FINAL PROJECT

BUAD 312

OUR TEAM






JENNIFER LEYNA

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PATIENTS DATASET

WPP DATASET

DONATIONS DATASET

PATIENTS DATASET

OUR DATA SCREENING:

New Variables

- PolicyChange: Before and After the new policy was implemented (June 01, 2023)
- SalaryLevel: Splits patients based on their income
    - “Low”, “Medium”, “High”
- GrantRate: Rate of grants given per month before and after the policy change.

Filtering

- Use only grants above 0
- Separate date

OUR OBJECTIVES:

1) How is the rate of grants given affected by the policy change?

2) How is the proportion of New grants affected by the policy change?

3) How does the location of patients by state affect the amount of grants they receive?

4) How is the dollar amount of grants affected?

RATE OF GRANTS PER MONTH

FINDINGS

Rate of Grants Given - Before

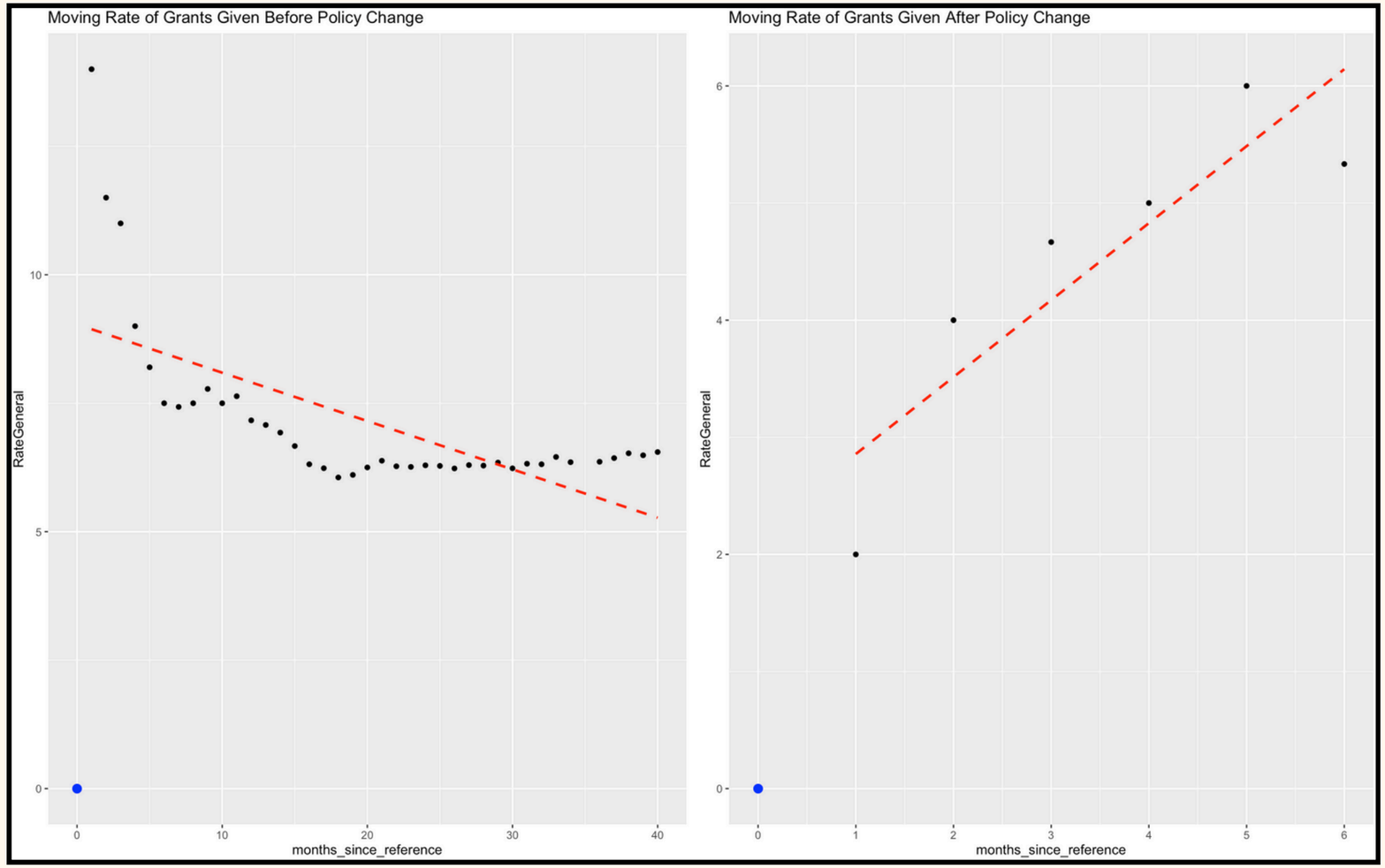
- 6.7 grants/month

Rate of Grants Given - After

- 5.3 grants/month

CONSIDERATIONS

- Time since the policy change
- Upward trend



RATE OF GRANTS PER MONTH

CATEGORIES

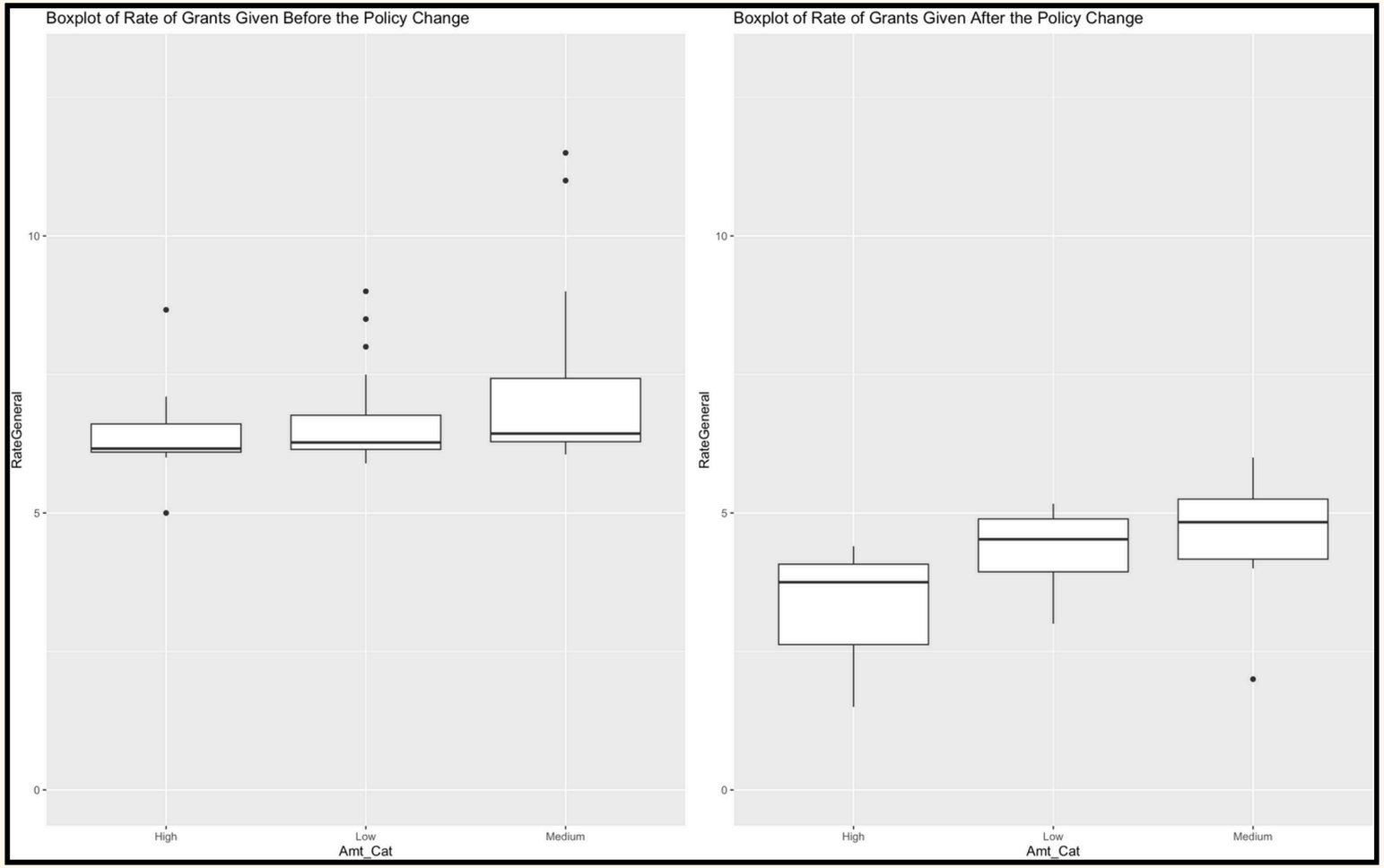
Low - Grants < $1000

Medium - $1000< Grants < $ 2500

High - Grants > $2500

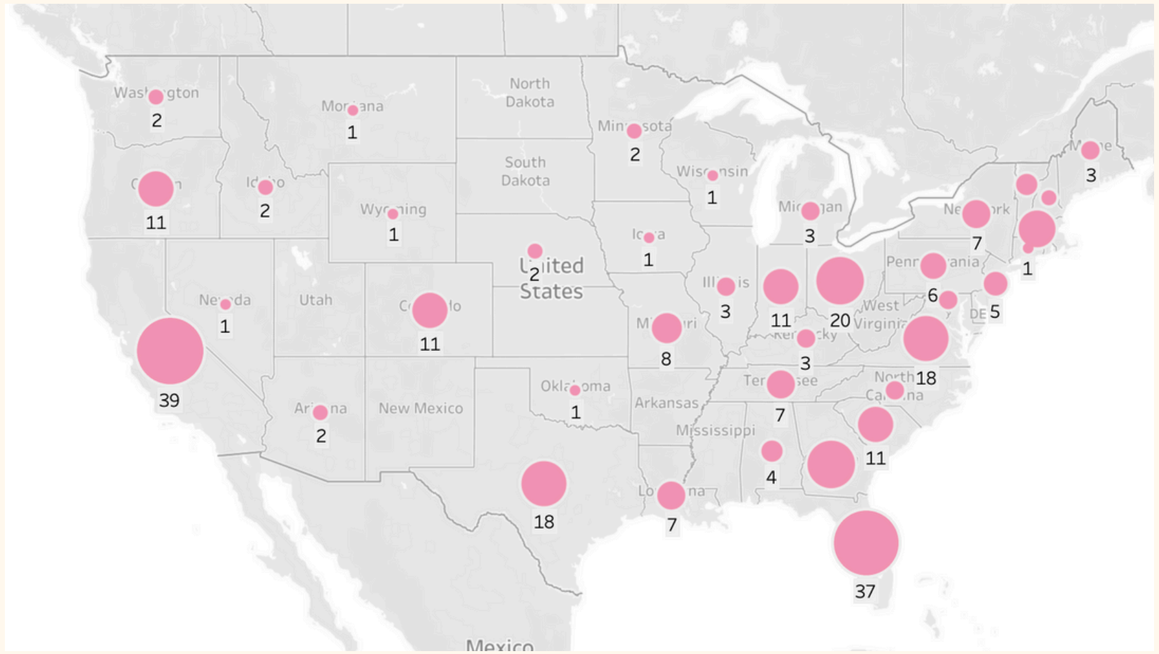
FINDINGS

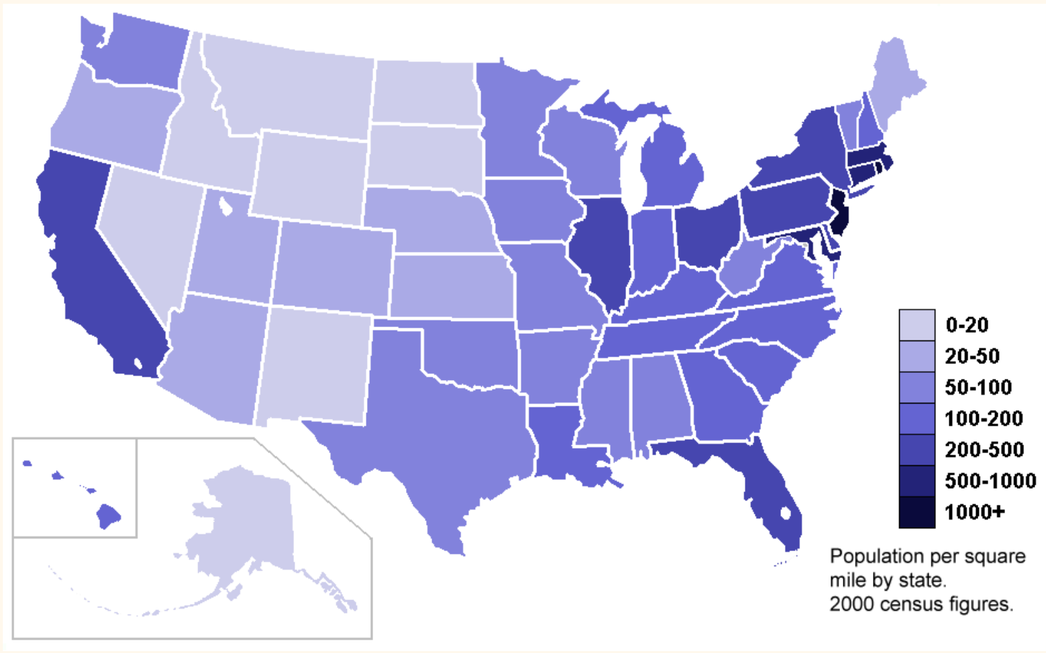
- Higher rate before the policy change for all categories
- Medium grants are given out at a higher rate
- Significant?
    - Only for the medium category AFTER change



PATIENT DISTRIBUTION

This is a general map of patients around the United States who received grants both before and after the policy change

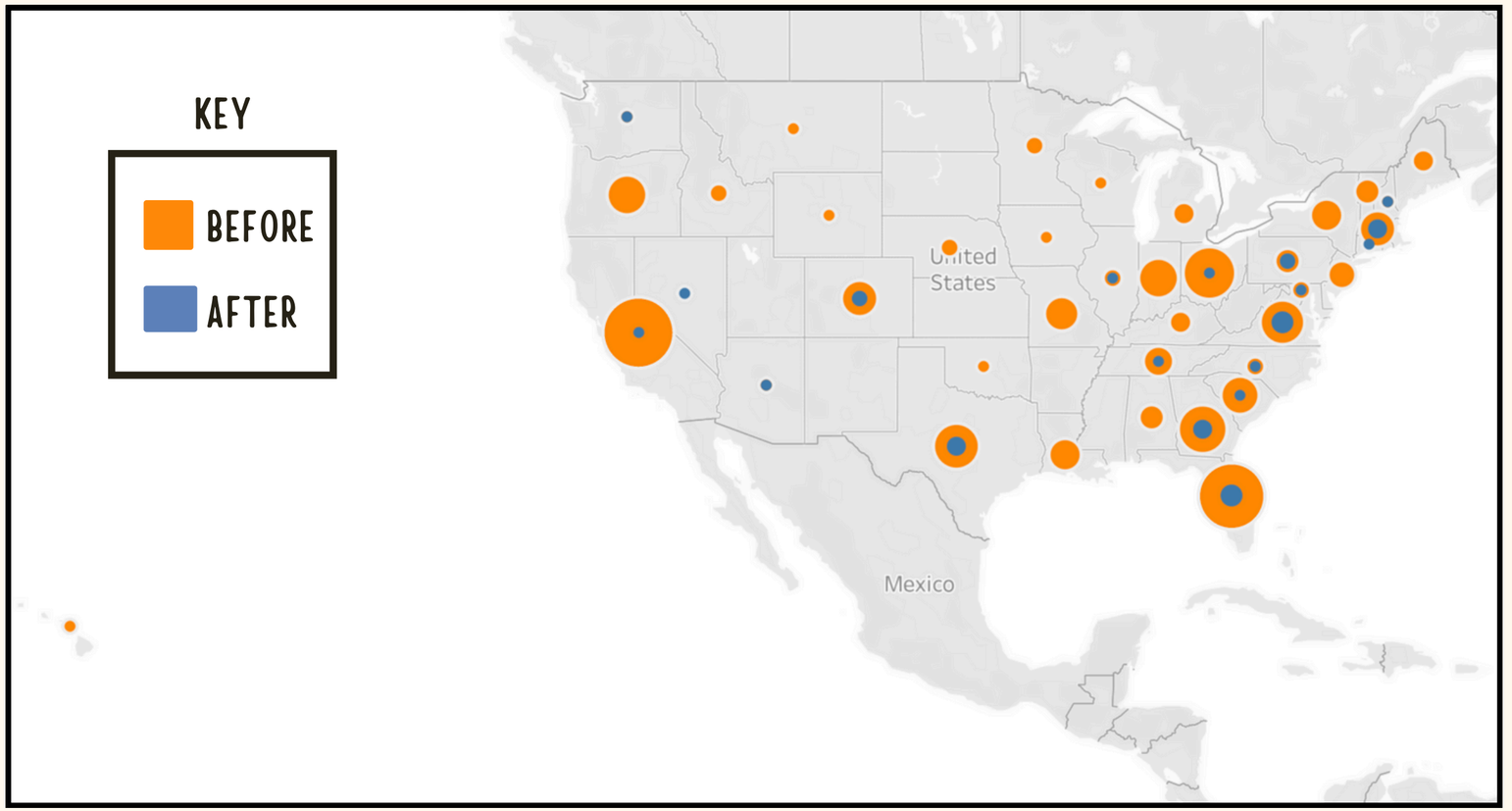




SPLIT BEFORE AND AFTER POLICY CHANGE

FINDINGS

- Before:
  - CA, CO, HI, NJ, and MA were all significant in determining $ the amount granted
- After:
  - No states
  - Limited Data

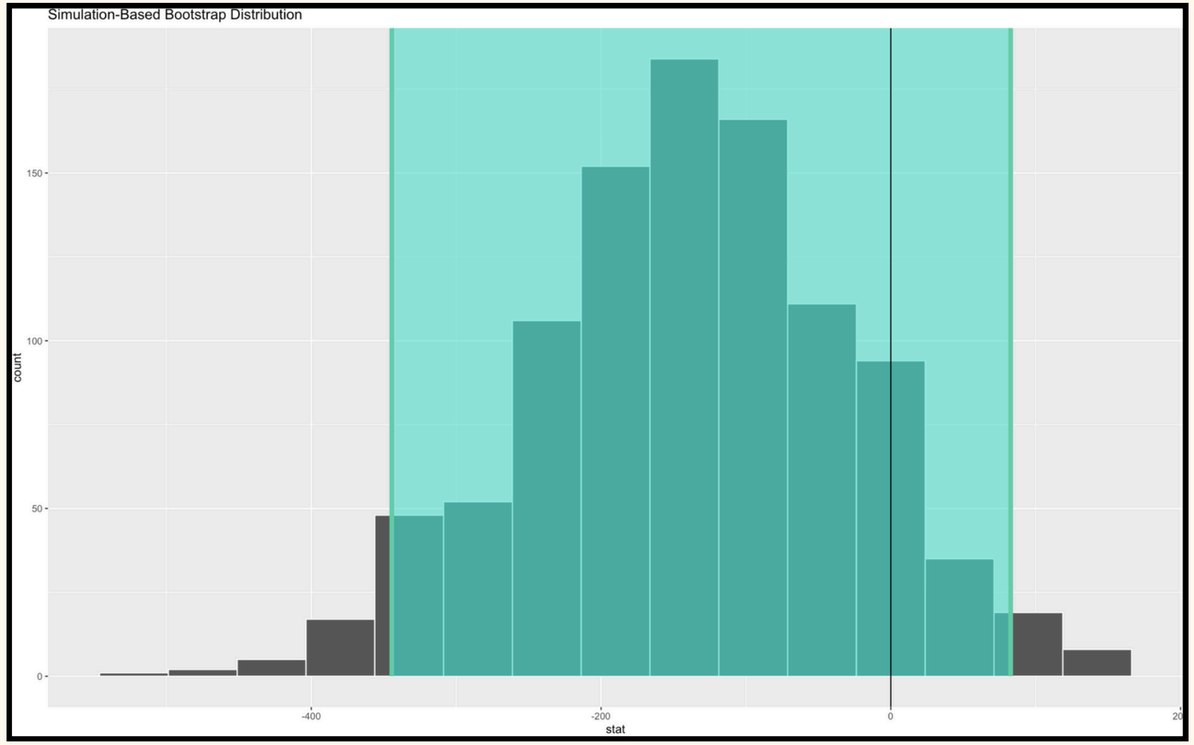


Note: There are fewer grants given after the policy change because our dataset only has six months of data for after the policy change was initiated

NEW PATIENTS

Average difference of Amt_Granted for NEW patients before and after policy change

After-Before



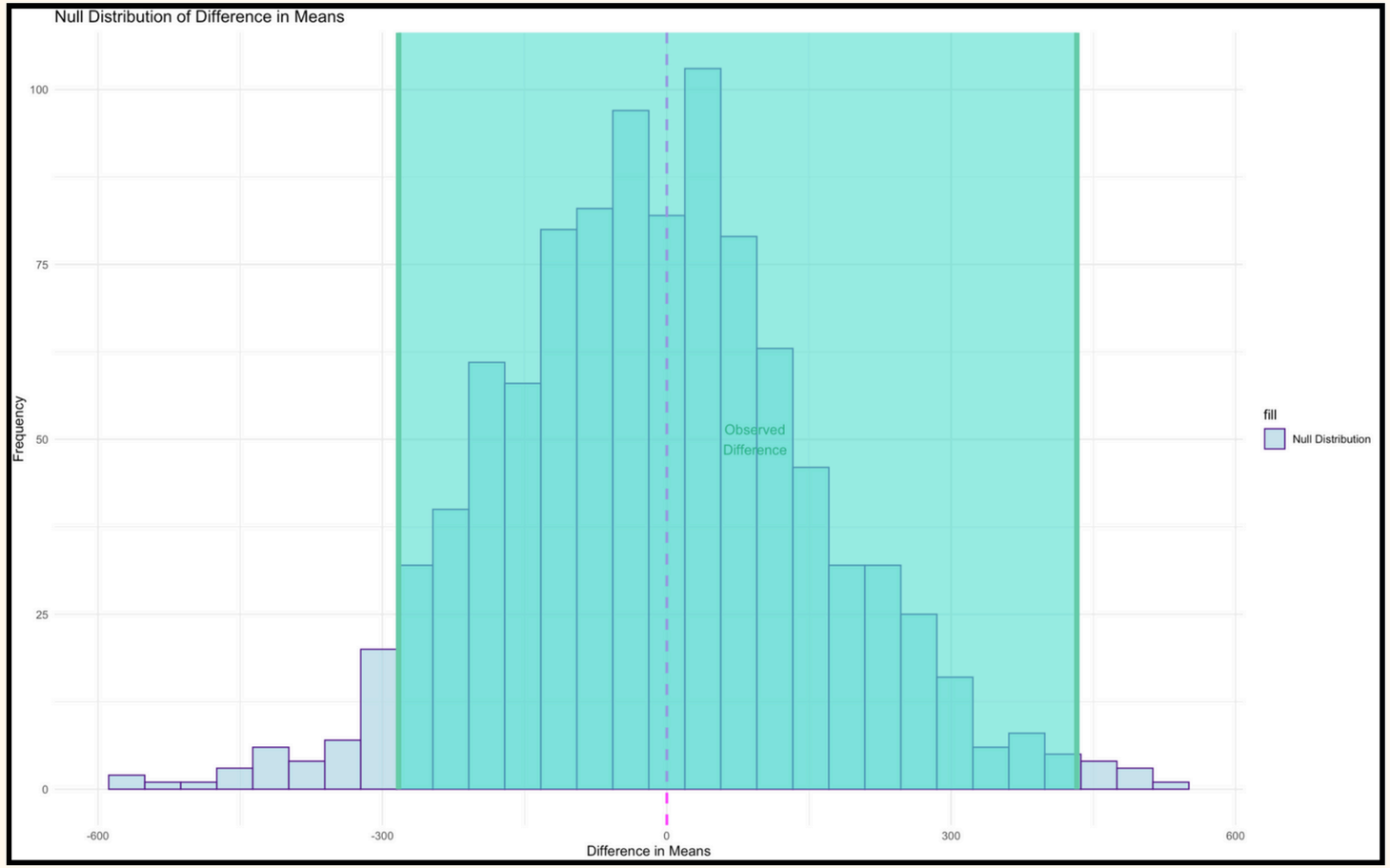
- We cannot be sufficiently confident that there is a meaningful difference between the average amount granted to new patients before and after the policy change. (zero is included in CI)

GRANT AMOUNT ($)

- Important because:
  - Motivation behind policy change
  - Impact of Claire's Foundation

H0: There is no difference in the average amount granted before vs after the policy change was implemented

H1: The average amount granted after the policy change is less than the average amount granted before the policy change



- p-value: 0.684
- We fail to reject H0
- No statistical evidence to prove that the policy change affected the amount of money granted

RECOMMENDATIONS

1) Do not duplicate patients. Assign patients the same Applicant ID every time their application gets rejected, to ensure that we are not double-counting patients

- Mitigate Risk: Reevaluate the update generations so ID's are not changed

2) Reidentify the core goals of the Extended Hospital Stay Grant and adjust distribution accordingly

- To increase reach?
  - Set a maximum grant limit
  - Identify barriers to grant accessibility based on state
- To help establish financial stability?
  - Monitor/ limit grant spending to essential needs

ADDITIONAL INFORMATION NEEDED

- RequestedGrant: number
  - Amount of grant the patient requested compared to how much they were actually granted
- Follow-up Survey
  - To identify the impact of these grants on individual's financial stability

WORK PROUDLY PROGRAM

NEWLY ADDED

VARIABLES

Data: WPP application

• **Submission ID**	Application ID
• **Status**	Status of the application Before 09/19/23, only completed applications were accepted Since 09/19/23, In-Progress applications indicate that the applicants completed the job profile and are on track finding a job
• **Gender**	Self-identified gender
• **Age**	Age group
• **Ethnicity**	Self-reported ethnicity
• **Employed**	Employed status
• **AnnualHouseholdIncome**	Annual household income category
• **NumHousehold**	Number of people in the household
• **SocialServices**	Social services currently receive
• **Date**	Application date

CRITERIA

- Hospital Social Worker Referral
- Confirmed Diagnosis of CF
- “History of inability to support themselves”

NEWLY ADDED

WORK PROUDLY PROGRAM

OUR DATA SCREENING:

New Variables

- PolicyChange: Group by before/after policy change
- Age: Group by young, adult, grown, old, or elderly
- SalaryLevel: Group by low, medium, or high

Filtering

- Use only people who completed the program
- Outlier making 101k+
- All Visuals dropped respective NA values

OUR OBJECTIVES:

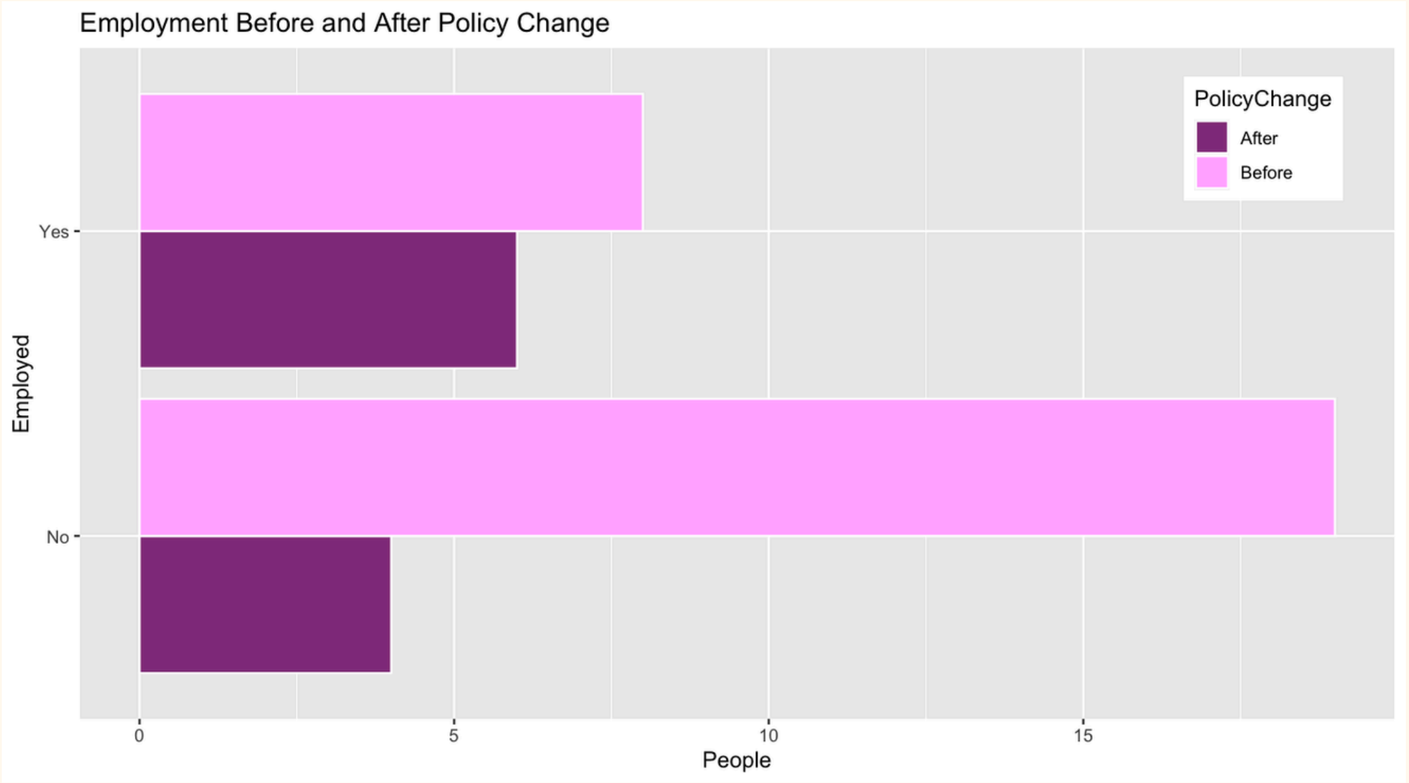
1) Has the policy change been effective?

2) How has the policy change impacted individual groups of people?

3) What data could further quantify the effectiveness?

WORK PROUDLY PROGRAM

- FOR PEOPLE WHO DID THE PROGRAM:
  - Increased Employment
  - Filtered 2 NA
- Continue the policy!



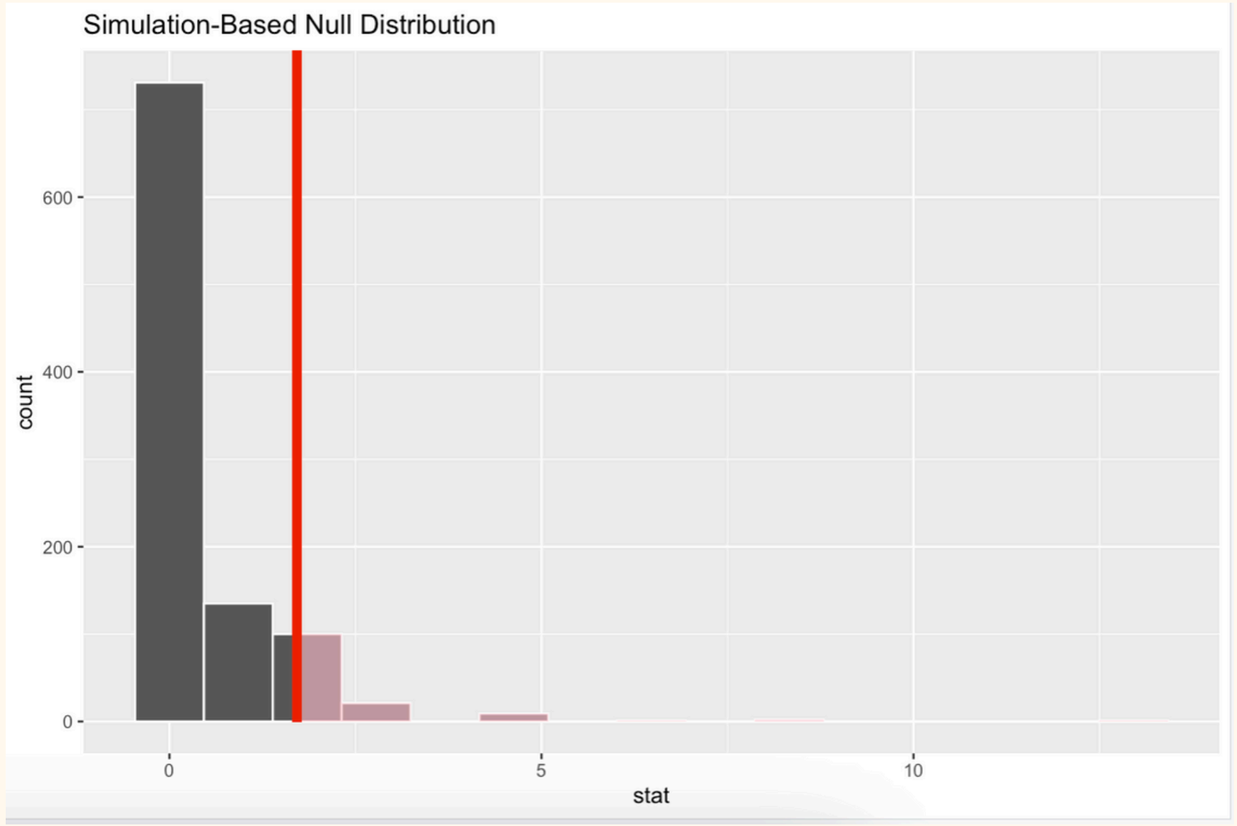
27 PEOPLE BEFORE - 8 got jobs

10 PEOPLE NOW - 6 got jobs

30.1% INCREASE IN EMPLOYMENT

HYPOTHESIS TESTING

EMPLOYED + POLICY CHANGE



CHI-SQUARE TEST

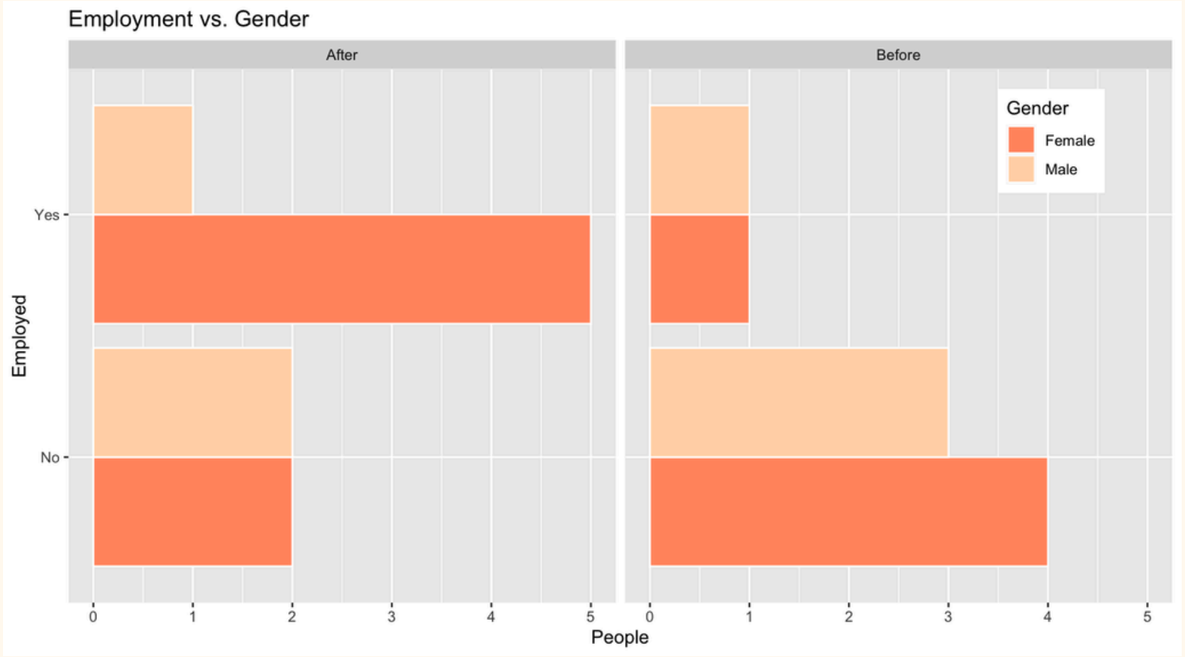
P-Value: 0.134

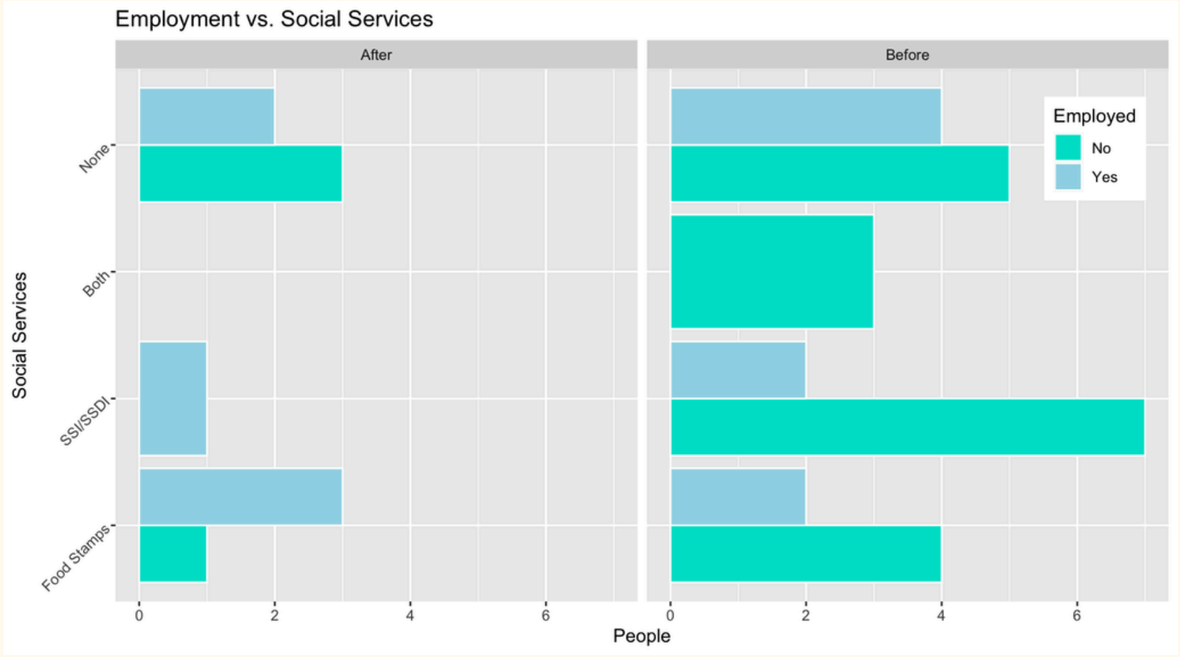
H0: Employed is independent of PolicyChange

H1: Employed is dependent on Policy Change

NOT STATISTICALLY SIGNIFICANT

WORK PROUDLY PROGRAM





51% INCREASE FOR WOMEN

8.3% INCREASE FOR MEN

BOTH Food & SSI: Never Employed

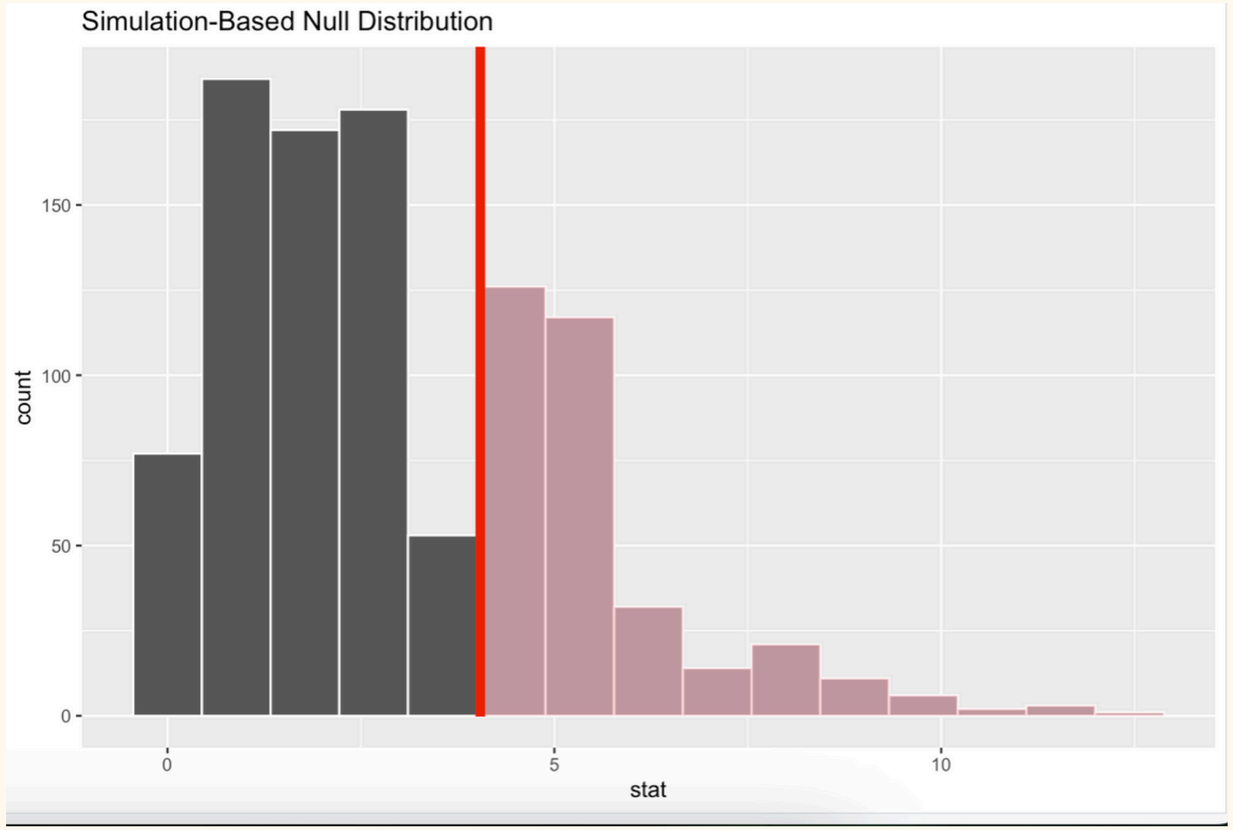
FOOD STAMPS INCREASE: 41.7%

PEOPLE WITH NONE: DECREASE BY 4.4%

PEOPLE WITH SSI: Increased by 77.8%

HYPOTHESIS TESTING

EMPLOYED + POLICYCHANGE + GENDER



NOT STATISTICALLY SIGNIFICANT

CHI-SQUARE TEST

P-Value: 0.333

H0: Employed is independent of PolicyChange

H1: Employed is dependent on Policy Change

NOTE: Chi-square takes 1 explanatory variable. Combined PolicyChange+Gender: “Before_Female”, “Before_Male”, “After_Female”, “After_Male”

WORK PROUDLY PROGRAM

DATA WE WANT AND WHY:

- Employed Before | Employed After (Yes/No) to ensure we can see a direct correlation for employment
- Job Desired (Yes/No) to see IF they got the job they wanted
- Education to see IF the program increases the employment proportionally for all education levels.
- Individual Income to see IF the program helps proportionally increase employment for income levels.
    - Household salary is confounded
- Desired Industry to see IF the program helps all respective industries
    - Therefore could provide extra certificates in underperforming industries
- Desired Type of Job (Hybrid/Part-Time/Remote/Full) to see IF Claire's provides opportunities for all types of work
- Mid Program Survey "On a rate of 1-5 how prepared do you feel for potential interviews?"
    - "On a rate of 1-5 how comfortable do you feel with creating a resume for your desired job?"

WORK PROUDLY PROGRAM

OUR RECOMMENDATIONS:

1) Advertise to people with social services (FOOD & SSI)
    - Advertise through flyers at intermediaries such as food banks or homeless shelters
        - Mitigate Risk: Include this as an option for “how did you hear about us” in the questionnaire
2) Hospital Promotions
    - Outreach team should send email promotions about Claire’s Foundation to CF-focused clinics : Mayo Clinic, Cleveland Clinic, UPMC, UCSF Health
        - Mitigate Risk: Contact Health Social Services department in the Hospital

WPP APPLICATION

DIRECT SURVEY QUESTION
TAKEN BEFORE THEY WERE
IN THE PROGRAM

Are you currently employed?

Yes
No

NEWLY ADDED

DONATIONS AND DONORS

CLAIRE'S PLACE FOUNDATION VS. NONPROFIT SECTOR

OUR OBJECTIVES:

1) How do the donation trends of Claire's Place Foundation compare to the nationwide trends?

2) Where can Claire's Place Foundation focus their attention?

OUR DATA SCREENING:

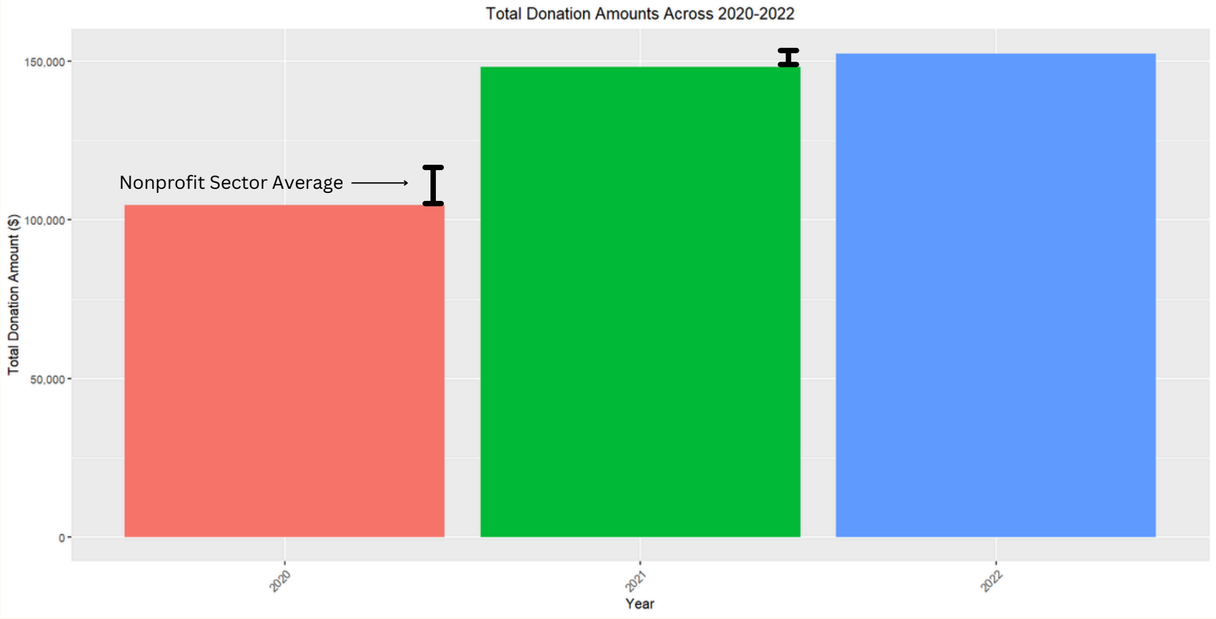
Modified Data Frames

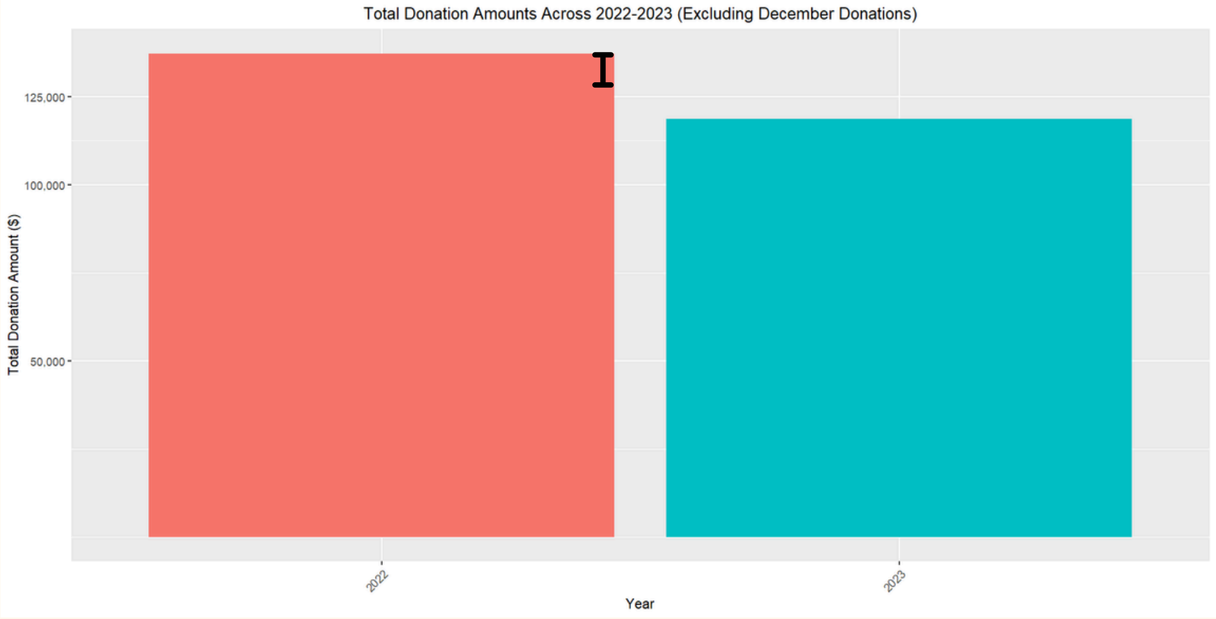
- USDonations: Donations from the US
- Complete: Completed US Donations (didn't refund or fail)
- state_contributions: the total amount each state has donated and the percentage donations
- TotalStatesContributed: The total states that donated each year

Filtering

- Region was inaccurate so we filtered by valid US states and accounted for typos to correct it
- Donations with Recurring=TRUE and Status=Failed we assumed to mean donators cancelled their recurring donation→Stored in recurfail data frame

DONATION TRENDS



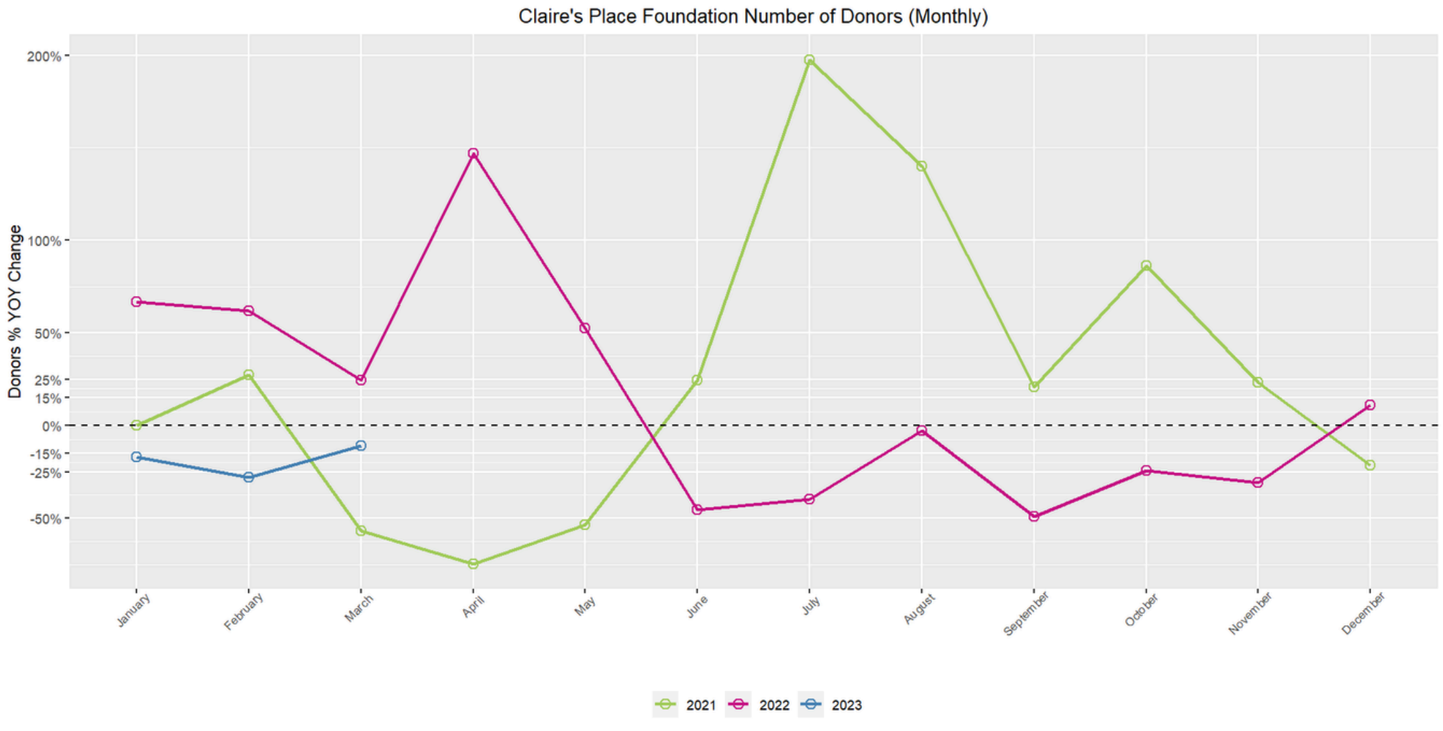


Claire's Place Foundation generally follows the donation trends of the philanthropy sector, but experiences more volatility due to its size.

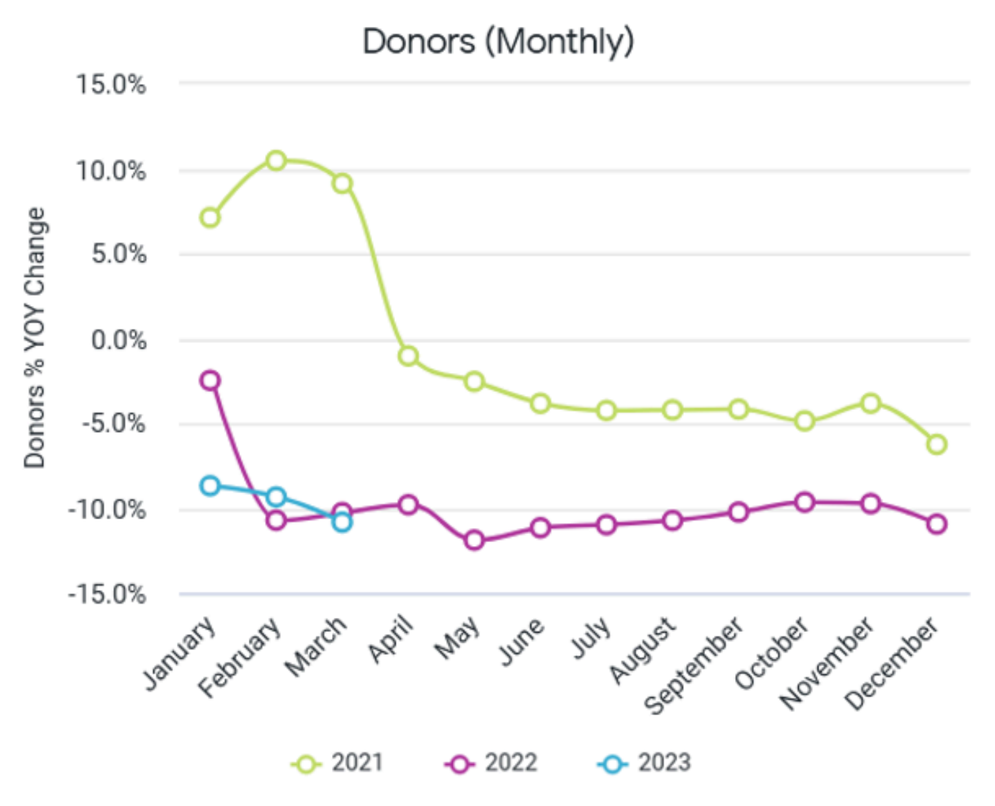
Notes: Not adjusted for inflation Excludes 2019 due to incomplete data. Accounted for no December 2023 data when comparing.

YEAR-OVER-YEAR DONOR PARTICIPATION

CLAIRE'S PLACE FOUNDATION



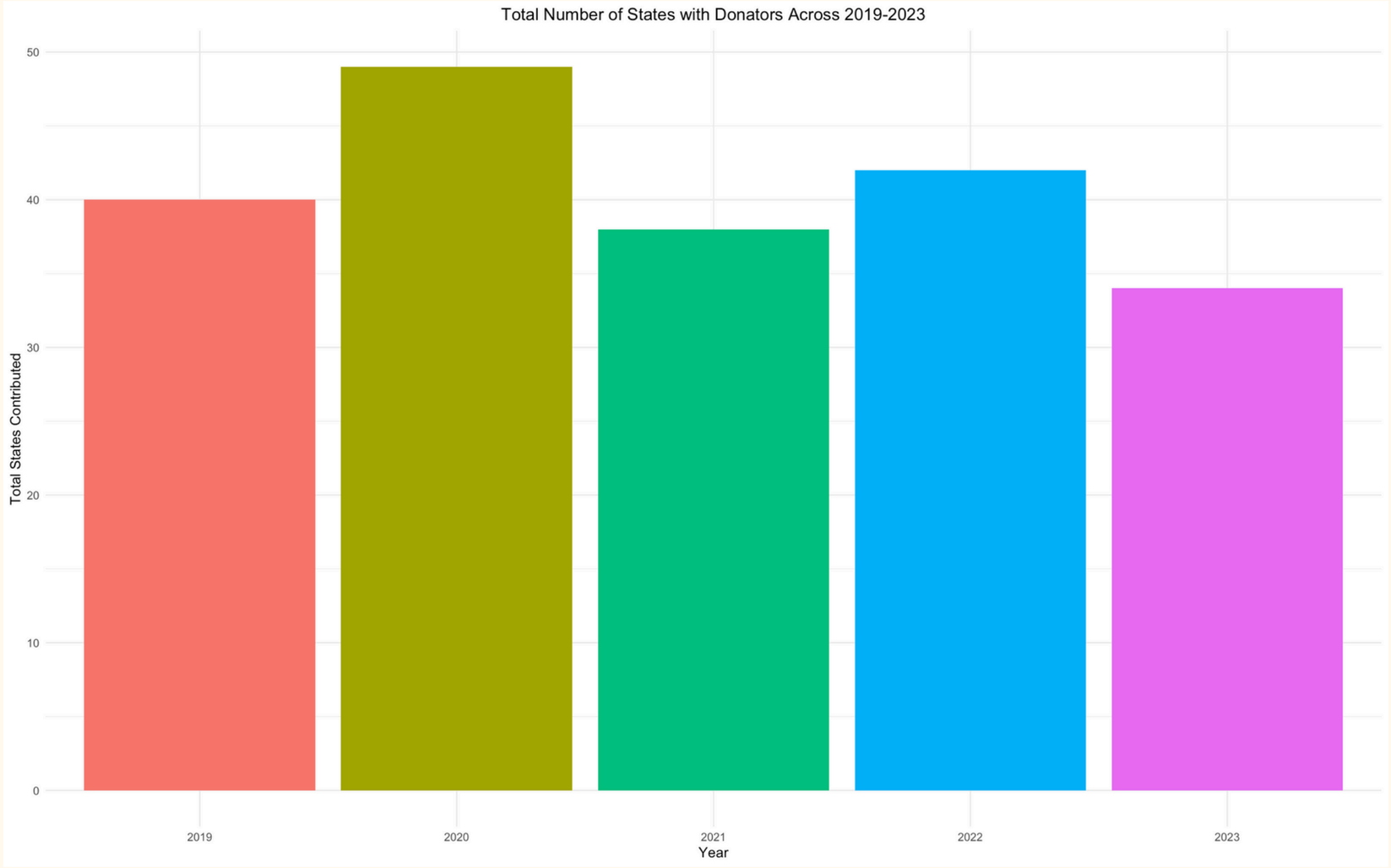
NONPROFIT SECTOR (FEP)



STATE TRENDS

- THE TOTAL STATES THAT CONTRIBUTED EACH YEAR

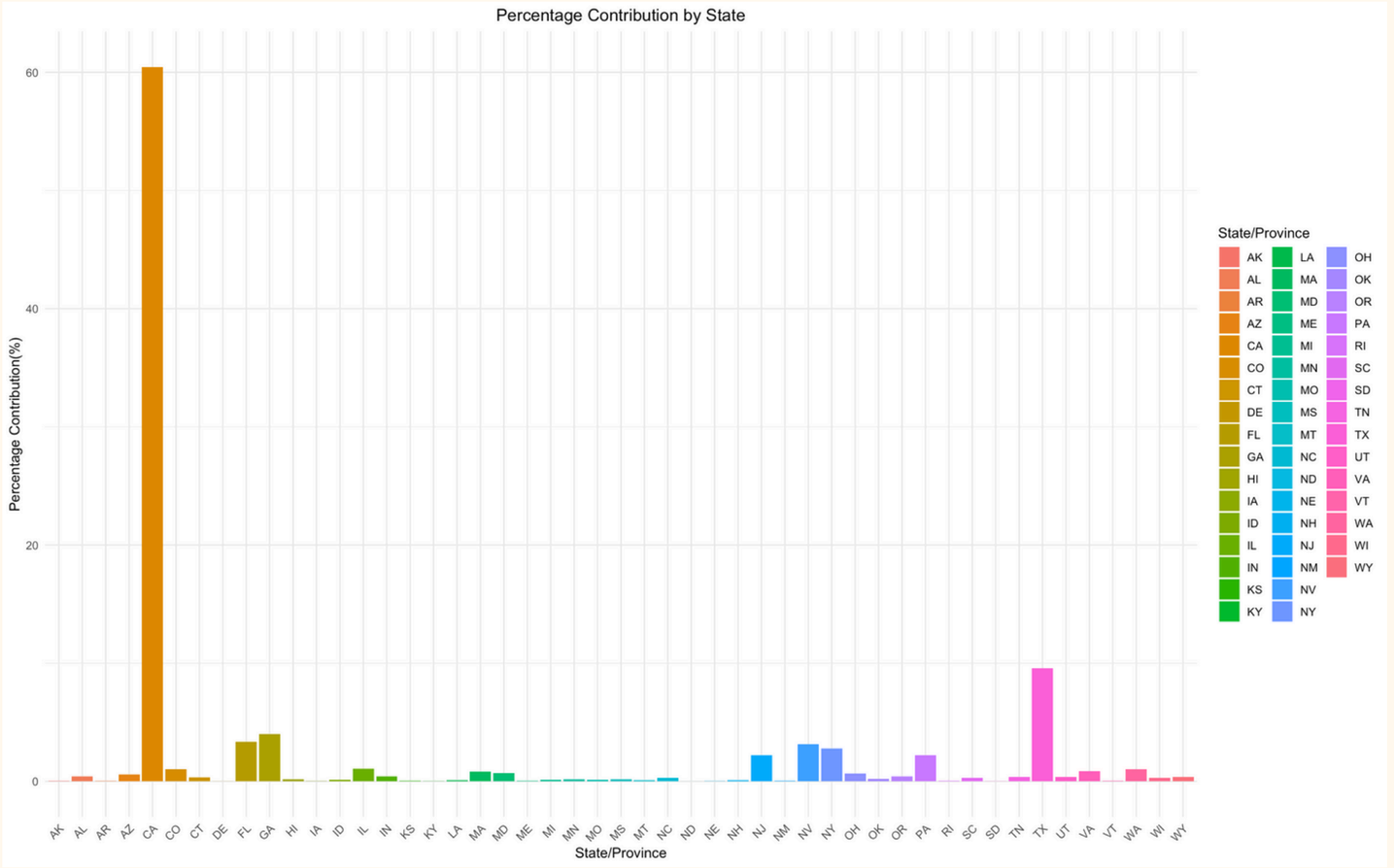
- FOR 2020, 49 STATES DONATED
- FOR 2023, 34 STATES DONATED



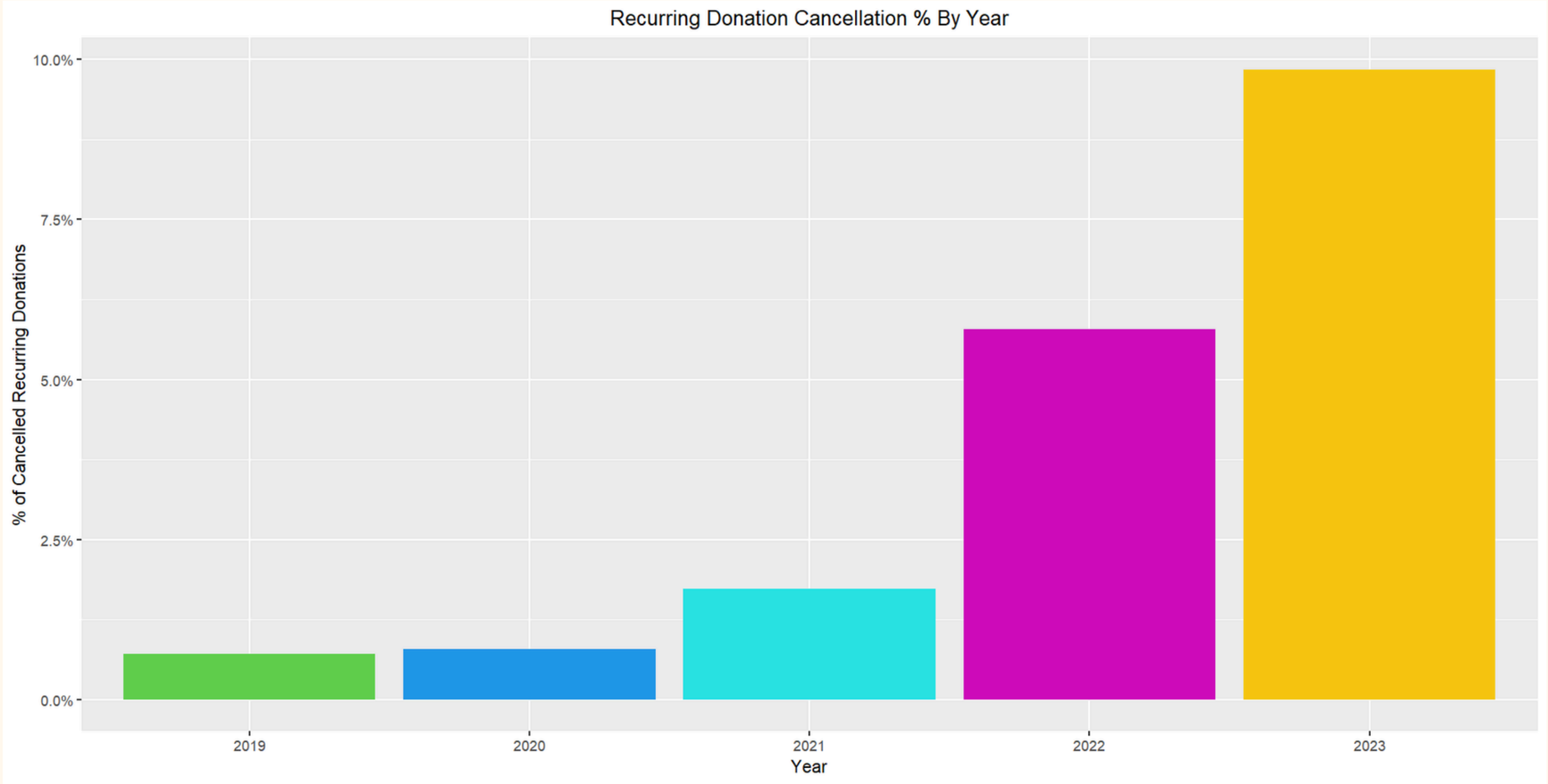
STATE TRENDS

THE PERCENTAGE OF EACH STATE DONATIONS

- CALIFORNIA DONATED 60% OF TOTAL DONATIONS
- 36.8% OF DONORS ARE FROM CALIFORNIA



DECREASING DONOR RETENTION



DONATION TRENDS

OUR RECOMMENDATIONS

1) Promote in ALL states; Donations are currently concentrated in California.

- Mitigate Risk: If too costly; Focus on Texas, Florida, and Georgia

2) Cultivate meaningful relationships with donors, Host thank you events, personalize communications with follow-up emails, This will counteract the recurring donations decline

- Mitigate Risk: Create a template for follow up emails, and have someone host events twice a year (consistency).

THANK YOU!

BUAD 312 - Team 7

APPENDIX

SCAN ME

INCLUDES ALL LOGISTICS