Aviation

A snapshot from the *Queensland Transport and Logistics Workforce Current and Future Trends Report*

Key workforce trends

1. **Growth across the sector –** This has been led by increasing demand for domestic and international air travel. The regional demand is varied with some locations experiencing growth in demand, while others are in decline.

2. **Workforce poaching –** This occurs particularly for pilots and engineers and impacts regional carriers, which lose staff to larger domestic and international carriers, which in turn lose staff to international carriers. Higher wages and larger planes make this trend difficult to reverse.

3. **Barriers to training –** This is due to a combination of factors including high turnover and Australian regulations.

4. **Workforce composition –** Female employees represent around 40 per cent of the workforce nationally, the highest proportion across the transport and logistics industry.

   Although it is less pronounced than in other sectors, the aviation workforce is ageing.

   Air transport professionals (pilots, air traffic controllers, flying instructors) are the largest group of employees, followed by travel attendants and then ticket salespersons.

5. **Ground operations and aerodromes –** The expansion of some airports is driving demand for ground operations staff.

6. **Regional aviation –** Regional carriers and airports are facing skills shortages despite a decline in the provision of services (particularly regular public transport services).

7. **The Royal Australian Air Force (RAAF) –** Is a key training ground for pilots, with reports that RAAF pilots are being actively targeted by commercial airlines. The development of the Amberley Air Base will increase the number of trained pilots in the Queensland labour market.

Queensland context

1. **Labour market –** The aviation workforce is the second largest in Australia, with key employers including the Brisbane Airport Corporation, Queensland Airports Limited, Qantas (and Jetstar), Virgin Australia, Alliance Airlines and Skytrans.

2. **Queensland has the largest number of designated international airports in Australia –** There are a total of eight designated international airports, although some are restricted in use or non-scheduled.

3. **Wellcamp Airport development –** The development of this airport in Toowoomba has increased workforce demand in the Darling Downs region and provides direct freight flights to growing markets in Asia (Cathay Pacific Cargo).

4. **Qantas Dreamliner Base –** Brisbane has been announced as the base for Qantas' new 787 Dreamliners, almost a $1 billion investment. This is expected to generate 471 direct and indirect jobs in the first five years.

5. **Advance Queensland –** Aerospace is a priority sector for the Queensland Government. An aerospace industry roadmap will be developed under the Advance Queensland initiative, which which is likely to drive an increase in the demand for the aviation workforce.

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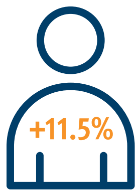
Queensland Government

Queensland aviation workforce: 9331 employees in 2016*

Occupations in change 2011–2016



Headcount growth

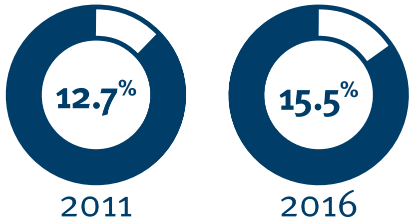
Air Transport Professionals	+219
Mobile Plant Operators	+185
Aircraft Maintenance Engineers	+136
Travel Attendants	+83
Construction Managers	+29

Headcount decline

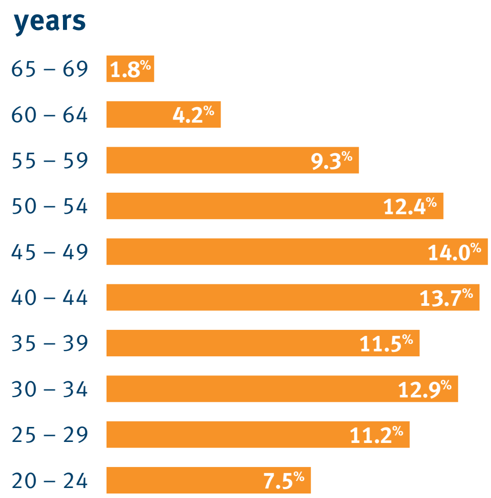
Supply & Distribution Managers	-41
Production Managers	-6

Sector by age

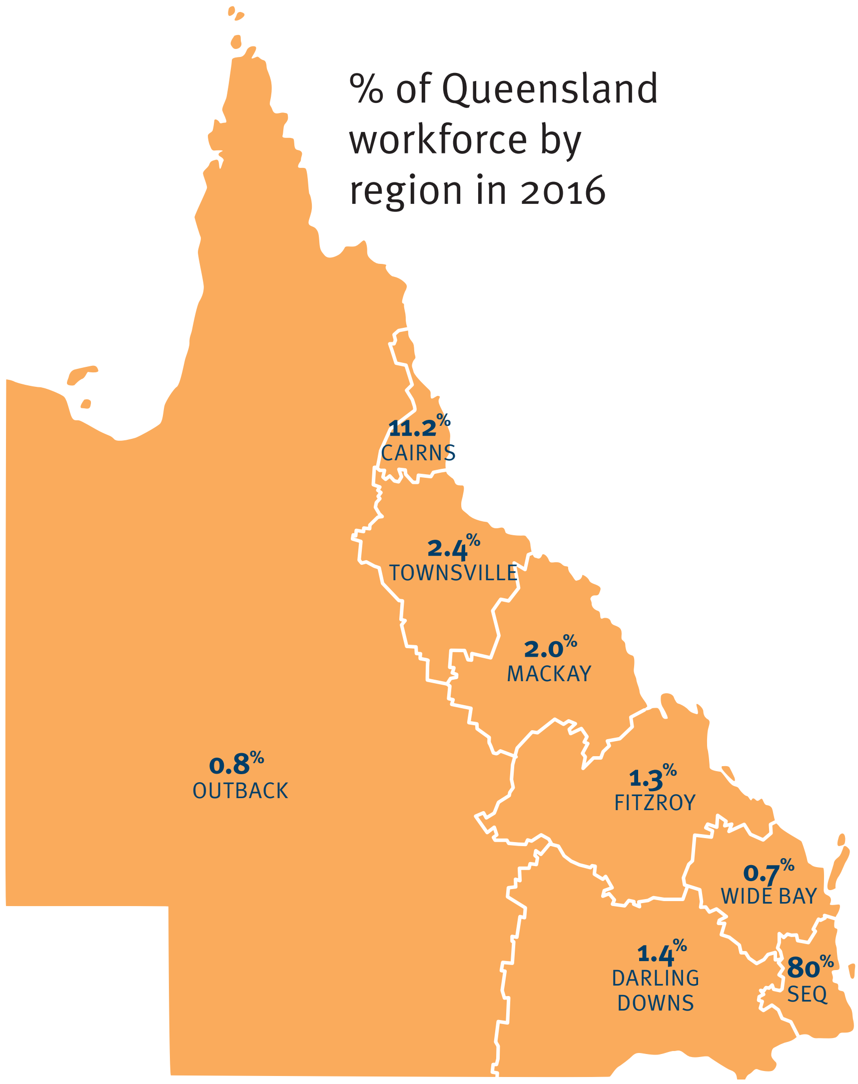
% WORKFORCE
55years+



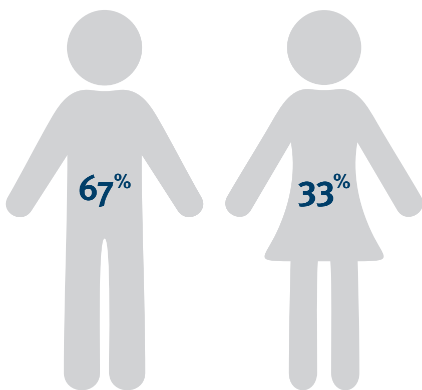
Workforce composition 2016 Census



% of Queensland workforce by region in 2016

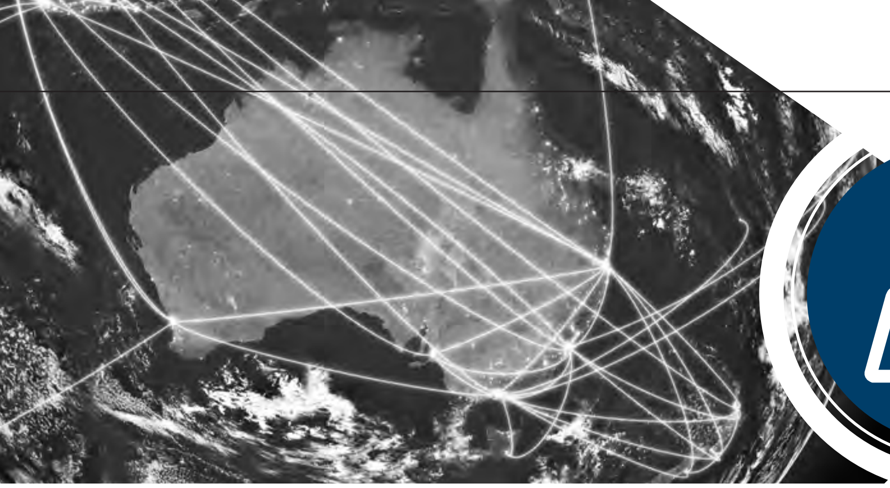


Gender composition 2016



77% of women are employed as travel attendants or ticket salespersons

Source: KPMG analysis of 2011 and 2016 ABS Census data. *List of included professions are detailed in the *Queensland Transport and Logistics Workforce Current and Future Trends Report*.



Logistics

A snapshot from the *Queensland Transport and Logistics Workforce Current and Future Trends Report*

Key workforce trends

1. **The sector is growing –** This is being driven by a combination of factors including: customers increasingly expecting same-day delivery of goods and services; a number of global entrants into the Australian market; and growth in consumer demand in areas such as online shopping.
2. **Changing skill requirements –** As a result of the changing nature of work and the expansion of the sector, workers will be required to be skilled in the operation and maintenance of machines, have digital literacy and an understanding of end-to-end supply chain management.
3. **Technological change and automation –** These key changes include larger warehouse footprints, reduced inventory, cycle time and costs enabled by real-time monitoring of inventory; real-time cloud ordering enabled through technologies such as Big Data and the Internet of Things; advanced robotics in order picking; and autonomous vehicles used throughout large warehouses. These are impacting on the skills required of the workforce.
4. **Customer centric approaches –** This focus has become increasingly important as a result of the hyper customisation of the industry, with omni-channel logistics expected to change the sector and delivery drivers increasingly being key face to face point of contact with customers.
5. **Workforce retention –** This is reported as a challenge, particularly for manual intensive roles that are usually undertaken by a younger workforce who are embracing casual arrangements and not seeing opportunities for career development in the sector.

Queensland context

1. **Labour market growth –** The logistics workforce has been growing significantly (42 per cent from 2011 to 2016), primarily driven by increases in storepersons, forklift drivers, purchasing and supply logistics clerks, transport service managers and delivery drivers.
2. **Specialist roles –** Recruitment challenges have been reported in this sector – these include supply and distribution managers and forklift drivers and challenges in finding adequate data analytics capability.
3. **Consumer preferences for online retail –** This trend is enabled through online technologies and has provided greater access to goods and services in regional communities (significantly driving up the demand for services like postal, warehousing and distribution in Queensland). This has hampered the performance of traditional brick and mortar retail businesses, also impacting on logistics and warehousing.
4. **Globalisation –** With the entry of companies such as Amazon into the Australian retail market, new job opportunities will be generated within South East Queensland.

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Queensland logistics workforce: 16,797 employees in 2016*

Occupations in change 2011–2016

+42.5%

Headcount growth

Storepersons	+1441
Delivery Drivers	+734
Truck Drivers	+510
Forklift Drivers	+450
Purchasing Logistics Clerks	+299

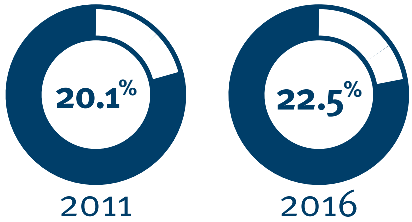
N.B. Omits Couriers and Postal Deliverer occupation which shifted from road transport to logistics across Census years

Headcount decline

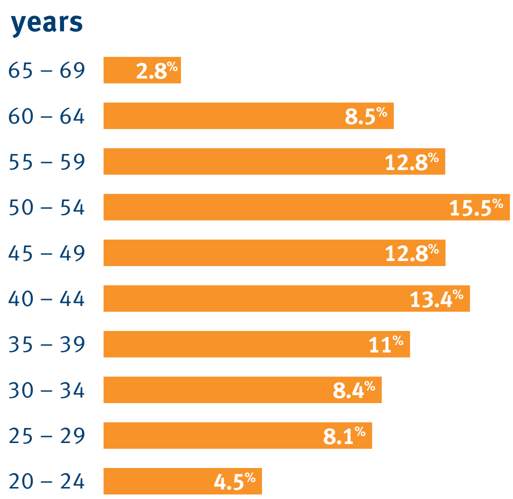
Mail Sorters	-31

Sector by age

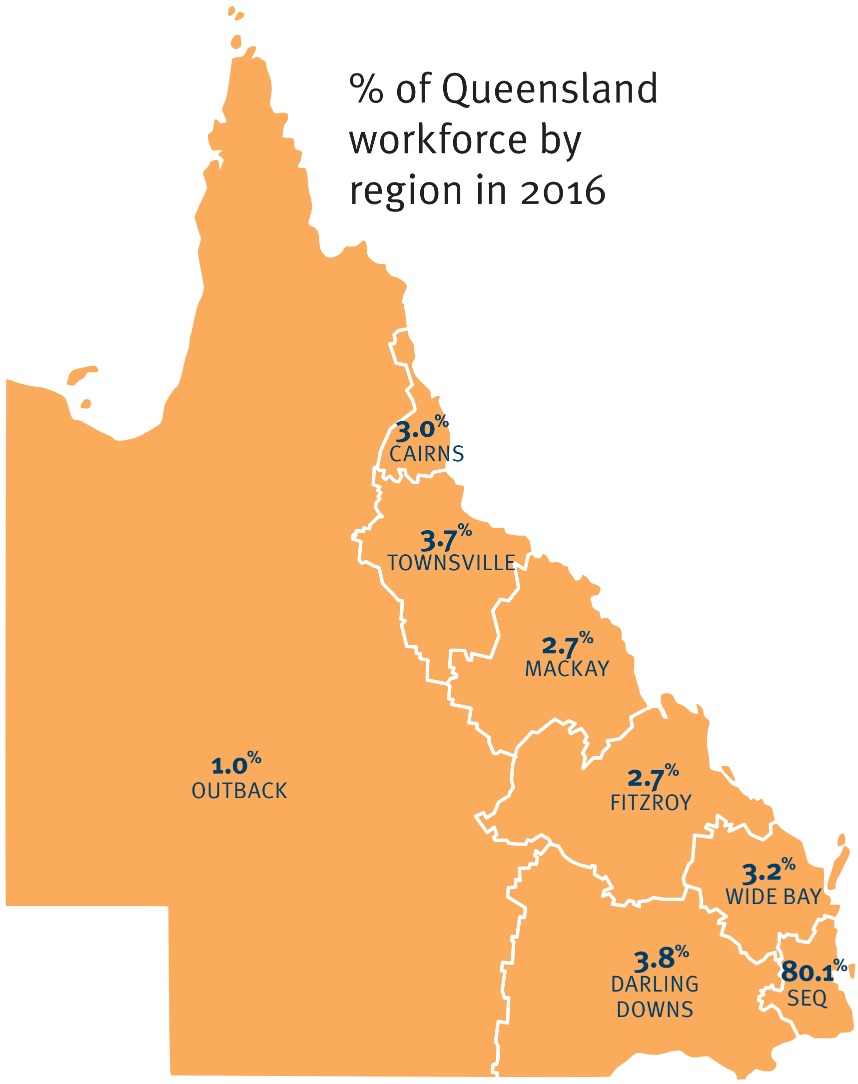
% WORKFORCE 55years+



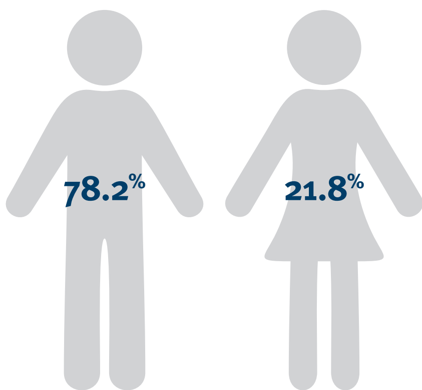
Workforce composition 2016 Census



% of Queensland workforce by region in 2016



Gender composition 2016



Source: KPMG analysis of 2011 and 2016 ABS Census data. *List of included professions are detailed in the *Queensland Transport and Logistics Workforce Current and Future Trends Report*.

Maritime and Ports

A snapshot from the *Queensland Transport and Logistics Workforce Current and Future Trends Report*

Key workforce trends

1. **Ageing workforce –** The maritime and ports workforce is one of the oldest in the country. Nearly half of its employees are 45 years or older, and the younger workforce predominantly works casually.

2. **Attractiveness of the sector –** The inability of the sector to recruit a younger generation of employees could be due to a perception of the sector as old-fashioned and low-tech.

3. **Technological changes –** These are beginning to change the nature of work in the sector with major future trends including the Satellite Based Augmentation System (SBAS) and autonomous shipping.

4. **Skills shortages and competition –** Workforce shortages are particularly evident in domestic commercial vessel operations (for example, deckhands) with regional and remote ports being the hardest hit. This is being fuelled by competition from other sectors and wealthier ports offering inflated salaries to attract a highly skilled workforce.

5. **Lack of available training berths –** Due to the declining number of Australian flag state control vessels, there is a lack of available training berths for Australian trainee seafarers to gain the required experience.

6. **A decline in resources freight but growth in cruises and containers –** The end of the resources boom has seen a decline in freight traffic; however, increasing demand for container shipping as emerging markets increase their consumer spending, as well as the burgeoning cruise industry, will continue to provide employment opportunities in this sector.

Queensland context

1. **Size of the labour market –** The maritime workforce is the second largest in Australia. Despite there being 20 ports in Queensland, the state's maritime and ports workforce is in decline, particularly in South East Queensland. This is possibly due to the closure of a BP refinery and the increased automation of operations at the Port of Brisbane.

2. **Specialist roles –** The Australian Industry Standards 2018 Skills Forecast recognises marine engine drivers, deckhands and managers as being in shortage for domestic commercial operations.

3. **The Queensland Port Network –** This network includes 15 designated trading ports that are critical nodal points connecting many of the state's most valuable supply chains to domestic and international markets.

4. **Major coal export ports –** These are the Port of Gladstone, the Port of Hay Point and the Port of Abbot Point. Port of Gladstone has undergone a master planning process to identify and protect sensitive environmental areas; and ensure areas required for port development and port-related industry over the next 30 years are protected to allow it to occur in a sustainable manner.

5. **Protections for the Great Barrier Reef –** The Government's 2050 long-term sustainability plan for the Reef imposes stricter regulations on the industry that will ensure bulk commodities are shipped well away from the Reef.

6. **Cruise terminals –** In October 2017, the Queensland Government announced $158 million for the Brisbane International Cruise Terminal. This is in response to growing demand for passenger cruise services.

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Queensland maritime and ports workforce: 2921 employees in 2016*

Occupations in change 2011–2016

-5.5%

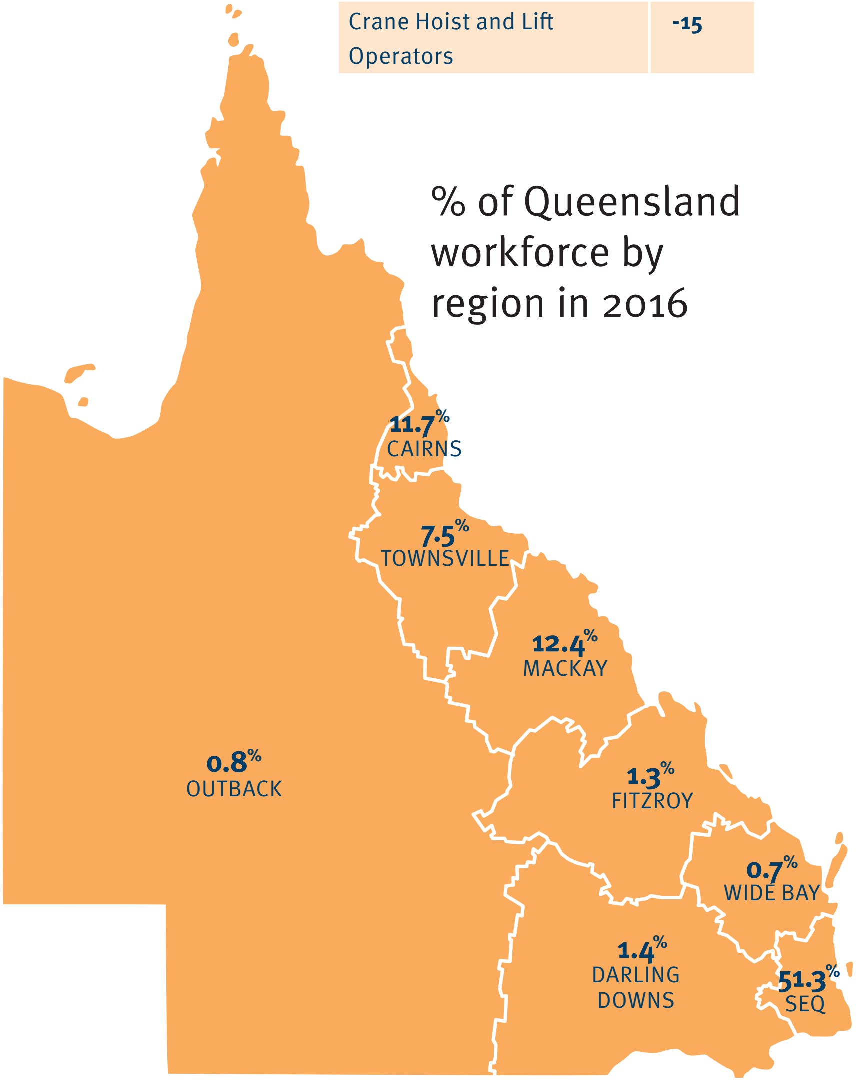
Headcount growth

Civil Engineering Professionals	+17
Life Scientists	+13
Supply and Distribution Managers	+13

Headcount decline

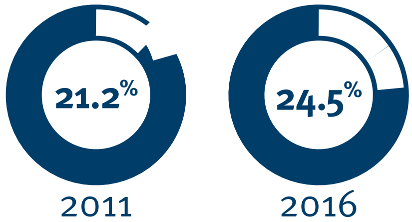
Marine Transport Professionals	-104
Deck and Fishing Hands	-86
Freight and Furniture Handlers	-46
Occupational and Environmental Health Professionals	-18
Crane Hoist and Lift Operators	-15

% of Queensland workforce by region in 2016

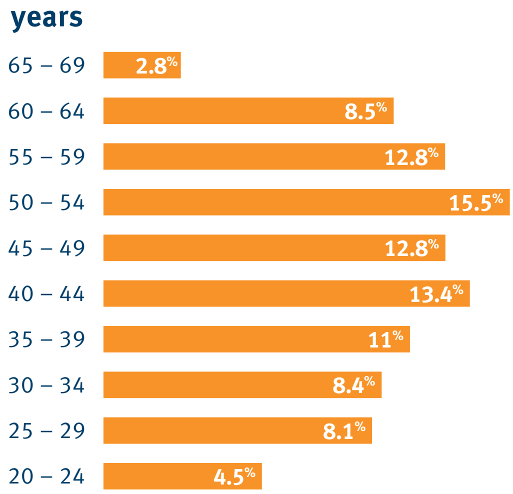


Sector by age

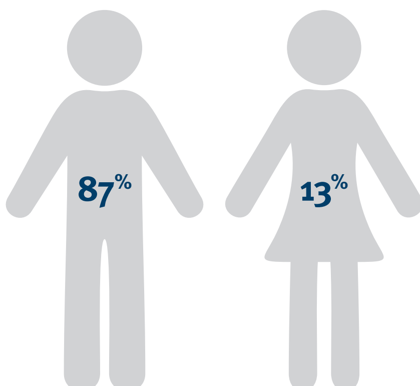
% WORKFORCE 55years+



Workforce composition 2016 Census



Gender composition 2016



Source: KPMG analysis of 2011 and 2016 ABS Census data. *List of included professions are detailed in the *Queensland Transport and Logistics Workforce Current and Future Trends Report.*

Rail

A snapshot from the *Queensland Transport and Logistics Workforce Current and Future Trends Report*

Key workforce trends

1. **Skills shortages –** Over the last few years train drivers have been in high demand and short supply.
2. **Female participation –** Increasing female participation has been suggested as a potential avenue to grow the labour pool, particularly for train drivers and railway track workers where the current lack of diversity may be acting as a detractor for new workforce entrants.
3. **An ageing workforce –** Across the rail industry the ageing of the workforce is a significant concern, with the number of retirements predicted to steadily increase over time and with retirement intentions difficult to predict.
4. **Working conditions and sector attractiveness –** In addition to the perceived lack of career opportunities, key factors that may be contributing to the lack of attractiveness of rail occupations to a younger workforce include shift work and/or longer working hours and high rates of overtime.
5. **Workforce models –** The rail workforce is typically made up of permanent full-time employees who are male and ageing. There have been recent initiatives by a number of employers to promote greater flexibility and diversity through increasing casual and flexible work options.
6. **Automation and technological changes –** Significant change is expected in the longer term with autonomous trains and the adoption of the European Train Control System by a number of operators around the country.
7. **Training –** The rail industry has tended to rely on government operators to train rail workers, which has restricted the pool of skilled labour available.

Queensland context

1. **Labour market –** The Queensland labour market has been dominated by Queensland Rail (passenger) and Aurizon (freight) but new entrants are changing the workforce. Some specialist roles are in shortage despite a softer labour market more broadly.
2. **Specialist roles –** Specialist occupations typically trained in-house include: train drivers, train guards, shunters and controllers. Other vital occupations with limited training providers available are: signals electrical engineers and signal electricians.
3. **Geographical distribution –** A widely dispersed workforce and lack of critical mass in regional areas means there are limited career pathway opportunities, educational opportunities and support and mentoring; while some operators (for example Aurizon) are closing regional operations down.
4. **Environmental impacts –** Natural disasters have depleted the rail asset base impacting on operations and therefore workforce demand.
5. **Culture –** The culture across the rail employers in Queensland strongly supports the occupational health and safety of its workforce and has recently committed to improvements in its customer centricity and service.
6. **Inland rail –** This project has the potential to see uplift in freight volumes both through the realisation of new market opportunities, as well as from mode shift to the freight rail network, which will increase demand and associated employment for the rail transport sector.
7. **Freight, heavy passenger and light rail investment –** Government investment in rail infrastructure and projects is driving further demand for the rail workforce.

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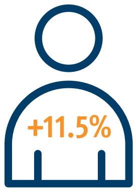
Queensland rail transport workforce: 5352 employees in 2016*

Occupations in change 2011–2016



Headcount growth

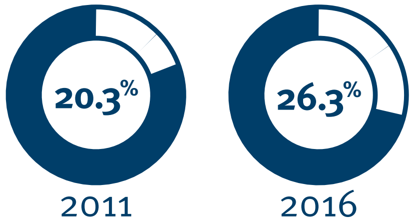
Electrical Engineers Professionals	+24
Supply and Distribution Managers	+14

Headcount decline

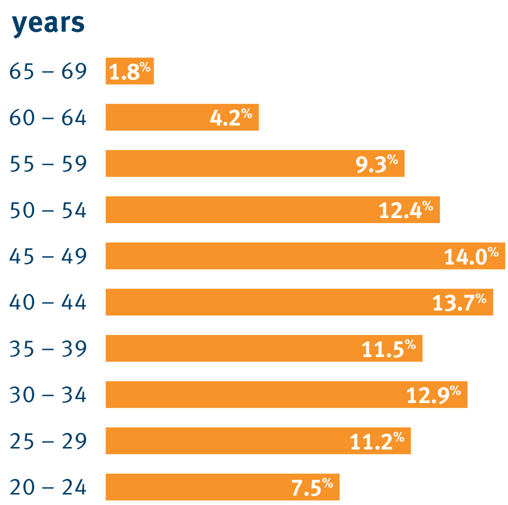
Train and Tram Drivers	-276
Ticket Salespersons	-225
Stationary Plant Operators	-105
Railway Track Workers	-86
Occupational and Environmental Health Professionals	-72

Sector by age

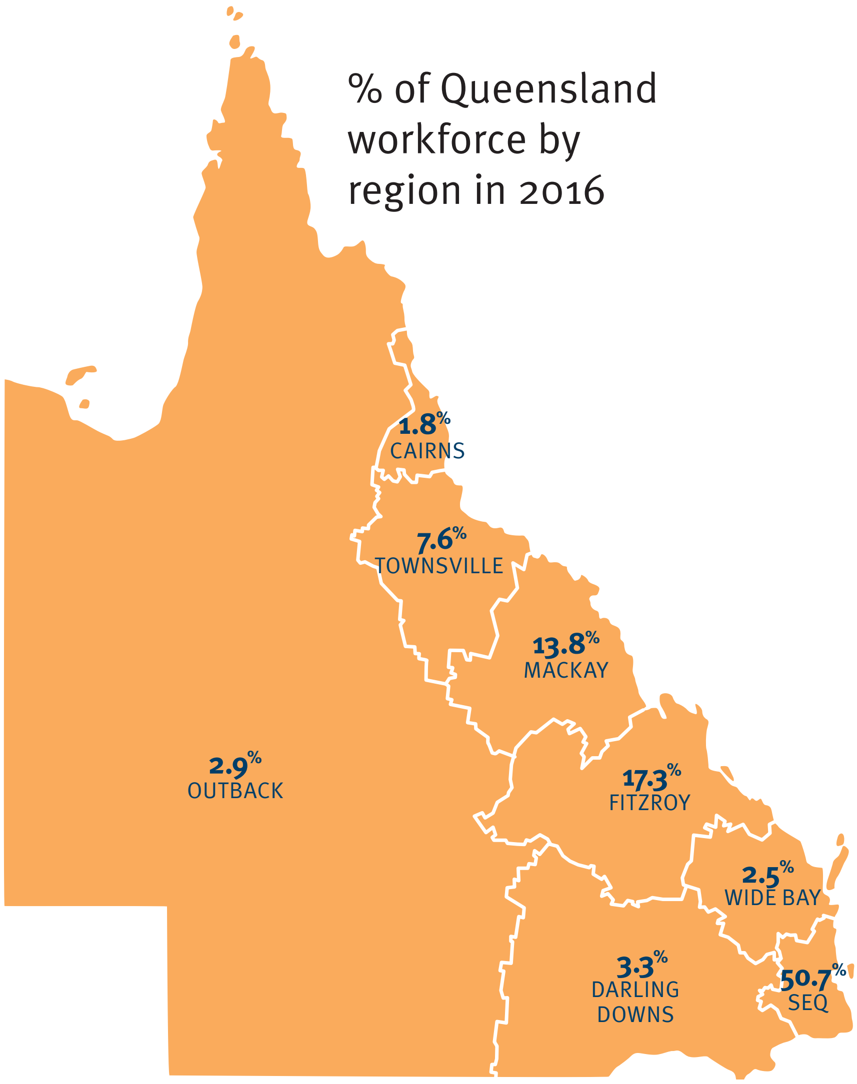
% WORKFORCE 55years+



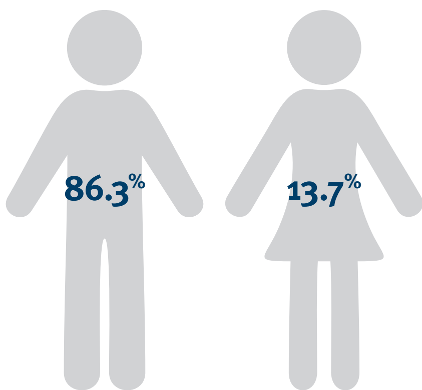
Workforce composition 2016 Census



% of Queensland workforce by region in 2016



Gender composition 2016



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Road Transport

A snapshot from the *Queensland Transport and Logistics Workforce Current and Future Trends Report*

Key workforce trends

1. **Skills shortages –** A shortage of truck drivers persists, primarily because of an ageing workforce, increased regulation in the sector and the dominance of small to medium-sized enterprises (SMEs) in the sector, which limit training opportunities.

2. **An ageing workforce –** While the average age of workers across transport and logistics is 45, the average age of truck drivers is 47 and the average age of bus and coach drivers is 57.

3. **Limited female participation –** The very low proportion of females in road transport has remained fairly constant in the road sector over the last 30 years. Moves to specifically target women have been undertaken by the mining industry and the bus industry.

4. **Driver fatigue in the trucking industry –** Fatigue remains a key concern for employees, particularly for long distance freight with 2014's Heavy Vehicle National Law introducing new regulation.

5. **Emerging transportation technologies –** In Australia and internationally there is significant discussion around the workforce implications of automation and driverless vehicles. Industry believes this is still a number of years away from adoption.

6. **Road congestion and bottlenecks –** Growing congestion along key freight corridors limits freight productivity, increasing travel times and reducing travel reliability, particularly around transport hubs and port areas.

7. **Impact of consumer preferences –** There are increasing interactions between commercial vehicles and private vehicles in inner city road networks and an increasing trend for drivers to also be seen as representatives of their organisations, requiring greater interaction with clients and customers.

Queensland context

1. **Labour market –** The road sector is the largest in workforce size across the Queensland transport and logistics industry but the sector is in decline as a result of a reduction in both the demand for and supply of truck drivers likely driven by falling regional populations, as well as a decline in mining activity over the same period.

2. **Specialist roles –** Despite the decline in the number of truck drivers employed in Queensland, shortages can occur for specific tasks due to licensing requirements for heavy vehicles. On the other hand, bus drivers are in growth with difficulty attracting a younger workforce, creating potential for shortages.

3. **Freight movement –** The Port of Brisbane is a significant hub for freight movement within South East Queensland. The role of the road transport sector in moving freight to the port has increased significantly over the last decade. As the role of the rail freight network has waned, the road transport sector has had to fill the gap in demand for freight movement.

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Queensland road transport workforce: 33,406 employees in 2016*

Occupations in change 2011–2016

-13.8%

Headcount growth

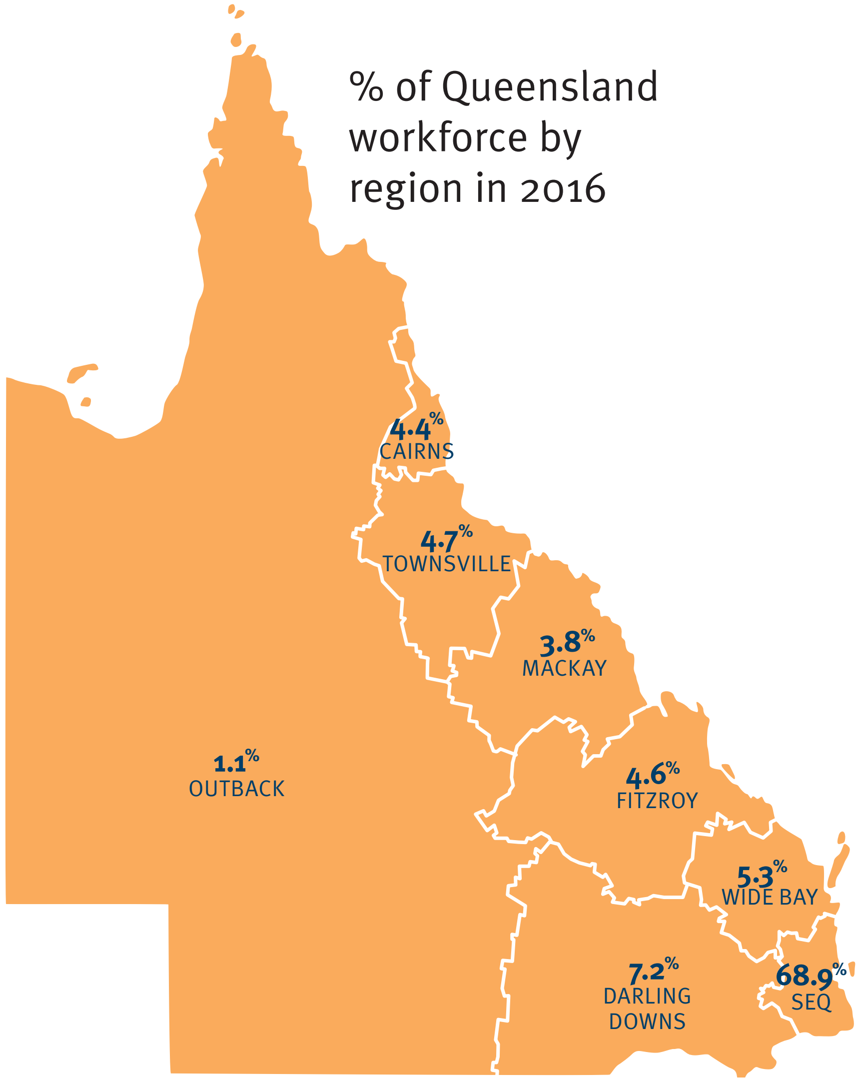
Inspectors and Reg. Officers	+25
Construction Managers	+15
Construction, Distribution and Production Managers	+15

N.B. Omits Couriers and Postal Deliverer occupation which shifted from road transport to logistics across Census years.

Headcount decline

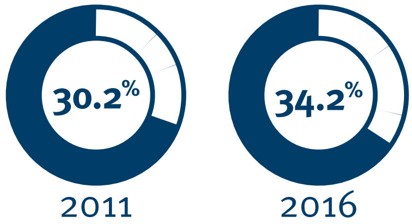
Truck Drivers	-2681
Automobile Drivers	-511
Delivery Drivers	-373
Transport and Dispatch Clerks	-143
Transport Services Managers	-140

% of Queensland workforce by region in 2016

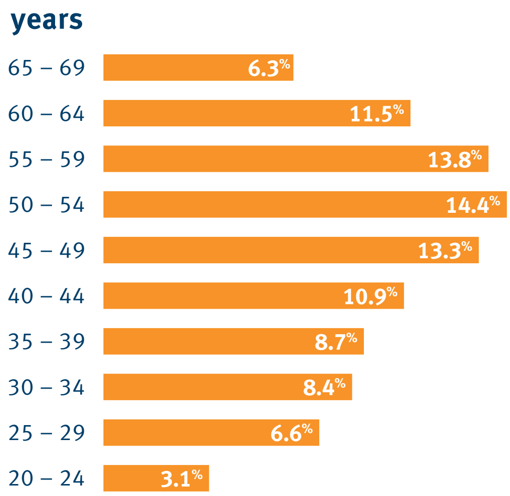


Sector by age

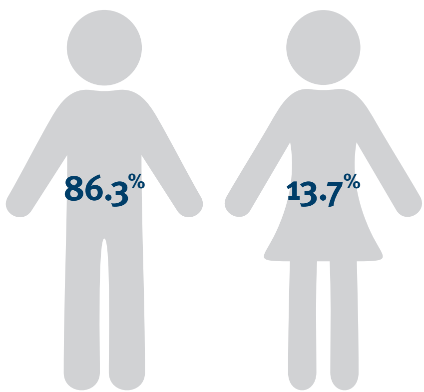
% WORKFORCE 55years+



Workforce composition 2016 Census



Gender composition 2016



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