

# INDUSTRY PROFILE - Aviation Flight Operations

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**Transport, Postal and Warehousing  
Air and Space Transport  
Flight Operations**

*ANZSIC: 4900*

**Report Prepared July 2022**

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## Industry Regulatory / Licencing Bodies

- The national regulator overseeing activity in this space is the Civil Aviation Safety Authority (CASA). Together with the Department of Infrastructure, Regional Development and Cities, and Airservices Australia, they constitute a tripartite structure for providing safe aviation in Australia.
- At State level, the Department of Transport (DoT) coordinates, develops and influences government and the aviation industry in providing the best aviation services and infrastructure for Western Australia.

## Industry Development and Workforce Opportunities and/or Challenges for Industry

### *2.1 Industry opportunities affecting the current and future supply and demand of industry's skills and workforce*

- Aviation roles were in oversupply due to the significant lack of activity within the aviation sector (for domestic and international routes) due to border restrictions for COVID-19. This was outside of charter fly-in, fly-out (FIFO) flights required for the mining, oil and gas and tourism sectors which offset some of the challenges. Now the aviation industry has entered into the recovery phase, airlines will begin to increase capacity and resume domestic and international flights and operations slowly over time as they test market conditions. This will lead to many aviation roles once again being in critical skills shortage. Below is an overview of the emerging trends which may have an impact on the workforce in WA.
- Dedicated cabin crew servicing domestic and international routes to and from Perth have been lured away to carriers servicing FIFO routes within WA. These routes did not experience a decreased shift in demand during the pandemic or intra-state border closures in the way East Coast or domestic Airlines did allowing them to absorb some of this workforce. Additionally, many other workers were stood down during the last two years and they have now made a permanent move to other carriers or industries and may not return. This may increase demand for workers as domestic and international carriers now resume services, particularly as larger airlines announce plans boost their recruitment efforts (such as Virgin Australia).
- A zero-emission regional air taxi network is planned to be introduced into WA in 2026. The Lilypad Elevate network is planned to span across 25 regional airports in WA, with over 30 point-to-point connections throughout the state. The five-seat Electron 5 fixed-wing aircraft can fly up to 750 kilometres on a single charge, at a top speed of 300km per hour, and its STOL capabilities mean it can operate even at some of WA's smallest airfields. Ahead of welcoming the vehicles, FlyOnE is also gearing up to install solar-powered charging infrastructure for its new aircraft, with proposed charging sites including Perth, Rottnest Island, Murray Field Airport, Mundaring Airport, White Gum Air Park and Northam Airport. These developments will need to be monitored for any impact to the current skills required for both the pilots operating the air-taxis, and the ground handling and mechanical/ The State government has invested in the development of up to 50 new electric vertical take-off and landing (eVTOL) aircraft providing zero-emission flights in WA. Aviair and HeliSpirit have partnered with Eve Air Mobility to bring these new zero-emission electric aircraft to WA within the next four years. Additionally, the State Government is also investing more than \$50million to deliver three next-generation emergency rescue helicopters for Western Australia. The investment will secure the future of WA's Emergency Rescue Helicopter Service (ERHS), which has provided life-saving assistance to communities across the State since 2003. The replacement aircraft are being delivered as part of the 2021-22 Mid-year Review. New technological developments will need to be monitored to determine the possible impact on the skills required for the current and future workforce operating these aircraft such as the maintenance skills required to support this type aircraft.
- International flights resumed nationally from 21 February 2022, with an initial 8 flights from Qantas entering Australia, the first in almost two years. Domestic capacity was also increased from May 2022

(however, there was a lag to this taking effect in WA due to hard border closures). Airlines are now beginning to test the market and some services/routes may be delayed as companies continue to re-emerge (due to financial and other factors influencing their ability to resume operations fully). Over the last year there has been a lot of uncertainty (due to restrictions and financial ability) with airlines struggling to maintain some routes, and considering delaying returning to some routes, or terminating them altogether. For instance, the non-stop London-Perth route, a flagship service for Qantas was temporarily placed on hold, with Qantas then suggesting exclusivity for this route could also change due to WA's hard border stance; however, this issue has since been resolved with the route now officially established in WA and resumed in April 2022. Although there are other international routes serviced by Qantas nationally, some delays could occur as they take stock of their ability to operate in new market conditions. Additionally, Virgin has announced new capacity for routes to and from the Kimberley for the next ten years from Perth.

- These new market conditions are still evolving and may change the aviation landscape further. For instance, there is a push from many airlines to gain better footing in the market and to compete with more established airlines which has resulted in increased competition in pricing and capacity (with some airlines significantly increasing route and seat capacity), and the emergence of new routes. For instance, Jetstar Brisbane to Perth which will begin in November 2022, as well as some airlines taking this chance to start-up (eg Bonza Airlines). Additionally, from June 2022, Qantas commenced as the only direct flight from Perth to Rome (the only direct flight between Australia and continental Europe), flying three return Perth-Rome flights per week during the peak summer holiday season.
- More flight routes are expected to be announced throughout the year as airlines continue to announce competitive campaigns for domestic and international air fares to stimulate air travel. This will need to be monitored to see what, if any additional routes are announced or terminated, and for the resulting effects and demand it has on the aviation workforce.
- The reduction in domestic flights increased the cost of air freight significantly with cargo space now considered a premium. Some airlines took the opportunity to increase other services, with air freight services offering a financial reprieve to some operators (although this is also projected to decline by 67.2% nationally in 2020-21. For instance, with the supply chain and e-commerce experiencing significant increases in volume, particularly over the Christmas period Qantas converted three of its 300 passenger Airbus A330s into freighters for domestic and international routes to better support Australia Posts mail and parcel business. It is unclear at this time if this will be a permanent change.
- Earlier this year, the uncertainty in border restrictions led to Jetstar (a subsidiary of Qantas group) imposing a moratorium on all flights out of Perth until April 2022. However, 15 flights per week continued to land in Perth from other capital cities for essential personnel and freight. These impacts also contributed to flight prices through other airlines to also increase. This may have also contributed to the fall in passenger transport, with airlines often stating they retained the flexibility to adjust these policies later on demand and border re-opening clarity as needed leading to confusion and frustration for passengers. Now that WA hard border has been re-opened it is anticipated these services will resume with airlines offering competitive incentives to entice passengers back to their airlines.
- Greater competition is arising between airlines for domestic routes as a result of the pandemic. Although most airlines suffered a financial loss due to the destructions related to COVID-19 restrictions and lockdowns on domestic and regional networks, it has allowed some companies (such as those who are now breaking even) to expand their operations due to the acquisition of the assets of larger airlines.
- This increase in competition will also contribute to raising the attractiveness and therefore demand for air travel as consumers benefit from airlines competition. Airfares have decreased significantly, with domestic airfares dropping over between 20% and 25% (for economy and business class) since February. It is likely these conditions will significantly increase passenger demand.
- A new budget airline has entered the Australian market (the first since Tiger Airways in 2007). Bonza will launch with 25 routes across 16 destinations around Australia later this year at "ultra-low prices". This will add increased competition to the market as airlines compete over holidaymakers providing them with greater choice for new destinations and regional towns (currently not serviced by the major airlines), as well as some limited competition for Australia's busiest routes. This will need to be monitored as it is unclear how this will impact the current and future aviation workforce, and if these services may be expanded into WA.

- AirAsia Indonesia returned to Australia from Mid-May 2022, with this airline also servicing the Perth to Bali route, with six flights per week on offer. It is anticipated this will continue to generate a “fare war” between this airline and JetStar, similar to what has been seen between Virgin Australia and Qantas; as Airlines compete for passengers to enable their return to profitable margins. Scoot (a Subsidiary of Singapore Airlines) will resume daily Singapore to Perth flights on 3 March 2022.

## *2.2 Existing and anticipated supply and demand for skills*

- Due to the impact and uncertainties brought by the pandemic on international and domestic interstate travel to WA, many airlines had to temporarily suspend or delay investment in training and workforce development initiatives. For instance, last year the Qantas reduced the number of students at its Toowoomba pilot academy and plans for a second school (based in QLD) was put on hold twice during 2019 and again in 2020. This program had initially forecasted it would produce 250 pilot graduates per year. Additionally, application numbers for the program also reduced by almost 40%. As result the training provider radically restructured to maintain some operations. Although some training continued it was at a much lower level than pre-COVID-19, with some graduates unlikely to find work until the sector has recovered more fully. As a result, this ebb and flow in travel demand, as well as the economic impact to airlines other training and other workforce development strategies were temporarily delayed or suspended. Government assistance was accessed by airlines to help alleviate wage pressures to retain qualified and experienced staff. This was essential given the global competition for pilots which has now resumed. It is anticipated many workforce development strategies and initiatives will be resumed over the next 2 years as airline move towards resuming full capacity, and as they grow their operations/routes.
- In February 2022 REX airlines has announced it also intended to construct a new Boeing 737 Flight simulator centre in Sydney, after securing funding as part of a NSW job-fuelling program. It is anticipated this expansion will generate over 1,300 direct new jobs and 1,200 indirect new jobs by REX by June 2024. The NSW Governments \$250 Million Plus Program provides financial support to companies wishing to establish or expand their business’ footprint in NSW, through payroll tax relief, streamlined planning approvals and rebates on constructing infrastructure (and is available until June 2024). The scheme is available to Australian businesses that employ 20 or more staff and international companies with at least 80 current employees looking to establish a minimum of 30 new jobs in NSW before June 2024. Currently, access to simulators remains limited, and employers have experienced further bottlenecks by border restrictions. This in combination with the reduction in domestic and international flights have caused delays for pilots to maintaining their currency. Access to simulators such as this, will help to offset these delays. To ensure the retention and currency of pilot skills, simulator access will need to be guaranteed into the future, which may mean investing more as a nation in simulator centres. Similar funding incentives/programs for WA would be welcomed by employers and may assist in boosting the recovery of the airline sector within WA. This may also assist to attract Airlines to consider establishing similar training simulators and/or cadetship programs for Pilots based in WA (as this has been attempted in previous years).
- Prior to the onset of COVID-19 pandemic, there had been good levels of engagement with industry in maintaining a steady uptake of the Certificate III in Flight operations (Cabin Crew). Given the events following lockdowns and uncertainty for the aviation sector, these links have been maintained however, the levels of re-engagement in training has been reduced until recovery (i.e. numbers of international and domestic flights) improve.
- Industry highly regards work placement and experience from potential candidates, as this provides necessary exposure to what occurs within a workplace (i.e. the culture of an organisation, meetings, OH&S and other policies etc) which is outside of the remit of formal qualification (i.e. theory components) needed to perform roles and participate in workplaces.
- The Department of Infrastructure, Transport, Regional Development and Communities have announced a new interactive map and dashboard of aviation data which is now available through the National Freight Data Hub prototype website. This visualisation shows changes over time for international and domestic aviation routes to assist in planning. In addition, there is plans to launch a new prototype of the Freight hub to capture and share economic, industry and jobs data, together with population data. It is anticipated this will be available for stakeholders to access later this year. This information may assist the aviation industry in future workforce and route planning needs.

- Several government payments such as the JobKeeper Payment and the ATO Cash Flow Boost provided partial relief to operators (particularly smaller flight operators) to sustain their workforce. Additionally, the Aviation Recovery Framework is a Federal Government initiative in *response* to COVID-19 which will further support workforce development and training needed for the aviation sector. The Plan supported operations and jobs through the most severe phases of the crisis and detailed how the Government will boost *recovery*, in line with the National Plan to transition Australia's National COVID-19 Response. Additionally, it also sets out new policies to *reposition* aviation post COVID-19 to ensure a competitive, safe and secure aviation sector that meets the needs of Australians now and into the future. Additionally, the WA Government announced a \$77 million business support package for industries hardest hit by WA's border reopening delay Safe Transition Industry Support Package). The package has nine support programs including tourism and other travel related support. This included a \$10 million boost to the existing Aviation Recovery Fund as part of the Reconnect WA package (taking the total in this fund to \$75 million) and a \$3 million Travel Agent Support Fund. This offers grants of up to \$10,000 for eligible home-based businesses and \$20,000 grants to eligible brick-and-mortar businesses. These initiatives have, and will continue to assist the aviation sector in its recovery, including future workforce development and training needed to resume operations.

### 2.3 The impact of COVID-19 to the workforce

- The aviation industry is continuing to recover from the effects of the pandemic including the hard international and domestic border challenges which arose from each State/Territory as well as National and global restrictions in flight travel. These impacts saw airlines radically reduce, review or terminate flight routes in response to the border closures and re-openings both on the East and West Coast, as well as internationally. This year, WA was the final State to re-open it's international travel, allowing some airlines to begin resuming capacity.
- In July 2022 the impact to the Aviation sector continues to be profound with the anticipated surges in flight demand now exacerbating the pre-existing shortages of Pilots with many airlines unable to keep flight commitments as they resume their pre-covid-19 flight capacity. As many experienced pilots were medically retired or transitioned to new industries these shortages are likely to worsen, with many Pilots unlikely to return to flying roles even as the sector recovers. Within WA many domestic and international flights have been grounded (despite an anticipated return) due to the scheduling difficulties and fatigue management of existing pilots. This has resulted in significant delays, cancellations and airport disruption, within WA as well as nationally. This is likely to further exacerbate competition for skilled and experienced workers across airlines and airports.
- Qantas and Virgin, the two largest airlines nationally both significantly reduced domestic capacity in late 2019-20 and over the first half of 2020-21. As a result, demand for charter air transit grew strongly over the same period, particularly from firms with FIFO workforces, particularly in WA. With some Charter airlines such as Cobham adding new aircraft to its fleet to support operations and increase capacity FIFO operations from Perth.
- Air traffic was significantly reduced for a number of reasons such as passengers required to meet stringent vaccination and RAT test requirements prior to travel. Further impacting travel was the sudden cancellation of domestic flights when borders altered, leaving many passengers unsure of how to return to WA or other States/Territories and may have also contributed in some part to a reluctance in making travel arrangements during these times. It should be noted, the recovering capacity of commercial airlines' is forecast to cause industry revenue to fall over the two years through 2022-23; and it may be some time before full profitability for these airlines is realised. It is unclear at this time how this will impact workforce demand as airlines will now be competing for more talent to fly new routes and/or to increase their capacity, within tighter margins.
- Domestic industry revenue has been predicted to more than halve from 2020-2021. Virgin Australia, Australia's second largest airline entered voluntary admission with the company now flying at a reduced capacity over the short term. The airline stood down 80% of its 10,000 strong employee base, and domestic flight capacity was reduced by over 90%. Alternatively, Qantas addressed their workforce base and advised them of the long-term sustainability of wage expenses and new capital (\$1.9 Billion would need to be raised). As part of Qantas Next100plan, 6,000 jobs were permanently cut with an additional 15,000 temporarily stood down, 100 aircrafts were ground for over a year, and the remaining Boeing 747s were retired and the Airbus 380s placed in storage.

- The rising cost of AVGAS (Aviation Fuel) is also impacting on pricing and the cost of tickets.
- Within WA charter companies servicing FIFO contracts and other resource related needs continued to operate. With some experiencing a significant growth in demand. There was also some spikes in domestic tourism. As WA was not in significant periods of lockdown restrictions, tourism operators (i.e. helicopter, joy flights etc) were allowed to continue and thus did not face the same pressures created by bans on non-essential travel imposed by other states during their COVID-19 first and second waves. This saw some EAST coast operators exit the industry permanently due to the due to the high costs of operations and uncertainty regarding timeframes for their States re-operating.

## Part 3: Training and Education Needs

### 3.1 Current and anticipated training needs of industry

- AVI50219 Diploma of Aviation (Commercial Pilot Licence - Aeroplane) is the most closely aligned to meeting the theoretical requirements needed for the underpinning of knowledge in this occupation. There is also the additional requirement of flying hours which needs to be undertaken to licencing.
- It is not a requirement of this industry that any qualification is undertaken to become a Pilot. CASA states that the competencies must be achieved and successfully examined with the prescribed flying hours.
- The rise and prevalence of digital skills will continue to grow and will affect all occupations with road freight, postal and warehousing and logistics sectors. According to the Future of Jobs Report (2020) and the National Skills Commission State of the Australia's Skills 2021 Report, the way we do our jobs, known as task change, and the acceleration of changes that were already underway, such as increasing activity online and the ongoing need for post-secondary qualifications will endure post COVID-19. According to the research undertaken by the Digital Skills Organisation (DSO) Australia is facing a digital skills shortage where our current workforce does not currently possess these skills to keep pace with the level of change technology is bringing. The need for workers to possess digital fluency will increase and become even more vital as entre-level occupations transform (or decline) due to the use of technology and innovation changing the way organisations work within transport and logistics sectors, with 87% of jobs now requiring digital literacy skills according to the DSO.
- Industry is aware of Pathway programs currently being delivered to secondary students through VET Delivered to Secondary Students (VDSS) providing pathways into the industry through the achievement of a Private Pilot's Licence (PPL). The Commercial Aeroplane Pilots Licence (CPL) remains a niche area in which only a small number of schools have the scope and capacity to deliver to students.
- It has also been acknowledged that there is a high cost affiliated with the training. Furthermore, it is a regulatory requirement that applicants must be at least 18 years of age to be eligible for an Aeroplane or Helicopter Commercial Pilots Licence. This may limit the number of secondary students.
- The limited availability of assessors for fixed wing operators is causing delays in the approval of licenced and/or endorsed candidates from operating. Instructors are also being lured away to operational roles.
- With the downturn in aircraft movements, maintaining currency is another major concern for pilots. They are required to fly at least once every 45 days to be allowed to use their Civil Aviation Safety Authority (CASA) issued licence. Additional time could also be factored in to cater for simulator of aircraft type.

### 3.3 Career pathways and graduate outcomes

- As with other sub sectors of Transport, Aviation is predominately a male occupation. To encourage diversification and female participation in its workforce Qantas in collaboration with the Aerospace Gateway to Industry Schools Project (AGISP) and the Royal Aeronautical Society's STEM outreach program Cool Aeronautics, brought female students from Year 7 to 10 to introduce and inspire female students to consider aviation careers (from Air Traffic Control, aeronautical and aircraft engineering, as well as flight instructing and airline pilots).
- Additionally, the Federal Governments Women in Aviation Industry Initiative also provides support to the aviation sector. The Australian Government has provided an additional \$4 million over the next four years to continue to support a range of activities including conferences, workshops and careers events

to deliver grassroots programs and significantly boost outreach to female school and university students, as well as those considering transitioning into an aviation career. These strategies to attract, train and increase female participation is seen as key to assisting the aviation industry to meet future demands for skilled workers.

- In addition to existing partnerships with several Australian universities, Qantas Group Pilot Academy has partnered with Aviation High (Brisbane) to automatically enter their Year 12 Aviation Students into the selection process for the academy. Those successful will go on to continue their flight training and the Qantas Group Pilot Academy after graduating year 12. In addition, the students will have access to the Qantas Group Future Pilot Program. This workforce development initiative connects students to Senior Qantas pilots for mentoring and career development support as part of their Airline Pathway Program.
- Qantas also offers Pilots the opportunities to develop their careers further through other programs, offering experience on different aircraft types such as JetConnect (which allows pilots to be based in New Zealand and uses 737-800 aircraft) and other similar initiatives. According to the Buscombe Report (n.d.) there was some disparity in relief for businesses within Aviation and Tourism, with industry specific relief mostly offered to the airlines more focuses on impacts of social restrictions.
- Obtaining a Pilots licence is generally expensive, costing between \$50,000 - \$120,000. This is a significant deterrent to perspective students, but under a fee for service arrangement there are fee help options available.
- Access to training simulators continues to be an issue, with training simulators continuing to be in high demand and further bottlenecks created by border closures which cut off access to returning workers to WA. Some airlines have now established their own simulators to compensate for this. In June 2021 REX Airlines acquired a Boeing 737 Full Flight Simulators (FFS) which is used for type ratings, recurrent training and proficiency checks located in Brisbane. The simulator will be used for type ratings, recurrent training and proficiency checks. The FFS can also be used for Upset Recovery Training (UPRT) and can be configured for a number of variants, including the B737-700, B737-800, and the B737 Boeing Business Jet. The acquisition of the FFS is intended to boost REXs training capabilities and provide support to allow REX to increase the number of their domestic operations within Australia.
- Although there has been increased funding geared towards the training for both helicopters and aeroplanes, a significant amount of training is aligned to meeting the regulatory requirements of the Civil Aviation Safety Authority (CASA). Theory based and/or institutional components are then best aligned to this where possible. In addition, there is the practical component (flying hours) that must be attained for competency to be achieved.
- It should be noted that the full extent of training being undertaken in this space may not be fully or adequately captured by the training statistics due to the regulator ultimately determining the licencing requirements which would be the industry determinant of employment.
- As this has traditionally been viewed as cost prohibitive, the offering of VET student loans has been welcomed by industry. It has enabled a pathway and means by which students can access training within the Aviation sector.
- Due to the impact of COVID-19 on the Aviation sector, it has been challenging for some smaller businesses to fully capitalise and employ direct graduates upon completion of their studies as the sector recovers from the loss of international tourists for scenic flights (rotary wing). For fixed wing operators, there are increased levels of competition from out of work pilots (international and from interstate) but once borders reopen, shortages will once again ensue.
- As seen in the past with the applicants wanting to be trained in this sector are generally of a high calibre. Students are highly motivated given the high cost to undertake training and, in most cases, are self-funded.
- In the helicopter space, to retain currency, meet regulatory requirements and to ensure contractual obligations are adhered to, some organisations are faced with additional cost burdens for endorsements and ratings that their pilots must obtain. As an example, the Night Vision Goggles (NVG) authorisation can cost up to approximately \$55,000 per person. Civil Aviation Orders (CAO) 82.6 requires pilots to be NVG qualified. Traditionally it has been the individual who has incurred these costs, however there is a growing expectation that employers should fund these requirements.
- Given the nature of the industry, it is difficult for employers to single out suitable skill sets/micro-credentials at a high enough level to address the complex needs of the industry.



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