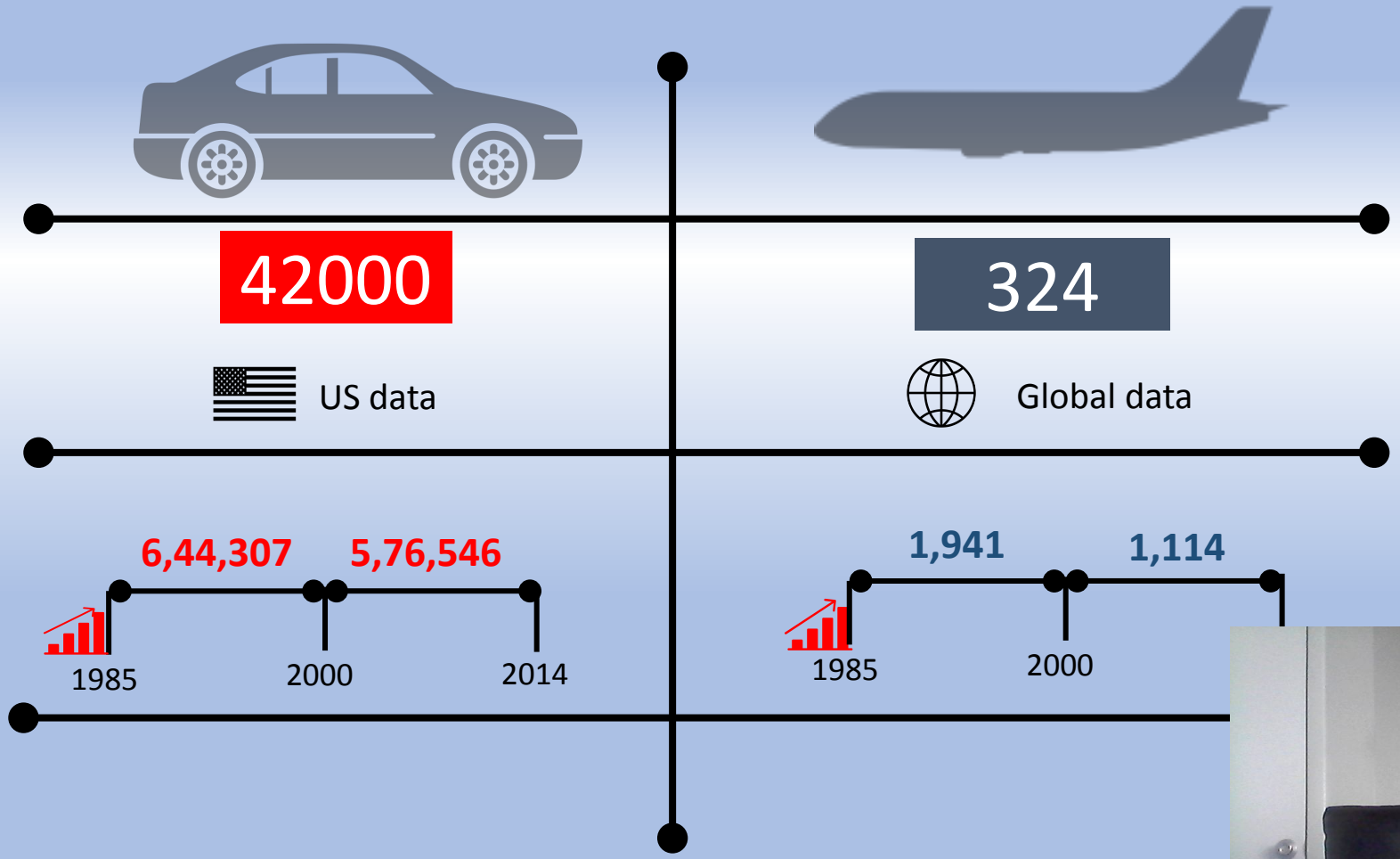
Executive Summary

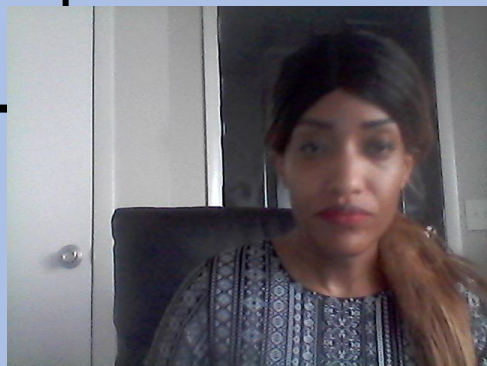
Airline Safety

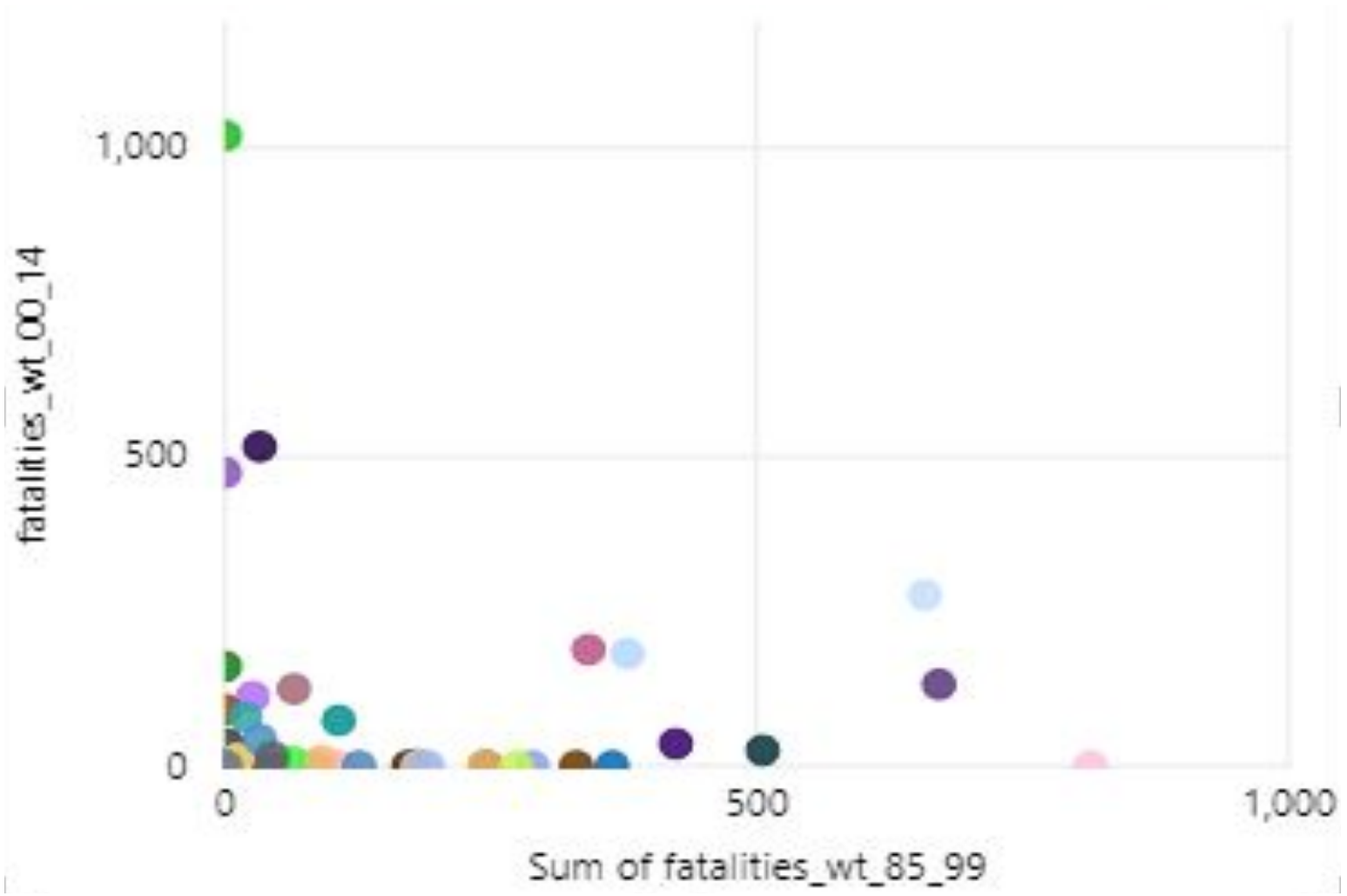
Airplane vs Personal Vehicles

Cars are most commonly used mode of transportation vs airplanes.

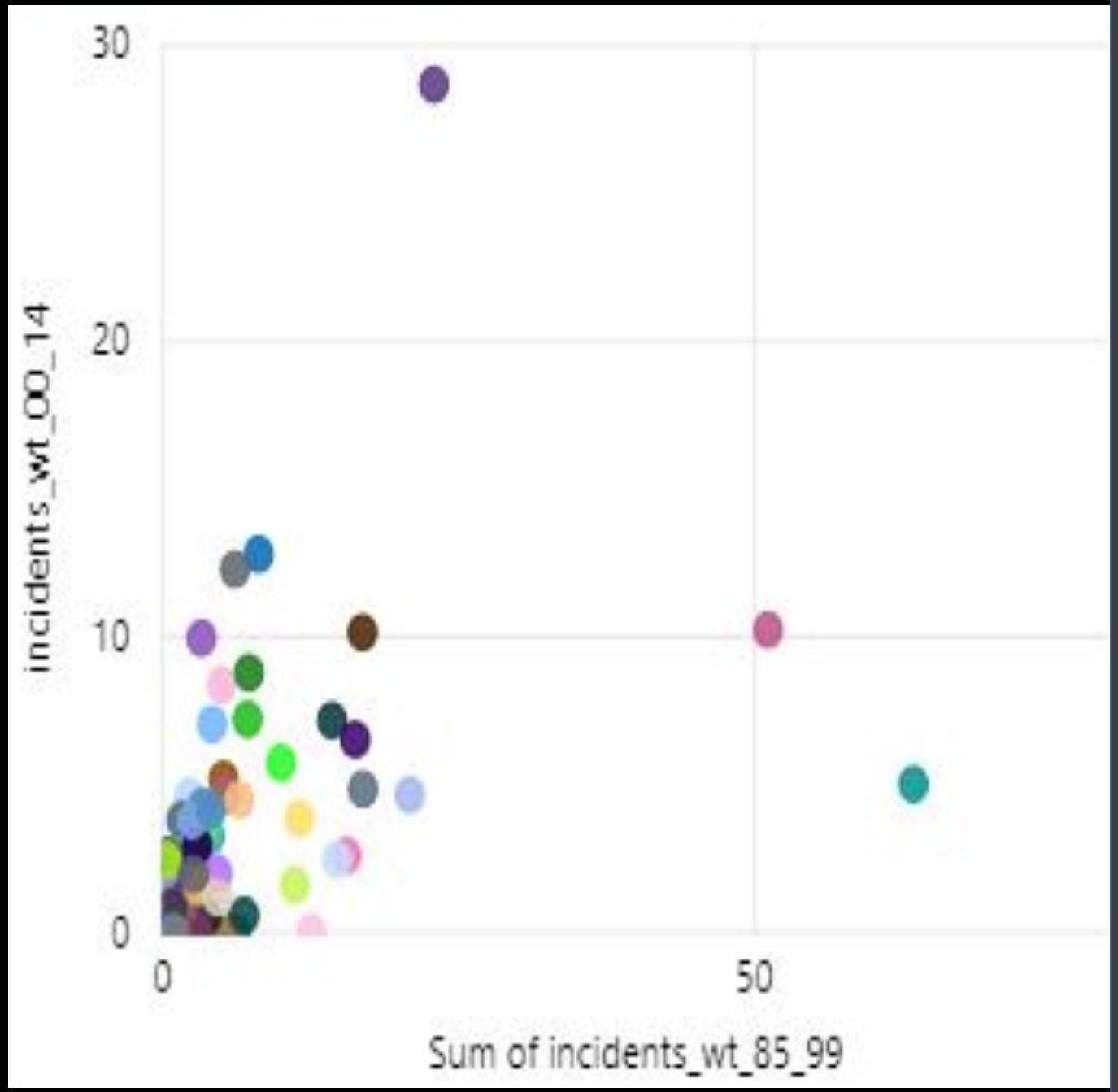
- The average number of fatalities that occurred annually, based on data from 1985-2014
- Overall number of mortalities between 1985 - 2014







Airline Incidents and Fatalities



Sum of Incidents That Occurred Within The Airlines Between 1985 -1999 and 2000-2014

Advances in Technology Assist Airlines With Enhanced Safety

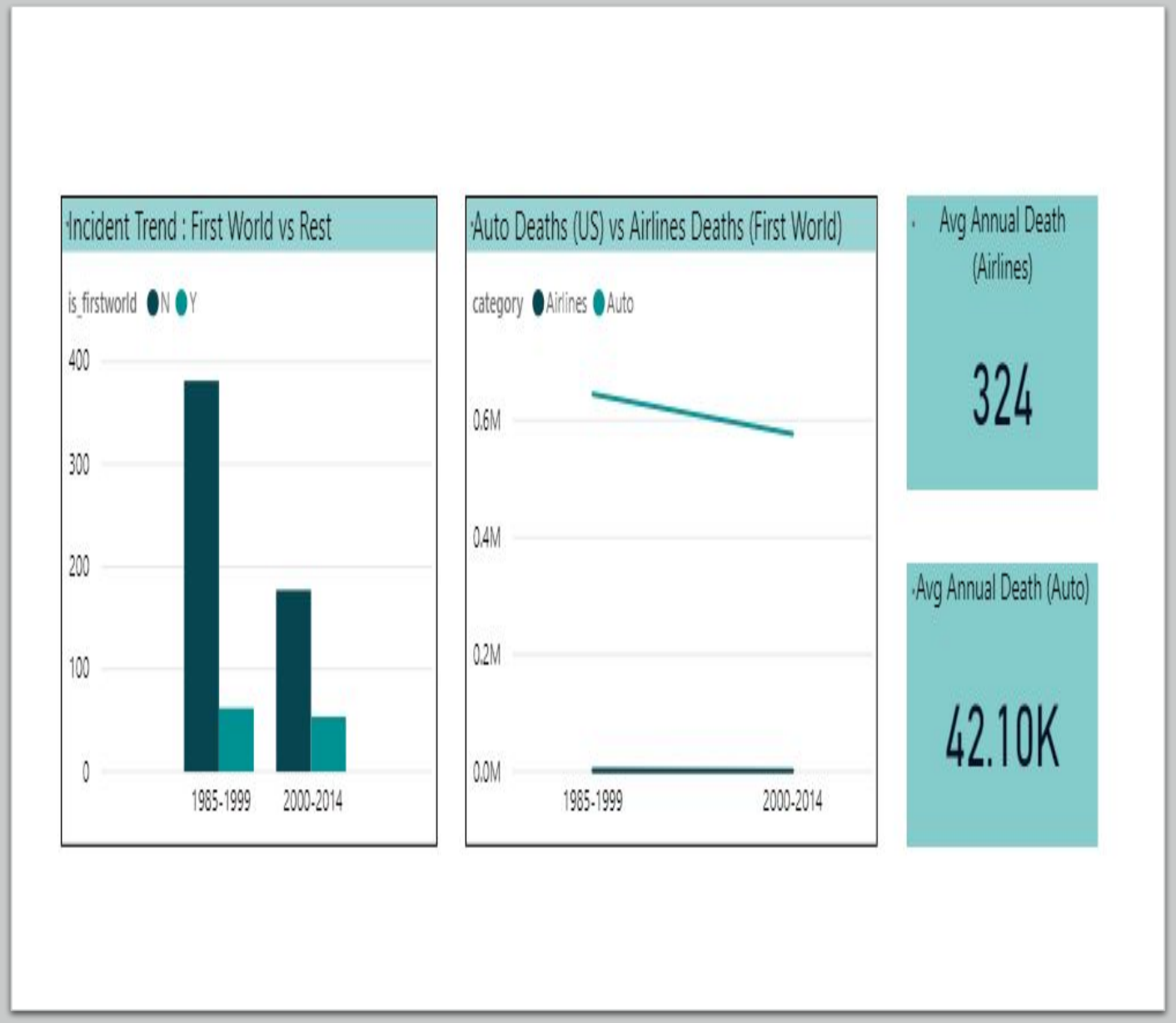
Overall incidents and fatalities were reduced throughout the years, and it was consistently lower in economically and technically advanced countries, proving technology plays significant role in safety.

Airline fatalities occurred **6.7** times more in countries besides first world countries, between 1985-1999.

Airline fatalities occurred **9** times more in countries besides first world countries, between 2000-2014.

Airline incidents were **6.14** times more in countries besides first world countries, between 1985-1999.

Airline incidents were **3.3** times more in countries besides first world countries, between 2000-2014.



Vehicle and Airline Incidents and Death

Correlation Between Airline Incidents and Fatalities

Fatalities

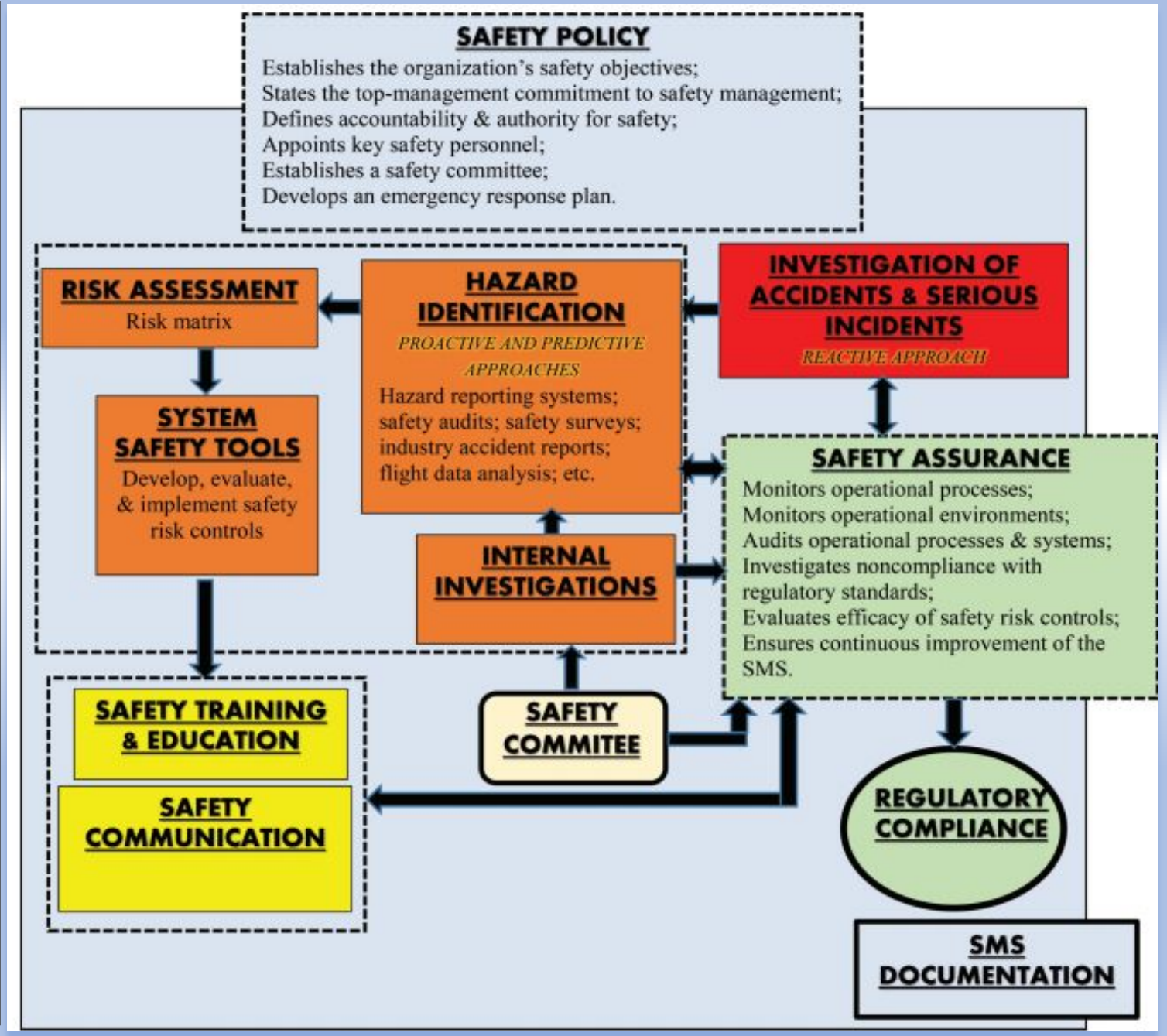
- Fatalities were not consistent.
- Avianca airlines experienced many accidents between 1985-1999.
- Kenya airlines has entirely opposing statistics between 1985-1999.
- China airlines experienced fatalities in both timeframes.

Incidents

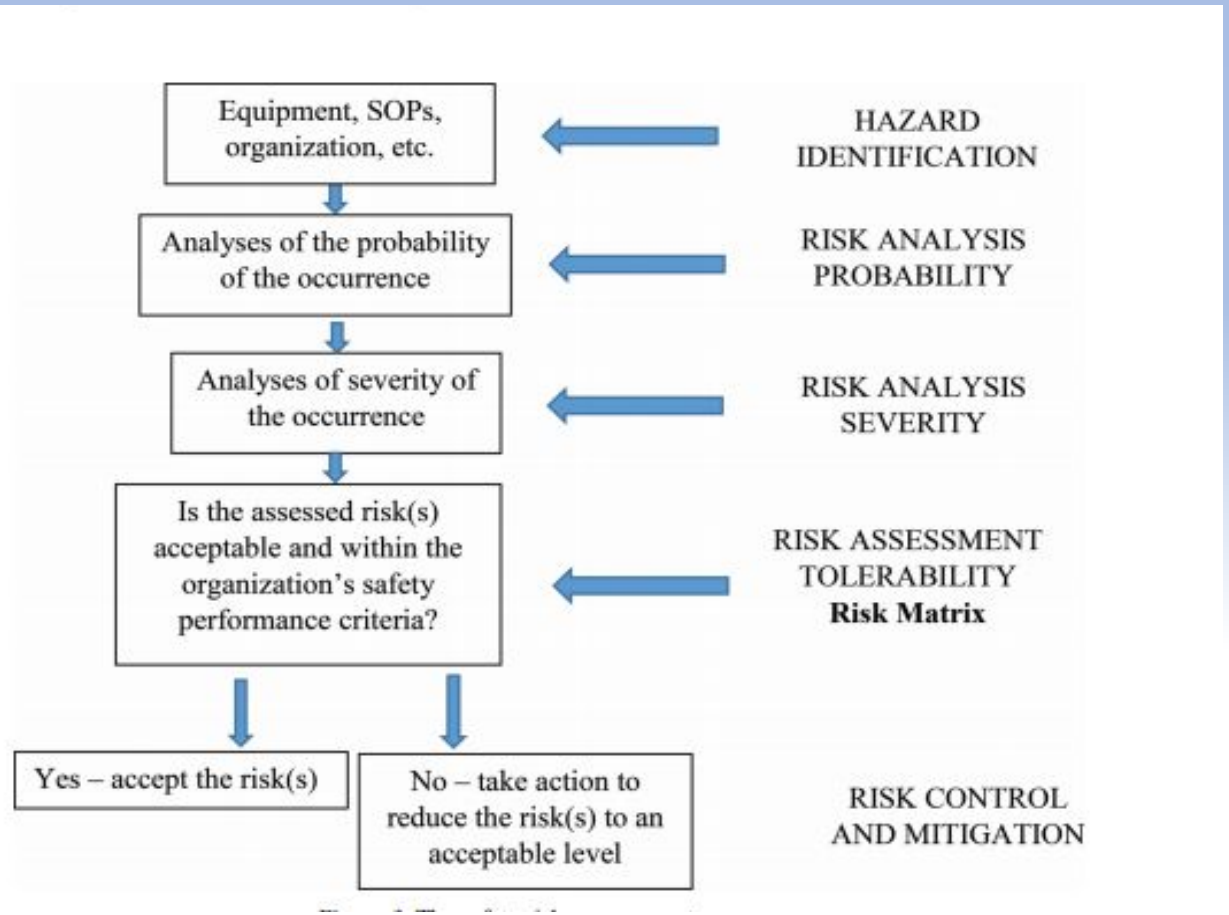
- Some airlines lacked consistent incidents and correlation between 1985-1999 and 2000-2014.
- Many airlines displayed improvements throughout the years.
- PIA and Ethiopian airlines displayed some outliers and increased number of incidents.

Top 5 Airlines With The Most Incidents and Fatalities Between 1985-2015

Basic Airline Safety Policy Model

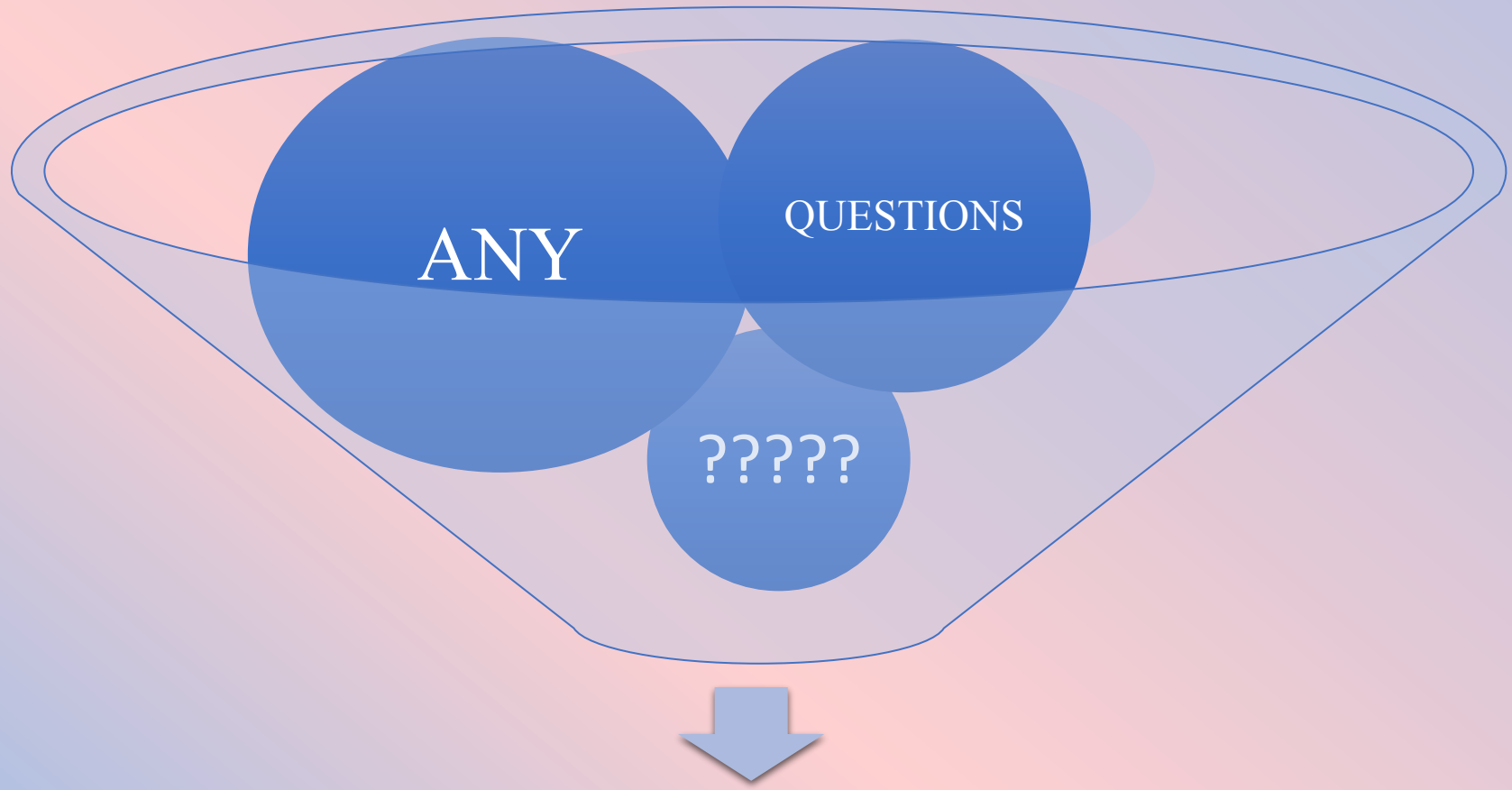


Basic Airline Hazard and Risk Assessment Model



Conclusion

- Predicative modeling can be used to predict future incidents and fatalities within the airlines.
- Fatalities and incidents are declining as technology evolves.
- Airline employees need to follow all safety guidelines
- Data may have been oversampled, thus causing skewed results of timeframe, geography, and airlines.
- Oversampled data that skewed the result by a specific geography, timeframe or airlines.



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