



Christopher Anderson · 3 hours ago



Is it Still Safe to Fly?

Media outlets are projecting a sense of fear of flying as recent airline crashes have caused panic in an industry known as one of the safest means of travel. Is this fear warranted?



Flying has long been considered one of the safest ways to travel — particularly when compared to automobiles. However, because of recent unfortunate airline crashes, it is now being presented to the public as one of the most dangerous. In fact, numerous media outlets around the country have been touting statistics stating that flying is no longer a safe way of traveling. News and media outlets have bombarded the public with statistics and figures about airline safety trends, and are reporting, overall, that things do not look good for the industry. With that narrative in mind, a study was undertaken to look into historical data of airline and automobile incidents, crashes, and fatalities, and also to dig deeper into the underlying factors of the most recent airline crashes, to truly understand if what is being presented by the media is accurate.

Travel Safety Data Sources and Analysis Methods

The information presented is based upon data from the airline safety dataset provided by the [Aviation Safety Network](#), which contains 30 years worth of airline incident, accident, and fatality information from the years 1985 through 2014. Using that information, analysts look for trends when comparing the airline incident and fatality data from two different chunks of time, one grouping from 1985 through 1999, and the other from 2000 through 2014. By comparing these two different chunks of airline safety data, any solid correlations should present themselves relatively clearly. For example, is it the same airlines that are having safety issues across this 30 year span? Are there any patterns in the geographical location of the airlines that have incidents? What about aircraft? Is there any data that shows a particular type of aircraft is showing up in airline incident, crash, or fatality statistics?

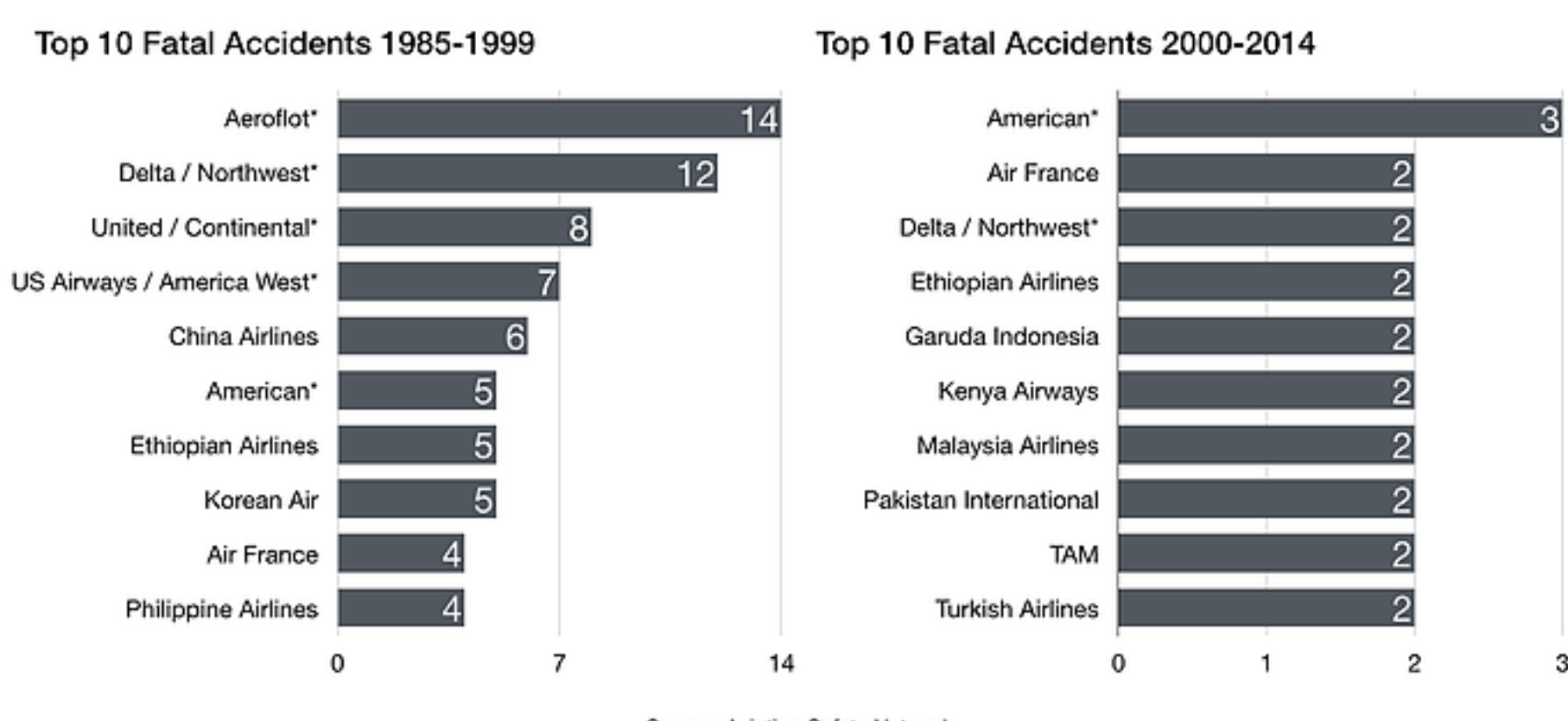
As a means of comparison to one of the most common methods of travel — and to accurately have a comparison of fatality data — a supplemental data set from the [NHTSA](#) (National Highway Traffic Safety Administration) with automobile fatality information covers similar years and allows for a one-to-one study of fatality numbers.

What the Data Tells Us

To answer the question of whether flying is still safe, we look to the data; it is telling a far different story than the one projected in media reports. When combing through the information, a few key items stood out.

The following chart shows the top ten fatal accidents in the airline industry, over the two different chunks of 30 years of data:

Airline Safety Comparisons: Fatal Accidents



When looking at the fatal accident data from 1985 — 1999 on the left and the accident data from 2000 — 2014 on the right, it is easy to see that it is not the same exact airlines experiencing fatal accidents over these 30 years, rather, it is somewhat random: the same airlines that had fatal accidents in the past were not prone to repeat them.

The second big piece of information from the airline fatality data is that the total number of fatalities is actually *decreasing*, and by a rather significant amount:

Fatal Accident Rates are Decreasing

70% ▼

Decrease in total airline fatal accidents from 1985-1999 and 2000-2014

Source: Aviation Safety Network

The total number of fatal accidents across all airlines from 1985 — 1999 was 122, while the number from 2000 — 2014 was 37, a decrease of 70%.

Recent events of [Boeing's 737 MAX aircraft and its MCAS problems](#) highlight the issues driving the recent media push to question the safety of air travel. In fact, I argue that this particular aircraft and its issues are the primary impetus for the outcry:

Boeing 737 MAX Aircraft Deaths

346

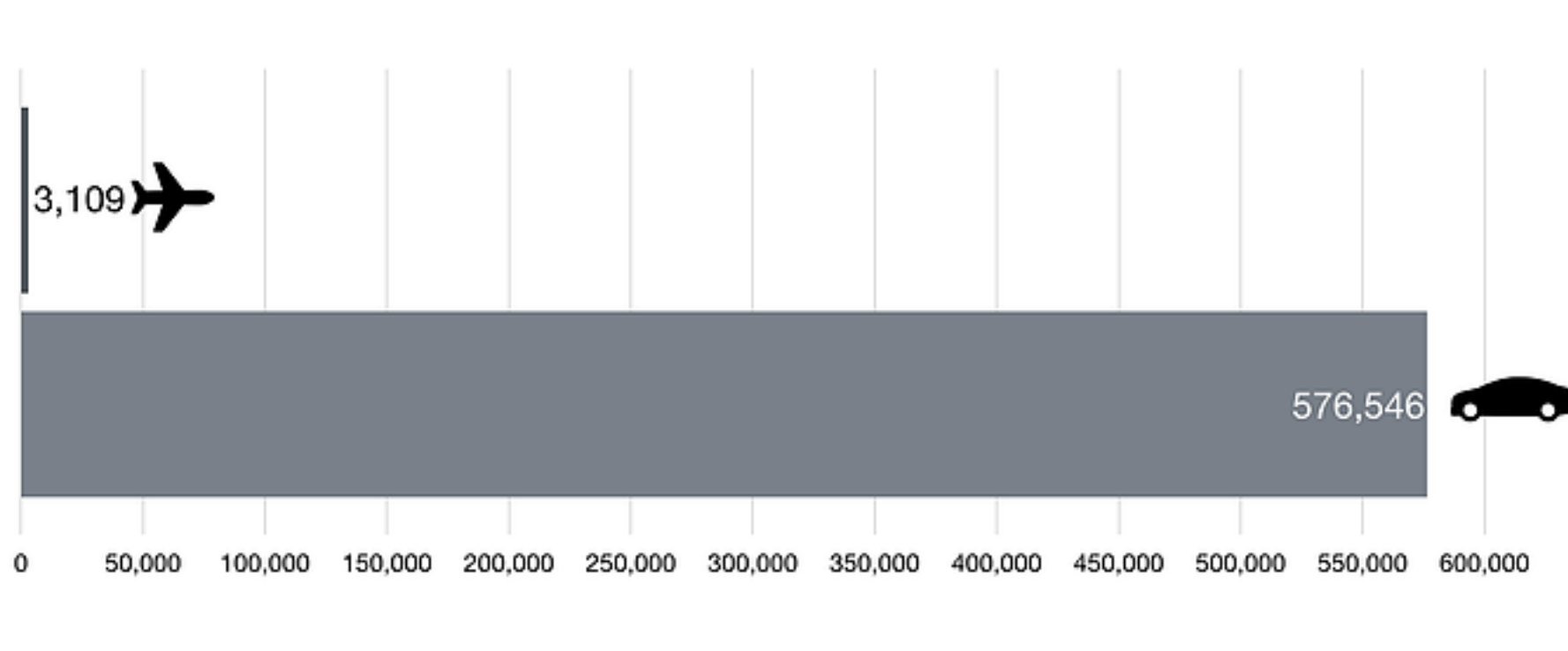
Total deaths from two different flights less than six months apart leading to aircraft being grounded

Source: https://en.wikipedia.org/wiki/Boeing_737_MAX

The fatalities from this particular aircraft came from two different flights less than six months apart, each from different airlines. But their common bond is the flaw in the aircraft's hardware and software system (MCAS) that automatically control the pitch of the aircraft if it detects a stall position. Not long after the second crash of a 737 MAX aircraft, the entire fleet was grounded worldwide.

The last story to come from the safety data is the most compelling. This data compares total fatalities from flying and driving over the years 2000 — 2014. The difference is the fatality numbers is striking:

Airplane and Auto Fatalities: 2000-2014



Further emphasis comes when you look at that same data as a percentage of the total fatalities:

Airplane and Auto Fatalities: 2000-2014

0.5% 99.5%

Airplane

Automobile

Total fatalities: 579,655

Source: Aviation Safety Network, NHTSA

Conclusion

Based upon the findings of the data study, despite recent outcry for fear of flying and that it might no longer be safe, with the exception of a faulty hardware and software system on one particular aircraft (Boeing's 737 MAX), traveling by plane is still extremely safe compared to other methods of travel.

Airlines that had incidents or fatal crashes in the past are not necessarily prone to have them happen again. Additionally, the data shows that the number of incidents and fatalities over 30 years have dropped substantially, and they are not particular to one geographic location — though there is evidence that airlines from developing countries are more prone to incidents, accidents, and fatalities.

Comparing the fatalities of airline travelers and those in automobiles provides a rather telling statistic: between the years of 2000 and 2014, the total number of fatalities from airline and auto crashes was 579,655. Of that number, airline fatalities make up **half of one percent** of that total.

As the data shows, flying continues to be one of the safest methods of getting from one location to another.

Sources:

1. [Aviation Safety Network](#)
2. [NHTSA \(National Highway Traffic Safety Administration\)](#)
3. [The New York Times](#)

<https://chris22316.wixsite.com/dsc640/post/is-it-still-safe-to-fly>

