



**New!** You can now import subscribers into your email list. [Start an import.](#)



Kimberly Summerville

Feb 5 · 4 min read



# Analyzing Air Travel — Is it safe?

By Kimberly Summerville





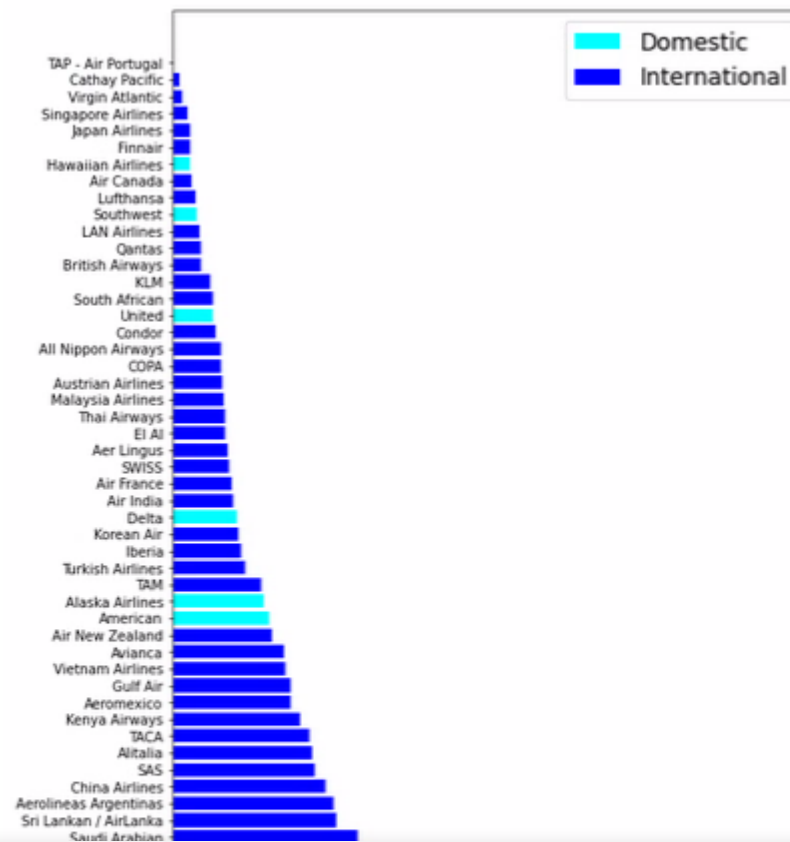
Image from Times of India

We've all seen the various stories in the news highlighting incidents related to air travel — turbulence, rowdy passengers, flocks of birds being hit or simple engine failure. It has created a scary narrative to be sure. But are we getting the whole





Commercial airlines based in the U.S. are some of the largest, most prominent airline companies, flying over 26 billion seat kilometers weekly (number of seats available \* number of kilometers flown). So how are their safety records? The below chart shows the average number of incidents per every billion seat kilometers flown weekly (BSKM) from 1985 to 2014 for 56 commercial airlines:





### Incidents per every Billion Seat Km Flown Weekly

The numbers vary drastically, with the three highest recording over 50 incidents each. However, when put into perspective of BSKM, this means that the airline with the highest record — Aeroloft — has recorded an average of 70 incidents per BSKM. That's only .00000007%! Of the 56 airlines, U.S. based (Domestic) airlines performed even better, with an average of just 6.48 incidents per BSKM — 0.0000000648%!

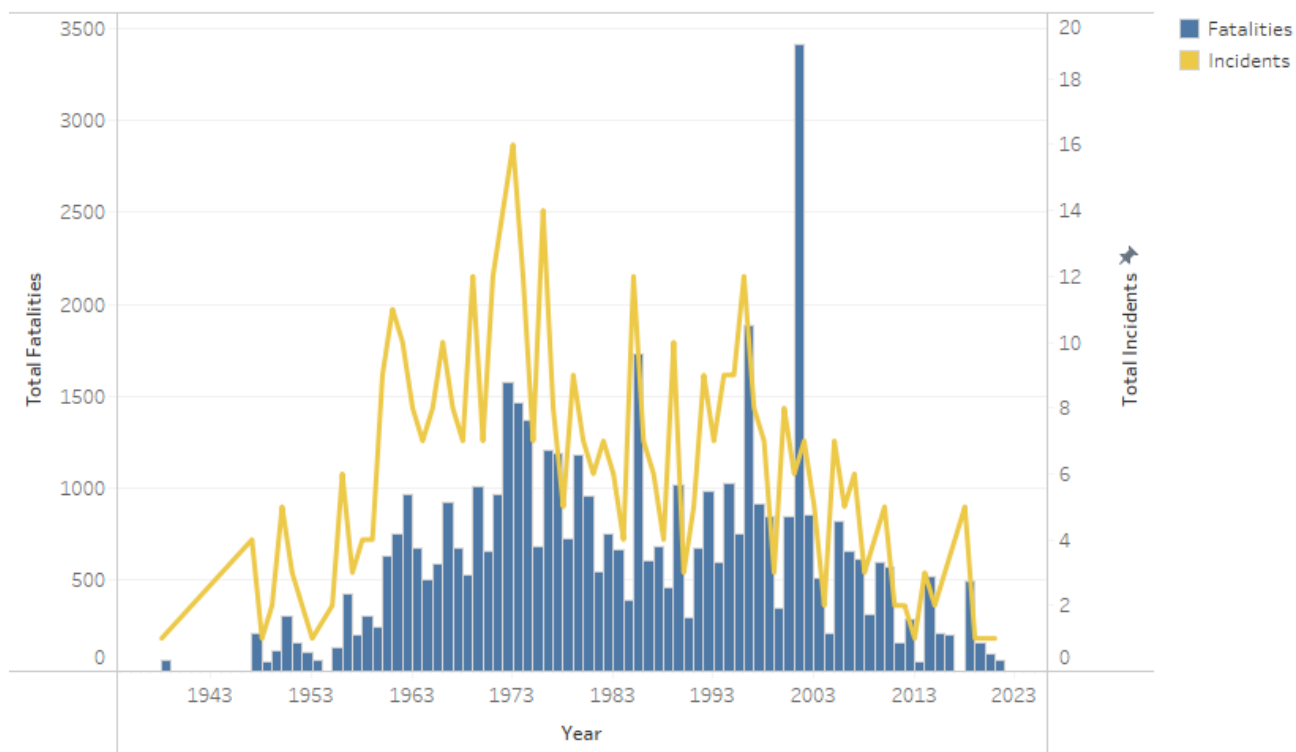
### Historic Airline Incidents

But we need to take a closer look at incidents that resulted in fatalities, as these are the most serious. When we consider fatal incidents involving airlines, we know that those with the highest number of fatalities get the most coverage in media outlets, so the chart below shows the trend of commercial airline incidents resulting in over 50 fatalities:





Incidents and Fatalities by Year (in incidents with &gt;50 fatalities)



Beginning with the first record in 1938, there was dangerous rise in incidents, reaching a peak in 1973. However, something happened in the 70s that caused a noticeable downturn of the trend in incidents. The Airline Deregulation Act of 1978 was passed on October 24, 1978 and among multiple other federal controls put in place, it stated that the maintenance of safety was the highest priority in air travel, rather than ticket sales, and the FAA was directed to develop safety



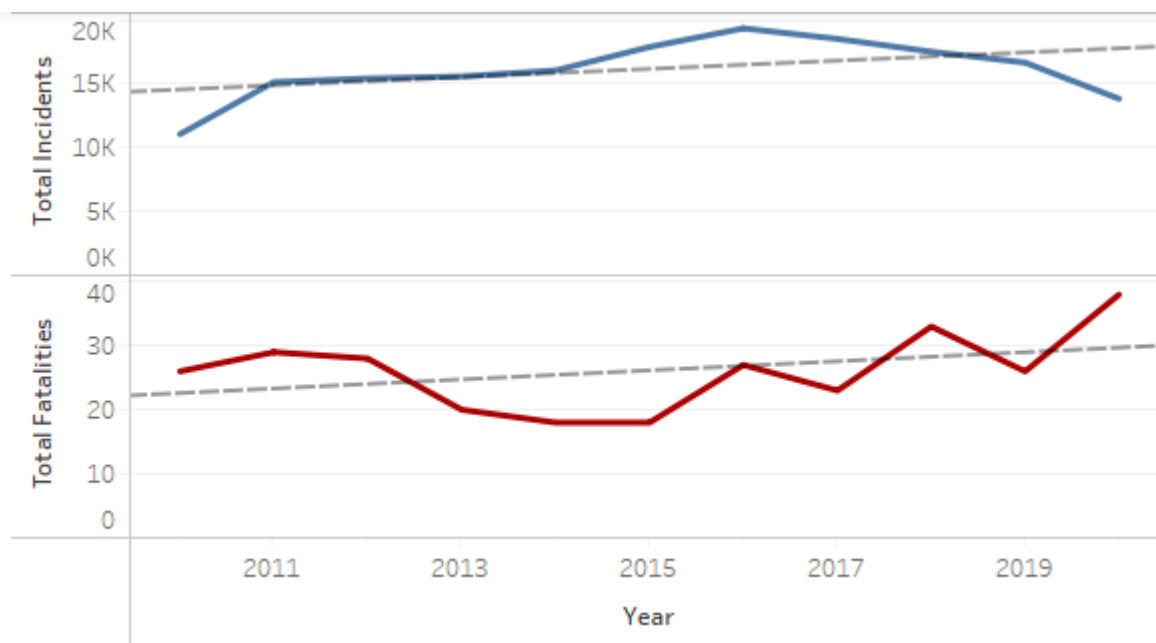


The number of fatalities followed a similar trend, with a sharp spike in 2001, highlighting the 9/11 terrorist attacks. From this horrible day came another act of the United States Congress — The USA Patriot Act, made effective October 26, 2001. The overarching goal of this Act was to fight terrorism in all its forms, however the airline industry felt a large impact due to the nature of the Act's creation. From that point, we saw another drop in overall incidents and fatalities, with just one incident in 2019 and 2020.

## How Car Travel Compares

We now know that airlines — especially US Based airlines — are getting safer every year. But how does air travel compare with the most popular mode of transportation — cars? Using recent sample data from the City of Baton Rouge, we see that the total number of car incidents begins to spike, then make a nice downward slope since 2016, however the trendline proves to be not as promising, as it continues to rise, indicating that the number of incidents will likely increase in coming years.





Car Travel Incidents and Fatalities

The total number of fatalities echo the same sentiment, with a clear increase over the past 10 years. Both trends point towards car travel getting more dangerous, with a higher possibility of an incident and consequent death.

## Conclusion

We know that media outlets sensationalize stories for their viewers. The key is to look deeper, and here we have. We can see that not only is air travel becoming





## *Data Sources:*

### **Airline Safety 1985–1999 and 2000–2014:**

#### **data/airline-safety at master · fivethirtyeight/data**

Data and code behind the articles and graphics at FiveThirtyEight - data/airline-safety at master · ...

github.com

### **List of aircraft accidents and incidents resulting in at least 50 fatalities:**

#### **List of aircraft accidents and incidents resulting in at least 50 fatalities - Wikipedia**

This article lists aircraft accidents and incidents that resulted in at least 50 fatalities in a single occurrence...

en.wikipedia.org

### **Baton Rouge Car Accident Data:**





