Name: Andrea Fox

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Course: DSC640-T301 Data Presentation & Visualizations

Assignment: Project 1 – Dashboard Supporting Documentation

Github link: Weeks 3&4 Folder

The scenario:

Due to recent unfortunate airline crashes, the media has been promoting statistics stating air is no longer a safe way to travel. The news and media outlets have been bombarding the public with reports and figures about the trends of airline safety and that things are not looking good. What was previously thought as the safest way to travel, especially when compared to automobiles, is now being presented as one of the most dangerous to the public. But are any of these claims based on facts?

You work for an airline on the data science team as a data analyst and are a resident data visualization expert. You have been tasked with helping multiple groups in the organization combat this negative publicity and help tell the airline's side of the story. There is a fear internally about what this type of media coverage will do to airline sales and how it could impact the future of the company. Not only do they need you to help create some internal communications, but you will also be tasked with what is published to the public and the media

My response:

To determine if airlines have seen a recent increase in fatalities a visual was created that compared fatalities from 1985-1999 and 2000-2014. Overall, this visual showed that there was a decrease in airline fatalities in the more recent years except for a few exceptions. One notable incident happened on American soil on September 11, 2001. The twin towers were hit by American Airlines Boeing 767 (tower 1) and United Airlines Flight 175 (tower 2). (Editors, 2010) Two other accidents happened that day with one at the Pentagon American Airlines Flight 77 and the other in Pennsylvania with United Flight 93. (Editors, 2010) These accidents attribute to the peaks in recent years for those airlines. Malaysian Airlines has a spike in fatalities in most recent years due to the following:

- Flight MH17 carrying 280 passengers and 15 crew crashed in Ukraine
- Flight M370 carrying 227 passengers and 12 crew went missing (Livesey, 2014)

Finally, Air France experienced a major tragedy with flight AF447 that crashed into the ocean due to an automation issue that killed the 228 passengers and crew. (Oliver, Calvard, & Potocnik, 2017) All of these were situations that fell outside of the normal and could easily explain the spikes seen in 2000-2014. Spikes seen in the earlier timeframe were mostly in the Asian continent, so it may have been a regional issue with aircraft types.

Other visuals were created to show that between aircraft and motor vehicle fatalities, motor vehicles were over 10x the numbers for aircraft. There were additional views that showed both operation revenue and number of passengers have increased over the most recent years with a marked downward spike in 2020. This downward spike can be attributed to Covid-19 causing lockdowns, limited air travel,

and countries to close borders. Overall, the media has not had a notable affect on airline travel and motor vehicle travel still reigns a larger cause of fatality.

References

Editors, H. (2010, February 17). *September 11 Attacks*. Retrieved from History: https://www.history.com/topics/21st-century/9-11-attacks

Livesey, J. (2014, July 17). *Curse of Malaysia Airlines? 5 tragic moments in airline's history before MH17 and MH370*. Retrieved from Mirror: https://www.mirror.co.uk/news/world-news/curse-malaysia-airlines-5-tragic-3875868

Oliver, N., Calvard, T., & Potocnik, K. (2017, September 15). *The Tragic Crash of Flight AF447 Shows the Unlikely but Catastrophic Consequences of Automation*. Retrieved from Harvard Business Review: https://hbr.org/2017/09/the-tragic-crash-of-flight-af447-shows-the-unlikely-but-catastrophic-consequences-of-automation

GitHub link: https://github.com/anfox86/DSC640---Data-Presentation-and-Visualization/tree/main/Projects/Weeks%203%20%26%204