# **RESCUE MY HOME**

Increasing Adoption and Decreasing Suffering at the Austin Animal Center



#### **Problem**

**Capacity Crunch.** 

But is it really that big a deal?



# Big deal?



#### Return to 'normal' leaves Austin Animal Center overcrowded; shelter facing kennel space crisis

Kelsey Bradshaw Austin American-Statesman

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Austin Animal Center shelter facing overcrowding challenges

by Paige Hubbard | Wednesday, December 22nd 2021

Austin

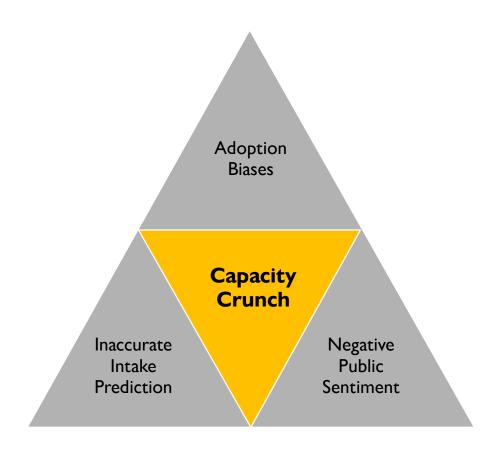
The Austin Animal Center Has A 'Capacity Crisis.' It Says Its Kennels Are Completely Full.

Capacity Crisis.





#### What are the causes?







#### **Solution**

Optimizing the space by promoting adoption and safety!



#### **Data Description**

- > Animal Intake and outcome data from the Texas Animal Shelter
- Each animal is identified by a unique Animal ID in the Intake dataset. However there are some animals that re- enter the shelter (duplicated animal IDs)
  - ✓ In order to create a unique ID, we created a sequence number and added that to the Animal ID. Accordingly, each row in the intake dataset consists of a Intake event.
  - ✓ We Left joined the intake dataset with outcome dataset using the composite key of Animal ID and entry sequence number

#### **Data Quality Issues**

- Incorrect intake Age (negative Age values)
- Missing values on Sex upon intake,
- Removed rows where the outcome was (Label)

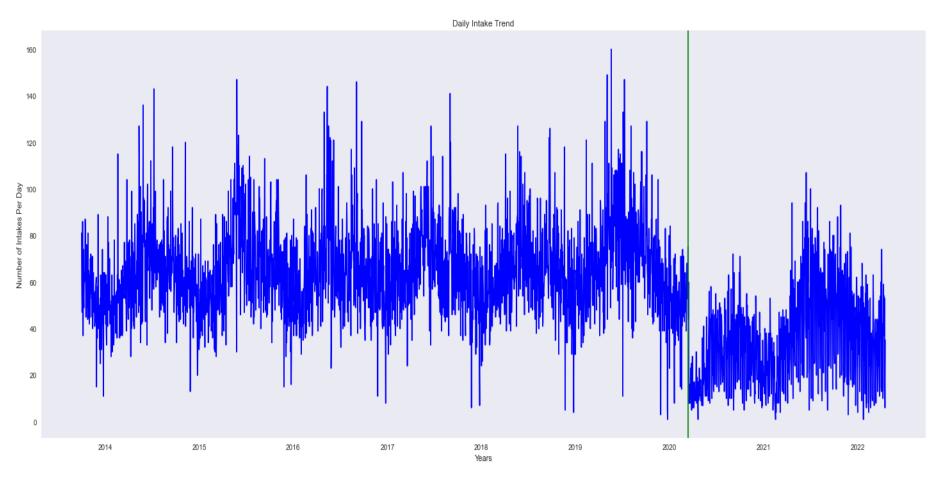
**Reporting Period:** 2013-10-01 to 2022-04-18





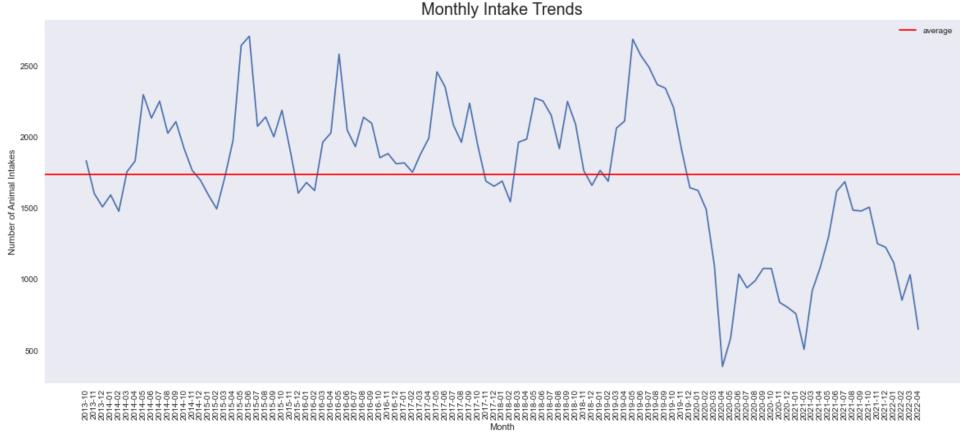
# Intake Analysis: Managing Demand

## **Daily Trends**



Animal intake is dropped in March 2020. Unforeseen impact due to COVID.

#### **Monthly Trends**



Each year, Intakes increase starting in March (Spring) and drop low around October (end-Fall).

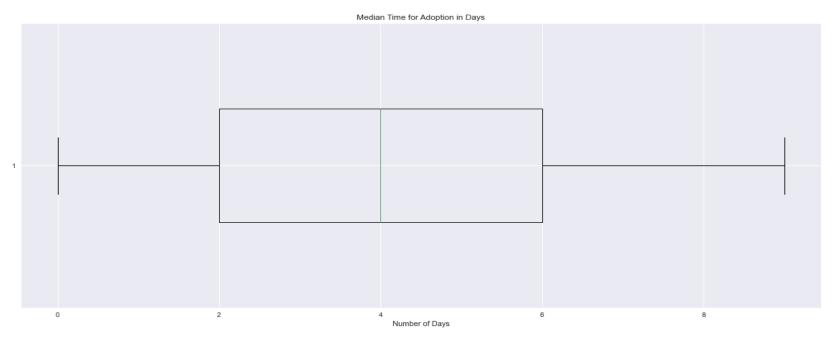
Run adoption campaigns during October to March when the intake period is low.

This will ensure more space is made available before the next peak in March (Spring) begins.



# Adoption Analysis: Uncovering Biases

### Median Time to Adopt (All Animals)

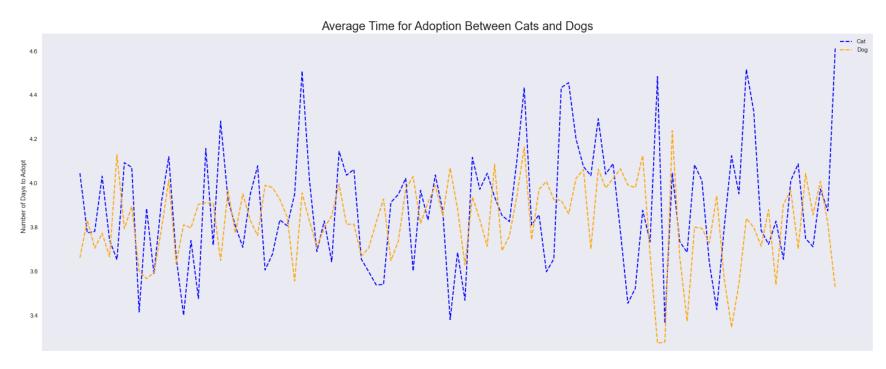


Median Time for Adoption = 4 days

Not all animals get adopted at the same time. Some wait for longer than others!

There are some animals that get adopted on the same day, and others that can take even upto 9 days.

#### Dogs vs Cats: Is there favoritism in adoption?



Average Time for Adoption 

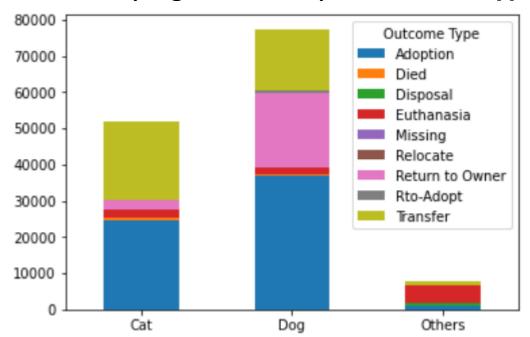
Dogs = Cats (approximately)

Cats have more variance (SD = 0.27) vs dogs (SD = 0.18)

However, this doesn't tell us if one is more preferred than the other.

#### Dogs vs Cats: Is there favoritism in adoption?

Animal (Dog, Cat, Other) vs Outcome Type



Dogs have more number of adoptions and returns to owner than cats or other animal types.

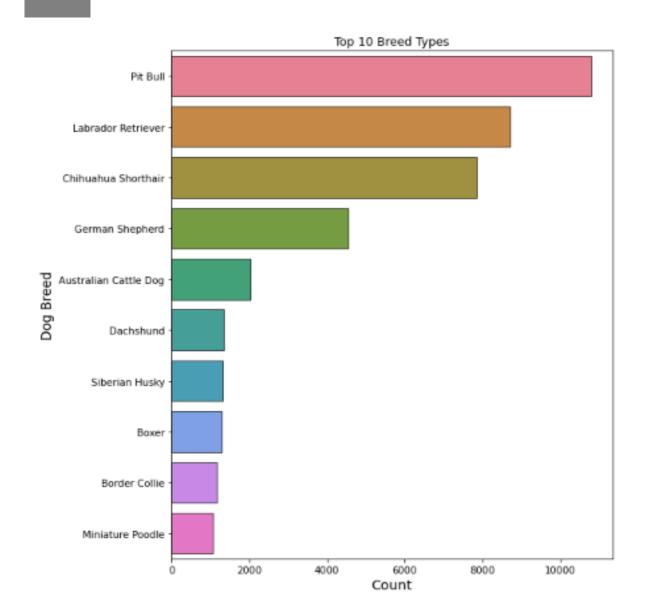
Therefore, dogs can be concluded as more desirable than cats.

### Are all dogs favorite?

Just because dogs are more preferred than cats, can we extend this desirability for all breeds?

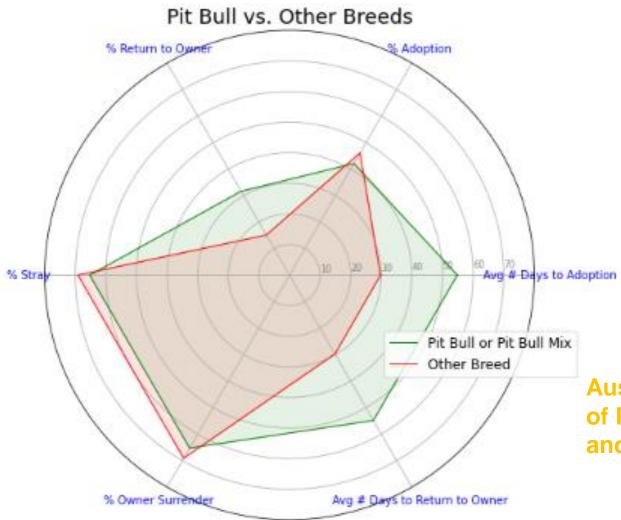
Does a dog breed affect its desirability to find a home?

### Popular Dog Breeds in Shelter



We can see that Pitbull and its mixed/cross breeds are the most common breed with a definite outcome from the shelter

### Desirability of a Breed: Pitbull



We can see a few interesting insights from the above chart -

- **1.% Owner Surrender** is **Low** as compared to other breeds This implies that Pitbull's are less likely to be surrendered by their owner, indicating to their desirability
- 2.% Return to Owner is Very High as compared to other breeds This could be because Pitbull's are loved by their owners and develop a sense of attachment that makes about 31% of the Pitbull's return to their owners (though, the owners take time to realize that they are missing their dog (high avg. number of days to return). Yet another indication for desirability.
- 3.% Stray is Low as compared to other breeds Since Pitbulls are predominantly domestic breeds, pitbulls are lesser often stray than other breeds.

Across other metrics, we can observe that Pitbulls have a slightly lower percentage of adoption and once in the shelter, it takes a long time for a Pit Bull to find home, thus making it less desirable perhaps due to its belligerent image, while known to being a loyal/attached pet.

Austin Animal Shelter should promote adoption of Pitbulls and use data to challenge the biases and stereotypes against such breeds.

This will help ease some pressure off the capacity.

### Are all dogs favorite?

Just because dogs are more preferred than cats, can we extend this desirability for all breeds?

Does a dog breed affect its desirability to find a home? Yes.



# Safety Analysis: Avoiding Euthanasia

#### **Euthanasia and Public Sentiment**



# Euthanasia for Lack of Space and Shelter Transparency

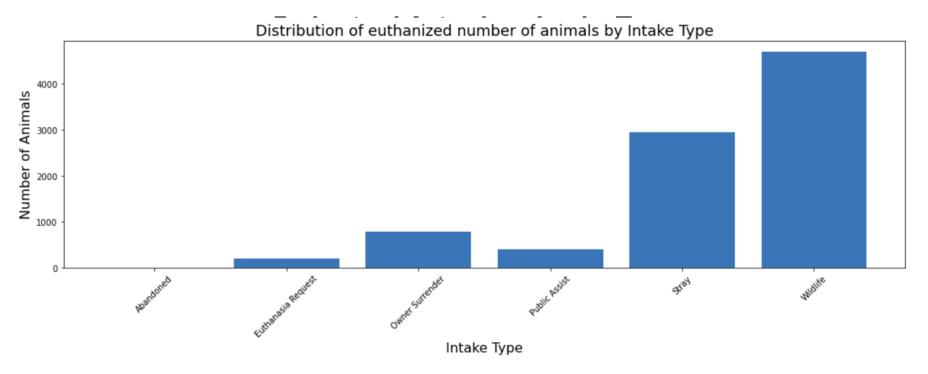
Shelters should not fear being honest with their volunteers, adopters, and even their staff about the grim realities of not being there yet with respect to No Kill. An increasingly educated public will increasingly demand that they do so anyway.



Environmental activist, writer, organizer for national nonprofit

Community outrage, organizations like PETA, and animal rights wings have minimized the number of euthanized animals per year. However, more can be done.

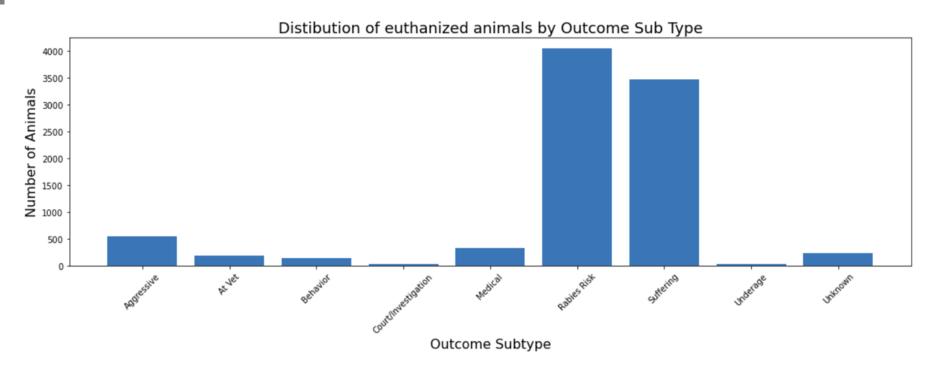
#### **Euthanized Animals vs Intake Type**



Total Euthanasia = 6.5%

Out of the Euthanasia Requests, 78% ended up getting euthanized

#### **Euthanized Animals vs Outcome Type**



Rabies Risk and Suffering are the popular causes behind euthanasia.

However,

~600 animals got euthanized with a "aggressive" or "behavior" as a cause for euthanasia.

Austin Animal Center can work to reduce this number and thus improve the public sentiment towards their no-kill animal shelter.

## **Recommendations Summary**

