

Enhancing Donor Engagement and Contributions

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Introduction

The analysis carried out in this project was done to find a way to increase donation amounts and frequency of existing donors. The major aim of this analysis is to find the best fundraising strategies to increase donations. The analysis and the recommendations would enable the decision making of the various stakeholders such as the fundraising team, board members and key donors. The objectives of this report is to identify patterns in donor behavior using metrics such as average donation amount and frequency of donation. The data analyzed is limited to the current donor data, and findings would be used to inform targeted outreach and personalized donor engagement strategies.



Key Questions

Factors influencing donation

- What factors influence higher donation amounts?
- Which donors are most likely to increase their donation frequency?
- How does average donation vary per job field and state?
- How does gender impact on donation?

Salary and gender correlation

- Find a correlation between donation amount, job fields and gender?



Methodology

Two tables were joined to carry out the analysis. The data in each was cleaned to remove duplicates and to handle NULL or missing values. The below query was used to check for duplicate rows in the donation_data table and a similar query was used to check for duplicate rows in the second table (donor_data)

```
SELECT id, email, COUNT(*)  
FROM donation_data  
GROUP BY id, email  
HAVING COUNT(*) > 1;
```

I checked for Null values using

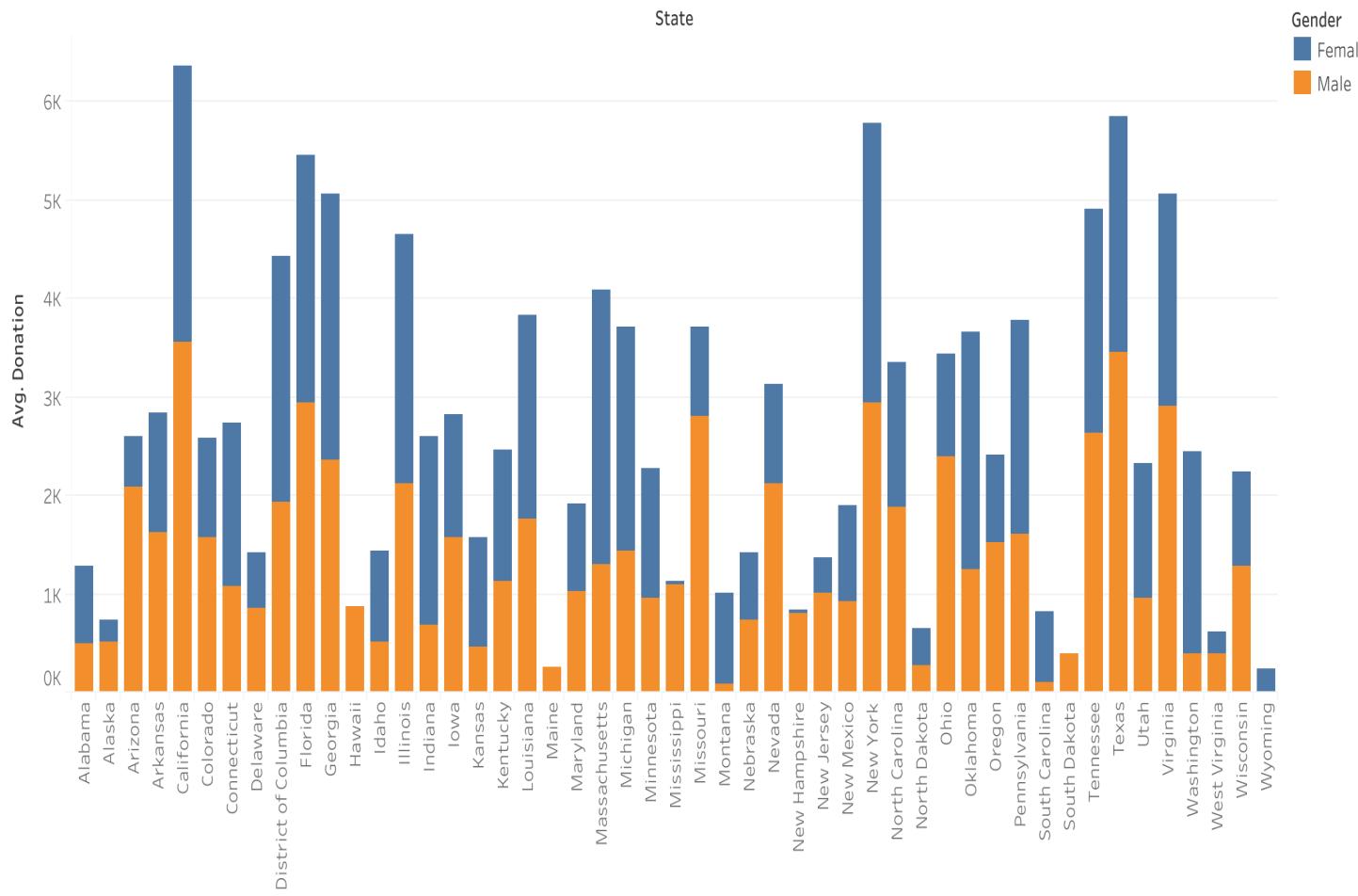
```
SELECT *  
FROM donation_data  
WHERE email is NULL OR first_name is NULL OR job_field is NULL;
```

Other queries used in the analysis are stated in the slides of each question

Findings and insights



Question 1: What factors influence higher donation amounts



- **SELECT** job_field, state, gender, avg(donation) AS avg_onation
- **FROM** donation_data1
- **GROUP BY** 1,2,3
- **ORDER BY** 4 DESC

Observation

States like California and New York consistently show higher average donation amounts across both male and female donors. However, in some states, there is a noticeable gap in gender donation. Maine, South Dakota, Missouri, Hawaii, and Arizona are mainly dominated by males in terms of average donation. Similarly, donations from South Carolina, Montana, and Wyoming were mainly made by females, indicating a potential for targeted messaging.

Question 2: Which donors are most likely to increase their donation frequency?



Distinct count of Id

29 51

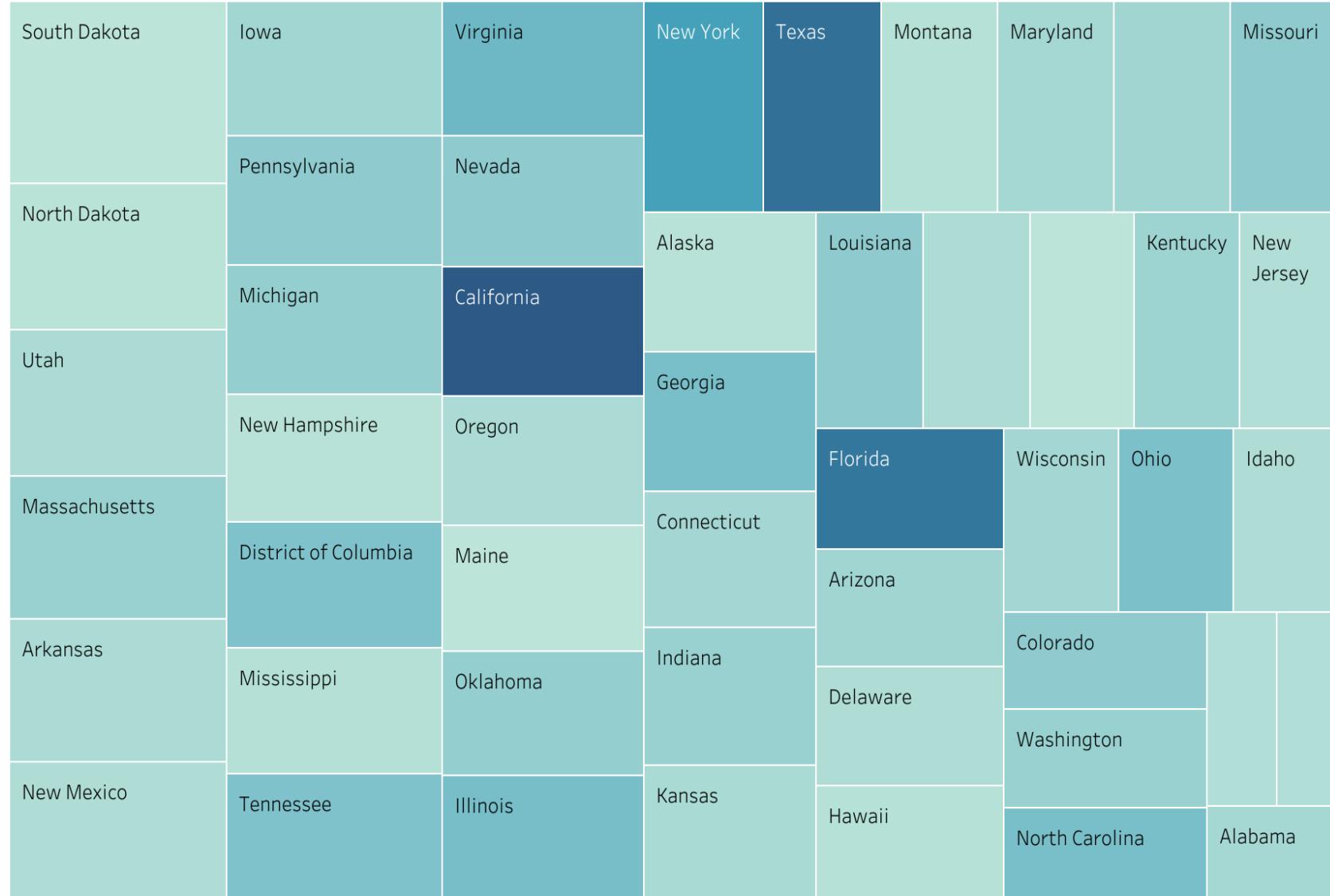
Observation

Females in Legal and Males in Marketing have the fewest number of donors. from each gender, respectively. There's a strong male engagement in human resources and product management, while the dark rectangle for females in training indicates a high engagement from females. The bigger rectangles indicate higher donation frequency, as seen in Legal (female) and Training(male)

```

SELECT DD1.id, DD1.job_field, DD1.state, DD1.gender, DT2.donation_frequency, AVG(DD1.donation) AS avg_donation
FROM donation_data1 AS DD1
JOIN donor_data2 AS DT2
ON DD1.id=DT2.id
WHERE DT2.donation_frequency IN ('once', 'yearly', 'monthly')
GROUP BY 1,2,3,4,5
ORDER BY 6
    
```

Question two continuation



Count of Id

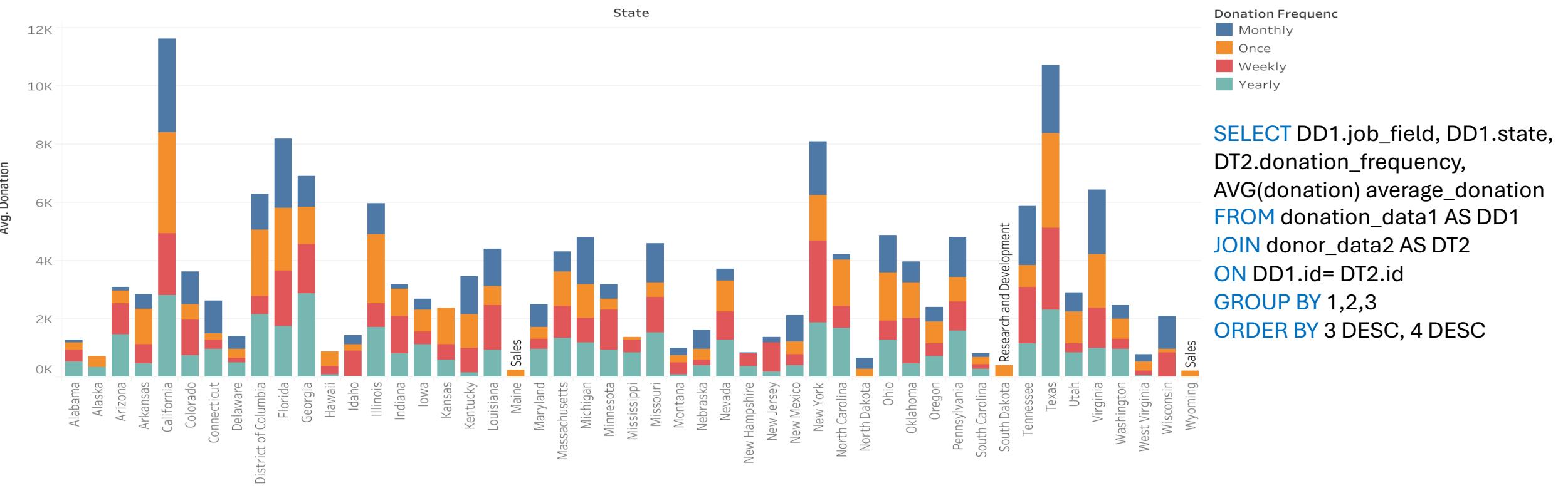
1

113

Observation

California, Texas, and Florida have the darkest rectangles, indicating that they have the highest count of donor IDs. This means that more individuals contribute, even if the donation frequency or size varies. States like Iowa and South Dakota are underrepresented or have low engagement because the light rectangles indicate that there are fewer donors overall. One thing to look out for here is that despite the light shade in South Dakota, the large rectangle indicates that those few donors donated frequently.

Question 3: How does average donation vary per job field and state?



```

SELECT DD1.job_field, DD1.state,
DT2.donation_frequency,
AVG(donation) average_donation
FROM donation_data1 AS DD1
JOIN donor_data2 AS DT2
ON DD1.id= DT2.id
GROUP BY 1,2,3
ORDER BY 3 DESC, 4 DESC
    
```

Observation

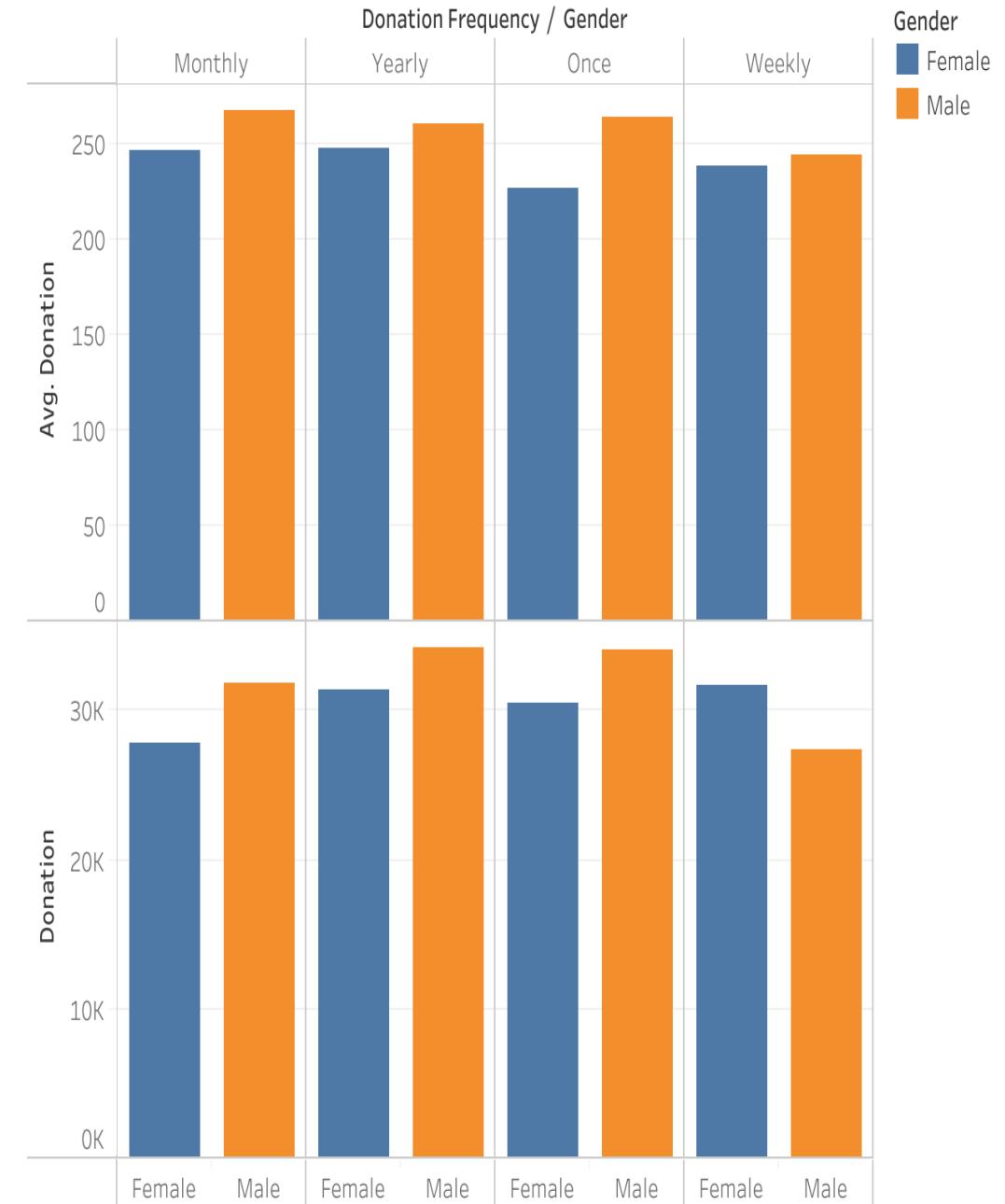
In States like Maine, Wyoming, Sales and Research job fields are heavily weighted toward one-time donations. The total contribution also appears lower, as indicated by the overall bar height. States like California and Texas have strengths across multiple professions, with a more distributed donation frequency.

Question 4: How does gender impact on donation?

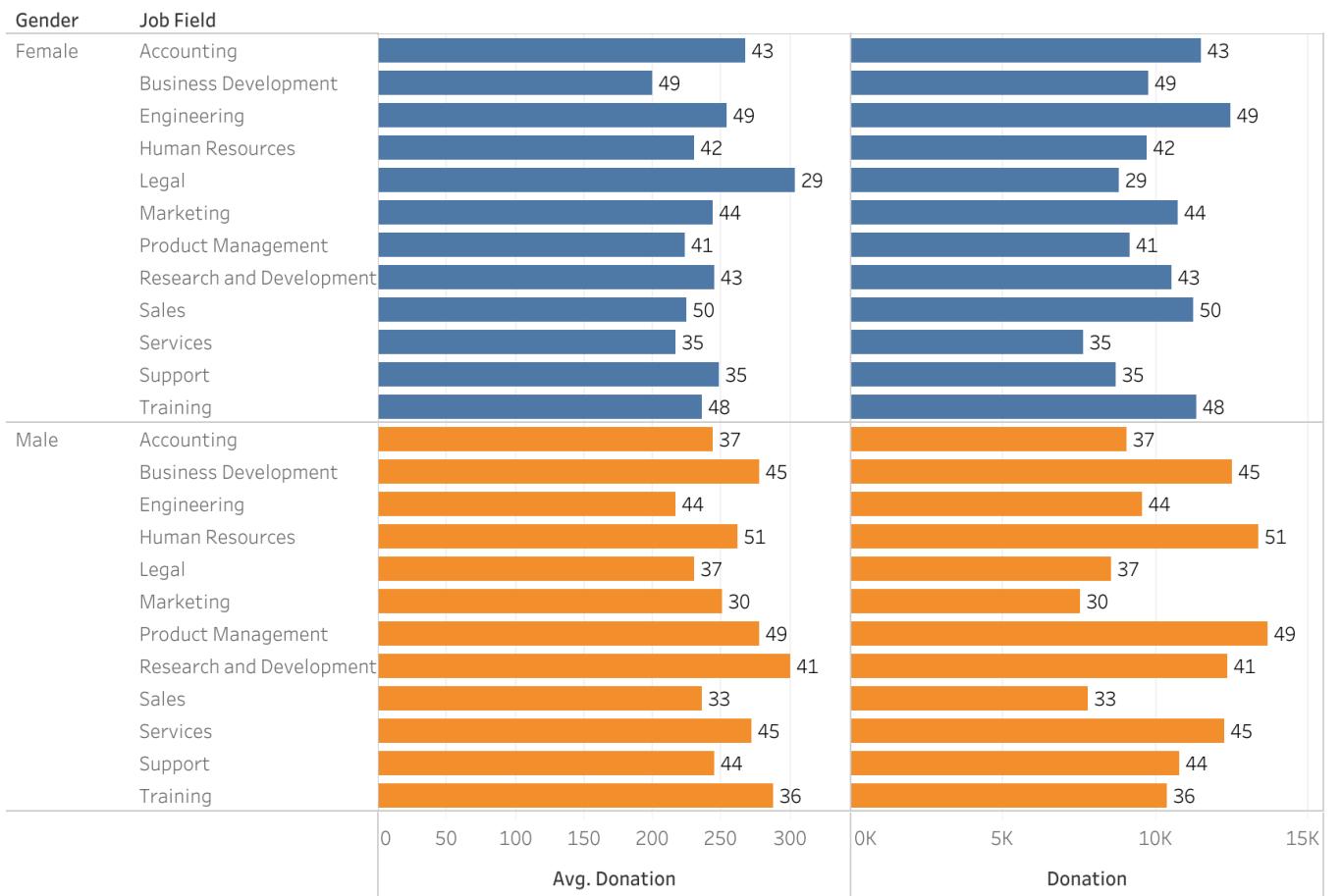
```
SELECT DD1.gender, DT2.donation_frequency,  
COUNT(*) num_donors, AVG(DD1.donation)  
average_donation, SUM(DD1.donation) total_donation  
FROM donation_data1 AS DD1  
JOIN donor_data2 AS DT2  
ON DD1.id= DT2.id  
GROUP BY 1,2
```

Observation

In both Monthly and weekly and to an extent yearly donation tiers, the average donation and total donation values between male and female are fairly balanced. However, in the once category, male donors give higher average donations, and their total contributions are visibly greater.



Question 5: Find a correlation between donation amount, job fields and gender



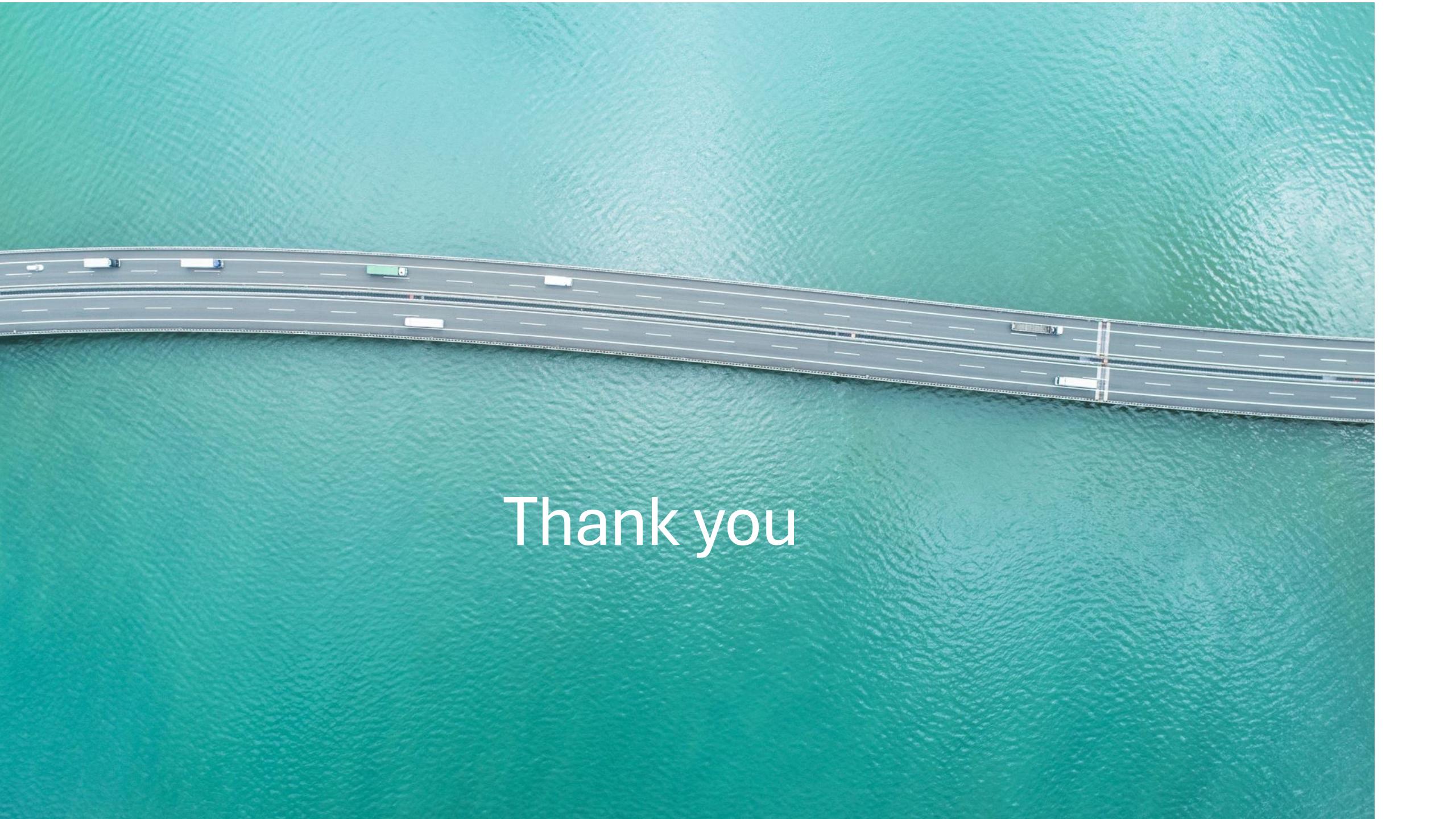
Observation

The total number of female donors is slightly more than male donors. Females have higher average donations in 6 out of 12 job fields, including Accounting, Engineering, and Legal, with the highest average donation being in Legal. The margin between both genders in Sales and marketing is quite close. The average donation by males in Business development, Research development, and training, is substantially more than females. Overall, the total donation from males, was higher than that of females.

```
SELECT gender, job_field, AVG(donation) average_donation, SUM(donation)
FROM donation_data1
GROUP BY 1,2
ORDER BY 3 DESC, 4 DESC
```

Recommendations

- Upgrade High-Value, low-frequency donors by targeting donors from job fields like Product Management, Legal, and Engineering who give once or yearly.
- Prioritise states like California, Texas, and New York, where donation concentration is high, by using personalized nudges to encourage donors.
- Leverage fields where one gender leads in participation or value.
- Since females participated more but contributed less than men, target job fields dominated by females, and campaigns should be profession-specific.
- Target Male donors who gave once since they contributed significantly in average and total donations. This can be done through messages that state the importance of what their one-time donation achieved and stating that a monthly donation would make a huge difference

An aerial photograph of a long bridge spanning a body of water with a vibrant turquoise hue. The bridge features a multi-lane highway with several vehicles, including trucks and cars, traveling in both directions. The water below has a fine, wavy texture. Overlaid on the lower-left portion of the image is the text "Thank you" in a large, white, sans-serif font.

Thank you