

RAIL

Sector Overview

The Rail-specific components of the TLI Transport and Logistics Training Package provides the only nationally recognised Vocational Education and Training (VET) qualifications for occupations involved in: rail infrastructure, track protection, shunting, rail track vehicle driving, tram or light rail infrastructure, customer service, rail driving, rail track surfacing, signalling, electric passenger train guard, track protection, heritage locomotive assistant or steam locomotive fireman, train driving, safety investigation, network control, safety management, tram/light rail control and rail operations management. (AIS 2017).

Industry Overview

The rail industry provides important freight and passenger services in Queensland. It connects geographically separated areas for commuters, provides transportation solutions for industry and the local communities and supports the tourism industry. The industry also faces exciting challenges and opportunities from technological change, including the development of a new fully-autonomous rail system.¹ Investment in the road and rail transport network will be necessary to support growth of Brisbane’s sea and air ports, with rail freight expected to double by 2020 in Queensland.²

Key Metrics (Australia)

Revenue (\$b)	25.52B
Profit (\$b)	1.80 B
Average Wage (\$)	\$113,185.78
No. of Businesses	977
Employment Growth to 2023 (%)	5.5%
Workforce in QLD	10,478
Enterprises in QLD	10
Composition (Small/ Med/ Lrg)	79% Small

Source: AIS Skills Forecast 2018 – Rail | Australian Bureau of Statistics (2017) 2016 Census – Employment, Income and Education. Australian Government.

Demographics

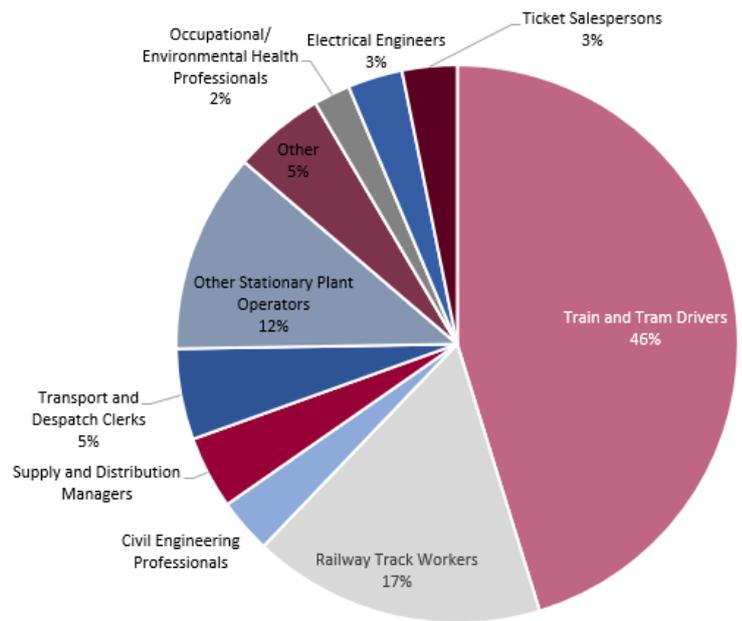
Average age	45.9
Demographics	14 percent female 84 percent male
Distribution	51 per cent of the rail workforce is in South East Queensland.

Source: 2011 and 2016 ABS Census.

Workforce Composition – Queensland Rail

Although accounting for 20 per cent of the Australian population, the Queensland Rail industry accounts for 31.5 per cent of the national rail workforce³ and has a workforce of 10,478.⁴

While the total workforce is reported to have dropped by 41 per cent in thirty years, female participation has grown by 14 per cent over the same period.⁵ There could be a link between the increase in women’s participation in the industry and a small increase in the rate of casualisation. However, decisions by businesses to create a more flexible and responsive workforce are also influencing the rate of casualisation.



Source: ABS Data

¹ Australian Industry Standard - Rail Skills Forecast 2018 (draft)

² p 17 https://www.brisbane.qld.gov.au/sites/default/files/Brisbane_Long_Term_Infrastructure_Plan-full.pdf

³ Australian Industry Standard - Rail Skills Forecast 2018 (draft)

⁴ Australian Bureau of Statistics (2017) 2016 Census - Employment, Income and Education

⁵ Australian Industry Standard - Rail Skills Forecast 2017

Projected Employment & Skills Growth

The forecasted skill priorities and employment trends have been informed by international, national and state-based trends, stakeholder engagement and industry consultation.

Queensland Rail manages and maintains more than 6615 km of track (mainline only, excludes sidings, passing loops and yards)⁶ and employs more than 6,500 people⁷.

Queensland Rail's Citytrain product primarily services the commuter passenger market in South East Queensland (SEQ), with more than 51 million passenger trips undertaken in the 2016-17 financial year⁸.

Aurizon operates and manages Australia's largest export coal rail network, the Central Queensland Coal Network. Connecting more than 50 mines to 5 major export ports, plus many domestic consumers, providing pivotal connections to Queensland's coal industry⁹.

Rail Passenger Transport

The rail passenger transport industry is estimated to continue to grow over the next five years through government investment in new supply and increased consumer demand. Industry employment has slowly grown over the past five years, despite rapidly rising passenger volumes since operators have undertaken labour-reducing measures. Industry employment is expected to grow over the next five years, with major players increasing activity and adding capacity to rail networks¹⁰.

Rail Freight

Rail freight infrastructure in Queensland is owned and operated by a range of organisations, including Queensland Rail, Glencore and Aurizon. Rail freight has become increasingly prominent over the past decade due to an increase in mineral production and export volumes following Queensland's mining boom. Industry employment is predicted to rise to accommodate growing

demand and the increased number of freight services. Businesses are expected to invest in automation to reduce the need for labour, which will constrain the pace of employment growth¹¹.

Railway Track Construction

Queensland has an above-average share of industry activity. Industry employment has declined over the past five years due to many establishments closing on the completion of construction projects in remote mining locations. Industry employment is projected to climb at an annualised 0.9 per cent over the next five years. Rail construction projects require highly technical and specialist skills to successfully manage complex tasks such as track laying, signalling and tunnel construction. Therefore, the industry employs a large and highly skilled workforce that requires high salaries¹².

Railway Manufacturing / Repair / Maintenance

Total employment has decreased as operators have reduced costs and restructured their operations. Many domestic manufacturers have outsourced labour-intensive manufacturing operations to foreign countries, reducing their domestic workforce as a result. The Queensland Government has put in large orders for new trains and trams supporting growth in this segment. However, recent government-funded projects have favoured overseas manufacturing. The industry is expected to grow at a slow rate due to outsourcing and cutting operating costs¹³. The industry is labour-intensive and relies on skilled workers to perform duties.

Queensland are acknowledged as the market leader for rail research, training and innovation¹⁴.

⁶ Page 19, <https://publications.qld.gov.au/dataset/queensland-transport-and-roads-investment-program-qtrip-2018-19-to-2021-22/resource/78616749-5202-4f84-bfa9-fca64442e4cb>

⁷ https://www.queenslandrail.com.au/about%20us/Documents/QueenslandRail_AnnualFinancialReport_2016-17_LR.pdf

⁸ Queensland Rail Annual Financial Report 2016 – 2017

https://www.queenslandrail.com.au/about%20us/Documents/QueenslandRail_AnnualFinancialReport_2016-17_LR.pdf

⁹ <http://www.aurizon.com.au/what-we-deliver/network>

¹⁰ IBISWorld Industry Report I4720 – Rail Passenger Transport in Australia, 2017

¹¹ IBISWorld Industry Report I4710 – Rail Freight Transport in Australia, 2018

¹² IBISWorld Industry Report C2393 – Railway Equipment Manufacturing and Repair in Australia, 2018

¹³ IBISWorld Industry Report C2393 – Railway Equipment Manufacturing and Repair in Australia, 2018

¹⁴ Australasian Railway Association – The Changing Face of Rail, a journey to the employer of choice

Emerging Industry Disruption Influences

Ageing Workforce

The rail industry is also facing an ageing workforce with over 50 per cent of the workforce over the age of 45 years. Due to the nature of the industry many employees (train drivers) work untraditional hours and therefore have a range of health-related conditions¹⁵. Only 11 per cent of the workforce is under the age of 30, which provides a negative impact for future skill shortages. Attraction and retention strategies for new entrants is a focus by industry to support its future.

Service Demand

Demand for public transport is largely driven by population growth and more CBD-centralised job creation.

Technology

There has been a significant increase in the use of technology for automating ticketing sales. Smart card technology for ticketing has also been implemented across the state. Industry operators rarely update vehicles due to the extreme expense of such changes, therefore technology on many passenger trains is limited¹⁶.

Environment

There has been an increase in the use of passenger rail to support environmental impacts. Key players within industry have environmental management plans to effectively monitor energy use and carbon emissions to remain compliant with environmental legislation.

Safety and Regulation

New safety systems will greatly improve the safety of track workers and the overall network efficiency. Worker skills in safety critical communications and training in safety of human factors will need to remain a strong focus into the future.¹⁷

In 2016-17, Queensland Rail commenced its journey to introduce European Train Control System (ETCS) technology to the network.

This will enhance existing safety systems, virtually eliminating the risk of collision due to speeding and replace 26 per cent of the SEQ rail network's ageing signalling equipment¹⁸.

Safety is an ongoing concern for the industry. The Office of the National Rail Safety Regulator has recommended more work to develop an in-depth understanding of factors that cause safety risks, and how to mitigate those risk through systemised processes¹⁹.

Automation

There has been significant focus on driverless trains across industry. The Federal Government have invested in Satellite Based Augmentation Systems (SBAS) to increase the capacity of navigational systems. These changes bring consequences for new workforce skills that will be required for industry²⁰. As autonomous systems are established the roles associated with the existing workforce will change and demand new skills. The rail industry is using Augmented Realty to trial new infrastructure and simulate in-real-time training²¹.

Big Data

Big data is contributing to massive changes across the rail workforce with new systems in wireless data and sensors growing rapidly across industry. These systems are used to capture data to predict maintenance²².

¹⁵ Australian Industry Standards – Rail IRC Key Findings 2018

¹⁶ IBISWorld Industry Report I4720 Rail Passenger Transport in Australia, 2017

¹⁷ Australian Industry Standard – Rail Skills Forecast 2018 (draft)

¹⁸

https://www.queenslandrail.com.au/about%20us/Documents/QueenslandRail_AnnualFinancialReport_2016-17_LR.pdf

¹⁹ Australian Industry Standard – Rail Skills Forecast 2017

²⁰ Australian Industry Standards – Rail IRC Skills Forecast 2017

²¹ Australian Industry Standards – Rail IRC Key Findings 2018

²² Australian Industry Standards – Rail IRC Key Findings 2018

Regional Considerations

Infrastructure projects in regional locations create a significant number of jobs in the development phase as well as ongoing job roles year-on-year. Accordingly, these projects will shape the future skills and training needs based on direct and indirect job creation and continuing service demand.

Brisbane

The passenger rail network is reaching the limits of its capacity²³. With an initial investment of \$5.4 billion, the Queensland Government plans to deliver a new high-speed, high-frequency mass transit network from Dutton Park to Bowen Hills. This project will increase the rail capacity of the inner-city network improving travel time reliability and quicker journey times²⁴.

The Australian Government has committed funding to the Inland Rail project linking Melbourne and Brisbane to open new market opportunities in western New South Wales and Victoria. Development of the Inland Rail link will provide an economic boost to both Brisbane and the surrounding region. The new rail link is currently proposed to terminate at Acacia Ridge. The project will be delivered by via Public and Private Partnership (PPP) that will be responsible for sourcing the workforce, initially focussing on rail construction skills when the PPP is awarded in mid-2019.

Survey responses noted that these infrastructure projects will be “looking to draw upon scarce resources.”

Freight capacity, efficiency and safety can be improved by maximising the use of rail for container and bulk material movements, particularly to and from the Port of Brisbane.

Gold Coast and Logan - Beaudesert

During the Commonwealth Games in April 2018, the Gold Coast's light rail was in operation 24/7, carrying almost

100,000 passengers per day²⁵. The line is 20.3 km in length, has 19 stations and 18 trams with bus connections at key activity centres²⁶. An allocation of \$5 million was recently made for the business case for Stage 3A from Broadbeach South to Burleigh Heads²⁷.

Light rail is new in the region and as a result, there isn't a pool of qualified staff to employ. In addition, training packages are yet to catch up with the changing face of the industry and include the light rail sector.

Survey responses were optimistic, saying “over the next 3 - 5 years we should see more candidates with light rail experience due to the planned development in light rail over Australia.”

Ipswich

Ipswich is home to Queensland's first railway line. With well-established rail infrastructure, the city has planning underway to link Ipswich to the Melbourne-Brisbane inland rail network. There are long-term state government plans to extend the rail line to service high growth areas in the region, although funding is yet to be allocated²⁸.

Sunshine Coast, Moreton Bay and Wide Bay

The Sunshine Coast Council is working towards the delivery of light rail on the Sunshine Coast by 2025. Current work is focussed on better understanding the costings and developing planning strategies for the coastal corridor. The provision of light rail has the potential to create almost 9,000 jobs during construction and operation and boosting an estimated \$3.6 billion of benefits back into the economy²⁹.

Toowoomba and Darling Downs – Maranoa

Passenger rail services for the region are provided by Queensland Rail's "The Westlander" service. Resources such as large thermal coal deposits in the Surat Basin and future demand for LNG will drive the exploration and production of CSG. There will be an increased demand for rail freight movements in and out of the region. Further freight tasks are expected to drive the demand for rail transport and infrastructure in the region and include the

²³ p 2, <https://publications.qld.gov.au/dataset/south-east-queensland-s-rail-horizon/resource/7de43a6c-bad8-4697-ae5f-1cee148163e8>

²⁴ <https://www.brisbane.qld.gov.au/sites/default/files/20171208-transport-plan-for-brisbane-two-draft-release-dec-2017.pdf>

²⁵ <https://www.brisbanetimes.com.au/politics/queensland/1-million-public-transport-trips-to-the-commonwealth-games-20180409-p4z8i7.html>

²⁶ Page 19, <https://publications.qld.gov.au/dataset/queensland-transport-and-roads-investment-program-qtrip-2018-19-to-2021-22/resource/78616749-5202-4f84-bfa9-fca64442e4cb>

²⁷ Page 3, <https://publications.qld.gov.au/dataset/queensland-transport-and-roads-investment-program-qtrip-2018-19-to-2021-22/resource/78616749-5202-4f84-bfa9-fca64442e4cb>

²⁸ <https://www.qt.com.au/news/future-gridlock-fears-as-state-rejects-rail-debate/3206321/>

²⁹ <https://www.sunshinecoast.qld.gov.au/Council/Planning-and-Projects/Major-Regional-Projects/Sunshine-Coast-Light-Rail-Project>

supply chains for coal, petroleum products, grains and cereals and meat and livestock from the Darling Downs to the Port of Brisbane.

Central Queensland (Fitzroy)

A tilt train service runs between Brisbane and Rockhampton, offering passengers a high-speed journey. Passenger services are also available of Spirit of Queensland and Spirit of the Outback. Aurizon offers five return rail freight services a week from the Port of Brisbane to destinations including Gladstone and Rockhampton and one return rail service a week from Rockhampton to Winton.

Mackay – Isaac – Whitsunday

The North Coast Line transports goods and people up and down the coast and between regions. Dedicated freight rail connects mining areas with ports and allows farmers to efficiently transport sugar cane to be processed.

Townsville

Passenger rail services are available from Brisbane to Townsville on The Spirit of Queensland and from Townsville to Mt Isa on The Inlander.

The Mount Isa line consists of over 1,000km of track which extends from Stuart (near Townsville) to Mount Isa. The line services several communities along the line for the conveyance of minerals concentrates, fertiliser, acid, fuel, refined metals, cattle and general freight. This line provides the critical link from the North West minerals province to the Port of Townsville where many bulk products are exported.

The proposed Townsville Eastern Access Rail Corridor project of an 8km rail freight line would connect the North Coast rail line directly into the Port of Townsville through the Townsville State Development Area via a path parallel to the Port Access Road.³⁰

Cairns

The Tablelands system runs from Cairns to Forsyth over approximately 230 km. Products carried through the

system are primarily sugar and molasses. The Kuranda Scenic Railway continued to grow in popularity, with over 450,000 customers enjoying the journey the 2016-17 financial year.³¹

Queensland - Outback

The Mount Isa line services communities through passenger transport (the Inlander long distance passenger service runs between Townsville and Mount Isa) and the transportation of general freight. The line is the critical link from the North West Minerals Province to the Port of Townsville, where many bulk products are exported. It experiences some of the harshest weather conditions in Queensland including periods of extreme heat and flooding monsoonal rain. Blanket speed restrictions can be set during extreme heat in the summer months to reduce the risk of an incident from track instability³².

The Inland Rail Project

The Inland Rail project is a first-of-its-kind for Australia, connecting regional Australia to domestic and international markets, providing a national freight network between Melbourne and Brisbane. It's the largest freight rail infrastructure project in Australia and is expected to be operational in 2024-2025³³.

Two million tonnes of agricultural freight are expected to switch from road to rail, with a total of 8.9 million tonnes of agricultural freight more efficiently diverted to inland rail. The project will reduce costs for intercapital freight travelling between Melbourne and Brisbane by \$10 per tonne and offer a *transit time between those capital cities of less than 24 hours*³⁴.

³⁰ <https://www.tmr.qld.gov.au/Projects/Name/T/Townsville-Eastern-Access-Rail-Corridor>

³¹ Page 9, https://www.queenslandrail.com.au/about%20us/Documents/QueenslandRail_AnnualFinancialReport_2016-17_LR.pdf

³²

<https://www.queenslandrail.com.au/business/access/Documents/Mt%20Isa%20System%20Information%20Pack%20-%20Issue%203.1%20-%20February%202017.pdf>

<https://inlandrail.artc.com.au/benefits>

³³ <https://inlandrail.artc.com.au/benefits>

³⁴ <https://inlandrail.artc.com.au/benefits>

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Queensland Rail Network Map³⁵



Aurizon Network Map³⁶



³⁵ <http://www.qca.org.au/Rail/Queensland-Rail/Qld-Rail-rail-systems>

³⁶ <http://www.qca.org.au/Rail/Queensland-Rail/Aurizon-Network-detail>

Supply & Demand SWOT Analysis of Labour & Skills Supply

STRENGTHS

- Technological improvements that increase efficiency and safety are of benefit to the sector.
- Rail imposes fewer costs on the community in terms of accidents, congestion and emissions than road³⁷.
- The industry pays above average wages due to the highly skilled nature of many jobs.

WEAKNESSES

- New infrastructure projects will require a substantial recruitment of workers experienced in these types of large-scale projects.
- The rail industry has expressed concern about recruiting workers who have varying skill capabilities on infrastructure projects. Plans and strategies to address these issues with the skill capabilities of workers will be required to ensure the projects are delivered safely, on time and to an excellent standard³⁸.

OPPORTUNITIES

- The growth of autonomous systems and vehicles in the rail industry is expected to have significant effects on the workforce, and the skills needed to operate new systems³⁹.
- New technological systems being developed and adopted need to be operable across states and territories and over different networks and will require new and revised skill needs throughout the workforce⁴⁰.
- Big Data is transforming the skill needs of the rail industry, there will be demand for operators to be able to interpret and analyse this data⁴¹.

THREATS

- Inability of the sector to predict when the ageing workforce will retire and therefore undertake successful succession planning.
- Loss of knowledge and experience when the ageing workforce retires.
- High barriers to entry have resulted in industry establishment and enterprise numbers remaining stagnant⁴².

³⁷ https://ara.net.au/sites/default/files/Vaule%20of%20Rail%20-%20Full%20Report_ARA%20-%20Rail%20in%20Aus%20Eco%20Final.pdf

³⁸ Australian Industry Standard - Rail Skills Forecast 2018 (draft)

³⁹ Australian Industry Standard - Rail Skills Forecast 2018 (draft)

⁴⁰ Australian Industry Standard - Rail Skills Forecast 2018 (draft)

⁴¹ Australian Industry Standard - Rail Skills Forecast 2018 (draft)

⁴² IBISWorld Industry Report I4720 – Rail Passenger Transport in Australia

Known & Emerging Future Job Roles

Rail Job Shortages

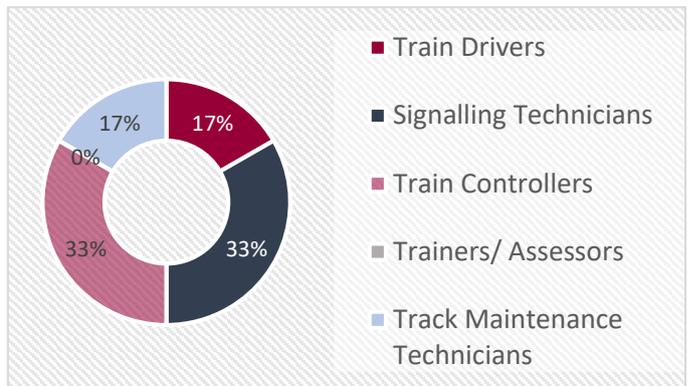
The Australian Industry Standards identified the following in demand job roles⁴³:

1. Train Drivers
2. Signalling Technicians
3. Educators, Trainers and Assessors
4. Train Controllers
5. Track Workers

In the main, industry feedback supported this view and highlighted a number of additional roles considered as potential future job shortages⁴⁴:

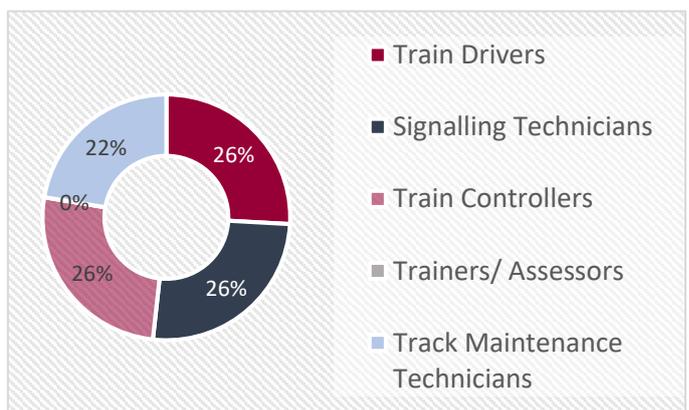
- Construction roles for Inland Rail Project 2020-2025
- Engineering Professionals
- Infrastructure Engineers
- Rail Safety Investigators

Industry Identified Current Job Shortages



Source: T&L Future Ready Industry Survey Responses

Industry Identified Future Job Shortages



Source: T&L Future Ready Industry Survey Responses

Industry Identified Training Preference

JOB ROLE	ACCREDITED VET FULL QUALIFICATION	ACCREDITED SKILL SET	PRIVATE TRAINING
1. Train Drivers	50%	0%	0%
2. Signalling Technicians	50%	0%	0%
3. Educators, Trainers and Assessors	100%	0%	0%
4. Train Controllers	50%	0%	0%
5. Track Maintenance Technicians	50%	0%	0%

*limited survey responses due to Queensland Rail being the primary operator in Queensland.

⁴³ AIS Skills Forecast 2018 – Rail

⁴⁴ T&L Future Ready Industry Survey Responses

Known & Emerging Future Skill Priorities

Rail Skill Shortages

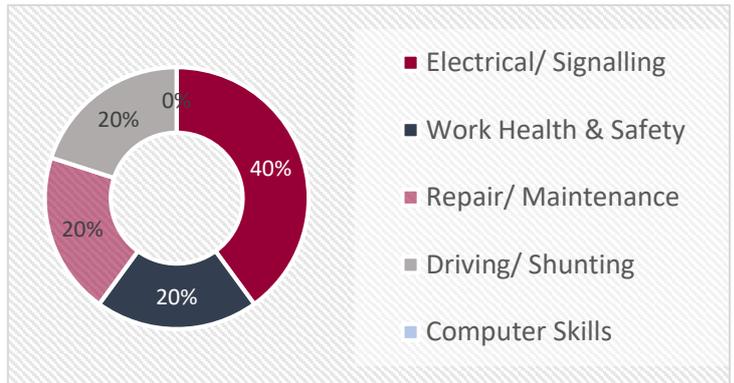
The Australian Industry Standards identified the following skill priorities⁴⁵:

1. Operational
2. Health/ Safety
3. Driving
4. Infrastructure
5. Signalling

Industry supported this view with shifting priorities given to each when considering shortages currently being experienced or those likely to be experienced in the future. Additional comments around skills include:

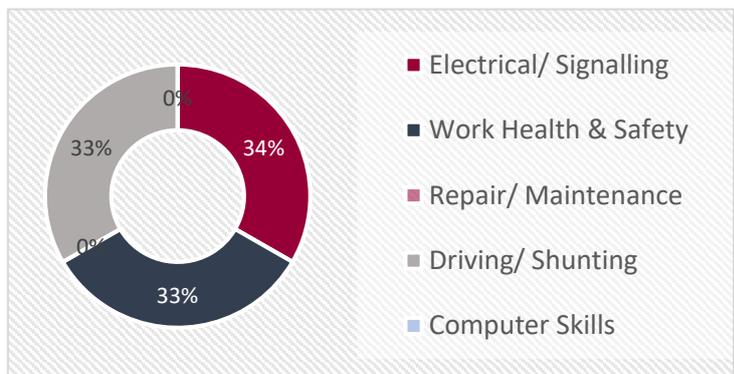
- Improved skills across construction with upcoming large projects and infrastructure.
- Rail safety
- Light Rail experience due to planned development in Light Rail across Australia.

Industry Identified Current Skill Shortages



Source: T&L Future Ready Industry Survey Responses

Industry Identified Future Skill Shortages



Source: T&L Future Ready Industry Survey Responses

Industry Identified Training Preference

SKILLS	ACCREDITED VET FULL QUALIFICATION	ACCREDITED SKILL SET	PRIVATE TRAINING
1. Electrical Signalling	50%	0%	0%
2. Work Health and Safety (WHS)	50%	0%	50%
3. Repair/ Maintenance	50%	0%	0%
4. Driving/ Shunting	50%	0%	0%
5. Computer Skills	0%	0%	100%

*limited survey responses due to Queensland Rail being the primary operator in Queensland.

⁴⁵ AIS Skills Forecast 2018 – Rail

Research by the Australian Government Department of Jobs and Small Business, Job Outlook website also highlights there is moderate future growth across the industry. This may due to the variability in role classifications. The role of Ticket Salesperson is forecast as moderate, however with the continued growth of automation for ticket sales this is like to decrease.

This snapshot is helpful in calling out opportunities and possible strategies to attract new workforce pools, for example increased female participation or offering part-time/ flexible working arrangements to improve gender ratios.

Railway Track Workers	Train & Tram Drivers	Ticket Salesperson
<p>Fast Facts</p> <p> Avg. Weekly Pay ⓘ Unavailable</p> <p> Future Growth ⓘ moderate</p> <p> Skill Level ⓘ Certificate II or III</p> <p> Employment Size ⓘ 3800</p> <p> Unemployment ⓘ average</p> <p> Male Share 92.4%</p> <p> Female Share 7.6%</p> <p> Full-Time Share ⓘ 93.5%</p>	<p>Fast Facts</p> <p> Avg. Weekly Pay ⓘ \$1,800 Before Tax</p> <p> Future Growth ⓘ moderate</p> <p> Skill Level ⓘ Certificate II or III</p> <p> Employment Size ⓘ 15,400</p> <p> Unemployment ⓘ average</p> <p> Male Share 88.3%</p> <p> Female Share 11.7%</p> <p> Full-Time Share ⓘ 90.7%</p>	<p>Fast Facts</p> <p> Avg. Weekly Pay ⓘ \$1,136 Before Tax</p> <p> Future Growth ⓘ moderate</p> <p> Skill Level ⓘ High School or Certificate I</p> <p> Employment Size ⓘ 18,900</p> <p> Unemployment ⓘ above average</p> <p> Male Share 26.4%</p> <p> Female Share 73.6%</p> <p> Full-Time Share ⓘ 52.1%</p>

Source: Australian Government - Job Outlook ⁴⁶

⁴⁶ <https://joboutlook.gov.au/Career.aspx?industry=l>

Training & Skilling Strategies

Accredited Training

The Rail Training Package is the only nationally recognised VET qualifications covering rail infrastructure, light rail, tram and train driving, rail operations management, signalling and safety management.⁴⁷

Qualifications	26
Skill Sets	53
Units of competency	245

Source: Australian Industry Standards - Rail Industry 2018 Key Findings Discussion Paper

This package includes the qualifications for the following occupations:

- Rail Infrastructure Worker
- Track Protection Worker
- Shunter
- Rail Track Vehicle driving
- Tram or Light Rail Infrastructure Worker
- Customer Service Personnel
- Rail and Train Drivers
- Rail Track Worker
- Signalling Technician
- Electric Passenger Train Guard
- Heritage Locomotive Assistant
- Steam Locomotive Fireman
- Safety Investigators
- Network Controller
- Safety Managers
- Tram/Light Rail Controller
- Rail Operations Manager



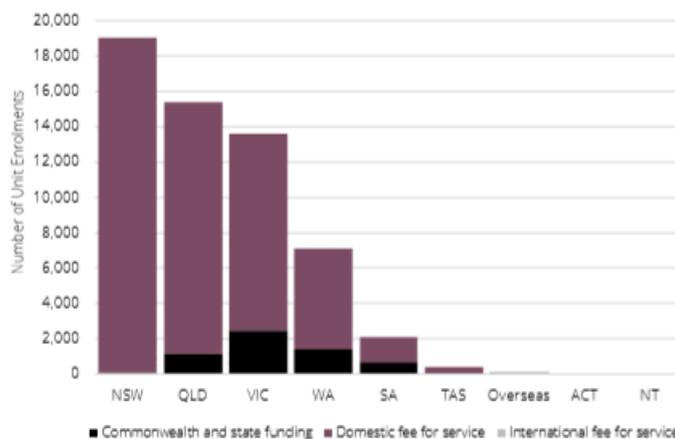
Source: Australian Industry Standards – Rail Training Package Architecture

Training Enrolments

Enrolments for the Certificate II rail qualification nearly tripled between 2014 and 2016. This is due to increase demand in Rail Infrastructure and Track Protection. Certificate III and Certificate IV enrolments have remained stagnant over the last three years⁴⁸.

Industry surveyed preferred formal training for the majority of roles, complemented with private and in-house training⁴⁹.

UNIT ENROLMENT COUNT BY STATE AND FUNDING TYPE
2014, 2015 AND 2016 AVERAGE



Funding for Rail Units in NSW is almost entirely (95.5 per cent) borne by industry. The general level of Government funding for Rail units is relatively low overall (10.2 per cent across all States/Territories).

⁴⁷ Australian Industry Standard - Rail Skills Forecast 2018

⁴⁸ Australian Industry Standard - Rail Skills Forecast 2018

⁴⁹ T&L FUTURE READY SURVEY

The Rail-specific qualifications in the TLI Transport and Logistics Training Package are:

Certificates

Certificate II in Tram or Light Rail Infrastructure
Certificate II in Rail Customer Service
Certificate II in Rail Infrastructure
Certificate II in Rail Track Vehicle Driving
Certificate II in Shunting
Certificate II in Track Protection
Certificate III Heritage Locomotive Assistant or Steam Locomotive Fireman
Certificate III in Rail Driving
Certificate III in Tram or Light Rail Infrastructure
Certificate III in Mechanical Rail Signalling
Certificate III in Rail Track Surfacing
Certificate III in Rail Structures
Certificate III in Electric Passenger Train Guard
Certificate III in Rail Infrastructure
Certificate III in Track Protection
Certificate III in Rail Signalling
Certificate III in Terminal Train Driving
Certificate III in Rail Yard Coordination
Certificate III in Rail Customer Service
Certificate IV in Tram/Light Rail Control
Certificate IV in Rail Network Control
Certificate IV in Rail Safety Investigation
Certificate IV in Rail Infrastructure
Certificate IV in Train Driving
Certificate IV in Rail Safety Management

Diploma - Advanced Diploma

Diploma of Rail Operations Management

Employees within rail workforce need a minimum of a Certificate IV to gain entry to industry.

The Vocational Education and Training (VET) sector and training package development has undergone considerable changes to improve its relevance and responsiveness to the changing industry needs.

Ongoing agility in the training package development will be needed to meet the future workforce needs and some measures to achieve this include review of package design and an increase in skill sets, with the aim of improved workforce mobility.

There is a growing demand for trainers and assessors to have strong systems understanding and e-learning development capability. There is also a need from industry to deliver quality training within a simulator learning space⁵⁰.

Industry's Feedback on Accredited Training⁵¹

"Not many training courses that support Light Rail at present, we have created or edited those that are out there to suit our current workforce."

"Part of the challenge for VET is to penetrate the market within the rail sector."

"Attraction of experienced trainers is an ongoing issue for the rail industry, as remuneration and other benefits for those working as drivers or as operational staff are often more favourable than for trainers⁵²."

⁵² AIS Rail IRC Skills Forecast 2017

The Rail Specific
Components of the TLI
Training Package is in scope
for

66 RTOs
in QLD

⁵¹ T&L FUTURE READY SURVEY

Non-Accredited Training

- The emphasis for staff to be multi-skilled has been highlighted across industries.
- Technology is ever-changing and technology-based skills for specific industries will drive training needs for the future. These may be better delivered by specialists or the provider of the technology platform themselves.

Private and In-house

The fundamental skills identified by industry for continued growth and effective staff training include technology, IT skills, regulatory compliance and navigation.

All industry surveyed offered some form of in-house training for specialty skills, and most businesses support staff through up-skilling and reskilling of staff via external providers⁵³.

Survey respondents indicated that inconsistencies with training quality across the sector, Registered Training Organisations' having poorly skilled trainers and assessors providing qualifications without meeting the skill requirements as reasons for considering a private training as an option.

Emerging Training Trends

- Shorter course durations preferred and more flexibility in skill sets
- Light Rail training across industry
- Data and technology
- Apply accident and emergency procedures

John Holland

John Holland have an extensive list of accredited and non-accredited rail course that are aligned with the Rail Industry Worker Program. Non-accredited training courses include track essentials and management skills⁵⁴.

⁵³ T&L FUTURE READY SURVEY

⁵⁴ <http://www.jhrailtraining.com.au/our-services/rail-courses/>

⁵⁵ <http://www.metrotrains.com.au/academy/>

⁵⁶ <https://www.cqu.edu.au/research/organisations/centre-for-railway-engineering>

Metro Academy

The Metro Academy is an RTO delivering both nationally recognised units of competence and non-accredited programs for the rail workforce. Offering e-learning courses and generic skill development across equal employment, management and bullying and harassment⁵⁵.

Real Serious Games

Real Serious Games, Exner Group and SafetyJourney have formed a consortium and developed training that combines educational training with gamification and virtual reality.

The Centre for Railway Engineering at CQU

The Centre for Railway Engineering at CQUniversity has created a comprehensive numerical simulation tool to improve issues within the industry⁵⁶.

Other Government Initiatives

Awareness - Job Outlook is an initiative of the Australian Government Department of Jobs and Small Business. Job Outlook provides information about Australian careers, labour market trends and employment projections.

Industry's Commitment to Diversity⁵⁷

- Job networks and through diversity and inclusion initiatives – Survey
- Accredited training via the proposed new traineeship arrangements
- School to work programs and traineeships

“While traditional face-to-face delivery is still widely used in the industry, other methods used in stand-alone or blended programs include onsite, online, and virtual reality⁵⁸.”

⁵⁷ T&L FUTURE READY SURVEY

⁵⁸ Australian Trade and Investment Commission – Rail Education and Training, 2016