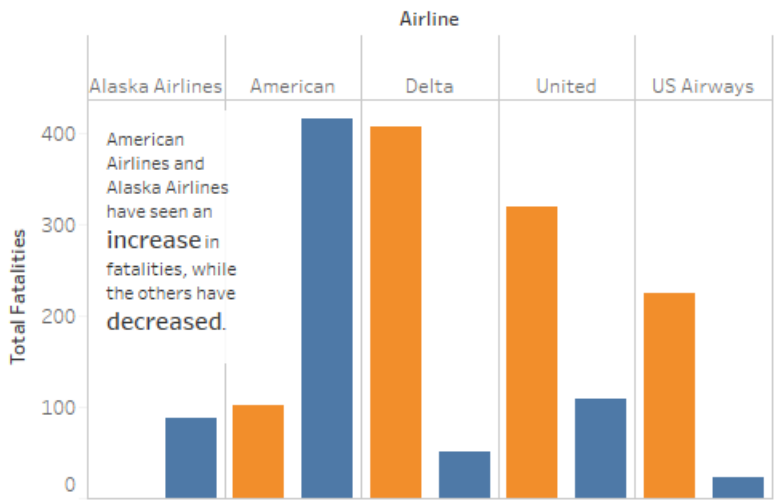
Project 1 Dashboard - Brandon May

File created on: 6/14/2020 7:53:23 AM

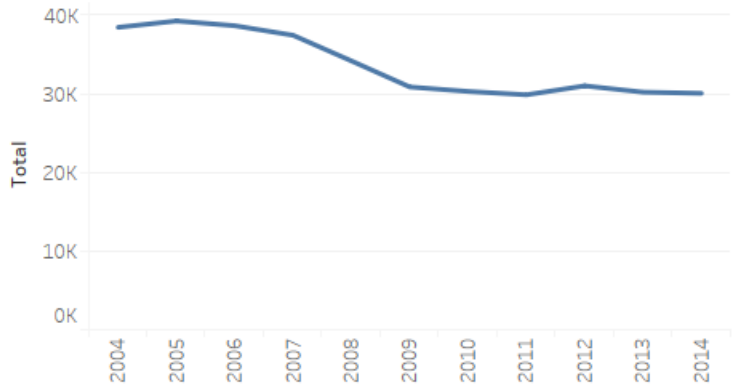
Airline and Traffic Safety At A Glance

1985 - 1999
2000 - 2014

US Airlines Total Fatalities[2]

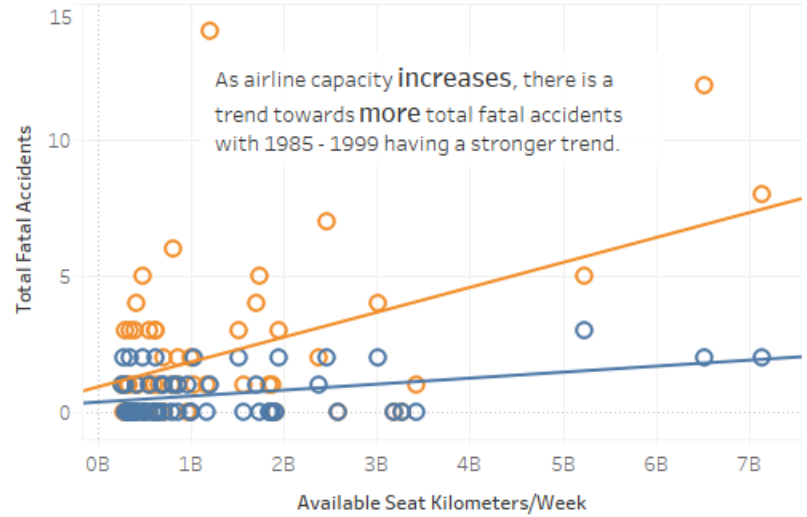


US Motor Vehicle Fatalities By Year[3]

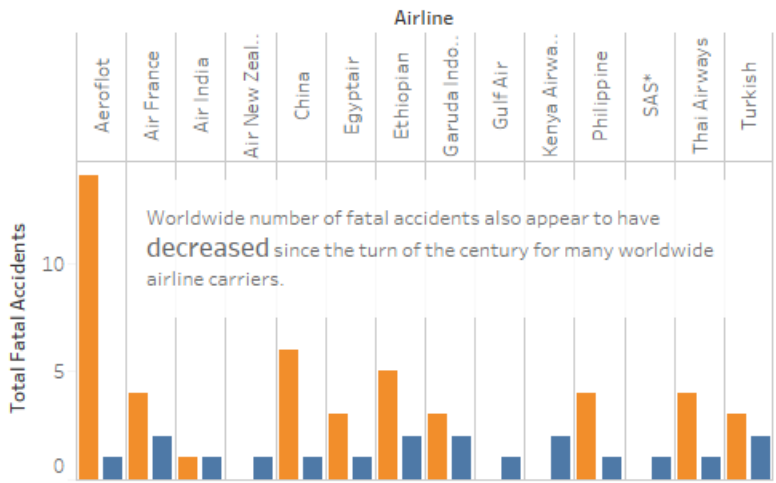


US motor vehicle crashes are level but there are still thousands of deaths each year compared to several hundred deaths for an entire 14 year period for airlines.

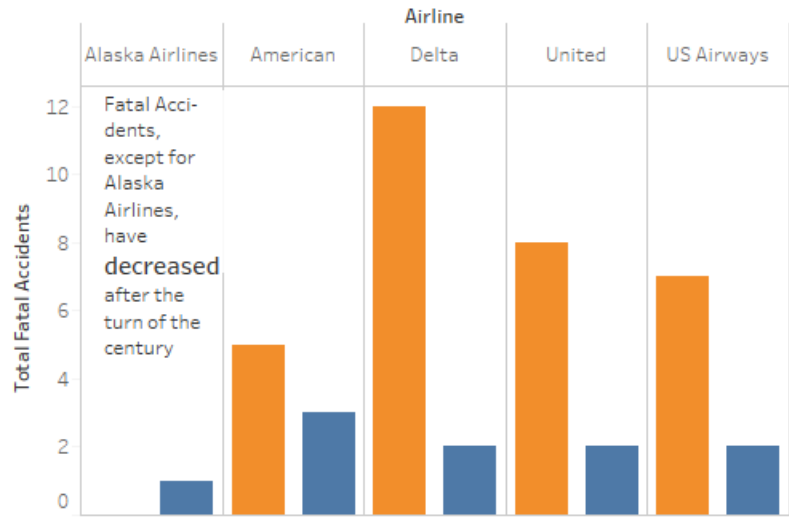
Worldwide Fatal Accidents and Airline Capacity[2]



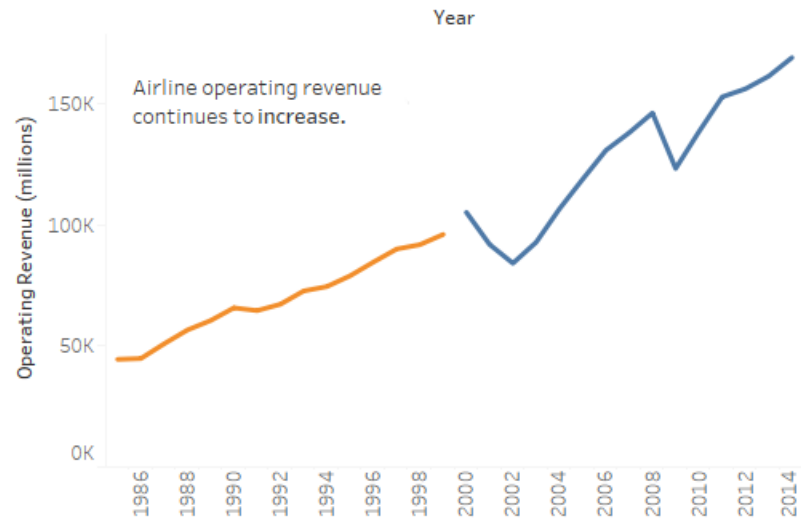
Fatal Accidents Worldwide[2]



US Airline Fatal Accidents[2]



US Airline's Annual Operating Revenue[1]



1. Annual Financial Results: U.S. Passenger Airlines (https://www.airlines.org/dataset/annual-results-u-s-passenger-airlines/#)
2. Source: Aviation Safety Network https://aviation-safety.net/
3. NHTSA Motor Vehicle Crash Data, Fatality Analysis Reporting System (FARS): 2004-2017 and 2018 Annual Report File

To be considerate of those with red/green color blindness, I sought to use the color scheme that Cole Nussbaumer Knaflic suggested in our main text using blue and orange. I carried through the color scheme throughout the graphical representations, including in the airline revenue graph as well as US traffic fatalities graph where I changed the color of the bars for pertinent years to coincide with orange indicating the years 1985 – 1999 and blue indicating the years 2000 – 2014. I also added size differences and bolding for certain words and phrases that were important concepts. I chose mostly bar charts to compare the fatalities and fatal accidents between the different year groups. I chose line charts to illustrate the US motor vehicle fatalities and revenue since it is easier to visualize and less busy as opposed to a bar chart. I also limited the years covered to 2000 – 2014 for consistency (some datasets had more years than that.

Since we reside in the US, I sought to highlight main US airline carriers and show their fatalities and number of fatal accidents. I chose this statistic simply because when something thinks of a plane crash, you think of the lives lost in that plane crash. Obviously, there are economic damages in a plane crash but for external stakeholders, many will be rightfully concerned about the loss of lives. Except for American and Alaskan Airlines, Delta, United, and US Airways all showed a decrease in the number of fatalities. Alaska airlines showed an increase in the total number of fatal accidents while the rest of the airline carriers showed a decrease. I also plotted a comparison available seat kilometers/week and total fatal accidents to show the association between airline capacity and number of fatal accidents. I then compared the fatal accident numbers of worldwide airlines which showed a general trend toward a decrease in number of fatal accidents. I did not find any trend for an increase in any geographic area. I highlighted the fact that in the US alone, motor vehicle crash fatalities are in the thousands compared with hundreds of deaths in airline crashes for a 15-year period. Another part of this project will entail detailing economic impacts, so I sought to show the steady increase in operating revenues for the US airline industry. I will later connect this with GDP economic impacts. For the executive summary portion, I intend to show the change and difference in percentage for the worldwide and US carriers in number of fatalities and fatal accidents.

Sources:

1. Annual Financial Results: U.S. Passenger Airlines (https://www.airlines.org/dataset/annual-results-u-s-passenger-airlines/#)

2. Source: Aviation Safety Network https://aviation-safety.net/

3. NHTSA Motor Vehicle Crash Data, Fatality Analysis Reporting System (FARS): 2004-2017 and 2018 Annual Report File