The Paycheck Protection Program (PPP) was one of the center pieces of the US Federal Government’s policy response to mitigate the devastating effects of the COVID-19 pandemic on economic activity. It was part of the CARES Act and was administered by the Small Business Association (SBA). Up to $659 billion was allocated to the program giving businesses “loans” that could be used to keep workers on their payrolls and later to cover other expenses such as mortgage payments, rent, and utilities. In the wake of the pandemic, researchers have been interested in evaluating the effectiveness of the PPP. The speed with which the loans were made and the laxness of loan approval and forgiveness criteria, have raised concerns about widespread fraud associated with the program. The PPP primarily utilized banks as the conduit for loans and was designed to take advantage of established relationships between small businesses and banks. However non-bank lenders (credit unions and LLCs) also approved loans through the PPP. “Fintech” companies for example were major non-bank lenders for PPP nationally. They have also been implicated in making fraudulent loans.

A recent study by Deming and Weiler (2023) finds that businesses in “banking deserts” in CO were less likely to receive loans through the PPP. Since loans were generally granted through banks, this conduit likely marginalized small businesses that did not have established relationships with banks. This study uses SBA data and focuses on PPP loans granted specifically to small businesses (defined in this case as having fewer than 50 employees), in Fort Collins, CO. We also look at a subset of the small businesses; the “smallest” businesses (defined as having 5 or fewer employees). Small businesses in general economic parlance are those under 500 jobs, so this brief’s metric of small businesses skews toward especially small firms, the major recipients of PPP loans.

The vast majority of the 6,765 loans made to all businesses in Fort Collins went to small businesses with fewer than 50 employees (6,563) and of those the majority of loans went to the smallest businesses with five or fewer employees (4,438). The total value of loans to small businesses was $333.6m and for the smallest businesses it was $78.9m ($517.2m in loans were made to all business in Fort Collins).
number of jobs saved for small businesses was 39,757, and for the smallest businesses 8,592 jobs were saved (for all businesses 62,220 jobs were saved) with PPP loans.11

Data and Methodology:

The SBA data on PPP loans includes the following information; the name of the business approved for loans, the type of business (by NAICS code), locations of the business, loan amount, when a loan was disbursed, the number of jobs saved12, the name and type of lender, among other things.13 In this study we use the information for our sample of small businesses and the subset of the smallest businesses; the number of loans granted, the value of loans, the average loan size, the number of jobs saved, the cost per job saved, and the lender type. We also look at when loans were disbursed. There were two phases for granting loans and two distributions in each phase. Phase 1 was 2020 and the two distributions occurred in Quarters 2 and 3 of that year. Phase 2 was 2021 and the two distributions occurred in Quarters 1 and 2 of that year.

1. Data by Business Size:
Table 1 summarizes loan characteristics and jobs saved for small businesses and the smallest businesses in terms of the timing of loan disbursements. 67.6% of small business loans made were to the smallest businesses. The majority of loans were made in the first distribution of Phase 1 (57.9% for small businesses and 54.7% for the smallest businesses). In general, more loans were made in each of the first distributions than in each of the second. Average loan size was smaller for the smallest businesses ($17,779) compared with all small businesses ($50,839). 21.6% of the jobs saved were with the smallest businesses. There isn’t much variation in the cost/job saved by the size of the business and over time. The cost of saving a job was on overall average 9.4% higher for the smallest businesses than for all small businesses.

Table 1: Characteristics of Loans and Jobs Saved by Business Size and Timing of Disbursements

<table>
<thead>
<tr>
<th>Business size</th>
<th>Small</th>
<th>Smallest</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Phase 1</td>
<td>Phase 2</td>
<td>Total</td>
<td>Phase 1</td>
<td>Phase 2</td>
<td>Total</td>
<td>Phase 1</td>
<td>Phase 2</td>
</tr>
<tr>
<td></td>
<td>Dist. 1</td>
<td>Dist. 2</td>
<td>Dist. 1</td>
<td>Dist. 2</td>
<td>Dist. 1</td>
<td>Dist. 2</td>
<td>Dist. 1</td>
<td>Dist. 2</td>
</tr>
<tr>
<td>Number of loans</td>
<td>3,802</td>
<td>145</td>
<td>2,118</td>
<td>498</td>
<td>6,563</td>
<td>2,429</td>
<td>130</td>
<td>455</td>
</tr>
<tr>
<td>% of total</td>
<td>57.9%</td>
<td>2.2%</td>
<td>32.3%</td>
<td>7.6%</td>
<td>100%</td>
<td>54.7%</td>
<td>2.9%</td>
<td>32.1%</td>
</tr>
<tr>
<td>Average loan size</td>
<td>$56,026</td>
<td>$21,821</td>
<td>$50,900</td>
<td>$19,312</td>
<td>$50,839</td>
<td>$18,997</td>
<td>$11,878</td>
<td>$17,673</td>
</tr>
<tr>
<td>Number of jobs saved</td>
<td>25,825</td>
<td>373</td>
<td>12,433</td>
<td>1,126</td>
<td>39,757</td>
<td>5,123</td>
<td>183</td>
<td>2,692</td>
</tr>
<tr>
<td>% of total</td>
<td>65.0%</td>
<td>0.9%</td>
<td>31.3%</td>
<td>2.8%</td>
<td>100%</td>
<td>59.6%</td>
<td>2.1%</td>
<td>31.3%</td>
</tr>
<tr>
<td>Cost/job saved</td>
<td>$8,248</td>
<td>$8,410</td>
<td>$8,670</td>
<td>$8,589</td>
<td>$8,392</td>
<td>$9,007</td>
<td>$8,439</td>
<td>$9,349</td>
</tr>
</tbody>
</table>
2. **Data by Business Size and Type of Lender**
In Figure 1, we include data for the 192 loans made to business with 50 or more employees in comparison with small and smallest businesses. For all businesses, banks were the most important sources of loans; especially national and regional banks in descending order by business size (for the larger businesses for example 48% of loans were made by national banks). Community banks were the third most important source of loans. Non-bank lenders -- LLCs and credit unions -- were more important for the small and smallest businesses (13.9% and 17.7% respectively). Although not shown here, the lowest cost/jobs saved was for credit unions and LLCs14.

Figure 1: Loans made by Type of Lender and by Business Size

![LENDER TYPE AND LOANS MADE BY BUSINESS SIZE](image)

3. **Data by Business Size, Type of Lender and Distribution of Loans Over Time**
The pie charts in Figure 2 illustrate how important each type of lender was for small and smallest businesses over the disbursement process (two phases and two distributions for each phase). The most striking result is the importance of LLCs in particular, in Phase 2 compared with Phase 1 and in the 2nd distribution for both phases. For example, for the smallest firms the percentage of loans made by LLCs in Phase 1 Distribution 1 was 5% and for Distribution 2 that increased to 37%. The pattern is the same for all small businesses. We see the same for Phase 2. And the percentage of loans approved by LLCs is higher for both distributions in Phase 2 compared with Phase 1.
Figure 2: Share of Loans by Type of Lender and Size of Business Over Time
Conclusions:

The majority of PPP loans to all businesses in Fort Collins, CO went to small businesses (with fewer than 50 employees) and of those the majority went to the smallest businesses (with 5 or fewer employees). For the small and smallest businesses, the majority of loans were disbursed in Phase 1 compared with Phase 2 and in the 1st distribution of loans (compared with the 2nd) in both Phases. Bank lenders; national, regional, and community banks were the major source of loans for small and the smallest businesses. Non-bank lenders (particularly LLCs including “fintech” companies) played a larger role in the provision of loans at later stages in the loan disbursement process.

How can we interpret these results? It appears that businesses that were either underbanked or unbanked experienced a delay in accessing PPP funds. Nationally we know that minority- and women-owned businesses are more likely to be part of that marginalized group. Although we do not have the data for Fort Collins, businesses nationally in neighborhoods of color had long lags in the approval process and were more reliant on non-bank lenders. Given the uncertainty of the loan approval and forgiveness processes for both lenders and borrowers, it makes sense that banks (national, regional and community banks) were likely to figure out the rules and regulations sooner than non-bank lenders. Having an established relationship with a bank would have been beneficial under those circumstances.

In summary, although Fort Collins is not a “banking desert”, our results support the findings of Deming and Weiler (2023). There appears to be a group of very small businesses in Fort Collins that did not have established relationships with banks and in terms of obtaining a PPP loan they were more likely to obtain their loan from non-bank lenders later in the disbursement process. From a policy perspective, bank consolidation trends contribute to “banking deserts” and raise important questions about the role of non-bank lenders like “fintech” companies in providing access to business capital particularly in communities with poor technology infrastructure.

Our future research will be to look at the effectiveness of the PPP program in terms of the survival rates of businesses. That includes comparing the survival rates of businesses that received PPP loans with those that did not, as well as comparing survival rates for businesses that received loans earlier in the loan disbursement process with those that received their loans later, paying particular attention to how that lag affected minority owned businesses.

Endnotes:

1 Author affiliations respectively; Professor, Assistant Professor, economics undergraduate interns, Department of Economics, Colorado State University.

2 Almost all loans were forgiven under certain conditions: https://www.sba.gov/funding-programs/loans/covid-19-relief-options/paycheck-protection-program/ppp-loan-forgiveness

3 https://home.treasury.gov/policy-issues/coronavirus/assistance-for-small-businesses/paycheck-protection-program

4 Loans were also disbursed by non-bank lenders including credit unions and LLCs (private lenders).
5 The fintech company, Kabbage, was by their own account the second largest lender of PPP loans in the country by application volume. Kabbage made a number of loans to small businesses in Fort Collins. 

6 https://www.propublica.org/article/ppp-loans-paycheck-protection-fraud-profits-report. One of fintech companies that made the most loans, Kabbage’s holding company K Services filed for bankruptcy in 2022.


8 Data on the gender and race/ethnicity of business owners was not collected in most cases as part of the loan approval or forgiveness processes. Brookings’s however reports that small businesses in communities of color had unequal access to COVID-19 relief. See: https://www.brookings.edu/articles/new-data-shows-small-businesses-in-communities-of-color-had-unequal-access-to-federal-covid-19-relief/


10 Only 192 loans were made to businesses in Fort Collins with 50 or more employees.

11 Interestingly of the 192 loans made to businesses with 50 or more employees, the total value of those loans was $183.5m and the number of jobs they saved was 22,263.

12 This was listed as number of jobs on the payroll which establishes the size of the firm and if the loan is forgiven then it also represents the number of jobs saved. There is skepticism about how accurate this estimate really is and nationally the estimate of total jobs saved varies from 1.5m and 18.6m (https://www.npr.org/2023/01/09/1145040599/ppp-loan-forgiveness)

13 The data were supposed to include the gender of the business owner, for example, but for the overwhelming majority of businesses receiving loans, that was left blank. Brookings uses Zipcode data to make inferences about minority businesses on the basis of research (by J.P Morgan Institute).

14 Respectively these were $6,041 and $7,398.


16 This depends on access to data from the Tax Office in Fort Collins, CO.

17 Research by the J.P. Morgan Institute shows in 90% of majority Black and Latino neighborhoods, a majority of small businesses have case buffers of less than 3 weeks (https://www.brookings.edu/articles/new-data-shows-small-businesses-in-communities-of-color-had-unequal-access-to-federal-covid-19-relief/).