



B B Y

# Consumer Insights

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# Problem Statement and Objectives



## Demographic Attributes

Who are our customers?



## Behavioral Attributes

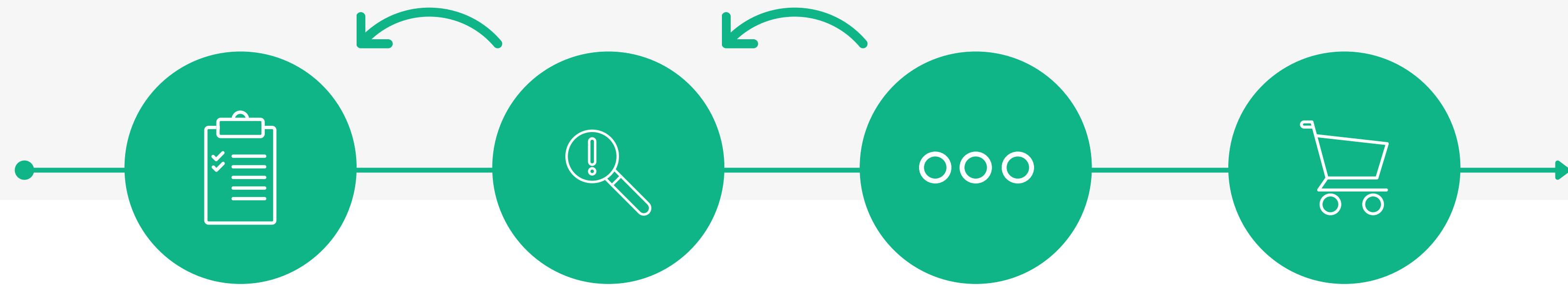
What do our customers care  
about?



## Actionable Insights

How do we apply this to our  
strategy?

# Process and Methodology



**Data Selection**

Selected data points from the databases based on their importance and completeness.

**Data Cleaning**

This included some feature engineering and imputation of null values.

**Analysis**

*Demographic and Behavioral Attributes* were looked into and analyzed.

**Strategy**

Actionable insights were derived from the analysis to ensure relevance and applicability.

# DATA SELECTION

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- **Databases used**

1. **In-house loyalty card membership** - Information about current customers were used particularly *Gender, Age, State, Visit Frequency, and Spending Habits.*
2. **Consumer purchasing habits** - Some demographic (e.g., *Ethnicity*) and behavioral attributes (e.g., *Household Computer, Children, and Animals*) were taken from this database.
3. **Political Leanings** - *Religion* and *Party* information which are important demographic attributes.
4. **Magazine Purchases** - Taken into account to consider content preferences and interests of consumers.
5. **Donation Activity** - To also consider interests of consumers

# DATA CLEANING

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- **Cleaning and Feature Engineering**

1. **Combined modeled and actual information** - Assumed to simplify the database and analysis.
2. **Combined similar data points** - For example, donation to various causes were analyzed as a whole to simply determine if the customer donated or not.

- **Imputation of Nulls**

The **MICE** package was used to impute null values for both internal and external databases. The method used was **Predictive Mean Matching (PMM)** based on the assumption that missing data are random.

# ASSUMPTIONS

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- **Modeled data are reliable**

This analysis assumes that the databases provided are reliable and were collected using the appropriate methods. This includes any information that were not directly collected, and were instead modeled.

- **Null values are missing at random**

To simplify the process of imputing the null values from the databases used, it was assumed that the missing information are at random and were not biased towards other observations or other features.

- **BBY is an established brand and company**

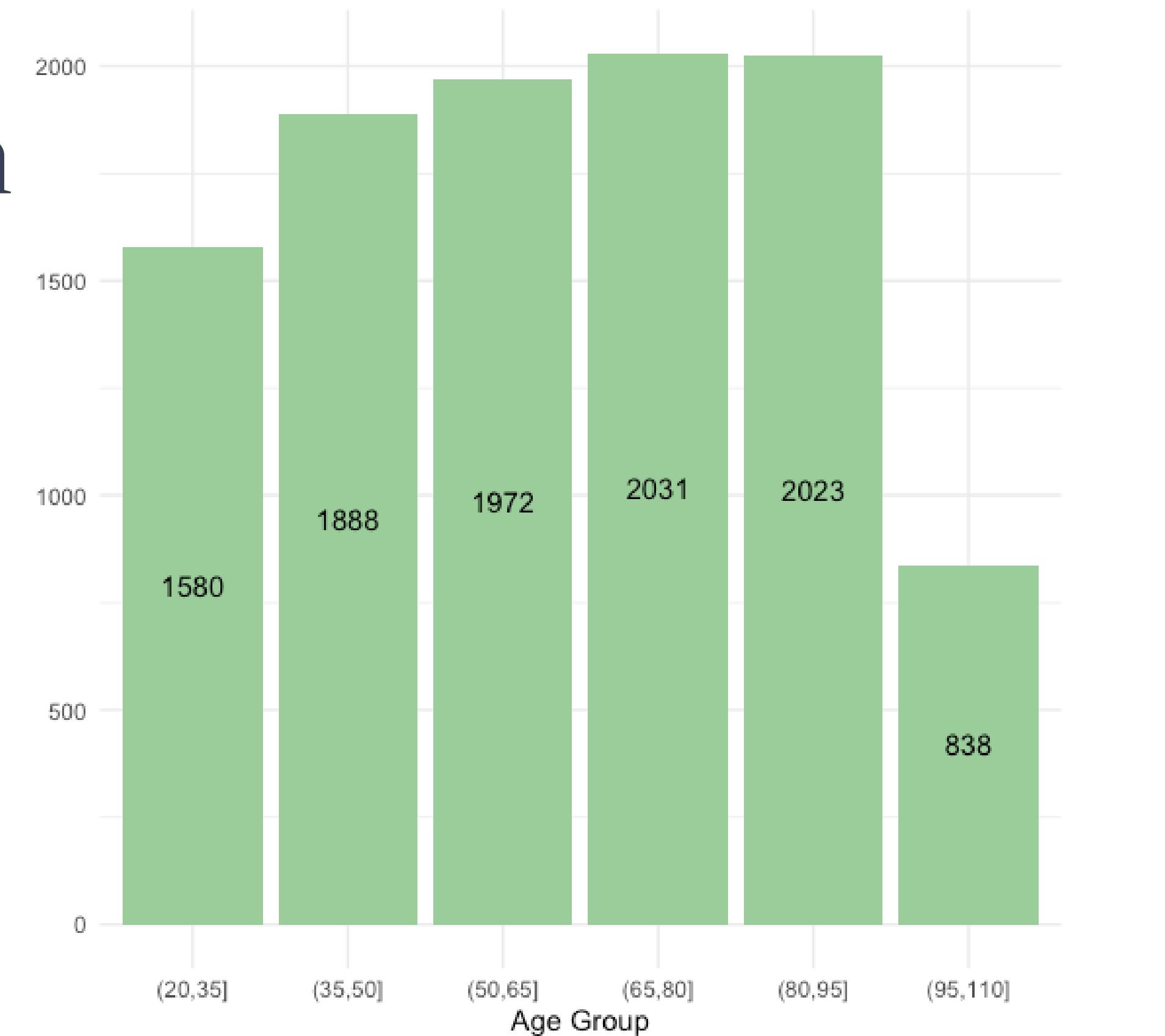
This analysis is focused on improving brand presence in target market and overall market positioning. As such, it is assumed that there is already an brand presence and it is not important to build the same from scratch.

# Demographic Attributes



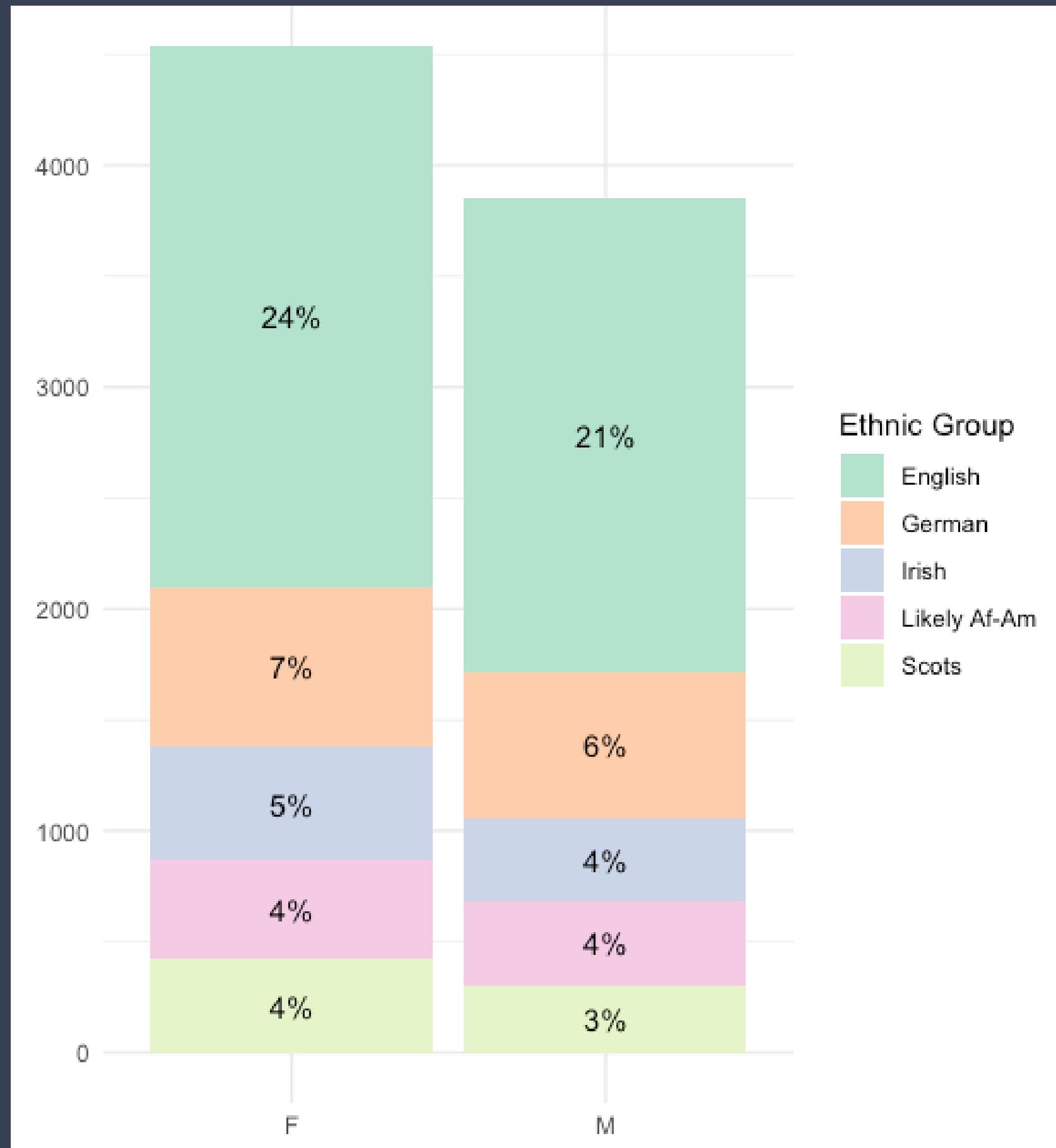
# Age Distribution

- The majority of customers belong to age groups **between 35 to 95**.
- The number of **customers increase as age increases** but drop off north of 95, likely as they pass away.
- Age demographic of target market are **middle-age to senior citizens**.



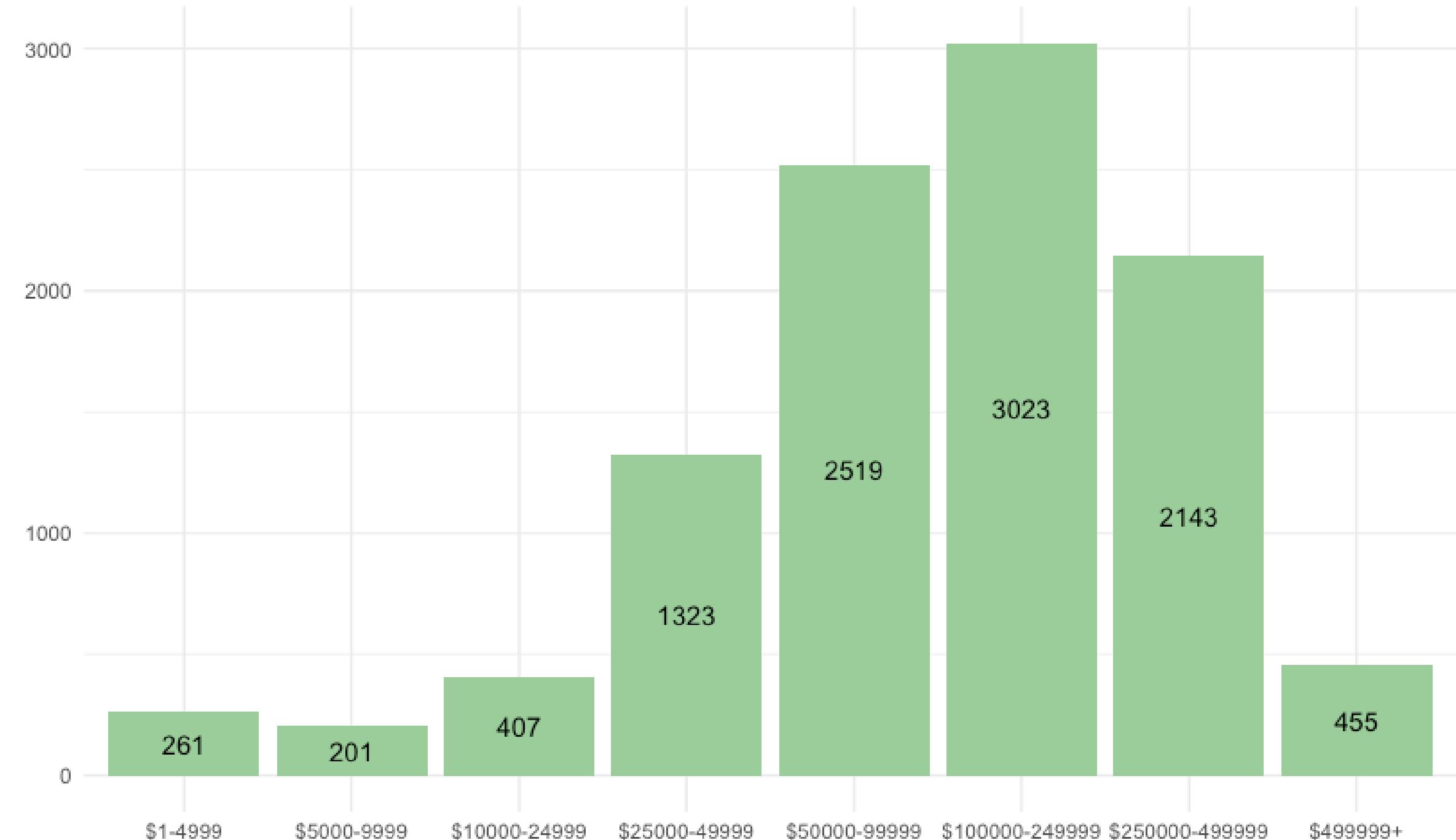
# Gender & Ethnicity Distribution

- Overall distribution of customers between **Females and Males are fairly even at 54% and 46%, respectively.**
- The largest Ethnic Groups are **English, German, Irish, African-American, and Scots.**



# Net Worth Distribution

- The number of **customers increase the higher the net worth**, but drops off as it reaches the highest net worth group.
- From the visual, majority of the customers are in the **middle to upper middle class**.



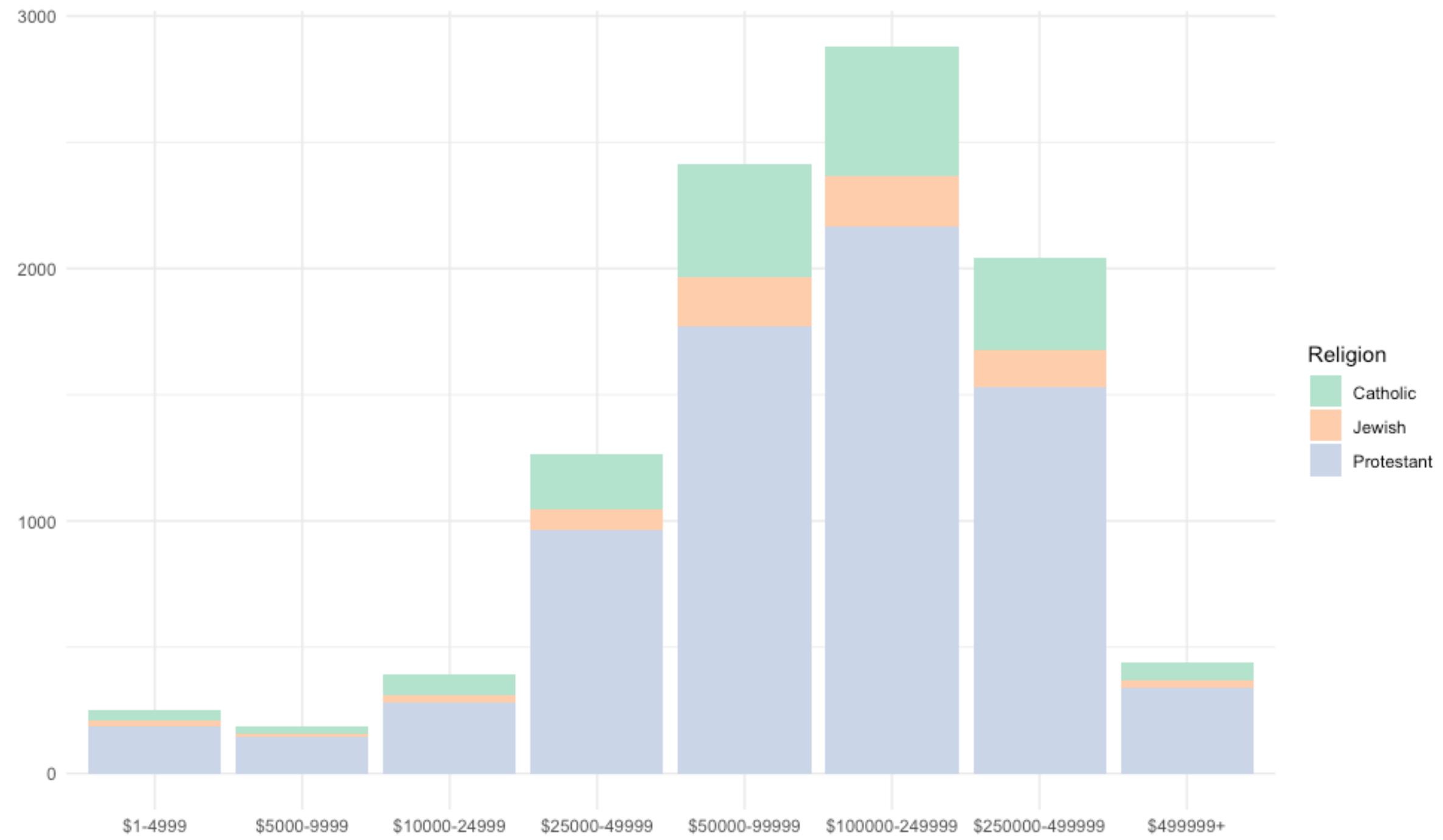
# Location (per State)

- No one state overwhelmingly dominates loyalty membership.
- Biggest customer bases though are **Texas and California.**



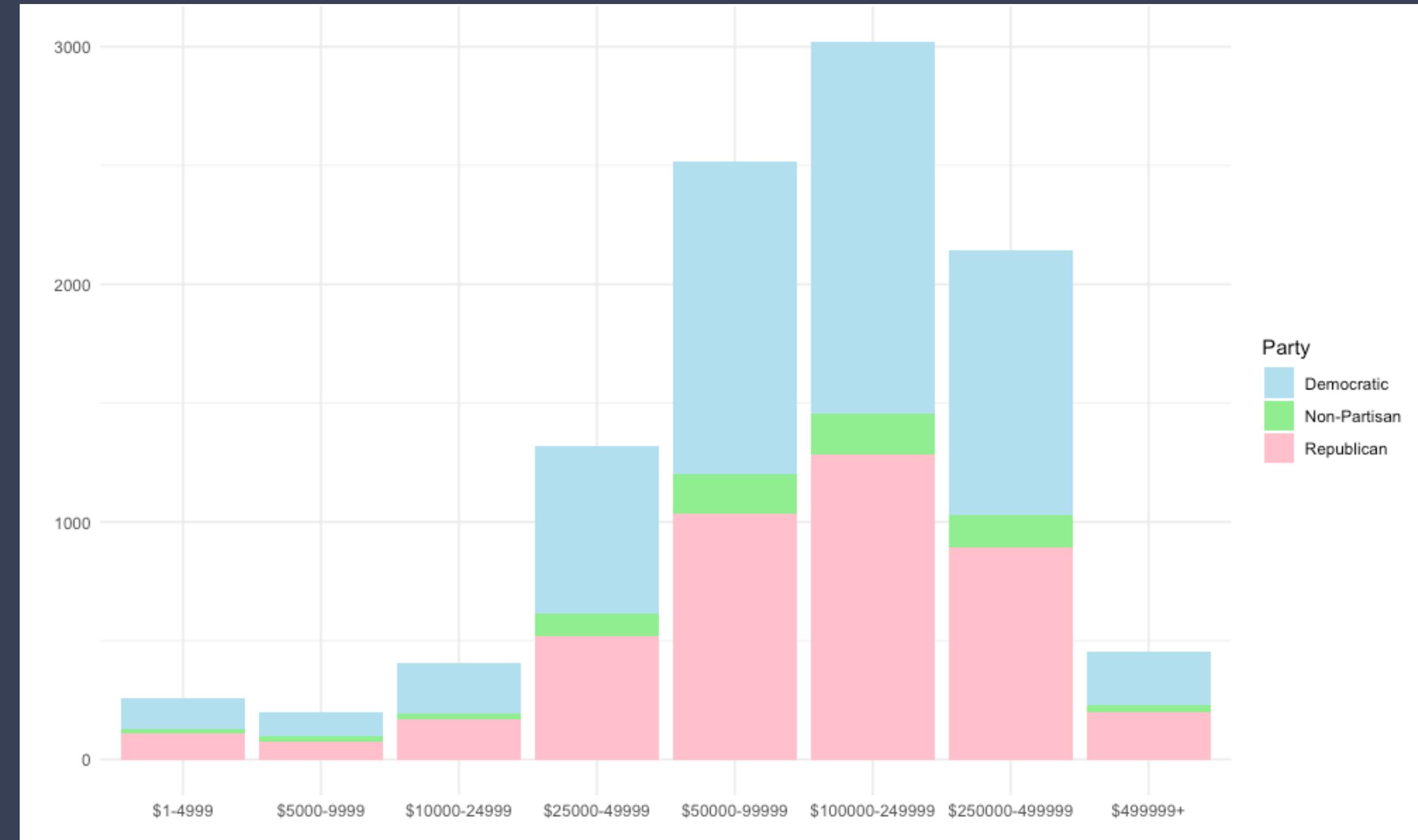
# Religion per Net Worth

- Overall, customer are mostly religious, mostly identifying as:
  - **Protestant** (72%),
  - **Catholic** (17%), and
  - **Jewish** (7%).
- This distribution is largely present in all levels of net worth.



# Political Party per Net Worth

- Customers look to be fairly distributed between political parties, specifically:
  - **Democrat** (52%),
  - **Republican** (45%), and
  - **Independent** (3%).
- This distribution looks to be the same across all groups of net worth.



# Summary

## Upper Middle Class

Customer base is largely within the upper middle class of income-earning adults.

## Middle Age to Seniors

Customer base is composed mostly of middle-aged income earners to retired senior citizens.

## Religious Communities

While fairly distributed across various levels of net worth, customers mostly identify as Protestant, Catholic or Jewish.

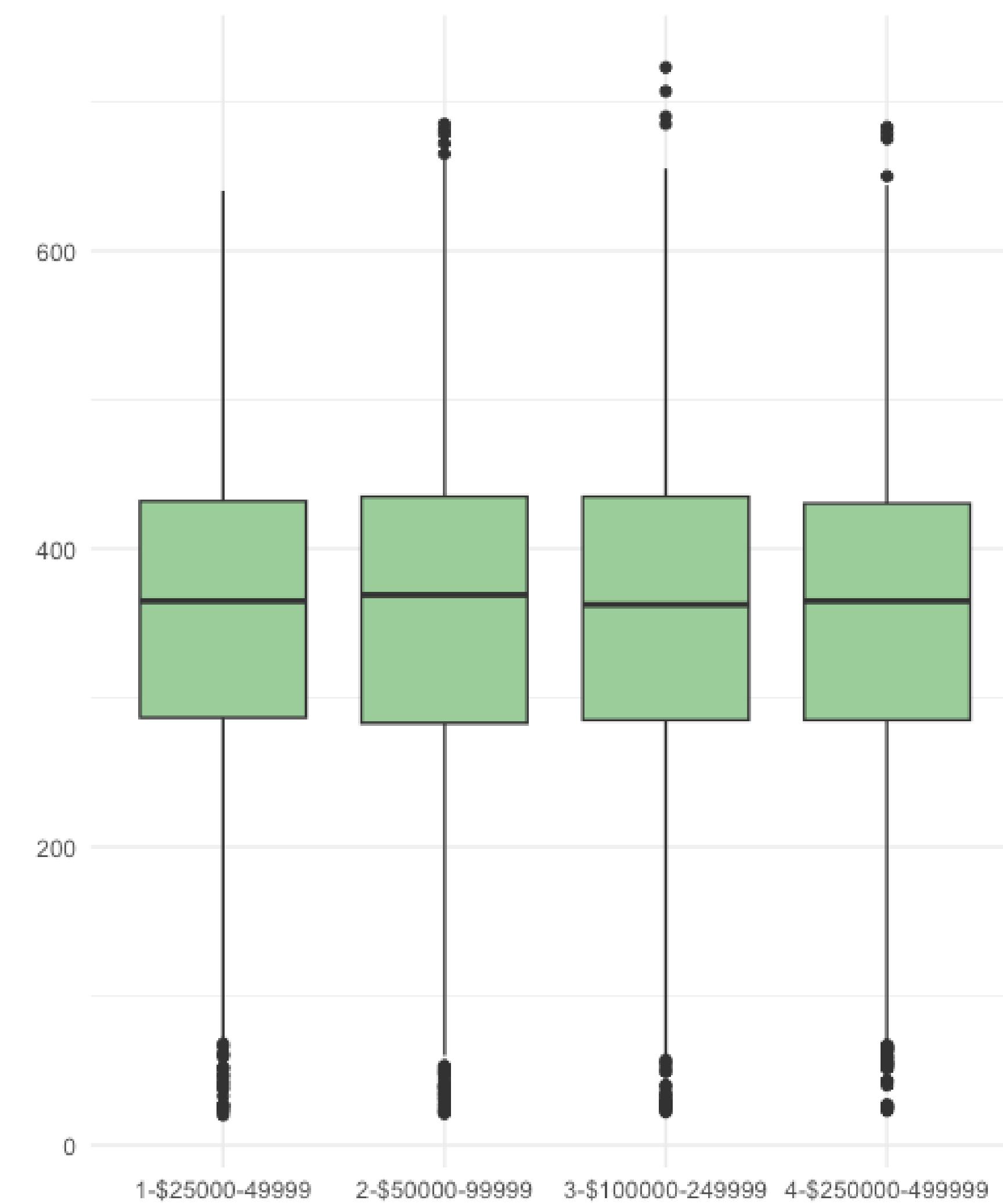


# Behavioral Attributes



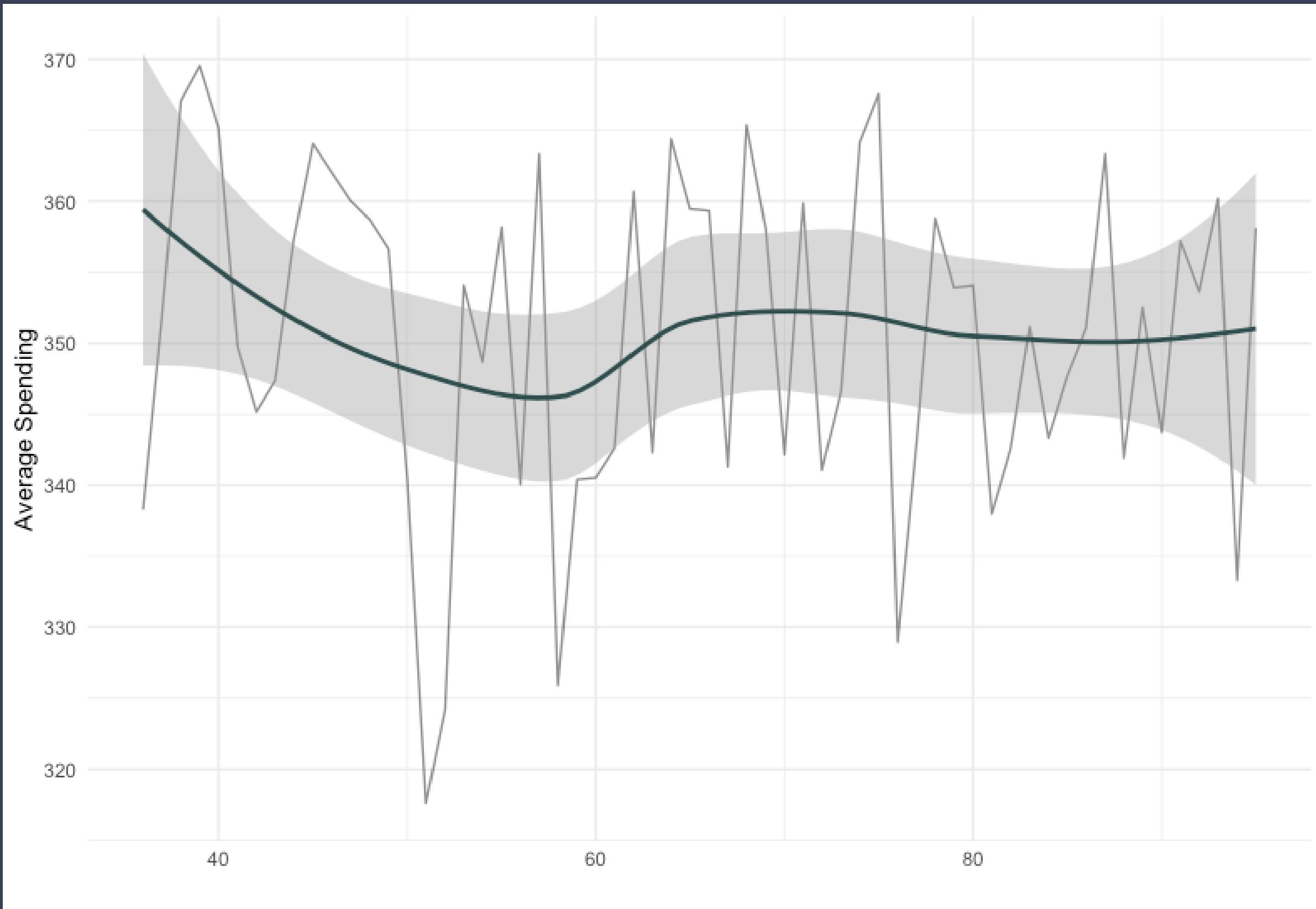
# Spending Trend Analysis

Spending trend across  
customers in the middle to  
upper middle class.



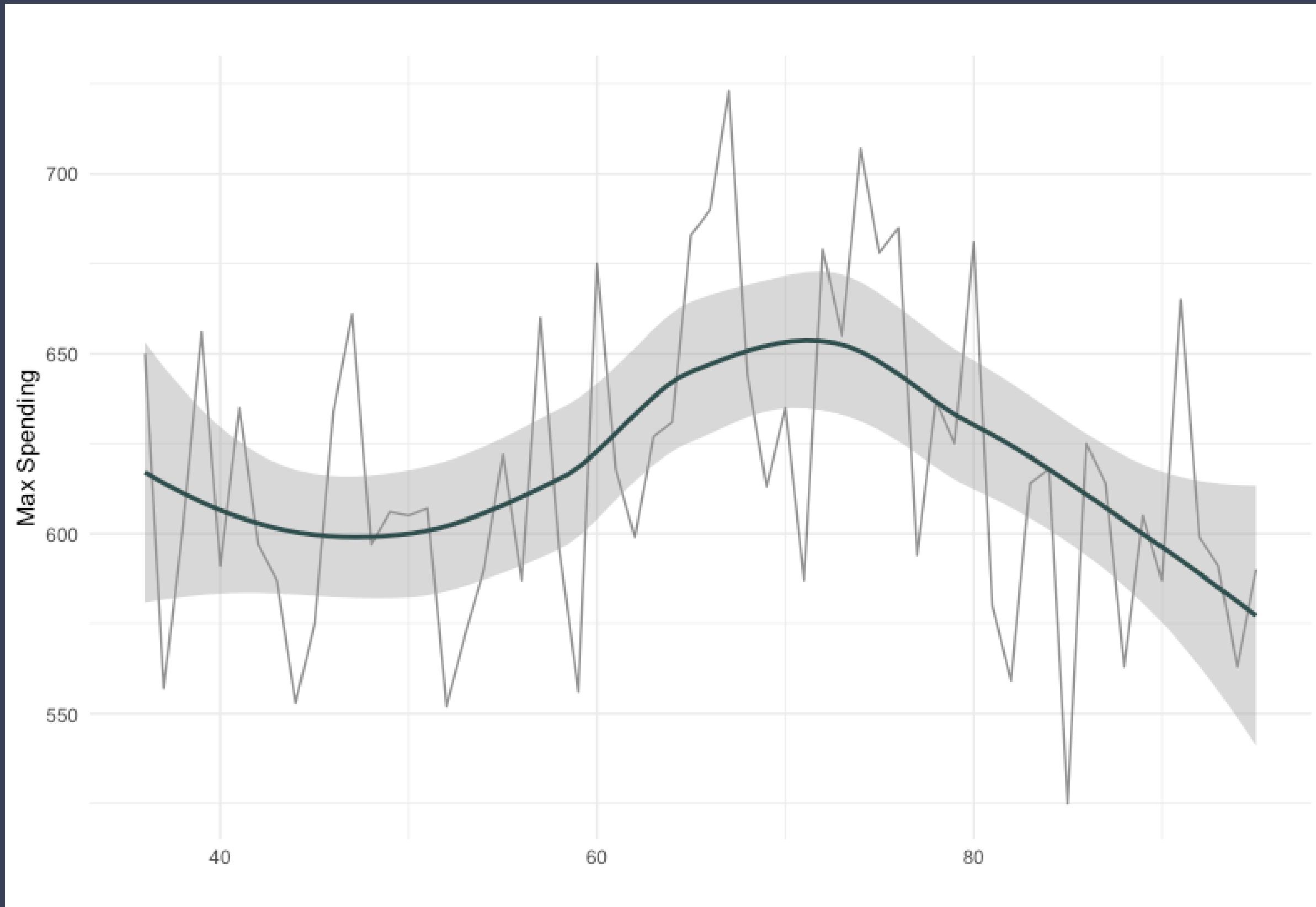
# Spending Trend Analysis

Average spending across customers of 35 to 95 years of age



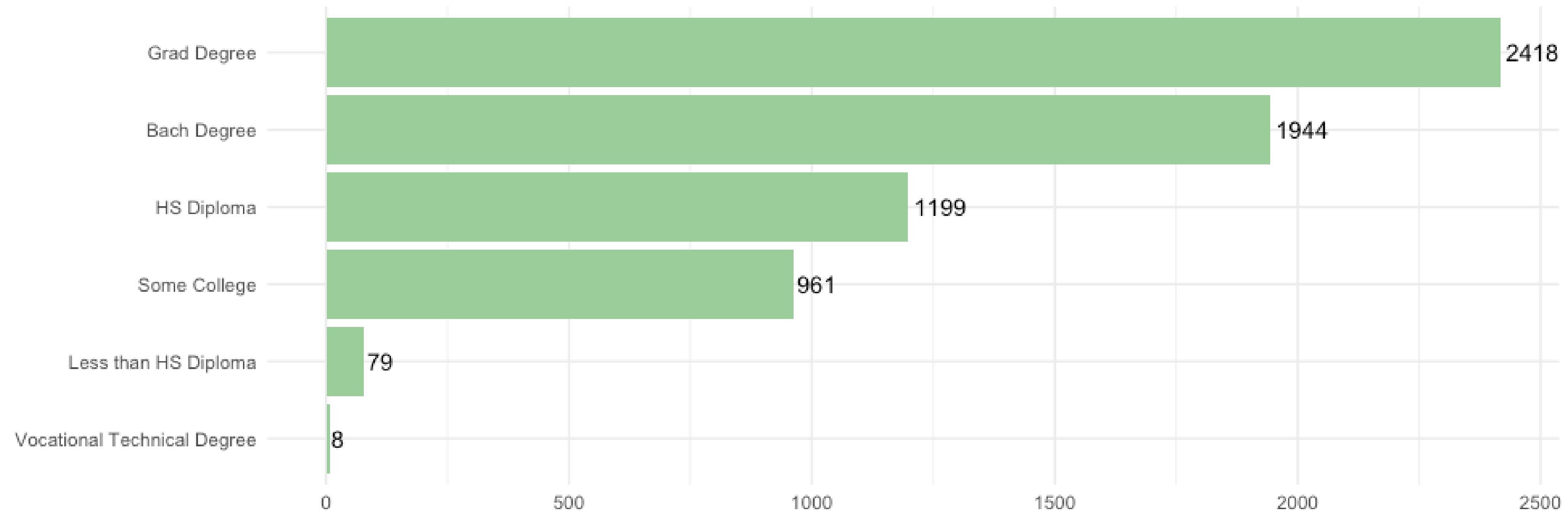
# Spending Trend Analysis

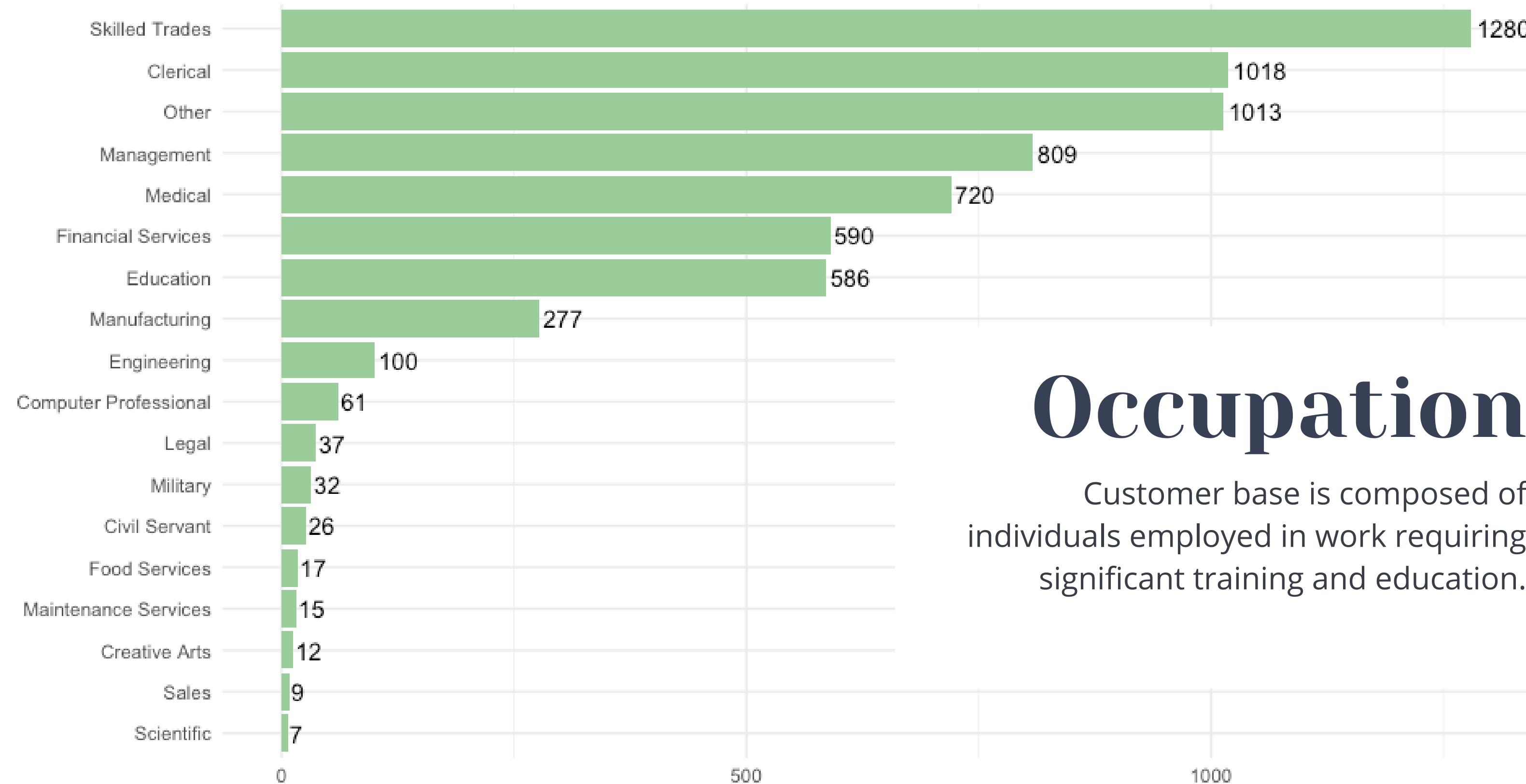
Maximum spending across  
customers of 35 to 95  
years of age



# Education

Level of education for target market indicates main customers are largely educated individuals with a bachelor's degree at the minimum.

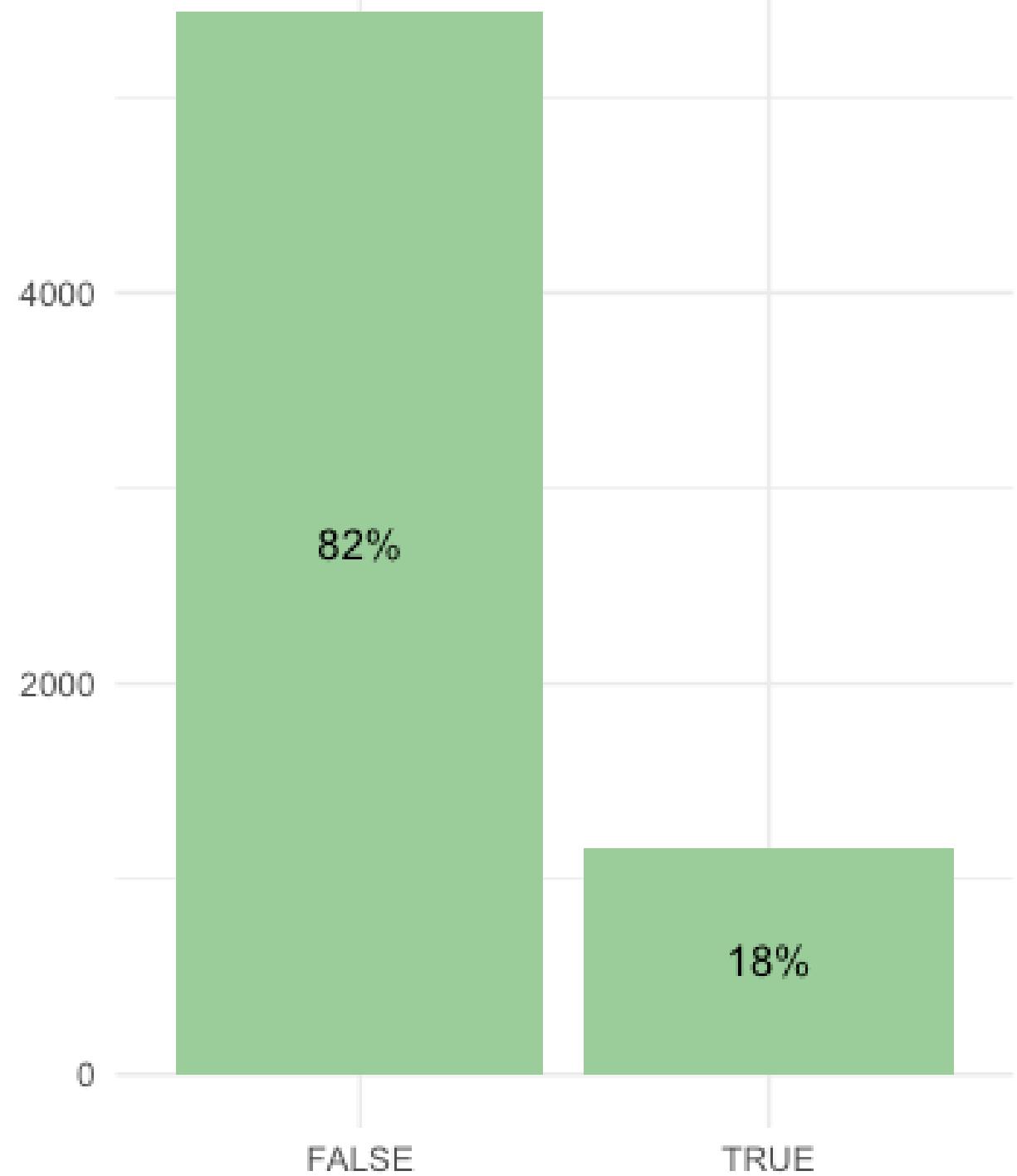




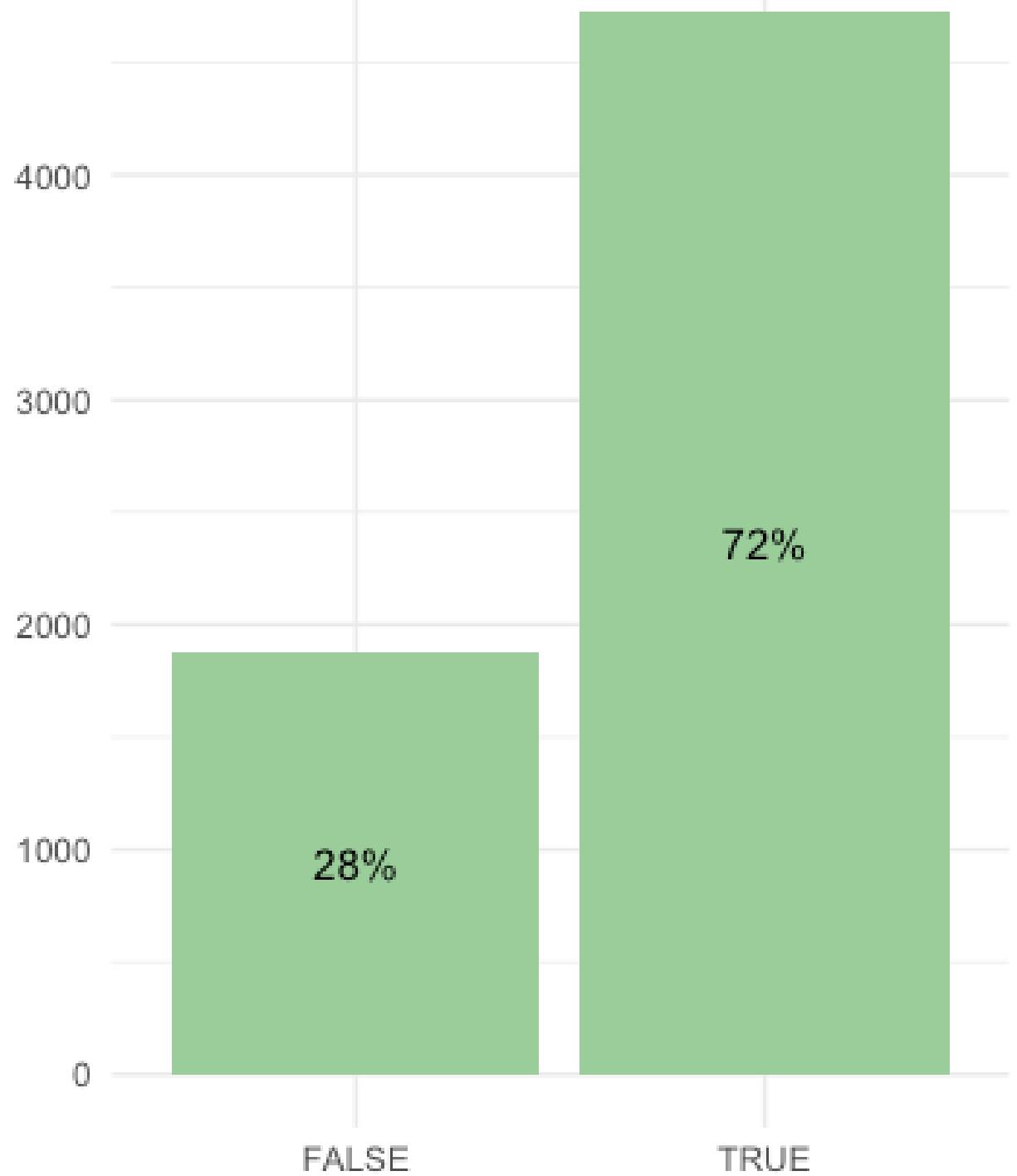
# Occupation

Customer base is composed of individuals employed in work requiring significant training and education.

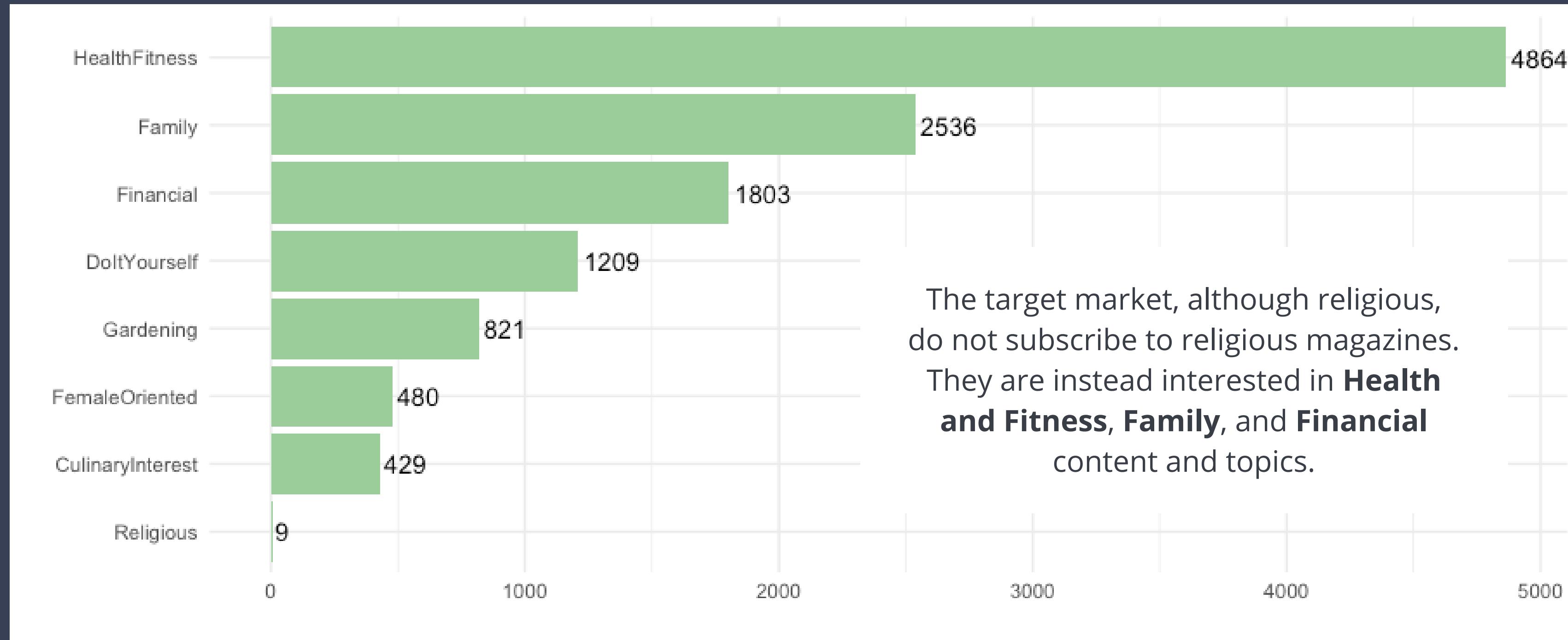
# Home Office



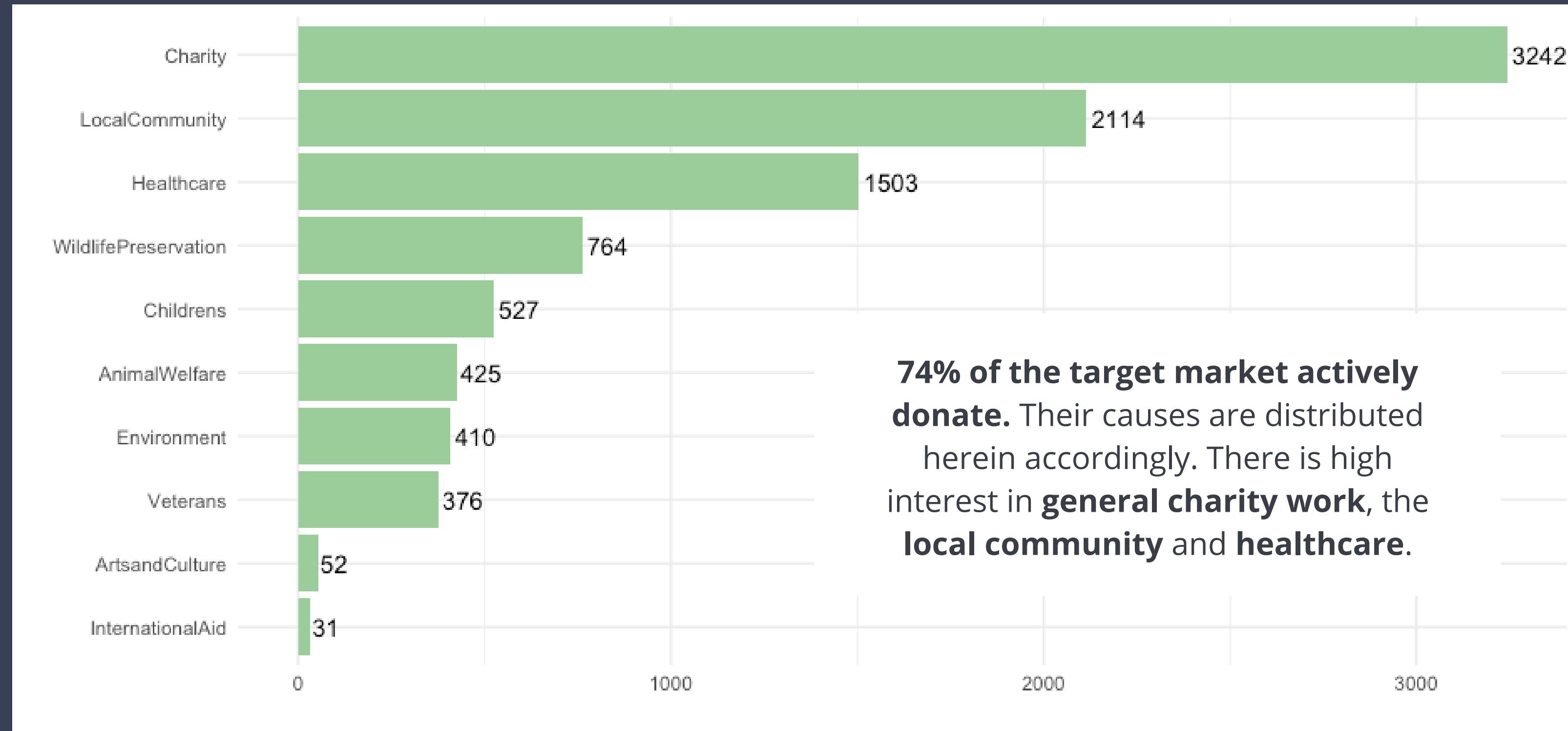
# Computer



# Magazine Preferences



# Causes and Social Interests



# Summary

## Average Spending

Across the target market, spending is generally even. However, there is a stark increase for seniors.

## Educated and Employed

Customers are educated and well-paid individuals. Although unlikely to work from home, they can be assumed to have internet access.

## Content and Causes

The target market is interested in Health and Fitness, Family and Financial content, and also actively donates to various causes.



# Actionable Insights



## Product Strategy

- Opportunity to possibly increase pricing levels to fit the upper middle class market.
- Ensure presence of products catered and marketed to senior citizens.
- Focus on building relationships with distributors of products for healthy living.



1

## Product Management

By understanding the demographics of the target market, BBY can now adjust products to better serve their customer base.

## Store Design

- Ensure that stores have accessibility features for the elderly and have staff to assist in their purchasing.
- Stores also feel expensive or luxurious while being convenient so it fits the financial capacity of the target market.



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## Product Management

By understanding the demographics of the target market, BBY can now further research on how to serve this market better.

## Content

- Generate content on the identified interests of the target market, like Health & Fitness, Finance, and Family.
- Content must be worded and designed for educated and employed individuals.
- There must also be content generated for those at retirement age.



3

## Marketing Strategy

With an idea about the interests and habits of the target market, marketing can be delivered more efficiently and effectively.

## Channels

- The brand may benefit from expanding marketing through workplace partnerships, highway signs, and retirement community placements.
- Online content must also be very accessible. That is, customers see them right away and they are not placed in niche areas of the internet.



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## Marketing Strategy

With an idea about the interests and habits of the target market, marketing can be delivered more efficiently and effectively.



**Thank you.**