

# Pet Adoption Speed Analysis

Bloomington Animal Shelter

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# AGENDA

- ❑ Business Problem
- ❑ Data
- ❑ Model
- ❑ Recommendations/Conclusion



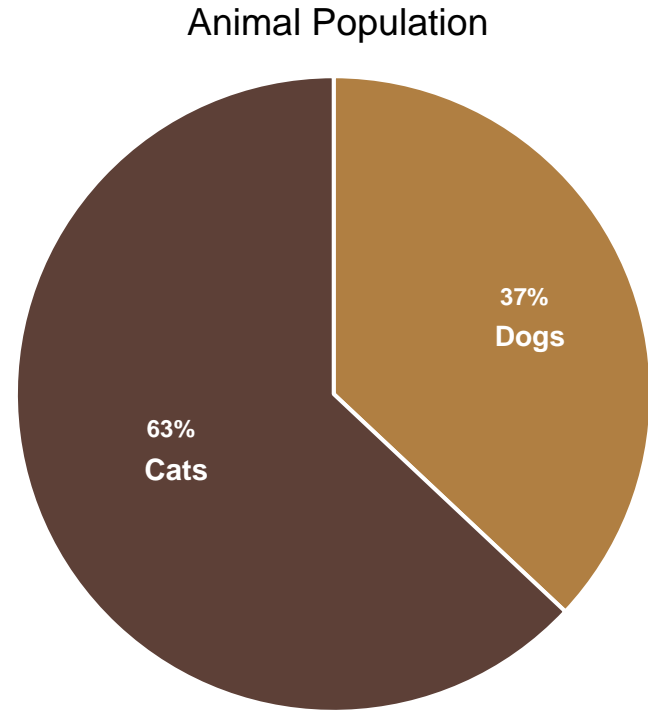
# Business Problem

- ASPCA is studying the adoption trends for dogs and cats
- Identify the pets that take the longest to get adopted
- Avoid Euthanizations



# DATA

- Bloomington Open Data Portal
- Over 18k Animals
- 23 features about each animal.  
Age, Breed, Color, Outcomes
- **Adoption Speed Standards**
  - Dogs: Before 21 days
  - Cats: Within a Month

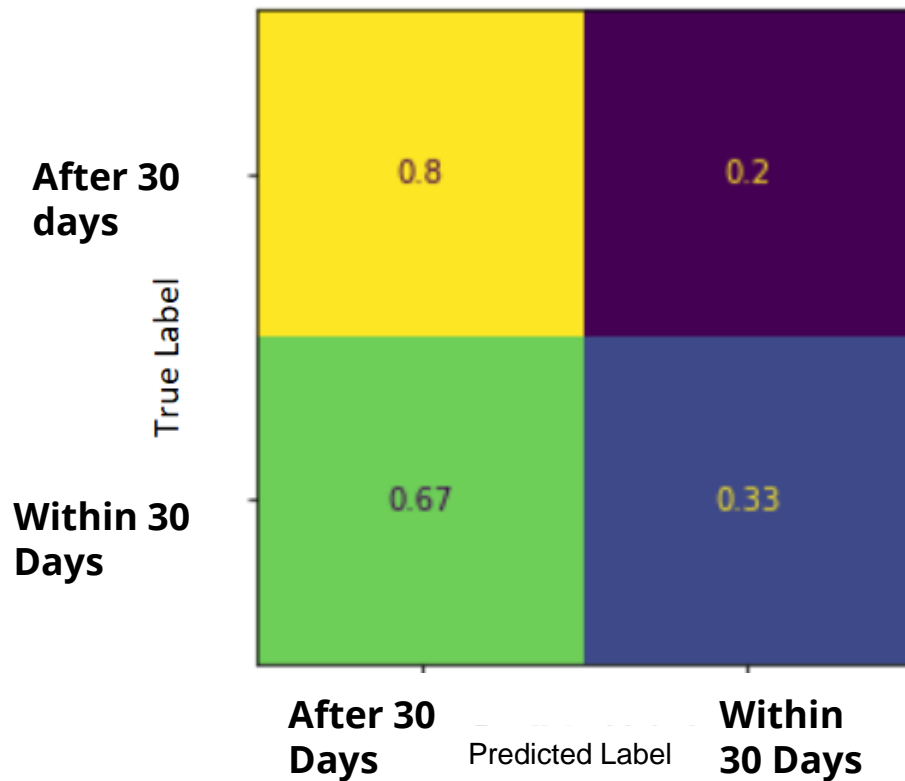


# Model Evaluation: Cat Adoption Speed

## Logistic Regression

Precision score = 59%

False Positive Rate = 20%

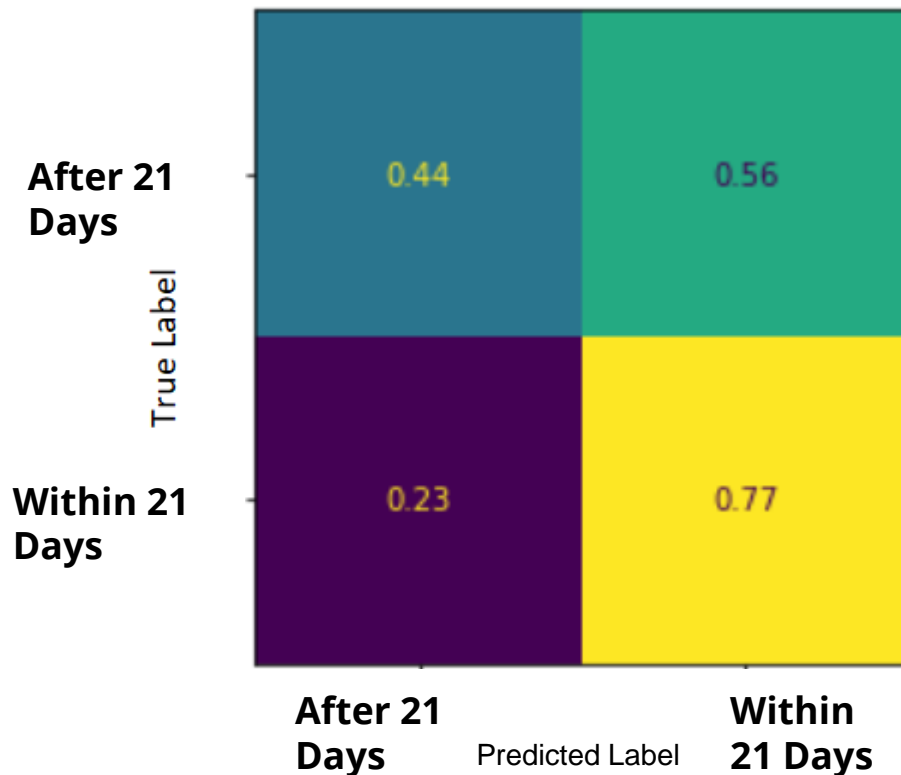


# Model Evaluation: Dog Adoption Speed

## Logistic Regression

Precision score = 64%

False Positive Rate = 56%

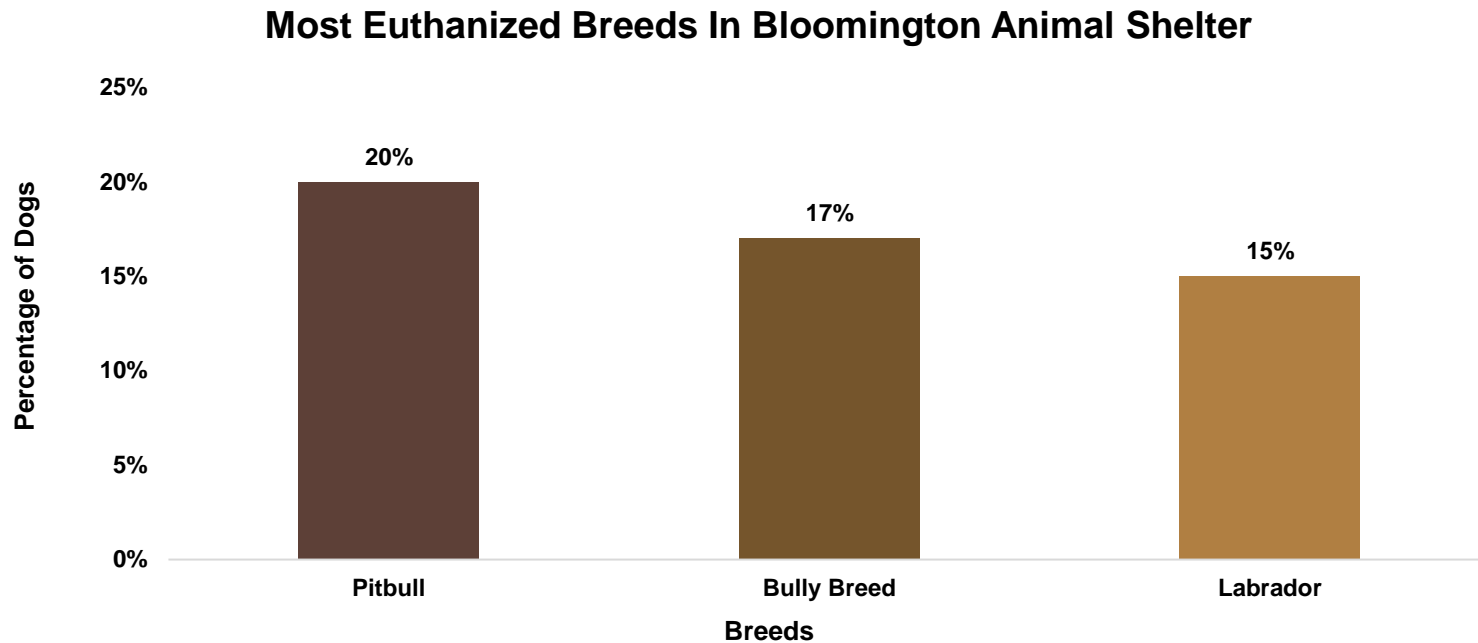


# Feature Importance

Characteristics that the model finds Important when predicting that an animal will have trouble getting adopted.

Dogs	Cats
Mastiffs	Cats that were abandoned
Pitbulls	Female Cats
Bully Breeds	Brown and Black coats

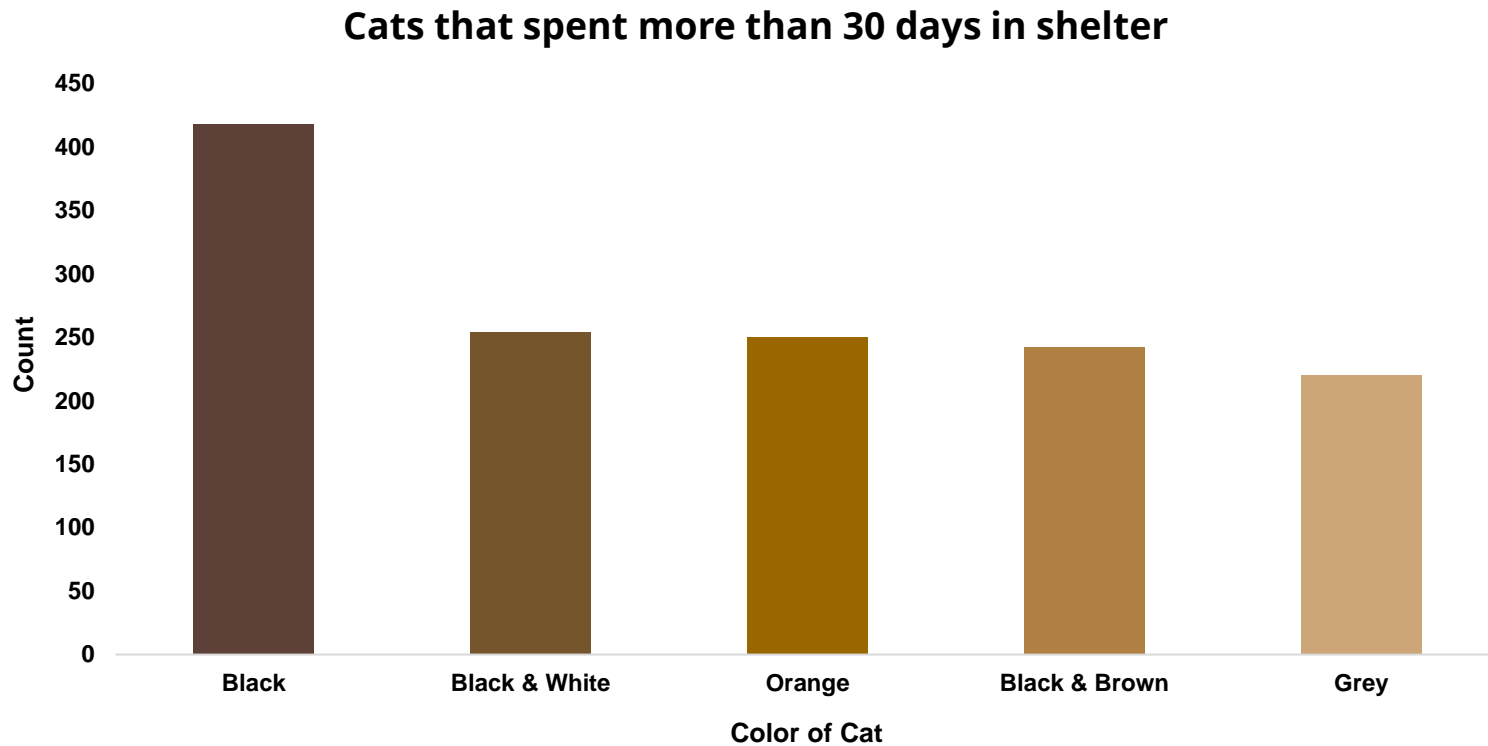
# Exploring Important Features



Pitbulls only make up 5% of the dog population



# Exploring Important Features



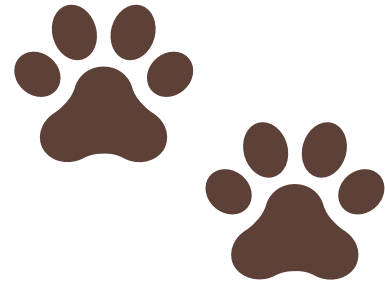
# Recommendations

- Release more literature addressing the stigma about black cats
- Use the media to portray Pit bulls in a more positive light
- Strategically stage animals with unfavorable characteristics



# Future Work

- Study how an animal's sociability affects adoption speed
- Analyze shelters in different regions and see if the trends are similar
- Investigate how the time of year affects which animals get adopted



# Questions

<https://github.com/wharr1203/BloomingtonPetAdoption.git>

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