

# Data Analysis Portfolio

I am highly motivated to utilize the broad skill set and experience I have gathered virtual programs and personal development, in addition to my strong digital skills and newly acquired data analysis skills, to provide value and support to help meet your company goals in exchange for career growth and exposure.

## Professional Background

I graduated with a Bachelor of Engineering degree in Civil Engineering in 2014. I found Civil Engineering to be very one sided. I therefore started my transition journey after working in a financial institution as a customer representative. I always say that after university my life stopped being black and white. I ended up being a generalist dipping my toes everywhere, listening to my intuition, pursuing what I was drawn to and seeing what sticks.

Over time, I noticed my educational background and various pursuits/experiences had equipped me with a unique variety of skills that I could leverage to thrive in this digital world - particularly as a data analyst, scientist or data engineer. This includes ease working with numbers, strong analytical skills, critical thinking skills, problem solving skills, attention to detail, resourcefulness, strong digital skills, strong communication and writing skills, experience working independently and remotely, strong mathematical skills etc.

Ever since I graduated I have taken several online courses to re-skill myself, this is the reason I was drawn to this experience. I saw it as an opportunity to break into the data analysis space.

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# Introduction

**Problem Statement:**

How might *Education for All*'s fundraising team:

- Increase the number of donors in its database
- Increase the donation frequency of its donors
- Increase the value of donations in its database

**Project duration:** 2 weeks

Insights to inform their fundraising strategy and increase donations

**Data sources:** *Education for All*'s Donation Data and Donor Data

# Root Cause Analysis Process

## Questions I asked

1. What donation frequencies are the most popular and least popular?
2. Which 10 states have the most and least donors?
3. What are the values of donations by state, gender and job field?

The most popular donation frequency seems to be monthly Why?

1. Top 10 states by donation seem to donate monthly
2. Majority of states as a whole seem to prefer to donate monthly
3. Probably because the salary for the various job fields comes in monthly

Hawaii, Alaska, Maine and other far off states had the lowest donations and donors Why?

1. Not as many people know about Education For All
2. There isn't as much outreach/campaigns there
3. They are far off and on the edges of the country.

Maine is among the states with the lowest donations Why?

1. They prefer to donate yearly therefore contribution may not be as much as for people who donate monthly
2. Monthly contributions add up making the donation value higher unlike yearly donations that's once.

# Insights from the analysis

## Insight 1

Total donation = 249,085

*To find total donation in SQL:*

```
SELECT SUM(donation)
FROM Donation_Data;
```

## Insight 2

Of the 1000 donors, 508 were female and 492 were male. Below is their total donation by gender:

### Donation by Gender

Gender	
Female	121,457
Male	127,628
Grand Total	249,085

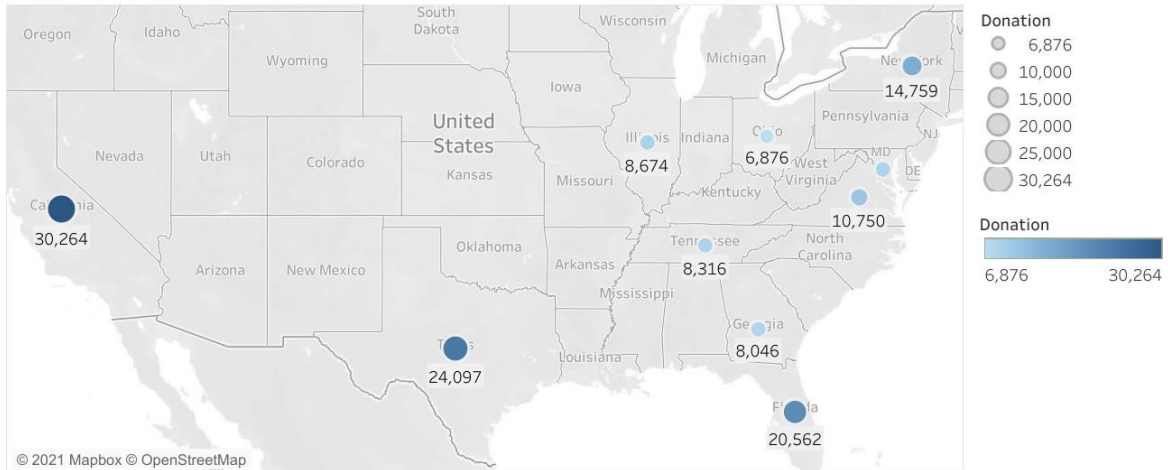
*To find the count of donation by gender in SQL:*

```
SELECT gender, COUNT(*)
FROM Donation_Data
GROUP BY gender
```

## Insight 5

California had the most donations (113), followed by Texas (95) then Florida (90) with a donation value of 30,264, 24,097 and 20,562 respectively.

Top 10 States by Donation



*To find the count of the top 10 states in SQL:*

```
SELECT state, COUNT(*)
```

```
FROM Donation_Data
```

```
group by state
```

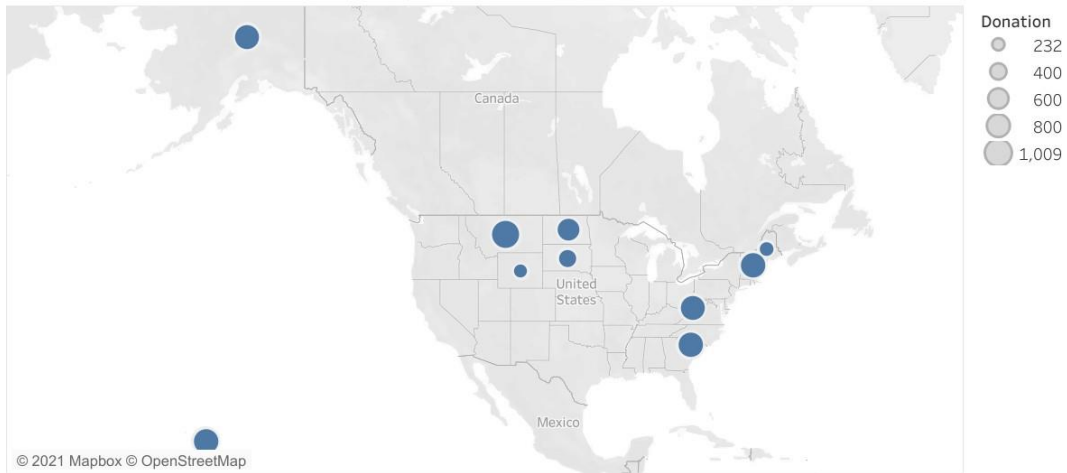
```
ORDER by count(*) DESC
```

```
LIMIT 10;
```

## Insight 6

Wyoming, Maine and South Dakota had the least donations with 1 each with a donation value of 232, 258 and 401 respectively.

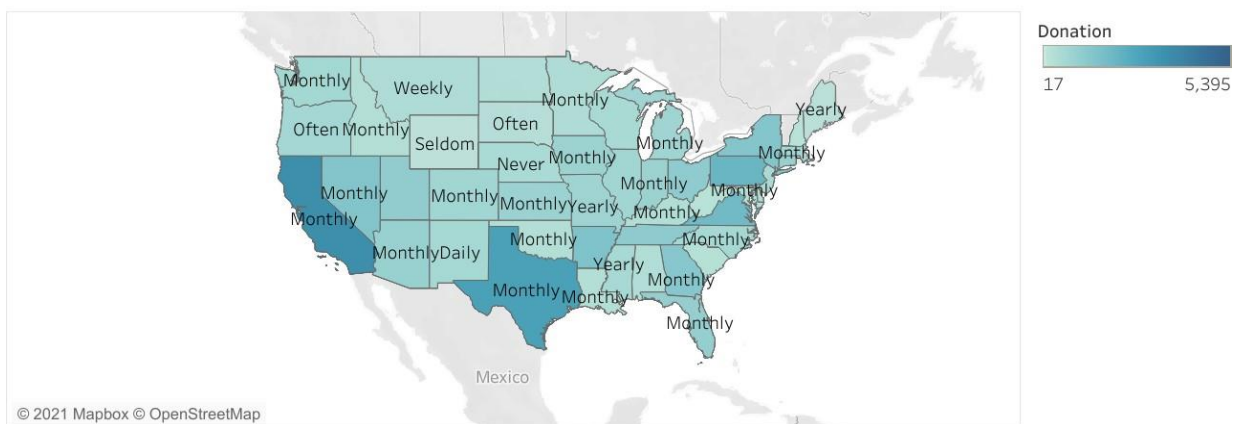
### Bottom 10 States by Donation



## Insight 5

Majority of states seem to prefer to donate monthly. Only two states (Maine and Mississippi) preferred to donate yearly.

## Donation Frequency by State



## Insight 6

Human Resource, Research and Development, Product Management and Business Development had the highest total donation respectively while Legal, Sales, Support, Services and Accounting fields had the least donations respectively.

Top 10 Job Fields by Donation

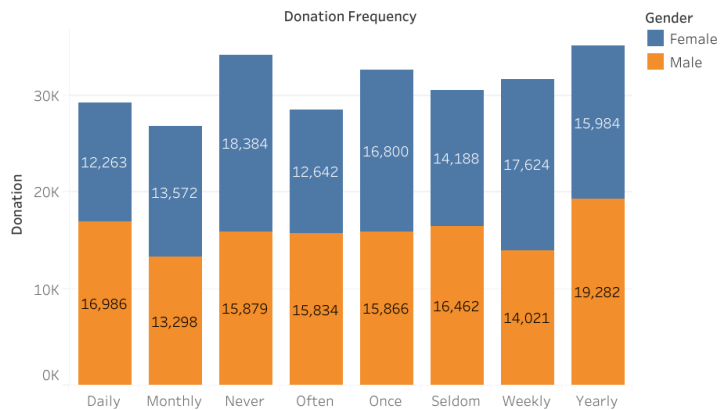


## Insight 7

Women that had never donated before had the highest total donation followed by those that donated weekly while the men that donated yearly had the highest total donation.

Women that donated daily had the lowest total donation value while men that donated monthly had the lowest total donation value.

Donation Frequency and Amount by Gender





# Findings and Recommendations

## Findings

- All the states with the highest donations are on the East Coast, except California and Texas.
- States with 10 lowest donations are all far off on the edges of the country or close to borders including Hawaii and Alaska.
- Majority of states seem to prefer to donate monthly.
- Women that had never donated before had the highest total donation followed by those that donated weekly while the men that donated yearly had the highest total donation.

## Recommendations

- More *Education For All* campaigns should target the West, Midwest, North East and South regions of the country
- Even more campaigns should also target far-off states on the edges and borders of the country such as Alaska, Hawaii and those in the North East.
- In donation campaigns, incorporate weekly prompts for women to donate and yearly prompts for men e.g. a call to action in weekly or end of year email newsletters
- The various job fields should be targeted for donations monthly.

## Conclusion

There is a need for *Education For All* to do targeted campaigns based on job field, state/region and gender as recommended above.