



# Claire's Place

FOUNDATION FOR CYSTIC FIBROSIS SUPPORT®

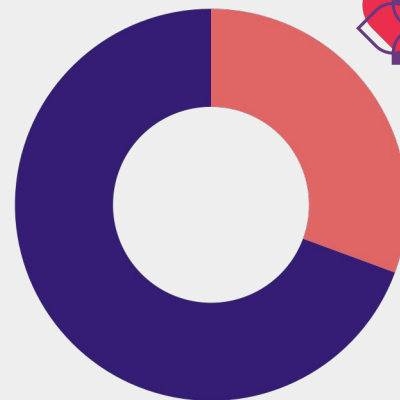
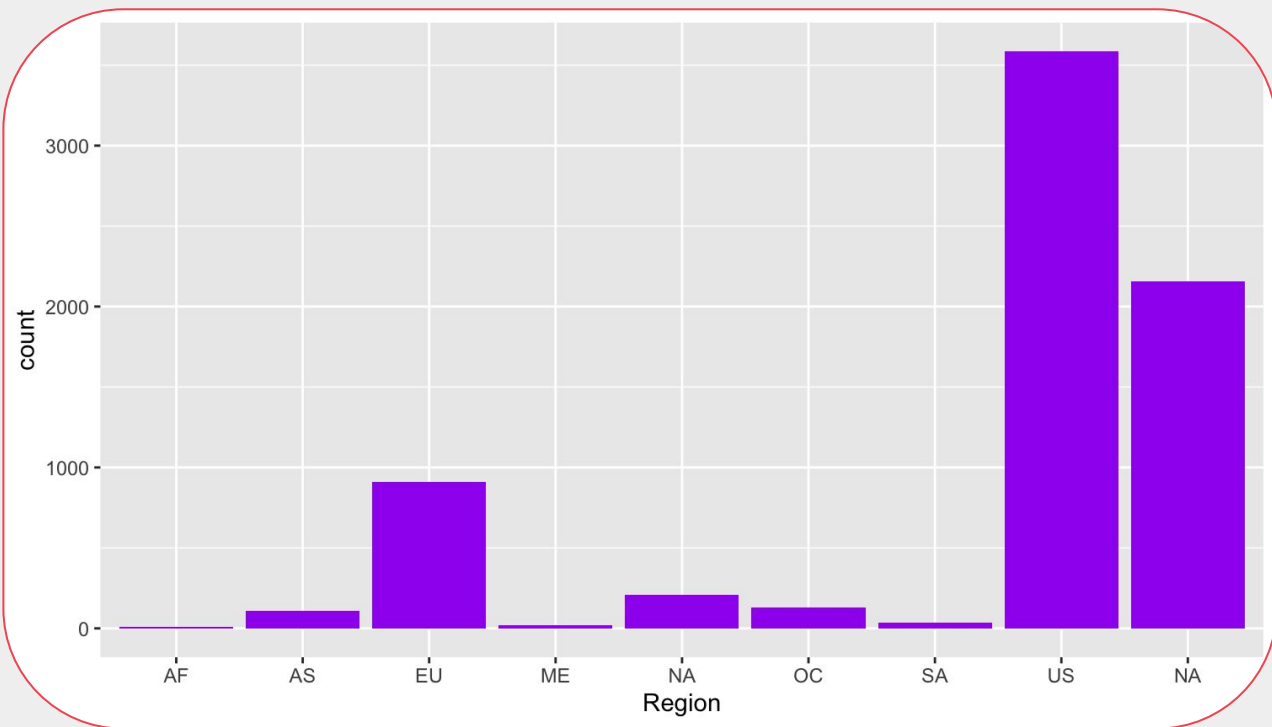


# **BUAD 312**

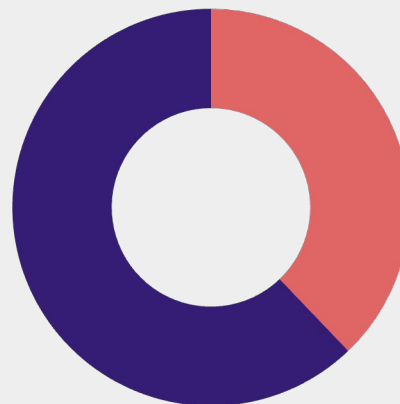
# **Final Project**

Fayzan Mirza, Dyanna Boone, Hannah Lee, Kevin Lu, Kuilin Jiang, Matthew Ko

# Who are your donors?



Anonymous Not Anonymous



Recurring Not Recurring



# How do we keep them?

**5.3**

campaigns/month

<

**~43**

unsubscribes

⋮

**~77**

unsubscribes

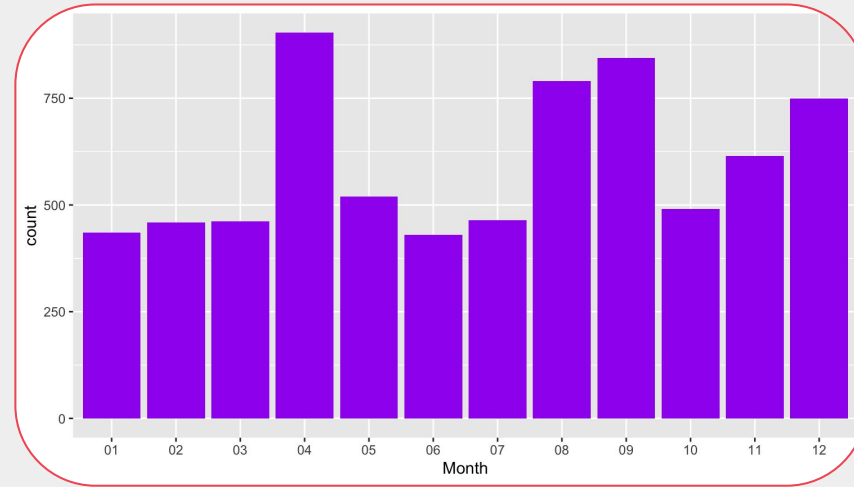
<

**~127**

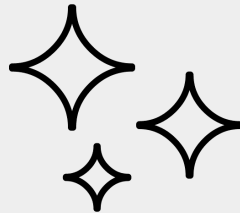
unsubscribes



# How do we keep them?



Claire's Birthday



Glow Ride



Clairity Ball

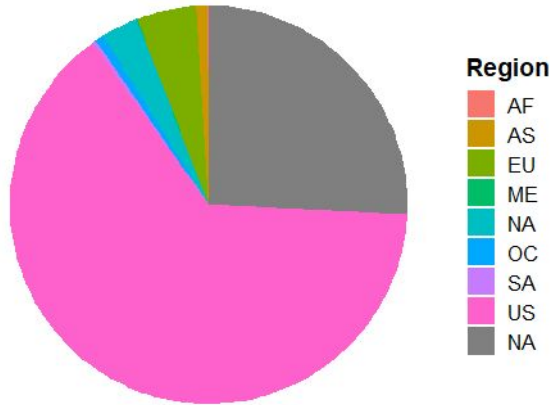


1 in a Million

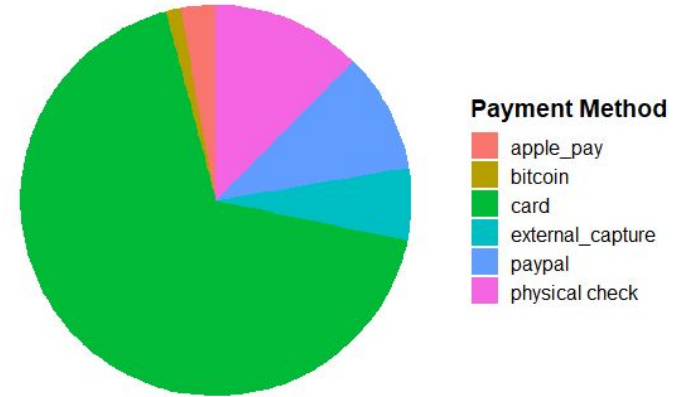
# Data Visualization – Donations by Region and payment method



## Donations by Region



## Donations by Payment Method

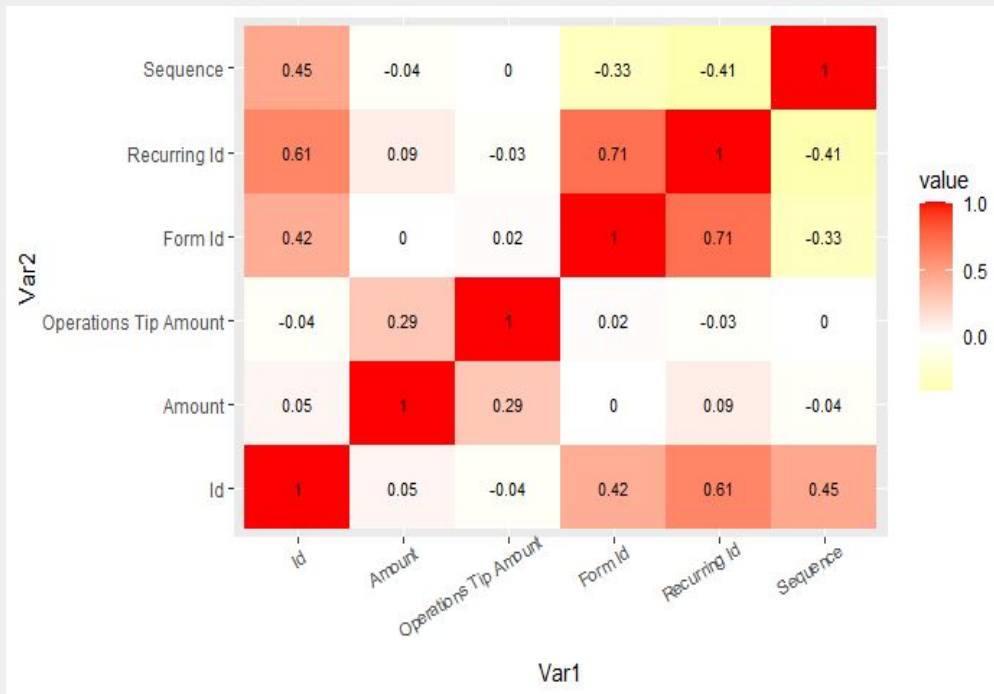




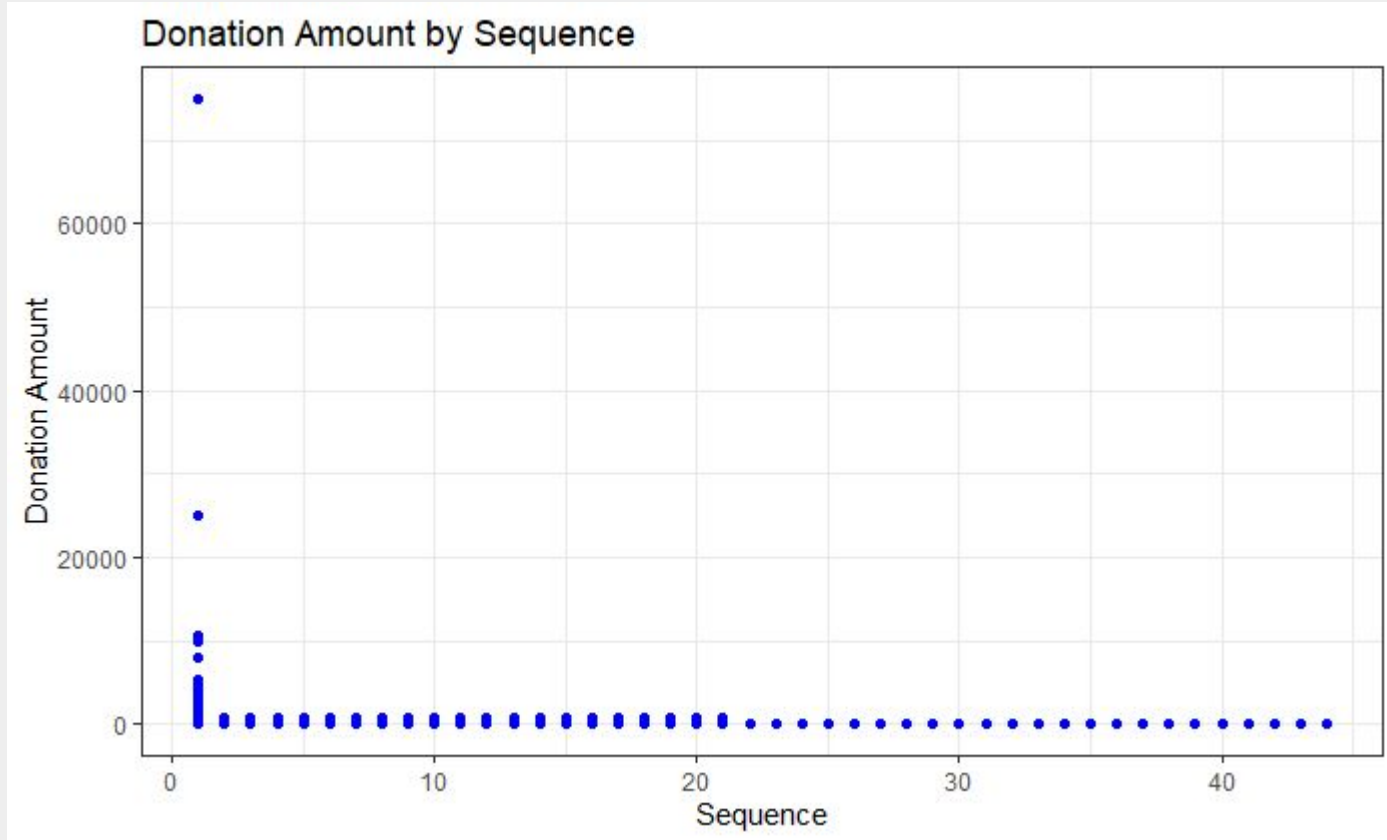
# Donations data correlation - Heat Map

Sequence has negative correlation with Amount

- The negative correlation between sequence and amount of donation may seem counterintuitive at first glance.
- As one might expect that a higher sequence number would indicate a more loyal donor who could potentially donate more.



# Amount & Sequence - Scatter Plot



# Amount & Sequence - Linear Regression



- Adjusted R-squared = **0.00108**
  - This is a very low value, indicating that the model does not provide a good fit to the data.
  - In other words, the relationship between sequence and donation amount is very weak or non-existent.

```
Residuals:
    Min       1Q   Median       3Q      Max
   -107     -88     -63     -24   74892

Coefficients:
              Estimate Std. Error t value Pr(>|t|)
(Intercept)   112.461     12.840   8.759 < 2e-16 ***
Sequence      -4.894       1.549  -3.160  0.00159 **
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

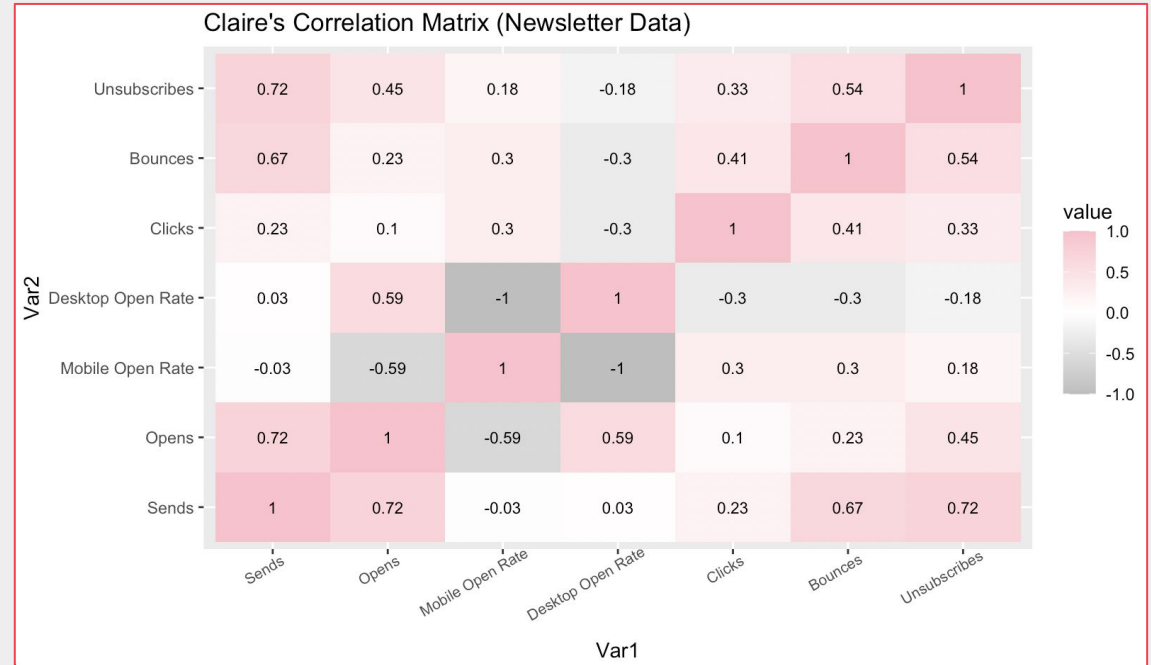
Residual standard error: 964.3 on 8291 degrees of freedom
Multiple R-squared:  0.001203, Adjusted R-squared:  0.001082
F-statistic: 9.984 on 1 and 8291 DF,  p-value: 0.001585
```





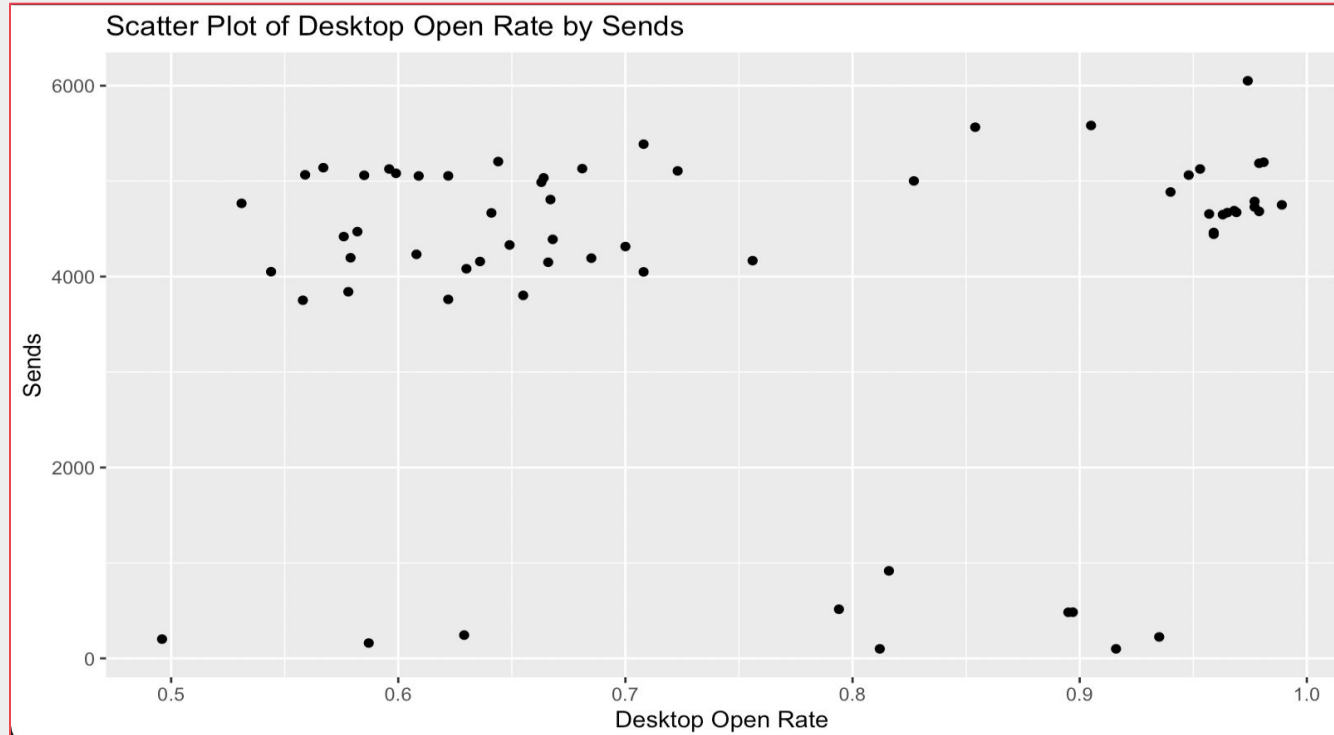
# Desktop Open Rate & Sends - Heat Map

- Desktop Open Rate has low correlation with Sends
  - Interesting finding considering people typically open emails less when they are increasingly getting emails from a company





# Desktop Open Rate & Sends - Simple Scatter Plot





# Desktop Open Rate & Sends - Linear Regression

- Adjusted R-squared = **-0.015**
  - Confirms weak relationship between these two variables
  - Claire's should be able to keep their current number of emails a decreasing open rate

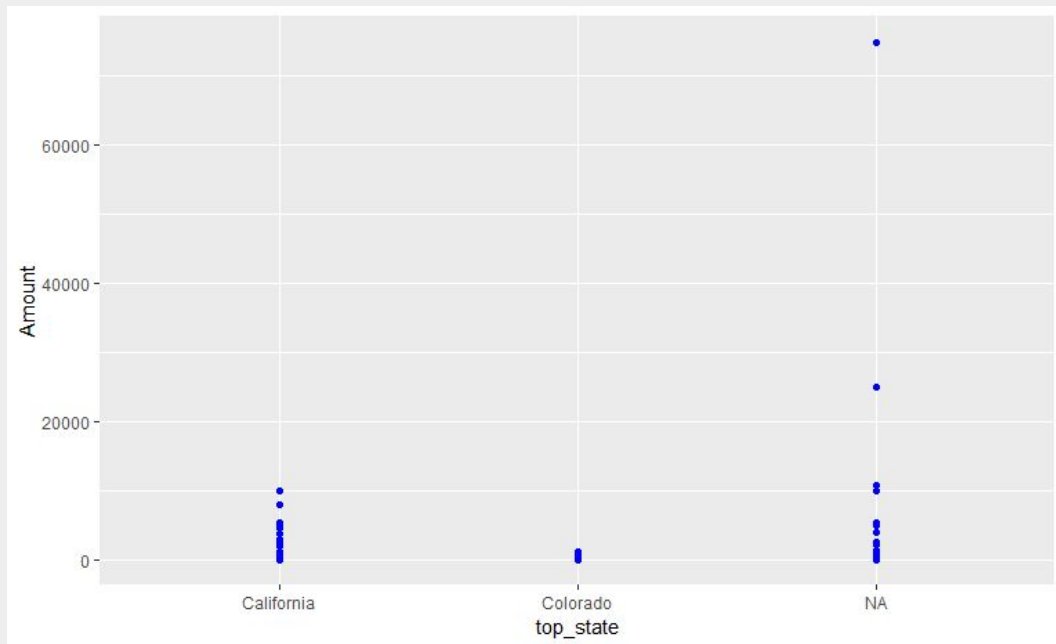
```
Residuals:
      Min       1Q   Median       3Q      Max
-0.24644 -0.13806 -0.06226  0.19121  0.23273

Coefficients:
              Estimate Std. Error t value Pr(>|t|)
(Intercept)  7.418e-01  5.359e-02  13.843  <2e-16 ***
Sends        3.039e-06  1.233e-05   0.246   0.806
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.1628 on 62 degrees of freedom
Multiple R-squared:  0.0009787, Adjusted R-squared:  -0.01513
F-statistic: 0.06074 on 1 and 62 DF,  p-value: 0.8061
```



# Recurring Trends Within State/Province



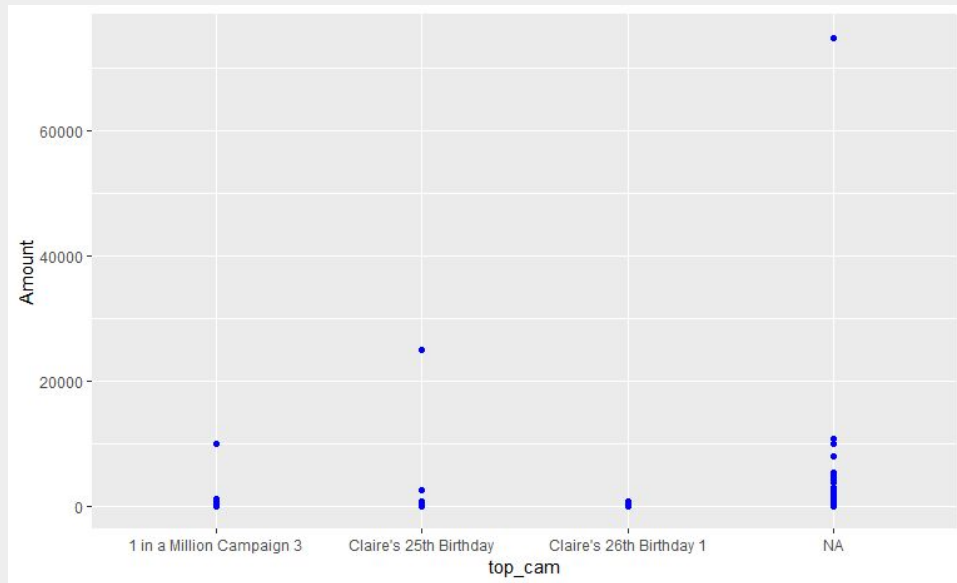
State/Province`	count
<chr>	<int>
1 Alabama	37
2 Alaska	5
3 Arizona	58
4 Arkansas	6
5 California	1474
6 Colorado	94
7 Connecticut	80
8 Delaware	6
9 District of Columbia	15
10 Florida	198

Top 3 States and what their similarities were

Which areas to target?



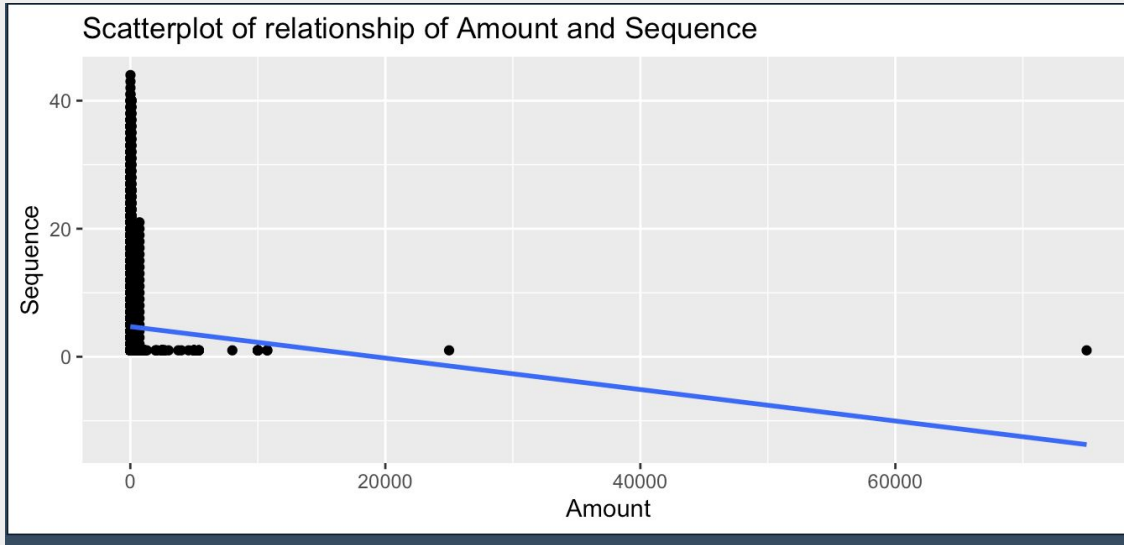
# Recurring Trends Within Email Campaign



Email Campaign`	count
<chr>	<int>
1 in a Million Campaign 1_1	17
1 in a Million Campaign 2	47
1 in a Million Campaign 3	110
10 Years	79
Auction 1	3
Auction 2	13
Claire's 25th Birthday	197
Claire's 26th Birthday 1	115
Claire's Birthday Campaign	531
Clairity Ball 2021 1	97
... with 49 more rows	

The top 3 campaigns within the donations  
Specific names and which events were  
important

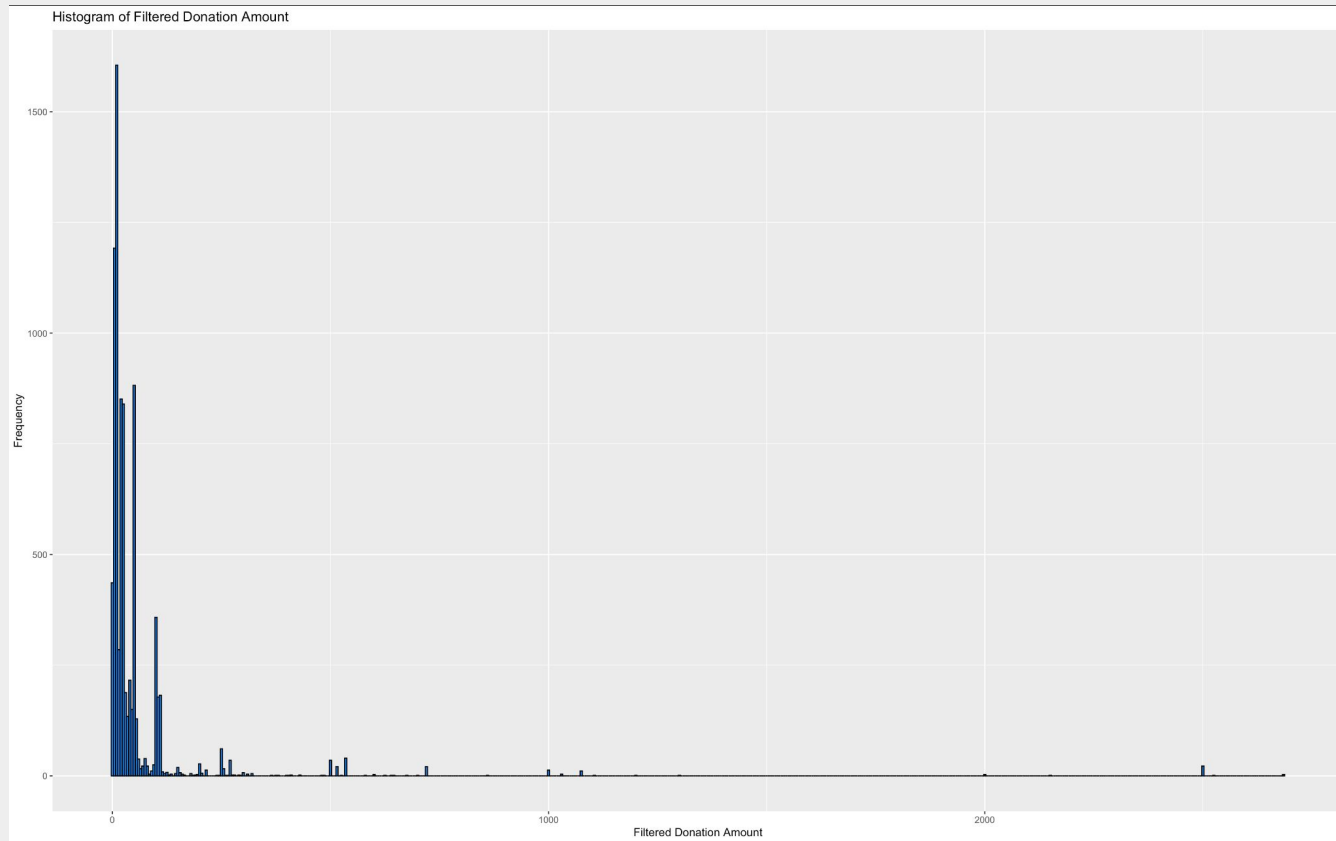
# Is there a correlation between Amount donated and Sequence?



Scatter plot of  
Amount donated vs.  
Sequence

- donors who made their first donation (sequence 1) tend to make the largest contribution compared to subsequent donations.

# Donation Amount Distribution

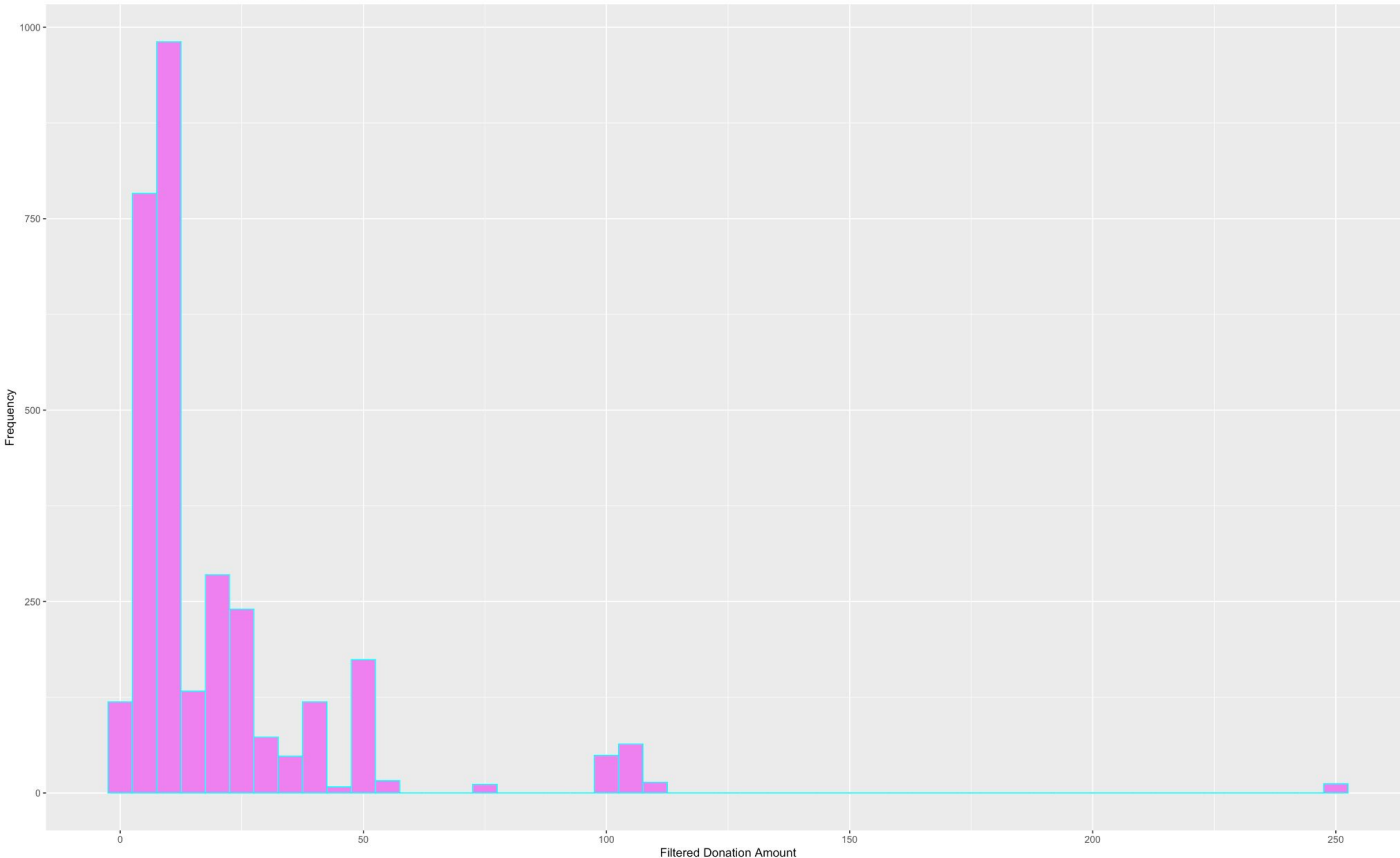


The majority of  
amount of donation  
payment is below  
\$100

# Donation Amount Distribution For Recurring Donors



Histogram of Filtered Donation Amount for Recurring Donors



The majority of  
amount of donation  
payment is below  
\$50



# Does anonymity affect the amount they donate?

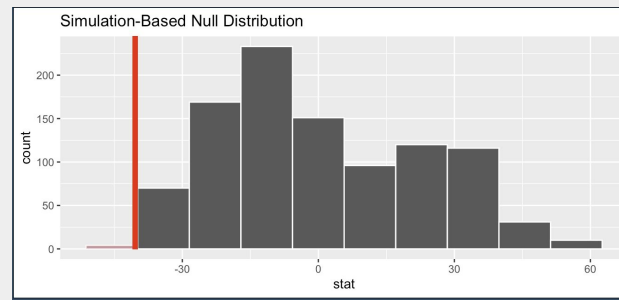
## Hypothesis testing



H0 (null hypothesis): Anonymity does not affect the amount donated.

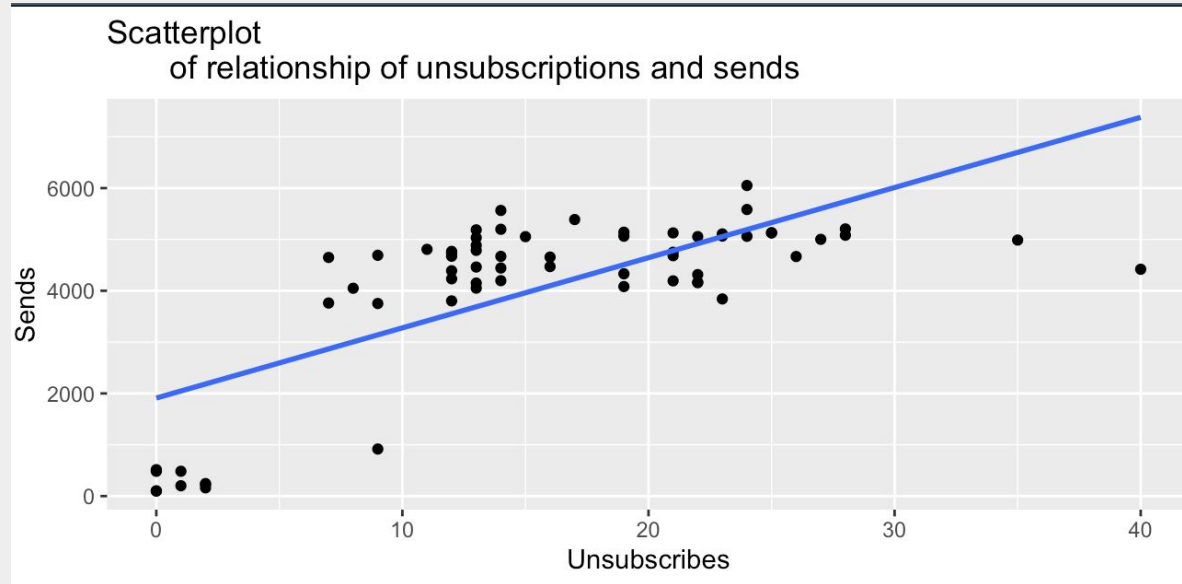
H1 (alternative hypothesis): Anonymous donor donate less.

- P-value is 0.003
- Rejecting the null hypothesis
- Concluding that anonymous donors donate less, on average, compared to non-anonymous donors.





# Correlation Between Sends and Unsubscribes



**Rationale:** As people get more and more emails, people tend to get tired of getting so many emails.

As email sends from Claire's Place increase, we infer there could be an increase in unsubsribes.



# One-Time Donors → Lifetime Donors

0%

of Facebook donors are  
recurring donors



- Redirect people to your website to donate
- Encourage the “recurring” donation option on Facebook
- Follow up with Facebook donors via email

# What made April work so well?



- Third lowest month in emails sent (April) is the same month they receive the most donations
  - This means CPF was very effective in their email campaign strategy this month of April.

# 13,752

Emails sent in April

# \$30,785

Dollars raised from Kendra Scott Campaign

- Kendra Scott email campaign led to 3rd highest amount of donations (behind two annual events)
  - Trimmed out Tax Receipt and General Donation outliers
  - Collaborations like this one can greatly benefit the company based on the 20% commission CPF made per item sold.

# Hypothesis Test - Card Payments and Sequences



## Null Hypothesis

Using credit card as a payment for donations does not impact the donor's Sequence.

## Alternative Hypothesis

Donors who make donations by credit card on average have an above average Sequence (4.689)

- P-value for the hypothesis test is **0**, reject null and approve H1
- Because the result was significant, we can confirm that using credit cards as a form of payment for donations tends to lead to an above average Sequence for donors of CPF
  - This makes businesses sense considering card readers and email invoices store the email and phone numbers of donors
    - Can be used for **email and text message targeting**

# Hypothesis testing – Recurring and Amounts



## Null Hypothesis

There is no difference in the amount donated between donors who made recurring donations and those who did not make recurring donations.

## Alternative Hypothesis

Donors who made recurring donations donated a higher amount compared to those who did not make recurring donations.

- P-value for the hypothesis test is **1**, it means that we fail to reject the null hypothesis
- There is no statistically significant difference in the amount donated between recurring and non-recurring donations. Therefore, we cannot conclude that recurring donation has a higher amount donated.

# Hypothesis testing – Donation\_cat and Recurring



## Null Hypothesis

There is no difference in the likelihood of recurring donation between high and low amount donation categories

## Alternative Hypothesis

High amount donation is more likely to recur than low amount donation.

- We first separated the donations into different categories based on its percentile. Donations of \$75 or more were categorized as "H" for high, and those below \$75 were categorized as "L" for low.
- P-value = **0.62**
- we cannot conclude that high donation amounts are more likely to have recurring donations than low donation amounts based on this test.



# Does Dedication Have Any Impact on Donation Amounts?

Null Hypothesis: Dedication has no effect on avg Amount donated

Alternate Hypothesis: Dedication causes higher Donations than avg amount.

- P-Value of 1
- We fail to reject the null hypothesis; We could infer that dedication do not have a effect on avg amount.





# Recommendations to Claire's

- Create more brand partnerships, like Kendra Scott campaign
  - More exposure, donations, and steady revenue over the campaign's period
  - Celebrity collaborations may have similar success, Ex. Celine Dion
- Keep email campaign count as is, as we found it's not negatively impacting the open rate and increasing may result in more unsubscribers
- Follow up with Facebook donors to encourage recurring donations
- Time email campaigns to be most compatible with US or NA time zones
  - Target US Region more (US holidays, etc.)
- Amount of donation does not have a significant impact on the recurring donation rate.
  - It may not be necessary to specifically target recurring donors. Instead, the company could focus on increasing overall donations through targeted fundraising campaigns, social media outreach, and other marketing efforts.



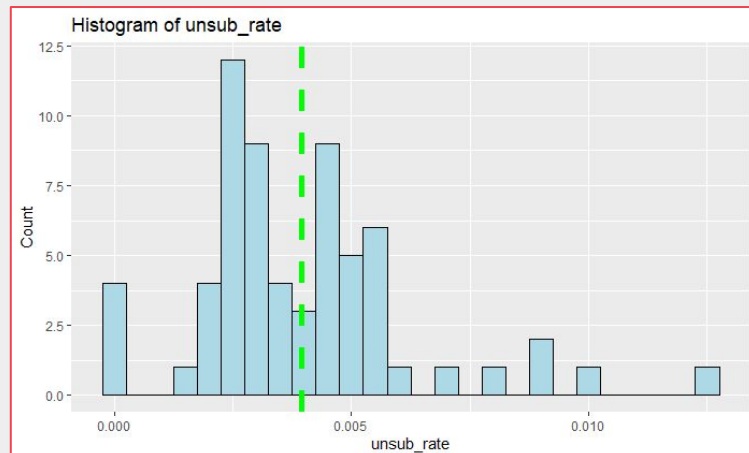
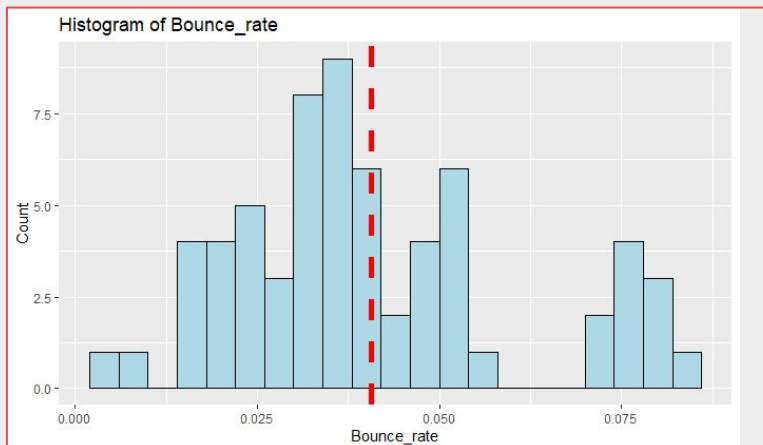
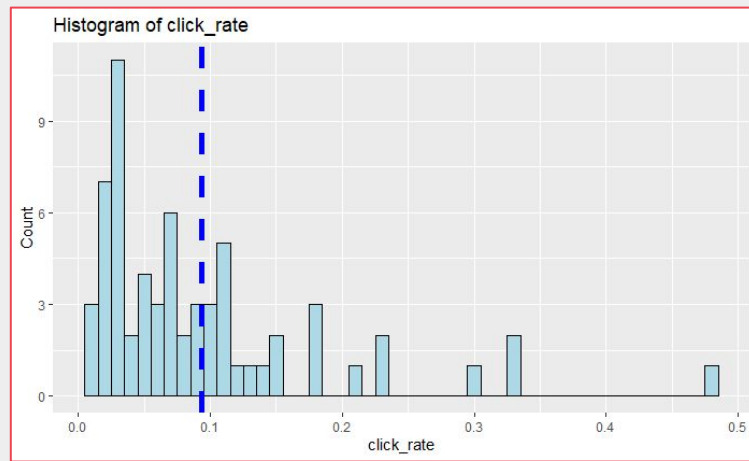
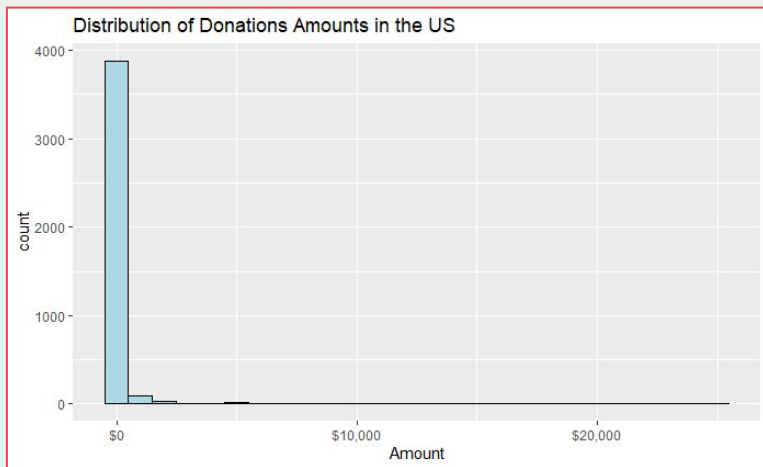
# Claire's Place

FOUNDATION FOR CYSTIC FIBROSIS SUPPORT®



# Thank you!

# Appendix – Distribution Visualizations



# Appendix:

## Hypothesis testing – Anonymous and Amounts



### Null Hypothesis

There is no difference in the amount donated between donors who choose to remain anonymous and those who do not

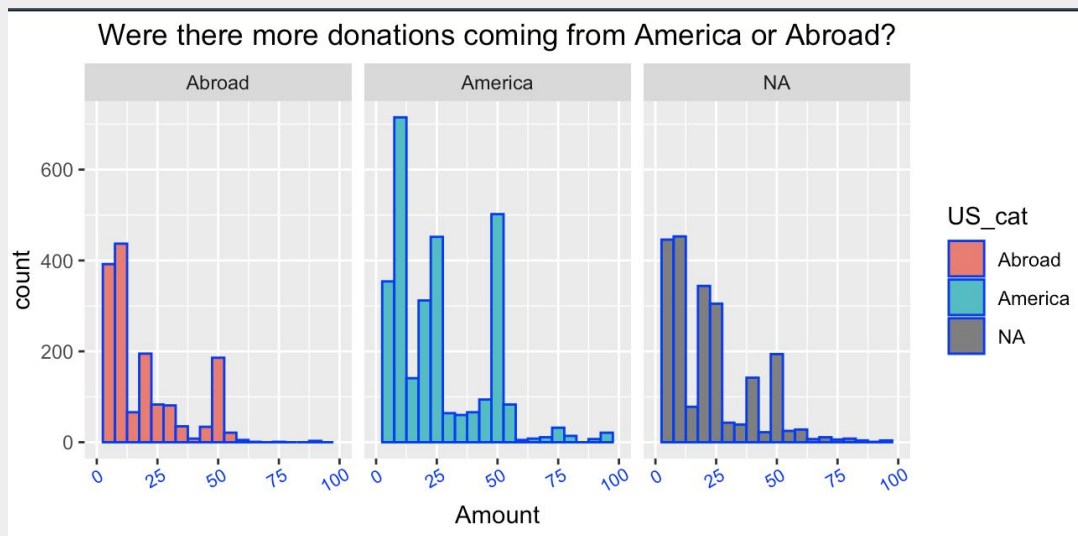
### Alternative Hypothesis

Anonymous donors donate more compared to non-anonymous donors.

- With a p-value of **0.993**, we can conclude that there is insufficient evidence to reject the null hypothesis, and we cannot say that anonymous donors donate more than non-anonymous donors.

# Appendix

## Are there more donations from America or Abroad



- We see that the US has the greatest amount of donors