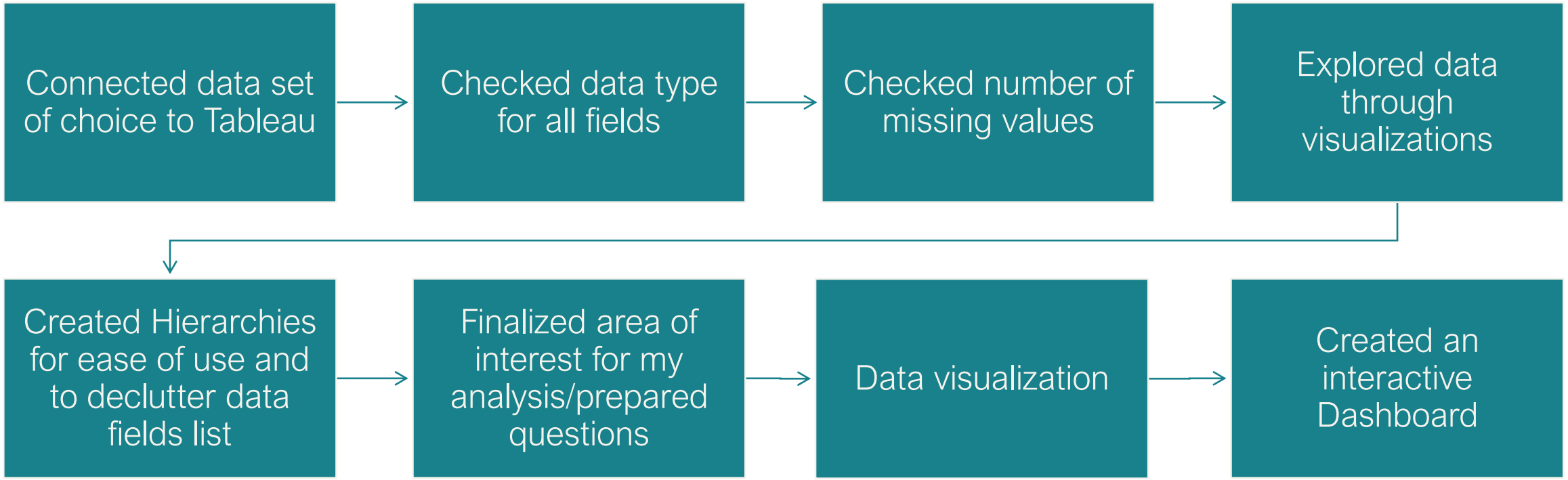
Data Visualization & Dashboards

WITH TABLEAU

Process Highlights



Data set Highlights

Dataset	Key Features
FAA Wildlife Strikes (Option 2)	Data fields could be divided into following over-arching categories: • Location (airport details, state and country) • Aircraft and engine details • Wildlife species • Number of strikes • Cost of collisions • Time of day • Phase of flight • Miles from the airport • Effect of collision

Questions

I focused on discovering the relationship between impacted species, number of strikes, and cost incurred with the following questions:

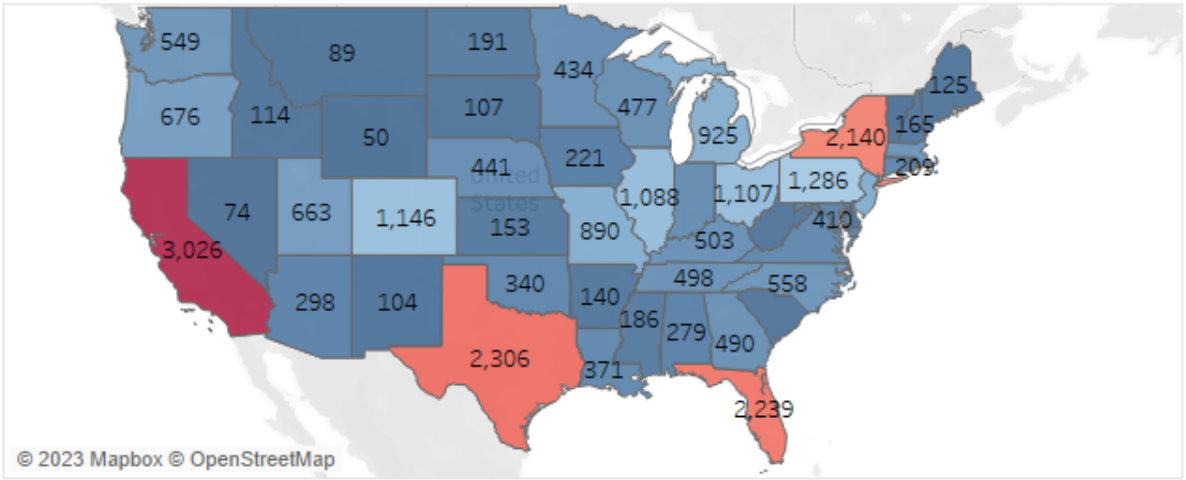
- Which state had the highest number of strikes over the years?
- General trend for species impacted by aircraft collisions?
- Which wildlife species group has been impacted most by the number of strikes?
- Top N wildlife species with most costly strikes.
- Trend of number of strikes vs cost incurred over the years.
- Most costly phase of flight vs number of strikes.

Results

Wildlife Strikes in USA

Wildlife: Animal Categ..	
Bats	332
Birds	27,089
Reptiles	33
Terrestrial Mammals	844

Wildlife Strikes by State



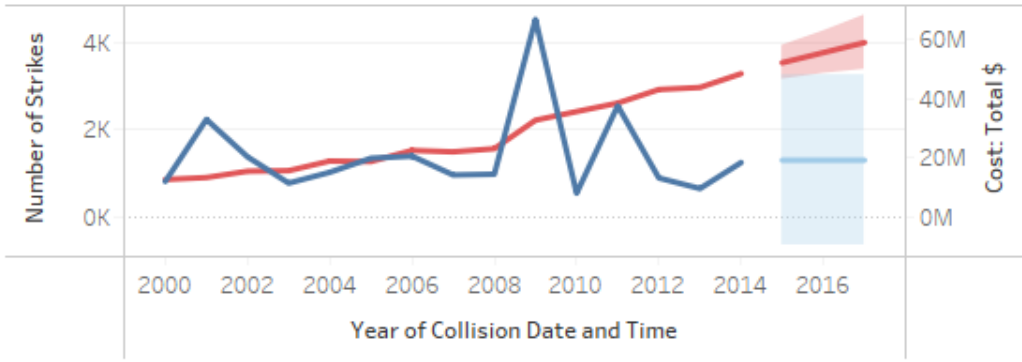
Top N Species by Number of Strikes

In / Out of ..	Wildlife: An..	Wildlife: Species Group	
In	Birds	Doves	2,002
		Gulls, terns, kittiwakes	1,792
		Larks	1,223
		Starlings	1,462
		Swallows and Martins	1,629

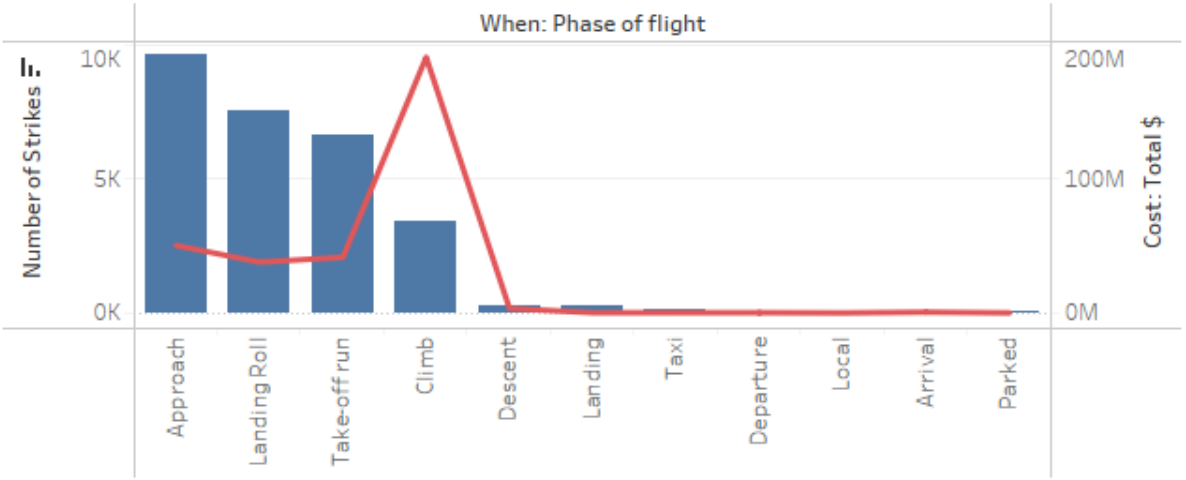
0 500 1000 1500 2000 2500

Count of FAA Wildlife Strikes

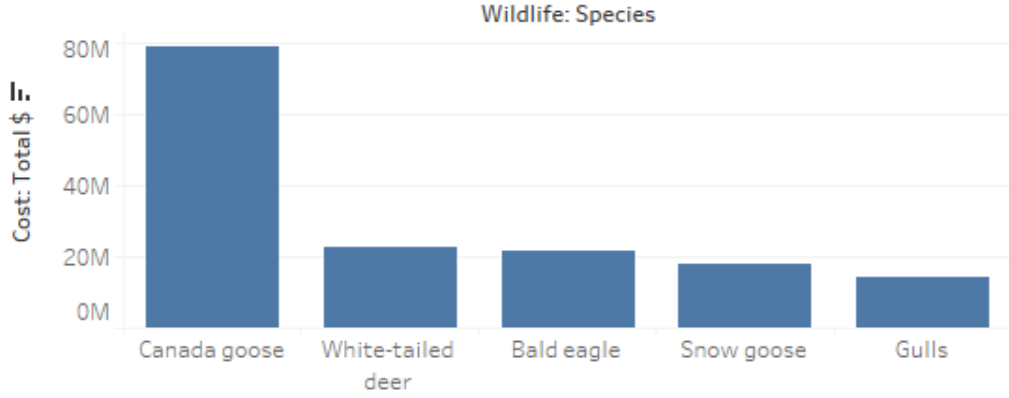
Cost vs Number of Stikes



Cost vs number of Strikes by phase of flight



Most costly Strikes by Species



Year of Collision Date and..
All

Count of FAA Wildlife Stri..
50 3,026

Top N most costly strikes ..
5

Top N Species (Impact)
5

Measure Names, Forecas..
- Cost: Total $, Actual
- Cost: Total $, Estimate
- Number of Strikes, Ac..
- Number of Strikes, Es..

Measure Names
- Cost: Total $
- Number of Strikes

Challenges

- It is hard to streamline data visualizations to one area when there are so many interesting aspects within the dataset that can side track the analysis.
- Replacing null with zeros for data that doesn't exist in the dataset. Example, there is no data for reptile strikes at dawn.

When: Time of day	Bats	Birds	Reptiles	Terrestrial Mammals
Dawn	4	839		30
Day	40	20,325	27	210
Dusk	13	1,196	2	43
Night	254	4,131	4	537

Areas to explore

- I want to connect Tableau with external sources to assess the relationship between wildlife strikes and migratory bird populations.
- I hope to create different dashboards using the same data set to discover other insights using other key features of the dataset.