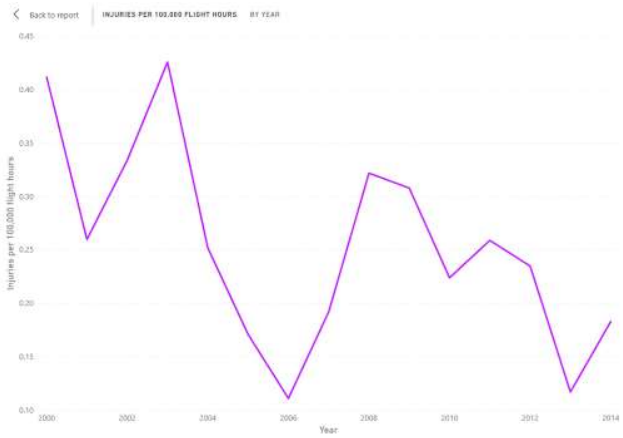
# Commercial Air Passenger Safety

**Sunday, February 7, 2021**

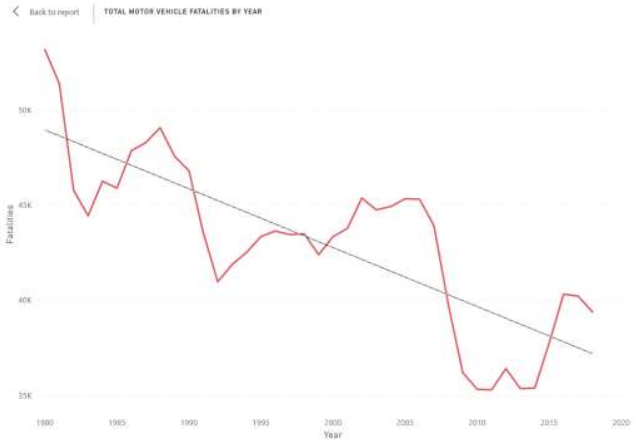
## Media Misrepresents Airline Crash Data

There has been a lot of chatter in the media lately regarding airline crashes and fatalities. What you need to realize is that even though it sounds exceptionally bad right now to travel by air, it is in fact still one of the safest methods of transportation. In the below image, it shows data for total fatalities by an aircraft for every 100,000 miles flown. Not only are the numbers low, but the general trend has dropped significantly since the year 2000.

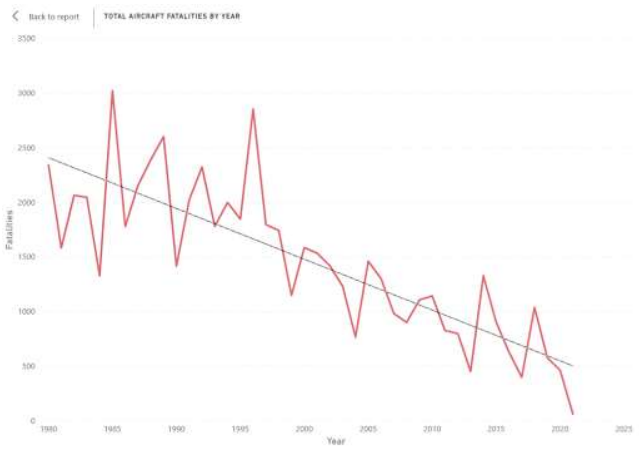



(Data gathered from Bureau of Transportation)

Another thing to keep in mind unless specifically called out by airline, many of the statistics that are being shared by the media include all types aircraft, which can include blimps, military aircrafts, and private planes. In fact, one website that calculates the odds of dying by different methods mentioned that the odds of dying in a plane crash had "too few deaths in 2018 to calculate odds." (Odds Of Dying - Injury Facts, 2018)

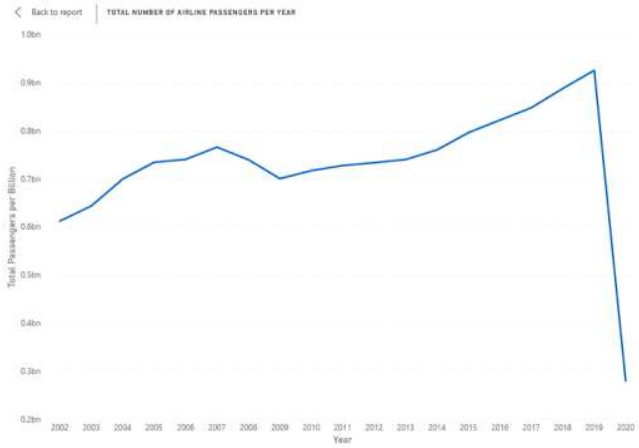



(Car Crash Deaths and Rates - Injury Facts)



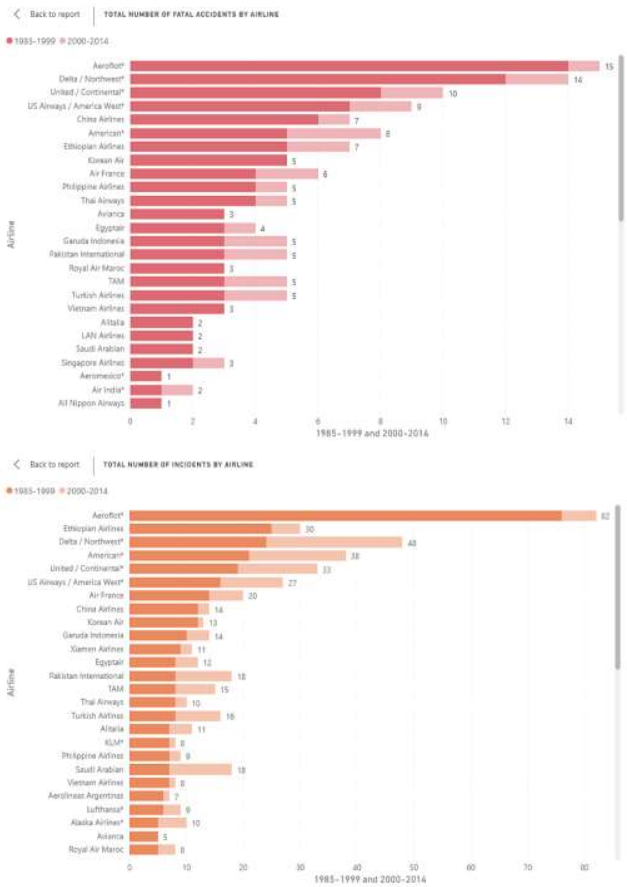

(Death Rate Per Year | Bureau of Aircraft Accidents Archives)

If you look at these two charts you will notice at first glance both trend lines are going down, which is a good sign. However, if you compare the numbers of the motor vehicle death rates and aircraft death rates you will notice a significant gap in the numbers. On the y-axis in aircraft accidents, the highest spike in numbers is 3,023 which took place in 1985. For the y-axis in the motor vehicle accidents the highest spike in numbers is 53,172 which took place in 1980. Even though the highest spike in motor vehicle accidents happened many years ago the lowest data point is still 39,404 which is 625 times larger than the lowest data point in aircraft accidents which is 63. It is also important to call out the number of passengers that travel by air per year.




(Passengers All Carriers - All Airports)

If air travel is considered to be dangerous as the media keeps pushing, then why are so many people still traveling by air? Looking at the chart above there are billions of people who travel by air on a yearly basis, which means there must be a modicum of safety to traveling by air. If this isn't convincing take a look at this video that walks through the various ways planes are tested for safety (https://www.youtube.com/watch?v=BWwUTJM3jbA). Each aircraft goes through rigorous safety inspections that must be maintained in order to fly, which is significant because motor vehicles are only passing safety inspections before hitting the market. After that vehicle hits the market, some states require yearly safety inspections, but many do not require this. That should be a higher cause for concern than aircraft safety.




(Mehta, 2014)

The last two charts are from the main data source used for investigation. First, it is important to note that there is a difference between a fatal accident and an incident. A fatal accident is comprised of fatalities that occur in an aircraft accident, while an incident is something that happens to the aircraft but does not result in death. In the both charts, there are data points from two different time periods. The earlier period (1985-1999) has higher rates of fatal accidents along with incidents. This could be because technology and design were not as advanced as they are now or could be attributed to other factors. However, if you look at the newer time period (2000-2014) you will notice the numbers are much smaller for both fatal accidents and incidents. This shows that whatever was causing issues in earlier years have been resolved and flying has become much safer in general.

In conclusion, the media has shoved the idea that air travel is exceptionally dangerous after a few recent incidents. What needs to be pushed is the fact that air travel is a much safer mode of transportation, and that while a few accidents may have happened recently, that is not the only factor that needs to be considered.

Sources:

Boeing. (2011, May 12). *Boeing 747-8 Undergoes Extreme Testing*. YouTube. https://www.youtube.com/watch?v=BWwUTJM3jbA

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*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-per-year?page=0

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

*Odds Of Dying - Injury Facts*. (2018). Injury Facts. https://injuryfacts.nsc.org/all-injuries/preventable-death-overview/odds-of-dying/

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