

Licensing and/or regulatory Bodies

- The Office of the National Rail Safety Regulator (ONRSR) is an independent body corporate established under the Rail Safety National Law to encourage and enforce safe rail operations, promote and improve national rail safety.ⁱ

INDUSTRY DEVELOPMENTS AND WORKFORCE CHALLENGES:

1. Existing and anticipated supply and demand for skills:

- Within the Rail Freight sector optimism remains high regarding work prospects. This is due to several factors such as increasing enquiries regarding current and future rail infrastructure projects.ⁱⁱ Rail stakeholders reported that all efforts were taken to ensure operations continued as close to normal as possible (i.e. Port bound and interstate freight movements). This was assisted by the classification of transport and logistics as an essential service.
- Although some training activities were suspended during the peak period of restricted movements and social distancing, the rail sector reallocated staff to operational roles, introduced split shifts and in other instances (e.g. Train Drivers), rosters were extended to cover self-isolation/quarantine periods.ⁱⁱⁱ
- Work on the 143 Kilometres of rail infrastructure for Fortescue Metals Group's Eliwana iron ore mine is continuing and will need a workforce of approximately 400 to undertake the project until completion.^{iv} As a result, there will be significant demand for experienced track workers to work in regional WA. There are also several other projects with different mining companies running concurrently (e.g. Rio Tinto's Koodaideri iron ore project) with an ongoing requirement for maintenance beyond the construction phase.
- It should also be noted that workers with the same skills will be needed for the continuing expansion works for the METRONET expansion program.^v For companies like BHP, approximately 900 employees and contractors have been relocated to WA. This includes rail specialty operators such as train drivers and train load out operators that are based interstate.^{vi} Housing assistance and permanent relocation/transfer incentives to either Perth or regional centres are also being offered.
- Following the release of the Revitalising Agricultural Regional Freight Strategy in June 2020, the State Government will utilise the recommendations contained in the report to submit a proposal to Infrastructure Australia for investment in regional freight networks. The upgrade of infrastructure and rail lines (possibly inclusive of Tier 3 grain lines) would require a workforce capable of delivering the project scope of works.^{vii}
- With tighter border restrictions, companies are having to be more innovative, flexible and agile to try and address skills shortages and equip their workers and potential new workers with the right tools and opportunities to be more successful in their roles. This has been embraced through digital transformation and online learning where possible. At this point in time, it is very challenging to try and secure skilled labour from outside the state, let alone internationally.^{viii}
- Rail Infrastructure stakeholders identified the need to maintain a sporadic workforce to meet contract requirements and obligations. This has had an impact on competency management and workplace culture as long-term workforce cannot be maintained.^{ix}
- Rail maintenance is becoming more electronic (passenger and freight) and will require greater hands on knowledge and awareness of IT to work with computers and new systems combined with traditional mechanical skills.^x
- Skills and qualifications well regarded by industry include rolling stock engineers (passenger); wagon maintainers, electrical fitters, and mechanical fitters that can be transitioned to become heavy diesel mechanics (freight).^{xi}
- Additional skills required will include: situational awareness, ability to perform under pressure, augmented reality skills, traditional core skills, communication skills; virtual collaboration and social intelligence; Managerial/leadership skills; Design mindsets, critical thinking/problem solving and system thinking skills; Learning agility/information literacy skills; intellectual

autonomy and self-management skills; Language, Literacy and Numeracy (LLN) skills; technology and data analysis skills.^{xii}

- Augmented and virtual reality has enabled a greater capacity to improve safety and training in the rail space through the use of simulators. Other areas with benefits gained from this technology include enhanced engineering design and the development of new infrastructure.^{xiii}
- As this is a regulated industry, there are limitations restricting people with the appropriate skill level, experience or equivalent qualification to do certain job roles. It is also difficult for any newly qualified graduate with a generic qualification (e.g. engineering) to move across into rail without extensive upskilling.^{xiv}
- Although VET delivery is currently being undertaken, there is growing industry preference for the use of skill sets as opposed to full qualifications.^{xv}
- Within WA, there are limited articulated pathways at tertiary level with a rail focus. This can prolong the process of ensuring the future workforce is adequately skilled (Between 3 to 5 years)^{xvi}
- Industry has a growing need for skills sets to be developed (i.e. infrastructure, signal technicians and electrical). Currently there are no existing skill sets being taught for technical rail systems.^{xvii}
- For Rail Freight, most Train Drivers possess a Certificate IV however obtaining enough experience is still an issue (i.e. understanding weight, train length or impact dynamic forces).
- Pre-traineeships would be supported by industry (passenger) and were seen as a potential entry-level pathway to develop an understanding for rail, which could then stream off into a speciality.^{xviii}
- Due to automation, the role of rail signal controllers is now done remotely by centralised Train Controllers and this role no longer exists in WA.^{xix}
- Medical re-testing, particularly for Train Controller and Train Drivers, is now becoming more frequent as companies have reported a greater occurrence of medical issues affecting the ageing workforce. This has a flow on effect with workers compensation and return to work issues affecting organisations.^{xx} Industry anticipates approximately 40% of its WA workforce will retire over the next five to ten years, and with it an anticipated loss of dynamic and specialised skills in the workforce.^{xxi}
- Workforce challenges are common in all infrastructure heavy environments such as mental health, work-life balance, FIFO, gender diversity, fatigue, EBAs complexity, and operational fragility.^{xxii}

2. Emerging international, national or State training issues impacting your industry

- Consultations with employers and training organisations have highlighted that the industry specific knowledge (i.e. signalling systems) needed to be obtained over time cannot easily be replaced by a newly qualified Trainer with no industry background/experience. Hence the long lead time required to be deemed competent and experienced in this field. As an example, some organisations have reported it taking a minimum of three and half years to find a competent Trainer in Perway Welding.^{xxiii} It was also identified that being a good operator does not necessarily equate to being a good Trainer.
- Perway welders are in demand with a long lead time to train and develop people to the required specialist levels (i.e. five years). In addition, some of these specialist skills are being eroded as new technology is introduced and the opportunity to develop experience and specialist skills is no longer available to them
- There continues to be a limited awareness of rail as a career pathway in schools. Some in Industry are attempting to increase awareness through visiting schools to discuss the potential for rail as a career (i.e. the large variety of career paths such as civil engineers, track workers, high level track workers, and super intendants, train drivers, train controllers).

- As most rail training is provided by Enterprise RTOs, without the rail infrastructure in place to deliver it, industry is exploring opportunities to share training resources to equip a new generation of workers.
- In addition to cleaning and disinfectant regiments, like other impacted industry sectors, this has been incorporated into the training regiments of companies and has been conducted both internally and through external providers.
- Examples of emerging roles will be planners, schedulers and data analysts. Track infrastructure maintenance planners are becoming a more specialist occupation currently experiencing rapid expansion within the rail industry, particularly for the passenger rail.
- As technology evolves some skills are becoming eroded with time, with no opportunity to develop them. For instance, track workers over east are no longer required to lay track with the use of concrete slab tracks. In this instance the concrete is bought in by a machine and fast clipped.
- An ageing workforce continues to be an issue for the rail industry in WA. In most companies, there are train drivers that are approaching retirement. In addition, increased medicals are also placing additional pressures on companies and current drivers. Despite this, traineeships are not commonplace, with industry reporting difficulty attracting trainees to the role. It is anticipated 20 to 30 Drivers will be needed in the next 2 to 3 years, with this number entering the hundreds in approximately 10 years. The speed of onboarding is often critical for organisations where they may utilize only parts of a qualification to familiarize individuals with rail.
- It is anticipated the role of train driver will continue to evolve as new technology is introduced and utilized by companies. Industry identified that Certificate II in Shunting could be potentially used as a pathway to become Train Drivers (i.e. Yard Master, Operational Maintainers).
- Organisations are increasingly using subcontractors to meet staffing requirements. This arrangement can make it difficult for contracting companies to maintain workforce levels outside of tenders/projects with staff moving between contracts/projects.
- It was noted that within the rail companies often train to national units however, statements of attainment may not be issued thus making some training data unreliable as it does not fully account for in house training undertaken by companies.
- The Rail Industry Reference Committee (IRC) will be investigating rail specific vocational pathways for inclusion within the Transport and Logistics (TLI) training package to support industry in addressing attraction and retention issues, by encouraging new entrants into the industry.^{xxiv}
- The Rail IRC is undertaking several key projects within the TLI Training Package. This includes new Qualifications, Units of Competency and/or Skills Sets for the following areas Rail Human Factors and Autonomous Rail Vehicle projects, components relating to Rail Infrastructure, Rail Electric Passenger Train Guard, and Rail Train and Network Control Operations.^{xxv}

INDUSTRY WORKFORCE PRIORITIES:

Strategic directions, policies and priorities for industry

- Rail technology is still evolving and industry has indicated the rate at which change is taking place is far quicker than the capacity of training to keep up. This presents challenges in relation to adaptability, flexibility, risk and compliance.^{xxvi}
- The rail industry encourages the government to maintain their project pipeline as a means of assisting with the COVID-19 recovery process. Considerations have also been taken for rail related supply chains to either source more suppliers within Australia or within their home state. This would have the effect of minimising disruptions to existing operations and ensure the workforce is kept engaged in work.^{xxvii}
- It was identified by Industry and BIS Oxford Economics that the introduction of Virtual Reality (VR) will augment learning to allow trainees to practice new techniques, hone skills and to learn systems remotely. As a result, simulator and VR Trainers will be in much higher demand.

- Industry is engaging in preliminary discussions with WA universities to establish a dedicated pathway for a specific pathway for rail (i.e. rail engineering). This would address the knowledge gap and application of rail specific components in current engineering qualifications. Should this occur, students are more likely to be considered job ready for employment within the rail industry. ^{xxviii}
- In addition to current qualifications being offered, there is a desire by industry to further investigate how to tailor specific training requirements using micro-credentialing. This would allow a quicker response for meeting industry-specific training needs such as hands on training in a controlled environment. ^{xxix}
- Industry is investigating new attraction and recruitment strategies to promote career pathways in rail (passenger and freight) to generate more interest in rail for school age students. ^{xxx}
- The Rail Industry Worker program (RIW) is owned by the Australian Railways Association (ARA) giving participant organisations full visibility of workers moving between projects whilst meeting regulatory and compliance requirements. ^{xxxi}
- The rail industry is committed to achieving greater diversity in its workforce. Several key strategies have been developed by the Australian Railways Association (ARA) such as the Gender Diversity Report and actively promotes ongoing discussion on issues and challenges affecting gender diversity. ^{xxxii}
- A nationally recognised course in automation was made available in 2018 at WA's TAFE colleges and high schools. This has the potential to bring in workers transitioning from other sectors. ^{xxxiii} South Metropolitan TAFE, in Partnership with Rio Tinto is planning to expand the intake for its automation program to regional WA to increase the availability of future focused skills. ^{xxxiv}

i The Office of the National Rail Safety Regulator. Available[<https://www.onrsr.com.au/about-onrsr/>]

ii Industry Consultation 2020

iii Industry Consultation 2020

iv Contract Award: Eliwana Mine and Rail Project Source: <https://nrw.com.au/contract-award-eliwana-mine-and-rail-project/> Accessed 18 February 2020

v Industry Consultation 2020

vi The West Australian, BHP defends local record, 22 July 2020

vii Department of Transport Source: https://www.transport.wa.gov.au/mediaFiles/FreightPorts/FRE_P_FS_RevAgriRegionFreightStrategy_Final.pdf

viii Industry Consultation 2020

ix Industry Consultation 2020.

x Industry Consultation 2020.

xi Industry consultation 2020

xii Industry Consultation 2020: Australian Industry Standards, Rail Industry 2018 Key Findings Discussion Paper

xiii BIS Oxford Economics, Australian Railways Association Skills Capability Study Skills Crisis: A call to action, November 2018

xiv Industry Consultation 2020; and Australian Rail Association Forum 31 May 2018

xv Industry Consultation 2020; Australian Industry Standards, Rail Industry Skills Forecast 2019

xvi Industry Consultation 2020; and Australian Rail Association Forum 31 May 2018

xvii Industry Consultation 2020

xviii Industry Consultation 2020.

xix Industry Consultation 2020

xx Industry Consultation 2020

xxi Industry Consultation 2020

xxii Industry Consultation 2020; and Rail Workforce Development Committee, 24 May 2018

xxiii Industry Consultation 2020

xxiv Australian Industry Standards, Rail Industry Skills Forecast 2019

xxv Australian Industry Skills Committee, source[<https://www.aisc.net.au/content/national-schedule>] Last accessed 30 August 2019

xxvi Industry Consultation 2020

xxvii Australian Railways association, Preparing for recovery: Rail supplier contractors and freight operators and COVID-19

xxviii Industry Consultation 2020

xxix Industry Consultation 2020

xxx Industry Consultation 2020

xxxi Rail Industry worker <https://www.riw.net.au/>

xxxii Industry consultation 2020

xxxiii Sound Telegraph, 11 April 2018, Rio Courses to explore automation.

xxxiv Industry Consultation 2020