

WHITE PAPER | May 2021

Submitted for Review
To Publisher

Together We Fly

Seeing Unseen Risks to Aviation Safety and
its Workforce



Logo from publishing organization

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Overview



This white paper represents a body of work conducted by an expert panel of aviation industry professionals and academics who are driven to bring about the evolution and growth of the aviation industry. We hope that the latest knowledge, ideas and thoughts presented in this paper can be utilised to support continuous safety improvements, and to encourage the development of training and workforce management methods that are more in line with our national values of diversity and inclusion.

Prior to the pandemic, the industry experienced critical labour shortages amidst record levels of demand. Although the industry is now in a downturn, experts foresee a transport-pandemic recovery with labour shortages forecast to return with a vengeance. To ensure that we have sufficient manpower to capture all post-Covid opportunities, Canadian aviation professionals will need to reconsider "the way of doing things" and question whether change needs to be made. Going forward, how can we ensure that the Canadian aviation industry will not be affected by shortages of skilled labour and be able to compete in both the domestic and international markets?

To solve the labour shortage issue, an industrial culture must be established so that the future workforce will find the Canadian aviation industry an attractive place to work. We need to ensure that the younger, more diverse generation will find a sense of belonging in the industry. The Covid-driven lull in the industry presents an opportunity for us to take a step back and highlight problems arising from the conventional, exclusive and often discriminatory attitudes that are commonplace today. In this paper, the consequences of these outdated attitudes are examined in the context of latent safety risks and influences human performance. We hope to entice and support changes which can help our industry maximise and utilise the human potential.

Our hope that this work will bring Canadians of all backgrounds together, so that we can make the industry truly **ours**. In the future, where everyone feels a sense of belonging, together we will fly.

Contributors

To date, little academic research on diversity and inclusion has been conducted from a Canadian aviation perspective. To support an aviation culture that aligns with the Canadian values of belonging and acceptance, and possibly reduce the aviation professional skill drain to emerging markets post-pandemic, This white paper was created by combining this research with other Canadian aviation research and input from industry leaders.

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We would also like to thank Nisha Venkatesh for her time in reviewing this document, Lahou Keita, Kethy Sosso-Kolle and Chioma Okora for their feedback to the survey questions and the participants who contributed to the creation of knowledge by completing the questionnaire. We would also like to thank Dr. Suzanne Kearns for her continuous support in furthering Canadian aviation research.

This white paper has not been funded by any agency or government. It serves to support knowledge translation by aviation academics and Canadian aviation.

Findings of Interest

Fairness & Equality

In general, Canadian aviation professionals disagree that everyone is treated fairly, respectfully, and equally in the workplace.

Disagree

▼ 44.5

Agree



1 in 61 People



experience physical violence due to identity
47% of ethnic minorities report experiencing
verbal violence

Discrimination & Racism

Almost half of respondents are unsure if they feel comfortable reporting discriminatory acts in the workplace.

Will report

▼ 49%

Will not report



**50% experience
discrimination by
management**

Half of the respondents face racism and/or
discrimination by their manager or a person in a
higher level of authority,

Facts About Canada



Population & Demographics

- The estimated population as of Apr 11, 2021 is 38,022,387.
- The population of the Greater Toronto Area (GTA) is 6.2 million, the most densely populated region in the country.
- 52% of the inhabitants in the city of Toronto are visible minorities
- 40.95% of Canada's population are classified as males and 43.5% females

Air Transportation

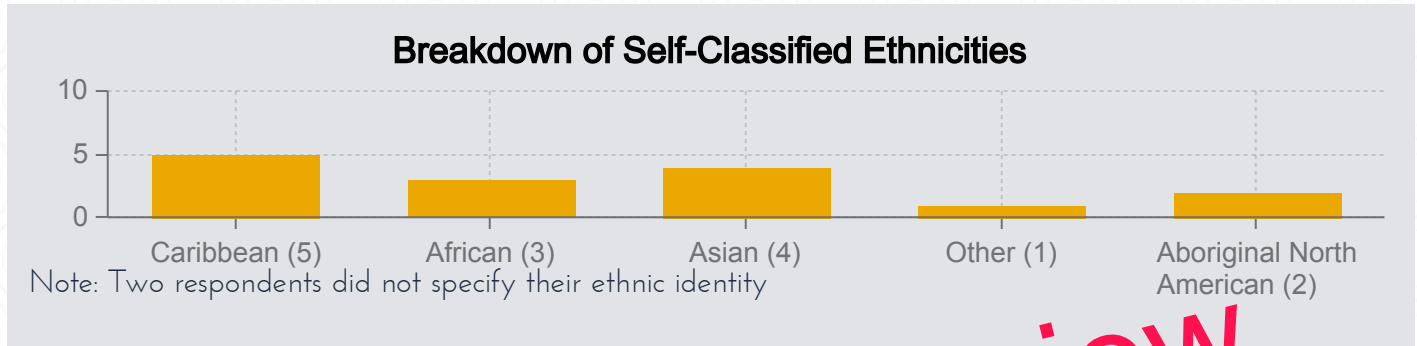
- 53,479 licensed pilots
- 18,098 aircraft maintenance engineers
- In 2019, 50% of the aircraft maintenance engineers were over the age of 50 year.
- Toronto airport is Canada's largest and busiest airport.
- In 2018, Toronto's Pearson airport facilitated travel for over 47 million passenger and handled over 312,000 tons of cargo.

Why Some Workers Are at Greater Risk

-Angeline Ram

A survey was conducted in April 2021 to understand the perception of lived-experiences of Canadian aviation professionals and its impact on aviation safety. The findings mirror social science research on intersectionality, which shows that people have different experiences based on their unique characteristics, meaning some people must contend with increasing degrees of discrimination on multiple levels because of who they are.

This research shows that of the 17 respondents who self-classified as ethnic minorities, nine (9) are males and eight (8) females. Their ethnic profiles are as follows:



Some respondents identified their occupations: Pilots (5), TC Inspector (1), Investigator (1), Learning and Development (2), Cabin Crew Training (1), Aircraft Maintenance Engineer (1).

Five (5) of the ethnic-minority respondents who experienced racism and discrimination are in management or executive leadership roles.

This data shows that the perception of combinations of racism and discrimination are as varied as the diverse workforce.

A one sized fit all approach to managing the workforce does not consider the compounded effect of racism and discrimination on their wellbeing or safety behaviour. Self-classified ethnic minorities report experiences in the workplace from the following the list that includes Racism (discrimination on the basis of ethnicity or race), Sexism (discrimination on the basis of gender), Homophobia (discrimination on the basis of sexual orientation), and Xenophobia (discrimination on the basis of national origin).

Diversity of experiences of discrimination of ethnic minorities

- Racism
- Sexism
- Homophobia
- Sexism, Homophobia
- Racism, Xenophobia
- Racism, Sexism, Homophobia, Xenophobia
- Racism, Homophobia
- Racism, Sexism, Xenophobia
- Sexism, Xenophobia
- Racism, Sexism

The Fight-or-Flight Response in the Workplace

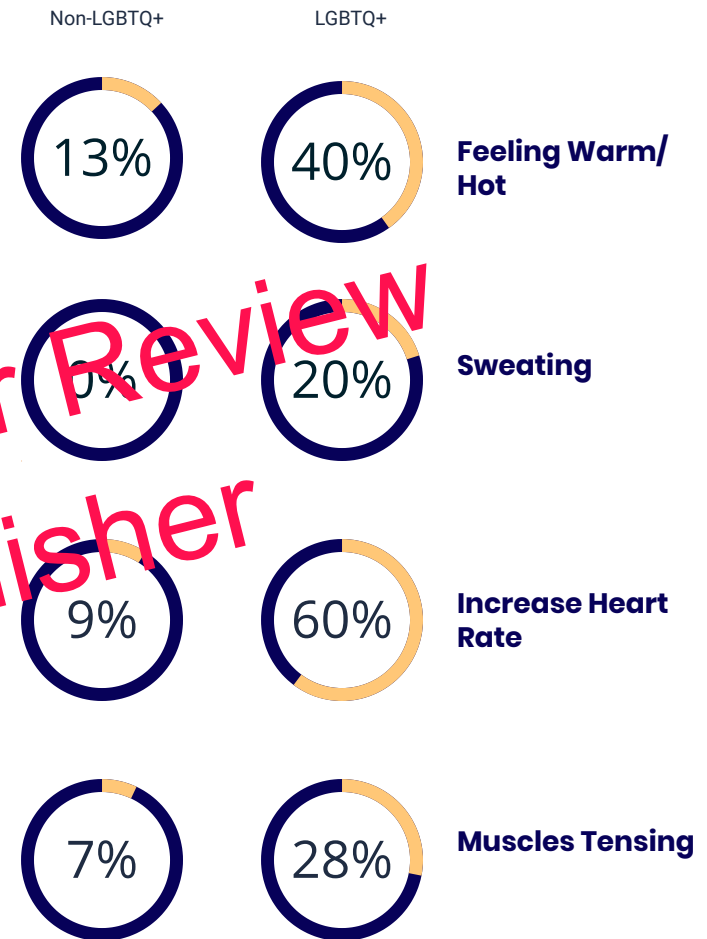
- Braeden Lavigne, Michael Cho & Angeline Ram

Although Crew Resource Management (CRM) has historically focused on various elements of flight management and teamwork, Lavigne and Cho's (2021) study on anti-LGBTQ+ language in Canadian flight decks confirms that communication between pilots can affect how the pilots manage threats and effectively uphold crew resource management principles. In short, language affects how people work with one another.

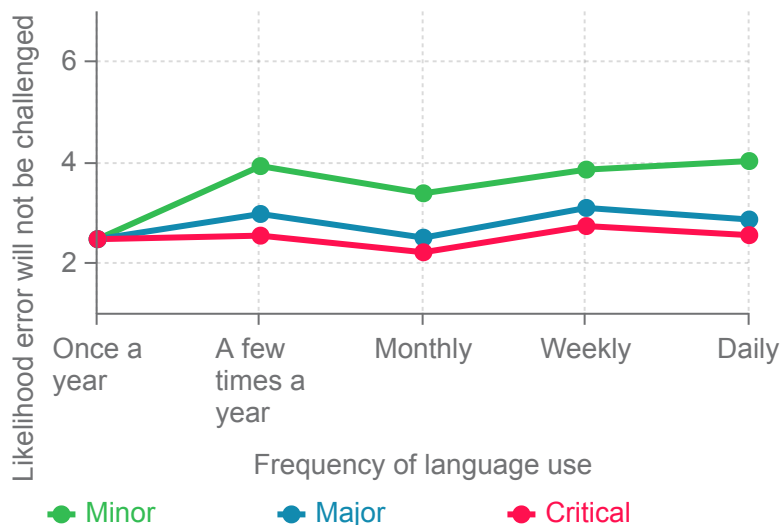
Lavigne and Cho's (2021) survey of 176 pilots shows that anti-LGBTQ+ language results in physical responses. These responses are similar to symptoms of stress associated with the flight or fight response for short-term survival which include increased heart rate, muscles tensing, sweating and feeling warm. People who identify as LGBTQ+ are three times more likely to experience the physical responses associated with the body's fight or flight response.

Undue stress to pilots shifts their focus from flight safety to survival and inadvertently degrades communication, decision making, workload management, and overall CRM within the flight deck.

Affects of Anti-LGBTQ+ Language on Pilots



Challenging safety concerns versus the frequency of language



The study also shows that a pilot who experiences anti-LGBTQ+ language is more likely to remain silent and allow an error or deviation to pass unchallenged. Although pilots are less likely to speak up and challenge what they perceive as minor errors, small things that remain unchallenged can ultimately lead to compromised aircraft safety. Most concerning is the frequency of use and normalisation of anti-LGBTQ+ language.

Showing the connection between language and flight safety examines how anti-LGBTQ+ language impacts pilots within the flight deck and how it affects crew resource management.



Leadership

Safety in the aviation industry requires an understanding that the workforce need to feel policies like the non-punitive policy are upheld. Leadership must promote safety more effectively by modelling behaviour and actions that promote speaking up and reporting mistakes. Leaders must also reflect on their own biases and their privilege from their position of power. Despite this position, leadership must acknowledge feedback from the workforce rather than dismissing or diminishing it.

Eight tips to creating a working environment where ALL people feel safe in the workplace require leadership who encourage the creation of culture where the workforce feel comfortable: speaking up, feel heard and acknowledged, feel that they are a part of a team, invited to collaborate, are considered and connected with to building organisational relationships, have a sense of belonging, can collectively learn and most importantly laugh with one another, not at one another.

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