

# Purpose Data Engineering Homework 2 (Paycheck Protection Program)

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## Introduction

The Paycheck Protection Program (PPP) is a \$1 trillion business loan program established by the US federal government in 2020 to help businesses continue paying their workers. This report, for a US government, focuses on financial aid provided to US businesses during COVID, highlighting various demographics and geographic distributions.

## Ethnicity Distribution

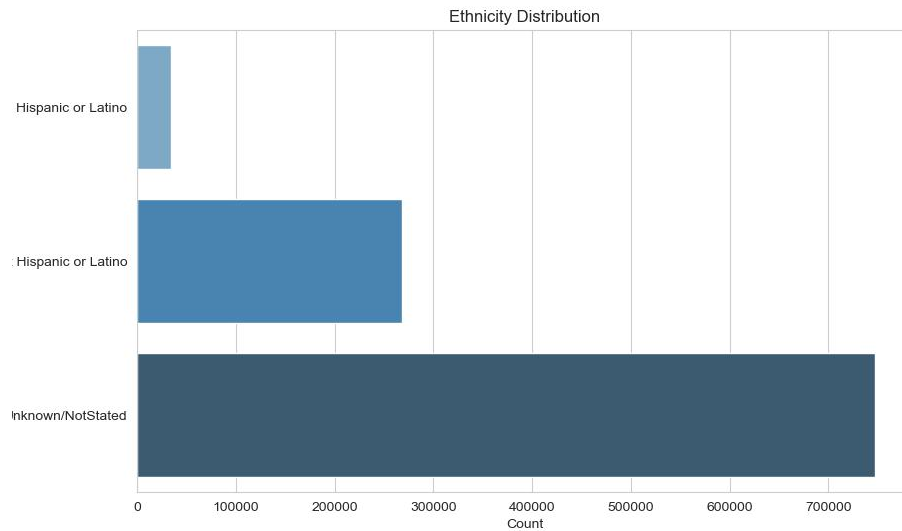


Figure 1: Ethnicity Distribution

The majority of respondents did not state their ethnicity, leading to a large "Unknown/NotStated" category. Among those who did respond, a significant number identified as "Not Hispanic or Latino," indicating a majority in this category.

"Hispanic or Latino" recipients are the smallest group among the three categories, suggesting either lower representation or lower reporting in this group.

## Race Distribution

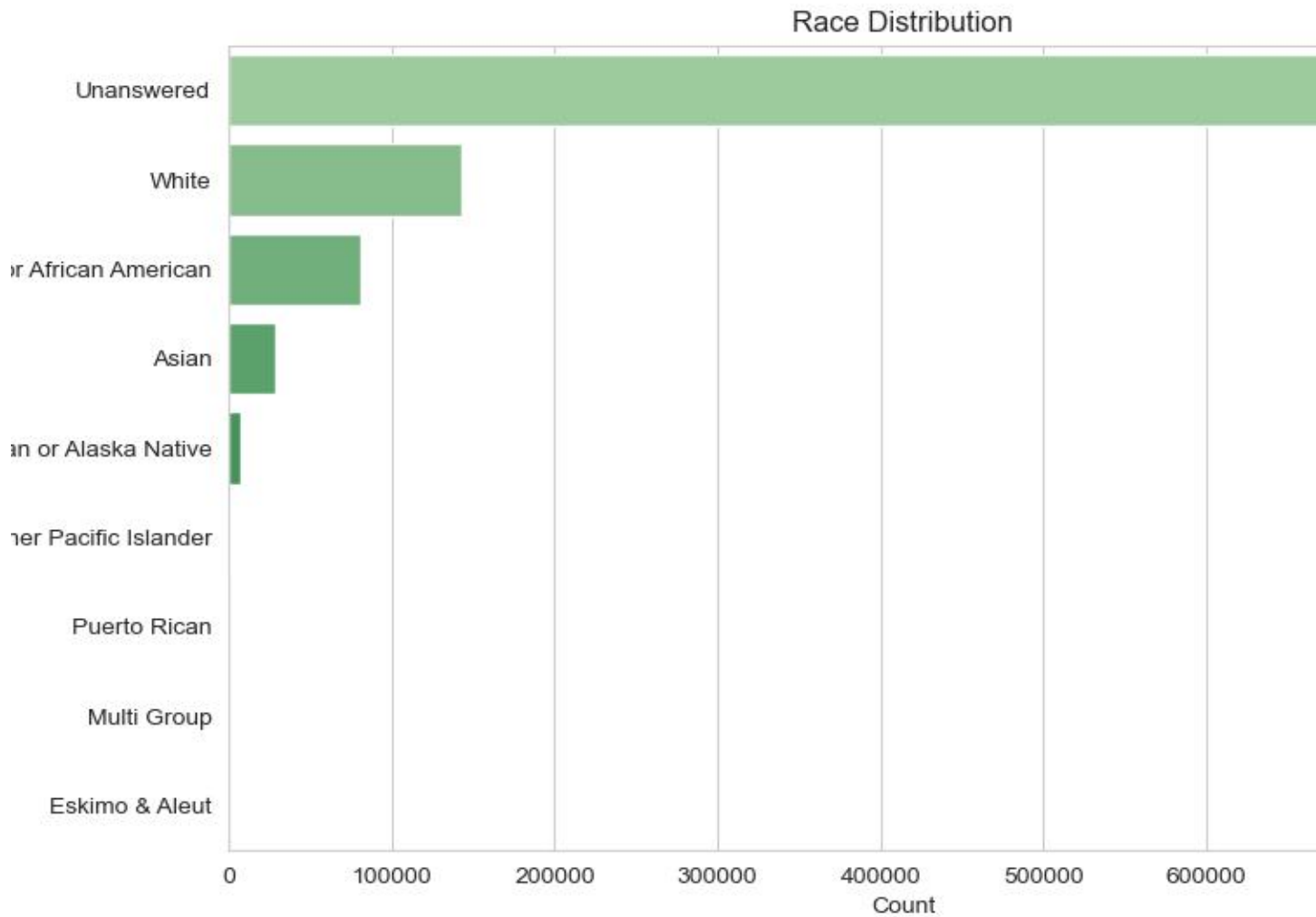


Figure 2: Race Distribution

A considerable number of recipients did not answer the race question, resulting in a large "Unanswered" category.

Among those who did respond, "White" recipients form the largest reported racial group, indicating a majority in this category.

There is a notable but smaller number of recipients from other racial categories such as "Black or African American," "Asian," and "American Indian or Alaska Native," reflecting some diversity among the loan recipients.

## Gender Distribution

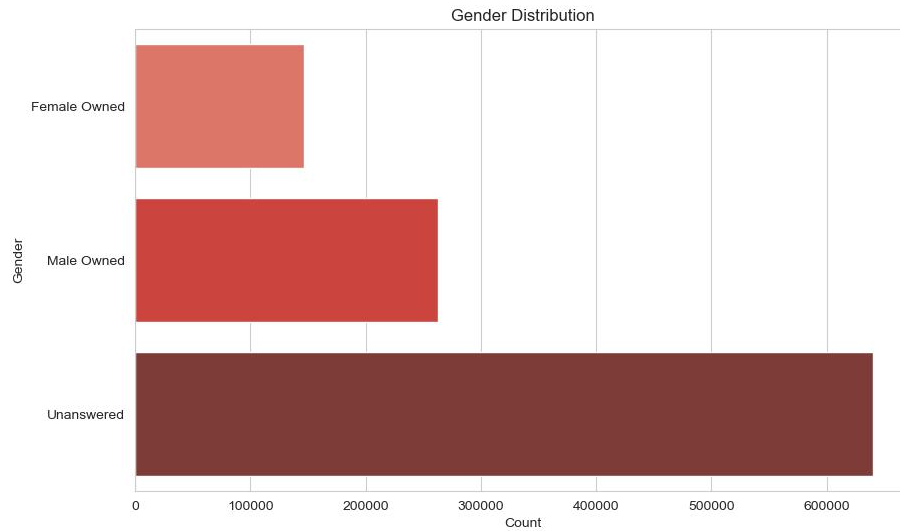


Figure 3: Gender Distribution

A large proportion of recipients did not answer the gender question, resulting in a significant "Unanswered" category.

Among those who did respond, male-owned businesses received more aid compared to female-owned businesses, indicating a higher number of male business owners applying for and receiving PPP loans.

Female-owned businesses still represent a significant portion of the recipients, showing notable participation from women entrepreneurs.

## Borrower State Distribution

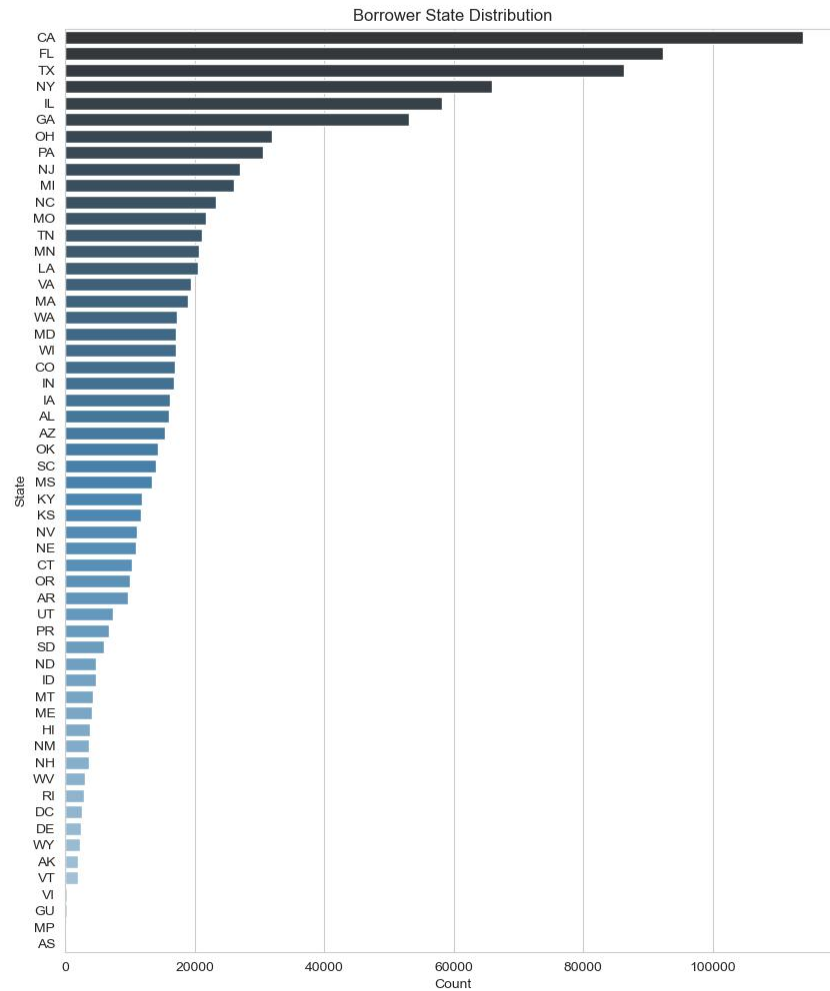


Figure 4: Borrower State Distribution

California has the highest number of PPP loan recipients, highlighting its large business population and high level of loan applications.

Texas and Florida also rank among the top states for PPP loans, reflecting their large economies and significant number of small businesses.

There is a wide distribution of recipients across many states, indicating broad geographic reach and widespread impact of the PPP across the country.

## Conclusions

The PPP provided critical financial aid to a diverse range of businesses across the US. While the majority of recipients did not disclose ethnicity or race, the data shows substantial support across various demographic groups. Male-owned businesses received more loans than female-owned ones, and states with larger business populations like California, Texas, and Florida had the highest number of recipients. This program played a vital role in supporting businesses during the COVID-19 pandemic.