Business Loans during COVID-19

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June 2024

1 Introduction

The U.S. Small Business Administration (SBA) has introduced enhanced flexibility and accommodations for COVID-19 EIDL and PPP borrowers to help bring them into compliance and avoid the repercussions of defaulting on a government loans. The **Economic Injury Disaster Loan (EIDL)** and **Paycheck Protection Program (PPP)** are the two funding options for small businesses impacted by coronavirus. Both programs were crucial in supporting small businesses.

The primary sectors benefiting from these loans were educational services, arts, and food services. These sectors received significant financial assistance to help them continue operations and mitigate the adverse effects of the pandemic.

Geographically, the States that received the highest amounts of loans and funding were California, Florida, and Texas. In contrast, Louisiana and Wyoming were among the States that received the least financial support. These initiatives by the SBA were vital in ensuring the survival and resilience of businesses across the country during an unprecedented crisis.

2 Data Collection

The Small Business Administration's website hosts data in CSV-format, including 12 files for the PPP. These files were uploaded to Google Drive and processed using Python,as well as, 5 CSV-files for the EIDL. Additionally, files containing column metadata were retrieved from the website.

2.1 Data Processing

Initially, we extracted identical variables —"Loan Amount", "Borrower's State", "Date Approved", and the first two digits of the "NAICS code"— from the first data collection containing data from the PPP. Combining these variables yielded a dataset that included receipts and a new column denoted as "Loan Program",where all the new elements are "PPP" value. From the files related to the EIDL program, we selected specific variables —"Action Date", "Prim

Place of Performance" and "Face Value Of direct Loan or Loan Guarantee"—and create a new variable that takes the value "EIDL" for all rows. Finally, we merged these two datasets.

3 Useful Indicators

To enhance our understanding and address our challenge effectively, we are introducing two new metrics. The first metric examines the ratio of businesses to have access to the programs relative to the number of employees per state. The second metric assesses the total amount disbursed in each state relative to the annual wages paid by each firm. These indicators are designed to explore potential correlations with the aforementioned variables.

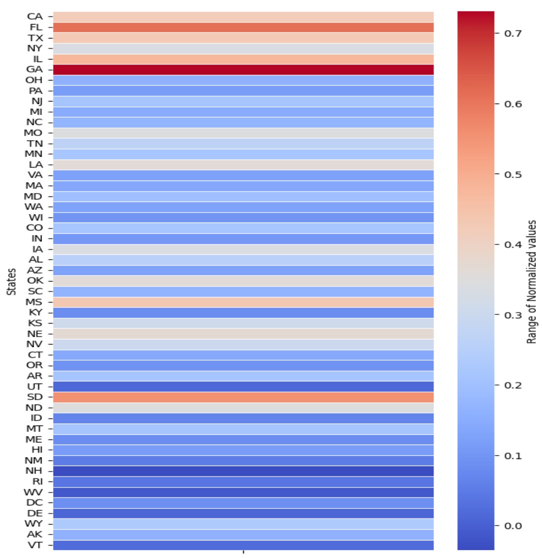

Figure 1: Normalized Total Number of Companies by number of employess (per State)

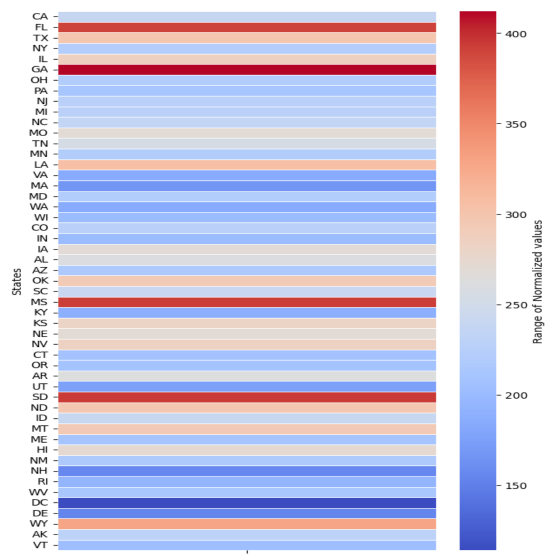

Figure 2: Normalized Total Amount by Annual Payroll (per State)

4 Conclusion

During the pandemic, the arts, entertainment, and recreation sector received substantial financial assistance, totaling 2.6 billion dollars. As shown in *Figures 1* and *2*, the States of Michigan and North Carolina did not received significant economic differences during this period.