



Why Buy a Pet When You Can Adopt?

Pets Admitted at Austin Animal Shelter

General Data Overview

(4 slides)



General Data Overview (Context)

First 10 lines of data

Abc aac_shelter_outcomes.csv	Abc aac_shelter_outcomes.csv	Abc aac_shelter_outcomes.csv	Abc aac_shelter_outcomes.csv	Abc aac_shelter_outcomes.csv
Age Upon Outcome	Animal Id	Animal Type	Breed	Color
2 years	A747283	Dog	Chihuahua Shorthair Mix	Tan/White
1 year	A739676	Dog	Great Pyrenees Mix	White/Buf
1 year	A737852	Dog	Pit Bull Mix	White/Black
2 weeks	A701935	Cat	Domestic Shorthair Mix	Brown Tabby
4 months	A745843	Dog	Labrador Retriever Mix	Black/White
8 years	A720538	Other	Raccoon Mix	Gray/Black
2 years	A758138	Dog	Pit Bull Mix	Brown Brindle
3 weeks	A704904	Cat	Domestic Medium Hair Mix	Brown Tabby
7 months	A742915	Cat	Domestic Shorthair Mix	Brown/Brown Tabby
1 month	A751172	Cat	Domestic Shorthair Mix	Blue

- Animal shelters make sure that pets are taken care of (outcome type)
- Each row in the dataset is a unique animal and each column is that animal's attribute.

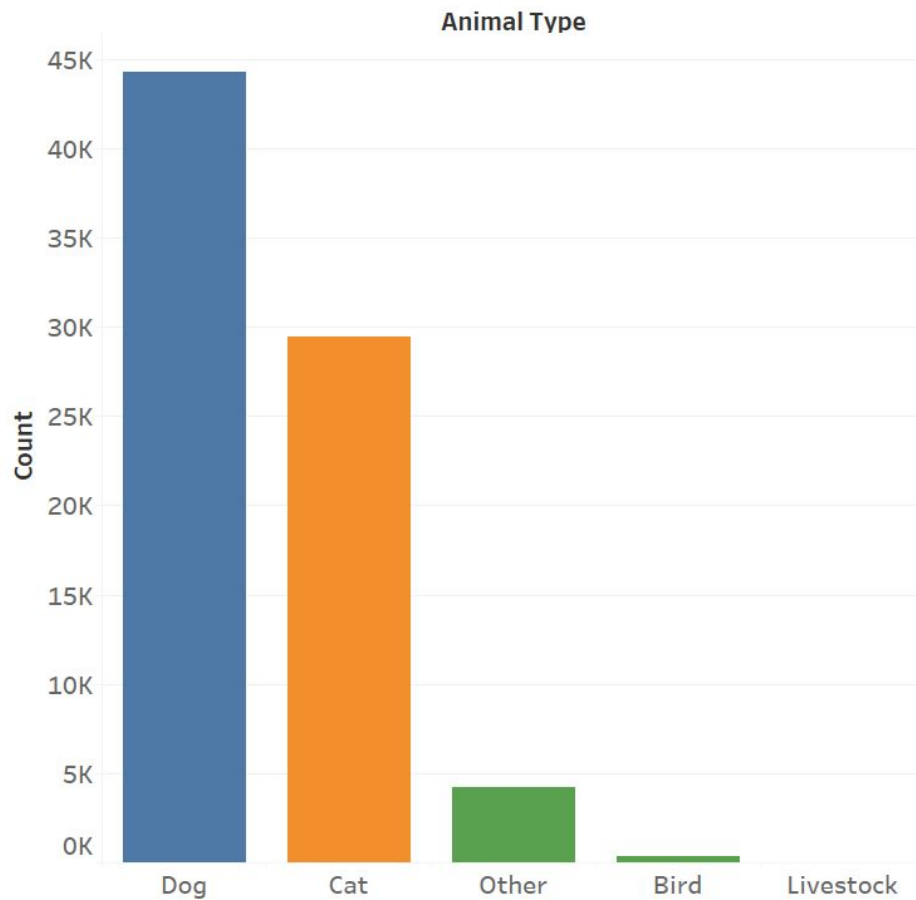
Possible Questions

- What factors affect whether a pet will be adopted or not?
- What about pets who are not adopted?
- What about pets who are adopted quickly, versus ones who stay in the adoption facility for a long time?
- Can you see any commonalities/patterns?
- Are there clues the agency can look for to see if a pet is at risk of not being adopted?

General Data Overview

- 12 columns (3 date, 9 categorical)
- 78,256 rows (animals in total)
- Cats and dogs comprise >90% of all animals

Number of Animals by Type

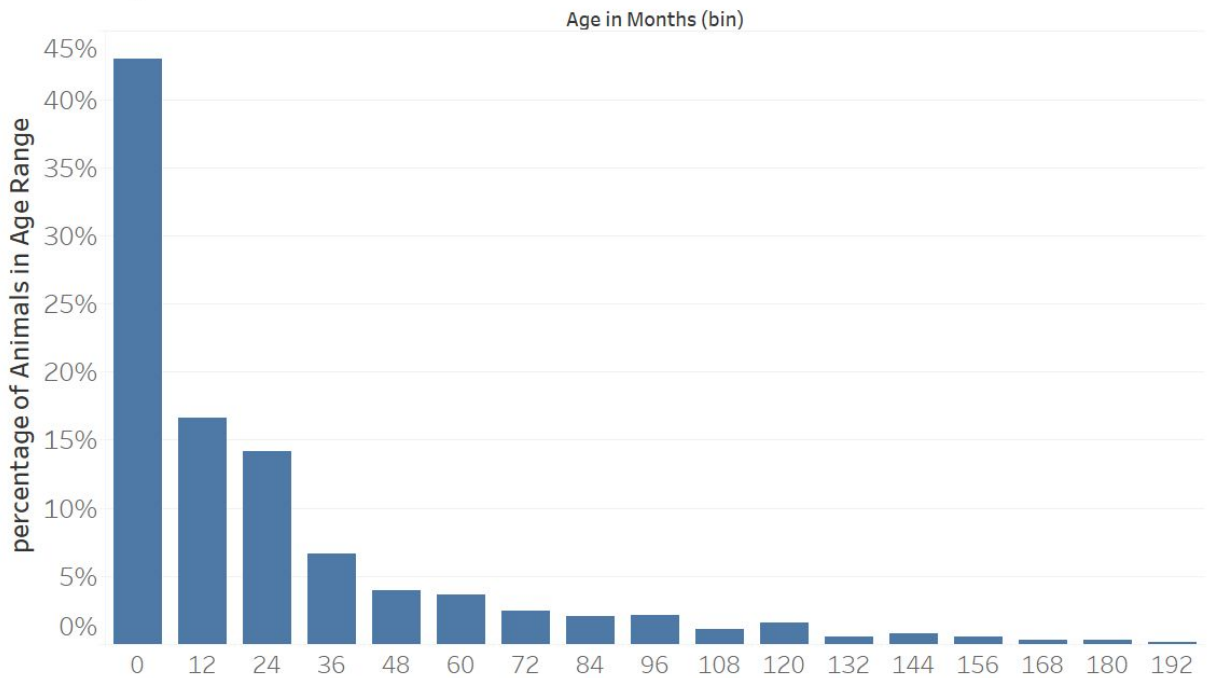


General Data Overview (Purpose/Audience)

- Goal: Increase “positive” outcome statuses (or at least understand why “negative” outcome statuses happen)
- Potential audience: Shelter workers, animal owners, and people interested in adopting

Sanity Check: How old are all the pets?

Animal Ages



- Graph makes sense, all animals have ~10 - 20 year lifespan

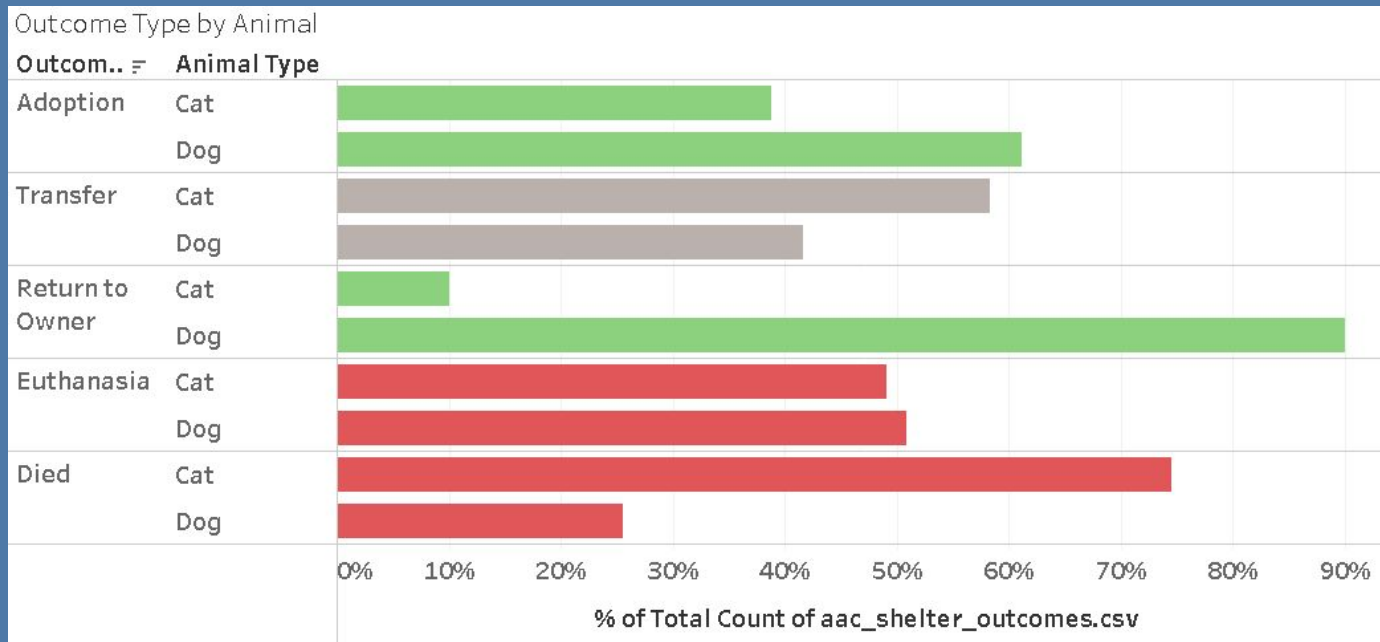
Positive vs. Negative Outcomes

(>5 slides)

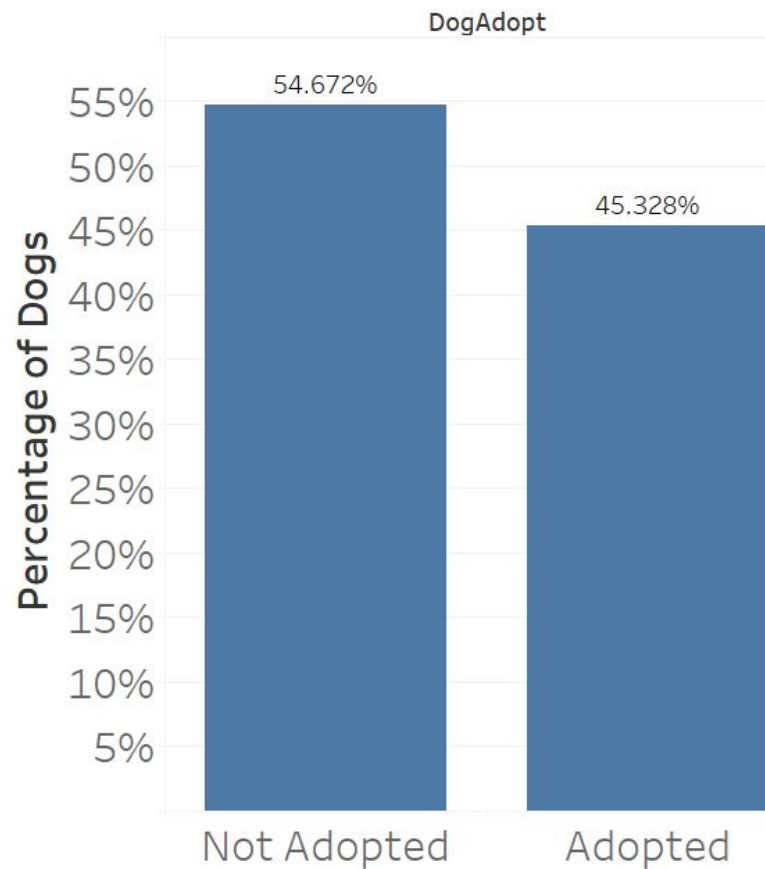
Focusing on cats vs. dogs

Overview of Outcome Types

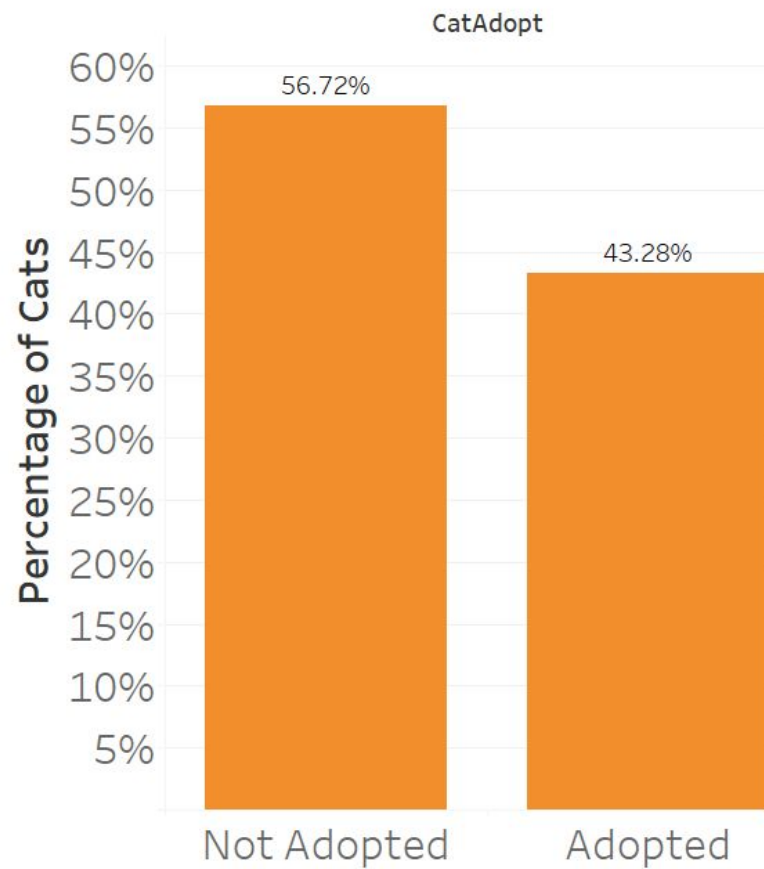
- Positive: Adoption, Return to Owner
- Neutral: Transfer
- Negative: Euthanasia, Died



Dog Adoption Percentage

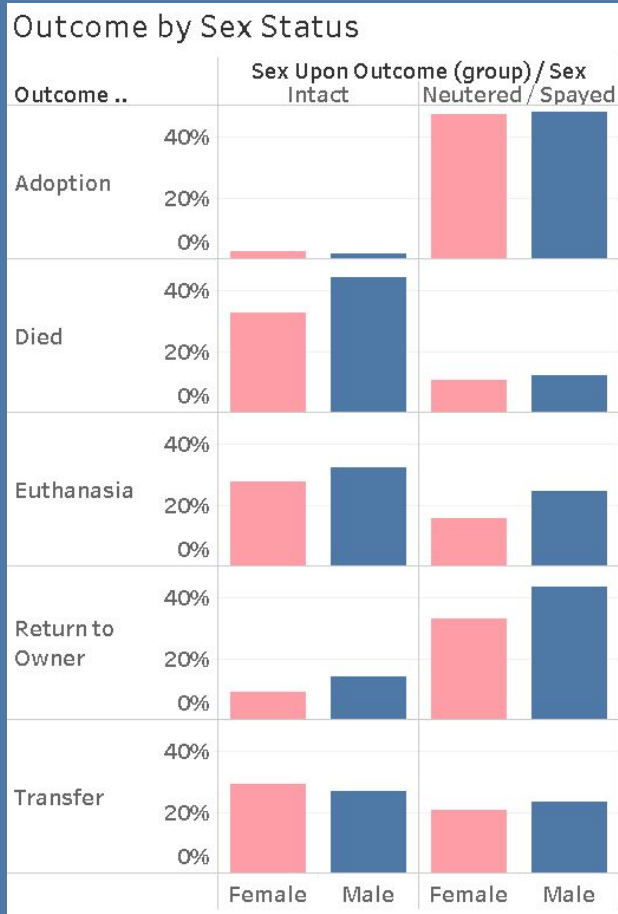


Cat Adoption Percentage



What affects the outcome status?

- Sex status has a very strong correlation
- Being spayed or neutered increases positive outcomes

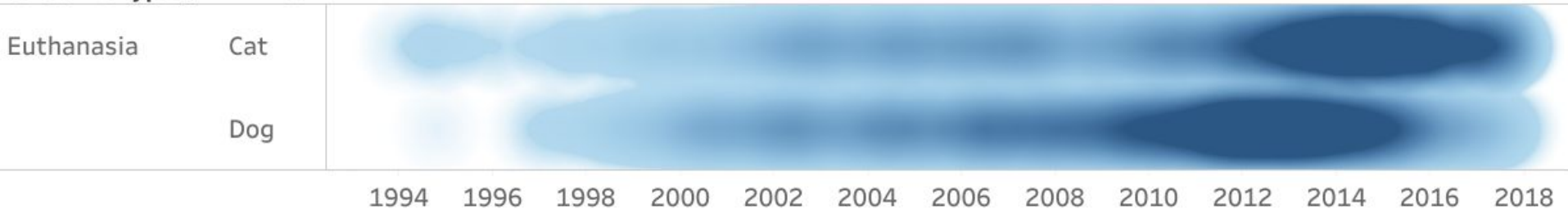


Euthanasia by age for Cats vs. Dogs

- Cats get euthanized a lot younger than dogs, why is that?

Outcome by DoB

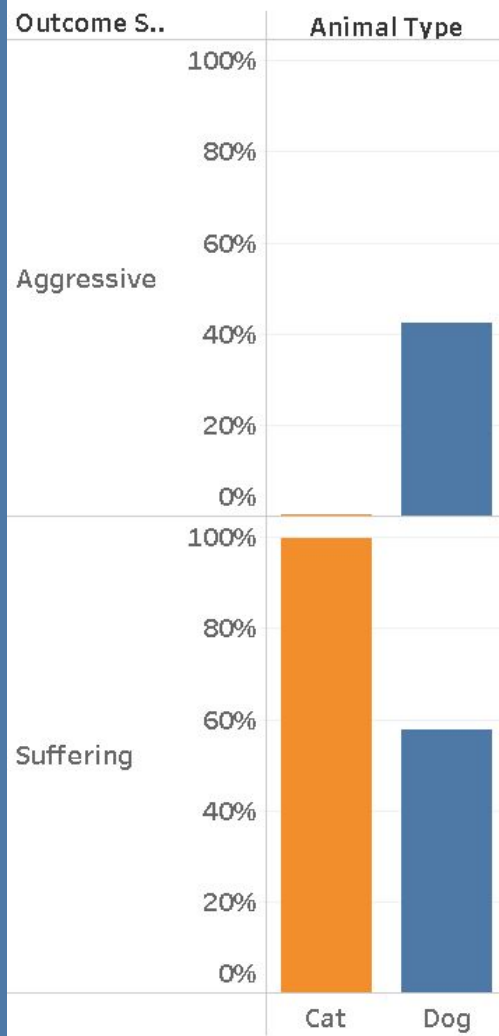
Outcome Type = Animal..



Poor Cats

- Dogs get euthanized for aggression a lot more than cats.
- Cats get euthanized for suffering a lot more than dogs.

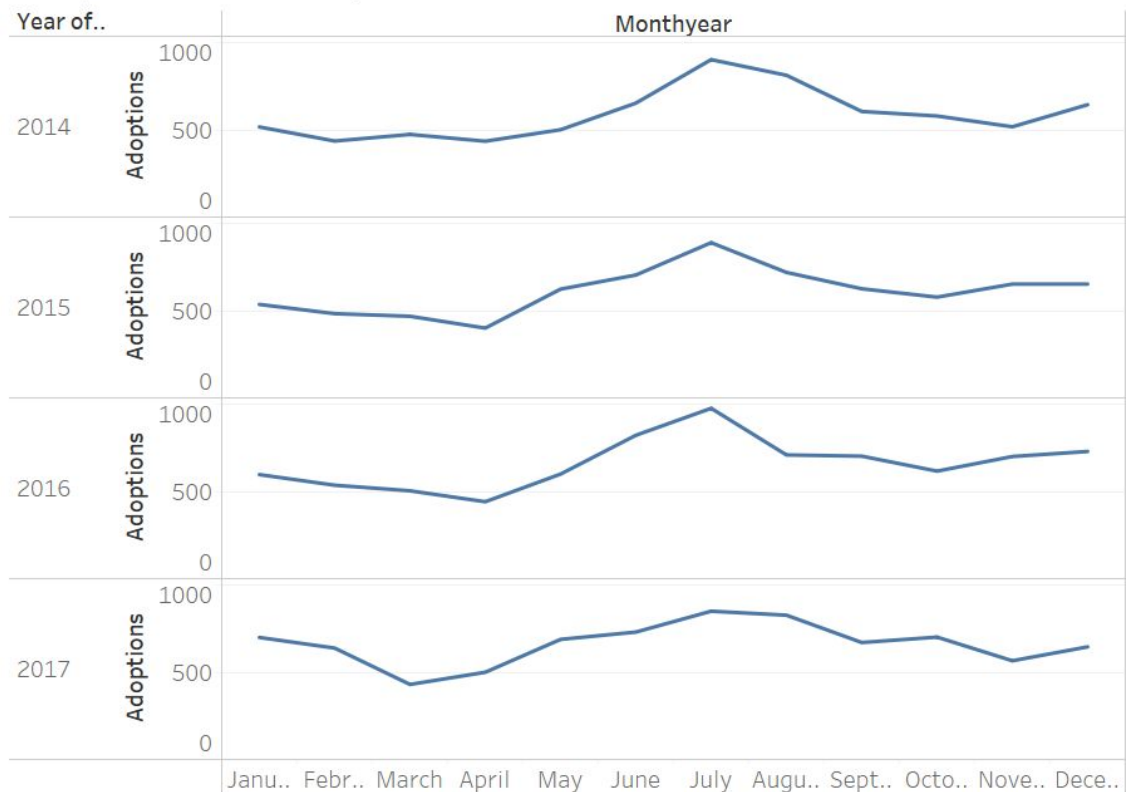
Why do Cats Die so Early?



Adoption Rates per Month

- Clear trend in which months have more versus less adoptions

Adoption Amounts per Month



Conclusion

- For adoption rates, there is not a major difference between dogs vs. cats
 - Being neutered/spayed increases positive outcomes
 - Cats are more likely to be euthanized due to suffering, while dogs are more likely due to aggression
-

Extra Graphs

(not part of presentation)



Does Animal Type Affect Outcome?

Percecentage by Outcome

Animal Type	Outcome Type									
	Null	Adoption	Died	Disposal	Euthana..	Missing	Relocate	Return to Owner	Rto-Adopt	Transfer
Bird		0.34%	0.59%	7.17%	1.40%	2.17%	43.75%	0.06%		0.39%
Cat		38.45%	59.26%	5.21%	23.90%	60.87%		9.97%	22.00%	56.70%
Dog		60.56%	20.29%	5.54%	24.74%	36.96%		89.70%	78.00%	40.50%
Livestock		0.01%						0.01%		0.03%
Other		0.64%	19.85%	82.08%	49.97%		56.25%	0.26%		2.38%

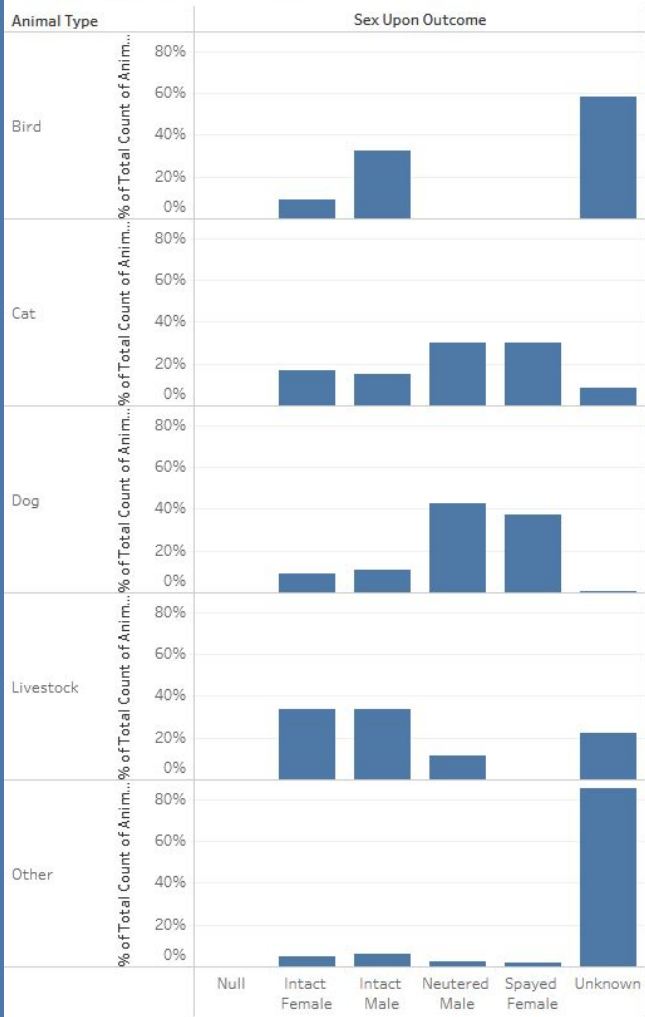


% of Total Count of Outcome Type broken down by Outcome Type vs. Animal Type. Color shows % of Total Count of Outcome Type. The marks are labeled by % of Total Count of Outcome Type.

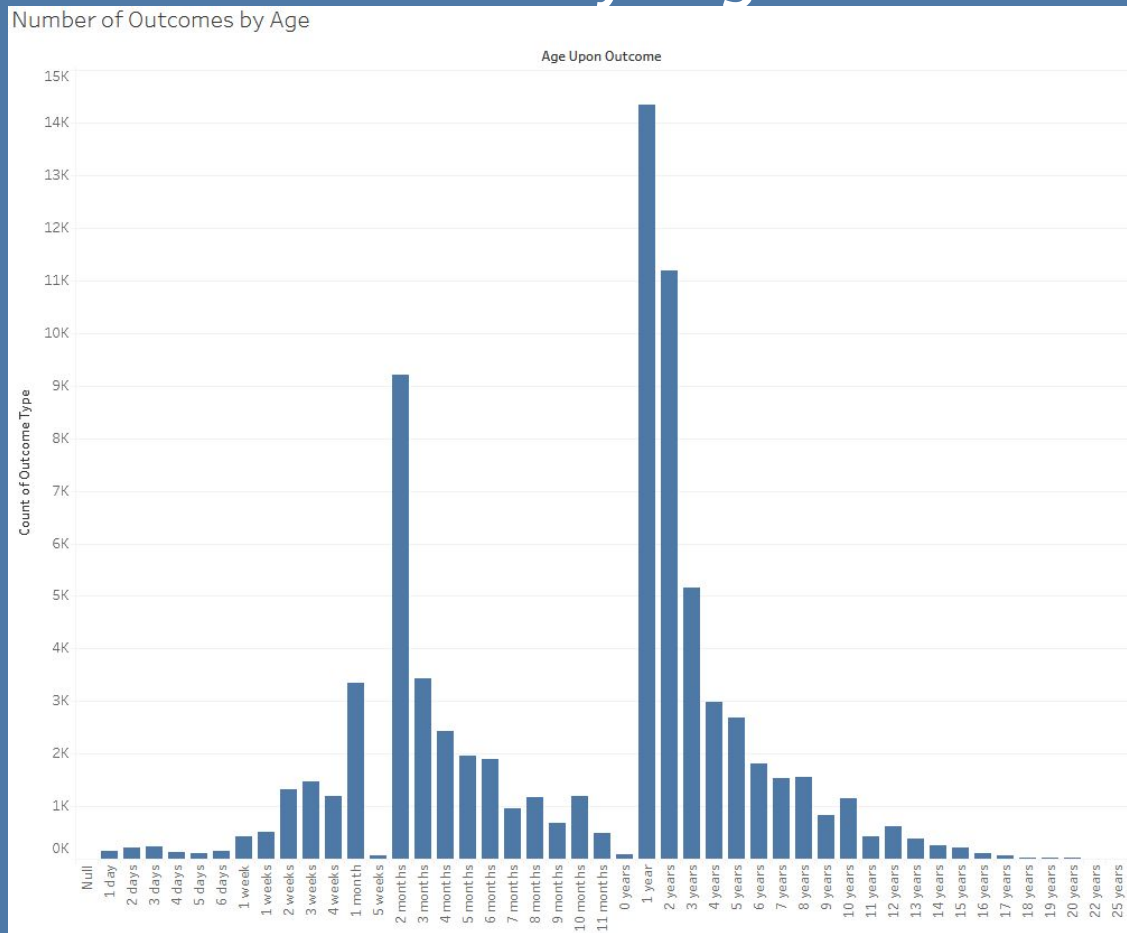
- Dogs are generally better off than any other animal (cats have it rough)

Animals by Sex Status

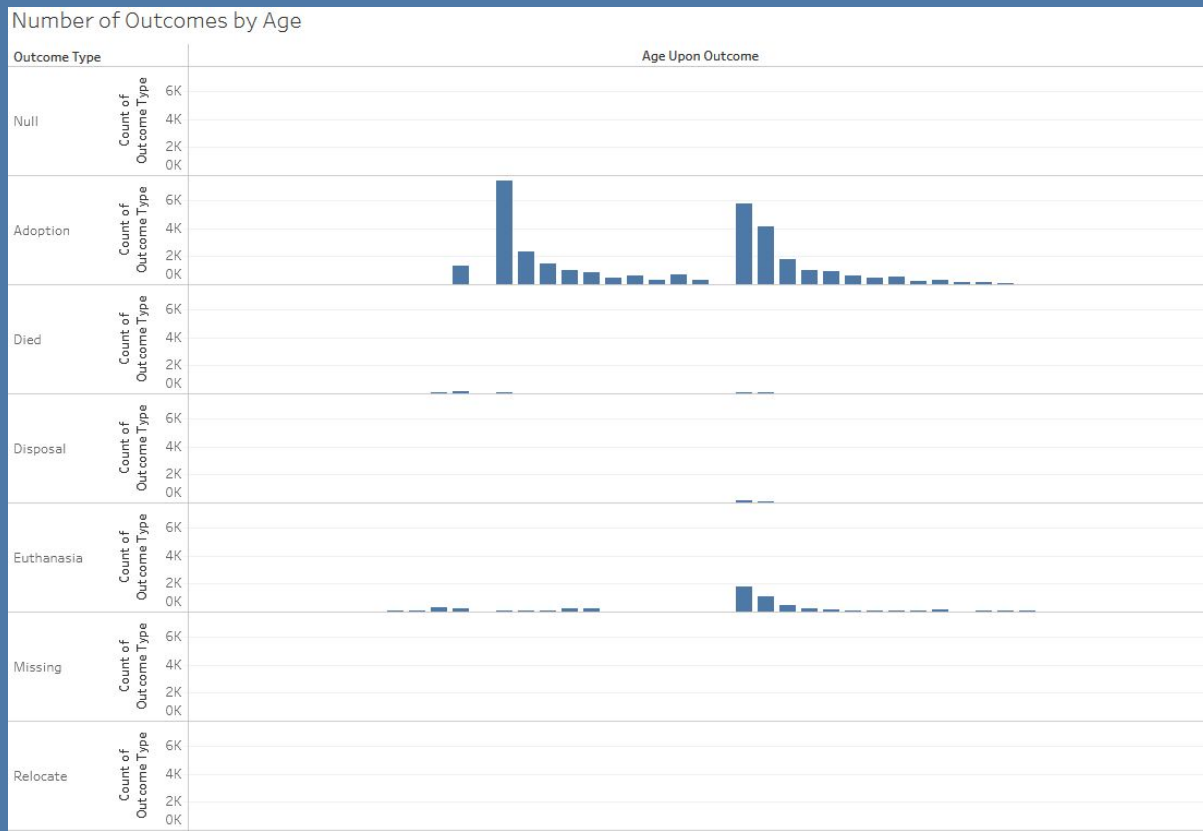
Animal by Neutered Status



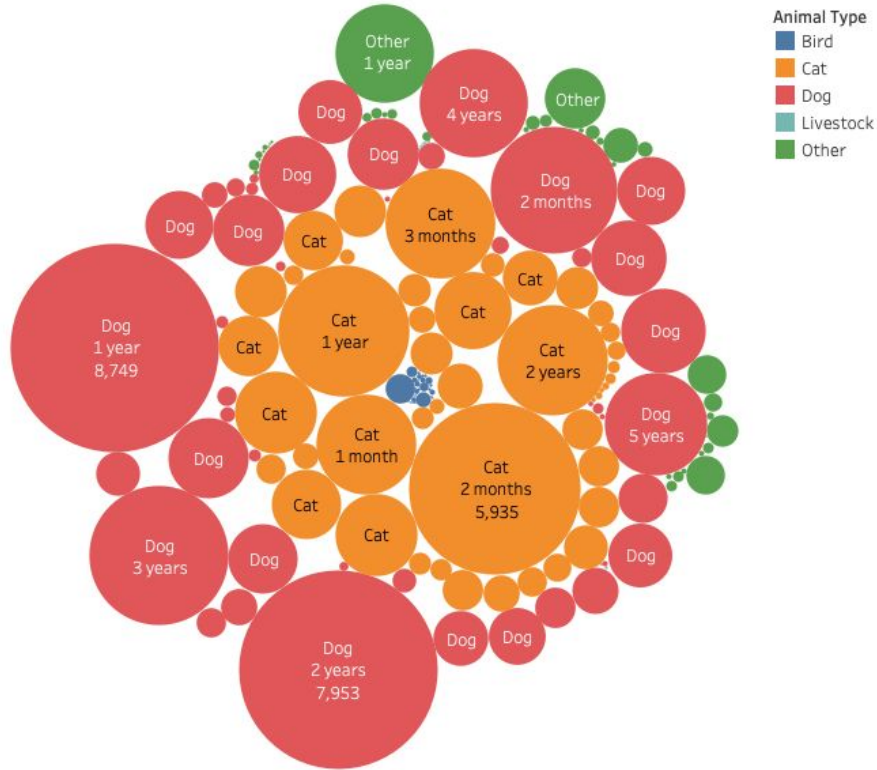
Number of Outcomes by Age



Number of Outcomes by Age and Type

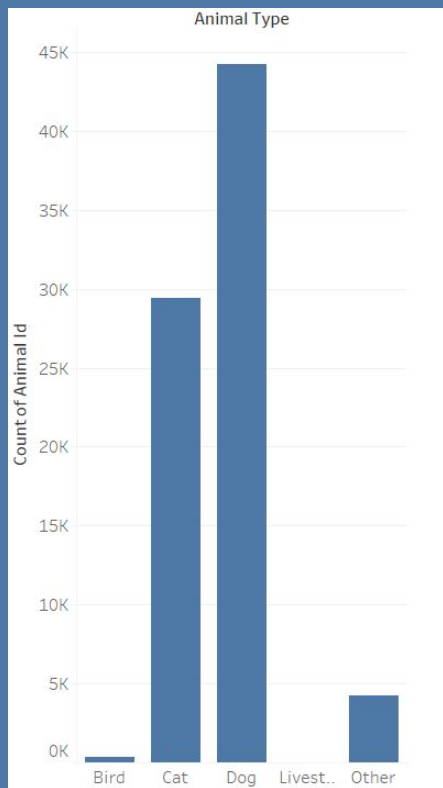


AgeUponOutcome by Animal type



Animal Type, Age Upon Outcome and count of Outcome Type. Color shows details about Animal Type. Size shows count of aac_shelter_outcomes.csv. The marks are labeled by Animal Type, Age Upon Outcome and count of Outcome Type.

- Age is important when choosing a pet?



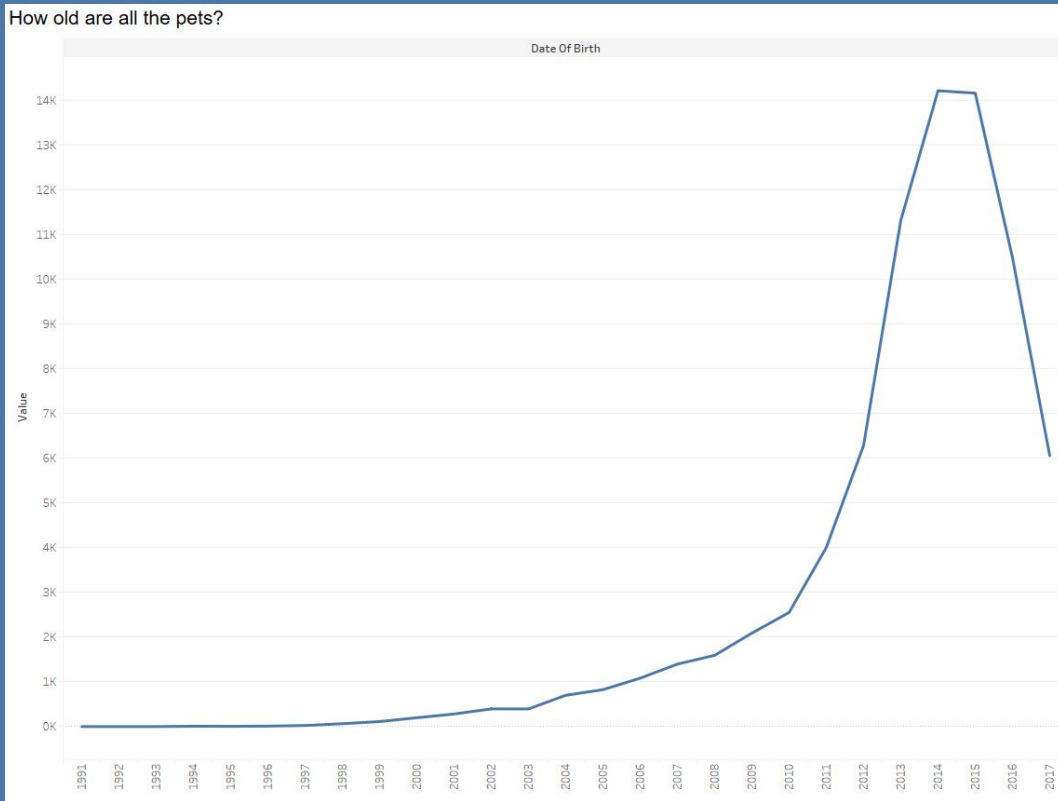
animal type vs outcome

Outcome Type	Animal Type				
	Bird	Cat	Dog	Livest..	Other
Null		3	4		5
Adoption	114	12,732	20,052	2	212
Died	4	403	138		135
Disposal	22	16	17		252
Euthanasia	85	1,453	1,504		3,038
Missing	1	28	17		
Relocate	7				9
Return to Own..	9	1,431	12,875	1	38
Rto-Adopt		33	117		
Transfer	92	13,323	9,518	6	560

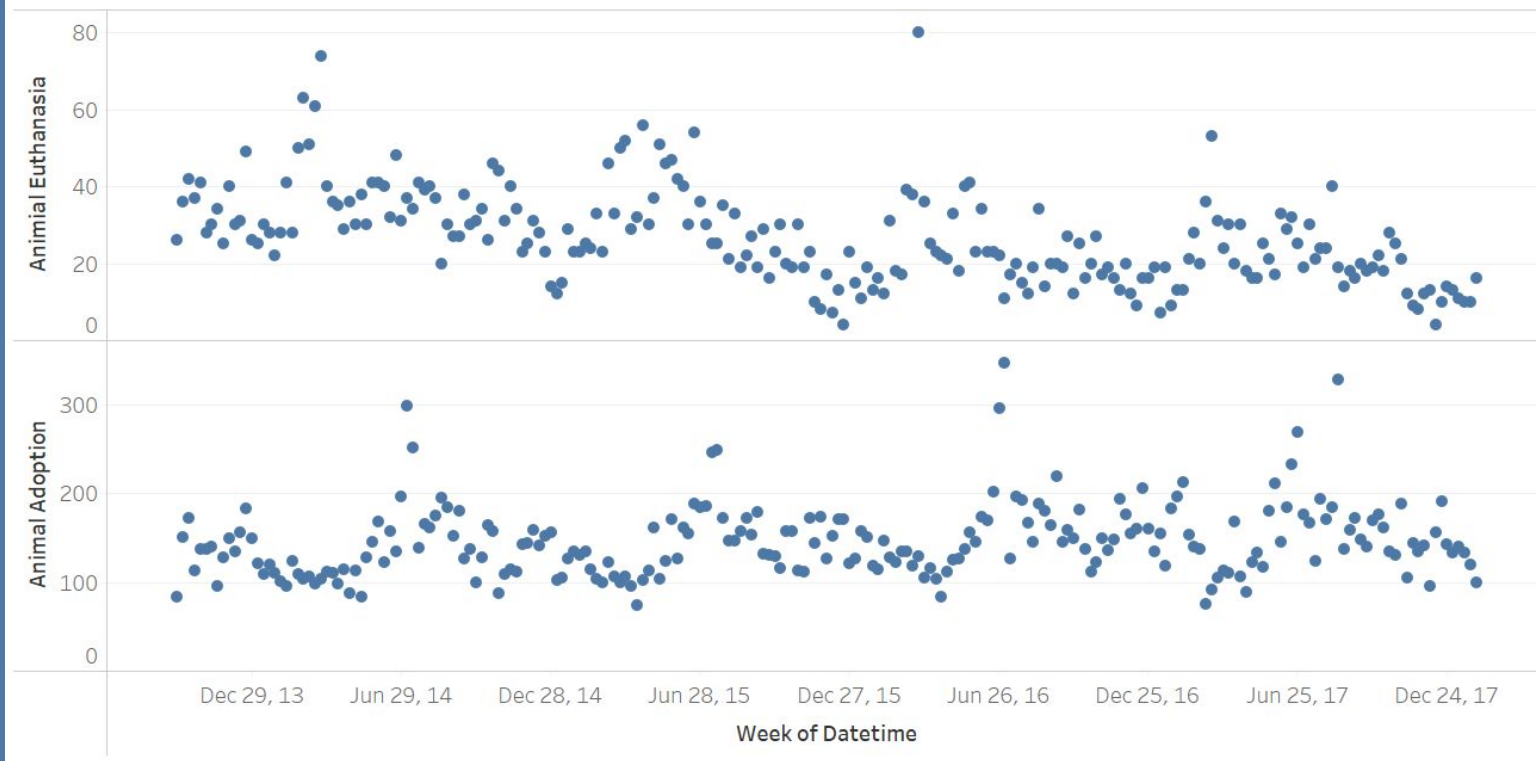
Cat's adoption rates are lower, their euthanasia rates are higher, their deaths in the shelter rates are higher, and their return to owner rates are dramatically lower than dogs.

About 25.44% of birds are being euthanized, 4.935% of cats are euthanized, and 3.399% of dogs are being euthanized.

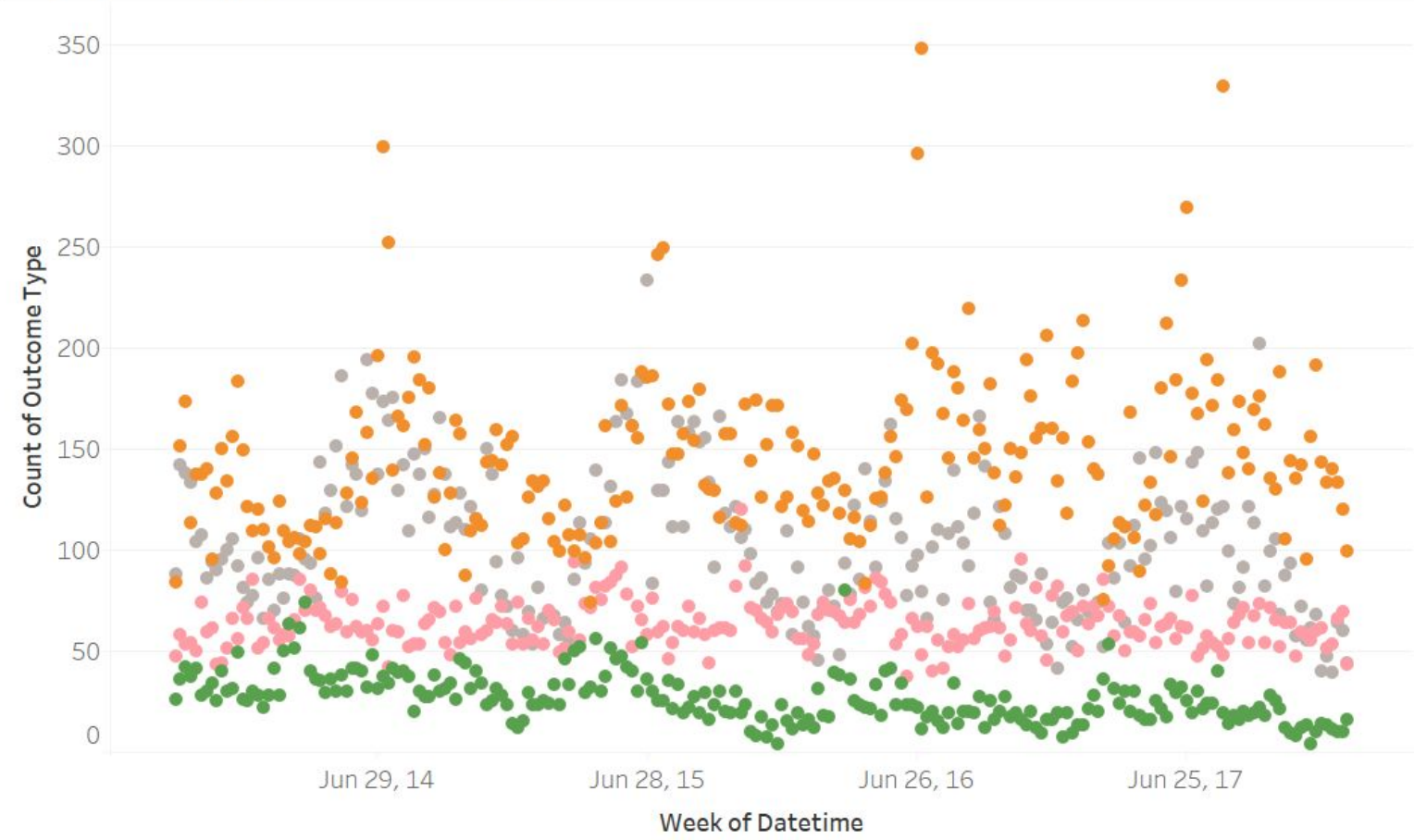
DOB graph for all pets



Animal Adoption and Euthanasia Over the Years



Outcome types over time of year



Outcome Type

- Adoption
- Euthanasia
- Return to Owner
- Transfer

Are dogs and cats adopted at the same rate?

- Dogs have higher adoption to admission rates than any other animal.
- Although there are more dogs, cats have a higher transfer rate.

