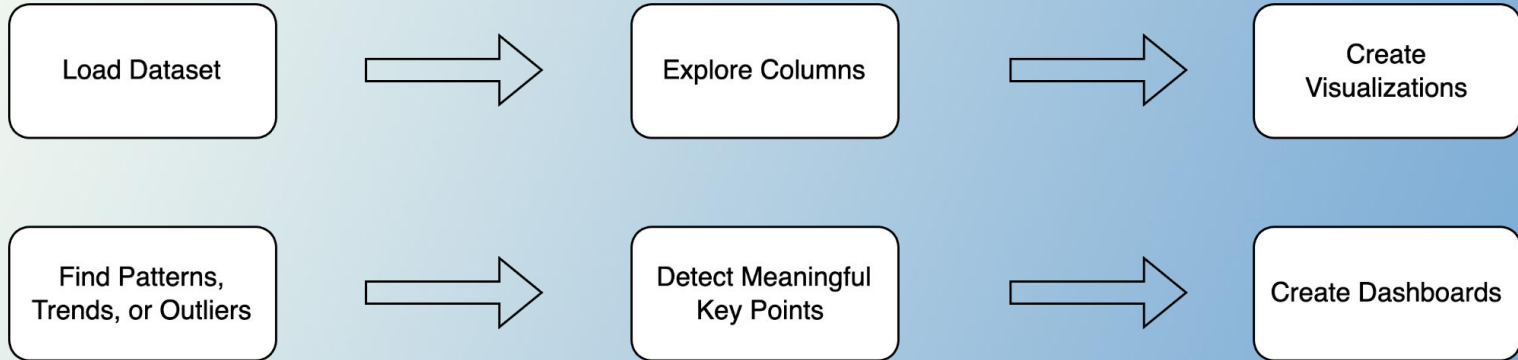# Data Visualization and Dashboards with Tableau

FAA Wildlife Strikes 2000-2015

Nickolas Stello

Project Flow Structure

Goal: analyze a dataset from the Federal Aviation Administration regarding wildlife strikes from 2000-2015 in the United States and turn the data into easily consumable visual insights.

Load Dataset → Explore Columns → Create Visualizations

Find Patterns, Trends, or Outliers → Detect Meaningful Key Points → Create Dashboards

Question 1

What kind of wildlife category has had more collisions?

Wildlife: Category

Wildlife: Animal Category	% of Total Number of Strikes along Wildlife: A..	Number of Strikes
Birds	95.73%	27,089
Terrestrial Mammals	2.98%	844
Bats	1.17%	332
Reptiles	0.12%	33

Question 2

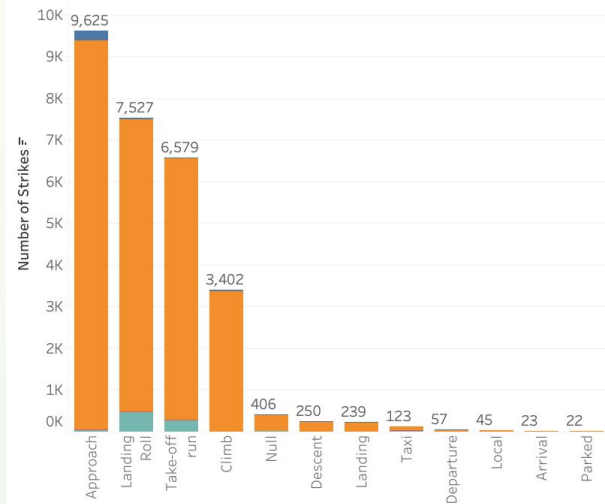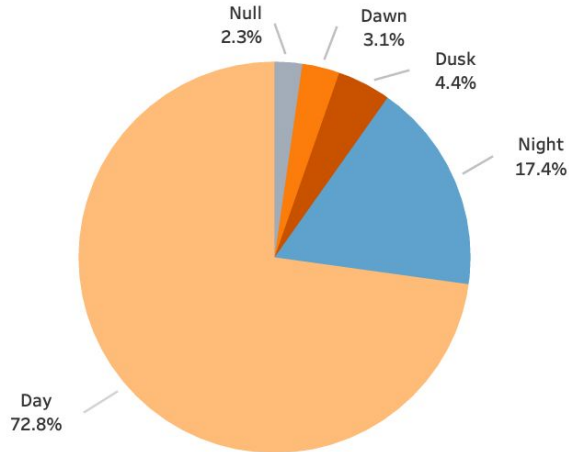What kind of damage occurred by wildlife category?

Wildlife Category & Damage
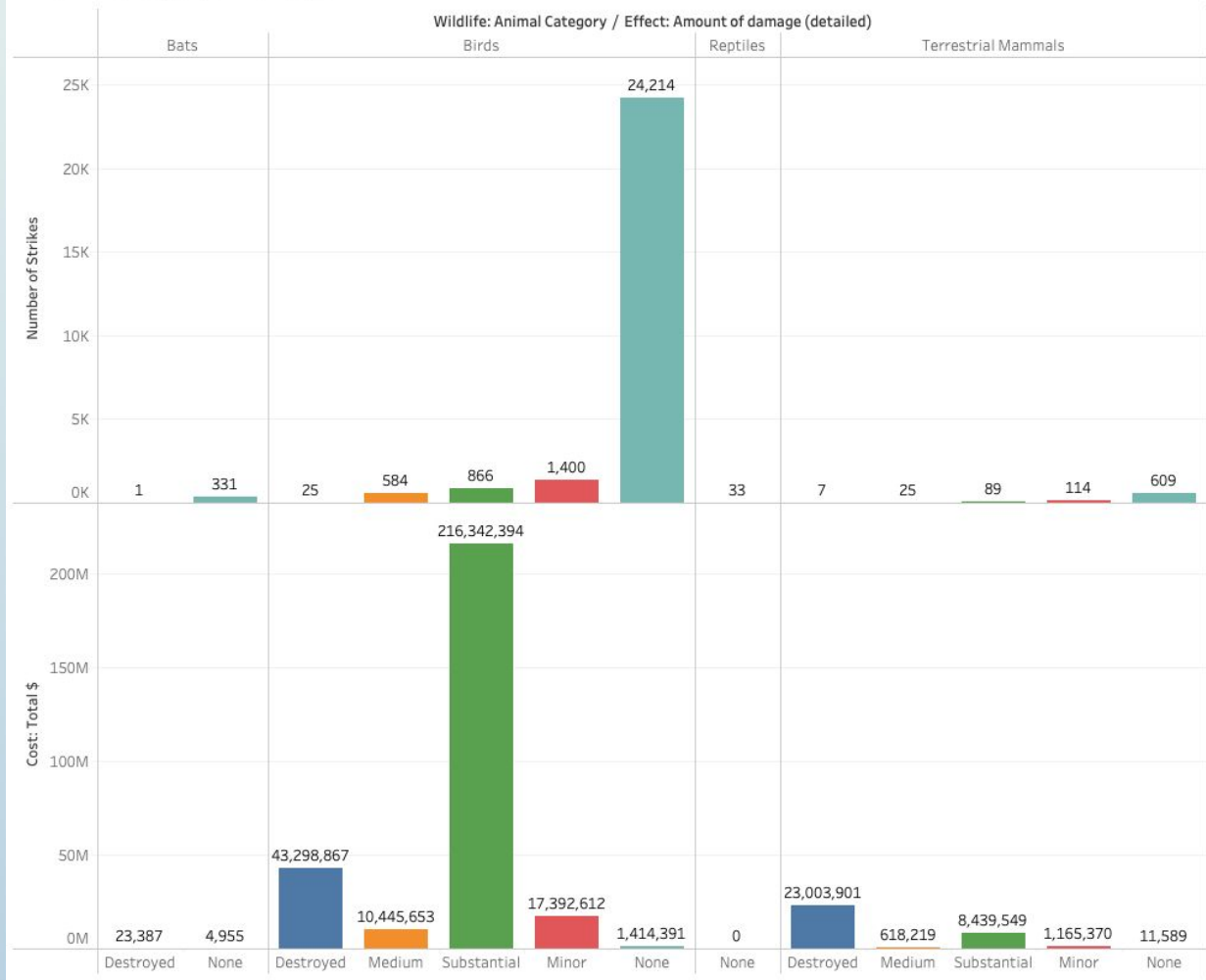
Question 3

When did the majority of the collisions happen?
(phase of the flight, time of the day, time of the year)

Phase of Flight

Phase	Number of Strikes
Approach	9,625
Landing Roll	7,527
Take-off run	6,579
Climb	3,402
Null	406
Descent	250
Landing	239
Taxi	123
Departure	57
Local	45
Arrival	23
Parked	22

Time of the Day

- Null 2.3%
- Dawn 3.1%
- Dusk 4.4%
- Night 17.4%
- Day 72.8%

Time of the Year
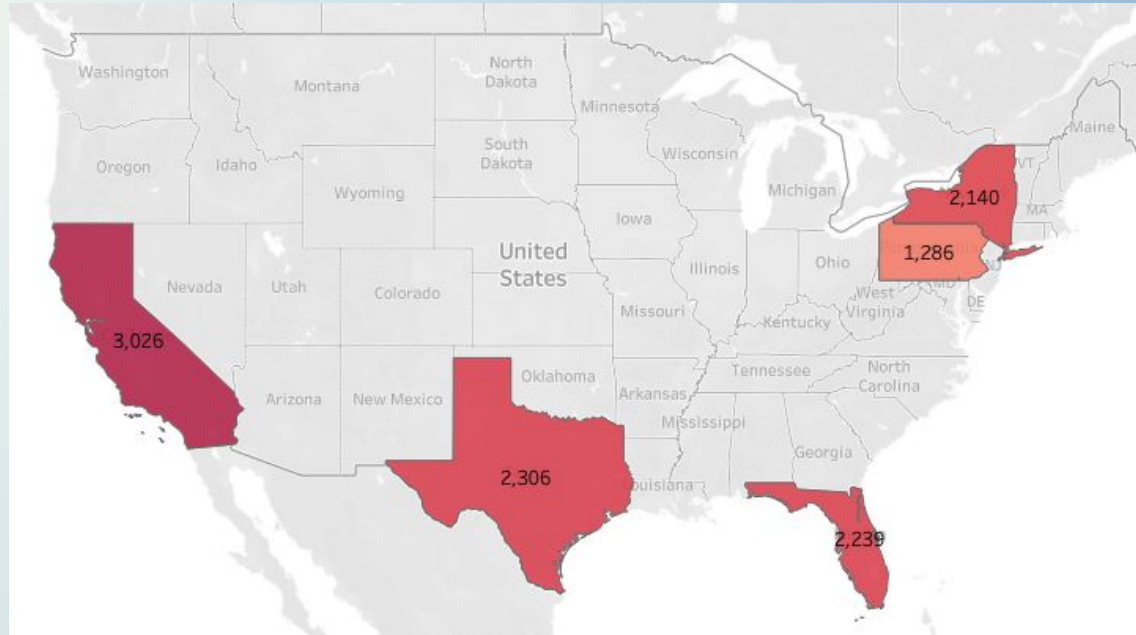
Month of Collision Date and Time: August 2010
Number of Strikes: 405
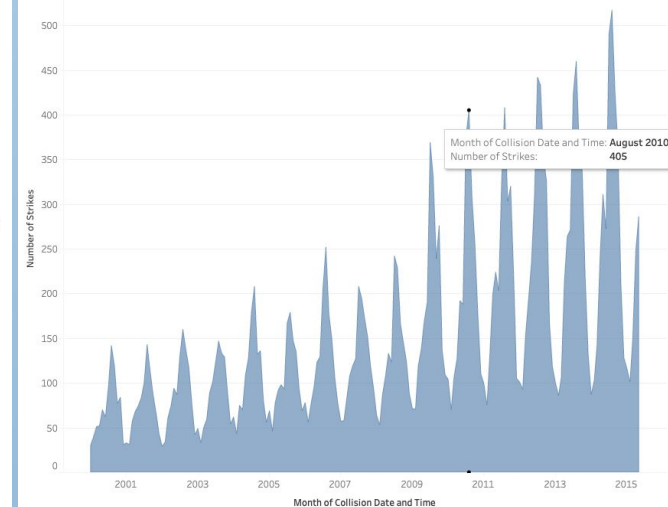
Question 4

Top five states with the highest number of collisions.

Question 5

Top five airports with the highest number of collisions.

Number of Strikes by Airpot

Origin State	Airport: Name	Number of Strikes
Texas	DALLAS/FORT WORTH INTL ARPT	865
Colorado	DENVER INTL AIRPORT	38 / 788
California	SACRAMENTO INTL	673 / 42
Utah	SALT LAKE CITY INTL	633
New York	LA GUARDIA ARPT	602
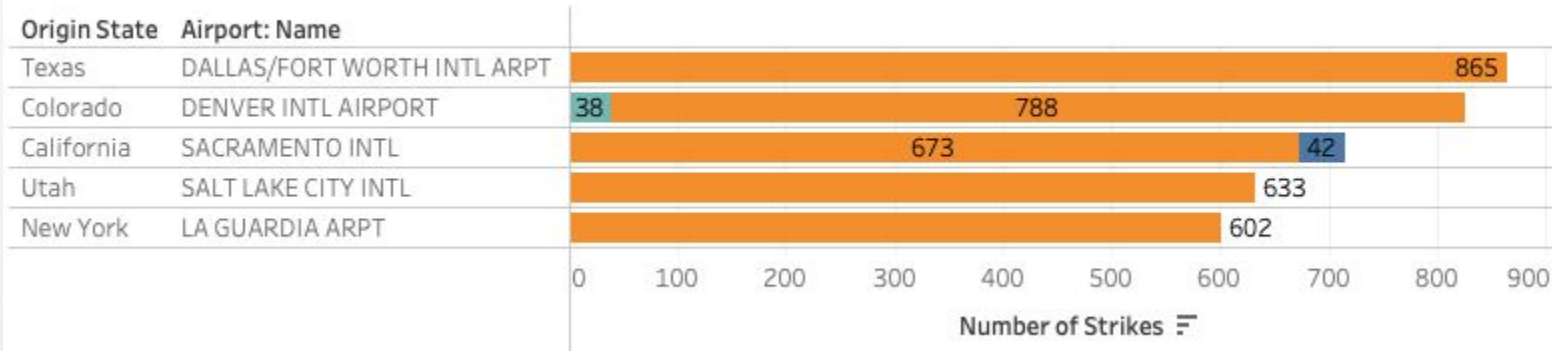
Question 6

Top five airports with the highest cost caused by collisions.

Cost By Airport

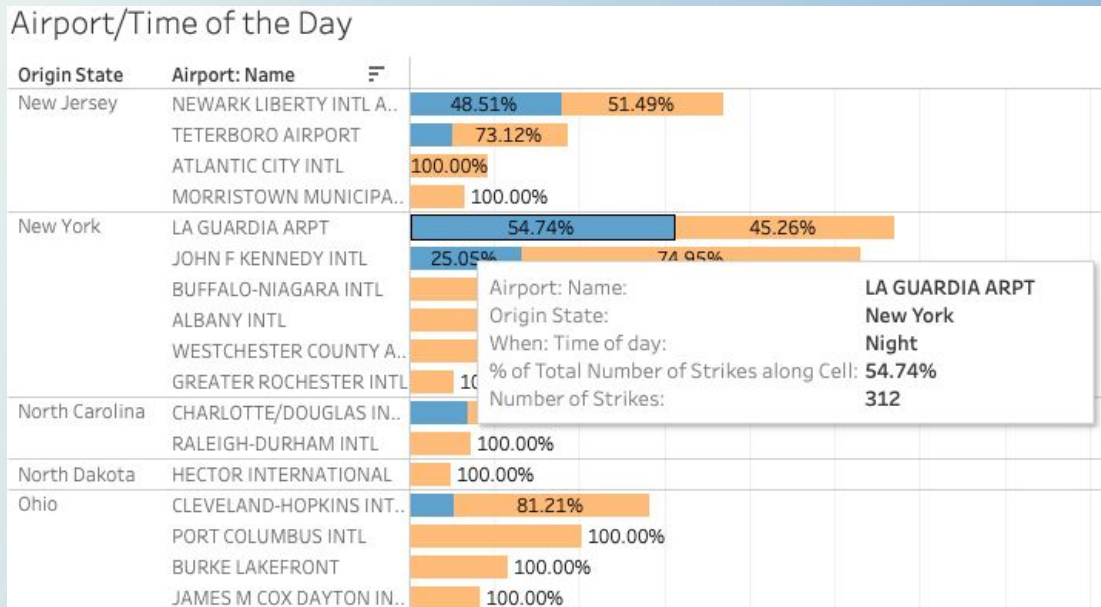| Origin State	Airport: Name	Cost: Total $
New York	LA GUARDIA ARPT	42,215,875
Colorado	DENVER INTL AIRPORT	27,170,282
Alabama	TROY MUNICIPAL ARPT	13,417,954
Oregon	PORTLAND INTL (OR)	13,100,897
Utah	SALT LAKE CITY INTL	11,570,745
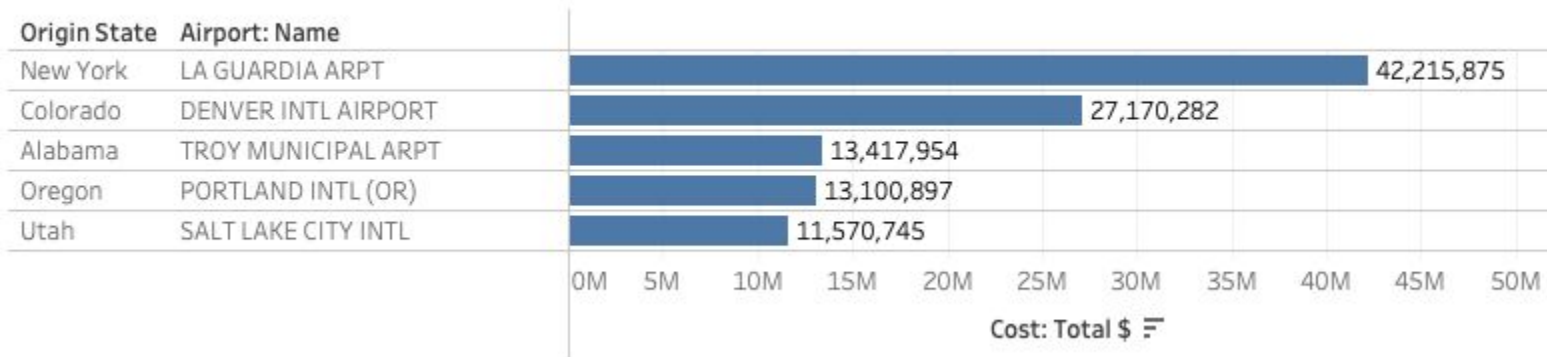
Outlier 1

Of all airports, LaGuardia Airport - NY is the only airport that had more collisions during the night than during the day.

Outlier 2

Even though Troy Municipal Airport - AL had only 2 collisions, it is the third airport with the highest cost.

Cost By Airport

Origin State	Airport: Name	Cost
New York	LA GUARDIA ARPT	42,215,875
Colorado	DENVER INTL AIRPORT	27,170,282
Alabama	TROY MUNICIPAL ARPT	13,417,954
Oregon	PORTLAND INTL (OR)	
Utah	SALT LAKE CITY INTL	

Airport: Name: **TROY MUNICIPAL ARPT**
Origin State: **Alabama**
Cost: Total $: **13,417,954**
Number of Strikes: **2**

Challenges

Since Tableau is highly customizable, sometimes is hard to find a specific tool or how to do certain tasks. Occasionally Tableau gives the impression of having too many options.

Future Goals

If more time was available, it would be interesting to find the number of flights per airport per year to give the number of collisions more context.

Thank you!

github.com/nickolas-s

linkedin.com/in/nickstello