

Airline Safety Dashboard – Executive Summary

Abstract: The Goal of this exercise is to prepare a presentation for executive summary related to airline safety.

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

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.

Slide 4 & 5 shows the airlines fatalities are reducing as compared to car fatalities in recent years (after year 2000). So, airline travel is still very safe as compared to car travel in recent years.

Slide 2 & 3 shows the airlines fatalities are reducing in recent years with the advancement of technology. It's one of the safest modes of travel in recent years.

This will also show that some airlines are safe to travel as compared to others. These safe airlines have limited number of fatalities even though the kilometer flown is high as compared to others. Slide 6 shows the top 5 airlines that have less fatalities per kilometer flown. These airlines are safe to travel as compared to others.

Slide 7 shows the comparison between airline incidents vs fatalities between 2000-14. Few airlines have lower number of incidents, but higher number of fatalities. Few airlines have both of these numbers are high. So, it's safe to say avoid these airlines.

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.

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