- # DSC 640 Project task 2

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DSC 640 – Data Presentation & Visualization
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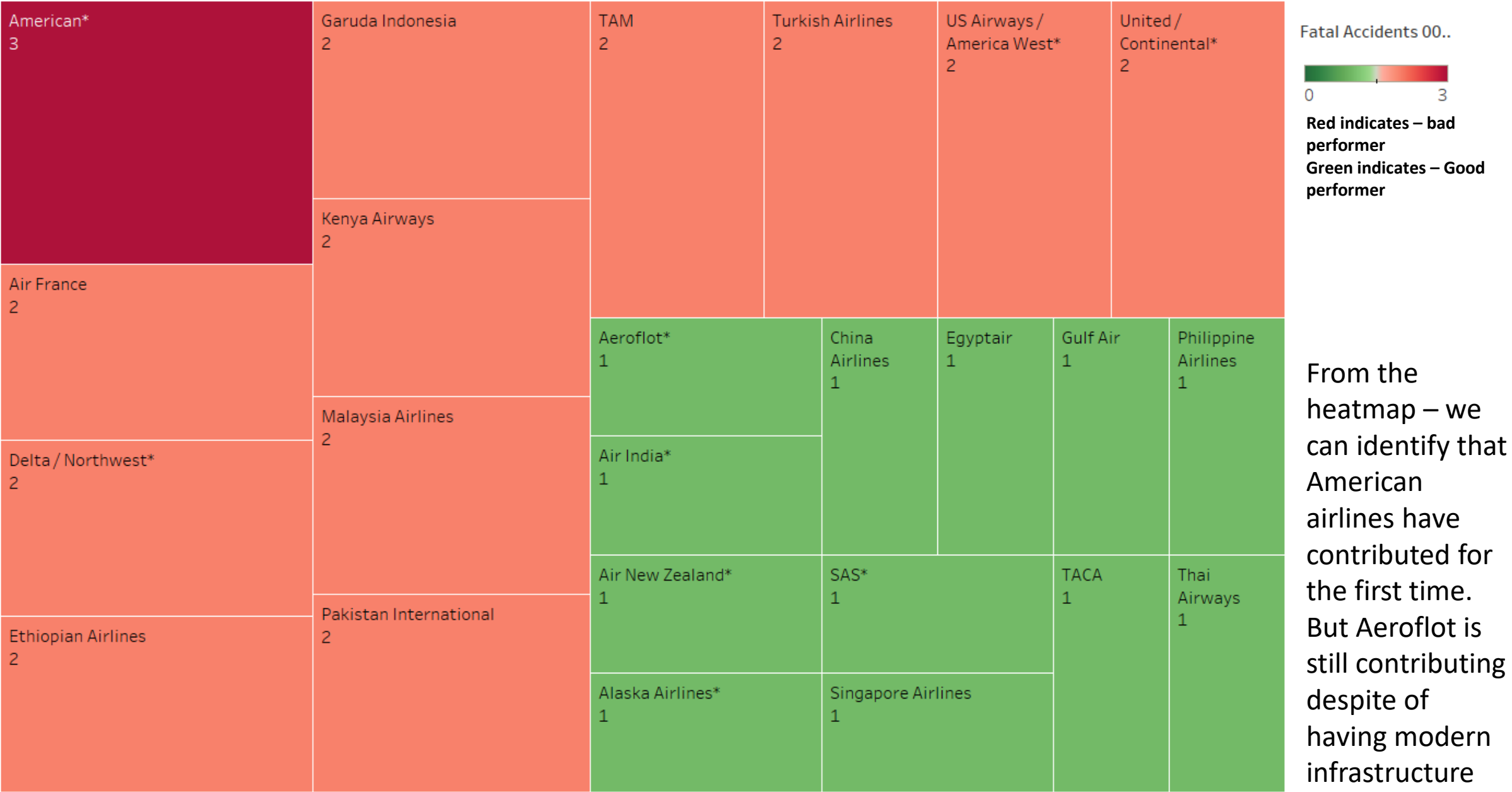# Fatal Accidents 1985-99

Air India 1

Malaysia Airlines 1

TACA

Turkish Airlines

TAM 3

US Airways / America West* 7

China Airlines 6

Pakistan International

Aeroflot* 14

Delta / Northwest* 12

American* 5

Garuda Indonesia

Ethiopian Airlines 5

Egyptair 3

Thai Airways 4

United / Continental* 8

Air France 4

Philippine Airlines 4

Fatal Accidents 85..

0   14

Red indicates – Bad performer
Green indicates – Good performer

Aeroflot contributes 14 fatalities in period 1985-99. Hence considered as bad Airline performer. American and Air India are considered as good Performer in terms of Passenger safety.
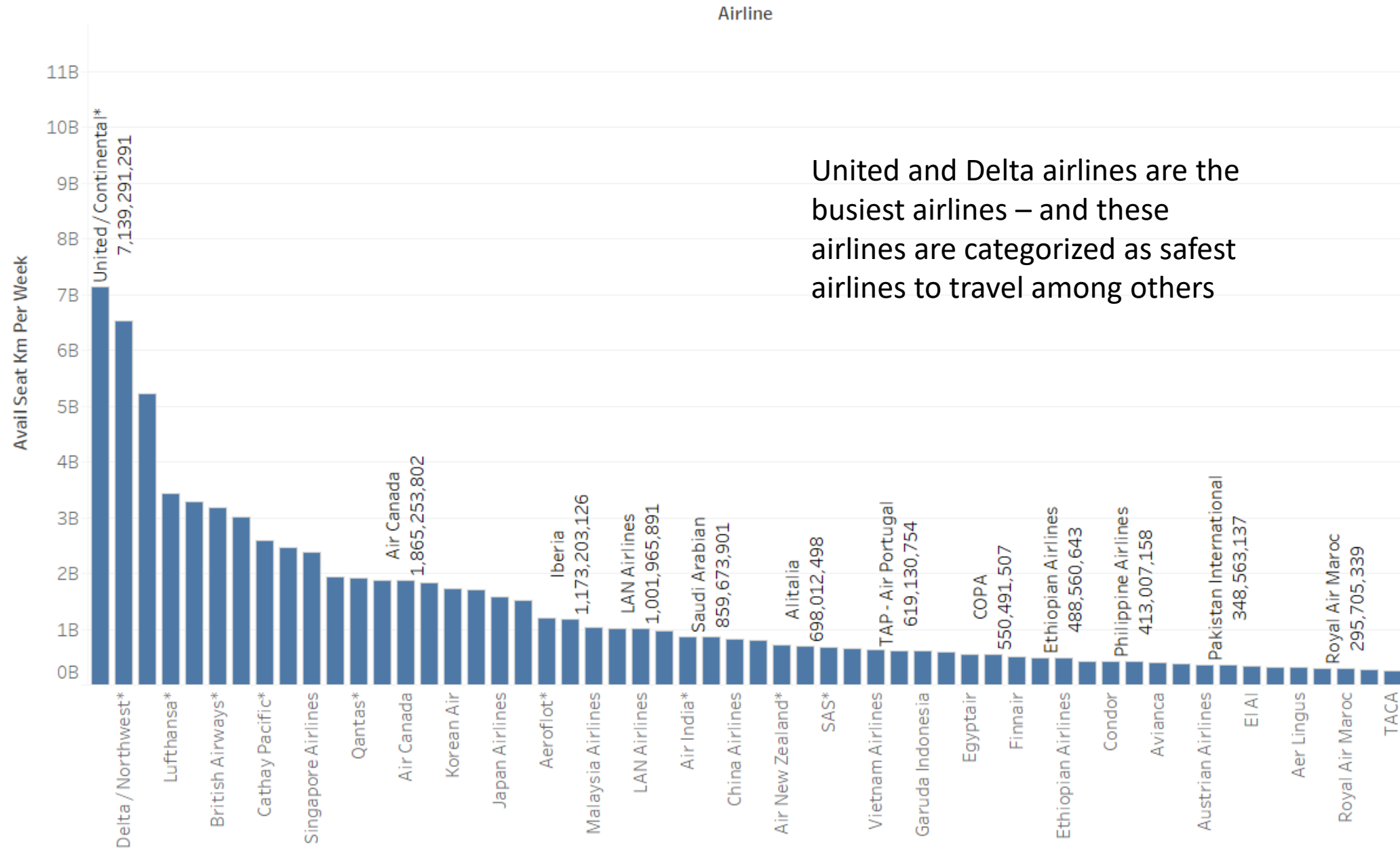
Airline and sum of Fatal Accidents 85 99. Color shows sum of Fatal Accidents 85 99. Size shows sum of Fatal Accidents 85 99. The marks are labeled by Airline and sum of Fatal Accidents 85 99. The data is filtered on sum of Fatal Accidents 00 14, which ranges from 1 to 3. The view is filtered on Airline, which excludes Singapore Airlines.

Fatal Accidents 2000 - 2014

Airline	Fatal Accidents 00 14
American*	3
Air France	2
Delta / Northwest*	2
Ethiopian Airlines	2
Garuda Indonesia	2
Kenya Airways	2
Malaysia Airlines	2
Pakistan International	2
TAM	2
Turkish Airlines	2
US Airways / America West*	2
United / Continental*	2
Aeroflot*	1
Air India*	1
China Airlines	1
Egyptair	1
Gulf Air	1
Philippine Airlines	1
Air New Zealand*	1
SAS*	1
TACA	1
Thai Airways	1
Alaska Airlines*	1
Singapore Airlines	1

Fatal Accidents 00..

0 — 3

Red indicates – bad performer
Green indicates – Good performer

From the heatmap – we can identify that American airlines have contributed for the first time. But Aeroflot is still contributing despite of having modern infrastructure
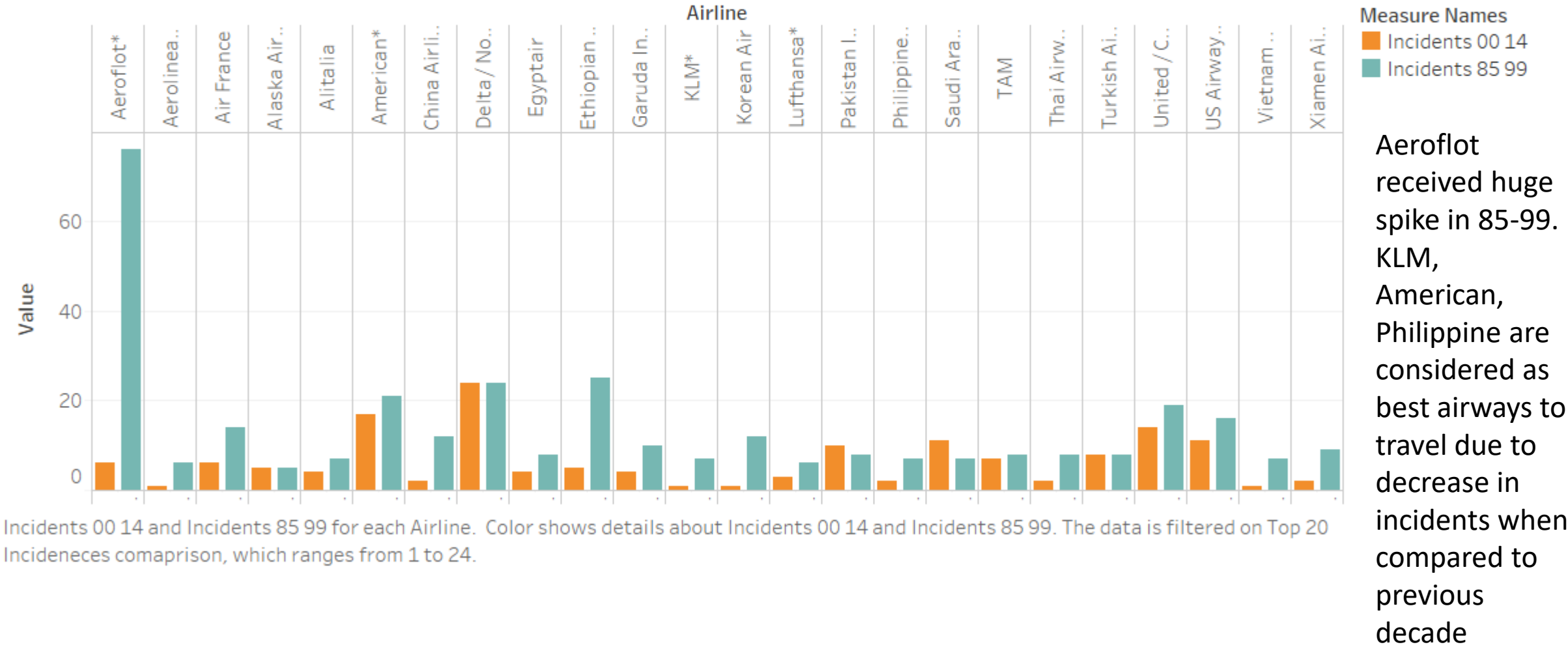
Airline and sum of Fatal Accidents 00 14. Color shows sum of Fatal Accidents 00 14. Size shows sum of Fatal Accidents 00 14. The marks are labeled by Airline and sum of Fatal Accidents 00 14. The view is filtered on sum of Fatal Accidents 00 14, which ranges from 0 to 3.

distance travelled by airlines per week 1985-2014

United and Delta airlines are the busiest airlines – and these airlines are categorized as safest airlines to travel among others
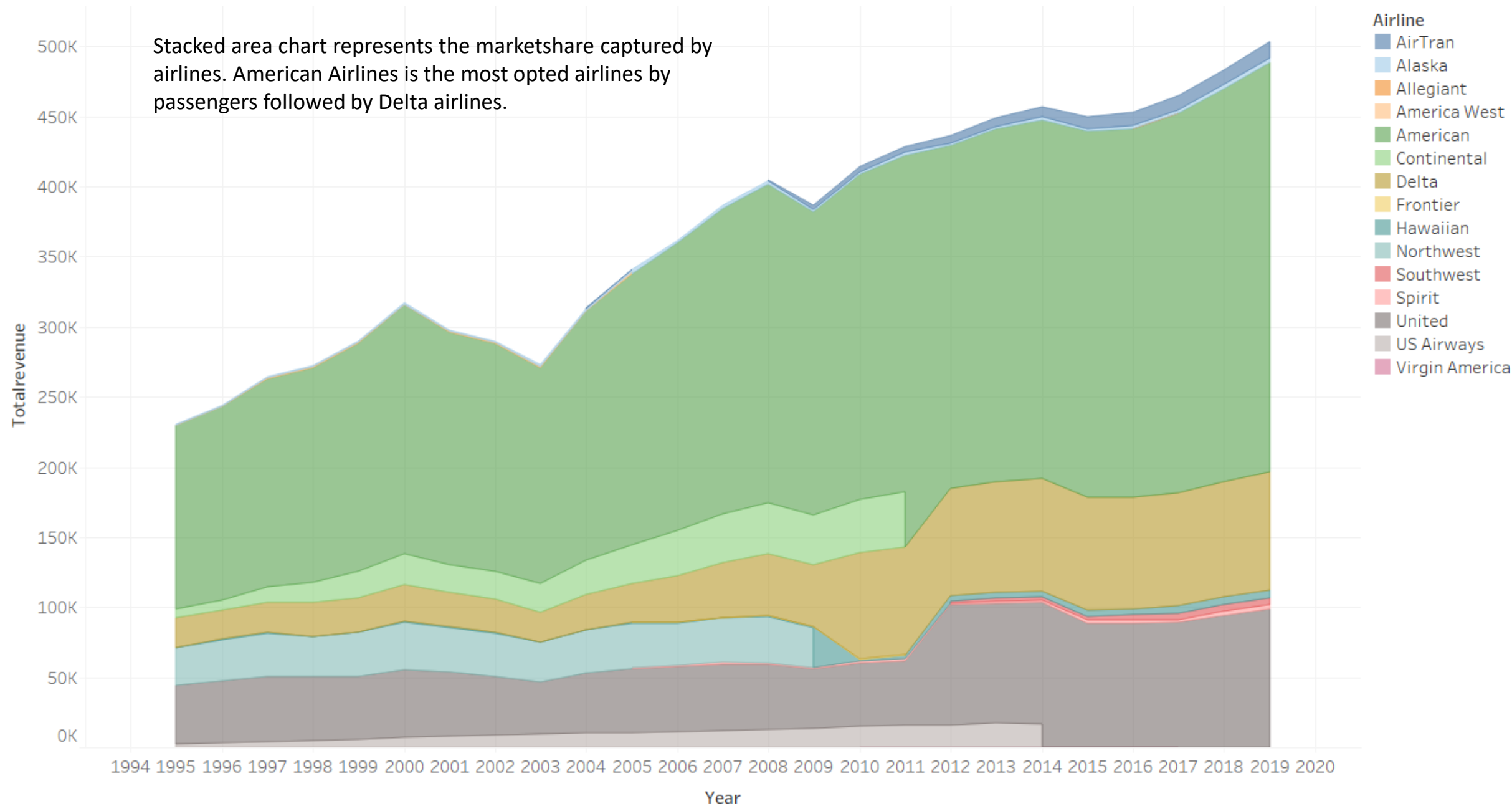
Sum of Avail Seat Km Per Week for each Airline. The marks are labeled by Airline and Avail Seat Km Per Week as an attribute. The view is filtered on Airline, which keeps 56 of 56 members.
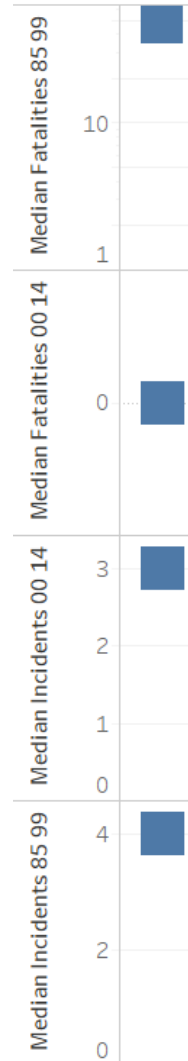
Performance of Airliner w.r.t incidents

Airline

Measure Names
- Incidents 00 14
- Incidents 85 99

Incidents 00 14 and Incidents 85 99 for each Airline. Color shows details about Incidents 00 14 and Incidents 85 99. The data is filtered on Top 20 Incideneces comaprison, which ranges from 1 to 24.

Aeroflot received huge spike in 85-99. KLM, American, Philippine are considered as best airways to travel due to decrease in incidents when compared to previous decade

Airline Market Share

Stacked area chart represents the marketshare captured by airlines. American Airlines is the most opted airlines by passengers followed by Delta airlines.

Airline
- AirTran
- Alaska
- Allegiant
- America West
- American
- Continental
- Delta
- Frontier
- Hawaiian
- Northwest
- Southwest
- Spirit
- United
- US Airways
- Virgin America

Totalrevenue

Year

The plot of sum of Totalrevenue for Year. Color shows details about Airline. The view is filtered on sum of Totalrevenue, which keeps non-Null values only.
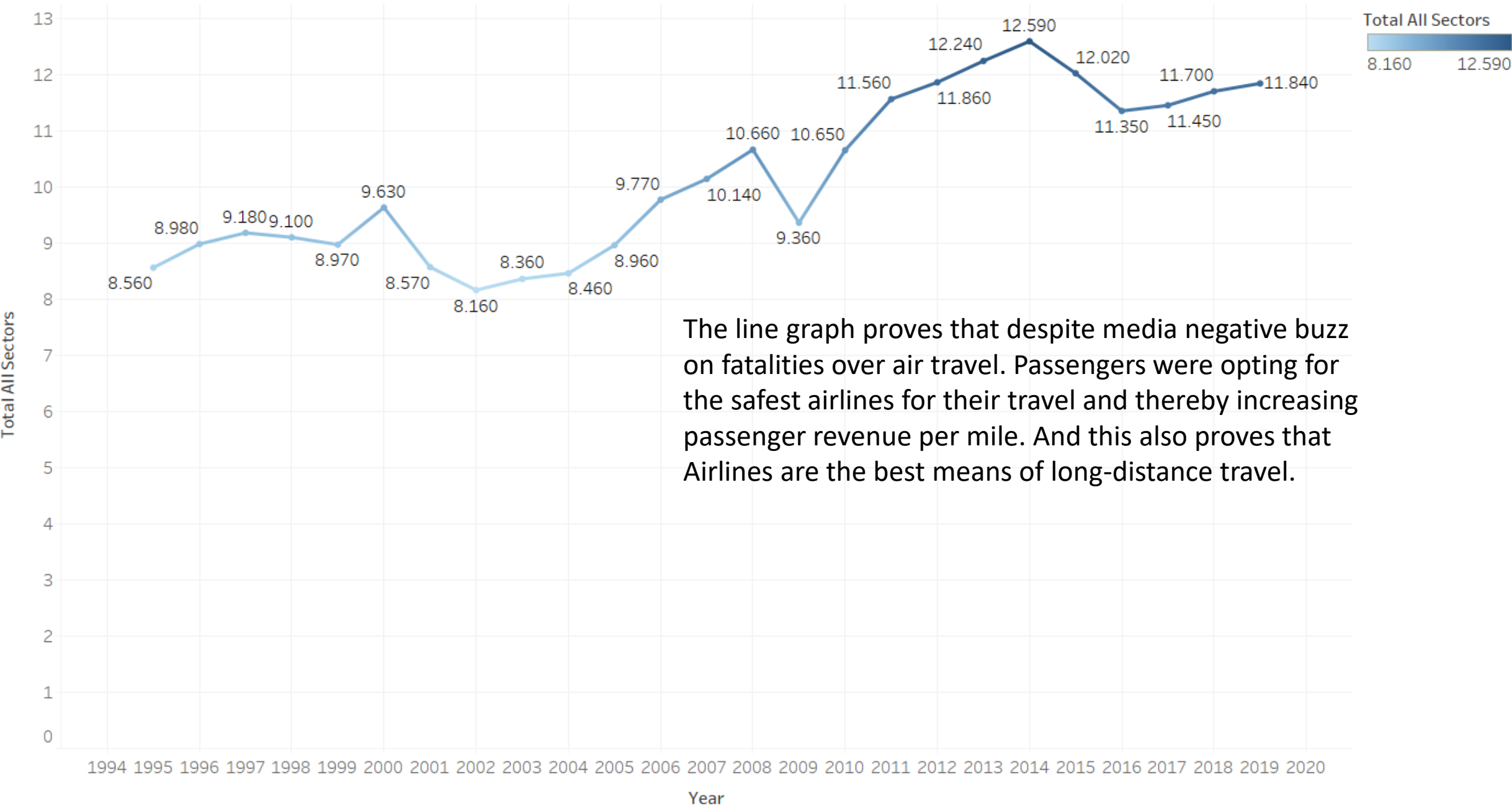
Median of Fatalities

Median Fatalities 85 99

10

1

Median Fatalities 00 14

0

Median Incidents 00 14

3

2

1

0

Median Incidents 85 99

4

2

0

Median of Fatalities 85 99, median of Fatalities 00 14, median of Incidents 00 14 and median of Incidents 85 99.

This plot represents the median values of fatalities and incidents. Median is 0 for fatalities occurred in 2000-14. And it is evident that the fatalities have drastically reduced over a period of time and hence it is safer to travel via airlines.
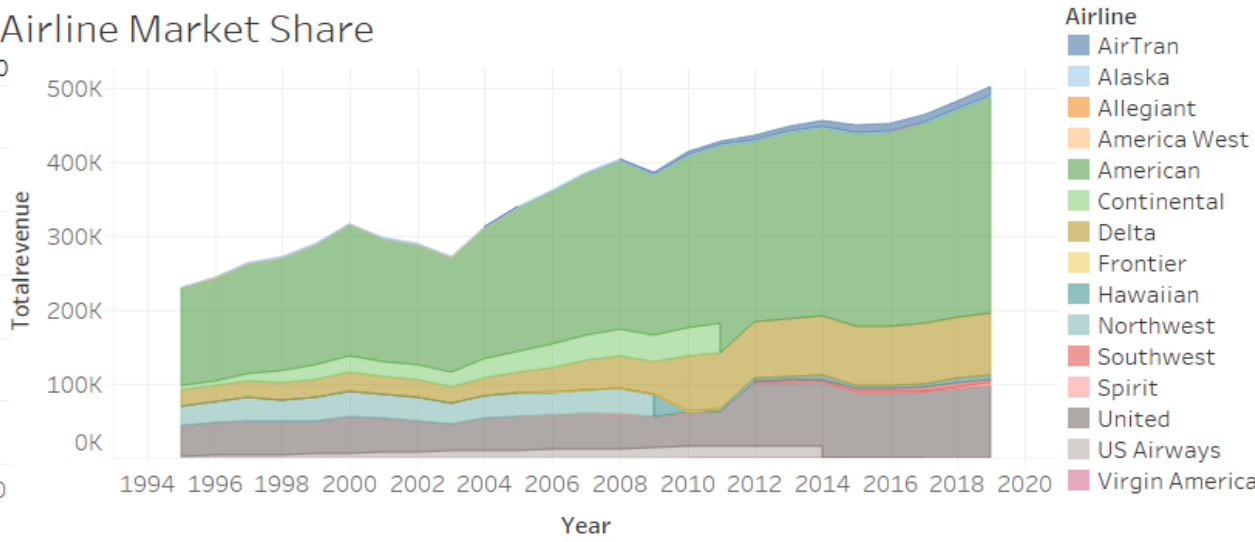
passenger revenue per available seat mile

The line graph proves that despite media negative buzz on fatalities over air travel. Passengers were opting for the safest airlines for their travel and thereby increasing passenger revenue per mile. And this also proves that Airlines are the best means of long-distance travel.
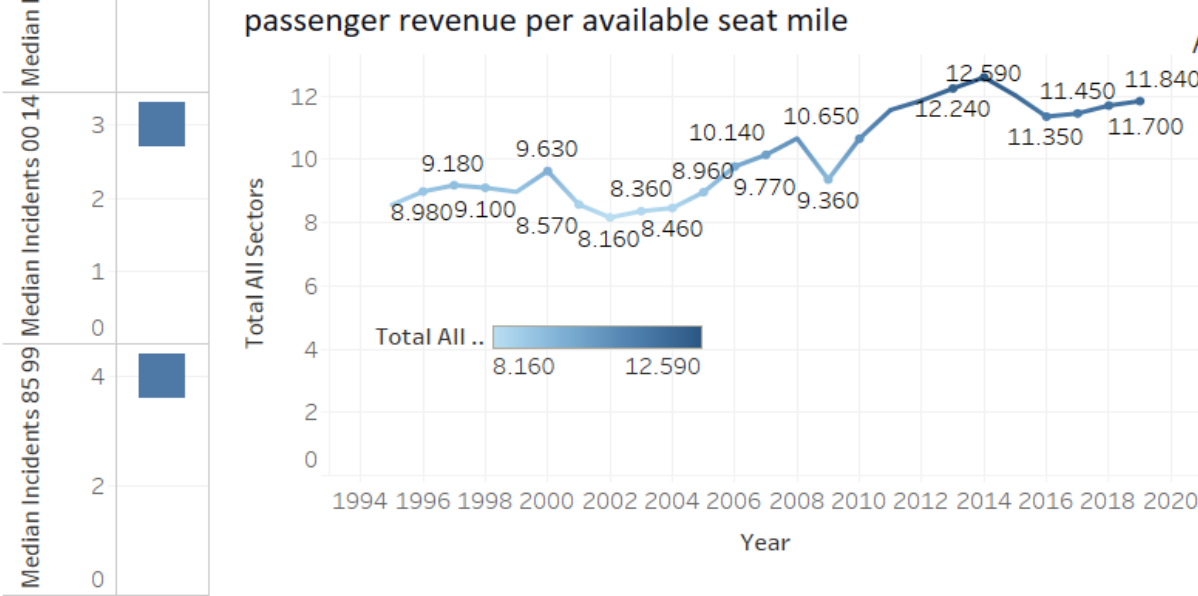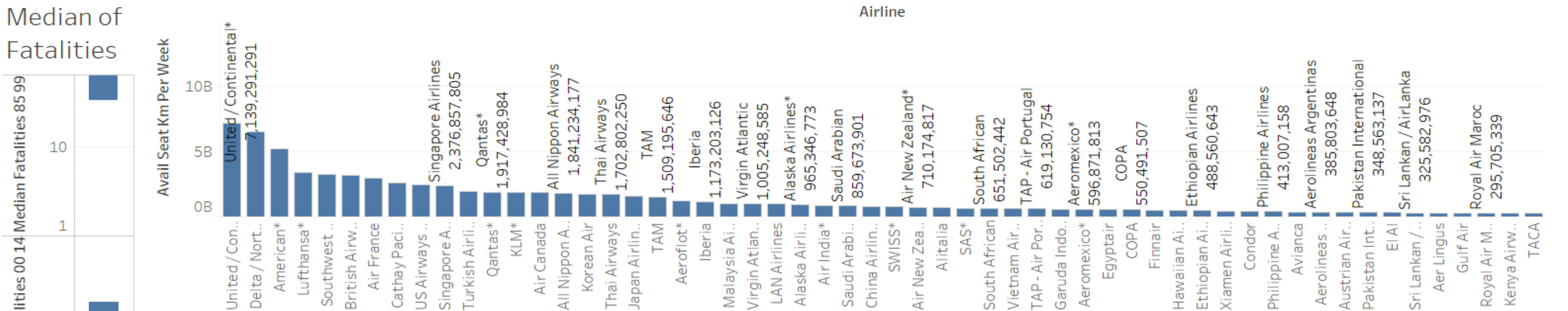
The trend of sum of Total All Sectors for Year. Color shows sum of Total All Sectors. The marks are labeled by sum of Total All Sectors.

Dashboard 1

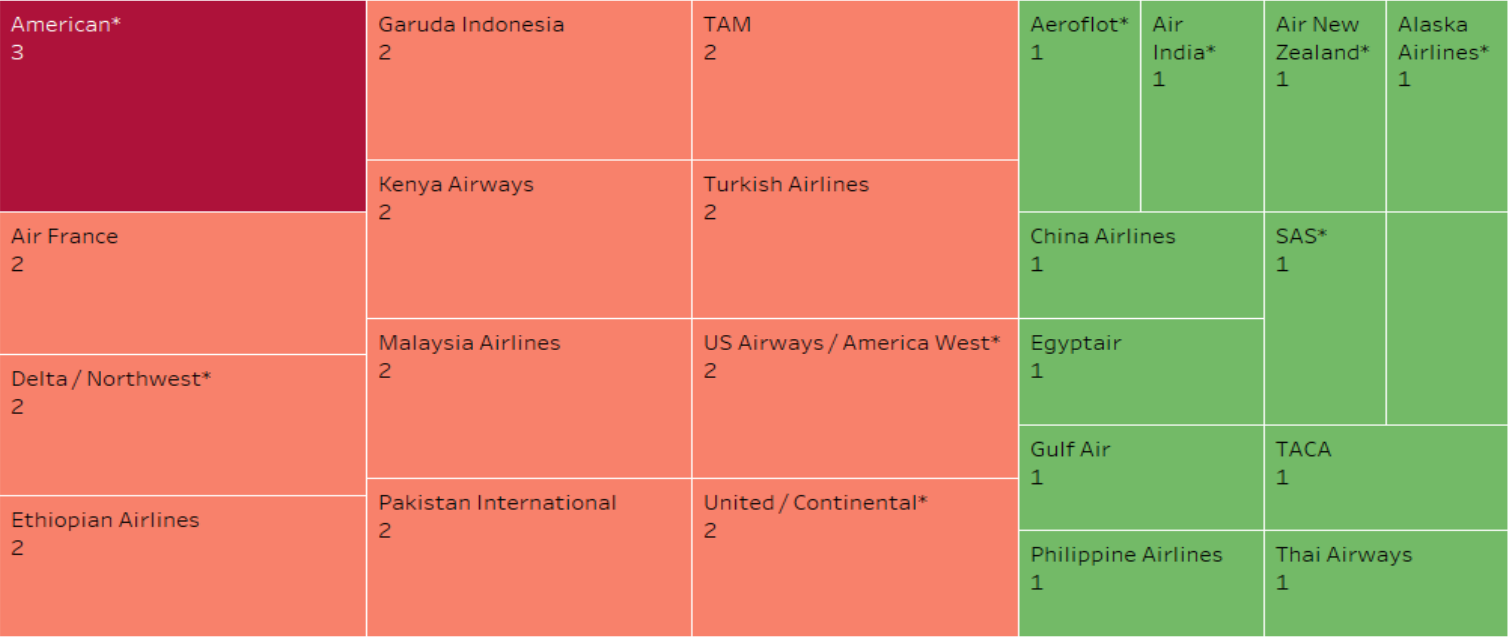AirLine Performance Dashboard - Miles and Revenue Based

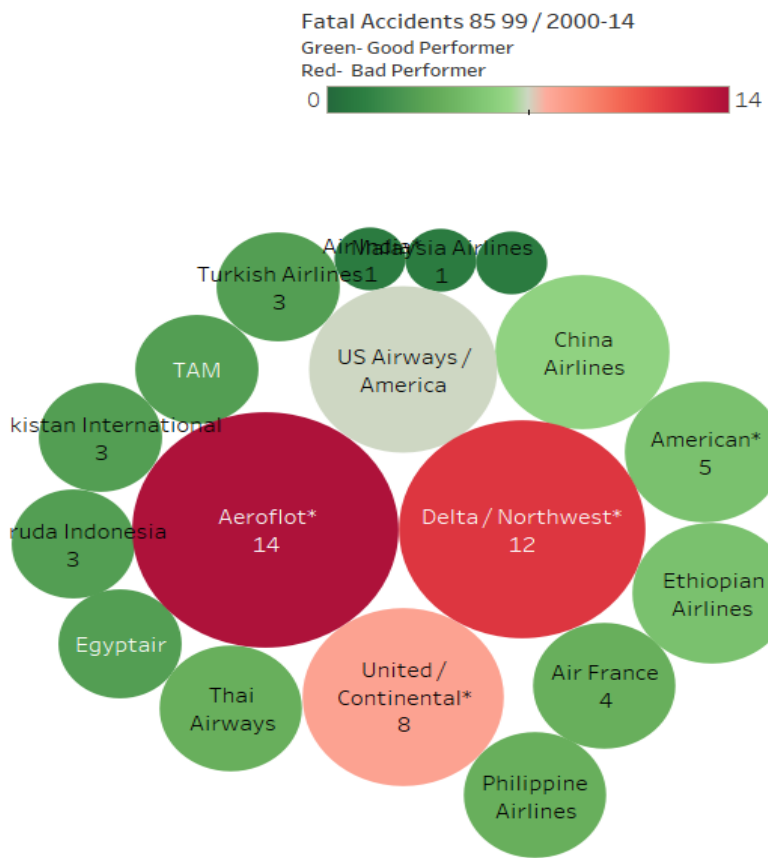distance travelled by airlines per week 1985-2014

Median of Fatalities

passenger revenue per available seat mile

Airline Market Share

Dashboard 2

AirLine Performance Dashboard - Incidents and Fatal Accidents Based

Fatal Accidents 2000 - 2014

Fatal Accidents 1985-99

Fatal Accidents 85 99 / 2000-14
Green- Good Performer
Red- Bad Performer

0 ——————— 14

Treemap — Fatal Accidents 2000-2014:

Airline	Value
American*	3
Garuda Indonesia	2
TAM	2
Aeroflot*	1
Air India*	1
Air New Zealand*	1
Alaska Airlines*	1
Kenya Airways	2
Turkish Airlines	2
China Airlines	1
SAS*	1
Air France	2
Malaysia Airlines	2
US Airways / America West*	2
Egyptair	1
Delta / Northwest*	2
Gulf Air	1
TACA	1
Ethiopian Airlines	2
Pakistan International	2
United / Continental*	2
Philippine Airlines	1
Thai Airways	1

Performance of Airliner w.r.t incidents

Airline

Value axis: 0, 20, 40, 60

Measure Names
- Incidents 00 14
- Incidents 85 99