

# Austin Animal Shelter SQL Report



Pic from <https://unsplash.com/s/photos/cat-and-dog>

**PREPARED BY THERESA PARKER**

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## Executive Summary

Exploratory Data Analysis conducted on our furry friends at Austin Animal Shelter. This project report covers years 2013 – 2021 and only includes cats and dogs. This analysis takes a look at cat/dog intakes and outcomes at the Austin Animal Shelter to see if there are any patterns or trends in order to help increase adoptions and decrease deaths.

## Data Sources

Dataset is from Kaggle titled [Animal Shelter Analytics](#). There are two CSV files posted, intake and outcome information regarding the Austin Animal Center. Information is deemed to be from a reliable source as author of dataset indicated it is from a government website. Two datasets were used in this analysis.

1. Intakes
2. Outcomes

## Data Collection

I downloaded the two CSV files and created a database to import the tables into SQL so I could create a relational database.

## Data Overview

### INTAKES TABLE

Rows and Columns:

Original Dataset (Rows: 124,121 Columns: 12)  
Final Dataset (Rows: 116,875 Columns: 13)

Columns & Description:

Animal ID  
Name  
Date/Time  
MonthYear  
Found Location  
Intake Type  
Intake Condition  
Animal Type:

Sex Upon Intake:  
Age Upon Intake:  
Breed:  
Color:

## OUTCOMES TABLE

### Rows and Columns:

Original Dataset (Rows: 124,492 Columns: 12)  
Final Dataset (Rows: 117,255 Columns: 14)

### Columns & Description:

Animal ID  
Name:  
Date/Time:  
MonthYear  
Date of Birth:  
Outcome Type:  
Outcome Subtype:  
Animal Type:  
Sex Upon Outcome:  
Age Upon Outcome:  
Breed:  
Color:

## Limitations

- Data inaccuracy with intake/outcome numbers not matching.
- Some animals have negative ages
- Inconsistencies with names/breeds/etc.
- Upon reviewing the Breed and Color columns in both tables, there are several variables listed. This is something if I had access to the stakeholder we might be able to clean up, but for lack of knowledge, I will leave as is.

## Data Profile

### STEP 1: CLEANING THE DATA

#### 1) Check Overview of the tables.

```
-- OVERVIEW of Intakes
Select * from Intakes;

-- OVERVIEW of Outcomes
Select * from Outcomes;
```

2) Change applicable column names to match on both spreadsheets for consistency purposes.

- Example:
  - Intakes was named Animal\_ID
  - Outcomes was named Animal ID (missing the underscore).

### 3) Check for and remove duplicates

```
-- DUPLICATES
-- Checking for Intake duplicates -- there are 23 intake duplicates
Select Animal_Id, Name, DateTime, COUNT(*)
From Intakes
Group By Animal_ID, Name, DateTime
Having Count (*) > 1
Order By Animal_ID;

-- Deleting Intake Duplicates - Deleted 23 values
WITH CTE AS
(
SELECT *,
ROW_NUMBER() OVER (PARTITION BY Animal_ID,Name,DateTime ORDER BY
Animal_ID,Name,DateTime) AS RN
FROM Intakes
)
Delete FROM CTE WHERE RN<>1;

-- Checking for Outcomes duplicates -- there are 17 duplicates
Select Animal_Id, Name, DateTime, COUNT(*)
From Outcomes
Group By Animal_ID, Name, DateTime
Having Count (*) > 1
Order By Animal_ID;

-- Deleting Outcome Duplicates - Deleted 17 values
WITH CTE AS
(
SELECT *,ROW_NUMBER() OVER (PARTITION BY Animal_ID,Name,DateTime ORDER BY
Animal_ID,Name,DateTime) AS RN
FROM Outcomes
)
DELETE FROM CTE WHERE RN<>1
```

### 4) Checking for irrelevant information

As this analysis is only for cats and dogs, I reviewed the animal type and needed to remove the other animals.

```
-- Checking Animal Type to ensure it is limited to cats and dogs.
-- There are Birds, Livestock, and Other that need to be removed as they are not part of
this analysis.
```

```
Select Distinct Animal_Type
from Intakes
```

```
--Removing all animals from Intakes except cats or dog.
DELETE FROM Outcomes
WHERE Animal_Type like 'Bird' or Animal_Type like 'Livestock' or Animal_Type like
'Other'

DELETE FROM Intakes
WHERE Animal_Type like 'Bird' or Animal_Type like 'Livestock' or Animal_Type like
'Other'
```

## 5) Data Consistency

```
-- Need to change missing values in column Outcome_Type to Unknown
```

```
SELECT Distinct Outcome_Type from Outcomes
```

```
Select *
From outcomes
Where outcome_type = ''
```

```
Update outcomes
Set Outcome_Type = 'Unknown'
Where outcome_Type = ''
```

```
--Checking null values in Sex_upon_intake - There is 1 value NULL that needs to be
changed to Unknown in Intakes table.
```

```
SELECT Distinct sex_upon_intake from intakes;
```

```
SELECT *
FROM intakes
WHERE sex_upon_intake = 'Unknown';
```

```
Update dbo.Intakes
SET Sex_upon_Intake = REPLACE(Sex_upon_Intake, 'NULL', 'Unknown')
WHERE Sex_upon_Intake = 'NULL'
```

```
--Checking null values in Sex_upon_intake - There is 1 value NULL that needs to be
changed to Unknown in Outcomes table.
```

```
SELECT Distinct sex_upon_outcome from Outcomes
```

```
SELECT sex_upon_outcome from Outcomes
Where sex_upon_outcome = 'NULL'
```

```
Update dbo.Outcomes
SET Sex_Upon_Outcome = 'Unknown'
Where Sex_Upon_Outcome = 'NULL'
```

```
-- Checking the age values. There are -1 year, -2, and -3 years for a total of 7 values
that need to be removed as you cannot have a negative age.
```

```
SELECT Distinct age_upon_intake from intakes
Order by age_upon_intake
```

```

SELECT Animal_ID, Name, DateTime, age_upon_intake
from intakes
WHERE age_upon_intake like '-1 years' or age_upon_intake like '-2 years' or
Age_upon_Intake like '-3 years'
Order by age_upon_intake
-- Deleting age upon Intake with negative years
DELETE from dbo.intakes
WHERE age_upon_intake like '-1 years' or age_upon_intake like '-2 years' or
Age_upon_Intake like '-3 years'

-- Deleting age upon Outcome with negative years
DELETE from dbo.Outcomes
WHERE [Age upon Outcome] like '-1 years' or [Age upon Outcome] like '-2
years' or [Age upon Outcome] like '-3 years'

```

--Outcomes table has datetime listed as varchar, need to change to datetime

```

ALTER TABLE Outcomes
ALTER COLUMN DateTime datetime;

```

## STEP 2: MANIPULATING THE DATA

1) Removing MonthYear Column from both Intakes and Outcomes as it contains the same information that is in Date/Time column.

--Removing column MonthYear from Intake

```

Alter table dbo.intakes
Drop column MonthYear

```

--Removing column monthYear from Outcomes

```

Alter table dbo.outcomes
Drop column MonthYear

```

2) Updating the structural errors in the Name column

--Intake Name Column needs adjusting those with an asterick. 27,803 Rows Updated

```

SELECT [Name],
REPLACE([Name], '*', '') AS [Clean Name]
FROM dbo.intakes
Where Name Like '%*%'
Order By name desc

```

```

UPDATE dbo.intakes
SET Name = REPLACE(Name, '*', '')
WHERE Name Like '%*%'

```

--Outcome Name Column needs adjusting those with an asterick.

```

SELECT [Name], -- 28,080 rows to be updated
REPLACE([Name], '*', '') AS [Clean Name]
FROM dbo.Outcomes

```



```

Where Name Like '%*%'
Order By name desc

Update dbo.outcomes
SET Name = REPLACE([Name], '*', '')
Where Name Like '%*%'

-- Intake Viewing and Updating Null values to Unknown in Name 32,788 values
Select Name
From Intakes
Where Name is NULL

UPDATE intakes
Set Name = 'Unknown'
Where Name is NULL

-- Outcome Viewing and Updating Empty values to Unknown 32,788 values

Update dbo.outcomes
SET Name = 'Unknown'
WHERE Name = ''

-- Updating Names that are only numbers. - 179 rows

SELECT Name
FROM OUTCOMES
Where Name not like '%[A-Za-z]%'

Update Outcomes
Set Name = 'Unknown'
Where Name not like '%[A-Za-z]%'

--Removing Grams from Name
SELECT [Name],
REPLACE([Name], 'Grams', '') AS [Clean Name]
FROM dbo.intakes
Where Name Like '%Grams%'
Order By name desc

```

## STEP 3: COLUMN DERIVATIONS/AGGREGATIONS

### 1) Adding Columns and Creating Variable Derivations

```

--Updating Intake and Outcome table to add Date_Converted and Time Converted columns

Alter Table intakes
Add Date_Converted date,
Time_Converted time;

Alter Table Outcomes
Add Date_Converted date,
Time_Converted time;

```

```

--Converting Intake Date/Time and extracting the Date only
Select datetime,
convert(varchar,[datetime], 101) Converted_Date
from Intakes

Update intakes
Set Date_Converted = FORMAT([datetime], 'MM-dd-yyyy')
Where Date_Converted is NOT NULL

-- Extracting time only in am/pm - 116875 rows effected

Select * from Intakes

SELECT DateTime,
FORMAT([datetime], 'hh:mm tt') AS Converted_Date
from Intakes

Update intakes
Set Time_Converted = FORMAT([datetime], 'hh:mm tt')
Where Time_Converted is NULL

--Converting Date/Time and extracting the Date only for outcomes table-- 117255 rows
effected

Select Datetime,
Convert (varchar,[datetime], 101) Test
From Outcomes

Update Outcomes
Set Date_Converted = Convert (varchar,[datetime], 101)

--Converting Outcome Date/Time and extracting the Time only. tt refers to am/pm

Select * from Outcomes

SELECT DateTime,
FORMAT([datetime], 'hh:mm tt') AS Converted_Date
from Outcomes

Update Outcomes
Set Time_Converted = FORMAT([datetime], 'hh:mm tt')
Where Time_Converted is NULL

```

## 2) Adding New column for Year only.

```

--Adding a new column to table for Year
ALTER TABLE OUTCOMES
ADD YEAR SMALLINT;

--Adding Year values to Year column
UPDATE OUTCOMES
SET YEAR = DATEPART(YEAR, DATE_CONVERTED)
WHERE YEAR is NULL

```

DATA PROFILE FINAL NOTES:

1. Those names including gram in them will not make a difference when filtering for top 100 Names, therefore, going to leave names as is.
2. Leaving Address alone since it's not delimited and messy. Due to time constraints leaving as is and will not use Address in the evaluation.

## SQL Queries and Answers

### 1. WHAT MONTHS ARE INTAKES THE HIGHEST/LOWEST FOR ALL INTAKES?

```
--Busiest intake month by count
With CTE AS
(
Select *, DATEPART(month, Date_Converted)
AS Intake_Month
From Intakes
)
```

```
Select Top 3
Intake_Month, Count(*) AS Top_Month_Count
from CTE
Group by Intake_Month
Order by Top_Month_Count desc;
```

	Intake_Month	Top_Month_Count
1	5	11780
2	6	11486
3	10	11201

```
--Busiest intake month by count
* May, June, October
```

```
--Slowest month by count
With CTE AS
(
Select *, DATEPART(month, Date_Converted)
AS Intake_Month
From Intakes
)
```

```
Select Top 3
Intake_Month, Count(*) AS
Lowest_Month_Count
from CTE
Group by Intake_Month
Order by Lowest_Month_Count asc;
```

	Intake_Month	Lowest_Month_Count
1	2	7843
2	3	8238
3	1	8627

```
--Least busy intake month by count
* February, March, January
```

### 2. WHAT MONTHS ARE THE BUSIEST AND SLOWEST FOR ADOPTIONS?

```
--Busiest Adoption Month
With CTE AS
(
Select *, DATEPART(month, Date_Converted) AS Intake_Month
From Outcomes
)
```

```
Select Top 3
Intake_Month, Count(*) AS Month_Count
from CTE
WHERE Outcome_Type like 'Adoption'
Group By Intake_Month
Order by Month_Count desc
```

	Intake_Month	Month_Count
1	7	5575
2	12	5535
3	8	5365

--Least Busy Adoption Months

With CTE AS

```
(
Select *, DATEPART(month, Date_Converted) AS Intake_Month
From Outcomes
)
```

```
Select Top 3
Intake_Month, Count(*) AS Month_Count
from CTE
WHERE Outcome_Type like 'Adoption'
Group By Intake_Month
Order by Month_Count asc
```

	Intake_Month	Adoption_Count
1	4	2954
2	3	3541
3	5	3916

--Busiest Adoption Months by Count

\* July, December, August

--Slowest Adoption Months by Count

\* April, March, May

### 3. WHAT TIME OF DAY ARE ADOPTIONS THE HIGHEST AND LOWEST?

-- What time of day are adoptions the highest?

WITH CTE AS

```
(
SELECT *, DATEPART(Hour, Time_Converted) AS Adoption_Hour
From Outcomes
)
```

```
SELECT Top 3
Adoption_Hour, COUNT(*) AS Adoption_Hour_Count
From CTE
WHERE Outcome_Type like 'Adoption'
GROUP BY Adoption_Hour
ORDER BY Adoption_Hour_Count desc
```

--Time of day adoptions are the lowest?

WITH CTE AS

```
(
SELECT *, DATEPART(Hour, Time_Converted) AS Adoption_Hour
From Outcomes
)
SELECT Top 3
Adoption_Hour, COUNT(*) AS Adoption_Hour_Count
From CTE
WHERE Outcome_Type like 'Adoption'
GROUP BY Adoption_Hour
ORDER BY Adoption_Hour_Count asc
```

	Adoption_Hour	Adoption_Hour_Count
1	17	11352
2	18	9161
3	16	7534

**Busiest Hour:**

```
--      5pm = 11352
--      6pm = 9161
--      4pm = 7534
```

	Adoption_Hour	Adoption_Hour_Count
1	3	4
2	2	5
3	4	8

**Slowest Lowest:**

```
--      3am = 4
--      2am = 5
--      4am = 8
```

#### 4. ARE THERE MORE CATS OR DOGS AT THE SHELTER?

```
-- Total Count
Select COUNT(Animal_Type)
from Intakes

-- Cat and Dog Counts and Percentages

Select Animal_Type,
Count(Animal_Type) as Animal_Count,
ROUND(count(*) * 100.0 / sum(count(*)) over(),0) AS Percentage_Outcome
from Intakes
Group by Animal_Type
Order by Percentage_Outcome desc
```

	Animal_Type	Animal_Count	Percentage_Outcome
1	Dog	70429	60.000000000000
2	Cat	46446	40.000000000000

#### 5. WHAT IS THE MOST COMMON AGE UPON INTAKE AND OUTCOMES?

--Counts by Age Upon Intake

```
Select Distinct Top 3 Age_Upon_Intake,
Count(Age_Upon_Intake) over (partition by Age_Upon_Intake) as Age_Count
```

```

from Intakes
Order by Age_Count desc

--Counts by Age Upon Outcomes
Select Distinct Age_Upon_Outcome,
Count(Age_Upon_Outcome) over (partition by Age_Upon_Outcome) as Age_Count
from Outcomes
Order by Age_Count desc

```

	Age_Upon_Intake	Age_Count
1	1 year	18498
2	2 years	17327
3	1 month	11854

**Intake:**

```

-- 18,498 at 1 year old
-- 17,327 at 2 years old
-- 11,854 at 1 month old

```

	Age_Upon_Outcome	Age_Count
1	1 year	18824
2	2 years	17318
3	2 months	14970

**Outcomes:**

```

-- 18824 at 1 year old
-- 17318 at 2 years old
-- 14970 at 2 months old

```

## 6. WHAT IS THE MOST COMMON INTAKE REASON?

```

-- Viewing total number of intake types - 116,875

```

```

Select COUNT(Intake_Type)
from Intakes

```

```

-- Viewing Count of Intake_Type
Select Distinct Intake_Type,
Count(Intake_Type) over (partition by Intake_type) as Intake_Count
from Intakes
Order by Intake_Count desc

```

```

--Viewing Percentage of Intake_Count

```

```

Select Intake_Type,
ROUND(count(*) * 100.0 / sum(count(*)) over(),1) AS Percentage_Outcome
from Intakes
Group by Intake_Type
Order by Percentage_Outcome desc

```

```

--Viewing Subtype of Owner Surrender

```

```

With CTE AS
(
Select *
from Intakes
Where Intake_Type = 'Owner Surrender'
)

```

```

Select Intake_Condition,
ROUND(count(*) * 100.0 / sum(count(*)) over(),1) AS Condition_Outcome

```

```

from Intakes
Group by Intake_Condition
Order by Condition_Outcome desc

```

```

Strays = 73% of Intake Type
Owner Surrenders = 21%
    • Normal conditions = 88.3%
    • Injured = 4.8%
    • Sick = 3.1%
    • Nursing = 2.9%
    • Aged = .4%
    • Other = .2%
    • Pregnant = .1%
    • Medical = .1%
    • Feral = .1%
    • Behavior = .000%)
Public Assist = 6%
Abandoned = > 1%
Euthanasia Request = > 1%

```

## 7. WHAT IS THE MOST COMMON TYPE OF OUTCOME?

--Outcome type by count

```

Select Distinct Outcome_Type,
Count(Outcome_Type) over (partition by Outcome_type) as Outcome_Count
from Outcomes
Order by Outcome_Count desc

```

--Outcome type by Percentage

```

Select Distinct Outcome_Type,
Count(Outcome_Type) over (partition by Outcome_type) as Outcome_Count
from Outcomes
Order by Outcome_Count desc

```

--Subtypes of Euthanasia

```

With CTE AS
(
    Select *
    from Outcomes
    Where Outcome_Type = 'Euthanasia'
)

Select Outcome_Subtype,
ROUND(count(*) * 100.0 / sum(count(*)) over(),1) AS Subtype_Outcome
from CTE
Group by Outcome_Subtype
Order by Subtype_Outcome desc

```

```

--Adoption = 54609 / 46.6%
--Transfer = 35649 / 30.4%

```

```

--Return to Owner = 21428          / 18.3%
--Euthanasia = 3738                / 3.2%
    (Reasons for Euthanasia)
        ▪ Suffering 67.1%
        ▪ Aggressive 14.4%
        ▪ Rabies Risk 4.8%
        ▪ Behavior 4.3%
        ▪ At Vet 4.2%
        ▪ Medical 3.8%
        ▪ Court/Investigation .8%
        ▪ Blank .7%
--Died = 944                       / .8%
--Rto-Adopt = 694                  / .6%
--Disposal = 112                   / .1%
--Missing = 64                     / .1%
--Unknown = 15                     / 0%
--Relocate = 2                     / 0%

```

## 8. WHAT ARE THE TOP 3 DOG AND CAT BREEDS?

```

--Top DOG breed in Intakes:
Select Top 3 Breed,
ROUND(count(*) * 100.0 / sum(count(*)) over(),1) AS Breed_Percentage
from intakes
Where Animal_Type = 'Dog'
Group by Breed
Order by Breed_Percentage desc

```

--Top Dog Adopted Breeds:

```

With CTE AS
(
Select *
from Outcomes
Where Outcome_Type = 'Adoption' and Animal_Type = 'Dog'
)

Select Breed,
ROUND(count(*) * 100.0 / sum(count(*)) over(),1) AS Breed_Adopted
from CTE
group by Breed
Order by Breed_Adopted desc

```

--Top Dog Euthanized Breeds:

```

With CTE AS
(
Select *
from Outcomes
Where Outcome_Type = 'Euthanasia' and Animal_Type = 'Dog'
)

Select Breed,
ROUND(count(*) * 100.0 / sum(count(*)) over(),1) AS Breed_Euthanized
from CTE
Group by Breed

```



```
Order by Breed_Euthanized desc
```

```
--Top CAT breed in Intakes:
```

```
Select Top 10 Breed,  
ROUND(count(*) * 100.0 / sum(count(*)) over(),1) AS Breed_Percentage  
from intakes  
Where Animal_Type = 'Cat'  
Group by Breed  
Order by Breed_Percentage desc
```

```
--Top Cat Adopted Breeds:
```

```
With CTE AS  
(  
Select *  
from Outcomes  
Where Outcome_Type = 'Adoption' and Animal_Type = 'Cat'  
)  
Select Breed,  
ROUND(count(*) * 100.0 / sum(count(*)) over(),1) AS Breed_Adopted  
from CTE  
Group by Breed  
Order by Breed_Adopted desc
```

```
--Top Cat Euthanized Breeds:
```

```
With CTE AS  
(  
Select *  
from Outcomes  
Where Outcome_Type = 'Euthanasia' and Animal_Type = 'CAT'  
)  
Select Breed,  
ROUND(count(*) * 100.0 / sum(count(*)) over(),1) AS Breed_Euthanized  
from CTE  
Group by Breed  
Order by Breed_Euthanized desc
```

#### Dogs:

Top Intake Dog is: Pitbull Mix, Labrador Retriever Mix, Chihuahua Shorthair mix

Top Adopted Dog is: Labrador Retriever Mix, Pitbull Mix, Chihuahua Mix

Top Euthanized Dog: Pitbull, Chihuahua Mix, Labrador Retriever Mix

#### Cats:

Top Intake Cat is: Domestic Shorthair Mix, Domestic Shorthair, Domestic Medium Hair Mix

Top Adopted Cat is: Domestic Shorthair Mix, Domestic Shorthair, Domestic Medium Hair Mix

Top Euthanized Cat: Domestic Shorthair Mix, Domestic Shorthair, Domestic Medium Hair Mix

## 9. IS THERE A COLOR THAT IS MORE COMMON?

```
--Top 3 color intakes in Dog
```

```
Select Top 3 Color  
From Intakes  
Where Animal_Type = 'Dog'
```

```

--Top 3 color of adopted dogs
Select Top 3 Color, Count(*) AS color_count
From Outcomes
Where Animal_Type = 'Dog' and Outcome_type = 'Adoption'
Group By color
Order by color_count desc

--Top 3 color of dogs that are Euthanized
Select Color, Count(*) AS color_count
From Outcomes
Where Animal_Type = 'Dog' and Outcome_type = 'Euthanasia'
Group By color
Order by color_count desc

--Top 3 color intakes in Cats
Select Top 3 Color
From Intakes
Where Animal_Type = 'Cat'

--Top 3 color of adopted Cats
Select Top 3 Color, Count(*) AS color_count
From Outcomes
Where Animal_Type = 'Cat' and Outcome_type = 'Adoption'
Group By color
Order by color_count desc

--Top 3 color of Cats that are Euthanized
Select Color, Count(*) AS color_count
From Outcomes
Where Animal_Type = 'Cat' and Outcome_type = 'Euthanasia'
Group By color
Order by color_count desc

```

#### Dogs:

```

* Intakes
    Tricolor
    White/Liver
    Sable/White
* Adopted
    Black/White = 4236
    Brown/White = 1880
    Tan/White = 1869
* Euthanized
    Black/White - 166
    Brown/White - 113
    Tan/White 107

```

#### Cats:

```

* Intakes
    Calico
    Cream Tabby
    Black/White
* Adopted
    Brown Tabby
    Black
    Black/White
* Euthanized
    Brown Tabby
    Black
    Black/White

```

## 10. WHAT ARE THE TOP 10 NAMES?

```

--Top 10 Cat names
Select Top 10 Name, Count(*) as Cat_Count
From Outcomes
Where Animal_Type = 'Cat' and Name <> 'Unknown'
Group By Name

```

```
Order by Cat_Count desc
```

```
--Top 10 Dog names  
Select Top 10 Name, Count(*) as Dog_Count  
From Outcomes  
Where Animal_Type = 'Dog' and Name <> 'Unknown'  
Group By Name  
Order by Dog_Count desc
```

	Name	Cat_Count
1	Luna	124
2	Charlie	121
3	Lucy	86
4	Max	84
5	Bella	84
6	Oliver	83
7	Lily	82
8	Shadow	79
9	Jack	79
10	Daisy	74

	Name	Dog_Count
1	Max	537
2	Bella	474
3	Luna	414
4	Rocky	374
5	Daisy	365
6	Charlie	317
7	Coco	307
8	Buddy	305
9	Princess	299
10	Lucy	287

--Top 10 Cat Names

Luna = 124  
Charlie = 121  
Lucy = 86  
Max = 84  
Bella = 84  
Oliver = 83  
Lily = 82  
Shadow = 79  
Jack = 79  
Daisy = 74

--Top 10 Dog Names

Max = 537  
Bella = 474  
Luna = 414  
Rocky = 374  
Daisy = 365  
Charlie = 317  
Coco = 307  
Buddy = 305  
Princess = 299  
Lucy = 287

## II. HOW MANY ARE EUTHANIZED EACH YEAR?

```
--Total  
Select datepart(year, Date_Converted) as Year, count(*) as Year_Count  
from Outcomes  
Where Outcome_Type = 'Euthanasia'  
Group by datepart(Year, Date_Converted)  
Order by Year_Count desc  
  
--Dogs  
Select datepart(year, Date_Converted) as Year, count(*) as Year_Count  
from Outcomes  
Where Outcome_Type = 'Euthanasia' and Animal_Type = 'Dog'  
Group by datepart(Year, Date_Converted)  
Order by Year_Count desc  
  
--Cats  
Select datepart(year, Date_Converted) as Year, count(*) as Year_Count
```

```

from Outcomes
Where Outcome_Type = 'Euthanasia' and Animal_Type = 'Cat'
Group by datepart(Year, Date_Converted)
Order by Year

```

--Pivot Table of Euthanizing Counts by Year

```

SELECT * FROM
(
    Select
        Year,
        Animal_Type,
        COUNT(*) As Adoption_Count
    FROM Outcomes
    WHERE Outcome_Type = 'Euthanasia'
    Group by Animal_Type, Year
) t
PIVOT(
    SUM (Adoption_Count)
    FOR [Year]
    IN (
        [2013],
        [2014],
        [2015],
        [2016],
        [2017],
        [2018],
        [2019],
        [2020],
        [2021])
) AS pivot_table;

```

	Animal_Type	2013	2014	2015	2016	2017	2018	2019	2020	2021
1	Cat	93	433	427	238	249	166	192	134	10
2	Dog	184	617	420	179	97	74	120	96	9

### Total Chronological

	Year	Year_Count
1	2013	277
2	2014	1050
3	2015	847
4	2016	417
5	2017	346
6	2018	240
7	2019	312
8	2020	230
9	2021	19

### Total By Count

	Year	Year_Count
1	2014	1050
2	2015	847
3	2016	417
4	2017	346
5	2019	312
6	2013	277
7	2018	240
8	2020	230
9	2021	19

### Dogs Chronological

### Dogs By Count

	Year	Year_Count
1	2013	184
2	2014	617
3	2015	420
4	2016	179
5	2017	97
6	2018	74
7	2019	120
8	2020	96
9	2021	9

	Year	Year_Count
1	2014	617
2	2015	420
3	2013	184
4	2016	179
5	2019	120
6	2017	97
7	2020	96
8	2018	74
9	2021	9

### Cats Chronological

	Year	Year_Count
1	2013	93
2	2014	433
3	2015	427
4	2016	238
5	2017	249
6	2018	166
7	2019	192
8	2020	134
9	2021	10

### Cats By Count

	Year	Year_Count
1	2014	433
2	2015	427
3	2017	249
4	2016	238
5	2019	192
6	2018	166
7	2020	134
8	2013	93
9	2021	10

## 12. WHAT ARE THE SUBTYPES AND PERCENTAGES OF THOSE THAT ARE EUTHANIZED?

```

With CTE AS
(
Select *
from Outcomes
Where Outcome_Type = 'Euthanasia'
)
Select Outcome_Subtype,
ROUND(count(*) * 100.0 / sum(count(*)) over(),0) AS [Percentage_Euthanized]
from CTE
Group by Outcome_Subtype
Order by Percentage_Euthanized desc

```

	Outcome_Subtype	Percentage_Euthanized
1	Suffering	67.000000000000
2	Aggressive	14.000000000000
3	Rabies Risk	5.000000000000
4	At Vet	4.000000000000
5	Behavior	4.000000000000
6	Medical	4.000000000000
7		1.000000000000
8	Court/Investigation	1.000000000000
9	Underage	0.000000000000

## 13. WHAT ARE THE SUBTYPES AND COUNTS FOR ANIMALS THAT DIED?

\*\*\*Overview and thoughts on analysis:

- 1) Roughly half the number of pets die in foster care opposed to in the Kennel

- 2) There is a blank category where every year deaths that are not Euthanasia related are not categorized.
- 3) 51% of the cats have died in the Kennel compared to 61% of dogs.
- 4) 11.3% of the dogs die at the Vet compared to 7.6%

```
--Count of the reason where outcome type is Died
Select distinct outcome_subtype, COUNT(*) as count_subtype
from outcomes
Where outcome_type = 'died'
Group by Outcome_Subtype
Order by count_subtype desc
```

	outcome_subtype	count_subtype
1	In Kennel	507
2	In Foster	261
3	At Vet	81
4	Enroute	41
5		33
6	In Surgery	21

--Count of those who died in Care by Year and the Reason why

```
Select datepart(year, date_converted) as year,
COUNT(outcome_subtype) AS sub_count, Outcome_Subtype
from outcomes
Where Outcome_Type = 'Died'
Group by outcome_subtype, datepart(year, date_converted)
Order by datepart(year, date_converted), outcome_subtype
```

Year	Count	Reasons for "Died"
2013	1	
2013	8	In Foster
2013	13	In Kennel
2013	1	In Surgery
2014	16	
2014	4	At Vet
2014	6	Enroute
2014	36	In Foster
2014	38	In Kennel
2014	2	In Surgery
2015	6	
2015	5	At Vet
2015	5	Enroute
2015	31	In Foster
2015	97	In Kennel
2015	2	In Surgery
2016	1	
2016	10	At Vet
2016	2	Enroute
2016	40	In Foster
2016	86	In Kennel
2016	5	In Surgery
2017	1	
2017	12	At Vet
2017	5	Enroute
2017	41	In Foster

```

2017 58 In Kennel
2017 5 In Surgery
2018 18 At Vet
2018 9 Enroute
2018 30 In Foster
2018 74 In Kennel
2018 2 In Surgery
2019 7
2019 26 At Vet
2019 7 Enroute
2019 46 In Foster
2019 97 In Kennel
2019 4 In Surgery
2020 1
2020 6 At Vet
2020 7 Enroute
2020 28 In Foster
2020 42 In Kennel
2021 1 In Foster
2021 2 In Kennel

```

--Count of the reason where outcome type is Died for dogs

```

Select distinct outcome_subtype, COUNT(*) as count_subtype, ROUND(count(*) * 100.0
/ sum(count(*)) over(),0) AS dog_percent_subtype
from outcomes
Where outcome_type = 'died' and animal_type = 'Dog'
Group by Outcome_Subtype
Order by count_subtype desc

```

	outcome_subtype	count_subtype	dog_percent_subtype
1	In Kennel	156	61.000000000000
2	In Foster	41	16.000000000000
3	At Vet	29	11.000000000000
4		11	4.000000000000
5	Enroute	10	4.000000000000
6	In Surgery	9	4.000000000000

--Count of the reason where outcome type is Died for cats

```

Select distinct outcome_subtype, COUNT(*) as count_subtype, ROUND(count(*) * 100.0
/ sum(count(*)) over(),0) AS cat_percent_subtype
from outcomes
Where outcome_type = 'died' and animal_type = 'Cat'
Group by Outcome_Subtype
Order by count_subtype desc

```

	outcome_subtype	count_subtype	cat_percent_subtype
1	In Kennel	351	51.000000000000
2	In Foster	220	32.000000000000
3	At Vet	52	8.000000000000
4	Enroute	31	5.000000000000
5		22	3.000000000000
6	In Surgery	12	2.000000000000

#### 14. HOW MANY ARE ADOPTED EACH YEAR?

	Animal_Type	2013	2014	2015	2016	2017	2018	2019	2020	2021
1	Cat	745	2548	2872	3111	3273	3014	3652	1955	218
2	Dog	1094	4548	4476	4841	4690	4769	5629	2800	374

This can be broken down many different ways. Here is each way and the respective results.

-- Count and total Percentage of Cat Adoptions by Subtype

```
Select outcome_subtype,  
COUNT(*) as cat_adoptions,  
ROUND(count(*) * 100.0 / sum(count(*)) over(),0) AS cat_percent_subtype  
from outcomes  
Where outcome_type = 'Adoption' and animal_type = 'Cat'  
Group by Outcome_Subtype  
Order by cat_adoptions desc
```

	outcome_subtype	cat_adoptions	cat_percent_subtype
1		15144	71.000000000000
2	Foster	6127	29.000000000000
3	Offsite	114	1.000000000000
4	Barn	3	0.000000000000

-- Count and total Percentage of Dog Adoptions by Subtype

```
Select distinct outcome_subtype,  
COUNT(*) as dog_adoptions,  
ROUND(count(*) * 100.0 / sum(count(*)) over(),0) AS dog_percent_subtype  
from outcomes  
Where outcome_type = 'Adoption' and animal_type = 'Dog'  
Group by outcome_subtype  
Order by dog_adoptions desc
```

Results		Messages	
	outcome_subtype	dog_adoptions	dog_percent_subtype
1		28277	85.000000000000
2	Foster	4678	14.000000000000
3	Offsite	266	1.000000000000

-- Cat adoptions by year without Subtype

```
Select Year, COUNT (*) AS Cat_Adoptions  
from outcomes  
Where Outcome_Type = 'Adoption' and animal_type = 'Cat'  
Group by Outcome_type, Year  
Order by Year, outcome_type
```

	Year	Cat_Adoptions
1	2013	745
2	2014	2548
3	2015	2872
4	2016	3111
5	2017	3273
6	2018	3014
7	2019	3652
8	2020	1955
9	2021	218

--Dog adoptions by year without Subtype

```
Select datepart(year, date_converted) as year,COUNT (*) AS dog_adoptions  
from outcomes  
Where Outcome_Type = 'Adoption' and animal_type = 'Dog'
```



```

Group by Outcome_type, datepart(year, date_converted)
Order by datepart(year, date_converted)

```

	year	dog_adoptions
1	2013	1094
2	2014	4548
3	2015	4476
4	2016	4841
5	2017	4690
6	2018	4769
7	2019	5629
8	2020	2800
9	2021	374

-- Dog and Cat Adoption adopted by year

```

Select Animal_Type,
COUNT(*) as Animal_Count,
datepart(year, date_converted) as Year
from Outcomes
Where Outcome_Type = 'Adoption'
Group by Animal_Type, datepart(year, date_converted)
Order by datepart(year, date_converted) asc

```

	Animal_Type	Animal_Count	Year
1	Dog	1094	2013
2	Cat	745	2013
3	Dog	4548	2014
4	Cat	2548	2014
5	Dog	4476	2015
6	Cat	2872	2015
7	Dog	4841	2016
8	Cat	3111	2016
9	Dog	4690	2017
10	Cat	3273	2017
11	Cat	3014	2018
12	Dog	4769	2018
13	Cat	3652	2019
14	Dog	5629	2019
15	Cat	1955	2020
16	Dog	2800	2020
17	Dog	374	2021
18	Cat	218	2021

---Pivot Table to show cat and dog adoptions by year

```

SELECT * FROM
(
    Select
        Year,
        Animal_Type,
        COUNT(*) As Adoption_Count
    FROM Outcomes
    WHERE Outcome_Type = 'Adoption'
    Group by Animal_Type, Year
) t
PIVOT(
    SUM (Adoption_Count)
    FOR [Year]
    IN (
        [2013],

```

```

[2014],
[2015],
[2016],
[2017],
[2018],
[2019],
[2020],
[2021])
) AS pivot_table;

```

	Animal_Type	2013	2014	2015	2016	2017	2018	2019	2020	2021
1	Cat	745	2548	2872	3111	3273	3014	3652	1955	218
2	Dog	1094	4548	4476	4841	4690	4769	5629	2800	374

## 15. WHAT IS THE AVERAGE LENGTH OF TIME IN THE SHELTER FROM INTAKE TO ADOPTION/EUTHANASIA?

\*\* We were given an animal\_ID for the dataset, but there was not a way to differentiate the animals if they came to the shelter multiple times. The challenge was trying to align the correct intake time with outcome time when calculating the DATEDIFF. There bad data because the number of intakes did not always match the number of outcomes for a pet. Or there were times where an outcome would happen prior to an intake.

For these reasons, I will not provide an answer, but show you how I would query the information if the data was complete and there was an exact match for each intake/outcome.

```

--Joining tables to see the difference between intake and outcome time.
Select a.animal_id,
a.datetime [intake_time],
b.animal_id,
b.datetime [outcome_time],
DATEDIFF(month,a.DateTime, b.DateTime) AS Month_Diff
from intakes a
inner join outcomes b
ON a.animal_id = b.animal_id
Order by Month_Diff desc

```

An example of how the information does not line up:

- An animal cannot be in the shelter for a negative amount of time
- I am not certain that an Animal Shelter would hold on to an animal for 6 years if it has not been adopted when they have Euthanasia as an option.

	animal_id	intake_time	animal_id	outcome_time	Month_Diff
1	A667873	2013-11-24 10:50:00.0000000	A667873	2020-11-20 16:21:00.000	84
2	A668200	2013-11-29 14:26:00.0000000	A668200	2020-10-26 14:13:00.000	83
3	A678068	2014-05-03 14:43:00.0000000	A678068	2021-02-06 12:01:00.000	81

  

	animal_id	intake_time	animal_id	outcome_time	Month_Diff
1	A670937	2021-02-24 08:26:00.0000000	A670937	2014-01-29 16:09:00.000	-85
2	A667873	2020-11-14 13:46:00.0000000	A667873	2013-11-27 15:55:00.000	-84
3	A620089	2020-10-02 13:29:00.0000000	A620089	2014-01-15 11:17:00.000	-81

Here is how I would query the Average time from intake to adoption:

The average length of time between intake and adoption is 26 days.  
 33 days for cats  
 22 days for dogs

```
--Average days to adoption for both cats and dogs.
Select AVG(DATEDIFF(day,a.DateTime, b.DateTime)) AS Average_Adoption_Days
from intakes a
inner join outcomes b
on a.animal_id = b.animal_id
Where outcome_type = 'Adoption'
```

	Average_Adoption_Days
1	26

```
--Average days to adoption for cats.
Select AVG(DATEDIFF(day,a.DateTime, b.DateTime)) AS Average_Cat_Days
from intakes a
inner join outcomes b
on a.animal_id = b.animal_id
Where outcome_type = 'Adoption' and b.Animal_Type = 'Cat'
```

	Average_Cat_Days
1	33

```
--Average days to adoption for Dogs.
Select AVG(DATEDIFF(day,a.DateTime, b.DateTime)) AS Average_Dog_Days
from intakes a
inner join outcomes b
```

```
on a.animal_id = b.animal_id
Where outcome_type = 'Adoption' and b.Animal_Type = 'Dog'
```

	Average_Dog_Days
1	22

Here is how I would query the Average time from intake to Euthanasia:

The average length of time between intake and adoption is 26 days.

- o 33 days for cats
- o 22 days for dogs

```
Select AVG(DATEDIFF(day,a.DateTime, b.DateTime)) AS Avg_Total_Days
from intakes a
inner join outcomes b
on a.animal_id = b.animal_id
Where outcome_type = 'Euthanasia'
```

	Avg_Total_Days
1	38

```
Select AVG(DATEDIFF(day,a.DateTime, b.DateTime)) AS Cat_Days
from intakes a
inner join outcomes b
on a.animal_id = b.animal_id
Where outcome_type = 'Euthanasia' and b.Animal_Type = 'Cat'
```

	Cat_Days
1	16

```
Select AVG(DATEDIFF(day,a.DateTime, b.DateTime)) AS Dog_Days
from intakes a
inner join outcomes b
on a.animal_id = b.animal_id
Where outcome_type = 'Euthanasia' and b.Animal_Type = 'Dog'
```

	Dog_Days
1	59

## Digging Deeper

I want to see the amount of time between intake and Outcome for animals who are Euthanized that were brought in under Normal Conditions. I found some results that require further digging.

```
Select i.Animal_ID,
       o.Animal_ID,
       i.DateTime,
       o.DateTime,
       case when i.DateTime > o.DateTime THEN
         DATEDIFF(hour,o.DateTime,i.datetime)
```

```

ELSE
DATEDIFF(hour,i.DateTime,o.datetime)
END AS [Datediff_hours],
i.Intake_Type,
i.intake_condition,
o.Outcome_Type,
o.Outcome_Subtype
from Intakes i
left join Outcomes o on o.Animal_ID = i.Animal_ID
Where o.Animal_ID IS NOT NULL
and o.Outcome_type = 'Euthanasia'
and i.intake_condition = 'Normal'
Order by Datediff_hours

```

	Animal_ID	Animal_ID	DateTime	DateTime	Datediff_hours	Intake_Type	intake_condition	Outcome_Type	Outcome_Subtype
1	A695726	A695726	2015-01-21 12:19:00.0000000	2015-01-21 12:31:00.000	0	Stray	Normal	Euthanasia	Suffering
2	A737074	A737074	2016-10-21 16:37:00.0000000	2016-10-21 16:44:00.000	0	Stray	Normal	Euthanasia	Suffering
3	A737022	A737022	2016-10-21 09:39:00.0000000	2016-10-21 09:51:00.000	0	Stray	Normal	Euthanasia	Suffering
4	A682539	A682539	2014-06-29 12:26:00.0000000	2014-06-29 12:56:00.000	0	Stray	Normal	Euthanasia	Suffering
5	A732359	A732359	2016-08-06 15:27:00.0000000	2016-08-06 15:52:00.000	0	Stray	Normal	Euthanasia	Suffering
6	A729498	A729498	2016-06-19 12:24:00.0000000	2016-06-19 12:45:00.000	0	Stray	Normal	Euthanasia	Suffering
7	A702317	A702317	2015-05-12 11:32:00.0000000	2015-05-12 11:45:00.000	0	Stray	Normal	Euthanasia	Suffering
8	A692059	A692059	2014-11-13 18:10:00.0000000	2014-11-13 18:37:00.000	0	Stray	Normal	Euthanasia	Suffering
9	A689124	A689124	2014-09-29 17:25:00.0000000	2014-09-29 17:53:00.000	0	Stray	Normal	Euthanasia	Suffering
10	A742416	A742416	2017-01-21 13:19:00.0000000	2017-01-21 13:38:00.000	0	Stray	Normal	Euthanasia	Suffering
11	A700776	A700776	2015-04-19 13:30:00.0000000	2015-04-19 13:47:00.000	0	Stray	Normal	Euthanasia	Suffering
12	A761162	A761162	2017-10-30 14:12:00.0000000	2017-10-30 14:55:00.000	0	Stray	Normal	Euthanasia	Suffering
13	A675353	A675353	2014-03-26 16:27:00.0000000	2014-03-26 16:44:00.000	0	Stray	Normal	Euthanasia	Suffering
14	A750977	A750977	2017-06-02 17:10:00.0000000	2017-06-02 17:37:00.000	0	Owner Surrender	Normal	Euthanasia	Suffering
15	A727982	A727982	2016-05-29 11:01:00.0000000	2016-05-29 11:15:00.000	0	Stray	Normal	Euthanasia	Suffering
16	A684158	A684158	2014-07-20 12:17:00.0000000	2014-07-20 12:37:00.000	0	Stray	Normal	Euthanasia	Suffering
17	A698154	A698154	2015-03-06 16:36:00.0000000	2015-03-06 16:50:00.000	0	Stray	Normal	Euthanasia	Suffering
18	A684110	A684110	2014-07-19 14:44:00.0000000	2014-07-19 14:55:00.000	0	Stray	Normal	Euthanasia	Suffering
19	A751709	A751709	2017-06-11 16:21:00.0000000	2017-06-11 16:39:00.000	0	Stray	Normal	Euthanasia	Suffering
20	A770831	A770831	2018-04-26 10:22:00.0000000	2018-04-26 10:59:00.000	0	Stray	Normal	Euthanasia	Suffering
21	A692060	A692060	2014-11-13 18:10:00.0000000	2014-11-13 18:37:00.000	0	Stray	Normal	Euthanasia	Suffering
22	A692234	A692234	2014-11-17 11:21:00.0000000	2014-11-17 11:52:00.000	0	Stray	Normal	Euthanasia	Suffering
23	A757025	A757025	2017-08-29 10:16:00.0000000	2017-08-29 10:49:00.000	0	Stray	Normal	Euthanasia	Suffering
24	A682431	A682431	2014-06-27 16:25:00.0000000	2014-06-27 16:32:00.000	0	Stray	Normal	Euthanasia	Suffering
25	A696517	A696517	2015-02-06 14:02:00.0000000	2015-02-06 14:57:00.000	0	Stray	Normal	Euthanasia	Suffering
26	A772757	A772757	2018-05-23 12:14:00.0000000	2018-05-23 12:29:00.000	0	Stray	Normal	Euthanasia	Suffering
27	A679154	A679154	2014-10-09 15:12:00.0000000	2014-10-09 15:48:00.000	0	Euthanasia Request	Normal	Euthanasia	Aggressive
28	A746986	A746986	2017-04-12 12:08:00.0000000	2017-04-12 12:52:00.000	0	Owner Surrender	Normal	Euthanasia	Suffering
29	A751786	A751786	2017-06-12 18:09:00.0000000	2017-06-12 18:29:00.000	0	Stray	Normal	Euthanasia	Suffering
30	A687608	A687608	2014-09-07 15:06:00.0000000	2014-09-07 15:17:00.000	0	Stray	Normal	Euthanasia	Suffering
31	A700775	A700775	2015-04-19 13:30:00.0000000	2015-04-19 13:46:00.000	0	Stray	Normal	Euthanasia	Suffering
32	A747010	A747010	2017-04-12 15:29:00.0000000	2017-04-12 15:42:00.000	0	Stray	Normal	Euthanasia	Suffering
33	A692122	A692122	2014-11-14 18:13:00.0000000	2014-11-14 18:36:00.000	0	Stray	Normal	Euthanasia	Suffering
34	A706695	A706695	2015-07-02 11:00:00.0000000	2015-07-02 11:14:00.000	0	Stray	Normal	Euthanasia	Suffering

To check the results of my query, I looked at the first animal on the list. It lists a 5 year old cat brought into the shelter as a Stray under Normal conditions, but Euthanized indicating they were suffering. Why is that the case?

```

select * from intakes where animal_id = 'A695726'
select * from outcomes where animal_id = 'A695726'

```

	Animal_ID	Name	DateTime	Found_Location	Intake_Type	Intake_Condition	Animal_Type	Sex_upon_Intake	Age_upon_Intake	Breed	Color	Date_Converted	Time_Converted
1	A695726	Unknown	2015-01-21 12:19:00.0000000	12Th And Airport Blvd in Austin (TX)	Stray	Normal	Cat	Neutered Male	5 years	Domestic Shorthair Mix	Blue Tabby/White	2015-01-21	12:19:00.0000000

  

	Animal_ID	Name	DateTime	Date of Birth	Outcome_Type	Outcome_Subtype	Animal_Type	Sex_upon_Outcome	Age_upon_Outcome	Breed	Color	Date_Converted	Time_Converted	YEAR
1	A695726	Unknown	2015-01-21 12:31:00.000	01/21/2010	Euthanasia	Suffering	Cat	Neutered Male	5 years	Domestic Shorthair Mix	Blue Tabby/White	2015-01-21	12:31:00.0000000	2015

Looking at the second animal\_id from the query above, it is a 4 week old stray puppy in normal condition but was Euthanized 7 minutes later as the outcome subtype indicated Suffering.

How can an animal brought in under normal conditions suffer so much that within 7 minutes needs be Euthanized????

```
select * from intakes where animal_id = 'A737074'
select * from outcomes where animal_id = 'A737074'
```

	Animal_ID	Name	DateTime	Found_Location	Intake_Type	Intake_Condition	Animal_Type	Sex_upon_Intake	Age_upon_Intake	Breed	Color	Date_Converted	Time_Converted
1	A737074	Unknown	2016-10-21 16:37:00.0000000	Cherico St And Lyons Rd in Austin (TX)	Stray	Normal	Dog	Unknown	4 weeks	Labrador Retriever Mix	Tan	2016-10-21	16:37:00.0000000

  

	Animal_ID	Name	DateTime	Date of Birth	Outcome_Type	Outcome_Subtype	Animal_Type	Sex_upon_Outcome	Age_upon_Outcome	Breed	Color	Date_Converted	Time_Converted	YEAR
1	A737074	Unknown	2016-10-21 16:44:00.000	09/21/2016	Euthanasia	Suffering	Dog	Unknown	4 weeks	Labrador Retriever Mix	Tan	2016-10-21	16:44:00.0000000	2016

**Dig Deeper Thoughts:** There are several animals brought into the shelter as a Stray Under Normal Conditions and were Euthanized less than 1 hour later indicating they were Suffering.

Here are some follow up questions that I have:

- What is the definition of “Suffering” to Austin Animal Shelter?
- What is the definition of an Intake Type Normal Condition?
- Are all employees trained and using the definitions of the intake conditions and outcome subtypes correctly?
  - If these fields are not being consistently and accurately entered then the data can be significantly skewed in an improper direction resulting in inaccurate reasons why an animal was Euthanized.
- Was the shelter at max capacity if the animal was under normal conditions and there was no where else transfer or house the animal?
- How can an animal be deemed as Suffering, if it is within less than an hour?

## Summary of Findings

### ANIMALS

- There are more dogs than cats at the shelter.

### SHELTER VOLUME

#### Busiest Intake times:

- Months – May, June, October

- Time of Day: Late afternoon / Evenings 4-6 with 5 being peak

### Slowest Intake Times

- Months – February, March, January
- Time of Day: During working hours the early mornings are slowest.

### Busiest Adoption times:

- Months – July, December, August
- Time of Day: Late afternoon / Evenings 4-6 with 5 being peak

### Slowest Adoption Times

- Months – April, March, May
- Time of Day: During working hours the early mornings are slowest.

## INTAKE DEMOGRAPHICS

- Age Upon Intake: Most common years at Intake: 1 year, 2 year, 1 month
- Top 2 Intake Reason:
  - Strays = 73%
  - Owner Surrender = 21%
    - Out of the Owner Surrender 88.3% have an intake listing Normal Condition

## OUTCOME DEMOGRAPHICS

- Age Upon Outcome: Most common years at Outcomes: 1 year, 2 years, 2 months.
- Top 2 Outcomes
  - Adoption 46.6%
  - Transfers 30.4%
- Euthanasia Count by Year

	Animal_Type	2013	2014	2015	2016	2017	2018	2019	2020	2021
1	Cat	93	433	427	238	249	166	192	134	10
2	Dog	184	617	420	179	97	74	120	96	9

- Adoption Count by Year:

	Animal_Type	2013	2014	2015	2016	2017	2018	2019	2020	2021
1	Cat	745	2548	2872	3111	3273	3014	3652	1955	218
2	Dog	1094	4548	4476	4841	4690	4769	5629	2800	374

- Animals that Died without Euthanasia



	outcome_subtype	count_subtype
1	In Kennel	507
2	In Foster	261
3	At Vet	81
4	Enroute	41
5		33
6	In Surgery	21

- Animals that Died without Euthanasia by Year

Year	Count	Reasons for "Died"
2013	1	
2013	8	In Foster
2013	13	In Kennel
2013	1	In Surgery
2014	16	Blank
2014	4	At Vet
2014	6	Enroute
2014	36	In Foster
2014	38	In Kennel
2014	2	In Surgery
2015	6	Blank
2015	5	At Vet
2015	5	Enroute
2015	31	In Foster
2015	97	In Kennel
2015	2	In Surgery
2016	1	Blank
2016	10	At Vet
2016	2	Enroute
2016	40	In Foster
2016	86	In Kennel
2016	5	In Surgery
2017	1	Blank
2017	12	At Vet
2017	5	Enroute
2017	41	In Foster
2017	58	In Kennel
2017	5	In Surgery
2018	18	At Vet
2018	9	Enroute
2018	30	In Foster
2018	74	In Kennel
2018	2	In Surgery
2019	7	Blank
2019	26	At Vet
2019	7	Enroute
2019	46	In Foster



2019	97	In Kennel
2019	4	In Surgery
2020	1	Blank
2020	6	At Vet
2020	7	Enroute
2020	28	In Foster
2020	42	In Kennel
2021	1	In Foster
2021	2	In Kennel

## ANIMAL DEMOGRAPHICS

### Dogs

- **Top Dogs Breeds:**

Top Intake Dog Breed: Pitbull Mix, Labrador Retriever Mix, Chihuahua Shorthair mix

Top Adopted Breed: Labrador Retriever Mix, Pitbull Mix, Chihuahua Mix

Top Euthanized Breed: Pitbull, Chihuahua Mix, Labrador Retriever Mix

- **Top Dog Color:**

- \* Intakes

Tricolor

White/Liver

Sable/White

- \* Adopted

Black/White = 4236

Brown/White = 1880

Tan/White = 1869

- \* Euthanized

Black/White - 166

Brown/White - 113

Tan/White 107

- **Top Dog Names:**

Max = 537

Bella = 474

Luna = 414

Rocky = 374

Daisy = 365

Charlie = 317

Coco = 307

Buddy = 305

Princess = 299

Lucy = 287

- **SubType for Dogs Dying without Euthanasia:**

	outcome_subtype	count_subtype	dog_percent_subtype
1	In Kennel	156	61.000000000000
2	In Foster	41	16.000000000000
3	At Vet	29	11.000000000000
4		11	4.000000000000
5	Enroute	10	4.000000000000
6	In Surgery	9	4.000000000000

## Cats

- **Top Cat Breed: (There are not many cat breeds)**

Top Intake Cat Breed: Domestic Shorthair Mix, Domestic Shorthair, Domestic Med Hair Mix

Top Adopted Cat Breed: Domestic Shorthair Mix, Domestic Shorthair, Domestic Med Hair Mix

Top Euthanized Breed: Domestic Shorthair Mix, Domestic Shorthair, Domestic Med Hair Mix

- **Top Cat Color**

### \* Intakes

Calico

Cream Tabby

Black/White

### \* Adopted

Brown Tabby

Black

Black/White

### \* Euthanized

Brown Tabby

Black

Black/White

- **Top 10 Cat Names**

Luna = 124

Charlie = 121

Lucy = 86

Max = 84

Bella = 84

Oliver = 83

Lily = 82

Shadow = 79

Jack = 79  
Daisy = 74

- **SubType for Cats Dying without Euthanasia:**

	outcome_subtype	count_subtype	cat_percent_subtype
1	In Kennel	351	51.000000000000
2	In Foster	220	32.000000000000
3	At Vet	52	8.000000000000
4	Enroute	31	5.000000000000
5		22	3.000000000000
6	In Surgery	12	2.000000000000

## Recommendations

### STAFFING

Due to when Adoptions and Intakes are high/low this is when staffing would be most optimal.

- Most Staffing Needed: June - December
- Slowest Staffing Time: Jan - April

### PROMOTIONS/SALES

- Generate promotions during the quieter months (Jan – April) for greater sales
- Provide discount if an adopter purchases an animal from one the top 3 euthanized breeds. This may help lower euthanasia rates.

### RESEARCH

- Further research is needed on why:
  - More cats die in Fosters than dogs
  - More dogs die in Kennels than cats
  - Why are animals being Euthanized within hours/days if they are brought in Under Normal Conditions?
- Check to ensure that there is QA on consistency on animal subtypes that are entered.
  - This will help ensure that all records are entered accurately in order to verify why Euthanasia is occurring.

### COMMUNITY BUILDING

#### Reducing Intakes:

- **Strays make up 73% of Intakes**
  - Partner and offer discounts to those individuals who Trap, Neuter, Release to help prevent the spread of reproduction.
- **Owner Surrender makes up 21% of Intakes**

- For those that are surrendering their pet due to Normal Conditions, provide them with a pamphlet on animal shelter statistics.
- Are there resources that can be provided, for example if a family is going through financial difficulty can you house for a temporary period until they get on their feet again?
  - Networking/Partnering with fosters to assist in this situation.