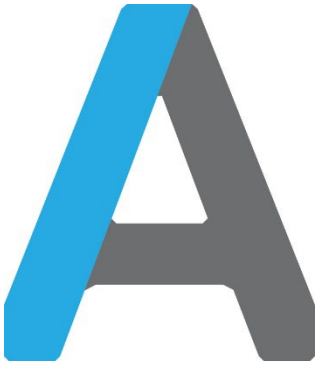

AVIATION/AEROSPACE AUSTRALIA

Diversity Policy Paper

2024

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DIVERSITY IN AVIATION AND AEROSPACE: WHY THIS IS CRITICAL AND REQUIRES URGENT ACTION

Aviation Aerospace Australia

Australian Space Diversity Alliance

Summary

- Evidence clearly shows that diverse workforces harness greater innovation, new perspectives, better decision-making and problem solving, increased creativity, greater collaboration and improved productivity.
- Diversity is an excellent method to attract and retain talent, particularly in industry sectors which are experiencing a skills shortage.
- Both Bonza and Rex had a board of directors that had little to no gender diversity. Whilst there were many issues that resulted in their collapse, the lack of diversity may have impacted on their ability to innovative and make better decisions. This lack of diversity is prevalent across the aviation, aerospace and space industry.
- The statistics for female participation in aviation, aerospace and space sector is grave, well below community expectations, with future predictions of growth identifying serious shortfalls.
- The Workplace Gender Equality Agency (WGEA) results for the aviation sector is shocking with a wage gap of 26.8 to 53.5 per cent identified across the sector.
- The Diversity in STEM Review identified 11 recommendations. With the aviation and aerospace industries employing large number of STEM professionals, these recommendations need to be implemented.
- Government should Implement all the actions outlined in the Women in the Aviation Industry Initiative, including the Aviation Industry Diversity Alliance.
- Diversity initiatives fall on the shoulders of diverse persons, requiring extensive personal (time and financial) contributions, adding to burden of responsibility.

Policy Recommendations

- Provide senior industry leadership on efforts to achieve gender parity by 2030;
- Provide coordinated advice to the Australian Government on policy, regulatory issues and initiatives related to increasing diversity in the aviation industry. This could include:
    - Consideration of legislation that addresses issues raised through the Harris Report and Aviation White Paper through the lens of diversity
    - Establishment of diversity targets for Australian Government agencies responsible for aviation policy, regulation and implementation
    - Implementation of recommendations of the Women in Aviation Industry Initiative and Diversity in STEM Review
    - Guidance in the development of the Gender Equity Charter for Aviation as recommended by the Aviation White Paper
    - Development of awards for organisations in the sector to showcase increasing diversity leading by example.

- Creation of scholarship schemes to accelerate growth of a diverse aviation and aerospace career pipeline.
- Promote, action and align industry efforts to increase diversity in the aviation and aerospace industry.

The scale of the problem

To ensure women and girls have full and equal access to and participation in science, and further achieve gender equality and the empowerment of women and girls, the International Civil Aviation Authority (ICAO), an entity of the United Nations (UN) as well as the Department of Foreign Affairs and Trade (DFAT) committed to the UN's 2030 Agenda[1] and the respective Sustainable Development Goals (SDGs). SDG number five is to "achieve gender parity and empower all women and girls"[2]. SDG five is not on track to achieve gender equality by 2030[3]. Progress towards this SDG in the aviation sector is woeful.

The International Air Transport Association (IATA) has also established the 25by2025 initiative with the aim of increasing women in senior and underrepresented roles by 25 percent or up to a minimum of 25 per cent by 2025[4]. With 200 signatories, over the entire cohort, a further 1000 new female pilots have been added and there has been a small increase in the number of women in senior roles at 28 per cent[5]. In Australia, Qantas, Virgin Australia, Swissport and Airbus have signed the agreement.

According to a forecast by CAE, the expansion of fleets and the retirement of existing pilots mean airlines will need 255,000 more flight crew by 2027 simply to keep scheduled services in the skies[6].

Boeing paints a bleak future without significant injection of talent. Its Pilot and Technician Outlook 2022-2041[7] forecast 20 years into the future identifying that Oceania region will require 37,000 new commercial pilots, technical and cabin crew to meet demand. This doesn't include all other general aviation roles and the competition from adjacent industries. Not to mention that globally over 2 million new crew is required. To meet this demand, the workforce will need to diversify and attract new talent.

Research shows that diverse teams achieve greater success than non-diverse teams[8]. Further, evidence clearly shows that more diverse workforces bring new perspectives, better problem solving, increased creativity and improved productivity[9]. Thus, the imperative for improved diversity goes beyond that of a moral imperative to one of economic outcome.

Gender participation

According to ICAO's Gender Analysis Dashboard[10], women represent globally **5.1** per cent of positions across air traffic controllers, pilots and licensed aircraft maintenance. This is up from **4.5** per cent in 2016 and **4.9** per cent in 2021[11]. At this rate, parity is more than a hundred years away. In the Asia-Pacific region, the statistics aren't significantly better. Women comprise **6.8** per cent across the same three categories[12]. For a change of pace, a significant injection of policy commitments with ambitious targets are required.

There are fewer women pursuing a career as a pilot in Australia. Women accounted for **11.9** per cent of those graduating with commercial pilot licences in 2022, down from **16.1** per cent in 2020[13]. Women with current roles as pilots in the major airlines is even lower with Qantas at seven per cent[14] and Virgin with approximately **nine** per cent of graduates from its training school[15] identifying as a woman. This is after announcing in 2018 that Virgin Australia had exceeded gender target for its pilot cadetship

program with 56 per cent enrolments[16]. Globally, just **four** per cent of pilots are women[17].

Qantas has a target of 40 per cent female participation in its pilot academy by 2028 but has only managed **20** per cent of uptake in past few years[18]. On 11 August 2024, Qantas had to cancel 11 flights due to pilot shortages[19].

The statistics for IDEA participation in the space sector are low. The United Nations Office for Outer Space Affairs (UNOOSA) identifies that women represent on average only 20 percent of the international space industry. This figure has remained stagnant over the last 30 years. If women are employed, they tend to be in administrative, rather than technical roles. Other minority groups have even lower participation at less than five percent.

Women working in STEM fields points to a higher problem. Women only represent **29** per cent of the STEM workforce, despite participation increasing by 68 per cent since 2012[20]. In 2021, only **36** per cent of STEM university students identified as female[21]. The pipeline is challenging, whilst women make up **47** per cent of Year 12 STEM enrolments, these are much lower in engineering (**23** per cent) and technology (**24** per cent)[22]. Females also only represent about **16** per cent engineering graduates and approximately **14** per cent of the Australian engineering workforce[23].

Through Workplace Gender Equality Agency (WGEA)[24], workers in the air and space transport sector identify women participation:

- 4% amongst technicians and trade workers;
- 36% of air traffic professionals (including pilots and air traffic controllers);
- 20% of key management personnel;
- 12% of CEOs; and
- 18% of board members.

These numbers are low for women, reinforcing challenges, particularly since there is a shortfall of STEM talent across all industry sectors.

Gender pay equality

Data released by the WGEA in March 2024[25] reinforced the unattractiveness of the aviation industry to women, showing that the "push to get gender balance…will be a "decades-long" project"[26]. Australia's biggest airlines have gender pay gaps as high as 53.5 per cent. They are consistently more than double the Australia industry average gender pay gap which is 19 per cent in favour of men. The airline industry had the following pay gaps:

- Rex: 26.8%
- Qantas: 39.3%
- Virgin 41.7%
- Jetstar: 53.5%

Higher-paid roles like pilots and engineers at Qantas are overwhelmingly dominated by men, with 92.8 per cent of pilots and 96.2 per cent of engineers being male, while the opposite is true for lower-paid customer service and cabin crew – 75.4 per cent of airport customer service workers and 70.5 per cent of cabin crew are female[27].

The gender pay gap more broadly is influenced by a number of factors, including[28]:

- Discrimination and bias in hiring and pay decisions.
- women and men working in different industries and different jobs, with female-dominated industries and jobs attracting lower wages women's disproportionate share of unpaid caring and domestic work.
- lack of workplace flexibility to accommodate caring and other responsibilities, especially in senior roles.

- women's greater time out of the workforce impacting career progression and opportunities.

The aviation sector has further challenges based on the demographic profile of pilots and licensed aircraft maintenance engineers which takes years to train and skill.

Minister for Women, Katy Gallagher[29] reinforced that *"[t]he gender pay gap is a persistent and complex problem that costs the Australian economy $51.8 billion every year*." Further that *"[t]ransparency and accountability are critical for driving change. By shining a light on gender pay gaps at an employer level, we are arming individuals and organisations with the evidence they need to take meaningful action to accelerate closing the gender pay gap in Australian workplaces.*" Whilst a policy of shaming businesses is unlikely to get results, the accountability and transparency provides a benchmark of performance and a requirement to take meaningful action to improve outcomes.

Governance leadership

It is well known that organisations with greater diversity are more innovative, attract and retain employees. WGEA[30] identifies that across Australian organisations, there is still a long way to go on diverse representation on senior leadership teams and governance boards.

Image 1: Percentage of women on boards and governing bodies

A review of the ASX-listed companies shows that gender parity is almost 40 per cent on Australia's largest companies[31]. Governance advisory firm, Ownership Matters reveals that despite this, men are still being paid more, with all but one of the top 15 highest paid directors are men. The same report also identified that just 34 of the 286 companies surveyed have a female chair and only 21 had a female CEO[32]. Overall the ASX director pool is broadening, as a past issue was that the same few women were occupying more roles.

In August 2023, all the Australian major airlines had CEOs that were women: Vanessa Hudson at Qantas, Jayne Hrdlicka at Virgin Australia and Stephanie Tully at Jetstar. These women took on leadership roles at a challenging point in the business, reinforcing the concept of the 'glass cliff'. The glass cliff is a phenomenon in which women are more likely to break the "glass ceiling" (that is, achieve senior leadership roles) during periods of crisis or downturn when the risk of failure is highest[33]. Hudson taking the leadership reigns in a turbulent time with Alan Joyce and confidence in the airlines at an all-time low. Hrdlicka took the reigns of Virgin Australia to lead it out of administration and consistent financial loss.

In contrast to the higher level of diversity, Rex has all men on their board as well as the Chair and CEO as it went into the administration in July 2024. Bonza also had a male dominant board with little diversity. Whilst there were many reasons for the collapse of both airlines, diversity in board composition may have improved innovation and decision-making. A review of industry airline leadership boards with female percentage participation identifies a challenging issue:

- Rex has a board of six men who all appear to be over the age of 50. There is some cultural diversity (0%).

- Bonza had a board of five, with one woman who took on the role of chief financial officer (20%).
- Qantas has a gender diverse board, as a result of recent changes implemented by the new CEO, Hudson.
- Virgin Australia as a private company does not publicly release information on its board.
- Jetstar's corporate structure doesn't identify a separate board from Qantas.

A review of governance and industry representative groups in the aviation, aerospace and space sectors also identify a lack of diversity at the top of the leadership:

- Recreational Aviation Australia: Eight-member board, all male (0%) noting that their new CEO is female.
- RAAA: 12-member board with two women (17%).
- Sydney Airport: 12-member board with three women (25%).
- Australian Space Agency leadership team is all male with no active advisory board (0%).
- SmartSatCRC has a board of eight of which only two are men (75%).
- Civil Aviation Safety Authority (CASA) has a board of seven of which four are women (57%).
- Airservices Australia has a board of nine of which four are women (44%).
- Australian Transport Safety Bureau has four Commissioners of which three are male (25%)
- Women in Aviation Australia Chapter comprises all women (100%).
- Aviation Aerospace Australia has a diverse board with gender, cultural and generational persons with eight of 12 members identifying as female (67%).

Whilst ASX companies are moving towards greater gender parity, the aviation sector is lagging far behind.

Diverse STEM-literate people on boards and in leadership positions across all sectors is critical to ensure good decision-making in an increasingly technologically advanced economy. Retaining these people in these positions is also critical for ensuring that improved decision-making capability builds over the long-term[34]. 'Greater workforce diversity can boost economic output by tapping into underutilized talents and bringing different experiences and perspectives to the table[35].

Financial performance is also linked to gender and broader diversity. Companies with the most diverse workforces outperformed country and industry group peers with the least-diverse workforces. The most diverse companies had on average, a 29 per cent greater return on assets over the 2013-2022 period[36].

Women and diversity in STEM challenges

Many of the roles in the aviation, aerospace and space sectors are STEM roles, requiring science, technology, engineering or mathematics type qualifications. In STEM, women also represent a lower proportion of participation.

The Australian Government commissioned an independent report on the 'Pathway to Diversity in STEM Review'[37] which was released in February 2024. The review identified that urgent action across 11 recommendations was needed.

It also identified that people underrepresented in STEM too often carry the weight for advocating change. The work of fixing it should not fall on their shoulders[38]. This is the reason why government and industry need to take solid action, as it falls onto largely the shoulders of volunteers to advocate and participate in activates to improve diversity.

All 11 recommendations of the review are critical. There are some though that are very applicable to this report:

1. Every Australian organisation employing STEM workers adopting, making public and implementing a plan to increase attraction, retention and promotion of underrepresented cohorts.
2. Every Australian organisation employing STEM workers committing to the elimination of bullying, harassment and discrimination, including racism.
3. The Australian Government making STEM workplaces safer by changing grant and procurement processes for STEM-related programs.
4. The Australian Government committing to a whole-of-government, long-term strategy to increase diversity and inclusion in STEM.
5. The Australian Government developing a communication and outreach strategy to increase awareness, visibility and importance of diversity in STEM to emphasis the opportunities and potential careers in STEM.

Urgent action is needed to create safe and inclusive workplaces that value diverse skills and experiences. This is critical to attract and retain diverse people in STEM jobs. Submissions to the review, and findings of the evaluation of Women in STEM programs, revealed that industry can – and should – do more[39].

Barriers for participation

An analysis in 2021 by Women in Aviation/Aerospace Australia[40], 'Barriers to the Pipeline – Interim Report' identified the challenges and barriers to participation by women, including retention. It highlighted challenges experienced by women in the industry and specifically how multiple respondents would not recommend the industry to young women[41]. Barriers include:

- Existing gender imbalance is a barrier to women entering the sector;
- Perception and experiences of harassment and discrimination;
- Lack of flexibility around part time employment and maternity leave;
- Limited to no information on the sector publicly;
- Lack of awareness around support roles and TAFE qualifications;
- Lack of visible role models and mentors;
- Lack of progression opportunities;
- Reports of high rates of sexual harassment (71 per cent of women in a US survey[42]); and
- Senior leadership are responsible for much of the discrimination and bias.

Other barriers identified by the Australian & International Pilots Association (AIPA) CEO, Captain Tony Lucas[43] were:

- Shift work making it hard to get consistent caring requirements;
- A lot of time away from home;
- Cost of entry, where qualifications are requirement, resulting in over $150,000 in training costs; and
- Career progression, which is based on loyalty with an airline, rather than skill. With it taking 20 years to reach the top job, rather challenging to fast-track women into the profession.

Due to the lower numbers of women working in the industry, there is an overall lack of visibility and awareness. There is no consistent industry-wide approach to tacking the problem with individual companies making decisions on their contribution in isolation. A lack of visibility, resources, support and role models means that one of the biggest barriers is familiarity to careers[44]. Captain Lucas said that there is a need for more female pilots attending airshows, whilst AIPA attends, the airlines rarely do[45].

Although we all agree with the benefits of diversity and diversity of thought, many men in the industry are resistant to the changing environment as the number of women slowly increases. They perceive these changes as

unfair to men, resulting in an intense backlash, fuelled by the assumption that focusing on gender equality measures and promoting eligible women is unjust and unequal. With the gender percentages as they are, men allyship is critical for a successful cultural change throughout all areas of the industry. Men can be a barrier, but true allyship can make men an enabler of change and transformation.

Conclusion

We often talk about a glass ceiling for women and in this aviation, aerospace and space sector, that ceiling is placed at 30,000 ft. Whilst this is a catchy headline applicable to pilots, the reality is that the glass ceiling and glass cliff is across the full spectrum of activities across all sectors.

It is clear that the current pace of activity is not going to make an impact on the diversity of the aviation sector, reducing innovation. As the Australian IP report 2023 highlights diversity is good for innovation and productivity in organisations, ultimately asserting that 'gender and cultural diversity underpins innovation in Australia'[46].

In order for change to occur, more deliberate and stronger policies are required in order to shift the dial. Australia is already facing a STEM shortage, and this is more pronounced in air transport and space sectors.

There are multiple programs implemented by different organisations seeking to resolve the imbalance of diversity. Many of these programs require connection at a community level and thus are more successful as a grass root campaign. Where they have been highly successful, they should be provided support to expand beyond their immediate regions. These should be analysed and assessed for the effectiveness and impact for propagation.

When visibility of women and diverse individuals working in the sector is very clearly a barrier, it does not take much to respond, that is, to highlight and amplify the role of these people. Collectively, in the same way that the JetZero Council was established to progress climate change issues, a similar approach is needed to spotlight and resolve diversity in the sector. Government can advocate for change across the industry, through its own leadership.

Finally, the establishment of a Council, similar to JetZero is the best process to ensure action to respond. Just like climate change requires deliberate action, so does talent attraction and gender parity. The US legislated the Women in Aviation Advisory Board[47] as part of Congress to respond, it is time for Australia to show leadership. Change doesn't happen without action.

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Compiled by Anntonette Dailey with input from the A/AA Board of Directors, Women in A/AA National Committee and the Australian Space Diversity Alliance National Committee.

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