



Introduction. The 2024 WA Jobs, Education and Training (WAJET) Industry Survey required a 600 word profile on each occupation. Below is 712917 Railway Signal Operator. The text below is open source and free for use when LDSC is correctly acknowledged. The text is open to correction. The Logistics and Defence Council (LDSC) welcomes input on 08 9388 8781 or <https://www.ldsc.asn.au/contact.html>

Industry Advisory Group. LDSC invites stakeholders to join our Rail Industry Advisory Group 08 9388 8781 or <https://www.ldsc.asn.au/contact.html>

Based on your Rail industry consultations and the feedback provided please provide a 600 word summary for Occupation ANZSCO 712917 Railway Signal Operator

ANZSCO definition. Rail occupation ANZSCO 712917 Railway Signal Operator controls the movement of trains and assembles and disassembles trains within a marshalling yard. An alternative title is Railway Switching and Signalling Operator. The ANZSCO Skill level is 4 (Cert II or III). Specialisations include:

- Railway Shunter
- Railway Yard Assistant

Stakeholder feedback on ANZSCO. WA Stakeholders regard 712917 Railway Signal Operator as a legacy code relating to mechanical signals. In WA the role is largely redundant. The legacy skills are required in old rail networks. Mechanical signals have transitioned to electronic signalling and telecommunications. The tasks of Rail Signal Operator have transitioned to:

- emerging track team occupations like Rail Technician with an electrical licence covering rail electronic signalling or electrical communication technician roles at Skill Level 2.
- 712918 Train Controller in the network control room directing train traffic from computer displays with radio communications to the driver and track teams. Train Controller replaces the Railway Signal Operator in a signal box, at a signal panel or on the track.

The modern rail track team. In WA current industry practice occupations 721914 Railway Track Plant Operator and 821611 Railway Track Worker form the rail track team.

‘Rail technician’ or ‘Communications Technician’. The expansion of METRONET electric passenger rail services, decarbonisation of Heavy Haul Rail, advances of in-cab communication based signalling, developments in digital rail communications and autonomous trains create emerging occupations in the Rail Track teams beyond the traditional occupations Signal Operator, Track worker and Track Inspector. Emerging occupations combine communications, IT and electrical skills in ‘Rail technicians’ or ‘Communications Technicians’. For example the Public Transport Authority (PTA) is procuring the High Capacity Signalling system (HCS). HCS changes signalling from track side signal lights identified by the driver to an in-cab communications based train control. Each PTA railcar is linked electronically and adjusts track position automatically. HCS fundamentally changes rail signalling. The combination of communication systems plus electrical and mechanically linked sensors permits more trains on the network, safer and faster.

Demand factors are:

- Global demand for WA iron ore
- Global demand for WA wheat
- METRONET construction
- National Rail Action Plan 2020
- Naval Shipbuilding Plan 2017 including SSN-AUKUS
- WA world leading networks demanding technicians in Autonomous Trains, Electronic Signalling and integrated logistics
- Demand shift from rail construction to operations to maintenance

Supply factors are:

- Aging out of Rail workforce
- Aging out of Rail Trainers and Assessors
- Fragmented Rail workforce training pipeline
- Competition for Engineers and supporting technical workforce
- National Rail Skills Shortage
- Perception / Image of the Rail Industry
- Rail ANZSCO codes need review to current industry occupations
- Uncoordinated Migration plan
- Regional Housing and Remote Lifestyle
- Electrical trade training pathways

Workforce location. Naturally rail track workforce is located on the rail network. Regions of demand of strategic importance to the Australian economy are:

- Pilbara: WA the largest exporter in the world of iron ore
- Wheatbelt - Great Southern: WA the largest exporter in Australia for wheat
- Perth Metropolitan Area for METRONET

Electrical Trade Training pathways. The State Government may consider the value to the WA economy of a cross sector review of Electrical Trade Training to create different electrical licence pathways suitable to the emerging occupations in digitisation, decarbonisation and renewable fuels.

Skill set. The persistent rail workforce shortage has created an appetite in stakeholders for a TAFE foundation entry level Skill Set like TLISS00224 Rail Operations Fundamentals.

Long term development of WA Rail training. There is an industry appetite for partnerships with North Metro and Pilbara TAFEs and development of the National Rail Skills Academy as described under the National Rail Action Plan 2020 and proposed by the Australasian Railway Association.

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