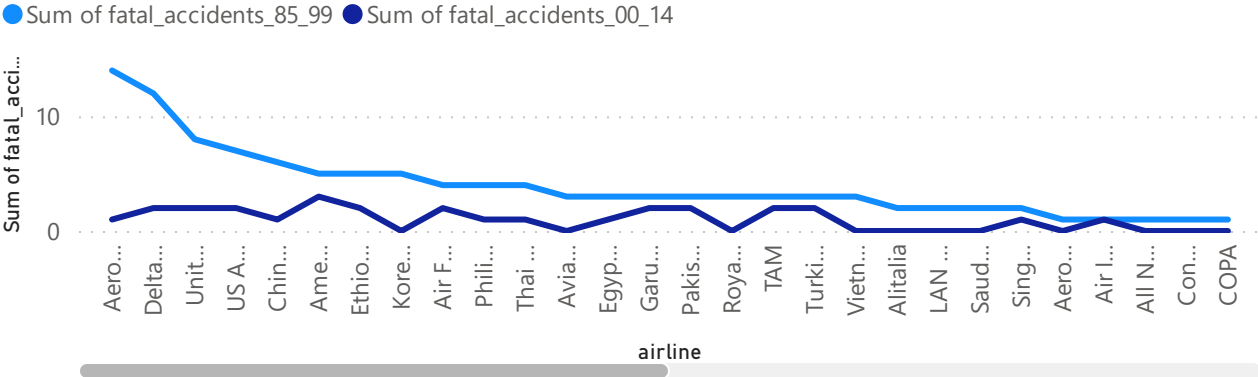
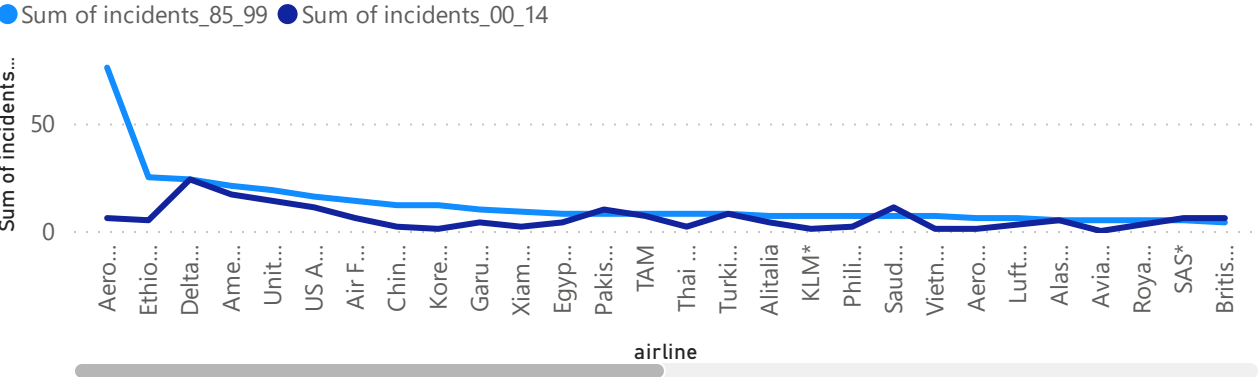


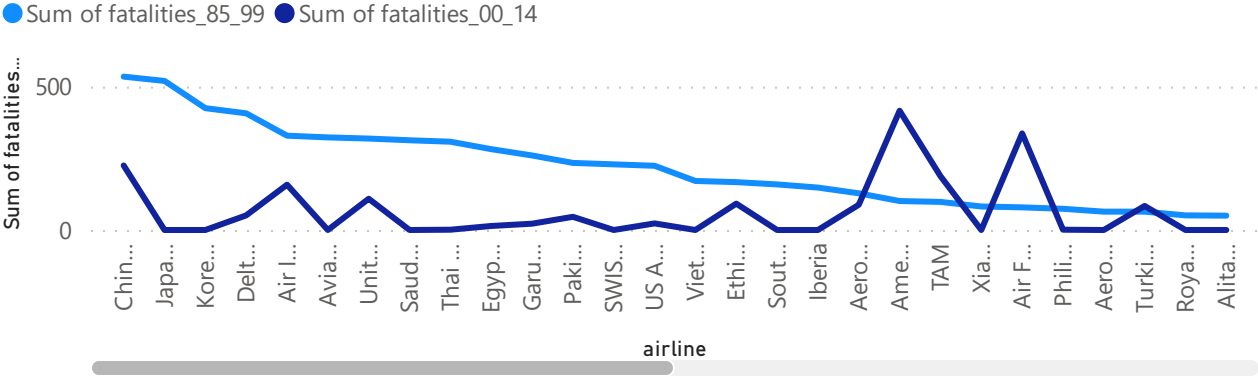
Sum of fatal_accidents_85_99 and Sum of fatal_accidents_00_14 by airline



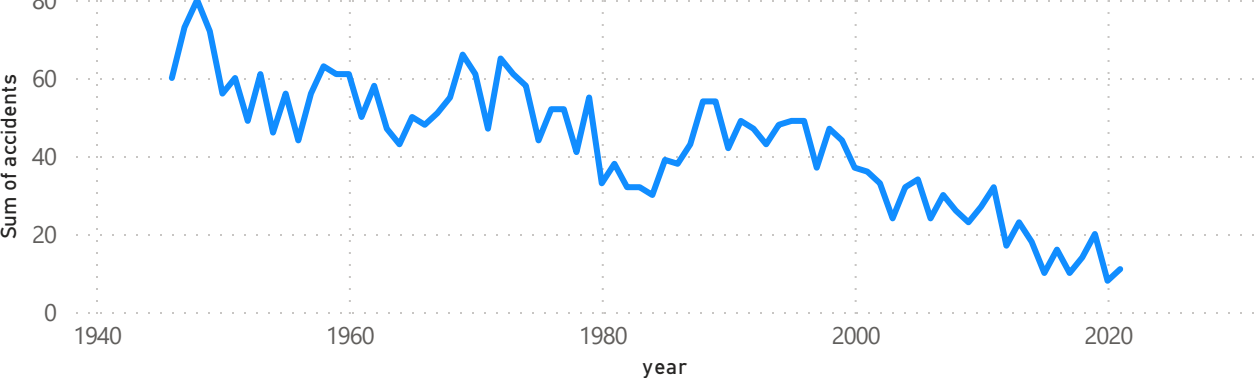
Sum of incidents_85_99 and Sum of incidents_00_14 by airline



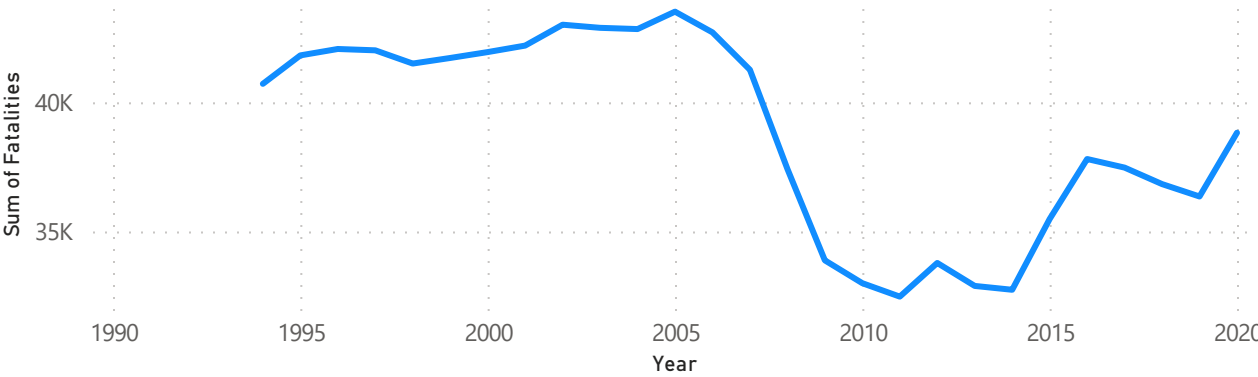
Sum of fatalities_85_99 and Sum of fatalities_00_14 by airline



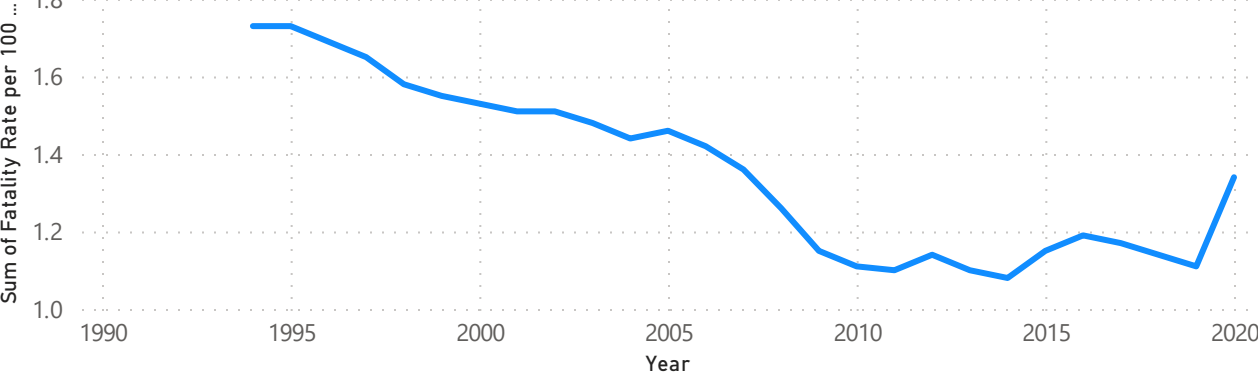
Sum of accidents by year



Sum of Fatalities by Year



Sum of Fatality Rate per 100 Million VMT by Year



The objective of this task is to show that the airline safety has not reduced overall in terms of number of incidents, accidents, and fatalities. In addition, comparison with data available for other mode of transport can also be used to compare whether air travel is the worst mode of transport as made out to be by the media considering recent incidents.

I utilized airline safety data available in two timeframes: 1985-1999 and 2000-2014. The variables included were incidents, fatal accidents, and fatalities in those time frames. I utilized line charts to show the difference between those time frames. Clustered column chart was an option as well but with the number of airlines used for global representations made it too busy to look at and that clarity of comparison illustration was being lost in the many clustered created. I used light blue and dark blue colors keeping color limitations of some people.

We can observe in the first three charts that 2000-2014 timeframe clearly shows that incidents, accidents, and fatalities do show overall reduction by all airlines. For number of fatalities, we see that American and Air France stick out as having more fatalities in the later time frame. However, if one looks closely at the fatal accidents chart, the number does not show uptick in the later time frame for those airlines. Therefore, it can be concluded that the number of accidents has improved in the latter half of the timeframes being looked at.

The fourth chart showing accidents by year using data source (Accidents and Fatalities Per Year) from 1940 onwards also shows consistent reduction as the years progressed to current times.

The last two charts have been prepared using supplemental data ([FARS Encyclopedia: Trends - General \(dot.gov\)](#)) for U.S. which shows fatalities by year starting 1994 and rate per 100million vehicles miles traveled. We can observe a rising trend starting 2010 in the U.S.

Therefore, we can conclude that air travel safety has been improving consistently over the years. However, the data used for road travel is only for the U.S while for air travel is for global. It can be justified that U.S. data can be used as population sample for global representation, but we must keep in mind that number of cars, road safety infrastructure and requirements, etc. are different in different countries. Therefore, for ethical like-to-like comparison, global data should be used and parameters such as fatalities per 100 million miles traveled should be calculated.