The Job-Preservation Effects of Paycheck Protection Program Loans

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DISCUSSION

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Comparison to Previous Literature

- This paper uses cross-sectional variation in PPP loan access combined with BLS UI Claims data
  - Instrumented with community bank shares (18.6 million jobs)
  - Similarly, Granja et al. (2020) instrument with bank-share-based Bartik instrument, using payroll data (3.5 million)

- Alternative identification: size threshold for eligibility (500 employees for many sectors) combined with payroll data (1.5-2.3 million)

- What explains the relatively large estimate in this paper?
Effects of PPP on UI Continuing Claims
Faulkender et al. (2021), Figure Xb
Effects of PPP on UI Initial Claims
Faulkender et al. (2021), Figure Xa
Timing of PPP Loan Disbursement
Hubbard and Strain (2020)
Effects of PPP on UI Initial Claims
Faulkender et al. (2021), Figure Xa

PPP Loans Start Here
Effects of PPP on UI Continuing Claims
Faulkender et al. (2021), Figure Xb
What Causes the Large Pre-Treatment Trend?

- Three possibilities:

  1. **Retroactive Claims Data**: Authors’ data classifies claims by the date of initial filing, even if not approved for many weeks. If firms do (do not) rehire workers after PPP, the initial pre-PPP claim could be disallowed (approved) as true cause of the program.

  2. **Anticipatory Behavior**: If firms anticipate PPP loans, might reduce firing in advance of PPP loans. (But did firms know they were more likely to get loans in high- vs. low- community bank share locations?)

  3. **Differential Economic Shocks by Location**: The recession may have been worse, even before PPP, in low-community bank share locations.

- Replicate findings in publicly-available data to discern between these possibilities
Replication in Payroll Data

- Replicate Faulkender et al. (2021) results using administrative payroll data on ~15 million workers from the OI Economic Tracker
  - Publicly available database for employment at the county x week level at [www.tracktherecovery.org](http://www.tracktherecovery.org)
  - Sources: Paychex, Intuit, Earnin

- Take other data, variable definitions, and specifications from this paper
  - Instrument (community bank shares) from FDIC

- 2SLS estimates replicate well (many thanks to authors for helping to align!)
Effects of PPP on UI Continuing Claims
Faulkender et al. (2021), Figure Xb
Effects of PPP on Paychex-Intuit-Earnin Employment
Faulkender et al. (2021) Instruments

Estimated Effect of 1 p.p. Increase in PPP Coverage on Employment (p.p.)

- 0.42 p.p. effect on cont. UI claims (Apr 18)
- 0.37 p.p. effect on employment (Apr 18)

PPP Loans Start Here

Faulkender et al. (2021): 0.42 p.p. effect on cont. UI claims (Apr 18)
Replication: 0.37 p.p. effect on employment (Apr 18)
Effects of PPP on Paychex-Intuit-Earnin Employment
Comparison with Granja et al. (2020)

Estimated Effect of 1 p.p. Increase in PPP Coverage on Employment (p.p.)

PPP Loans Start Here
Effects of PPP on Paychex-Intuit-Earnin Employment
Comparison with Granja et al. (2020)

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PPP Loans Start Here

Granja et al. Baseline
Effects of PPP on Affinity Consumer Spending

Estimated Effect of 1 p.p. Increase in PPP Coverage on Spending (p.p.)

PPP Loans Start Here
Impact of Stimulus Payments on Consumer Spending, by Income Quartile

Seasonally Adj. Pct. Change in Spending

Bottom Income Quartile

Top Income Quartile

Q1 Apr 7-13: -28.1%
Q1 Apr 15-21: -10.3%
Q4 Apr 7-13: -36.3%
Q4 Apr 15-21: -29.8%
Slope = -0.76% per $1000
(s.e. = 0.045% per $1000)
A scatter plot shows the relationship between Community Bank Share and Median Household Income in 2018. The plot includes data points and a linear trend line. The slope of the line is given as -0.73% per $1000, with a standard error of 0.048% per $1000.

The title of the plot is: County-Level Binscatter of Community Bank Share vs. Median Household Income.

The x-axis represents Median Household Income in 2018 ($), and the y-axis represents Community Bank Share (%). The plot also indicates that controls for State FIPS, One-Week New Case Rate, Four-Week New Case Rate, One-Week New Death Rate, Four-Week New Death Rate at April 11, and Population Density have been included.
Differential Economic Shocks Explain the Pre-Trends

- Replication suggests that differential economic shocks drive the large estimates
  - Retroactive UI Claims story would have workers unemployed in late March, should not cause differences in employment (directly measured) or spending before PPP
  - Stimulus checks gave a differential boost to the economies in low-community share counties, for reasons not plausibly driven by the PPP
  - Community banks are concentrated in counties with lower median incomes, even with state fixed effects and controlling for COVID cases / deaths and density
    - Simply controlling for income is not sufficient since it is just the observable tip of the unobservable iceberg
Faulkender et al. (2021) use even weighting across counties in their results. Alternative: weight by size (e.g., local labor force, payroll) or precision. If small counties responded to the PPP in different ways than large counties, even weighting produces misleading aggregate estimates. 

Heterogeneous Effects By County Size
Effects of PPP on Paychex-Intuit-Earnin Employment
By County Population

Estimated Effect of 1 p.p. Increase in PPP Coverage on Employment (p.p.)

PPP Loans Start Here
Effects of PPP on Paychex-Intuit-Earnin Employment
By County Population

Estimated Effect of 1 p.p. Increase in PPP Coverage on Employment (p.p.)

PPP Loans Start Here
Effects of PPP on Paychex-Intuit-Earnin Employment
By County Population

Estimated Effect of 1 p.p. Increase in PPP Coverage on Employment (p.p.)

PPP Loans Start Here

All Counties
10% Largest
What Explains the Relatively Large Effect in This Paper?

Data suggest two explanations of the difference with other papers:

1. Recession hit with particular force in counties with low community bank shares, generating differential underlying economic paths
   - Community bank share correlates with local incomes (and likely other unobserved variables) that mediated the strength of the local economic shock

2. Measured effect driven by data in relatively small counties
   - Lack of effects in large counties suggests that aggregate effects were smaller
Broader Implications

1. Smaller effects of the PPP imply very high costs per job saved
   - Estimates from size threshold implies costs of > $200K per job saved
   - Why? Many loans went to areas and firms that did not appear in greatest need

2. Geographic identification difficult when studying the pandemic due to highly localized economic shocks
Changes in Small Business Revenues (Womply) from January to April by ZIP Code

New York City