To Fly or Not to Fly that is the Question!

By: Stephanie Benavidez
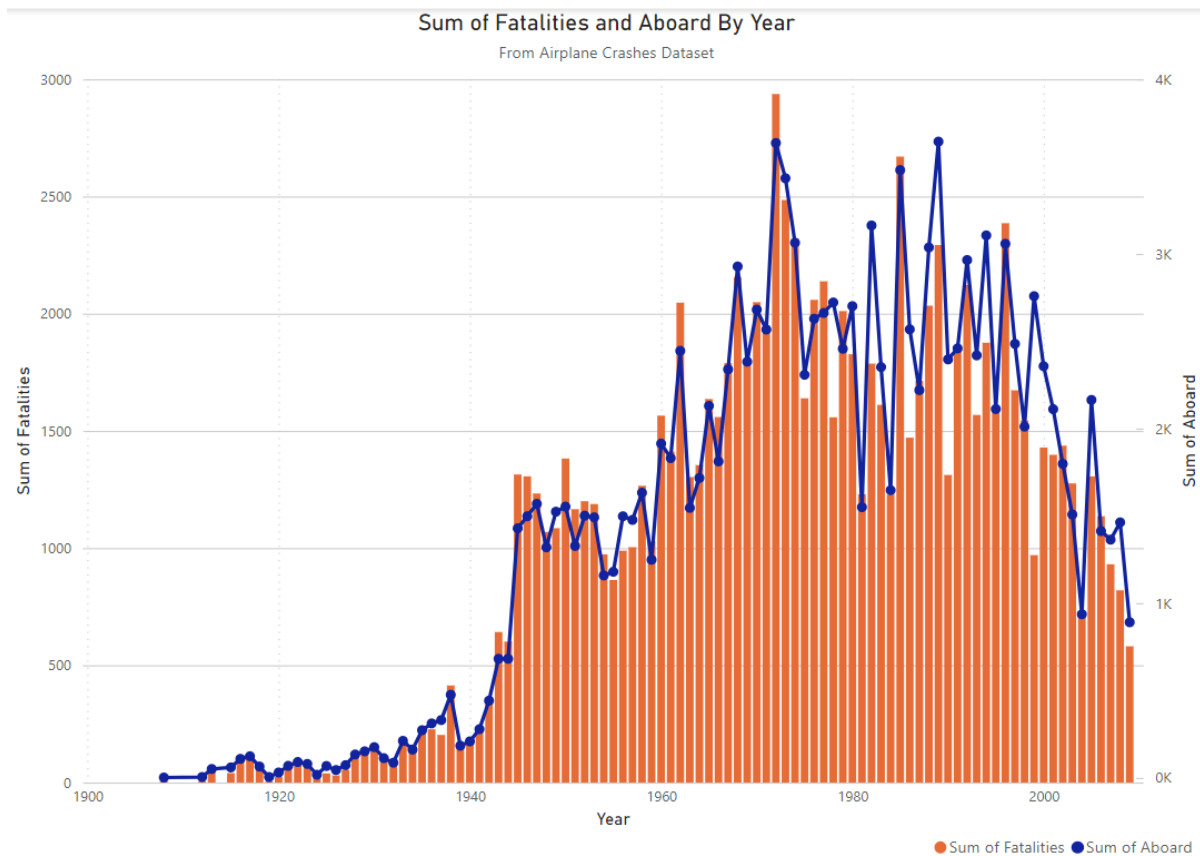
July 14, 2023

According to Google search, if you type in "What is the fastest way to get from one destination to another plane, car, or train?" Your top result should state "airplane." Airplanes are not only the quickest way to get to your destination with the fewest stops but can reach destinations that would be hard to reach by car or train. Possibly a boat, but how many of us could survive being in the sea for months just to reach the destination? Hands down, no not I!

According to (Air Travel Growth Continues in March, 2023), "North American carriers' traffic climbed 51.6% in March 2023 versus 2022. The capacity increased 34%, and load factor rose 9.8%, which is considered one of the highest among the regions." From the Bureau of Transportation Statistics, the US airlines carried 64.6 million scheduled passengers in February 2023 (Bureau of Transportation Statistics, n.d.). This was an 18% increase from the prior year. Statistics show that passengers choose to fly in an airplane, and since the 2020 pandemic, passengers are flying more often.
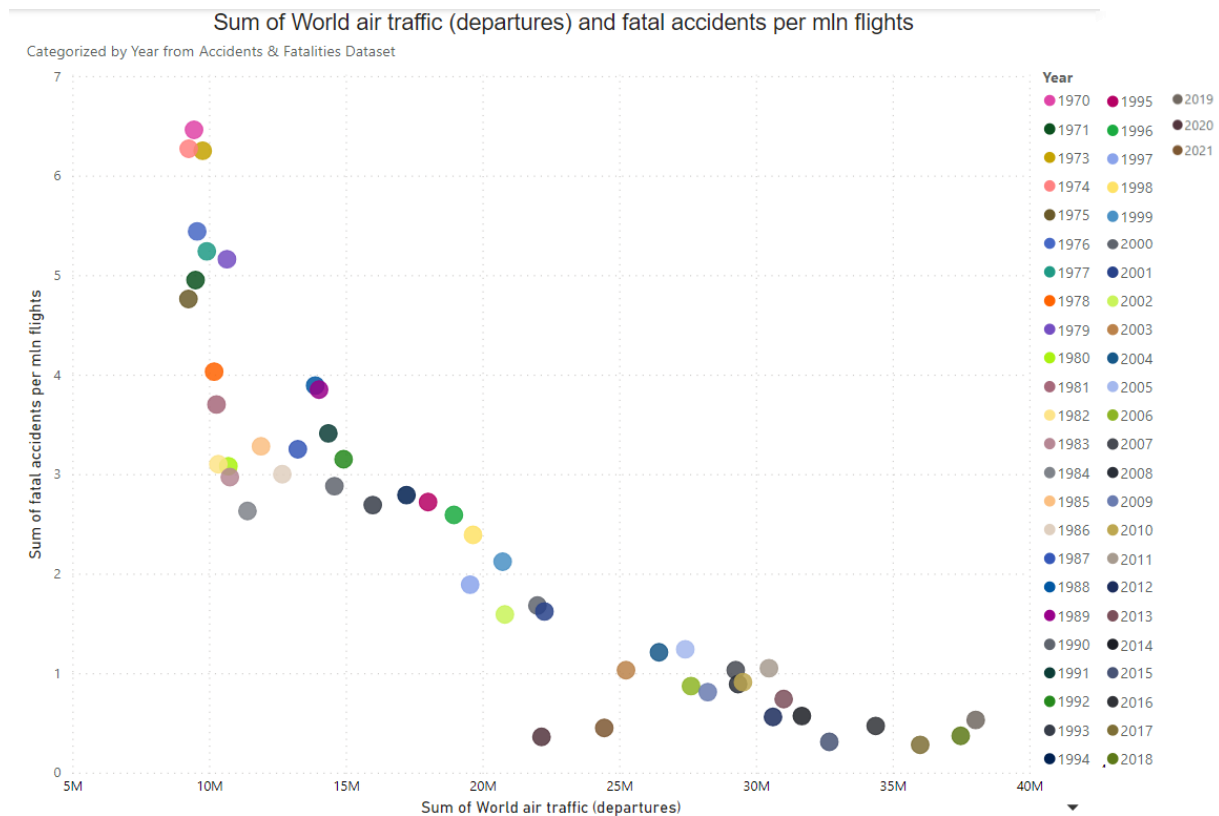
Though the question remains, to fly or not to fly, that is the question. Is it safe, are there dangers? That question can be very broad, especially because through all forms of transportation, there can be accidents or fatalities. Some things are just inevitable.

In this blog, three visualizations stood out the most in my data research. The first one is based on the sum of fatalities that are abroad each year. As an individual who hasn't traveled abroad yet but will one day. This line chart made a little more sense, especially because your destination isn't over solid ground the entire flight. Your destination abroad is going over large bodies of water!

Sum of Fatalities and Aboard By Year
From Airplane Crashes Dataset

As you can see, around the year 1970 had the highest fatalities. What made this year have that many fatalities? What happened this year that was so significant? Unfortunately, with data, sometimes all of the questions we are trying to prove are there.

Another visualization that caught my attention was fatalities during departures. This means that the air traffic had congestion that may not have been thoroughly thought out or planned as each plane is scheduled to take off.

Sum of World air traffic (departures) and fatal accidents per mln flights
Categorized by Year from Accidents & Fatalities Dataset

Again, you can see that 1970 had the highest sum of fatal accidents per min flights on the left. To the right, you can see that the year 2019, had the most fatalities for World Air traffic departures almost ranging to 38 million. This would be for all passengers that traveled from sea to shining sea.

Lastly, out of 105479 fatalities, according to the "Airplane Crashes & Fatalities" dataset, which operator had the most fatalities? According to the table chart below, Aeroflot had the most fatalities, with 1973 being the year that had the highest.

Operator	Sum of Fatalities		Operator	Sum of Fatalities	Year
Aeroflot	7156		Aeroflot	767	1973
Military - U.S. Air Force	3717		Pan American World Airways / KLM	583	1977
Air France	1734		Aeroflot	524	1972
American Airlines	1421		Japan Air Lines	520	1985
Pan American World Airways	1302		Aeroflot	429	1976
Military - U.S. Army Air Forces	1070		American Airlines	416	2001
United Air Lines	1021		Turkish Airlines (THY)	412	1974
AVIANCA	945		Aeroflot	405	1971
Turkish Airlines (THY)	891		Military - U.S. Army Air Forces	384	1945
Indian Airlines	863		Aeroflot	378	1970
China Airlines (Taiwan)	847		Aeroflot	374	1962
Air India	827		Saudi Arabian Airlines / Kazastan Airlines	349	1996
Military - Russian Air Force	797		Military - U.S. Air Force	337	1952
Trans World Airlines	784		Air India	329	1985
Military - U.S. Navy	767		Aeroflot	322	1984
Japan Air Lines	764		Saudi Arabian Airlines	303	1980
Korean Airlines	713		Iran Air	290	1988
Eastern Air Lines	710		Military - Russian Air Force	290	1984
Pakistan International Airlines	693		Aeroflot	277	1979
KLM Royal Dutch Airlines	616		Military - IslamiRevolution's Guards Corps	275	2003
Pan American World Airways / KLM	583		Military - U.S. Air Force	274	1968
Military - Afghan Republican Air Force	578		Aeroflot	272	1977
Garuda Indonesia Airlines	574		Aeroflot	272	1985
Northwest Orient Airlines	531		American Airlines	271	1979
Military - Royal Air Force	525		Korean Airlines	269	1983
Military -Royal Air Force	524		China Airlines (Taiwan)	264	1994
Ceskoslovenske Aerolinie	516		Aeroflot	263	1982
British European Airways	512		Nationair (chartered by Nigeria Airways)	261	1991
British Overseas Airways	506		Air New Zealand	259	1979
Military - U.S. Army	498		Pan American World Airways	259	1988
Cubana de Aviacion	486		Arrow Airways	256	1985
Total	**105479**		**Total**		**105479**

Though the inevitable may happen, whether it be bad weather, air traffic congestion, or mechanical issues with the plane, the way an individual travels depends on their choice and preference. For me, I want to see the world, and whichever transportation allows me to get to that destination the quickest and fastest will be used. Just hopefully it is not a boat for months!

References

Accidents and Fatalities per Year. (n.d.). Retrieved from https://docs.google.com/spreadsheets/d/1SDp7p1y6m7N5xD5_fpOkYOrJvd68V7iy6etXy2cetb8/edit#gid=1448957446

Air Travel Growth Continues in March. (2023, 05 04). Retrieved from www.iata.org: https://www.iata.org/en/pressroom/2023-releases/2023-05-04-01/#:~:text=North%20American%20carriers'%20traffic%20climbed,the%20highest%20among%20the%20regions.

Airplane Crashes and Fatalities from 1908-2019. (n.d.). Retrieved from https://data.world/hhaveliw/airplane-crashes-1908-2009

Bureau of Transportation Statistics. (n.d.). Retrieved from www.bts.gov: https://www.bts.gov/newsroom/february-2023-us-airline-traffic-data

Stephanie Benavidez

DSC640-T301 (2237-1)

Data Presentation & Visualization

Project Task 3: Blog Post Summary

Since this entire project is focused on the accidents and fatalities of airplanes, my thought was not at some Shakespeare humor to the title. After the 2020 pandemic, and this past Christmas flight delays airplane transportation is still the most used form of transportation. In this blog, I wanted to show three visualizations, two from prior assignments and one new table visualization.

The visualizations that stood out the most were as follows:

- The sum of Fatalities and Abroad by year line and column clustered chart.
- The sum of World air traffic (departures) and fatal accidents per min flights scatter plot.
- The sum of Fatalities by Operator table chart.

These visualizations were selected because the information was very thorough and solid to what was trying to be proven. The table chart was added in replacement of the original donut chart since the donut chart was too vague and harder to understand what the data was showing.

Throughout the different visualizations and data, 1970 had the most fatalities regardless of who the operator was. Though, the data research that I currently have does not show exactly how or why that year stands out the most. The only ethical considerations that could take part this year are individuals having health issues. Another flu pandemic for that year. Another question to ask is where the mechanical difficulties that caused these fatalities are. Unfortunately, the data given does not answer this question.

In conclusion, 1970 is still the year that had the highest number of fatalities with the operator being Aeroflot. Looking overall at the Sum of Fatalities by operator, Aeroflot had the highest with a total of 7156 for the year range of 1908-2019. For the World Air Traffic, according to the dataset, 2019 had the highest sum of World Air Traffic.

References

Accidents and Fatalities per Year. (n.d.). Retrieved from
https://docs.google.com/spreadsheets/d/1SDp7p1y6m7N5xD5_fpOkYOrJvd68V7iy6etXy2cetb8/edit#gid=1448957446

Air Travel Growth Continues in March. (2023, 05 04). Retrieved from www.iata.org:
https://www.iata.org/en/pressroom/2023-releases/2023-05-04-

01/#:~:text=North%20American%20carriers'%20traffic%20climbed,the%20highest%20among%2
0the%20regions.

Airplane Crashes and Fatalities from 1908-2019. (n.d.). Retrieved from
https://data.world/hhaveliw/airplane-crashes-1908-2009

Bureau of Transportation Statistics. (n.d.). Retrieved from www.bts.gov:
https://www.bts.gov/newsroom/february-2023-us-airline-traffic-data