DSC 640 – Airline Safety

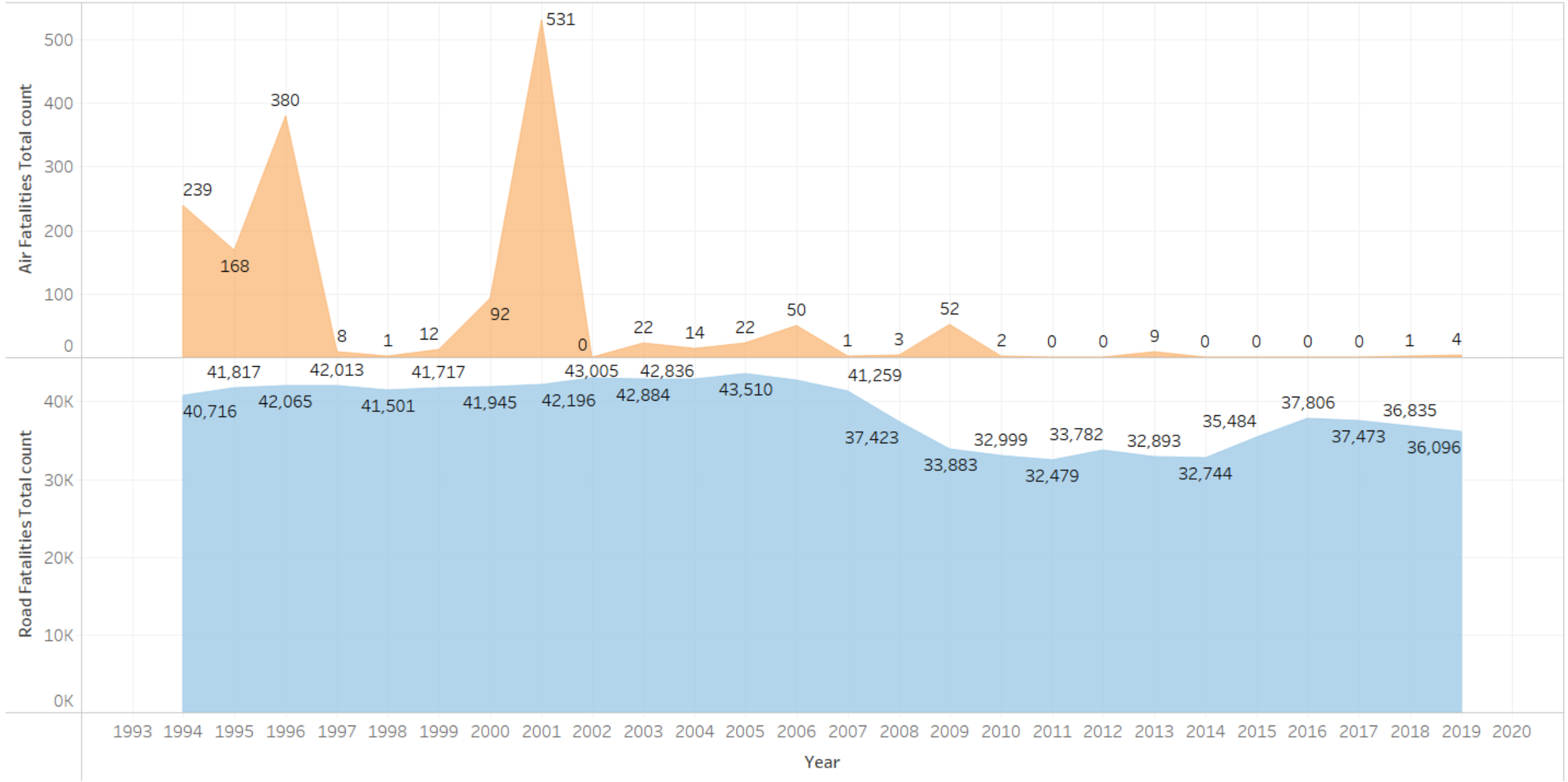
Pushkar Chougule

T-301

Airline Safety - Fact Checks parameters

- Fatalities comparison - Air Travel vs. Road Travel in US (1994 – 2019)
- U.S. Fatality rates per 100 million miles of travel
  Air travel vs. Road travel (1994 – 2019)
- Overall Fatalities By Modes of Transport in US (2019)
- World Airline fatalities snapshot (1985 – 2014)
- World Airline incidents and fatal accidents snapshot (1985 – 2014)
- World Airlines Traffic – Steady Increase (1984 – 2019)
- Revenue Passenger Miles – Steady and Notable increases - US and International (2002 – 2019)
- Operating Revenue – US Airlines (2000 – 2019)

US Air vs. Road Total Fatalities by year



Fatalities comparison - Air Travel vs. Road Travel in US (1994 – 2019)

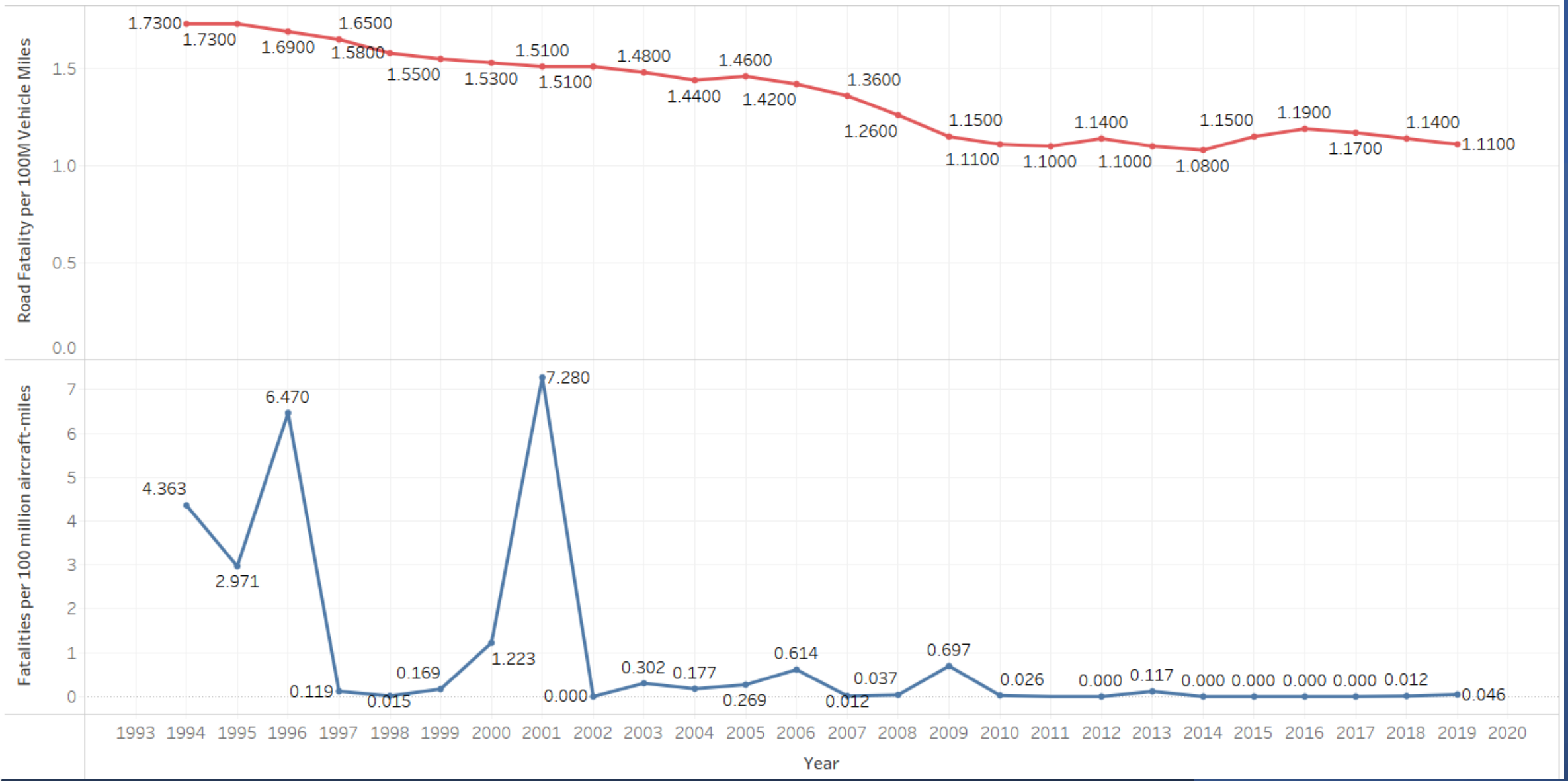
Much lower fatalities for Air travel in U.S.

- The peak of 531 back in 2001
- The declining trajectory ever since and near 0 counts in recent years until 2019

Fairly higher fatalities for Road travel in U.S.

- The peak of 43510 back in 2005
- Still lingering around 36,000+ up until 2019

US Air vs. Road Fatalities / 100M miles



U.S. Fatality rates per 100 million miles of travel Air Fatalities vs. Road fatalities

Much lower fatalities rates per 100 millions of aircraft miles for Air travel in U.S.

~99.45%

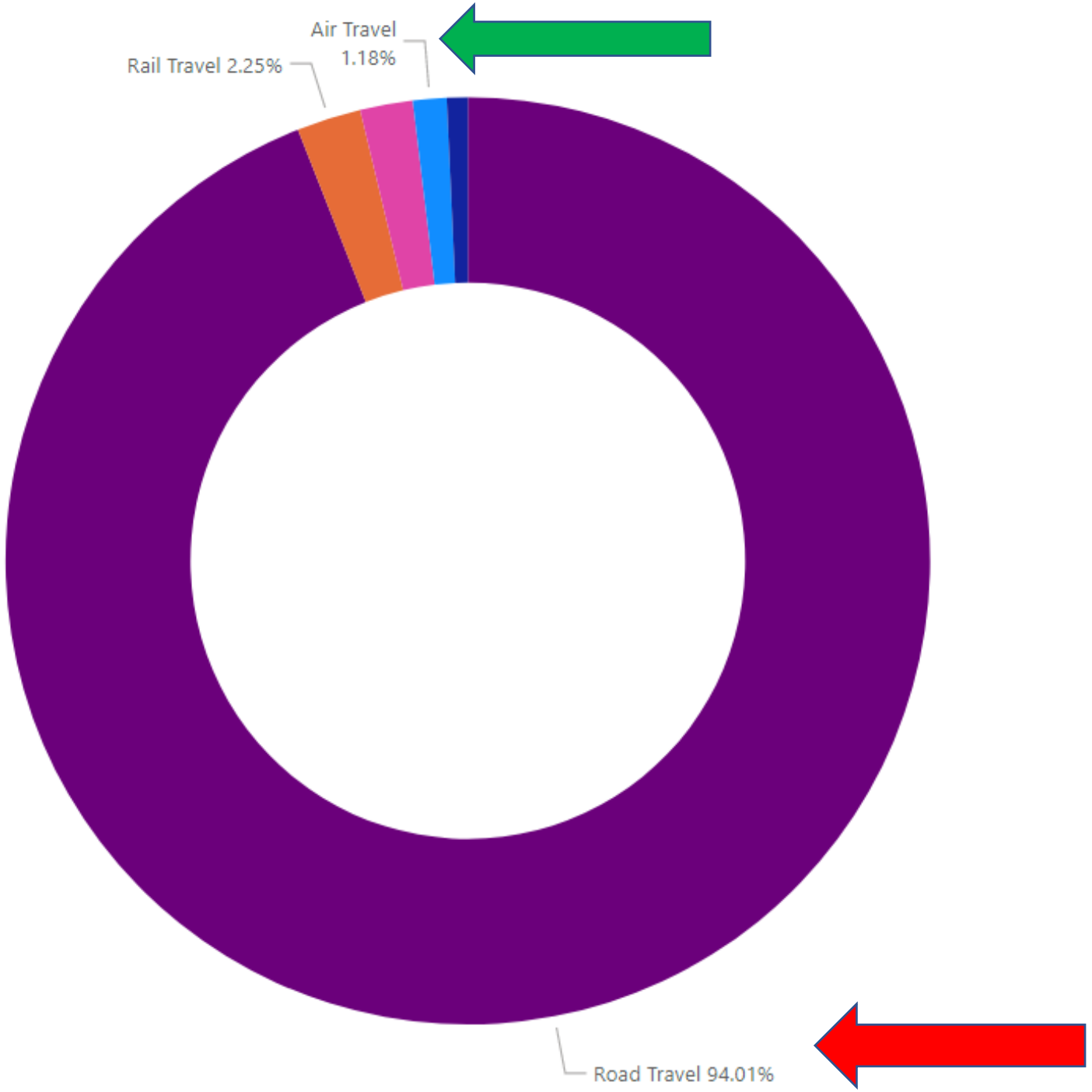
- The peak of 7.28 back in 2001
- The declining trajectory ever since and near 0 rate in recent years 2019

Relatively higher fatalities per 100 millions vehicle miles for Road travel in U.S.

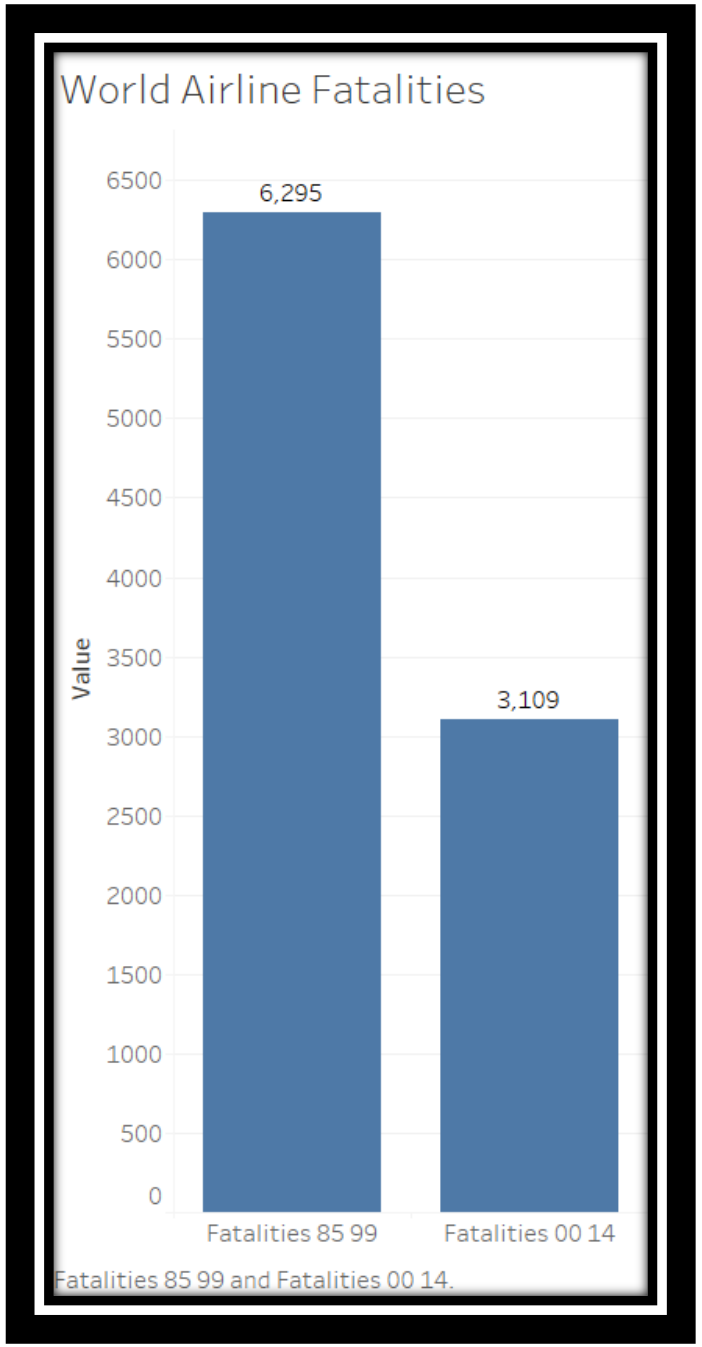
- The peak of 1.73 back in 1994
- Has only managed to come down up to 1.11 until 2019

~35.84%

Overall Fatalities by Modes of Travel – US (2019)

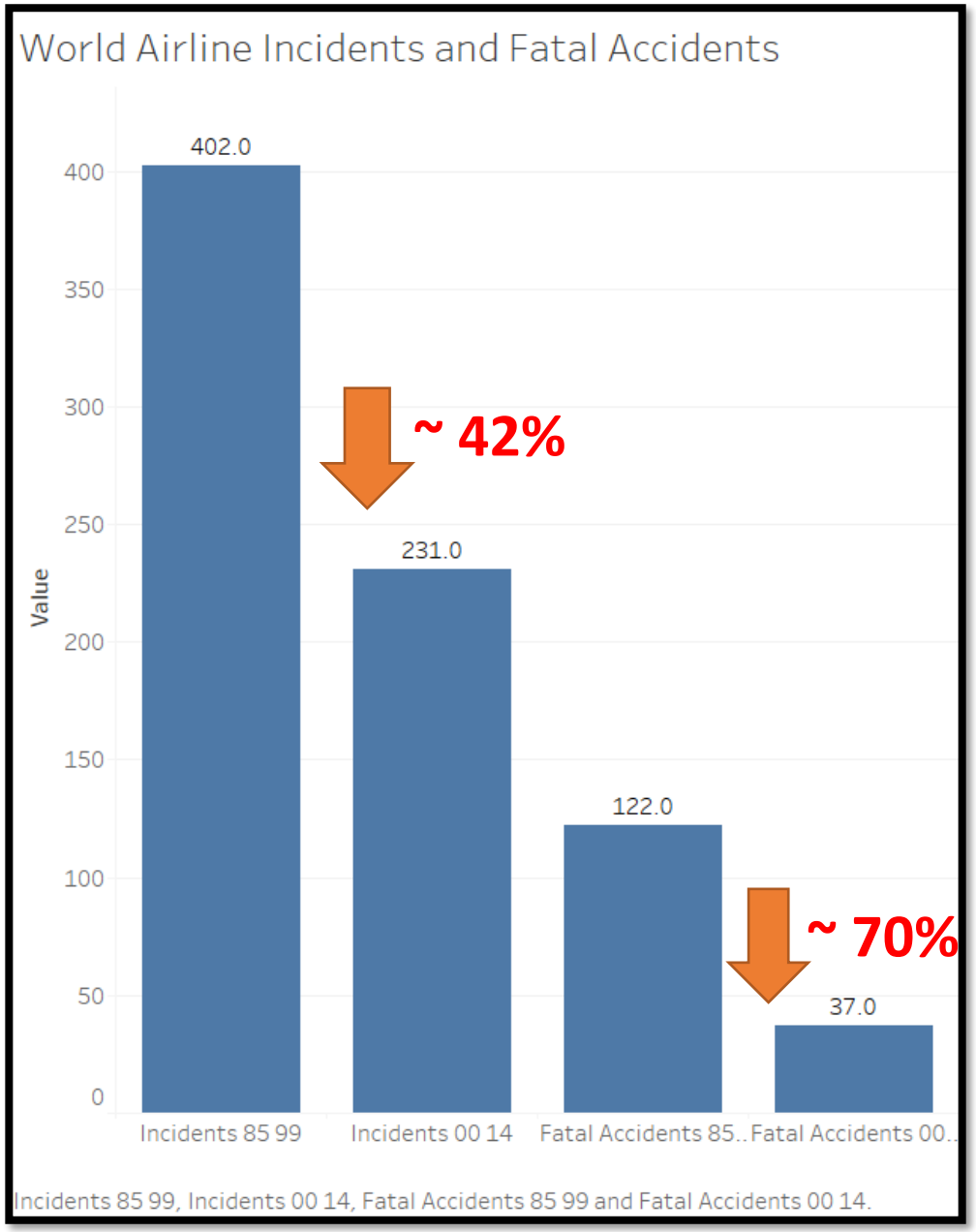


World-wide Airlines Fatalities – Reduction in fatalities by 50% (1985 – 1999 vs. 2000 – 2014)

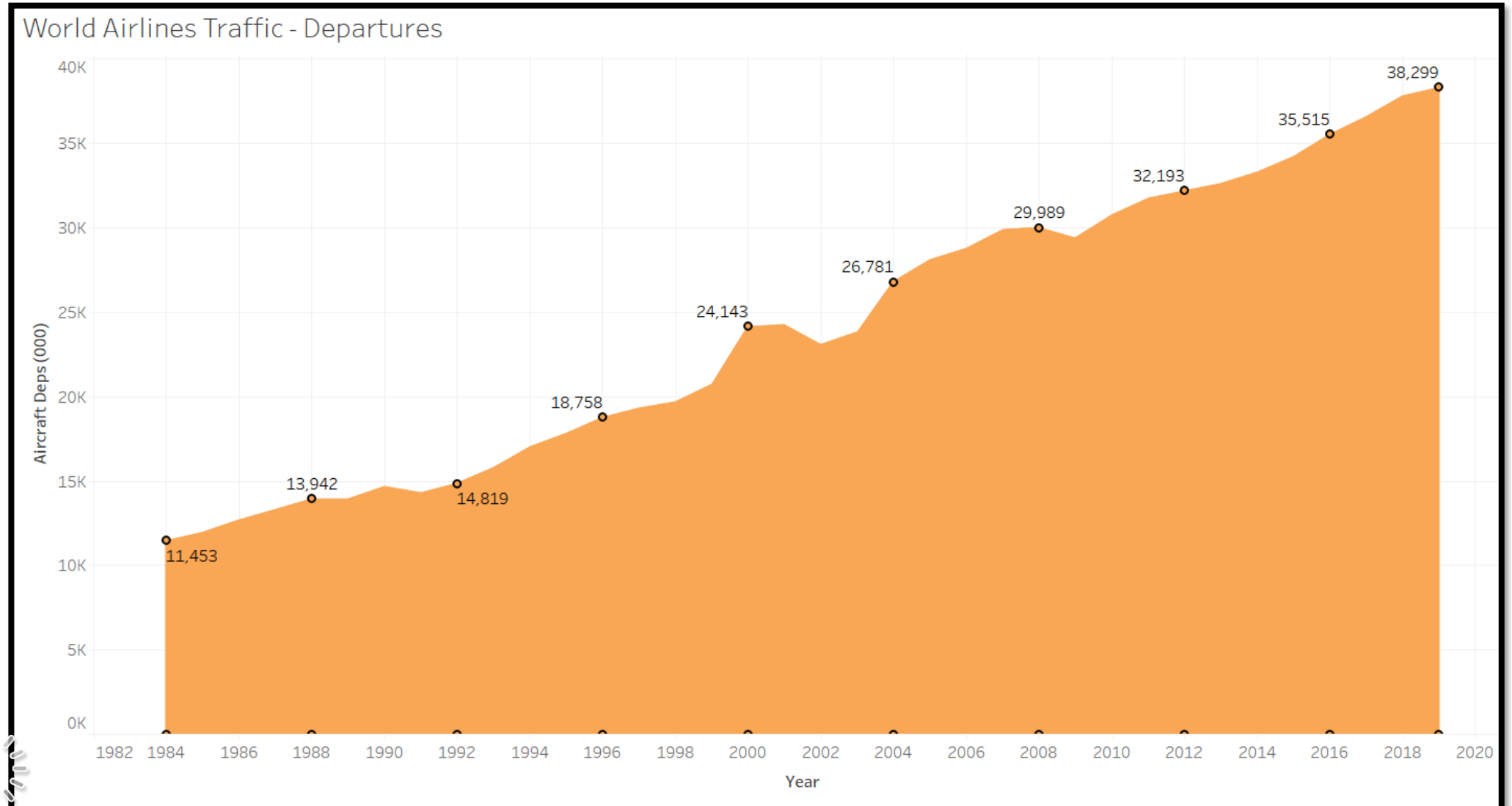


~ 50%

World-wide Airlines Incidents and Fatal Accidents – Huge Reductions (1985 – 1999 vs. 2000 – 2014)

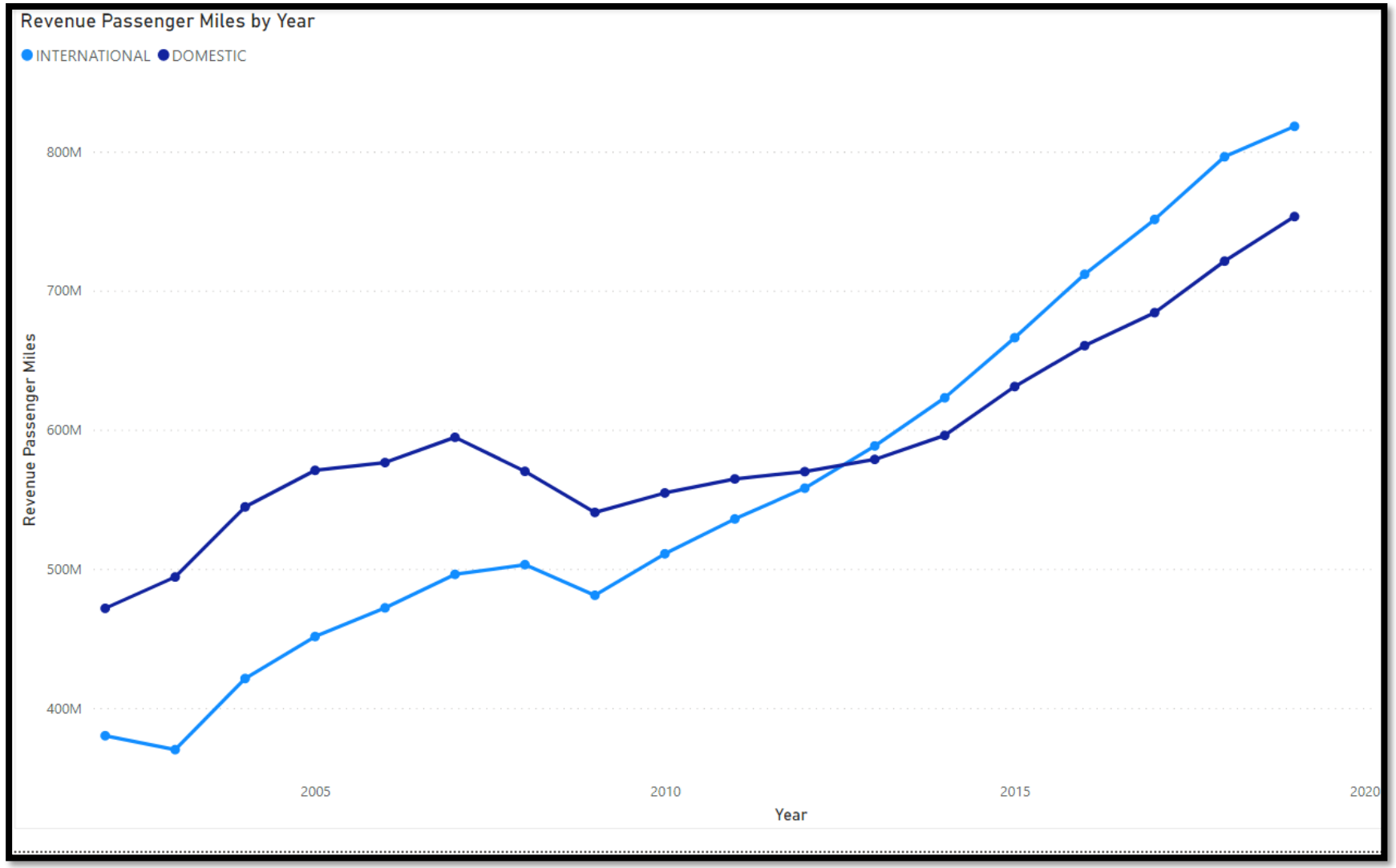


World Airlines Traffic - Steady increase (1984 – 2019)

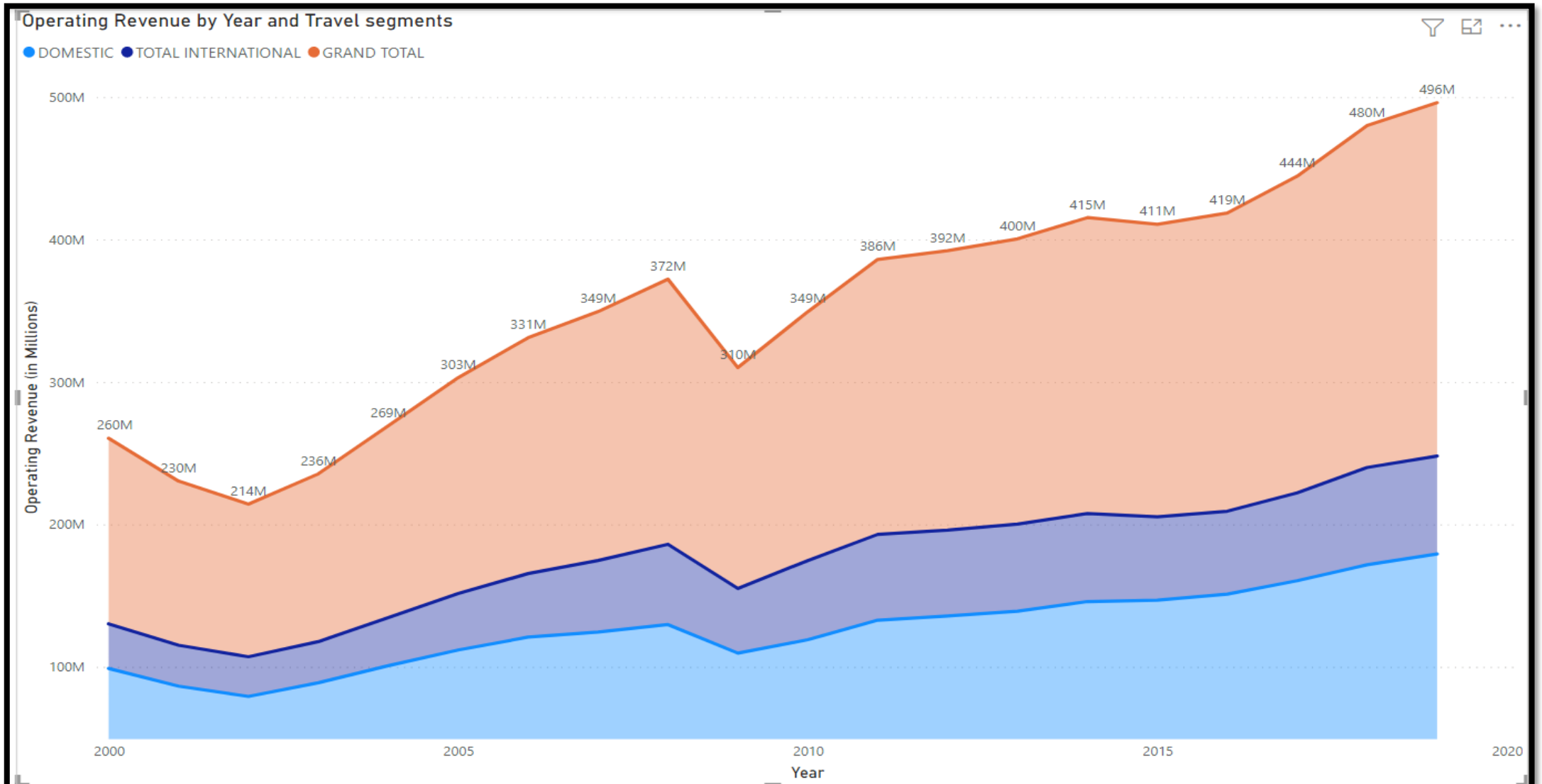


More than 3-fold increase

Revenue Passenger Miles – US Airlines (2000 – 2019)



Operating Revenue – US Airlines (2000 – 2019)



Conclusion : Air Travel is Safe

- The information highlights the higher safety in Air travel as compared to Road travel – when it comes to total fatalities or the fatality rate per 100 million miles of travel
- US Fatalities data for the different modes of Travel indicates Air Travel is the safest amongst all
- World Airline Data Confirms huge decreases in the fatalities counts, which is accompanied by reduction in adverse incidents and fatal incidents
- The World-wide airline traffic is steadily increasing at the same time
- The increase in Airline operations is reflected in the sizeable increases in the Revenue Passenger Miles and Operating Revenues over the years

References

- fivethirtyeight/data. (n.d.). GitHub. https://github.com/fivethirtyeight/data/tree/master/airline-safety
- Fatality Analysis Reporting System (FARS), FHTSA. https://www-fars.nhtsa.dot.gov/Trends/TrendsGeneral.aspx
- https://www.bts.gov/content/us-air-carrier-safety-data
- https://www.airlines.org/dataset/world-airlines-traffic-and-capacity-2/
- https://www.bts.gov/content/transportation-fatalities-mode
- https://www.transtats.bts.gov/Data_Elements.aspx?Qn6n=G

BON
VOYAGE