

Airline Safety Dashboard – Summary

Abstract: The goal of this dashboard to show visualization of six different metrics to show airline travel is still one of the safest ways to travel.

Data Sources:

1. Main data: Airline Safety

Data for 56 airlines that were in the global top 100 as of December 2012 and which have operated continuously since Jan. 1, 1985.

Column	Details
airline	Airline (asterisk indicates that regional subsidiaries are included)
avail_seat_km_per_week	Available seat kilometers flown every week
incidents_85_99	Total number of incidents, 1985–1999
fatal_accidents_85_99	Total number of fatal accidents, 1985–1999
fatalities_85_99	Total number of fatalities, 1985–1999
incidents_00_14	Total number of incidents, 2000–2014
fatal_accidents_00_14	Total number of fatal accidents, 2000–2014
fatalities_00_14	Total number of fatalities, 2000–2014

2. Supplemental data: Car Fatalities

Column	Details
Year	Year of incident
Fatalities	Number of fatalities
Resident Population (Thousands)	Total population
Fatality Rate per 100,000 Population	Fatality rate
Licensed Drivers (Thousands)	Number of licensed drivers
Fatality Rate per 100,000 Licensed Drivers	Fatality rate per licensed driver
Registered Motor Vehicles (Thousands)	Number of registered vehicles
Fatality Rate per 100,000 Registered Vehicles	Fatality rate per registered vehicles

Fatality Rate per 100 Million VMT	Fatality rate per 100 M
Vehicle Miles Traveled (Billions)	Vehicle miles traveled in that year

3. Supplemental data: Airlie Fatality by Year

Column	Details
Year	Year of incident
Fatalities	Number of fatalities
Rank	Ranking based on highest number of fatalities

4. Supplemental data: Aviation Safety Network Statistics

Column	Details
Country	Country
accidents	Number of accidents
fatalities	Number of fatalities
Ground fatalities	Number of fatalities at ground

Overview:

The primary goal is to show the trend of the airline crashes to show that the airline travel is safe today compared to early days of airline travel. I have also used auto crash data to show how low the airline crash fatalities are compared to the auto crash fatalities.

I have also run the dashboard through the color-blind simulator website to make sure color-blind people don't have any difficulty in reading the dashboard.

I have two bar charts in the dashboard. One bar chart is to show flight accident counts at geographical level. The chart on the right shows top 10 airline fatalities.

Dashboard also contains two scatter plots that compare the fatal accidents and fatalities comparison between early days (1985-99) and recent days (2000-2014). It shows count of fatal accidents and fatalities have reduced in recent years.

Dashboard also contains two-line charts that compare car and airlines fatalities between 1994 till 2018. This shows airline fatalities are less as compared to car fatalities, also airline fatalities were high in 1994 and it is going downwards since then.

Reference:

Airline Fatality by Year.xlsx - Downloaded from <http://www.baaa-acro.com/statistics/death-rate-per-year>, found from one of the supporting links provided.

Car Fatalities.XLS - Downloaded from <https://www-fars.nhtsa.dot.gov/Trends/TrendsGeneral.aspx>, found from one of the supporting links provided.

Geographical Data - https://aviation-safety.net/statistics/geographical/worst_geo_loc.php

Color blindness simulator :

<https://www.color-blindness.com/coblis-color-blindness-simulator/>

Github: <https://github.com/saurabhbiswas1985/DSC640>