Flight Safety Data

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Project 3 Questions and Answers

Why did you choose this as a project subject?

I really enjoyed the Data Visualization and Presentation course in Bellevue University's Data Science program, most likely because it's the perfect intersection of data and design, an intersection that's right in my wheelhouse as an interface architect and interface designer in my day job. The primary project in that course taught us how to use numerous tools and programs to "tell the data's story" and I wanted to continue looking into airline safety data with data from the last six years.

Did anything during this project surprise you? In what way?

There were not too many surprises with this project, as the data from 1985 through 2014 seemed to carry on with years 2015 through 2020 — travel by airline is still extremely safe; however, there was one rather big surprise. For the year 2017, there was an extremely low number of airline fatalities with only 44 deaths as a results of ten crashes. That is almost mind blowing when you stop to think about it! Certainly any number of fatalities are horrific, but the fact that only 44 lives were lost in airline crashes that year definitely stood out to me when looking over the data from years 2015 through 2020.

Is there anything that you would have done differently?

I think for the scope of this project that the methods taken were very sufficient and worked out really well, Perhaps I could have looked more into individual airlines from these laters years of data and presented that. Another item that could have been useful

to dig deeper into would be the reason(s) for airline crashes such as human error, mechanical failure, etc.

Did you get all of the answers to your research questions?

Yes, I was able to get all of the answers to my research questions, primarily the answer to if the years 2015 through 2020 would show that flying is still a safe means of travel, despite more recent events.

What would you have liked to have gone better?

I'm not sure that I have a good answer for this one, as I was pretty happy about how everything with the project went.

How do you feel about the impact of data visualization?

Data visualization is such an important tool. Just as getting the data's story accurate is essential, so is presenting it. Data visualization is like music or a movie; there's a story being told and the ability to do it in a way that captures the audience is essential. Cluttered and/or confusing visuals make all of the hard work of the previous steps in the flow of data science all for nothing.

What good (if any) came as a result of this project?

For me personally, I was glad to see the data showing that airline travel is still extremely safe. With the 737 MAX issues, I was really starting to worry about flying, but once I understood that there were hardware, software, and regulatory issues at fault, and just for this new aircraft, I felt relieved.

Are there any other research questions you would like to try to find answers for?

One of the items from the last few weeks that might be worth exploring is engine fan blade issues and how prevalent that internal stress fractures are within fan blades. Does this issue impact just particular engines and designs. Also, why did the entire

engine cowling for the flight that left Denver for Honolulu break away? That is not supposed to happen.

Is data visualization the most important aspect of data science?

I don't know if it's the most important, but it certainly is extremely important. The old adage that "a picture is worth a thousand words" is very appropriate in the ream of data science, for sure.

Is data visualization something that you would like to continue working on?

Presenting data stories through data visualization is definitely something I'd like to continue working on. I've always been drawn to well-done data visuals and graphics. The more influential ones I've seen lately are interactive and are extremely effective and really make the audience stop and thing. This one recently done by Reuters reflecting the 500,000 lives lost to COVID-19 is a great example of that: https://graphics.reuters.com/HEALTH-CORONAVIRUS/USA-CASUALTIES-CHRONOLOGY/xklpyomnrpg/index.html.