



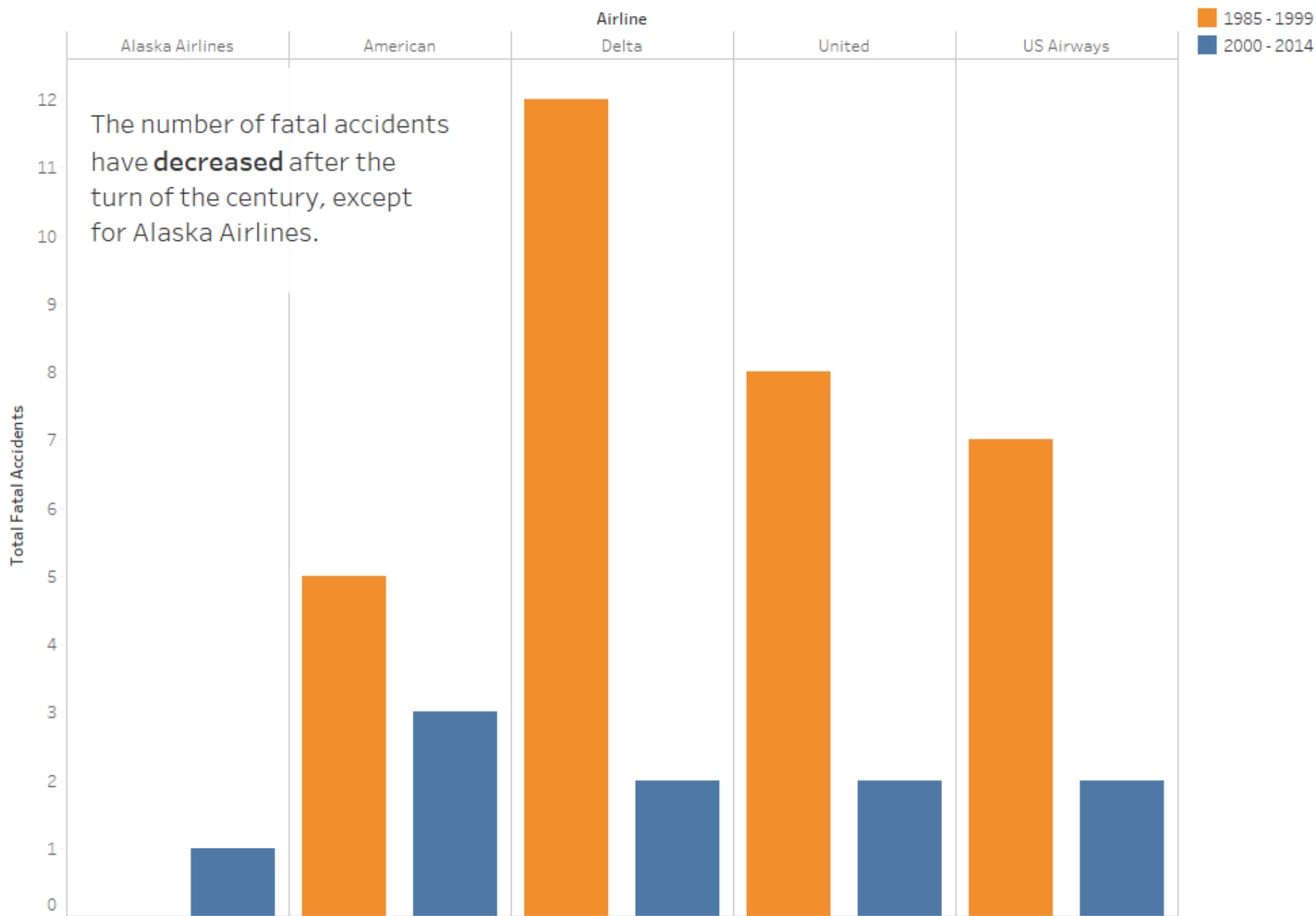
Airline and Traffic Safety: An Analysis

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Criticisms of Airline Safety

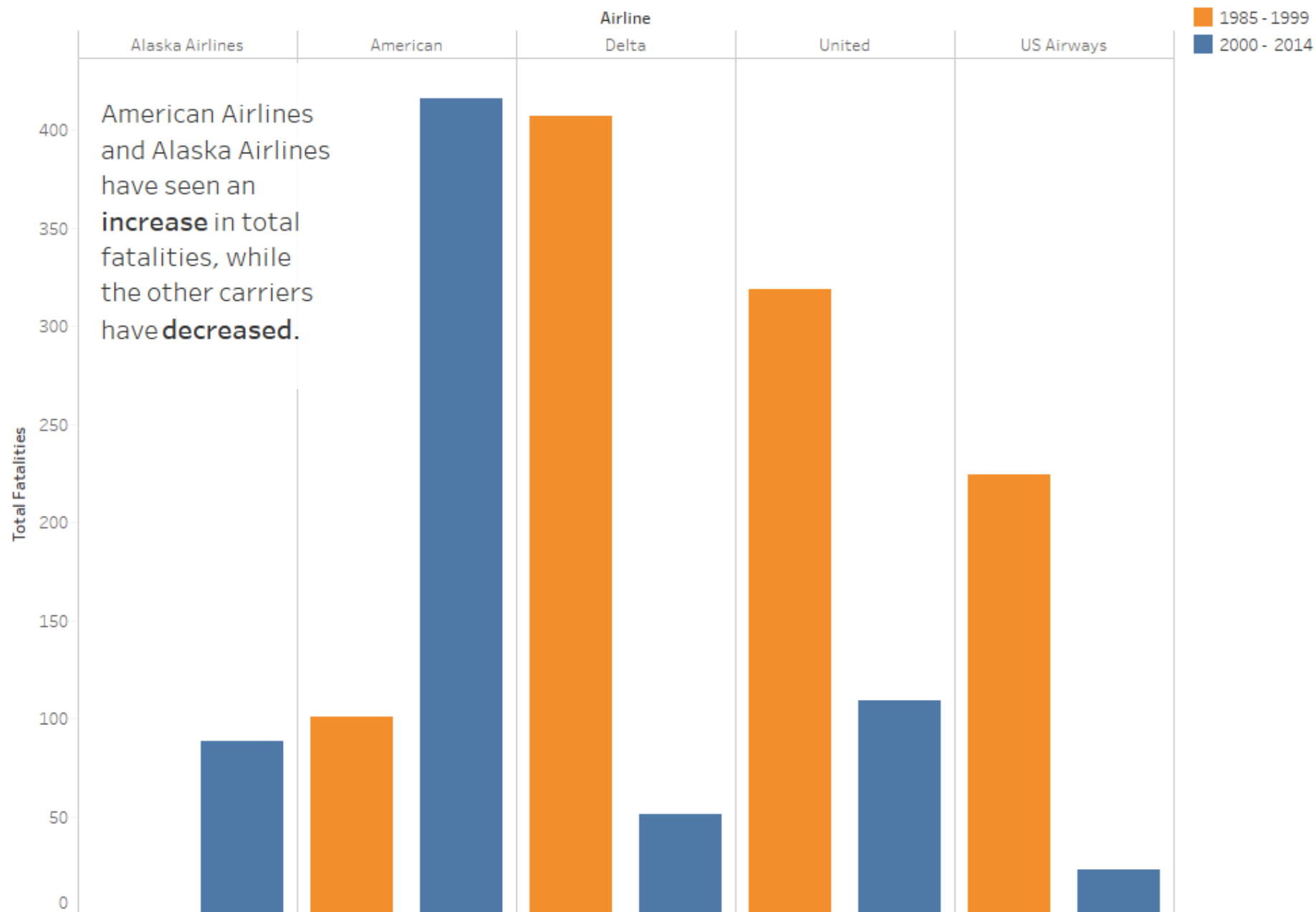
- Recent media reports are raising alarm about an **increase** in airline incidents and fatalities.
- Situation is dynamic and evolving and data supports that airline safety appears overall has **improved** (with exceptions).
- Data team has evaluated current statistics regarding airline incidents and fatalities, vehicle fatalities, and current economic impacts on revenue and growth.
- Primary comparisons for airline safety are between the periods of 1985 – 1999 and 2000 – 2014.

US Airline Fatal Accidents



Source: Aviation Safety Network <https://aviation-safety.net/>

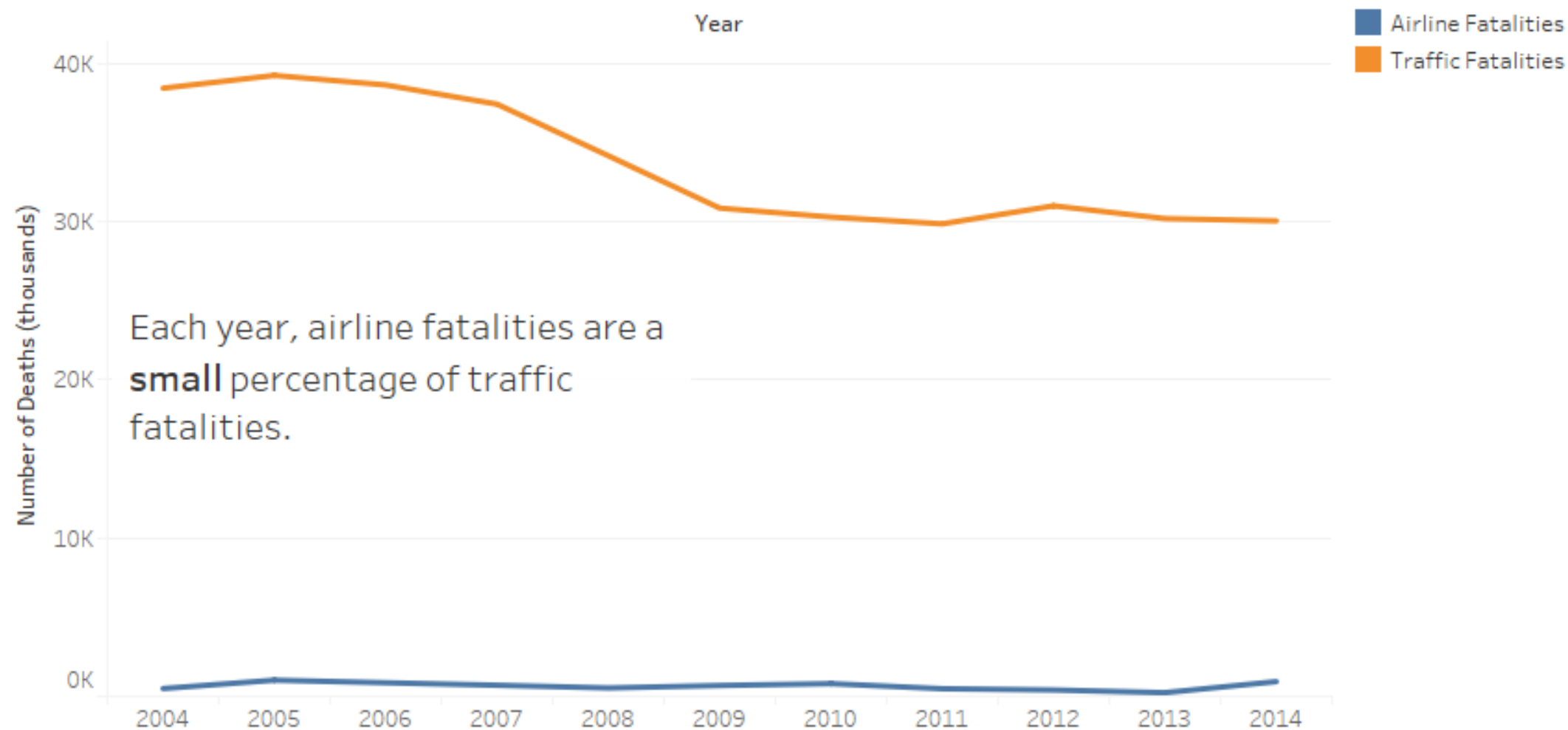
US Airlines Total Fatalities



Worldwide Fatal Accidents and Airline Capacity



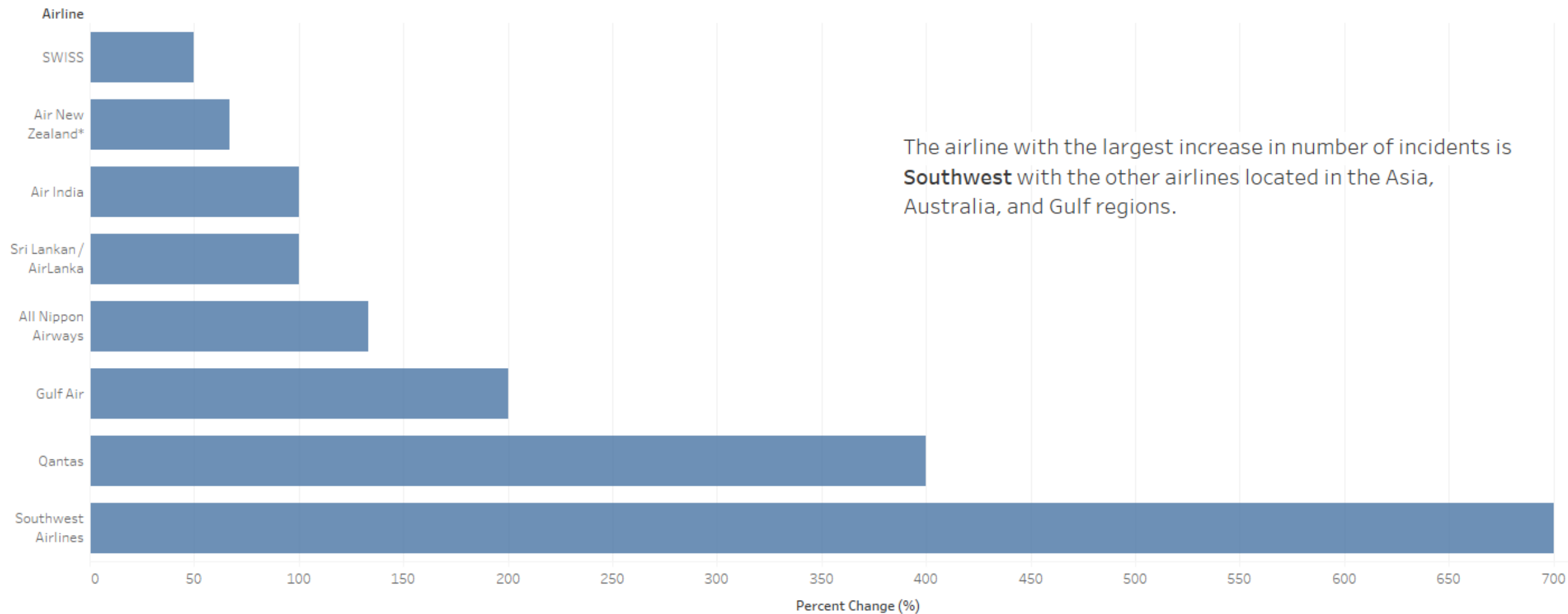
Comparison of US Airline and Traffic Fatalities (2004 - 2014)



Sources:

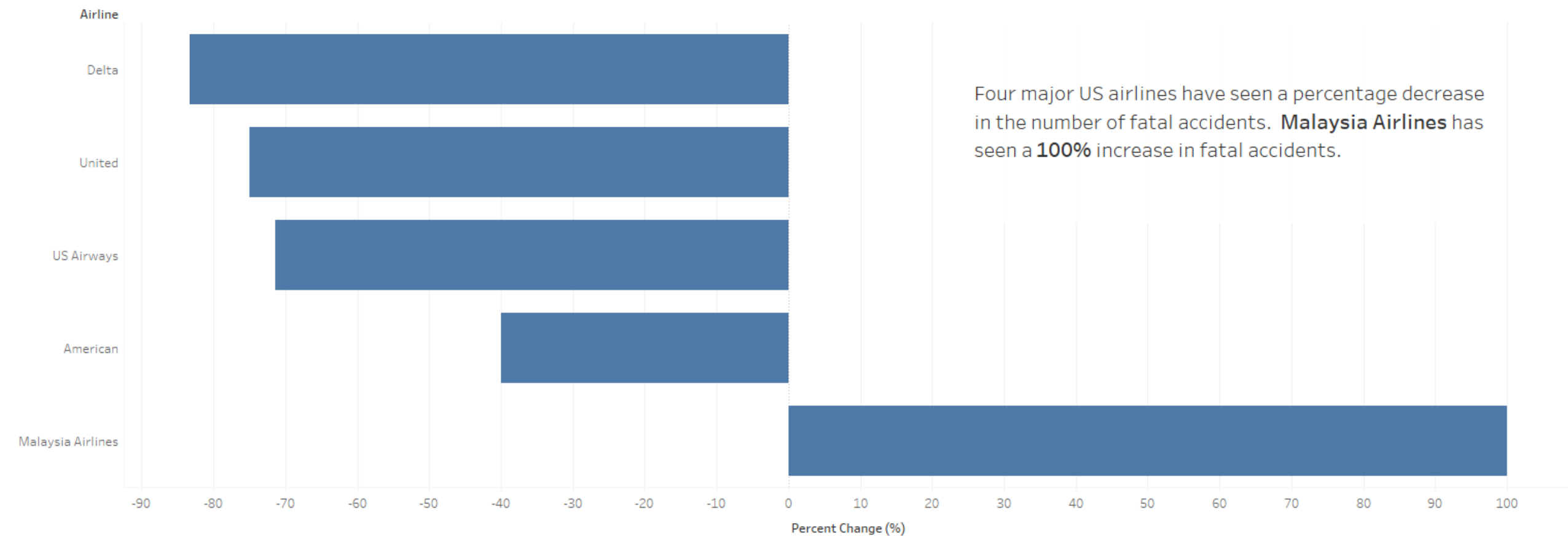
1. The Aviation Safety Network Database (<http://aviation-safety.net>)
2. NHTSA Motor Vehicle Crash Data, Fatality Analysis Reporting System (FARS): 2004-2017 and 2018 Annual Report File

International Airlines With An Increase In Incidents After 2000



Source: Aviation Safety Network <https://aviation-safety.net/>

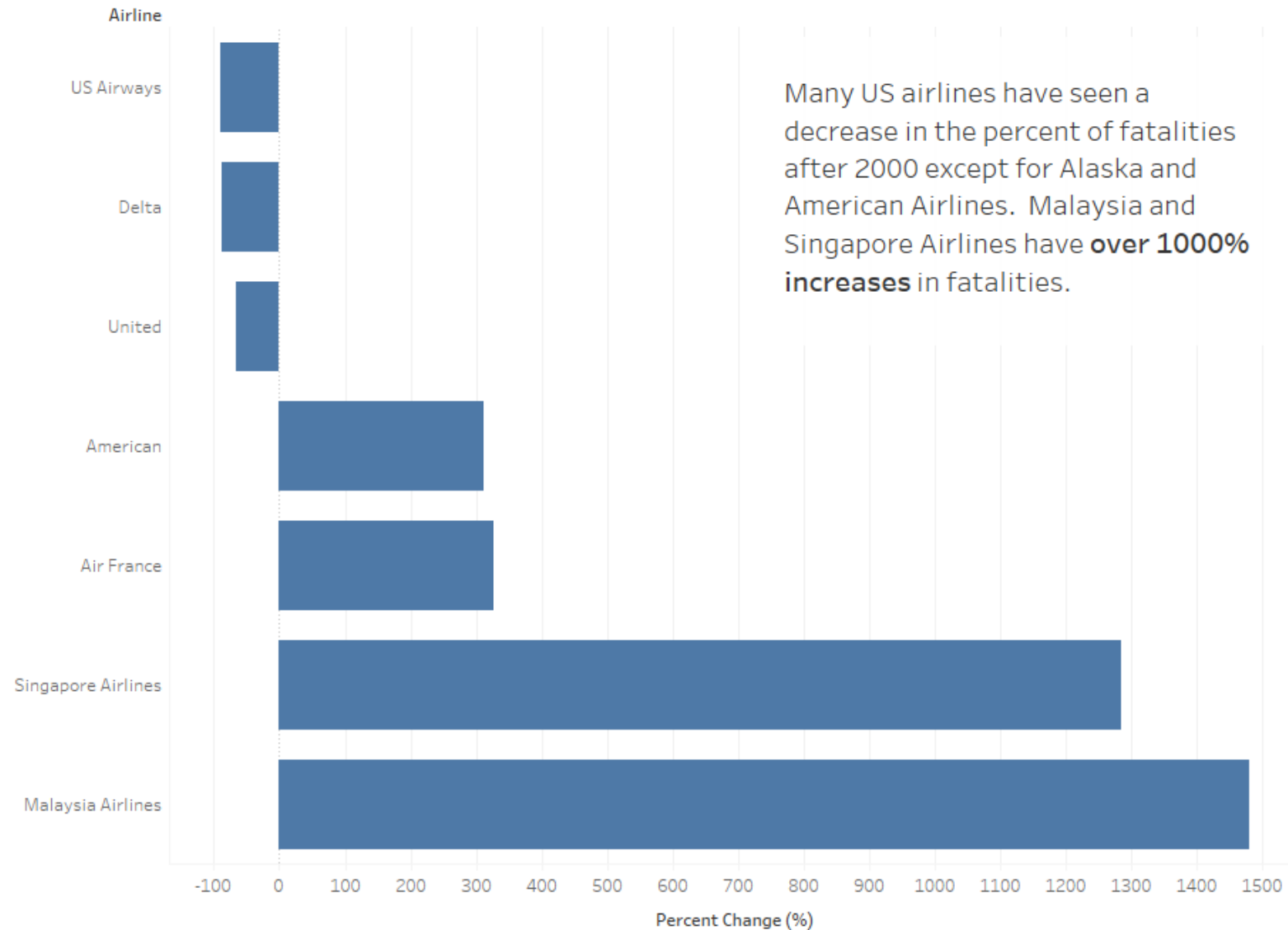
US Airlines Change in Fatal Accidents Vs. Malaysia Airlines After 2000



* Alaska and Southwest Airlines were excluded due to having zero crashes in the previous period making calculation undefined.

Source: Aviation Safety Network <https://aviation-safety.net/>

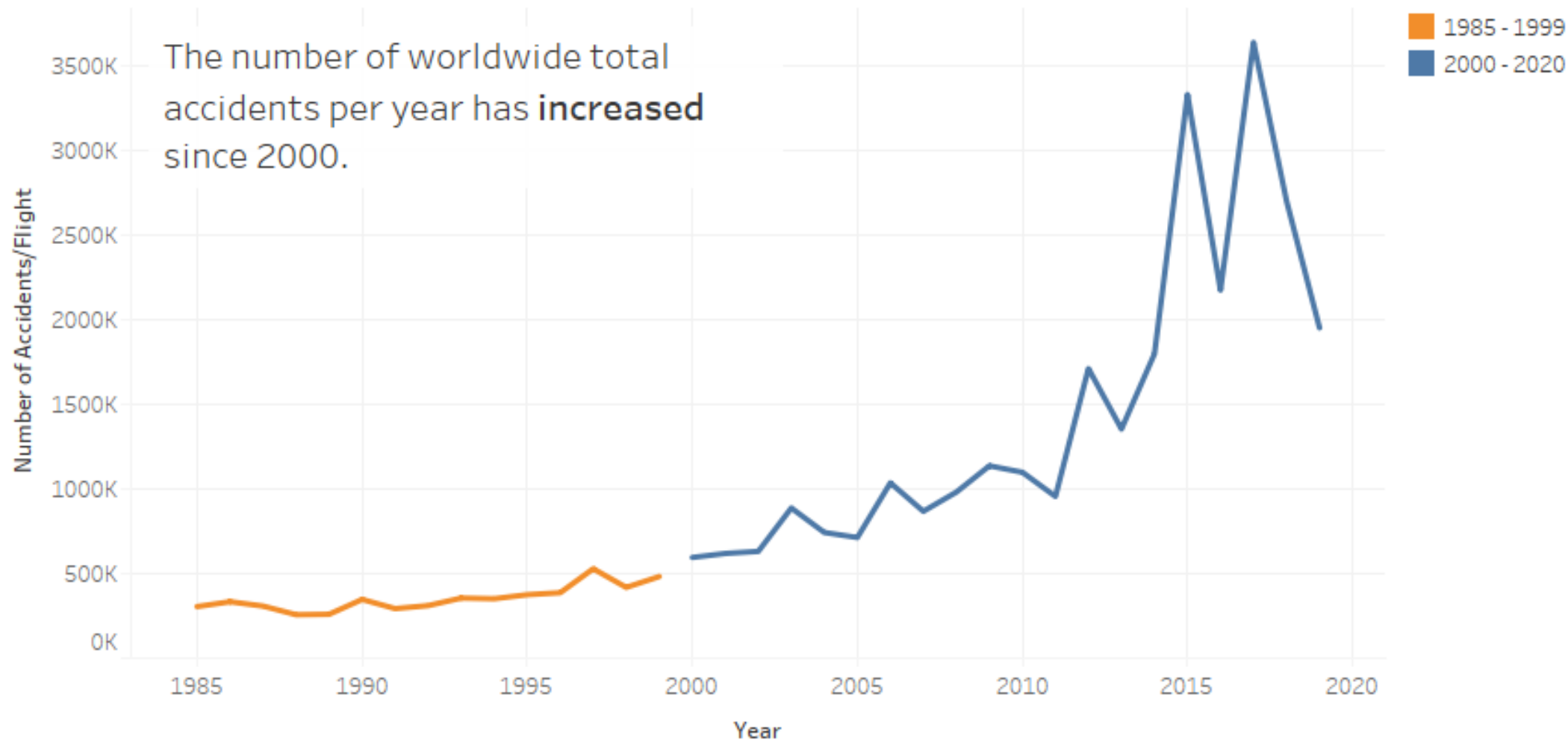
US Airlines Compared With Airlines With Largest Increase in Fatalities After 2000



* Alaska and Southwest Airlines were excluded due to having zero crashes in the previous period making calculation undefined.

Source: Aviation Safety Network <https://aviation-safety.net/>

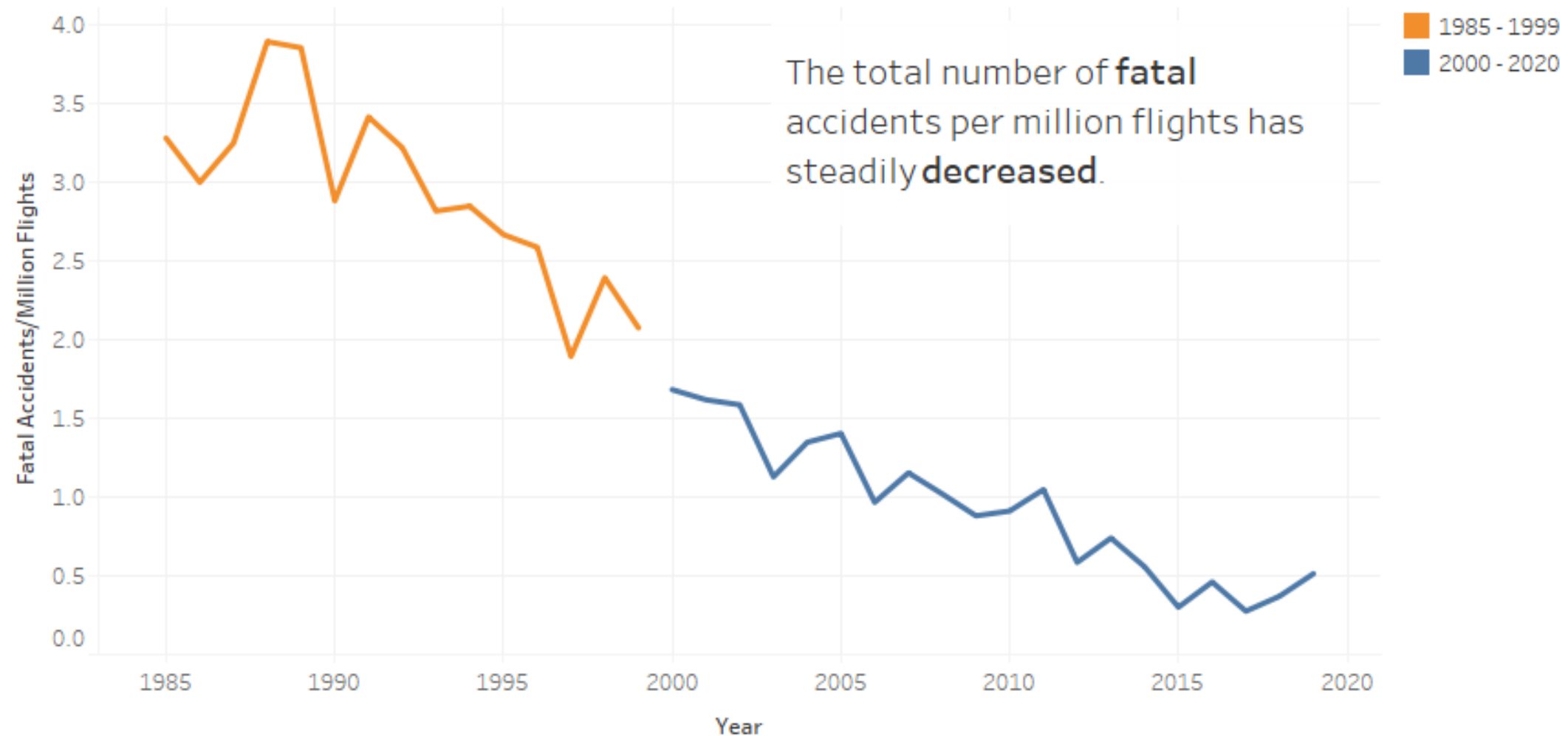
Number of Worldwide Accidents Per Flight By Year*



*This is excluding suicides, sabotage, and hijackings.

Source: The Aviation Safety Network (<http://aviation-safety.net>)

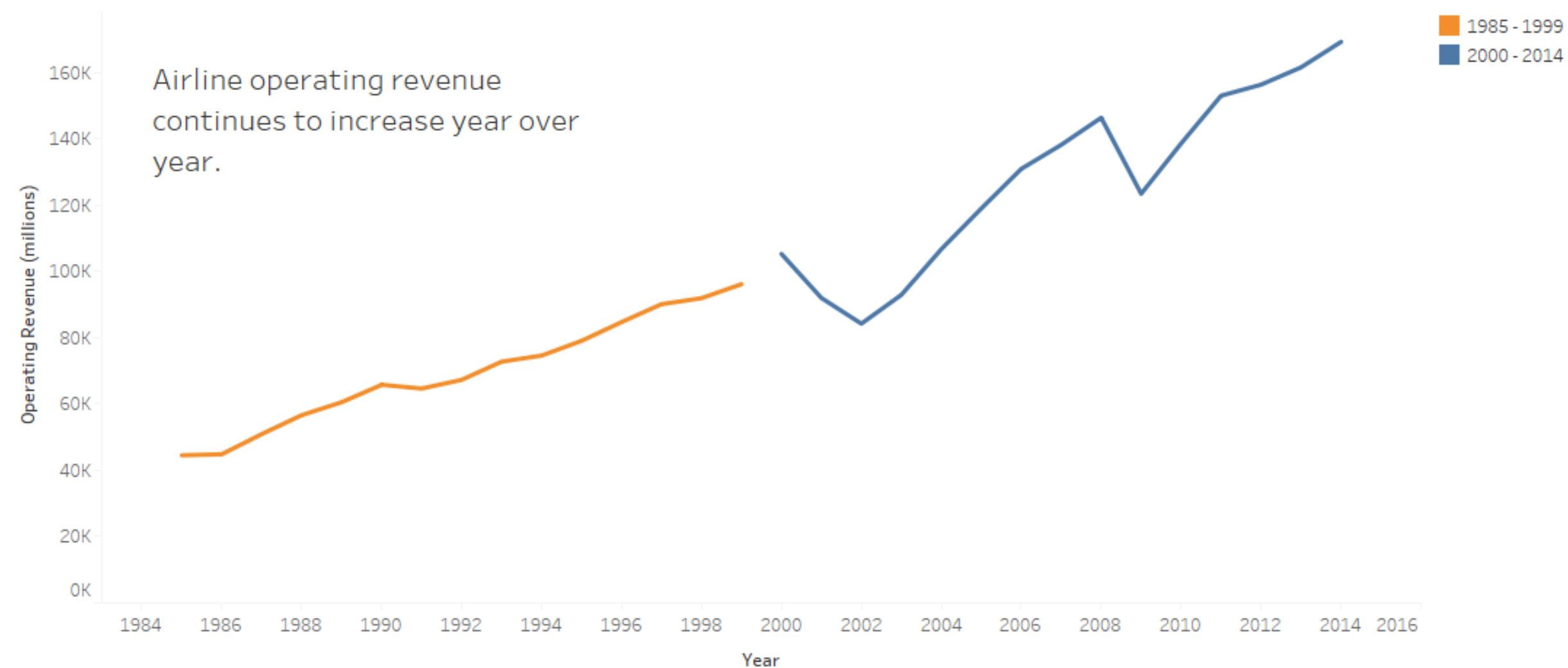
Worldwide **Fatal** Accidents Per Million Flights By Year*



*This is excluding suicides, sabotage, and hijackings.

Source: The Aviation Safety Network (<http://aviation-safety.net>)

US Airline's Annual Operating Revenue



Source: Annual Financial Results: U.S. Passenger Airlines (<https://www.airlines.org/dataset/annual-results-u-s-passenger-airlines/#>)

Economic Impacts

- Revenue has increased year over year for the entire industry.
- According to Airlines for America*, commercial aviation generates:
 - **5.1%** of US GDP
 - **>10** Million Jobs
 - **7.3%** of All US Jobs
- A significant reduction in airplane traffic and residents would have economic impacts.

Overall Findings

- Some US airlines have seen an increase in numbers of incidents, but this does not necessarily correlate with more fatalities.
- American Airlines saw a decrease in the number of fatal accidents but saw an increase in the number of fatalities. Certain fatal accidents (a large plane) could have a disproportionate impact on overall numbers.
- Southwest had a **large increase** in number of **incidents**, but **no** fatal accidents nor fatalities were reported since the year 2000.
- As airline seat kilometers per week increases (more capacity), there is a trend towards more fatal accidents however this trend has improved in recent years, **meaning as airlines get busier, they may be getting safer.**
- Many US airlines have seen a percentage **decrease** in fatal accidents.
- Airline fatalities are a **small percentage** of overall annual US traffic fatalities.
- Revenue continues to increase year over year and airlines are a **significant contributor** to both local and international economies.