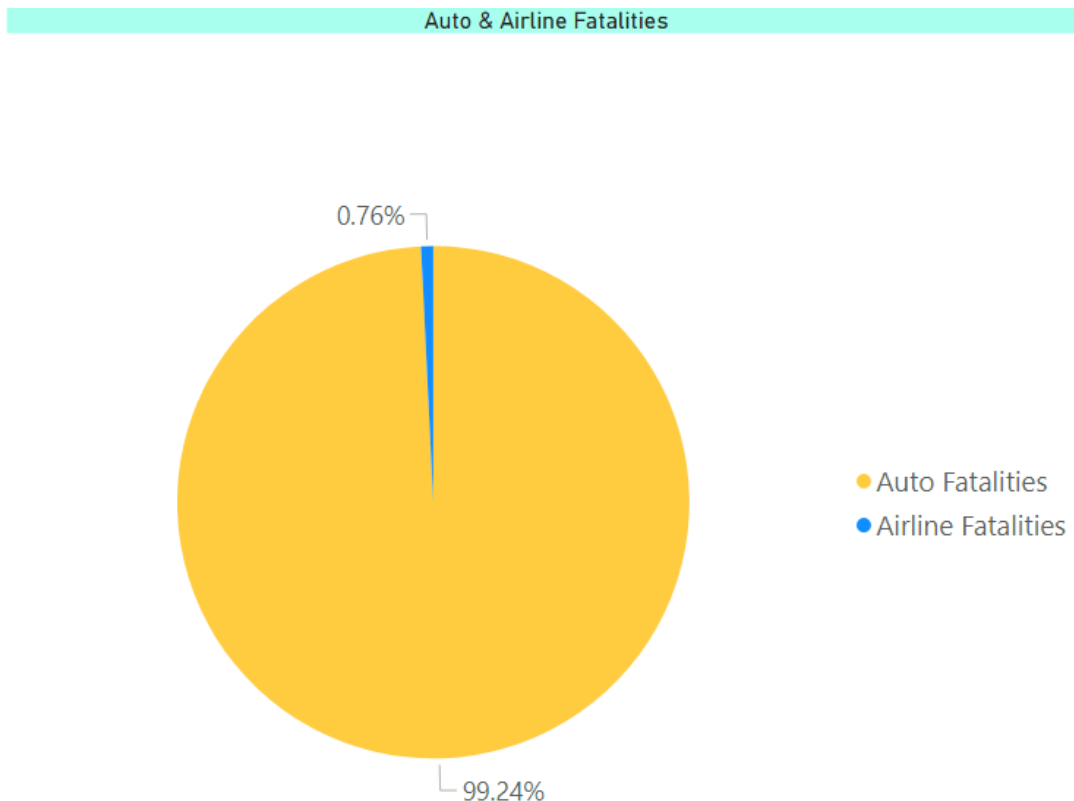
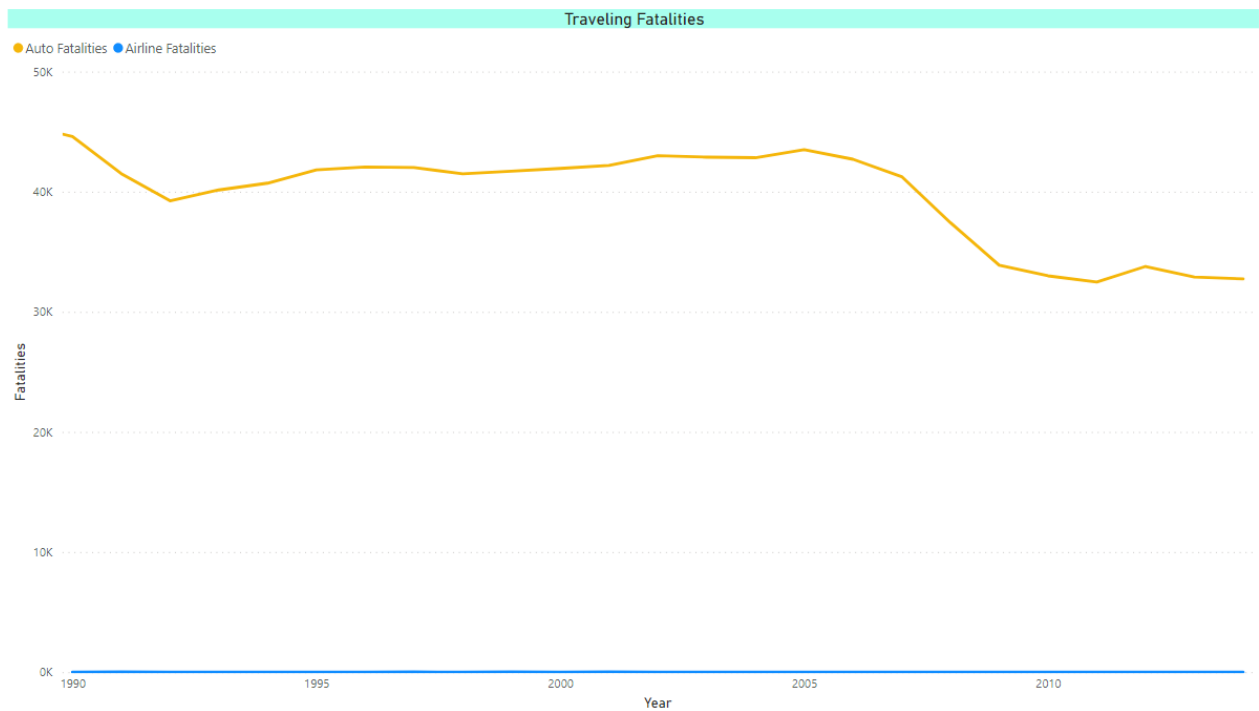
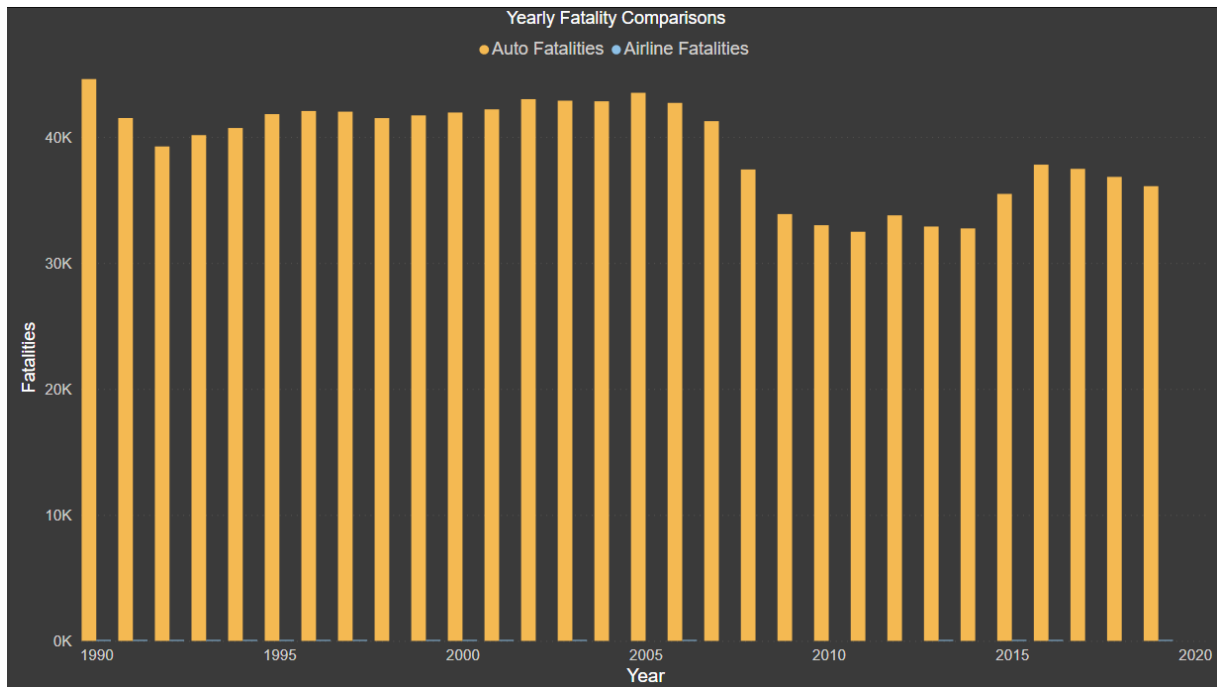


“Air” on the Side of Caution!

In recent years, a lot of debate has been sparked over just how safe and reliable air travel actually is when being compared to traveling by vehicle on land. But have no fear! I am here to set the truth straight! Given extensive research and analysis on data sets for both land and air travel it becomes more and more clear that traveling by airplane is overall, the safer option. If we're looking at cold hard facts and statistics, it's obvious from just the sheer number of accidents and fatalities that traveling by car is a great deal more dangerous. Even beyond just pure numbers, we can look at some trustworthy data through a few visuals that can help to clarify just how much safer air travel truly is in a more fun and appealing way.

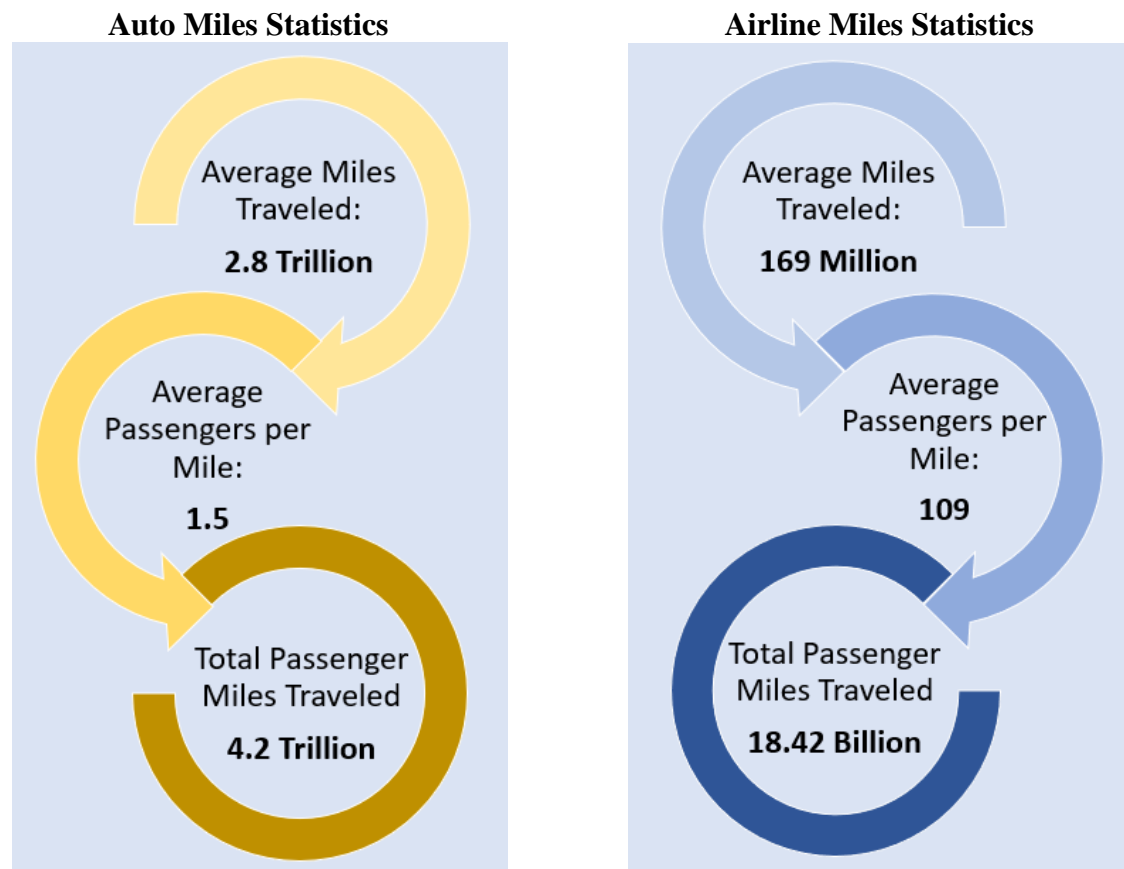


We can start out by taking a look at a few very simple comparisons between the number of fatalities by both air travel and car travel. The pie chart above shows us total number of fatalities broken into the two types of travel showing us that over 99% of fatalities from these types of travel are from automobiles. The grouped bar chart below is a great example of just how many more car accidents end with a fatality over air travel per year because the bars for airline fatalities are barely visible in comparison to the car fatalities. Some years we can even see that there were zero fatalities for airline travel in the US.

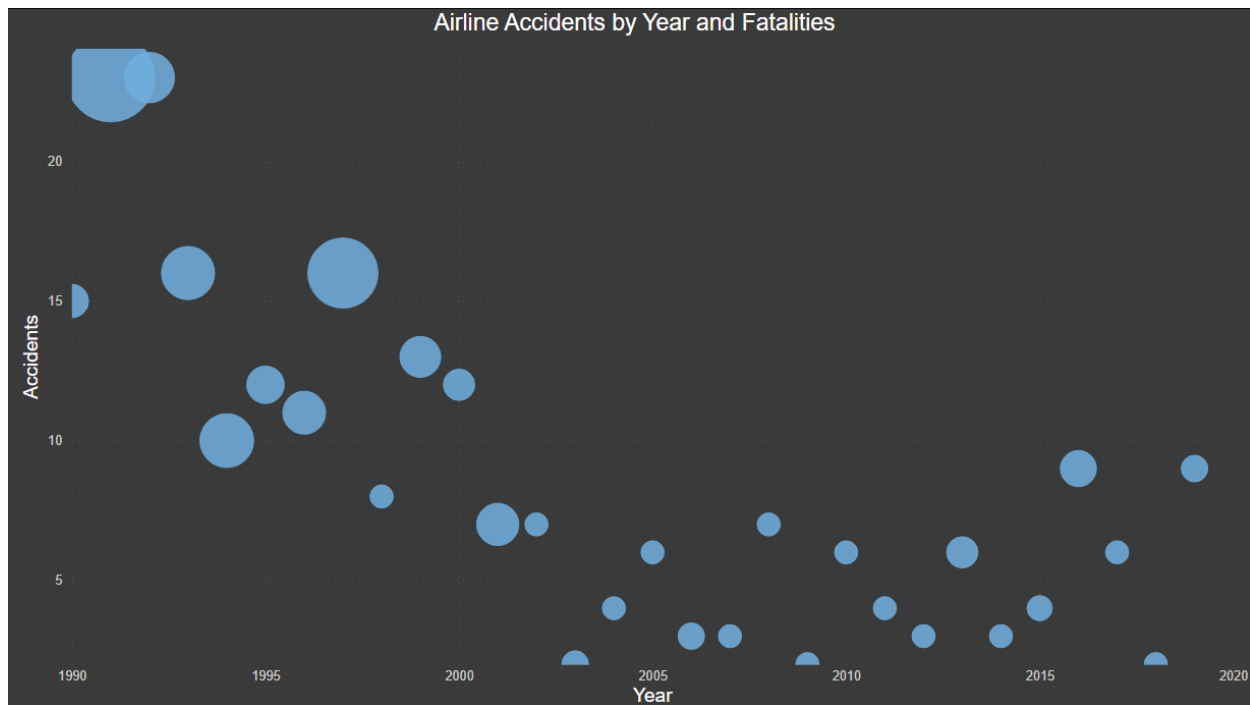


Above is a line graph that shows the trend in fatalities for air and car travel between 1990 and 2014. Auto travel has a trend that tends to fluctuate a lot more than the airline trend which stays steady and at a much lower rate than auto.

Clearly airplanes take a lot less trips than cars or travel less miles throughout the year as well, when we consider the utter amount of people traveling by car on a daily basis. However, on top of miles being traveled, number of passengers per trip should be taken into consideration as well. We can see that while cars might travel more miles per year, airplanes have so many more passengers per mile. So instead of looking at fatalities per total miles traveled, it makes more sense to look into miles traveled per passenger for both types of travel and then consider fatalities based off of that. Below we can look at some annual statistics for the United States for both auto travel and airline travel.



After breaking down the total number of miles traveled by passengers on airlines and in vehicles it's possible to determine the fatalities per mile. With an average of 9 fatalities annually from airlines and an average of 39,186 fatalities annually from car travel, per 100,000 miles traveled by passengers, airlines average a fatality rate of 0.049% while cars average a fatality rate of 0.933% making car travel about twice as dangerous as air travel.



Above we can see a scatter plot that shows us a little bit more about crashes over the past years. Beginning with points to display the total number of incidents for each year, you can then notice the size of each point represents the number of fatalities. Not only does the trend decrease, showing that as time goes on there are less incidents, but the size of the points decreases as well meaning there are less fatalities in recent years.

Overall, it's clear that not only do the cold hard stats point to air travel being safer than automobile travel, but also after taking an in depth look into the data we can see that airline travel has gotten safer over the years as well. Things are 'looking up' in terms of traveling by plane.

References:

1. *Fatality facts 2019: Yearly snapshot*. IIHS. (n.d.). Retrieved October 9, 2021, from <https://www.iihs.org/topics/fatality-statistics/detail/yearly-snapshot>.
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