania (nationally this is higher at 22%) – for Aus Flight Handling alone this creates a requirement for 30 new staff per year that need to be recruited and trained to the required performance level. This challenge is heightened by an increasing compliance burden from CASA and the Office of National Security and an increasing volume of work from the explosion in regional and niche tourism being experienced in Tasmania.

A second challenge is in supervisory/ front line management training – with an average of 1 supervisor for every 5 operators – coping with the churn and specialist knowledge required.
Government factors

The Australian government has defined the need for substantive action on issues pertaining to workforce planning in transport and logistics concerning, supply of skills, education and training, career development and safety issues.

In Tasmania, three sections of a single Department play a role in the transport and logistics industry skills and workforce development issues. Skills Tasmania is responsible for the development of policy advice and support for skills development. The road user services section has a particular focus on infrastructure policy and planning whilst the broader Department of State Growth has overall responsibility for economic and industry development in Tasmania. The operations of all three agencies impact on workforce development.

The Tasmanian Government has established the Tasmanian Infrastructure Advisory Council, with representatives from the major economic sectors, to provide advice to government on providing and planning economic infrastructure across transport, energy, water and digital infrastructure.26

Policies and initiatives that are being implemented are currently associated with the establishment of a single regulator for the road transport industry: the National Heavy Vehicle Regulator (NHVR) and encapsulated in the Heavy Vehicle National Law and regulations.27

1. Fatigue Management Regulations – with impact on legal work/rest hours, use of the National Driver Work Diary, Accreditation Schemes and Standards

Implementation of the fatigue chapter of the National Heavy Vehicle Law commenced in Tasmania on 30th March 2015. The key changes associated with this are the introduction of the National Driver Work Diary and a reduction in standard working hours available to operators from 14 to 12, unless the operator achieves accreditation under the Basic or Advanced Fatigue Management Standard. Accreditation includes requirements for formal training with nationally recognised qualification outcomes for schedulers and for drivers. A unit of competency is available to cover the completion of a driver work diary in the transport industry.


Tasmanian transport operators use permits to allow the transport of over weight or over dimensional loads. Prior to the introduction of the National Heavy Vehicle Regulator, these permits were issued by the Tasmanian Department of Infrastructure Energy and Resources. The NHVR processes for permits and management of access across Australia did not work when implemented in February 2014 and required assistance from Tasmania including from the Tasmanian Transport Association.

Operators have a range of support needs associated with the Access Management System of the National Heavy Vehicle Regulator and use of the Journey Route Planning tool.

A related training need in this theme is Mass Management Accreditation; another function which now falls under the management of the National Heavy Vehicle Regulator.

3. Chain of Responsibility - Concept of Extended Liability, Reasonable Steps Defence, Identification of Parties to the Chain

Chain of Responsibility and the concept of extended liability effectively holds all parties with control or influence in the transport chain liable for breaches of the Heavy Vehicle National Law. This is new to Tasmania but has been in place in other states for some time. Transport businesses need to assess their business systems

26 Tasmanian Transport and Logistics Skills Plan, Skills Tasmania 2011
27 TTA TTLWAG “Beyond Compliance” Project Stage 1 Final Report.pdf
to make sure that they have reasonable steps in place to manage the risk of breaches to the law. Because Chain of Responsibility extends throughout the transport chain all parties in the chain need to be involved in understanding how their operations impact on others in the chain and their associated obligations to take reasonable steps to prevent breaches to the Heavy Vehicle National Law.

The Transport and Logistics Industry Training Package includes units of competency to reflect the Chain of Responsibility impact on the range of parties in the industry and supply chain.

4. Regulatory Framework - Heavy Vehicle National Law, application in Tasmania, Chapters of the law, Regulations, Notices, Permits, Relationship to other laws such as WHS, Enforcement and Penalties

Tasmanian businesses have expressed confusion about navigating heavy vehicle national law and its application to their specific operations. Few businesses have a dedicated resource capable of finding and interpreting the laws that apply to transport and have concerns that they may be – unknowingly – operating in contravention of the laws.
Regional/Local factors

There are several current local issues that will impact on the industry.

1. The Tasmanian Freight Equalisation Scheme

The Tasmanian Freight Equalisation Scheme was first announced in 1976 by Prime Minister Gough Whitlam in a bid to counter the disadvantages posed by Bass Strait. Australian governments have outlaid more than $2 billion since its inception.

On 13/3/15 the Federal Government announced a $203 million expansion to the Tasmanian Freight Equalisation Scheme. The expansion, $50.75 million a year over four years, represents an increase of more than 40 per cent in the Commonwealth’s annual investment.

A member of the Big Picture group38 of industrial companies, Mr Bender of Norske Skog told ABC radio the $700 per container subsidy would give companies access to markets it did not presently economically ship to. Mr Bender said the differentiation between export and domestic use goods had been a big problem.

At present goods shipped across Bass Strait bound for domestic markets receive a subsidy whereas export-bound goods such as zinc and newsprint do not.

“For us and some of the commodity and primary producers of the state this will be an important support for our businesses,” he said.29

2. Port of Melbourne rent rises

Tasmania’s largest international freight company will consider bypassing the Port of Melbourne if a projected rent rise eventuates.

ANL managing director John Lines said the Port of Melbourne Corporation’s proposal to increase stevedore DP World Australia’s rent by about 800 per cent was exorbitant and could result in the shipper bypassing the port. DP World chief executive Paul Scurrah said the increase — from $15 a square metre to $120 — would put a huge burden on businesses that use the Port of Melbourne to reach interstate and international markets.

Mr Lines said ANL would look at shipping freight directly from Bell Bay rather than trans-shipping it in Melbourne if the proposed rent rise was implemented.

“We would look at putting our ship into Bell Bay to pick up Tasmanian cargo,” he said. The cargo would then go on to Sydney or Brisbane before leaving Australia. Mr Lines said ANL shipped about 50 containers a week out of Tasmania.40

3. Hobart Airport expansion

Hobart Airport expansion - a “letter of comfort” has been signed between the Federal Government and the Hobart International Airport for the $38 million project to extend the runway by 500 metres. This would allow the first mainstream international commercial flights since 2003, a direct route to South-East Asia, more international charter flights, provide a big tourism boost and cement Hobart’s reputation as a gateway to Antarctica. “The airport expects the extended runway could be operational in early 2016”.41

38 The Big Picture group includes aluminium producer Bell Bay Aluminium, Grange Resources, Nyrstar and Norske Skog.

Tasmanian Transport and Logistics Workforce Plan 2015 - 2018
Current Workforce Profile

Table 4 below gives a breakdown of the transport and storage workforce compared with all other industries nationally in 2014.

Table 4: The National Transport & Storage Industry compared to all industries

<table>
<thead>
<tr>
<th></th>
<th>Transport &amp; Storage</th>
<th>All Industries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employees (%)</td>
<td>33.3</td>
<td>88.3</td>
</tr>
<tr>
<td>Self-employed (%)</td>
<td>66.6</td>
<td>11.7</td>
</tr>
<tr>
<td>Age profile (%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15-19 years</td>
<td>1.0</td>
<td>6.0</td>
</tr>
<tr>
<td>20-24 years</td>
<td>5.5</td>
<td>10.0</td>
</tr>
<tr>
<td>25-29 years</td>
<td>9.0</td>
<td>11.0</td>
</tr>
<tr>
<td>30-34 years</td>
<td>9.0</td>
<td>10.0</td>
</tr>
<tr>
<td>35-39 years</td>
<td>11.0</td>
<td>11.0</td>
</tr>
<tr>
<td>40-44 years</td>
<td>12.0</td>
<td>11.0</td>
</tr>
<tr>
<td>45-49 years</td>
<td>13.0</td>
<td>10.5</td>
</tr>
<tr>
<td>50-54 years</td>
<td>12.0</td>
<td>10.0</td>
</tr>
<tr>
<td>55-59 years</td>
<td>13.0</td>
<td>10.0</td>
</tr>
<tr>
<td>60-64 years</td>
<td>8.0</td>
<td>5.5</td>
</tr>
<tr>
<td>65+ years</td>
<td>13.0</td>
<td>3.0</td>
</tr>
<tr>
<td>Female (%)</td>
<td>25.7</td>
<td>44.9</td>
</tr>
<tr>
<td>Full-time/part-time status (%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full-time</td>
<td>69.5</td>
<td>71.6</td>
</tr>
<tr>
<td>Part-time</td>
<td>30.4</td>
<td>28.4</td>
</tr>
<tr>
<td>Level of highest qualification</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diploma and above</td>
<td>20.5</td>
<td>31.7</td>
</tr>
<tr>
<td>Certificate III/IV</td>
<td>19.2</td>
<td>17</td>
</tr>
<tr>
<td>Certificate I/II</td>
<td>6.1</td>
<td>6</td>
</tr>
<tr>
<td>No post-school qualification/</td>
<td>54.2</td>
<td>45.3</td>
</tr>
<tr>
<td>not defined</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apprentices and trainees</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Completions</td>
<td>12 091</td>
<td>142 900</td>
</tr>
</tbody>
</table>

42 TLISC EScan 2015 and ABS 6291.0.55.003 Labour Force Australia
43 2009 data
The data in Table 4 shows that when compared to the whole of industry in Australia, the Transport and storage industry has a very high proportion of self employed/ small businesses, employs less young people than average and a higher number of people aged over 45. The majority of workers are full time and male.

Although over half (54%) of employees do not have post-school education compared to 45% in other industries, the transport sector has more people with Certificate I to IV than others combined. Only 20% of employees have gone beyond this to do a Diploma or above in comparison to 32% for other industries. As growth continues in the industry and the numbers exiting start to accelerate there will be a need for significant growth in supervisor and management training and also on mentoring existing staff through the work hierarchy.

The workforce has low educational attainment, with only 26 per cent having completed year 12. Year 10 is the highest level of schooling attained for nearly half (48 per cent) of the industry’s workforce. This contrasts strongly with the national average of 47 per cent having completed year 12.

Of the 37 per cent of the industry’s workforce that provided details of their non-school qualifications in the 2011 Census, 87 per cent hold a VET qualification as their highest qualification. A majority (63 per cent) hold a Certificate III or IV as their highest level of qualification. Nationally, Certificate III and IV qualifications account for a smaller proportion of qualifications held by the workforce yet are still the most common at 47 per cent.\(^44\)

The Transport and Logistics industry is not alone in having a workforce with lower educational attainment. According to the Tasmanian Skills Strategy (2008-2015):

- 50% of Tasmanians do not have the literacy skills to function effectively in society;
- The retention rate for Tasmanians transitioning from Year 10 through to Year 12 is 65.3%;
- 41.4% of the population over 15 years have post school qualifications;
- 33.4% of the Tasmanian population aged 15 to 64 have Certificate III and above qualifications;

All these figures are the lowest in the nation.\(^45\)

In February 2015, the transport and storage industry employed 12,800 people in Tasmania, a net growth of 4,100 people since 2006.\(^46\)

Table 5 following ranks the projected increases in employment numbers by occupation for the period 2006/07 to 2014/15, based on the contribution of the growth in that occupation to the specific industry sector. The table also details the projected percentage change over the period, how the occupation ranks overall in projected growth and the actual number of people anticipated to be employed in that occupation (but not specific to the sector i.e. road, rail, water, air) in 2014/15.\(^47\)

\(^{44}\) 2011 Census of Population and Housing Australian Bureau of Statistics

\(^{45}\) Skills – Creating our future - The Tasmanian Skills Strategy 2008 – 2015

\(^{46}\) ABS 6291.0.55.003 Labour Force Australia detailed quarterly Feb 2015

Table 5: Top 10 Occupations by contribution to industry growth in Tasmania

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Total Change %</th>
<th>Average annual Change %</th>
<th>Employed (No)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Store persons</td>
<td>33.31</td>
<td>3.66</td>
<td>5,579</td>
</tr>
<tr>
<td>2 Office Managers</td>
<td>52.83</td>
<td>5.44</td>
<td>4,919</td>
</tr>
<tr>
<td>3 Truck Drivers</td>
<td>11.61</td>
<td>1.38</td>
<td>4,556</td>
</tr>
<tr>
<td>4 Inquiry &amp; Admissions Clerks</td>
<td>18.19</td>
<td>2.11</td>
<td>4,455</td>
</tr>
<tr>
<td>5 General Managers</td>
<td>61.79</td>
<td>6.2</td>
<td>3,318</td>
</tr>
<tr>
<td>6 General Clerks</td>
<td>50.62</td>
<td>5.25</td>
<td>2,965</td>
</tr>
<tr>
<td>7 Forklift Drivers</td>
<td>32.07</td>
<td>3.54</td>
<td>1,519</td>
</tr>
<tr>
<td>8 Supply &amp; Distribution Managers</td>
<td>52.28</td>
<td>5.4</td>
<td>1,059</td>
</tr>
<tr>
<td>9 Bus Drivers</td>
<td>12.78</td>
<td>1.51</td>
<td>1,042</td>
</tr>
<tr>
<td>10 Transport Company Managers</td>
<td>60.38</td>
<td>6.08</td>
<td>454</td>
</tr>
</tbody>
</table>

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48 ibid
The fastest growing occupations are managerial roles (i.e. high skill and experience occupations), followed by lower skill vocations such as forklift drivers and store persons. Nearly half of the industry’s workforce is employed as road and rail drivers (44 per cent). The other 56 per cent of the industry are spread across a range of occupations, the majority of which are generalist occupations supporting the general business activities of the industry, such as clerical and administrative workers (4 per cent) and sales assistants and salespersons (2 per cent).49

It is of note that the top 10 occupations in the industry account for 29,866 people, less than half of which are employed in the transport industry directly. This reflects the hidden nature of the industry’s operations, which are often ‘counted’ elsewhere, for example Woolworth’s warehousing operations are counted as retail employment.

Over the last three years there has been a growth in the number of students enrolling in national qualifications, however much of this growth can be attributed to pre-entry level training in certificate I and certificate II courses. When these courses are removed from the totals the volume of training has remained the same for the last two years at around 1,100 students per annum. Within these totals there are some areas of note:

• No recognised training activity in the rail sector;
• No recognised training activity in the stevedoring sector;
• A decline in the base qualification (Certificate III in Driving Operations) in the road transport sector;
• Very few full qualification pathways with on average about 4 units per student being pursued;
• Growth in numbers in the maritime operations area;
• Growth (albeit small) in numbers in higher level logistics qualifications.

The lack of spread of training both across sectors and across qualification levels combined with very low adoption of the national training system to support workforce development is a critical concern to the future productivity of the industry.

Note: the data used is based on the reporting by RTOs under a model where only “reportable” training is required to be reported. There may have been training and assessment, using the national training framework including individual units of competency, skill sets and qualifications occurring in the industry under fee for service arrangements that is not therefore reflected in the data.

Over the next 15 years, the workforce will continue to grow but its age structure will change significantly. By 2020, people aged between 50 and 65 will comprise 45% of the working-age population. As previously reported the industry is ‘top heavy’ with older workers and attracts very few younger workers. Left unchecked, a poor community perception of the industry – leading to an inability to attract younger generations, will continue to be a major contributing factor to future recruitment difficulties and potential skill shortages.

Given the dominance of compliance based training in the industry it is noted that 5 state and 19 commonwealth based occupational licences50 may be required for work, on top of a myriad of non-legislative based tickets and permits. Occupational licences are often linked to VET requirements where, to obtain the licence, particular VET outcomes need to be achieved. Note that general licences such as driver’s licences are excluded from this table.

50 An occupational licence is defined as ‘any form of regulation that restricts entry to an occupation or profession to people who meet requirements stipulated by a regulatory authority
Table 6 Transport and Logistics Student enrolments by Qualification

<table>
<thead>
<tr>
<th>Qualification Name</th>
<th>2012 Student Count</th>
<th>2013 Student Count</th>
<th>2014 Student Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>AVI30408 CERTIFICATE III IN AVIATION (GROUND OPERATIONS AND SERVICE)</td>
<td>21</td>
<td>19</td>
<td></td>
</tr>
<tr>
<td>AVI50408 DIPLOMA OF AVIATION (INSTRUMENT FLIGHT OPERATIONS)</td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>MAR10413 CERTIFICATE I IN MARITIME OPERATIONS (COXSWAIN GRADE 2 NEAR COASTAL)</td>
<td></td>
<td>154</td>
<td></td>
</tr>
<tr>
<td>MAR20413 CERTIFICATE II IN MARITIME OPERATIONS (MARINE ENGINE DRIVER GRADE 3 NEAR COASTAL)</td>
<td></td>
<td>26</td>
<td></td>
</tr>
<tr>
<td>MAR30113 CERTIFICATE III IN MARITIME OPERATIONS (INTEGRATED RATING)</td>
<td></td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>MAR30913 CERTIFICATE III IN MARITIME OPERATIONS (MASTER UP TO 24 METRES NEAR COASTAL)</td>
<td></td>
<td>38</td>
<td></td>
</tr>
<tr>
<td>MARSS0008 SHIPBOARD SAFETY SKILL SET</td>
<td></td>
<td>280</td>
<td></td>
</tr>
<tr>
<td>TLI10107 CERTIFICATE I IN TRANSPORT AND LOGISTICS (WAREHOUSING AND STORAGE)</td>
<td>24</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>TLI10207 CERTIFICATE I IN TRANSPORT AND LOGISTICS (ROAD TRANSPORT)</td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>TLI11210 CERTIFICATE I IN WAREHOUSING OPERATIONS</td>
<td>14</td>
<td>17</td>
<td>8</td>
</tr>
<tr>
<td>TLI11310 CERTIFICATE I IN LOGISTICS</td>
<td></td>
<td>105</td>
<td></td>
</tr>
<tr>
<td>TLI20107 CERTIFICATE II IN TRANSPORT AND LOGISTICS (WAREHOUSING AND STORAGE)</td>
<td>52</td>
<td>22</td>
<td>9</td>
</tr>
<tr>
<td>TLI20207 CERTIFICATE II IN TRANSPORT AND LOGISTICS (ROAD TRANSPORT)</td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>TLI21210 CERTIFICATE II IN DRIVING OPERATIONS</td>
<td>2</td>
<td>132</td>
<td>266</td>
</tr>
<tr>
<td>TLI21310 CERTIFICATE II IN RAIL INFRASTRUCTURE</td>
<td>55</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>TLI21410 CERTIFICATE II IN STEVEDORING</td>
<td>93</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TLI21510 CERTIFICATE II IN FURNITURE REMOVAL</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>TLI21610 CERTIFICATE II IN WAREHOUSING OPERATIONS</td>
<td>168</td>
<td>49</td>
<td>84</td>
</tr>
<tr>
<td>TLI21810 CERTIFICATE II IN LOGISTICS</td>
<td>8</td>
<td></td>
<td>102</td>
</tr>
<tr>
<td>TLI30107 CERTIFICATE III IN TRANSPORT AND LOGISTICS (WAREHOUSING AND STORAGE)</td>
<td>132</td>
<td>36</td>
<td></td>
</tr>
<tr>
<td>TLI30207 CERTIFICATE III IN TRANSPORT AND LOGISTICS (ROAD TRANSPORT)</td>
<td>192</td>
<td>54</td>
<td></td>
</tr>
<tr>
<td>TLI30410 CERTIFICATE III IN TRANSPORT AND LOGISTICS (RAIL OPERATIONS)</td>
<td>20</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>TLI31107 CERTIFICATE III IN TRANSPORT AND LOGISTICS (LOGISTICS OPERATIONS)</td>
<td>8</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>TLI31210 CERTIFICATE III IN DRIVING OPERATIONS</td>
<td>108</td>
<td>240</td>
<td>217</td>
</tr>
<tr>
<td>TLI31510 CERTIFICATE III IN STEVEDORING</td>
<td>19</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

Data supplied for 2012, 2013 & YTD 2014 - For all VET activity captured by Skills Tasmania, with non-reportable result outcomes excluded. Counts are student enrolments in a qualification and does not necessarily mean that the entire qualification forms the enrolment, in fact the average per annum is ~4 units per student.
<table>
<thead>
<tr>
<th>Qualification Name</th>
<th>2012 Student Count</th>
<th>2013 Student Count</th>
<th>2014 Student Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>TLI31610 CERTIFICATE III IN WAREHOUSING OPERATIONS</td>
<td>60</td>
<td>568</td>
<td>397</td>
</tr>
<tr>
<td>TLI32410 CERTIFICATE III IN LOGISTICS</td>
<td>24</td>
<td>68</td>
<td>262</td>
</tr>
<tr>
<td>TLI32510 CERTIFICATE III IN RAIL INFRASTRUCTURE</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TLI32511 CERTIFICATE III IN RAIL INFRASTRUCTURE</td>
<td>11</td>
<td>22</td>
<td></td>
</tr>
<tr>
<td>TLI40107 CERTIFICATE IV IN TRANSPORT AND LOGISTICS (WAREHOUSING AND STORAGE)</td>
<td>32</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>TLI40207 CERTIFICATE IV IN TRANSPORT AND LOGISTICS (ROAD TRANSPORT)</td>
<td>30</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>TLI41107 CERTIFICATE IV IN TRANSPORT AND LOGISTICS (LOGISTICS)</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TLI41207 CERTIFICATE IV IN TRANSPORT AND LOGISTICS (ROAD TRANSPORT - CAR DRIVING INSTRUCTION)</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>TLI41210 CERTIFICATE IV IN TRANSPORT AND LOGISTICS (ROAD TRANSPORT - CAR DRIVING INSTRUCTION)</td>
<td>1</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>TLI41810 CERTIFICATE IV IN WAREHOUSING OPERATIONS</td>
<td>2</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>TLI42010 CERTIFICATE IV IN LOGISTICS</td>
<td>20</td>
<td>30</td>
<td>142</td>
</tr>
<tr>
<td>TLI50107 DIPLOMA OF LOGISTICS</td>
<td>22</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>TLI50410 DIPLOMA OF LOGISTICS</td>
<td>1</td>
<td>12</td>
<td>8</td>
</tr>
<tr>
<td>TLI60210 ADVANCED DIPLOMA OF DEPLOYMENT LOGISTICS</td>
<td>19</td>
<td>7</td>
<td>47</td>
</tr>
</tbody>
</table>
Table 7: Occupational Licences for the Tasmanian Transport, Postal and Warehousing Industry

<table>
<thead>
<tr>
<th>Licence Name</th>
<th>Legislation</th>
<th>Jurisdiction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dangerous Goods Drivers Licence</td>
<td>Dangerous Goods (Road and Rail Transport) Act 2010</td>
<td>State</td>
</tr>
<tr>
<td>Certificate of Competency for the Operation of a Commercial Vessel</td>
<td>Marine and Safety Authority Act 1997</td>
<td>State</td>
</tr>
<tr>
<td>Marine Pilot Licence</td>
<td>Marine and Safety Authority Act 1997</td>
<td>State</td>
</tr>
<tr>
<td>Gas-Fitting Practitioner (Certifier) Licence</td>
<td>Occupational Licensing Act 2005</td>
<td>State</td>
</tr>
<tr>
<td>Accreditation as a Public Passenger Vehicle Operator</td>
<td>Passenger Transport Act 1997</td>
<td>State</td>
</tr>
<tr>
<td>Accreditation for Rail Transport Operator</td>
<td>Rail Safety National Law (Tasmania) Act 2012</td>
<td>Commonwealth</td>
</tr>
<tr>
<td>Registration of Rail Infrastructure Manager of a Private Siding</td>
<td>Rail Safety National Law (Tasmania) Act 2012</td>
<td>Commonwealth</td>
</tr>
<tr>
<td>Owner-Operator Taxi Licence</td>
<td>Taxi and Luxury Hire Car Industries Act 2008</td>
<td>Commonwealth</td>
</tr>
<tr>
<td>Registration of Hire and Drive (Vehicles and Operators)</td>
<td>Traffic Act 1925</td>
<td>Commonwealth</td>
</tr>
<tr>
<td>Approval as a Vehicle Examiner</td>
<td>Vehicle and Traffic Act 1999</td>
<td>Commonwealth</td>
</tr>
<tr>
<td>Seat or Seat Belt Installer Licence</td>
<td>Vehicle and Traffic Act 1999</td>
<td>Commonwealth</td>
</tr>
<tr>
<td>Licence to Carry out High Risk Work</td>
<td>Work Health and Safety Act 2012</td>
<td>Commonwealth</td>
</tr>
<tr>
<td>Air Operator Certificate (AOC)</td>
<td>Civil Aviation Act 1988</td>
<td>Commonwealth</td>
</tr>
<tr>
<td>Air Traffic Control (ATC) Licence</td>
<td>Civil Aviation Act 1988</td>
<td>Commonwealth</td>
</tr>
<tr>
<td>Air Transport Pilot Licence (ATPL)</td>
<td>Civil Aviation Act 1988</td>
<td>Commonwealth</td>
</tr>
<tr>
<td>Aircraft Maintenance Engineers Licence (AME)</td>
<td>Civil Aviation Act 1988</td>
<td>Commonwealth</td>
</tr>
<tr>
<td>Approval of Synthetic Flight Trainer</td>
<td>Civil Aviation Act 1988</td>
<td>Commonwealth</td>
</tr>
<tr>
<td>Authorisation as an Authorised Designer</td>
<td>Civil Aviation Act 1988</td>
<td>Commonwealth</td>
</tr>
<tr>
<td>Licence Name</td>
<td>Legislation</td>
<td>Jurisdiction</td>
</tr>
<tr>
<td>------------------------------------------------------------------------------</td>
<td>------------------------------------</td>
<td>-----------------------</td>
</tr>
<tr>
<td>(ASIC)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Certificate of Approval - Aircraft or Aircraft Components (COA)</td>
<td>Civil Aviation Act 1988</td>
<td>Commonwealth</td>
</tr>
<tr>
<td>Certificate of Competency: Deck Officers (AMSA)</td>
<td>Navigation Act 1912</td>
<td>Commonwealth</td>
</tr>
<tr>
<td>Certificate of Competency: Engineer (AMSA)</td>
<td>Navigation Act 1912</td>
<td>Commonwealth</td>
</tr>
<tr>
<td>Certificate of Proficiency as Integrated Rating (AMSA)</td>
<td>Navigation Act 1912</td>
<td>Commonwealth</td>
</tr>
<tr>
<td>Certificate of Safety Training</td>
<td>Navigation Act 1912</td>
<td>Commonwealth</td>
</tr>
<tr>
<td>Certification to Operate as a Certified Designer</td>
<td>Civil Aviation Act 1988</td>
<td>Commonwealth</td>
</tr>
<tr>
<td>Coastal Pilot Licence</td>
<td>Navigation Act 1912</td>
<td>Commonwealth</td>
</tr>
<tr>
<td>Commercial Pilot Licence (CPL)</td>
<td>Civil Aviation Act 1988</td>
<td>Commonwealth</td>
</tr>
<tr>
<td>Flight Crew Licence</td>
<td>Civil Aviation Act 1988</td>
<td>Commonwealth</td>
</tr>
<tr>
<td>Flight Engineer Licences</td>
<td>Civil Aviation Act 1988</td>
<td>Commonwealth</td>
</tr>
<tr>
<td>Flight Radiotelephone Operator Licence</td>
<td>Civil Aviation Act 1988</td>
<td>Commonwealth</td>
</tr>
</tbody>
</table>

Clearly any training and workforce development solution needs to ‘wrap’ occupational compliance requirements as an output rather than an end point, if it is to advance the productivity of the workforce.
Workforce priorities

The latest intelligence on the employer identified skills needs by sector, nationally, comes from the TLISC Escan. Percentages are needs identified ‘to a great extent’.\(^{52}\)

The set of emerging skills identified are:

- Supply Chain Managers with strong business management skills;
- Systems and technological skills to manage increasingly automated supply chains;
- Operational management skills to implement overhead reduction strategies and improve yields;
- Technology and systems expertise – network services, innovation of freight systems, communication technology and safe working systems;\(^{53}\)
- Compliance related skills and certification.

Table 9: Workforce Priorities

<table>
<thead>
<tr>
<th></th>
<th>Logistics</th>
<th>Road Transport</th>
<th>Aviation</th>
<th>Rail</th>
<th>Maritime and Ports</th>
</tr>
</thead>
<tbody>
<tr>
<td>Problem solving</td>
<td>17%</td>
<td>18%</td>
<td>20%</td>
<td>27%</td>
<td>13%</td>
</tr>
<tr>
<td>Leadership and management</td>
<td>23%</td>
<td>18%</td>
<td>28%</td>
<td></td>
<td>19%</td>
</tr>
<tr>
<td>Teaching and training</td>
<td>23%</td>
<td>23%</td>
<td>28%</td>
<td></td>
<td>13%</td>
</tr>
<tr>
<td>Language, literacy and numeracy</td>
<td>9%</td>
<td>14%</td>
<td>12%</td>
<td>9%</td>
<td>6%</td>
</tr>
<tr>
<td>Information technology</td>
<td>16%</td>
<td>11%</td>
<td>4%</td>
<td></td>
<td>31%</td>
</tr>
<tr>
<td>Financial Management</td>
<td>6%</td>
<td>9%</td>
<td>8%</td>
<td></td>
<td>19%</td>
</tr>
</tbody>
</table>

\(^{52}\) TLISC Escan 2015
\(^{53}\) TLISC Escan 2014 Pg 3
Table 9: Occupations and Qualifications in Demand\textsuperscript{54}

<table>
<thead>
<tr>
<th>ANZSCO Code</th>
<th>Occupation title</th>
<th>Relevant qualification</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Logistics Management and Warehousing</strong></td>
<td></td>
</tr>
</tbody>
</table>
| 591212      | Import-Export Clerk  
Customs Brokers  
Freight Forwarding Operators | TLI31310 Certificate III in International Freight Forwarding (Operator)  
TLI41610 Certificate IV in International Freight Forwarding (Senior Operator)  
TLI50310 Diploma of International Freight Forwarding  
TLI50813 Diploma of Customs Broking |
| 74111       | Storeperson  
Store Assistant/Warehouse Assistant | TLI21610 Certificate II in Warehousing Operations  
TLI31610 Certificate III in Warehousing Operations |
| 721311      | Forklift Driver  
Forklift Operator  
Container Forklift Operator (including Reach Stacker) | TLI21610 Certificate II in Warehousing Operations  
TLI31610 Certificate III in Warehousing Operations |
| 242211      | Vocational Education Teacher  
Workplace Training and Assessor – transport industry specific | TAE40110 Certificate IV in Training and Assessment |
| 591116      | Warehouse Administrator  
Warehouse Administrator/Warehouse Manager | TLI41810 Certificate IV in Warehousing Operations  
TLI50410 Diploma of Logistics |
|             | **Road Transport** | |
| 149413, 133611 | Transport Company Manager,  
Supply and Distribution Manager Transport/Logistics Manager (Supply Chain Management, Procurement, Inventory Management, Distribution Management) | TLI42010 Certificate IV in Logistics  
TLI50410 Diploma of Logistics |
| 733111      | Truck Driver (General)  
**Truck Driver (General, Freight, Multi Combination, B-Double)** | TLI21210 Certificate II in Driving Operations  
TLI31210 Certificate III in Driving Operations |
| 732111      | Delivery Driver  
Delivery Driver (M/R – H/R licence) | TLI21210 Certificate II in Driving Operations  
TLI31210 Certificate III in Driving Operations |
| 731112      | Taxi Driver | TLI21210 Certificate II in Driving Operations |

\textsuperscript{54} TLISC EScan 2014
<table>
<thead>
<tr>
<th>ANZSCO Code</th>
<th>Occupation title</th>
<th>Relevant qualification</th>
</tr>
</thead>
<tbody>
<tr>
<td>731211,2,3</td>
<td>Bus Driver, Charter and Tour Bus Driver, Passenger Coach Driver, Bus Driver</td>
<td>TLI31210 Certificate III in Driving Operations</td>
</tr>
<tr>
<td>242211</td>
<td>Vocational Education Teacher Workplace Trainer and Assessor – transport industry specific</td>
<td>TLI41310 Certificate IV in Transport and Logistics (Road Transport – Heavy Vehicle Driving Instruction) TAE40110 Certificate IV in Training and Assessment</td>
</tr>
</tbody>
</table>

### Train

<table>
<thead>
<tr>
<th>ANZSCO Code</th>
<th>Occupation title</th>
<th>Relevant qualification</th>
</tr>
</thead>
<tbody>
<tr>
<td>731311</td>
<td>Train Driver Locomotive Driver, Train Driver</td>
<td>TLI33213 Certificate III in Terminal Train Driving TLU42613 Certificate IV in Train Driving</td>
</tr>
<tr>
<td>821611, 721914</td>
<td>Railway Track Worker, Railway Track Plant Operator Railway Track Worker Railway Track Plant Operator Team Leader Infrastructure Track Patroller/ Inspector</td>
<td>TLI21311 Certificate II in Rail Infrastructure TLI31811 Certificate III in Rail Track Surfacing TLI32111 Certificate III in Rail Structures TLI32511 Certificate III in Rail Infrastructure TLU42311 Certificate IV in Rail Infrastructure</td>
</tr>
<tr>
<td>133111</td>
<td>Construction Project Manager Supervisors/Project Managers</td>
<td></td>
</tr>
<tr>
<td>242211</td>
<td>Vocational Education Teacher Workplace Trainer and Assessor – rail industry specific</td>
<td>TAE40110 Certificate IV in Training and Assessment</td>
</tr>
<tr>
<td>233311, 233214, 233215</td>
<td>Civil Engineer Structural Engineer Transport Engineer Rail Engineer Rail Signalling Engineer Systems Analyst</td>
<td></td>
</tr>
</tbody>
</table>

### Aviation

<table>
<thead>
<tr>
<th>ANZSCO Code</th>
<th>Occupation title</th>
<th>Relevant qualification</th>
</tr>
</thead>
<tbody>
<tr>
<td>231111</td>
<td>Aeroplane Pilot</td>
<td>AVI40108 Certificate IV in Aviation (Commercial Pilot Aeroplane Licence)</td>
</tr>
<tr>
<td>451711</td>
<td>Flight Attendant</td>
<td>AVI20208 Certificate II in Aviation (Flight Operations) AVI30208 Certificate III in Aviation (Flight Operations)</td>
</tr>
<tr>
<td>231112</td>
<td>Air Traffic Controller</td>
<td>AVI50308 Diploma of Aviation (Air Traffic Control)</td>
</tr>
<tr>
<td>323111,2,3</td>
<td>Aircraft Maintenance Engineer (Avionics, Mechanical,</td>
<td>MEA40611 Certificate IV in Aeroskills (Avionics)</td>
</tr>
<tr>
<td>ANZSCO Code</td>
<td>Occupation title</td>
<td>Relevant qualification</td>
</tr>
<tr>
<td>-------------</td>
<td>------------------</td>
<td>------------------------</td>
</tr>
</tbody>
</table>
| 721911      | Aircraft Baggage Handler | MEA50111 Diploma of Aeroskills (Avionics)  
|             | Airline Ground Crew   | MEA40711 Certificate IV in Aeroskills (Mechanical)  
|             | Load Controller       | MEA50211 Diploma of Aeroskills (Mechanical)  
|             |                   | MEA41311 Certificate IV in Aeroskills (Structures) |
| Maritime & Ports |                     |                        |
| 891113      | Waterside Worker    | AVI30408 Certificate III in Aviation (Ground Operations and Service) |
| 712111      | Crane, Hoist or Lift Operator |                        |
| 721311      | Forklift Driver     |                        |
| 721999      | Mobile Plant Operator nec* |                        |
|             | Stevedore           |                        |
|             | Crane Driver        |                        |
|             | Forklift Operator   |                        |
|             | Gantry Crane Operator |                      |
|             | Straddle Carrier Operator |                  |
| 139999      | Harbour Master      | MAR60213 Advanced Diploma of Maritime Operations (Master Unlimited) |
| 599914      | Radio Despatcher    |                        |
|             | Vessel Traffic Services (VTS) Operator |                  |
| 149413      | Transport Company Manager |                  |
| 133611      | Supply and Distribution Manager |              |
| 139999      | Specialist Manager nec* |                        |
|             | Port Manager        |                        |
|             | Terminal Manager    |                        |
|             | Terminal Operator   |                        |
|             | Berth and Terminal Planner |                 |
| 231212      | Ship's Engineer     | MAR50213 Diploma of Maritime Operations (Engineer Watchkeeper) |
|             | Marine Engineer     | MAR50113 Diploma of Maritime Operations (Marine Engineering Class 3)  
|             |                   | MAR60313 Advanced Diploma of Maritime Operations (Marine Engineering Class 1)  
|             |                   | MAR60113 Advanced Diploma of Maritime Operations (Marine Engineering Class 2) |
Within the Tasmanian context the occupations bolded in table 8 above stand out as highest in demand, namely:

- Experienced, licenced multi combination vehicle drivers
- Bus drivers
- Rail engineers
- Aircraft baggage handler and airline ground crew
- Trainers and assessors with appropriate industry vocational currency
- Diesel mechanics (not in table above)

**Existing workforce development initiatives**

**Job Ready Pre Employment Program**

The “SRT Job Ready Program” was conceived as an innovative approach to meet the objective to recruit competent and job ready people for Heavy Rigid Truck Multi Drop Delivery Driving and the Multi Combination Truck Driving roles at SRT Logistics. The program was designed as a pilot and featured highly effective partnerships between SRT Logistics, the Registered Training Organisation TransTrain, the Tasmanian Department of State Growth through the Skills Fund and a range of specialist service providers.

The Transport and Logistics Industry Training Package, TLI10, was used as the framework for the program; specifically, the TL21210 Certificate II in Driving Operations. This framework allowed for the units of competency to be applied in context, to the specific requirements of SRT Logistics. The framework also incorporated both “licence to...” units and “operate...” units, which permitted appropriate sessions for participants who required licence upgrades and for those with licences who needed ‘refresher’ and workplace competency assessment sessions (for example for forklift operations).

**Beyond Compliance**

Consultations were held to identify the impact of change on Transport & Logistics Businesses, and other businesses in the chain. Key areas of expected impact were identified and reported. Critical questions were identified for Transport & Logistics Businesses and subjects for workshops of support nominated.

Workshops were held for senior managers, risk & compliance managers, owner/operators, RTOs, Auditors, Regulators about the introduction of the Heavy Vehicle Nation Law. Workshops were aligned with units of competency from TLI10 and subsidised by Skills Tasmania.

There were 112 participants in the Fatigue Management Workshops conducted statewide, across 48 transport, logistics and associated businesses. There were 90 participants in the Chain of Responsibility Workshops conducted statewide, across 44 transport, logistics and associated businesses.

There were more than 200 places subsidised and accessed by Drivers and Schedulers to complete units of competency associated with fatigue management and completing the National Driver Work Diary.

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55 SRT Logistics TLISC Awards 2015 Nomination Form.pdf

56 Tasmanian Skills Conference 2014 Café Conversation Summary
Australian School-based Apprenticeships (ASbA)

As part of ongoing work on a youth engagement strategy a stepping stone process for school based apprentices from grade 10, 11 or 12 has been developed providing a pathway for young people to work in the industry whilst furthering their education, supporting development from school, to work and on to university or a trade. The transport sector SBA model is the most developed of all industry sectors and is part of a bigger picture incorporating mentoring, an industry leadership program and financial literacy support. The SBA pathway provides a cost effective recruitment strategy for the employment of young people and tackles many of the perceived barriers to youth recruitment in the transport sector. Because of the high level of customisation of the SBA pathway to meet individual business requirements there is a need for a broker to work with the parties to establish a suitable training plan.

Careers on the Move

Based on a successful model developed in the agricultural sector, Careers on the Move is a nine day program for grade 10 students that involves industry visits, work experience and an industry sponsored award ceremony. Its aim is to showcase the industry and open awareness of careers in the transport industry. Most school based apprentices in transport were previous participants of this initiative.

2015 Careers on the Move participants at De Bruyn’s transport
Future Workforce Profile

The Transport and Logistics Industry faces several challenges as it strives to deal with increasing demand and rapid growth:

- The workforce is ageing, with 47 per cent aged 45 years or older compared with the broader Australian workforce figure of 38 per cent. The trend of low female participation continues, with males comprising 86 per cent of workers in the industry;
- The industry is polarised with single-person operators at one end and large integrated multi-nationals at the other;
- As a result of continued economic growth the Tasmanian freight task will double in the next 20 years if the economy maintains a 3.9% per annum growth.\textsuperscript{57} There will not be an adequate workforce to meet this increased workload (at the projected employment growth at 5.12% per annum).\textsuperscript{58} Across the industry, recruitment difficulties were cited. These were due to a perceived lack of required skills amongst job seekers and compounded by work conditions (shift work etc.) inherent in the industry;

Labour issues are most acutely felt with higher licenced tuck drivers; in particular, difficulties were expressed in:

- Attracting appropriately qualified (as opposed to licenced) staff;
- Maintaining productivity with the existing skill base;
- Maintaining compliance with regulatory requirements;

No companies cited problems retaining staff (in 2010, 35% perceived this as likely to be an issue for them in the next 18 months).

The Industry perceives itself as having a negative image and this image reduces its attractiveness to new entrants to the labour market. Awareness of careers within the industry is low and whilst the vocational training system provides qualification based career pathways, these are not widely used by industry.

Across the Tasmanian population businesses are affected by low levels of language, literacy and numeracy (LLN) among their workforce. Poor completion of workplace documents, time wasting, ineffective work, materials wastage and ineffective training all resulted in reduced productivity. Evidence to support this was not found in these consultations, but this does not dismiss this well documented challenge.

The majority of training in the industry is compliance based. This takes two forms:

- Regulatory licences – most of which have a time based element attached and thus require maintaining currency;
- Supply chain based where head contractors (companies that Transport and Logistic companies effectively work for) require the adoption of their own quality assurance systems and processes.

The dependence of training based on national vocational competency standards is low and little evidence was found of the use of national qualifications to support workforce development activity. However, ‘the certificate III’ is viewed as the industry benchmark with many companies having ‘credentialed’ their workforce several years ago. Since then the reputation for the certificate has dropped and combined with the economic climate, most employers only train new and existing staff to comply with requirements.

\textsuperscript{57}Tasmanian Freight Logistics Council: ‘Doubling of Freight Task in Tasmania’ Report 22 July 2009

Tasmanian Transport and Logistics Workforce Plan 2015 - 2018
What will the future environment require?

There are several macro observations to be taken into account when considering what a future workforce profile might need to look like:

1. The effect of customer contracts on skills development

It is clear that training and skills development is an integral part of business operations. Human resources are as integral a part of the delivery of a business’s service as physical resources. Management of the workforce is therefore understandably a key driver of the success or failure of businesses.

The dynamic and complex nature of the regulatory and legal environment in which the industry operates mandates compliance as the key driver of skill demand. Without the appropriate tickets and licences, businesses are simply not ‘in business’. Because of this operational imperative, the establishment of robust policies and procedures to manage compliance is a common feature of the more successful operations.

Above and beyond operational compliance are quality assurance systems (across a spectrum of operations e.g. food safety, hazardous goods, perishables etc.). The need to achieve compliance and embed this with systems, practices and procedures is paramount to winning and maintaining contracts with companies that require the services of the industry. It is also imperative that all operators in the industry strive for professionalism.

2. Capacity to invest in workforce development

Small businesses have limited financial, operational or technical capacity to enable them to invest fully in skills development. As is common across the small business sector, owners too often work “in the business and not on the business” and obviously do not have the luxury of dedicated staff to manage workforce development issues. With over 60% of the industry being ‘non employing’ businesses (single operators) the workforce development challenge is acute.

**Recommendation 1**

That TTA lobby Government and the community to support a business accreditation program. The program should umbrella all mandatory occupational compliance and add a layer of professional standard (such as service delivery, leadership, finance).

3. Recruitment and retention

Recruitment difficulties are an issue across the industry, particularly for experienced personnel. However, it is evident that the higher performing businesses have no difficulty recruiting (albeit that this may be termed poaching). Employers of choice invest well in their employees and it is evident that they recruit labour with ease. They have set up training systems that match their operational requirements and these systems are embedded throughout the organisation, providing all employees with the same quality and focus on continuous professional development. This drives quality service delivery, employee productivity and at the same time high worker retention. There are many pathways into the industry, truck drivers make up only 36% of all career opportunities. These are not well articulated for employers in terms of navigating the ‘how to’.

4. Integrating skills development

Whilst ‘training’ is not the ‘front of mind’ term for skill development activity in the industry (most ‘training’ staff are titled ‘compliance’) many businesses have benefited from investment in systems that align with the national VET infrastructure of training packages and national competency standards. Clearly the VET world is one of little interest to business operators but several companies have integrated training into operations and actively manage their human resources as assets. Not only does this provide significant financial
support through various Government channels but also provides significant competitive advantage in proof of systems to potential customers and previously discussed benefits in terms of workforce development and retention. It is clear that this approach requires time and effort from all parties but the return on investment is very clear.

5. Negative industry perceptions

The industry has an ageing population (above average), employs very few younger workers and has a number of structural barriers to the recruitment of young people. Whilst leading businesses in the industry do not have recruitment difficulties they are the exception rather than the norm.

The industry perceives itself as having a poor image within the community. Clearly this does little to attract the next generation of workers.

Recommendation 2

That workforce development support material be developed for key entry occupations. The material should include template ‘How to’ kits for different contexts (business operations) and occupations and build on the School Based Apprenticeship ‘stepping stone’ model.

6. Need to manage change

Implementation of this workforce plan will require change management. Considerations in regards to leadership, process and culture of the industry all form part of the recommendations. Importantly, leadership will be required in two areas:

- Setting of professional standards (TTA);
- Workforce practice (TTLWAG)

Robust proven processes to underpin workforce development exist in the national training framework, especially when it is ‘translated’ into workplace requirements. Culture needs to be nurtured through capacity building, awareness raising and recognition.

Together these considerations frame the following recommendations:

Recommendation 3

That TTLWAG be formally recognised and appropriately supported to deliver on the outcomes of this workforce plan.

Recommendation 4

That a program to develop the capacity of workforce development practitioners, trainers and assessors be developed.

Recommendation 5

That a program to recognise and market successful workforce development initiatives through industry ambassadors be developed.

What are the future workforce priorities?

Examined from any angle and supported by this research, the priorities for the industry lie in coping with demand through improved workforce development activity, preparing for the impacts of the ageing population, and easing career pathway and recruitment challenges. In the Tasmanian context, professionalising and enhancing productivity across the spectrum of business operators is part of this challenge.

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59 In October 2010, a National Transport and Logistics Workforce Planning and Skills Forum titled Securing a Skilled Workforce for the Transport and Logistics Industry into the 21st Century, was held in Canberra. It was hosted by the Australian Government Department of Infrastructure and Transport.
Next steps

There are a small number of solutions that have proven to work and can potentially be incorporated into the strategic actions and recommendations of this workforce plan.

- Governance, leadership, access to appropriate resources and nurturing of role models to steer the implementation of this workforce plan is the first strategic action. The plan needs to be endorsed by industry, endorsed by Government, launched to the community and then implemented. The TTA, TTLWAG and Government need to establish roles and responsibilities for the carriage of this plan. Success is dependant on this first action.

- The lessons from all the existing initiatives is clear – more works needs to be done to make them accessible to a larger audience and really be given the chance to prove their worth. The second strategic action is to manage a project to prioritise ‘kits’ for the top 10 occupations in the industry (see Table 5).

- Having developed ‘kits’ clearly they need to be brokered to the industry, marketed and supported. The best chance of success is to integrate their use into the trainer/workplace development practitioner’s toolkit.

- The fourth strategic action is to develop ‘the team’ that will be at the ‘coal face’ implementing the kits. This could be achieved through a capacity building program and as a side initiative to develop an Ambassadors Program. The industry and this plan needs its champions – there are currently too few.

- The fifth strategic action is of a higher strategic nature and is to establish a management framework to advance the professionalism of the industry. This would be a business level framework for operating in the industry. An industry equivalent of this would be TACC accreditation for vehicle repair stations. Branded to consumers and focused on better business practice this would aim to:
  - Raise and maintain the professional standards of the industry. This would transform the regulatory ‘burden’ into a more appropriate professional whole of business quality standard;
  - Minimise poor operators who do little for the industry perception and ‘drag’ middle tier operators into price taking activity;
  - Enable measurement of progress of workforce needs and provide a mechanism for the ongoing development of professional standards.
Conclusion and evaluation strategy

This workforce plan documents and analyses research information on the requirements of the transport workforce in Tasmania. The purpose of this Transport and Logistics Industry Workforce plan is to ensure that Tasmania’s businesses, students and educators are prepared for changing technology, education needs and increase in the transport and logistics activity in Tasmania, which underpins the overall Tasmanian economy.

A compelling case has been made for a catalyst to seriously tackle workforce development issues facing the industry. These are complex, with practices established over years and needing some urgent fixes.

A two tiered strategic response is required, one to establish professionalism across the industry through an accreditation program and the other to establish the building blocks needed to tackle the scale of the challenge. The steps required are listed in Appendix A.

The plan will be considered to have been successful if, when implemented it leads to improved workforce outcomes. Evaluation of the plan should be made against achievement of the strategic actions (see Appendix A) and reported on at each TTLWAG and TTA meeting and communicated to the broader industry.

Upon endorsement by industry and Government this plan should be ‘launched’ by the appropriate State Minister and communicated to the broader community. The milestone is critical to the success of the plan.

Both the TTA and TTLWAG are critical to the implementation of this plan. Potential barriers regarding ownership, governance, resourcing and leadership need to be negotiated and established to ensure success.
# Appendix A – Workforce Development Plan

<table>
<thead>
<tr>
<th>Strategic Objectives</th>
<th>Gap/Issue</th>
<th>Priority Number / Risk Rating</th>
<th>Existing Workforce Development strategies</th>
<th>New Workforce Development strategies</th>
<th>Responsibility</th>
<th>Resources</th>
<th>Timeline/ Due date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Awareness</td>
<td>Workforce development not prioritised</td>
<td>1/1</td>
<td></td>
<td>Ministerial launch of plan, communication to stakeholders and community</td>
<td>TTA</td>
<td>TTA</td>
<td>June 2015</td>
</tr>
<tr>
<td>Confirm governance</td>
<td>Change management</td>
<td>1/3</td>
<td></td>
<td>Confirm the role of TTLWAG and seek formal Government recognition and support</td>
<td>TTLWAG/ TTLWAG/ DSG</td>
<td>TTLWAG working group, TTA</td>
<td>June 2015</td>
</tr>
<tr>
<td>Establish kits for top 10 occupations</td>
<td>Recruitment</td>
<td>2/1</td>
<td>Expansion of SBA models</td>
<td>Increase recruitment entry points – focus on occupations needed</td>
<td>TTLWAG</td>
<td>TTLWAG</td>
<td>June 2015</td>
</tr>
<tr>
<td>Develop roll out strategy for kits</td>
<td>Recruitment</td>
<td>3/1</td>
<td></td>
<td>Focus on occupations in demand (not demographics available)</td>
<td>TTLWAG working group</td>
<td>Stage 2 application (WDIP)</td>
<td>October 2015</td>
</tr>
<tr>
<td>Develop practitioners capacity building program</td>
<td>Capacity building Ageing population</td>
<td>4/2</td>
<td></td>
<td>Build a practitioners network to implement and demonstrate leadership</td>
<td>TTLWAG working group</td>
<td>Develop proposal for Workforce Development Implementation Projects (WDIP)</td>
<td>June 2015</td>
</tr>
<tr>
<td>Develop business accreditation program</td>
<td>Industry professionalism Raising standards</td>
<td>5/4</td>
<td></td>
<td>Multiple accreditation models exist – consultation required to determine framework and lobbying for Government support</td>
<td>TTA</td>
<td>Internal TTA leadership initially – ongoing sustainability to be part of planning</td>
<td>July 2016</td>
</tr>
</tbody>
</table>
Appendix B – Consultation List

- Ferdie Kroon, De Bruyn’s Transport
- Paul Robinson, Toll Tasmania
- John Austin and Sarah Ellery, Bonney Group
- Roger Powell, Toll ANL Bass Strait Shipping
- Jamie Auton, SeaRoad Logistics
- Peter Stafford, Chas Kelly Transport
- Rob Douglas, Mediterranean Shipping Company
- Geoff Lewis, TasBus
- Joanne Tye, SRT Logistics
- Jeremy Gleeson, Driver Training and Assessment Services, Dept. State Growth
- Michael Males, Heavy Vehicle Regulator, Dept. State Growth
- David Bower, Project Manager – Fatigue Management, Dept. State Growth
- Michelle Harwood, TransTrain
- Jim Burden, Tasrail
- Stuart Richardson, Aus Flight Handling
- James Garde, Seafood Training Tasmania
- Brett Charlton, Agility Logistics
- Lesley Richardson, Department of Education
- Robin Phillips, Tasmanian Transport Association
- Gary McCarthy, Port of Melbourne Corporation
Appendix C – Bibliography

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9. Training and Skills, Dr Victor Gekara, SCLAA Meeting 25 March 2010
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