Student: Alan Danque
Class: DSC 640
Professor: Anthony Armstrong
Git repository: https://github.com/adanque/DSC640/tree/master/Task3-BlogPost
Blogger URL: https://adanque.blogspot.com/2020/10/fictious-airways-commited-to-flying.html

Fictious Airways – Committed to flying safer.

Fictious Airways is a world class airline serving domestic and international flights around the globe. To and from destinations including but not limited to the United States to Europe, Asia, and Africa. In the recent months, Fictious Airways has been faced with a sudden decline in air travel due to customer churn as safety concerns became paramount after a report of historical airplane crash fatalities, their locations and the company's current survival rate has been made public. The result of this decline has caused service routes to be reduced and mass layoffs. To immediately remedy the problem, Fictious Airways decided to analyze their planes and found a list of planes with historically low survival rates below 60%. Fictious Airways also found that two of the planes we more than 30 years old and one was a little over 15 years old. To improve their current overall survival rate of 50% they decided to decommission all aircraft with a survival rate of less than 60%. With this reduction, Fictious Airways survival rate score increased to 67%. Thereby improving passenger survival should there be any future possible aircraft crashes.

To improve customer relations, Fictious Airways decided to release all information related to their analysis and plan "as publicly available" to all customers and investors. To share this good news, Fictious Airways devised a blog that displayed important information that story boarded the steps of their analysis and outcome onto an informational visual blog that can be printed onto 8.5 x 11 inch paper if needed. To structure the blog, they used a format of two columns so the try to pack as much info into the 8.5x11 inch format as cleanly as possible. And to allow for a up to down and left to right reading flow. They used a story board tactic consisting of 3 phases, with the first phase setting the stage of Fictious Airways as a world class Airline that services domestic and international flights using a map and pie charts that help mark locations on that map and give an indication of the number of crashes in those locations. The second to present the problem they are faced with being the reduction of customer flights due to client safety concerns using a bar graph of the number of flights from last year using a blue color contrasted with a lighter blue colored bar graph for the current year. Along with a red arrow pointing to the months of the reduced flight counts. And the third being their analysis and their resulting actions to improve their service. Fictious Airways felt that by using an infographic visual within their blog, it would specifically indicate when the reduction of flights occurred comparing with the months in the year prior and the current months leading to and after the air travel reduction with a red arrow pointing to the low months. It also displayed a global map identifying the amounts of crashes broken down by the model aircraft. To further break down the analysis into

each aircraft model, Fictious Airways displayed a horizontal bar graph that compared the aircraft model crash fatalities in dark blue with the number of survivors in a lighter blue with red arrows to indicate the planes identified to be decommissioned. To display the number of crashes by plane, Fictious Airways used a donut chart listing the breakdown of each aircraft model and listing the total number of crashes for all planes in the middle of the donut chart. Just below the donut, is a vertical bar graph displaying the ages of each of the aircraft models with a note on the ages of the planes and a note stating that the age of the aircraft was found to affect the survival rates again with a blue for each of the bars of the graph. To show more on the survival rate analysis, Fictious Airways displayed a table listing each aircraft model associated with color coded survival rates labeled with percentages and colors that indicate blue for good, purple transitioning from good to not so good at pink and dark red for bad followed with a total current survival rate meter below it. To further emphasize the three aircraft with lower than 60% survival rates in addition to using dark red cells, red arrows were added to highlight the targeted planes to decommission. Below the table listing the survival rate for each plane, Fictious Airways lists the specific statistics of each plane identified to be decommissioned so to make it very clear why these planes were selected for removal from service. Each of the statistics included a donut chart displaying the amount of survivors in light blue compared against the number of fatalities in a dark blue. Within the donut chart displays the total number of fatalities. Just to the right of the donut chart is a blue color fillled area chart displaying fatalities counts over a time series by year. To the right of the statistics of the three planes to decommission is an increased survival safety meter gauge to conclude improvement after removing these planes from service. Furthermore, for graph colors, Fictious Airways decided to use a pallet of mostly blue colors however, for transitional variances or categorical changes we used purple for slightly good, pink to indicate lowest acceptable value and dark reds to indicate unfavorable values. To add emphasis and to ensure to call attention to, Fictious Airways has used arrows to indicate which aircraft will be targeted for removal and indicate improvements.

Fictious Airways believes by being completely visible in their research and analysis in conjunction with their actions to improve their score card regarding survival rates, that their customers will feel safer to fly Fictious Airways.

Source:

Accidents and Fatalities Pery Year
https://docs.google.com/spreadsheets/d/1SDp7p1y6m7N5xD5_fpOkYOrJvd68V7iy6etXy2cetb8/edit#gid =1448957446

Supplemental Sources:

U.S. Department of Transportation

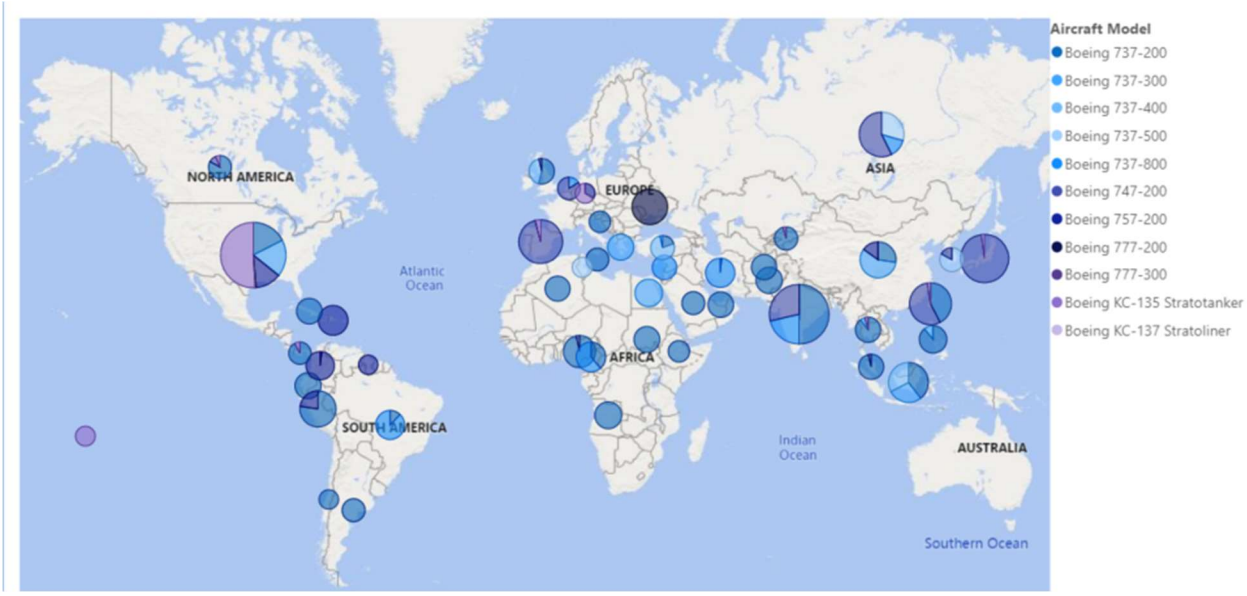
https://data.bts.gov/
https://data.bts.gov/browse?category=Aviation
https://data.bts.gov/Aviation/Commercial-Aviation-Departures/bpqk-hyst

Bureau of Aircraft Accidents Archives

http://www.baaa-acro.com/crash-archives

Blog Project Assets:
Fictious Airways

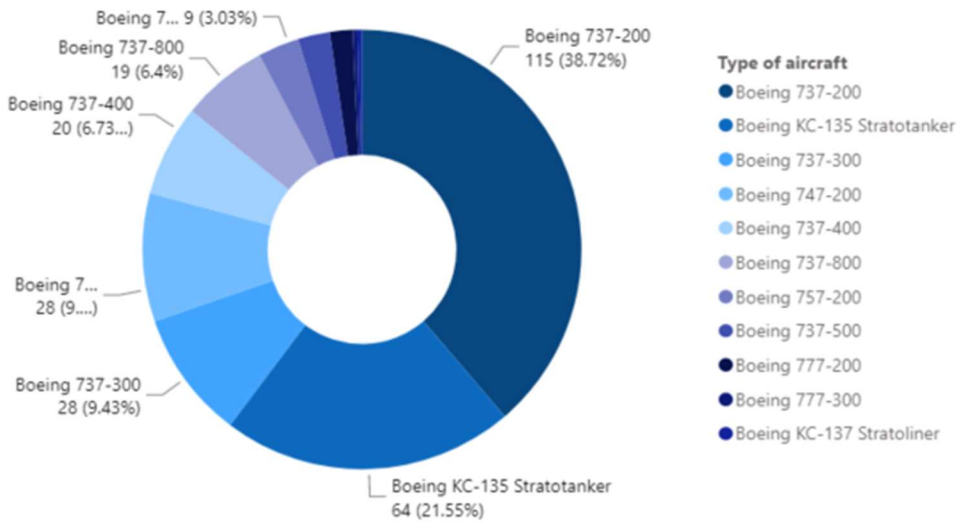
Visuals

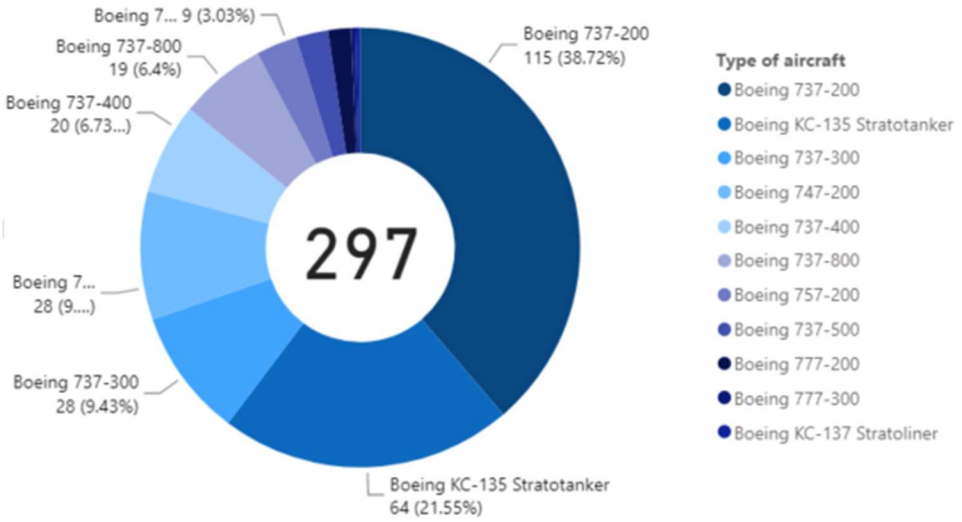


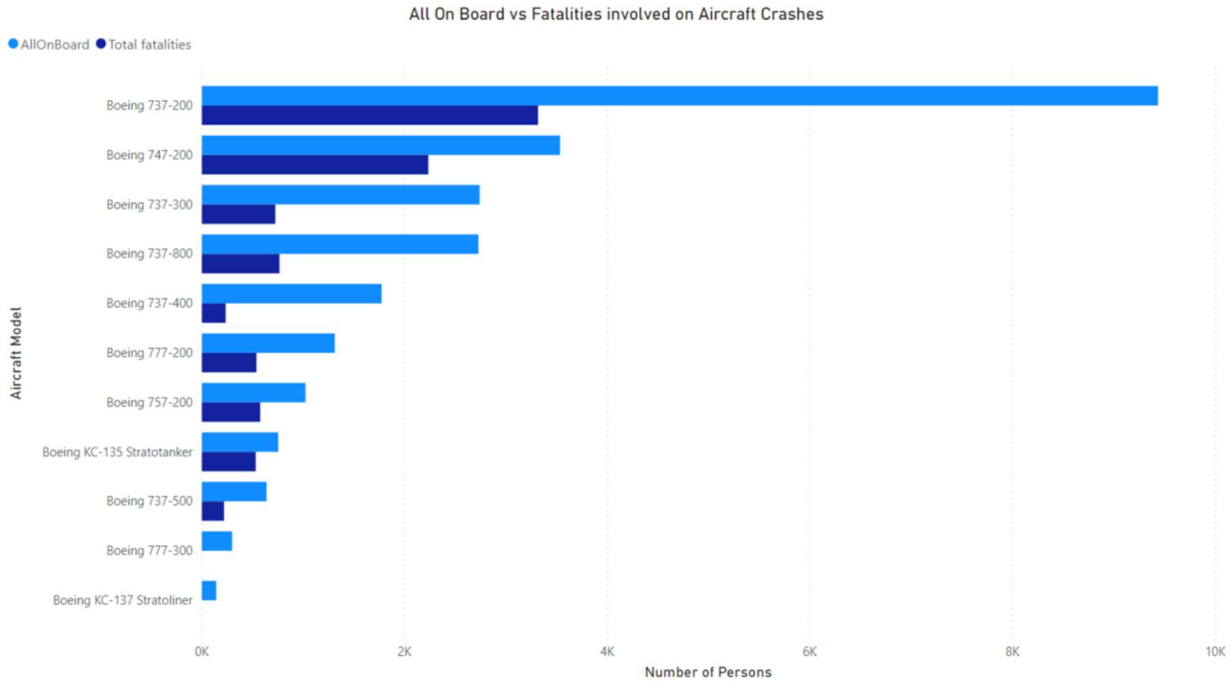
Aircraft Crash Counts

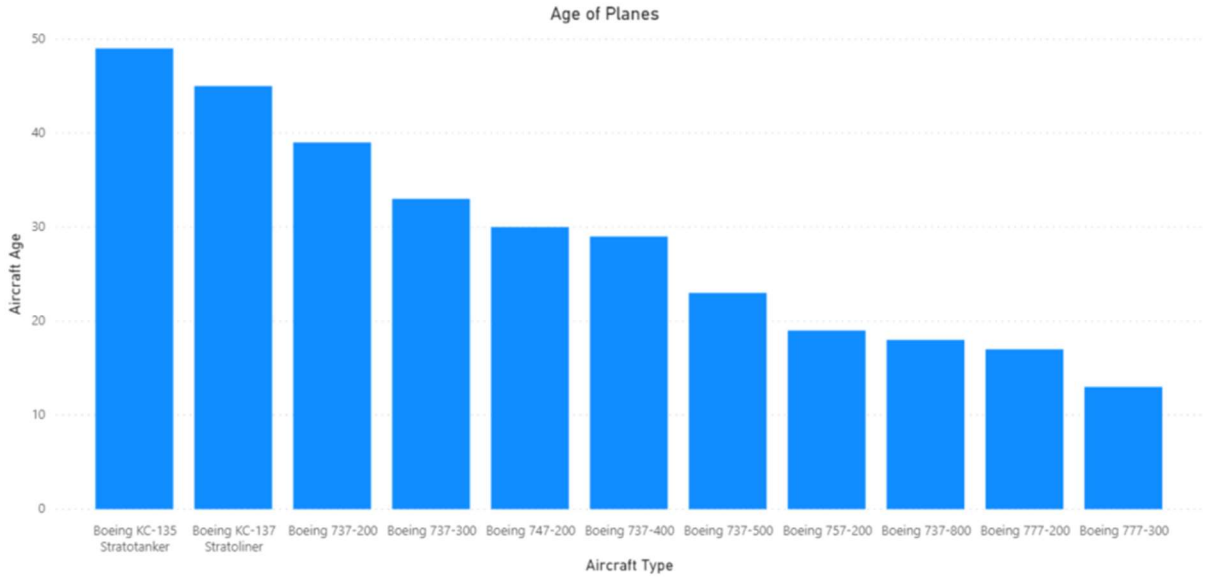
Aircraft Model	Crash Counts
Boeing 737-200	115
Boeing KC-135 Stratotanker	64
Boeing 737-300	28
Boeing 747-200	28
Boeing 737-400	20
Boeing 737-800	19
Boeing 757-200	9
Boeing 737-500	7
Boeing 777-200	5
Boeing 777-300	1
Boeing KC-137 Stratoliner	1
Total	**297**

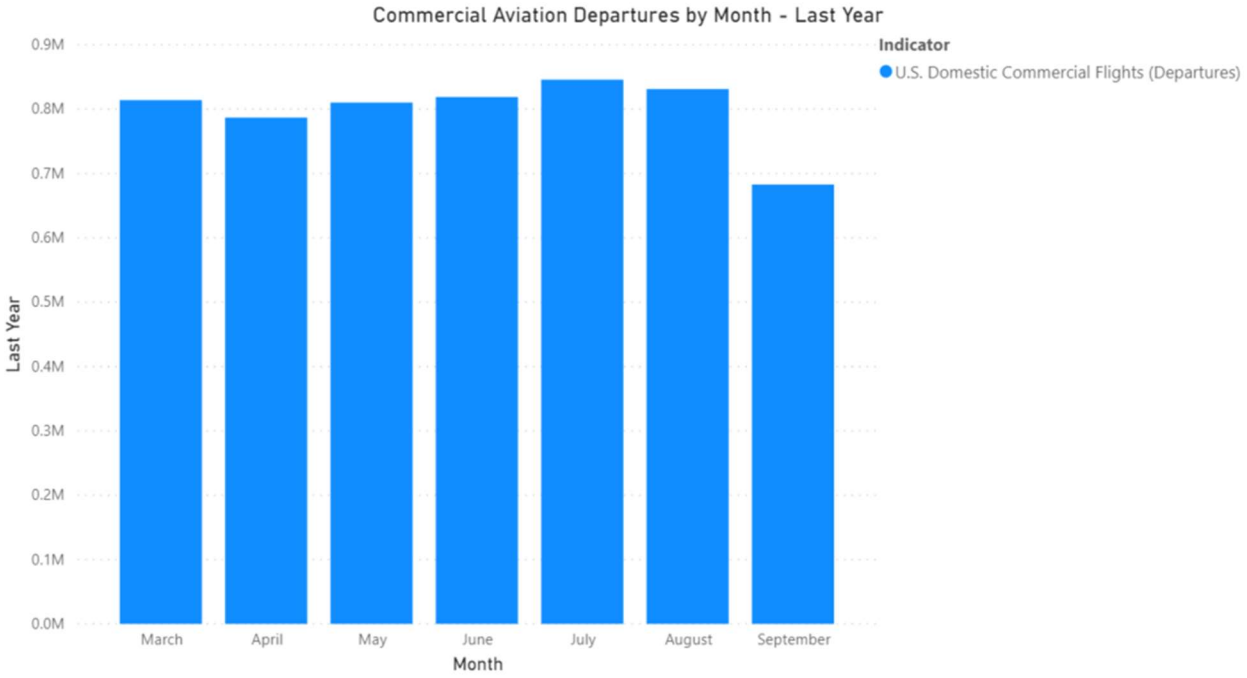
Fictious Airways - Aircraft Involved Crash Counts

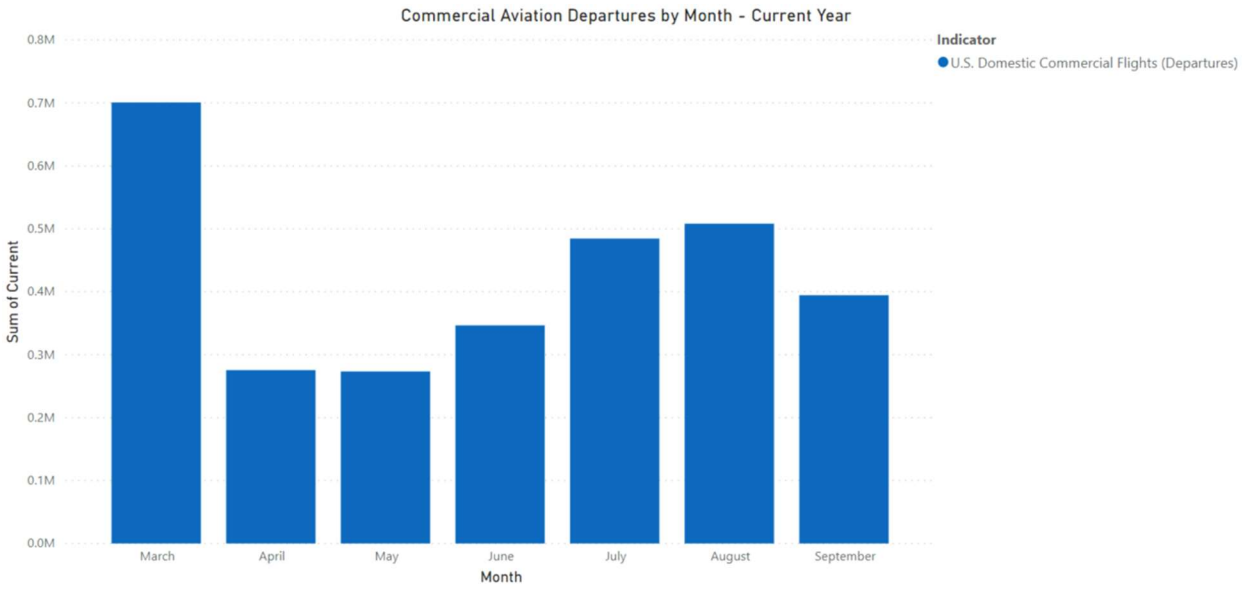



Boeing 7... 9 (3.03%)
Boeing 737-800
19 (6.4%)
Boeing 737-400
20 (6.73...)
Boeing 7...
28 (9....)
Boeing 737-300
28 (9.43%)
Boeing 737-200
115 (38.72%)
Boeing KC-135 Stratotanker
64 (21.55%)
297
Type of aircraft
Boeing 737-200
Boeing KC-135 Stratotanker
Boeing 737-300
Boeing 747-200
Boeing 737-400
Boeing 737-800
Boeing 757-200
Boeing 737-500
Boeing 777-200
Boeing 777-300
Boeing KC-137 Stratoliner


All On Board vs Fatalities involved on Aircraft Crashes
AllOnBoard
Total fatalities
Boeing 737-200
Boeing 747-200
Boeing 737-300
Boeing 737-800
Boeing 737-400
Boeing 777-200
Boeing 757-200
Boeing KC-135 Stratotanker
Boeing 737-500
Boeing 777-300
Boeing KC-137 Stratoliner
Aircraft Model
0K
2K
4K
6K
8K
10K
Number of Persons

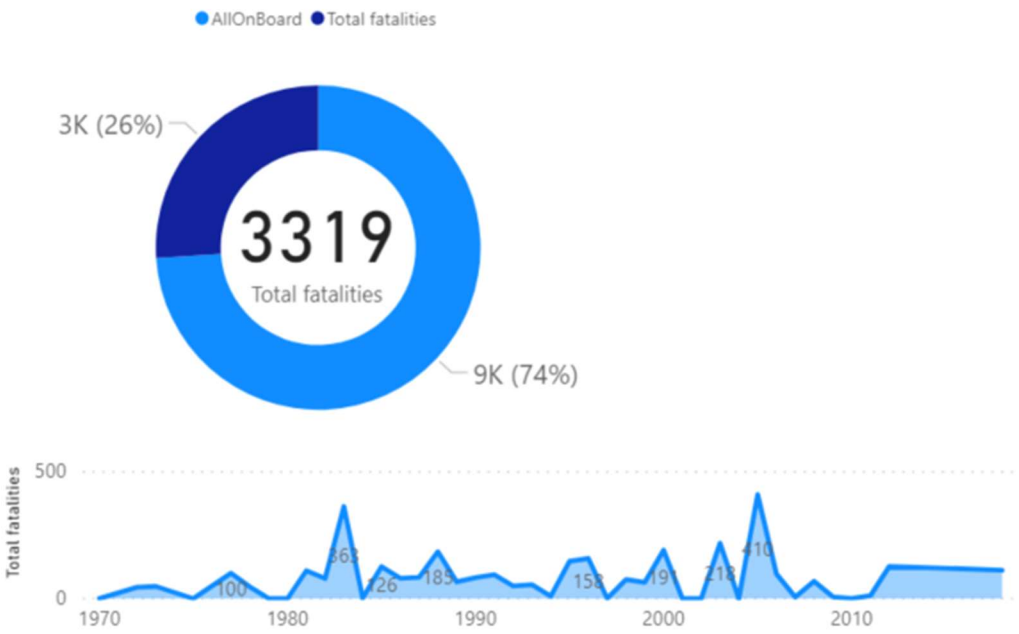

Age of Planes
Aircraft Age
50
40
30
20
10
0
Boeing KC-135 Stratotanker
Boeing KC-137 Stratoliner
Boeing 737-200
Boeing 737-300
Boeing 747-200
Boeing 737-400
Boeing 737-500
Boeing 757-200
Boeing 737-800
Boeing 777-200
Boeing 777-300
Aircraft Type


Commercial Aviation Departures by Month - Last Year
Indicator
U.S. Domestic Commercial Flights (Departures)
Last Year
0.9M
0.8M
0.7M
0.6M
0.5M
0.4M
0.3M
0.2M
0.1M
0.0M
March
April
May
June
July
August
September
Month

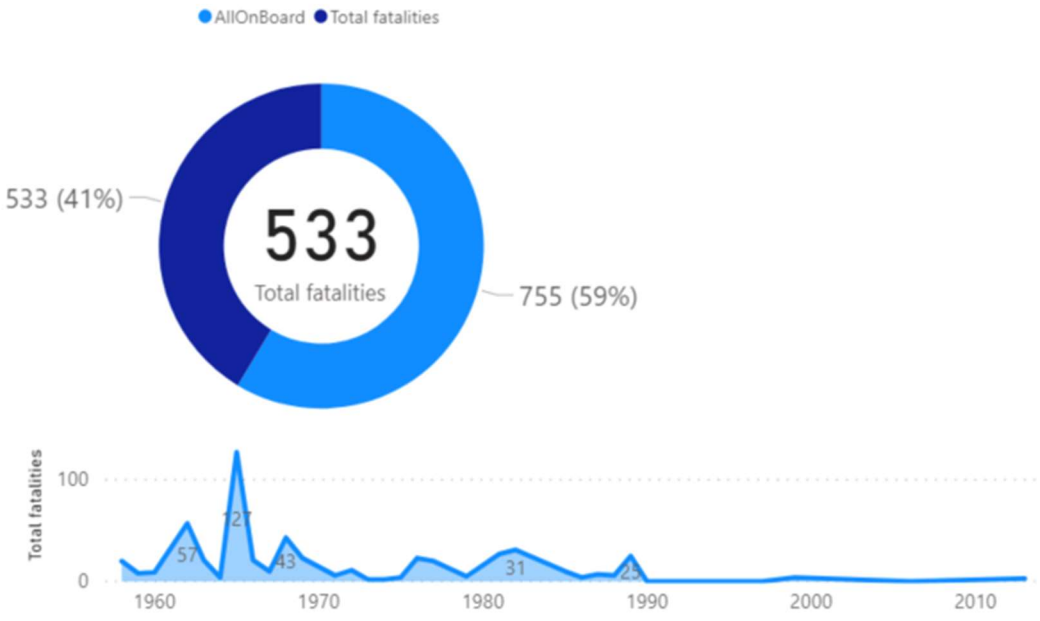


Aircraft Statistics

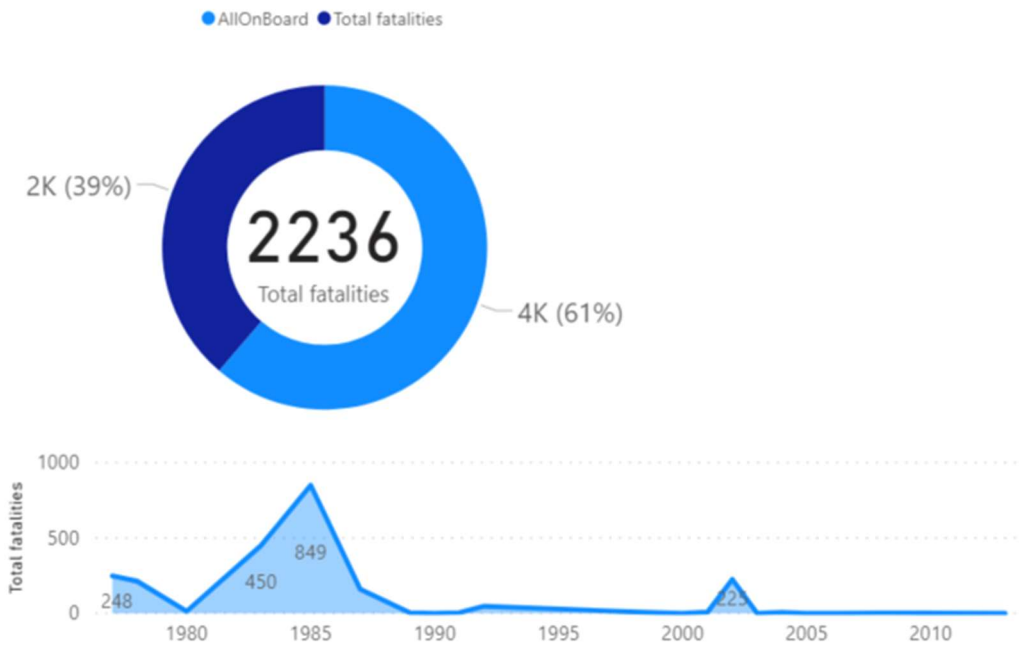
737-200



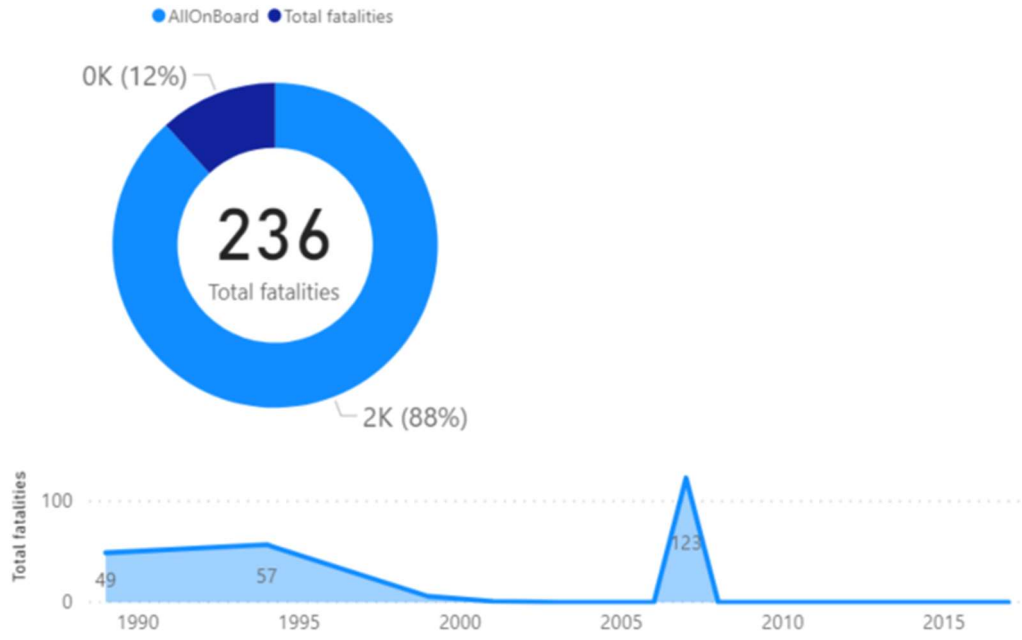
KC-135



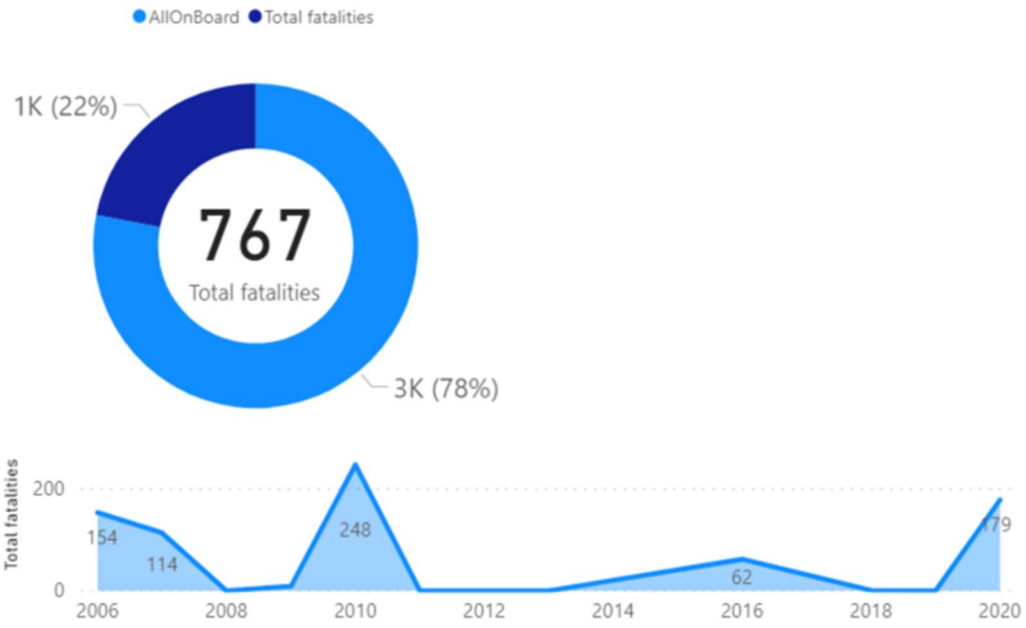
747-200



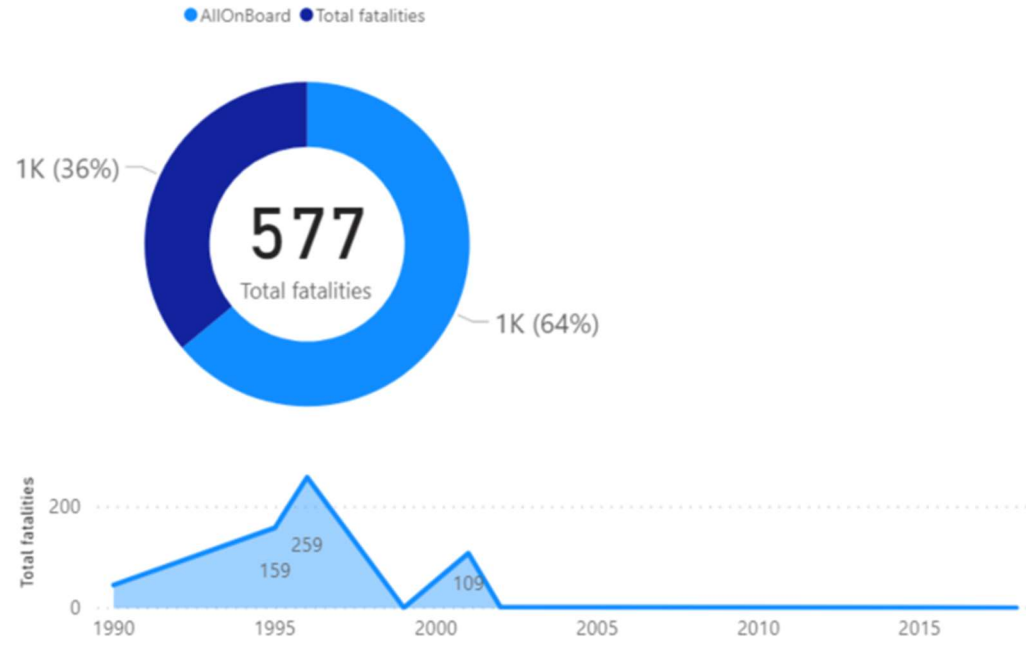
737-400



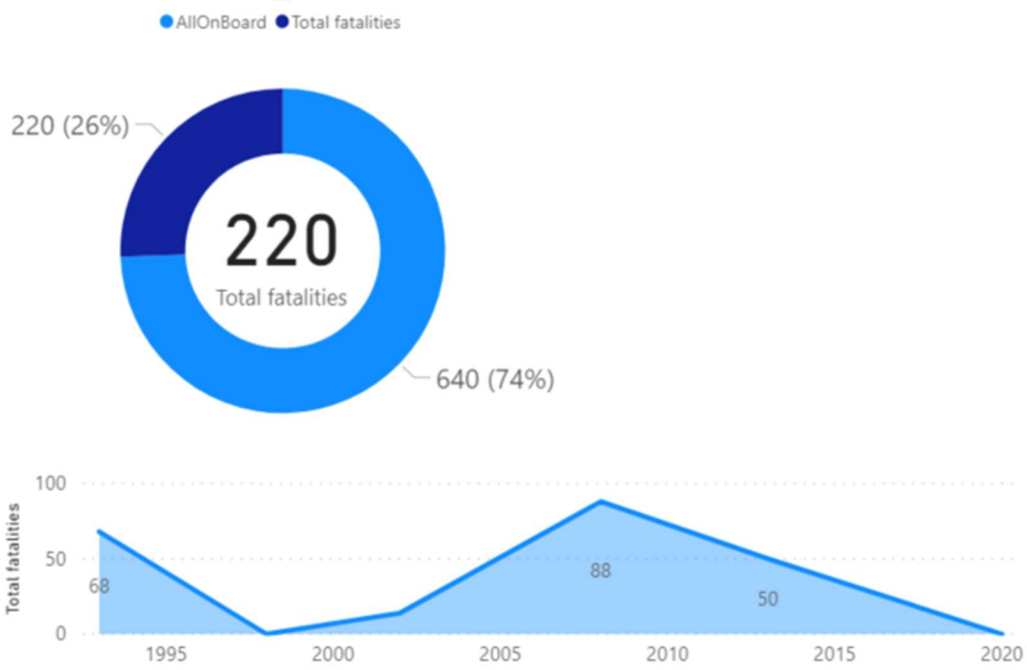
737-800



757-200

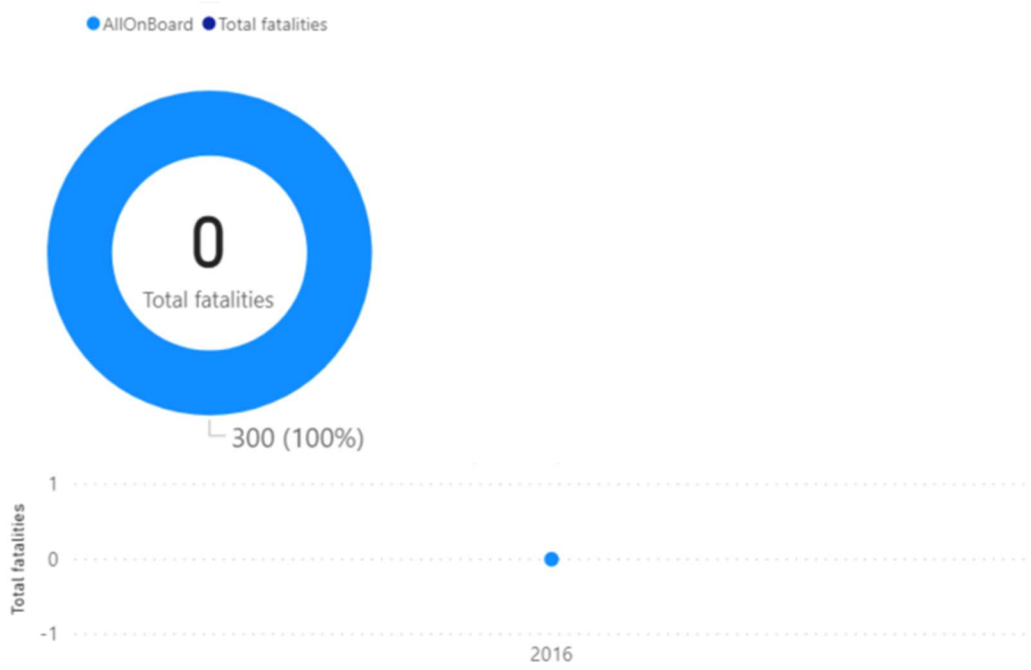


737-500

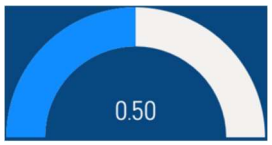
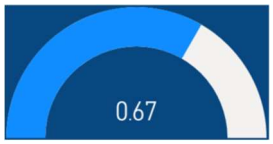


777-200

777-300


AllOnBoard
Total fatalities
0
Total fatalities
300 (100%)
1
0
-1
Total fatalities
2016

KC-137

AllOnBoard
Total fatalities
0
Total fatalities
143 (100%)
1
0
-1
Total fatalities
2013

Type of aircraft	Average of Survival Rate
Boeing 777-300	1.00
Boeing KC-137 Stratoliner	1.00
Boeing 737-400	0.85
Boeing 737-300	0.75
Boeing 737-800	0.68
Boeing 737-200	0.61
Boeing 737-500	0.60
Boeing 777-200	0.60
Boeing 757-200	0.29
Boeing KC-135 Stratotanker	0.19
Boeing 747-200	0.12