

Name: Andrea Fox

Date: February 7, 2021

Course: DSC640 – T301 Data Presentation & Visualization

Assignment: Project Task 3 – Blog post

Github repository: <https://github.com/anfox86/DSC640---Data-Presentation-and-Visualization/tree/main/Projects/Weeks%207%268>

1. Overall design choices
 - a. Used the initial dataset airline-safety.csv (Mehta, 2014) to create two of the visualizations that I will talk about below.
 - b. Created a dashboard for new/updated visuals.
 - c. Used consistent color choices:
 - i. Orange = incidents
 - ii. Pink/red = fatalities
 - iii. Blue = passengers
 - iv. Purple = injuries
 - d. Thought process behind visuals used was to first point out how many people are still traveling despite what the media was saying along with showing the statics of injuries by 100,000 flight hours to emphasize the numbers are small.
 - i. Did a comparison in fatal accidents by aircraft and motor vehicle to further persuade audience that motor vehicles are much more dangerous.
 - ii. Used/updated total incidents and fatal accidents to show that numbers were higher in earlier years most likely due to lack of technology, etc and that those numbers decreased in both areas in the most recent years with more experience/technology.
2. Line chart – Injuries per 100,000 flight hours by Year
 - a. Used data from (Injury Rates For Selected Modes: 2000–2014, 2015 | Bureau Of Transportation Statistics).
 - b. Selected line graph as this was data over time-period and makes sense to have that continuous line.
 - c. Used purple for injuries.
 - d. Used grey for axis and title so that the line would stand out more.
3. Stacked bar – Total Number of Fatal Accidents by Airline
 - a. Used the main data source airline-safety (Mehta, 2014).
 - b. Selected red/pink for fatalities.
 - c. Used stacked bars to have both time periods covered and included a total at the end of each bar in light grey.
 - d. Used darker color to draw attention to the earlier time-period, which is what I wanted to highlight.
 - e. Used grey for everything but the bars, so that the piece of data I wanted you to focus on really popped.
4. Line chart – Total Number of Airline Passengers per Year
 - a. Used data from (Passengers All Carriers - All Airports).

- b. Selected line chart since it was continuous across years.
 - c. Used blue for passengers.
 - d. Updated y-axis title so it was clear that these numbers were in the billions.
 - e. All other data done in grey to keep focus on the line itself.
- 5. Line chart – Total Aircraft Fatalities by Year
 - a. Used data from (Death Rate Per Year | Bureau Of Aircraft Accidents Archives).
 - b. Selected line chart for continuous feel across years.
 - c. Used pink/red since this was fatalities.
 - d. Added light grey trend line to further prove my point that the trend of numbers was decreasing over the years.
- 6. Line chart – Total Motor Vehicle Fatalities by Year
 - a. Used data from (Car Crash Deaths And Rates - Injury Facts).
 - b. Selected line chart to have continuation across years.
 - c. Added trend line here to further highlight numbers have decreased, but in the blog also used it as comparison against aircraft fatalities by specifically calling out the difference in numbers.
 - d. Used pink/red as I was again referring to fatalities/death.
- 7. Stacked bar chart – Total Number of Incidents by Airline
 - a. Used data from main data source airline-safety (Mehta, 2014).
 - b. Used shades orange for incidents.
 - c. Included two time periods, so stacked them on top of each other and added total at end of each bar.
 - d. Used grey for everything, but the bars so focus would be on the data.
 - e. Used a darker orange to create focus on earlier years where numbers were higher.

References:

Car Crash Deaths And Rates - Injury Facts. (n.d.). Injury Facts. Retrieved February 7, 2021, from <https://injuryfacts.nsc.org/motor-vehicle/historical-fatality-trends/deaths-and-rates/>

Death Rate Per Year | Bureau Of Aircraft Accidents Archives. (n.d.). Bureau of Aircraft Accidents Archives. Retrieved February 7, 2021, from <https://www.baaa-acro.com/statistics/death-rate-peryear?page=0>

Injury Rates For Selected Modes: 2000–2014, 2015 | Bureau Of Transportation Statistics. (2016, April). Bureau of Transportation Statistics. <https://www.bts.gov/content/injury-rates-selected-modes2000%E2%80%932014-2015>

Mehta, D. (2014, February 9). Airline Safety. GitHub. <https://github.com/fivethirtyeight/data/tree/master/airline-safety>

Passengers All Carriers - All Airports. (n.d.). Bureau of Transportation Statistics. Retrieved February 7, 2021, from https://www.transtats.bts.gov/Data_Elements.aspx?Data=1