IT'S A BIRD, IT'S A PLANE…IT'S A COLLISION

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PROCESS

Load data into Tableau

EDA – filtered nulls, no dups

Initial analysis

Developed questions

Create visuals

DATASET

FAA wildlife strikes

2000 – May 31, 2015; 2000 – 2014 for analysis,

Lower 48,

Information:

- Location,
- Damage,
- Flight impact,
- Time of day and date time
- Wildlife information

Some nulls - damage and flight impact,

Why care about wildlife collisions

What animals cause the most collision?,

When do they happen and what is the flight impact among damage amount?

What is the trend of collisions and is there a seasonality?

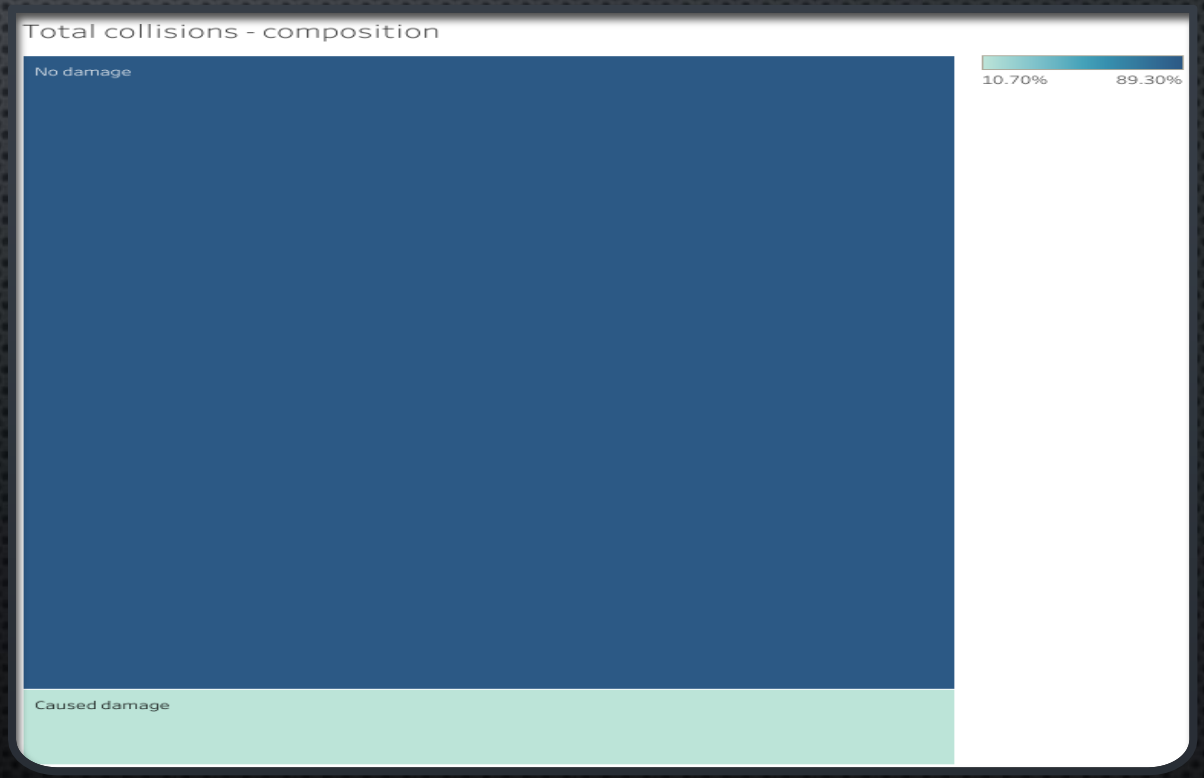
Is there a trend in the average cost in both $ and days out of service

WHAT ANIMALS CAUSE THE MOST COLLISION?

- ~11% DAMAGE CAUSING
- 95% BIRDS
- WHY?
  - COMMUNICATE % IN SIZE AND NUMBERS
  - EASIER SELECTION TO COMPLEMENT OTHER FIGURES

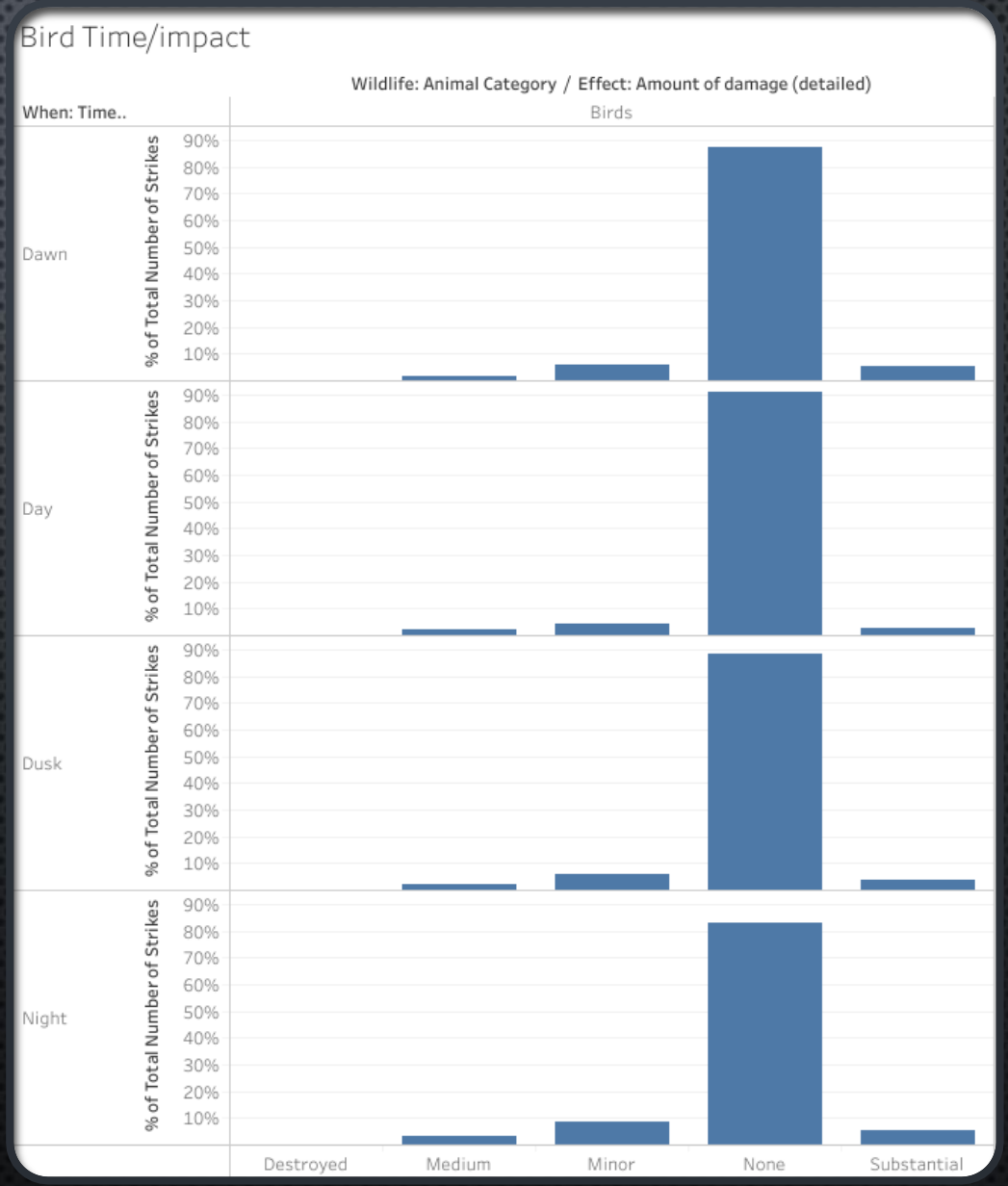
Animals - table

	Wildlife: Animal Category			
	Bats	Birds	Reptiles	Terrestrial Mam..
% of Total Number of Stri..	1.19%	95.90%	0.12%	2.79%
Number of Strikes	319	25,748	33	749



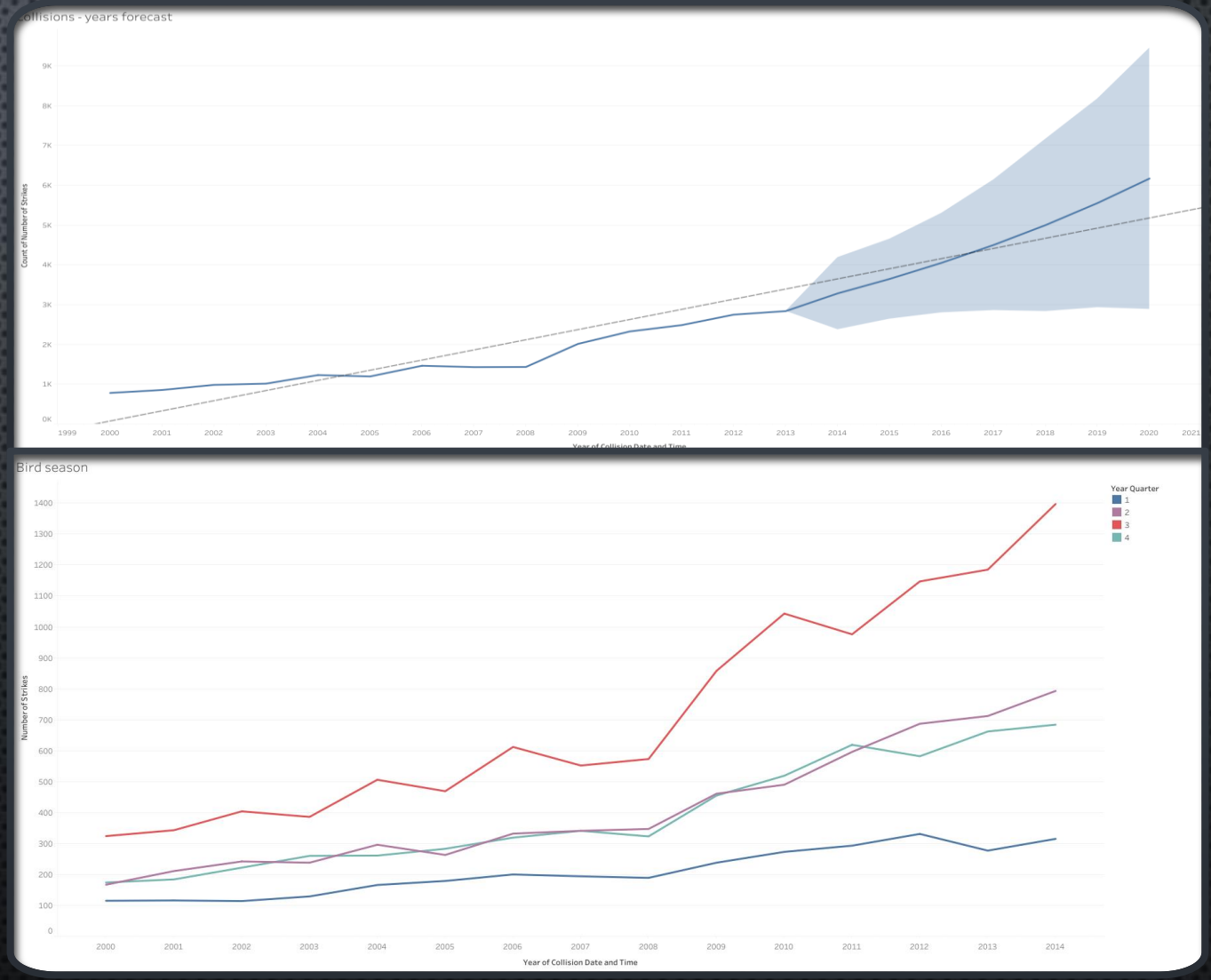
When do they happen and damage amount?

- No damage majority
- Night, dawn, dusk most damaging – poor visibility?
- Rare destruction
- Why?
  - Breakdown collision % by two variables



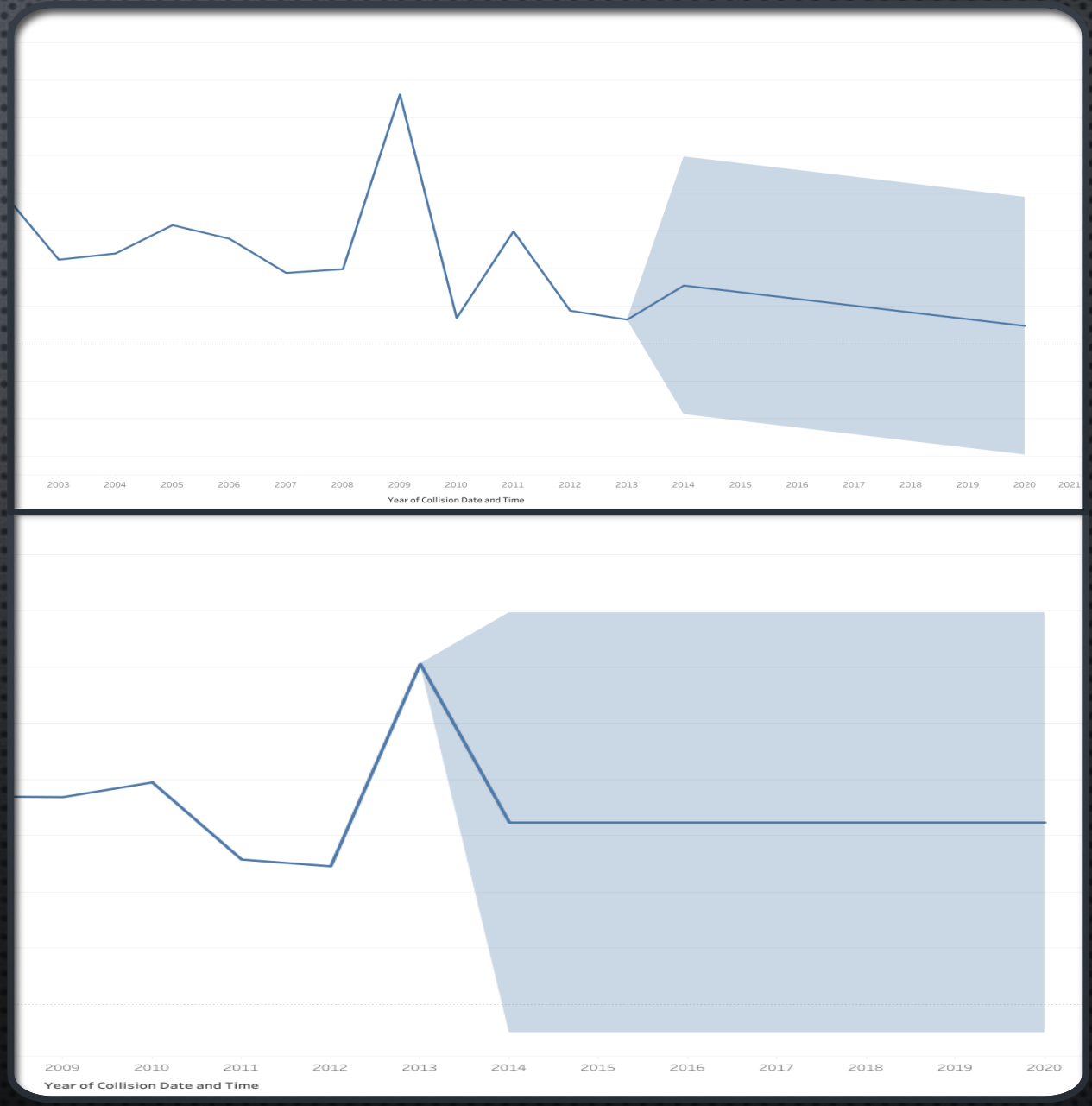
WHAT IS THE TREND OF COLLISIONS AND IS THERE A SEASONALITY?

- TOTAL COLLISIONS – TOP
- COLLISIONS BY QUARTER - BOTTOM
- UPWARDS TREND IN COLLISIONS
- HIGHEST COLLISIONS – Q3
  - MIGRATION?
- WHY?
  - VISUALIZE TRENDS/FORECASTS OVER TIME



IS THERE A TREND IN THE AVERAGE COST IN BOTH $ AND DAYS OUT OF SERVICE

- AVERAGE COST($) – TOP
- AVERAGE COST(DAYS) - BOTTOM
- DOWNWARD TREND AND STAGNANT FORECAST
- HISTORIC CHAOS
- UNCERTAINTY IN COLLISIONS COST
- WHY?
  - VISUALIZE TRENDS/FORECASTS OVER TIME



So why care?

- Damage rarely significant
- Risk management and overall planning
  - Cost – monetary and days out of service – are chaotic
- Potential loss of life
  - Reputation, lawsuits, fines, etc.

Challenges

- Developing questions/rabbit holes,
  - Focus/procrastination
- Data issues – nulls,
- Assembly line problem,
- Extra time
  - Deeper dive into species migration patterns,
  - Explore other animals groups,
  - Find better way to deal with nulls

THANK YOU