

A Appendix: Details on the Paycheck Protection Program

The Paycheck Protection Program (PPP) was established under the CARES Act to provide loans for small businesses impacted by COVID-19. These loans differ from previous Small Business Administration (SBA) loans because they do not require collateral or a credit check. Moreover, the loans may be fully forgiven if the money is spent on payroll, rent, utilities, or interest payments on business mortgages for an 8-week period (with a minimum of 75% to payroll). The first round of aid was available April 3 for small businesses and sole proprietorships. On April 10, independent contractors and self-employed individuals were also able to apply. The initial \$350 billion allocated for the program was exhausted as of April 16. The Paycheck Protection Program received a second round of funding from Congress and the Small Business Administration resumed accepting applicants on April 27. The program expired with funds remaining on June 30th, but was then extended, reopening to applications on July 7th and is scheduled to remain open through August 8th.

The SBA posted its first Interim Final Rule that announced the implementation of the Coronavirus Aid, Relief, and CARES Act on April 2nd. Since then, the SBA has posted additional Interim Final Rules that supplement or change those previously posted. Updates have included additional guidance on eligibility for: certain pledges of loans, certain electric cooperatives, student and seasonal workers, and other specific types of businesses. The Interim Final Rules also provides additional guidance on loan forgiveness. On June 5th, the Paycheck Protection Program Flexibility Act was signed into law that changed some aspects of the program. Under the new rules, 60% of forgivable expenses were required to be payroll. Borrowers were also given 24 weeks for which qualified expenses could be forgiven rather than 8. The term of the loan was increased from two to five years, and exceptions were introduced that could allow some loans to be forgiven even if payroll was not fully restored.

Eligibility

In order to be eligible for the Paycheck Protection Program, the applicant or business impacted by COVID-19 must meet entity-specific criteria. Eligible applicants include: sole proprietors, independent contractors, and self-employed persons. Self-employed individuals must have been in operation no later than February 15, 2020, been an individual with self-employed income, have a principal place of residence in the U.S., and have filed or intends to file a 2019 Form 1040

Schedule C.

Loan eligibility extends to any small business that meets the SBA's size standards or business with a NAICS Code that begins with 72 (as long as the location employs less than 500 per location). Additional eligible businesses that have 500 or more employees or that meet the SBA's industry size standard (if more than 500) include: non-profit organizations, veteran organizations, or Tribal business.

Applicants are not eligible for the PPP if: (1) they engage in any illegal activities under federal, state, or local law; (2) If an owner with 20% equity or more is incarcerated, on probation, on parole, or currently subject to any criminal charges; or has been convicted of a felony within the last five years; or (3) if the applicant, the applicant's co-owners, or any of the applicant's businesses received or guaranteed a loan from the SBA or other Federal agency, and that loan is currently delinquent within the last 7 years.

Application Process

In order to apply for the PPP, business owners must submit the application form with supplementary materials to existing SBA approved lenders or other FDIC insured lenders. On the application form, business owners are asked about whether they received any Economic Injury Disaster Loans, their number of employees, their average monthly payroll, and information on any co-owners holding at least 20% equity of the business. In addition to the form, applicants are asked to provide documentation on the number of full-time equivalent employees on their payroll and other costs, such as mortgage interest payments and rent. Business owners are not required to provide any personal guarantee or collateral, or prove that they were not able to receive credit elsewhere in order to apply for the PPP.

Conditions of the Program

The PPP offers loans to small business owners with a fixed interest rate of 1%. All payments are deferred for the first six months, though borrowers are not penalized for prepayment. In the case that business owners default on their loans, the administration is barred from laying any claims to theirs or their shareholders' assets. As aforementioned, the PPP allows borrowers to cover payroll costs, which includes salaries, retirement benefits, group health care benefits, rent, utilities, any mortgage or debt obligations, payments for vacation, parental, family, or medical leave, and allowances for dismissals.

While the PPP's coverage of payroll costs is broad, there are a few limitations. In particular,

workers whose primary places of residence are outside of the U.S. cannot be included in the calculation of payroll costs, nor can independent contractors (who can instead apply for a PPP loan directly). Wages are also capped at \$100,000 for each employee. In addition, the PPP can only cover family and sick leave wages that are not eligible for credit under the Families First Coronavirus Response Act (FFCRA).²¹

The maximum PPP loan amount depends on three main factors: whether the business hires employees seasonally, whether it is new, and whether it has previously received an Economic Injury Disaster Loan. The first two factors impact the reference period for calculating payroll costs. Generally, the loan amount is capped at 2.5 times the average, monthly payroll costs during the last year. However, seasonal employees can choose to calculate their average, monthly payroll costs between February 15 and June 30, 2019. If a business is new (defined as not operating between February 15 and June 30, 2019), the reference time period for average, monthly payroll costs is between January 1 and February 29, 2020. If an applicant received an Emergency Injury Disaster Loan (EIDL) between January 31 and April 3, 2020, then any outstanding payments for the EIDL should be added to the loan amount. Any advance EIDL loan should be excluded from the calculation, as the advance does not need to be repaid. The total PPP loan amount is capped at \$10 million.

Forgiveness

Generally, all payroll costs covered by the loan may be forgiven, if wages are capped at \$100,000 per employee. For other purposes, such as rent, utilities, and mortgage interest payments, the maximum amount forgivable is 25% of payroll costs. However, the loan may not be forgiven if an owner reduced their full-time equivalent (FTE) workforce since February 15 or lowered wages originally below \$100,000 by more than 25% compared to the most recent quarter. With that said, borrowers who made such changes between February 15 and April 26, 2020, may be exempt from the reduction if they restore their employee numbers and/or wages by June 30, 2020.

B Appendix: Survey details

Participants were recruited via facebook ads targeted at business owners in the United States.

Ads were targeted at people living in the US aged 25 or older, and targeted people who matched:

²¹The FFCRA provides fully refundable tax credits for sick and family leave wages if an employee is personally impacted by COVID-19.

- Behaviors: Small business owners
- Employers: Business Owner
- Interests: Small Business
- Job title: Owner and Founder

Figure 3 provides a photo of the ad used for recruiting for the survey.

Figure 3: Facebook Ad used for recruitment



B.1 Survey questions

This subsection provides the three survey instruments used in this study:

- The baseline survey, which was used from March 28th through April 26th, 2020
- An extended baseline survey used from April 27th through May 16th, 2020
- A follow-up survey which began on April 19th, 2020 for those completing the original baseline survey

Baseline Survey:

Q1.1: The 2020 Small Business Survey has been explained to me. I know that I may refuse to participate or to stop the interview at any time without repercussions of any kind. I consent to participate:

- Yes
- No

Q2.1: How many employees worked at the business you own in January 2020?

Number of Full-time Employees: _____

Number of Part-time Employees: _____

Q2.2: Please enter the ZIP code of your business: _____

Q3.1: As of today, have you been required to lay off any employees in response to the current health crisis?

- Yes
- No

Q3.2: How many employees have you been required to lay off?

Number of Full-time Employees: _____

Number of Part-time Employees: _____

Q4.1: Do you think you will need to lay off any employees in the next 60 days?

- Yes
- No

Q4.2: How many employees do you think you will need to lay off in the next 60 days?

Number of Full-time Employees: _____

Number of Part-time Employees: _____

Q5.1: Do you think your business will fully recover within the next two years?

- Yes
- No

Q5.2: How many months do you think this will take? _____

Q5.3: Do you think that your business will ever recover?

- Yes
- No

Q6.1: On a scale of 0-100, what do you think the probability is that your business will file for bankruptcy OR go out of business in the next 6 months? _____

Q7.1: Are you aware of any federal or state programs that could help your business during this crisis?

- Yes
- No

Q7.2: Are you aware of any federal or state programs that could help your business with the following:

Programs That Cover Your Employees' Wages	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Business Loans with Subsidized Interest Rates	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Programs That Allow You to Defer Rent, Mortgage, or Loan Payments	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Programs That Cover Your Rent	<input type="checkbox"/> Yes	<input type="checkbox"/> No

Q8.1: State and federal governments are developed new policies to help businesses like yours. Would you like to be contacted by a nonprofit organization with information about federal problems that can help businesses like yours?

- Yes
- No

Q9.1: Researchers are still learning about how the COVID-19 crisis is affecting small businesses. Would you be willing to answer another survey in the future?

- Yes
- No

Q10.1: To send you a follow-up survey, please enter your email: _____

Q11.1: To send you more information about federal programs that can help businesses like yours, please enter your contact information:

Email: _____

Phone: _____

Q11.2: What is your preferred method of contact?

Email

Phone

Q12.1: Many small businesses in the United States have been affected by the COVID-19 Pandemic. Some types have been affected more than others. Can you share in your own words, what type of business you run, and how have you and your business been affected?

Q12.2: There has been a lot of discussion as to what small businesses need during this crisis. What can the state and federal government do to help your business weather the health and economic crisis over the next 6 months?

Extended Baseline Survey:

Q1.1: The 2020 Small Business Survey has been explained to me. I know that I may refuse to participate or to stop the interview at any time without repercussions of any kind. I consent to participate:

- Yes
- No

Introduction

Q2.1: How many employees worked at the business you own in January 2020?

Number of Full-time Employees: _____

Number of Part-time Employees: _____

Q2.2: Please enter the ZIP code of your business: _____

Q3.1: As of today, have you been required to lay off any employees in response to the current health crisis?

- Yes
- No

Q3.2: How many employees have you been required to lay off?

Number of Full-time Employees: _____

Number of Part-time Employees: _____

Q4.1: What describes best the current state of your business?

- My business is open
- My business is closed, but I plan to reopen
- My business is permanently closed

Q4.2: If your business is open, is your business:

- Open at full capacity
- Open, but at reduced capacity (reduced hours or services)

Q4.3: If your business is closed and you plan to reopen, what best describes the reason for temporary closure?

- Lack of business
- Closed by government order
- Other; please specify: _____

Q4.4: If your business is permanently closed, are you currently:

- I am employed at a new job

- I am unemployed
- Other; please specify: _____

Q4.5: If your business is permanently closed and you are unemployed, are you actively looking for work?

- Yes
- No

Q4.6: If you are unemployed, are you receiving government assistance? (e.g. unemployment insurance)

- Yes
- No

Q4.7: If you are employed at a new job, what type of employment is your new job?

- Full-time
- Part-time
- Other; please specify: _____

Layoff Plans

Q4.8: Do you think you will need to lay off any employees in the next 60 days?

- Yes
- No

Q4.9: How many employees do you think you will need to lay off in the next 60 days?

Number of Full-time Employees: _____

Number of Part-time Employees: _____

Program Access for Closed Programs

Q5.1: If your business is closed, are there any federal, state, or municipal programs that could have helped your business to survive?

- Yes
- No

Q5.2: If your business is closed and you believe there were no federal, state, or municipal programs that could have helped your business survive, please select the option that best applies:

- I was not aware of any programs available to help small businesses
- My business was not eligible for the existing programs
- The available programs were not what I needed

Other; please specify: _____

Q5.3: If your business is closed and you believe there were federal, state, or municipal program that could have helped your business, please select the option that best applies:

- I did not know how to apply
- I applied, but my application was rejected
- I applied, but the aid not arrive in time
- Other; please specify: _____

Q6.1: Please enter the amount of your total sales in March 2020 (or in your last month of operation): _____

Recovery

Q6.2: If your business is not closed, do you think your business will fully recover within the next two years?

- Yes
- No

Q6.2: If yes, how many months do you think this will take? _____

Q6.3: If not, do you think that your business will ever recover?

- Yes
- No

Bankruptcy and Closure

Q7.1: On a scale of 0-100, what do you think the probability is that your business will file for bankruptcy OR go out of business in the next 6 months? _____

Q8.1: Which bank, credit union or financial institution do you use the most for your business? _____

Relief Access for Open Programs

Q9.1: Are you aware of any federal or state programs that could help your business during this crisis?

- Yes
- No

Q9.2: Are you aware of any federal or state programs that could help your business with the following:

Programs That Cover Your Employees' Wages	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Business Loans with Subsidized Interest Rates	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Programs That Allow You to Defer Rent, Mortgage, or Loan Payments	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Programs That Cover Your Rent	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Other	<input type="checkbox"/> Yes	<input type="checkbox"/> No

Q9.3: If other, please specify what other federal or state program could help your business: _____

Q9.4: If you are not aware of an federal, state, or municipal programs that could help your business, are you unaware of programs that could help your business because:

- I am not aware of any programs available to help small businesses
- My business does not qualify for the programs I am aware of
- Other; please specify: _____

Q10.1: Have you taken any steps towards searching or applying for any federal, state or municipal programs that could help your business?

- Yes
- No

Q10.2: If you have taken steps toward searching or applying for any federal, state, or municipal programs, what best describes the steps you have taken to apply to programs that could help your small business:

- I have looked into programs, but haven't decided to apply
- I have looked into programs and expect to begin the application soon
- I have tried to apply for a program but have not been able to complete an application
- I have completed an application
- Other; please specify: _____

Q10.3: If you have tried to apply for a program but did not complete an application, what best describes your experience:

- Not sure how to provide all the requested information
- Couldn't get ahold of the bank or other institution
- Other; please specify: _____

Q10.4: If you have completed an application, what best describes your experience:

- I have not heard back
- My application was rejected
- I was notified that funds are no longer available
- My application was accepted and approved
- Other; please specify: _____

Q10.5: If you have begun or completed an application, was your application to any of the following programs?

- The Paycheck Protection Program (PPP)
- The Economic Injury Disaster Loan Program (EIDL)
- Other; please specify: _____

Q11.1: If you applied to the Paycheck Protection Program (PPP), when did you first try to apply to the Paycheck Protection Program (PPP) that opened applications for small businesses on April 3, 2020? _____

Q11.2: If you applied to the PPP, did you apply again after?

- Yes
- No

Q11.3: If so, when did you last apply to the Paycheck Protection Program (PPP)? (mm/dd/yyyy): _____

Q11.4: If your application for the Paycheck Protection Program (PPP) was accepted and approved, what was the date? (mm/dd/yyyy): _____

Q12.1: If you applied to the Economic Injury Disaster Loan Program (EIDL), when did you first try to apply to the Economic Injury Disaster Loan Program (EIDL)? (mm/dd/yyyy): _____

Q12.2: If your application for the Paycheck Protection Program (PPP) was accepted and approved, what was the date? (mm/dd/yyyy): _____

Q13.1: If you applied for a program, was your application through your primary bank, credit union, or financial institution?

- Yes
- No

Q13.2: If you applied for a program, did you also try to apply through a different bank, credit union, or financial institution other than your primary one?

- Yes
- No

Q14.1: Which banks, credit unions, or financial institutions did you try to apply through other than your primary? Please write each one: _____

Q14.2: If you applied, please tell us in your own words about your experience with applying: _____

Q15.1. If you have not applied, what best describes your current situation:

- I expect to apply in the future
- I am still unsure if I will apply or not
- I do not plan on applying in the future

Q15.2: If you are not planning to apply in the future, why is that?

- I don't need assistance
- The types of programs available are not what my business needs
- I am not eligible
- I don't think I will get support even if I apply
- Other; if other, please explain: _____

Q16.1: Have government support policies in response to the COVID-19 crisis helped your business:

Not lay off workers	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Maintain your income	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Maintain the income of your workers	<input type="checkbox"/> Yes	<input type="checkbox"/> No

Q17.1: Think of all the revenue your business could make in the six months between March and September 2020 if it stays in business. On a scale of 0-100, what is your best guess for the percent of revenue that will be lost to your business in the six months between March and September 2020 because of COVID-19? _____

Contact

Q18.1: State and federal governments are developed new policies to help businesses like yours. Would you like to be contacted by a nonprofit organization with information about federal problems that can help businesses like yours?

- Yes
- No

Q18.2: If yes, to send you more information about federal programs that can help businesses like yours, please enter your contact information:

Email: _____

Phone: _____

Q18.3: What is your preferred method of contact?

- Email
- Phone

Q19.1: Researchers are still learning about how the COVID-19 crisis is affecting small businesses. Would you be willing to answer another survey in the future?

- Yes
- No

Q19.2: To send you a follow-up survey, please enter your email: _____

Information About You

We would like to know a little bit more about you, if you are willing to answer.

Q20.1: What is the highest educational level you have achieved?

- Less than high school
- High school graduate
- Some college
- 2 year college degree
- 4 year college degree
- Professional degree
- Master's Degree
- Doctorate

Q20.2: What is your sex?

- Male
- Female

Q20.3: What is your age group?

- 18-24
- 25-34
- 34-49
- 50+

Information About Your Business

We would like to know a little bit more about your current or former business, if you are willing to answer.

Q21.1: Which sector best describes your current or previous activity?

- Retail
- Manufacturing
- Services
- Agriculture
- Construction
- Other; if other, please explain: _____

Q21.2: What year did you first open your business? _____

Q21.3: Which type of small business do you or did you own?

- Sole proprietor
- Independent contractor
- Partnership
- C-Corp
- S-Corp
- LLC
- Self-employed individual
- Non-profit
- Other; if other, please explain: _____
- I am not sure

For the study, it is helpful to track the businesses that answer the survey. For this purpose, it would be helpful to know a few things about the business. These answers are not required to be a useful participant in the study and will be treated as strictly confidential. These responses will be only used for the purpose of studying how the COVID-19 crisis is affecting small businesses.

Q22.1 Name of business: _____

Q22.2 Business address: _____

Government Responses

Q23.1 Do you think that the government's response to the COVID-19 crisis is appropriate regarding:

Social distancing measures (e.g. non-essential business closures)	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Economic policies to help workers	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Economic policies to help small businesses	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Economic policies to help large businesses	<input type="checkbox"/> Yes	<input type="checkbox"/> No

Q23.2: Are there currently any **mandated** business closures in your area?

- Yes
- No

Q23.3: If yes, when do you think the government should lift **mandated** business closures?

- Within two weeks
- Within a month
- Within two months
- Once the crisis is over

Q23.4: If there are no mandated business closures, were there in the past?

- Yes, but they were lifted too soon
- Yes, but there were lifted at the right time
- No, but there should have been
- No, because it was not needed

Q24.1: Do you think the reaction of your country's government to the current coronavirus outbreak is appropriate, too extreme, or not sufficient?

- The reaction is much too extreme
- The reaction is somewhat too extreme
- The reaction is appropriate
- The reaction is somewhat insufficient
- The reaction is not at all sufficient

Q25.1: Many small businesses in the United States have been affected by the COVID-19 Pandemic. Some types have been affected more than others. Can you share in your own words, what type of business you run, and how have you and your business been affected?

Q25.2: There has been a lot of discussion as to what small businesses need during this crisis. What can the state and federal government do to help your business weather the health and economic crisis over the next 6 months?

Follow-up Survey:

Q1.1: The 2020 Small Business Survey has been explained to me. I know that I may refuse to participate or to stop the interview at any time without repercussions of any kind. I consent to participate:

- Yes
- No

Introduction

Q2.1: What describes best the current state of your business?

- My business is open
- My business is closed but I plan to re-open
- My business is permanently closed

Q2.2: Is your business:

- Open at full-capacity
- Open but at reduced capacity (reduced hours or services)

Q2.3: What best describes the reason for temporary closure?

- Lack of business
- Closed by government order
- Other; if other, please explain: _____

Q2.4: Are you currently:

- I am employed at a new job
- I am unemployed
- Other; if other, please explain: _____

Q2.5: Are you actively looking for work?

- Yes
- No

Q3.1: Are you receiving government assistance? (e.g. unemployment insurance)

- Yes
- No

Q4.1: What type of employment is your new job?

- Full-time

- Part-time
- Other; if other, please explain: _____

Q4.2: Is this new job:

- Formal
- Informal

Size

Q5.1: How many people are currently employed at your business?

Number of Full-time Employees: _____

Number of Part-time Employees: _____

Q5.2: How many of these employees are informal?

Number of Informal Full-time Employees: _____

Number of Informal Part-time Employees: _____

Contract/Informal Workers

Q5.3: How many independent contractors currently work for your business?

Number of Full-time Contractors: _____

Number of Part-time Contractors: _____

Q5.4: How many independent contractors worked for your business in January 2020?

Number of Full-time Contractors: _____

Number of Part-time Contractors: _____

Q5.5: How many informal workers worked for your business in January 2020?

Number of Informal Full-time Employees: _____

Number of Informal Part-time Employees: _____

Layoff Plans

Q6.1: Do you think you will need to lay off any employees in the next 60 days?

- Yes
- No

Q6.2: How many employees do you think you will need to lay off in the next 60 days?

Number of Full-time Employees: _____

Number of Part-time Employees: _____

Relief Program Access Shutdown

Q7.1: Are there any federal, state, or municipal programs that could have helped your business to survive?

- Yes
- No

Q7.2: Please select the option that best applies:

- I was not aware of any programs available to help small businesses
- My business was not eligible for the existing programs
- The available programs were not what I needed
- Other; if other, please explain: _____

Q7.3: If you were familiar with a program, why did you not apply?

- I did not know how to apply
- I applied, but my application was rejected
- I applied, but the aid did not arrive in time
- Other; if other, please explain: _____

Q8.1: Please enter the amount of your total sales in March 2020 (or in your last month of operation): _____

Recovery

Q9.1: Do you think that your business will recover within the next two years?

- Yes
- No

Q9.2: If so, how many months do you think this will take: _____

Q9.3: Do you think that your business will ever recover?

- Yes
- No

Bankruptcy and Closure

Q10.1: On a scale of 0-100, what do you think the probability is that your business will file for bankruptcy OR go out of business in the next 6 months? _____

Q11.1: Please write the name of the bank, credit union, or financial institution you use most for your business: _____

Relief Program Access Open

Q12.1: Are you aware of any federal or state programs that could help your business during this crisis?

- Yes
- No

Q12.2: Are you aware of any federal or state programs that could help your business with the following:

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Programs That Cover Your Employees' Wages	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Business Loans with Subsidized Interest Rates	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Programs That Allow You to Defer Rent, Mortgage, or Loan Payments	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Programs That Cover Your Rent	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Other	<input type="checkbox"/> Yes	<input type="checkbox"/> No

Q12.3: If you know, please specify what other federal or state program could help your business: _____

Q12.4: If you are unaware of programs that could help your business, is it because:

- I am not aware of any programs available to help small businesses
- My business does not qualify for the programs I am aware of
- Other; if other, please explain: _____

Q13.1: Have you taken any steps towards searching or applying for any federal, state, or municipal programs that could help your business?

- Yes
- No

Q13.2: If applicable, what best describes the steps you have taken to apply to programs that could help your small business:

- I have looked into programs but haven't decided to apply
- I have looked into programs and expect to begin the application soon
- I have tried to apply for a program but have not been able to complete an application
- I have completed an application

Other; if other, please explain: _____

Q13.3: If applicable, what best describes your experience with applying:

- Not sure how to provide all the requested information
- Couldn't get ahold of the bank or other institution
- Other; if other, please explain: _____

Q13.4: If applicable, what best describes the outcome of your application?

- I have not heard back
- My application was rejected
- I was notified that funds are no longer available
- My application was accepted and approved
- Other; if other, please explain: _____

Q13.5: If applicable, was your application to any of the following programs:

- The Paycheck Protection Program (PPP)
- The Economy Injury Disaster Loan Program (EIDL)
- Other; if other, please explain: _____

Q14.1: When did you first try to apply to the program (YYYY-MM-DD):
_____ [Note: question added on 4/26/2020]

Q14.2: When did you hear back from your application (YYYY-MM-DD):
_____ [Note: question added on 4/26/2020]

Q14.3: Was your application through your primary bank, credit union, or financial institution?

- Yes
- No

Q14.4: Did you also try to apply through a different bank, credit union, or financial institution other than your primary one?

- Yes
- No

Q14.5: If so, which banks, credit unions, or financial institutions did you try to apply through other than your primary? Please specify each one: _____

Q14.6: Please tell us in your own words about your experience with applying:

Q14.7: What best describes your current situation:

- I expect to apply in the future

- I am still unsure if I will apply or not
- I do not plan on applying in the future

Q14.8: If applicable, why are you not planning to apply in the future?

- I don't need assistance
- The types of programs available are not what my business needs
- I am not eligible
- I don't think I will get support even if I apply
- Other; if other, please explain: _____

Q15.1: Have government support policies in response to the COVID-19 crisis helped your business:

Not lay off workers	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Maintain your income	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Maintain the income of your workers	<input type="checkbox"/> Yes	<input type="checkbox"/> No

Q16.1: On a scale of 0-100, what is your best guess for the percent of revenue that will be lost to your business in the six months between March and September 2020 because of COVID-19? _____

Information About You

We would like to know a little bit more about you, if you are willing to answer.

Q17.1: What is the highest educational level you have achieved?

- Less than high school
- High school graduate
- Some college
- 2 year college degree
- 4 year college degree
- Professional degree

- Master's Degree
- Doctorate

Q17.2: What is your sex?

- Male
- Female

Q17.3: What is your age group?

- 18-24
- 25-34
- 34-49
- 50+

Information About Your Business

We would like to know a little bit more about your business, if you are willing to answer.

Q18.1: Which sector best describes your current or previous activity?

- Retail
- Manufacturing
- Services
- Agriculture
- Construction
- Other; if other, please explain: _____

Q18.2: What year did you first open your business? _____

Q18.3: Which type of small business do you own or did you previously operate?

- Sole proprietor
- Independent contractor
- Partnership
- C-Corp
- S-Corp
- LLC
- Self-employed individual
- Non-profit
- Other; if other, please explain: _____

I am not sure

Q18.4: Does your business have:

Tax registration number	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Municipal and/or state license	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Other	<input type="checkbox"/> Yes	<input type="checkbox"/> No

Q18.5: Is your business informal?

Yes

No

Other; if other, please explain: _____

For the study, it is helpful to track the businesses that answer the survey. For this purpose, it would be helpful to know a few things about the business. These answers are not required to be a useful participant in the study and will be treated as strictly confidential. These responses will be only used for the purpose of studying how the COVID-19 crisis is affecting small businesses.

Q19.1: Name of business: _____

Q19.2: Business address: _____

Q19.3: Business ID number: _____

Government Response Questions

Q20.1: Do you think that the government's response to the COVID-19 crisis is appropriate regarding:

Social distancing measures (e.g. non-essential business closures)	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Economic policies to help workers	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Economic policies to help small businesses	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Economic policies to help large businesses	<input type="checkbox"/> Yes	<input type="checkbox"/> No

Q21.1: Are there currently any mandated business closures in your area?

- Yes
- No

Q21.2: If yes, when do you think the government should lift mandated business closures?

- Within two weeks
- Within a month
- Within two months
- Once the crisis is over

Q21.3: If there are no mandated business closures, were there in the past?

- Yes, but they were lifted too soon
- Yes, but there were lifted at the right time
- No, but there should have been
- No, because it was not needed

Q21.4: Do you think the reaction of your country's government to the current coronavirus outbreak is appropriate, too extreme, or not sufficient?

- The reaction is much too extreme
- The reaction is somewhat too extreme
- The reaction is appropriate
- The reaction is somewhat insufficient
- The reaction is not at all sufficient

Q22.1: Can you share in your own words, how have you and your business been affected since the initial survey date?

Q22.2: In your opinion, which government programs have helped, or are likely to help, your business handle this health and economic crisis over the next 6 months?

C Appendix: Details on survey respondents

This section first provides details on the number of survey respondents over time, the geographic distribution of respondents across the United States, and summary statistics for key variables.

Second, this section compares the distribution of size and state of respondents to the distribution of firms in the 2017 Census of US Businesses. The Census of US Businesses data is restricted to firms with fewer than 500 employees. Figure 5 compares the distribution of respondent by size bin in our sample compared to firms in the 2017 Census of US Businesses. Figure 6 shows the relative distribution of responses compared to firms with fewer than 500 employees in each state. New England, the upper mid-west, and the Northwest are somewhat over-represented in the survey relative to the number of firms with fewer than 500 employees in each state, and California and the south are somewhat under-represented.

Third, this section compares two comparable questions from our survey to the Census Small Business Pulse Survey. The Pulse survey was a weekly survey of small businesses started on April 26th and run for nine week. The target population for the Census Pulse Survey was all nonfarm, single-location employer businesses 499 or less employees and receipts of \$1,000 or more in the 50 states, District of Columbia, and Puerto Rico and were drawn from the Business Register. Using this data, Figure 7 compares the proportion of respondents in our survey and the Pulse Survey who reported receiving a PPP loan by firm size and week. Overall, the trends appear similar, though our survey reports slightly lower rates. This could be due to differential selection into our sample, or that the Pulse survey is drawn from the Business Registry and will miss non-employer establishments, such as the self-employed.

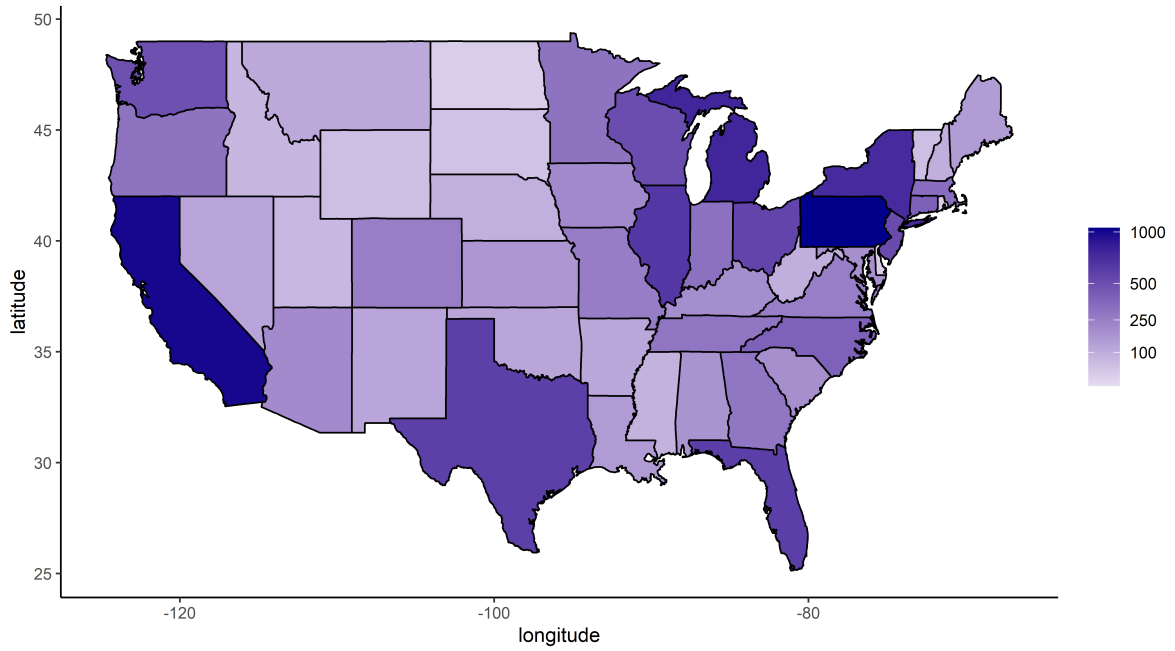
Figure 8 repeats the comparison above, but studying on if the businesses expect to ever recover. The question used from the Census Pulse Survey was either “I do not believe this business will return to its usual level of operations.” or “I do not believe this business will return to its normal level of operations relative to one year ago”, then subtracted from one to align with the question in our surveys. Here, the gaps between the survey are somewhat larger, though all show similar downward trends in May. The gap may indicate that we are reaching a more badly hit portion of the population, but may also come from (1) different constructions of the questions or (2) that the Pulse survey is drawn from the Business Registry and will miss non-employer establishments, such as the self-employed.

Table 3: Valid survey responses by day

Date	N	Date	N
2020-03-28	147	2020-04-22	352
2020-03-29	173	2020-04-23	251
2020-03-30	161	2020-04-24	52
2020-03-31	167	2020-04-25	243
2020-04-01	639	2020-04-26	197
2020-04-02	758	2020-04-27	376
2020-04-03	530	2020-04-28	198
2020-04-04	425	2020-04-29	268
2020-04-05	193	2020-04-30	324
2020-04-06	396	2020-05-01	261
2020-04-07	451	2020-05-02	265
2020-04-08	462	2020-05-03	200
2020-04-09	459	2020-05-04	189
2020-04-10	360	2020-05-05	222
2020-04-11	418	2020-05-06	203
2020-04-12	368	2020-05-07	156
2020-04-13	322	2020-05-08	97
2020-04-14	282	2020-05-09	118
2020-04-15	362	2020-05-10	28
2020-04-16	462	2020-05-11	88
2020-04-17	472	2020-05-12	103
2020-04-18	501	2020-05-13	94
2020-04-19	440	2020-05-14	59
2020-04-20	418	2020-05-15	61
2020-04-21	389	2020-05-16	44

Note: Figure shows number of valid survey responses by day.

Figure 4: Distribution of surveys across the United States



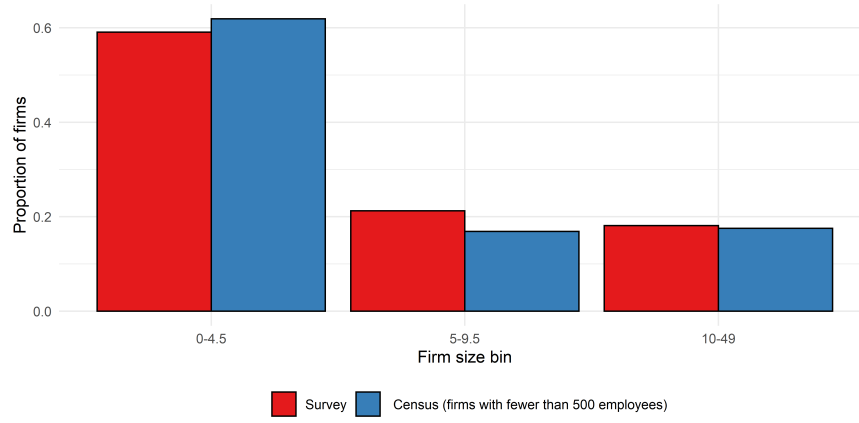
Note: Figure shows number of valid survey responses by state.

Table 4: Survey summary statistics

	Mean	Var	p5	p25	p50	p75	p95	N	missing
Employees in Jan	4.88	41.88	0	1	2.50	5.50	17	14,208	0
Already laid off workers	0.64	0.23	0	0	1	1	1	14,208	0
Expect to lay off workers	0.31	0.21	0	0	0	1	1	14,208	0
Recover in next two years	0.57	0.25	0	0	1	1	1	13,842	366
Ever recover	0.79	0.16	0	1	1	1	1	13,759	449
Prob of closure or bankruptcy	0.34	0.08	0	0.10	0.30	0.50	0.90	13,380	828
Aware of programs to help	0.79	0.17	0	1	1	1	1	12,911	1,297
Aware of subsidized loans	0.66	0.22	0	0	1	1	1	12,570	1,638
Aware of programs to cover wages	0.68	0.22	0	0	1	1	1	12,570	1,638
Diff in recover in next 2 years	0.04	0.21	-1	0	0	0	1	2,607	3,246
Diff in ever recover	0.03	0.13	-1	0	0	0	1	2,596	3,257
Diff in prob of closure or bankruptcy	-0.06	0.04	-0.41	-0.16	-0.02	0.04	0.25	2,587	3,266
Diff in awareness of programs	-0.04	0.16	-1	0	0	0	1	2,622	3,231
Apply for PPP	0.53	0.25	0	0	1	1	1	5,014	839
Got PPP (cond on applying)	0.37	0.23	0	0	0	1	1	2,673	3,180

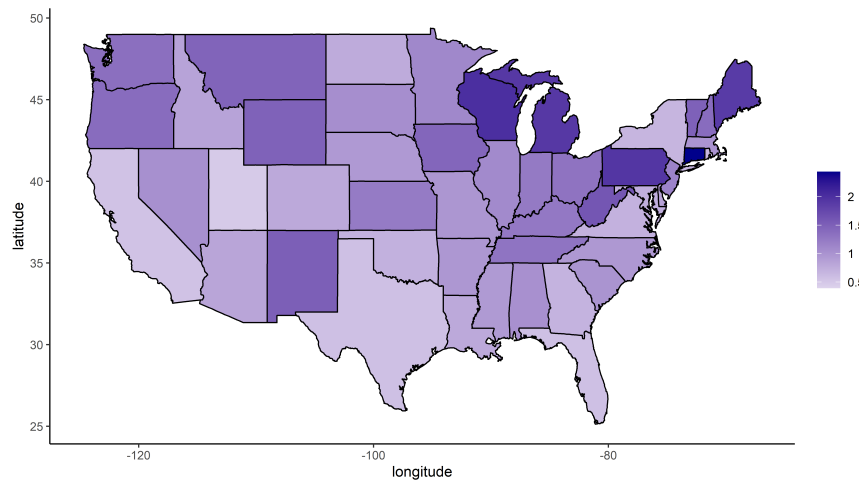
Note: Table shows the summary statistics for data collected between March 28th and April 20th. Two restrictions are imposed on the data. First, we restrict the analysis to small businesses with fewer than 50 FTE employees, and second, we only include respondents who complete at least the first module of questions regarding employment. Not all respondents complete the entire survey. The bottom half of the table shows numbers relying on follow-up surveys or the extended intake survey started on 2020-04-27. The four rows corresponding to differences use only the follow-up survey, while the final two columns on applying for and getting the PPP use both the follow-up survey and the extended baseline survey.

Figure 5: Firm size distribution: survey vs. Census



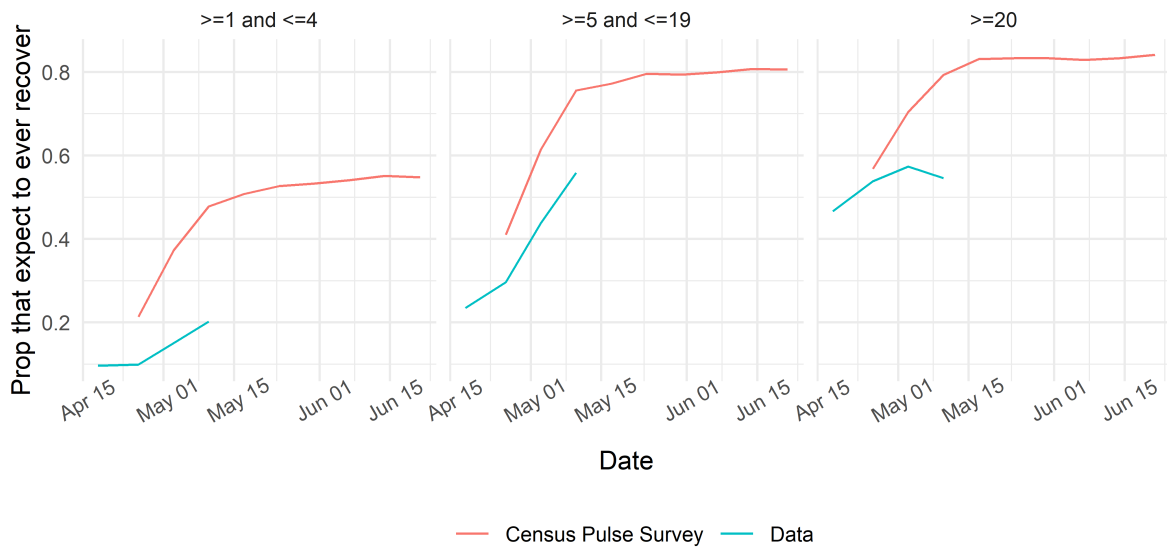
Note: Figure shows the share of firms with fewer than 500 employees in each employment category in the 2017 Census of US Businesses (in blue) and the survey respondents (in red).

Figure 6: Firm state distribution: survey vs. Census



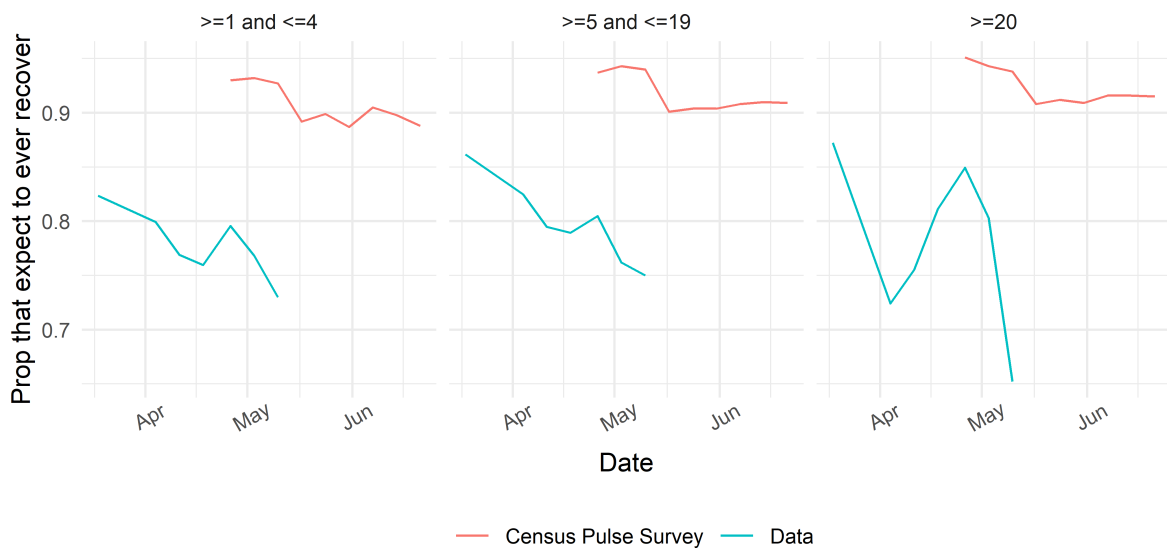
Note: The map shows the the the proportion of survey respondents from each state divided by the proportion of firms with fewer than 500 employees from each state (using data from the 2017 Census of US Businesses). States with values above 1 are over-represented in the survey, while states with values below 1 are under-represented.

Figure 7: Comparing proportion of firms who received PPP loans (data vs. Census Pulse Survey)



Note: Figure shows the weekly proportion of respondents from the survey who expected to ever recover (blue line) compared to weekly statistics from the Census Small Business Pulse Survey (red line). The three bins represent firm-size bins based on number of employees. The target population for the Census Pulse Survey was all nonfarm, single-location employer businesses 499 or less employees and receipts of \$1,000 or more in the 50 states, District of Columbia, and Puerto Rico and were drawn from the Business Register.

Figure 8: Comparing proportion that expect to ever recover (data vs. Census Pulse Survey)



Note: Figure shows the weekly proportion of respondents from the survey who received a PPP loan (blue line) compared to weekly statistics from the Census Small Business Pulse Survey (red line). The three bins represent firm-size bins based on number of employees. The question used from the Census Pulse Survey was either “I do not believe this business will return to its usual level of operations.” or “I do not believe this business will return to its normal level of operations relative to one year ago”, then subtracted from one to align with the question in our surveys. The target population for the Census Pulse Survey was all nonfarm, single-location employer businesses 499 or less employees and receipts of \$1,000 or more in the 50 states, District of Columbia, and Puerto Rico and were drawn from the Business Register.

D Appendix: Robustness of trends over time

This section provides additional results to show that the trends shown in Figure 1 in the main paper are robust to potential changes in the composition of the sample over time. Table 5 provides regressions on days since 2020-03-27, or regressions with weekly dummy variables plus controls for the number of part-time and full-time employees in January, the day of the week the survey was taken, and state dummies. The top panel shows these regressions for if the firm expects to recover in the next two years. The first column regresses the outcome on days since 2020-03-27 while the second column uses week dummies. The third through fifth column repeats the second column, but conditions on the three firm-size bins used in the paper.

Table 6 uses respondents from the initial baseline survey who also completed the follow-up survey to study within-firm changes. Each panel shows the results of a regression of the within-firm change in one of the outcomes on the days elapsed between the follow-up and baseline survey. The first column shows results for all firms, while columns 2 through 4 show results by firm size bins. All regressions control for cubic polynomials for full-time employment and part-time employment in January, the day of the week the baseline was take, state dummies, years of education, sex, age group dummies, firm type, firm sector, and dummies for the week the baseline survey was taken.

Figure 9 shows the size distribution of sample respondents by day. The top panel shows the proportion of respondents in each of the three size bins used in the paper. The bottom panel shows the average within those bins over time.

Table 5: Trends in outcomes and expectations over time

	Recover in next 2 years			
	All	0-4.5 FTE	5-9.5 FTE	10-50 FTE
Days since 2020-03-27	-0.003*** (0.0004)			
Week of 2020-04-01	-0.049** (0.023)	-0.045* (0.027)	-0.078 (0.057)	-0.047 (0.073)
Week of 2020-04-08	-0.099*** (0.024)	-0.084*** (0.028)	-0.189*** (0.058)	-0.090 (0.075)
Week of 2020-04-15	-0.146*** (0.023)	-0.130*** (0.027)	-0.234*** (0.057)	-0.141* (0.073)
Week of 2020-04-22	-0.136*** (0.025)	-0.122*** (0.029)	-0.226*** (0.061)	-0.111 (0.077)
Week of 2020-04-29	-0.112*** (0.025)	-0.110*** (0.029)	-0.181*** (0.060)	-0.067 (0.076)
Week of 2020-05-06	-0.155*** (0.028)	-0.140*** (0.033)	-0.238*** (0.071)	-0.168** (0.085)
Week of 2020-05-13	-0.223*** (0.038)	-0.180*** (0.046)	-0.383*** (0.086)	-0.230** (0.109)
<i>N</i>	13,741	13,741	9,486	2,507
	Ever Recover			
	All	0-4.5 FTE	5-9.5 FTE	10-50 FTE
Days since 2020-03-27	-0.002*** (0.0003)			
Week of 2020-04-01	-0.050*** (0.017)	-0.040* (0.021)	-0.079** (0.038)	-0.081 (0.050)
Week of 2020-04-08	-0.075*** (0.018)	-0.070*** (0.022)	-0.116*** (0.040)	-0.071 (0.051)
Week of 2020-04-15	-0.099*** (0.018)	-0.087*** (0.022)	-0.155*** (0.039)	-0.118** (0.050)
Week of 2020-04-22	-0.081*** (0.019)	-0.079*** (0.023)	-0.109*** (0.042)	-0.078 (0.053)
Week of 2020-04-29	-0.079*** (0.019)	-0.071*** (0.023)	-0.145*** (0.042)	-0.057 (0.053)
Week of 2020-05-06	-0.118*** (0.023)	-0.103*** (0.027)	-0.140*** (0.052)	-0.186*** (0.066)
Week of 2020-05-13	-0.133*** (0.032)	-0.129*** (0.040)	-0.163** (0.067)	-0.142 (0.090)
<i>N</i>	13,673	13,673	9,436	2,495
	Any layoffs			
	All	0-4.5 FTE	5-9.5 FTE	10-50 FTE
Days since 2020-03-27	-0.0004 (0.0003)			
Week of 2020-04-01	0.076*** (0.022)	0.081*** (0.026)	0.084 (0.053)	0.127** (0.062)
Week of 2020-04-08	0.099*** (0.023)	0.108*** (0.026)	0.085 (0.053)	0.144** (0.064)
Week of 2020-04-15	0.092*** (0.022)	0.098*** (0.026)	0.093* (0.052)	0.111* (0.063)
Week of 2020-04-22	0.061*** (0.024)	0.058** (0.028)	0.053 (0.055)	0.131** (0.065)
Week of 2020-04-29	0.046* (0.024)	0.053* (0.028)	0.051 (0.055)	0.089 (0.066)
Week of 2020-05-06	0.076*** (0.027)	0.087*** (0.031)	0.063 (0.063)	0.081 (0.072)
Week of 2020-05-13	0.037 (0.035)	-0.004 (0.043)	0.096 (0.075)	0.181** (0.079)
<i>N</i>	14,103	14,103	9,743	2,574

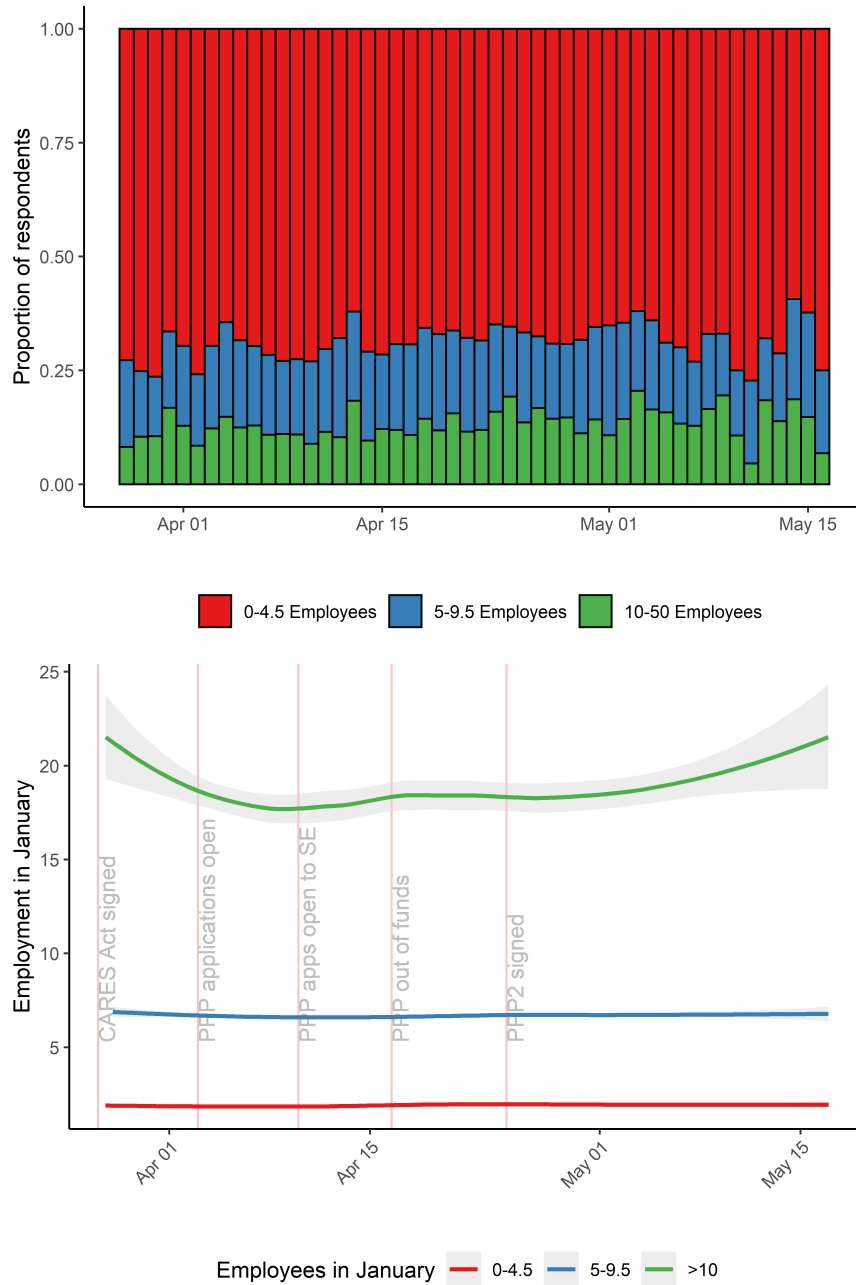
Note: *** Significant at the 1 percent level, ** significant at the 5 percent level, and * significant at the 10 percent level. Column one shows the outcome regressed on days since 2020-03-28 while column two shows the outcome regressed on week dummies. The third and fourth columns repeat these results, but additionally control for number of part-time employees in January, number of full-time employees in January, the day of the week the survey was taken, and the state indicators.

Table 6: Within-firm changes

Change in recover in next two years:				
	All	0-4.5	5-9.5	10-50
Elapsed days	-0.004** (0.002)	-0.004** (0.002)	-0.002 (0.004)	-0.006 (0.006)
<i>N</i>	2,605	1,804	478	323
Change in ever recover:				
	All	0-4.5	5-9.5	10-50
Elapsed days	-0.003** (0.001)	-0.003* (0.002)	-0.003 (0.003)	-0.005 (0.005)
<i>N</i>	2,594	1,795	476	323
Change in past layoffs				
	All	0-4.5	5-9.5	10-50
Elapsed days	0.006*** (0.002)	0.005** (0.002)	0.018*** (0.006)	0.005 (0.007)
<i>N</i>	2,672	1,847	491	334
Change in awareness of programs				
	All	0-4.5	5-9.5	10-50
Elapsed days	-0.002 (0.001)	-0.002 (0.002)	-0.001 (0.003)	-0.003 (0.004)
<i>N</i>	2,620	1,815	480	325

Note: *** Significant at the 1 percent level, ** significant at the 5 percent level, and * significant at the 10 percent level. Table shows the change in outcomes for firms who completed follow-up surveys. The first four columns show results for those who completed their follow-up before 2020-04-27, while the second four columns show results for all follow-ups. For each set of four columns, the table shows results for all firms, and then by firm size bin. All regressions control for cubic polynomials for full-time employment and part-time employment in January, the day of the week the baseline was taken, state dummies, years of education, sex, age group dummies, firm type, firm sector, and dummies for the week the baseline survey was taken.

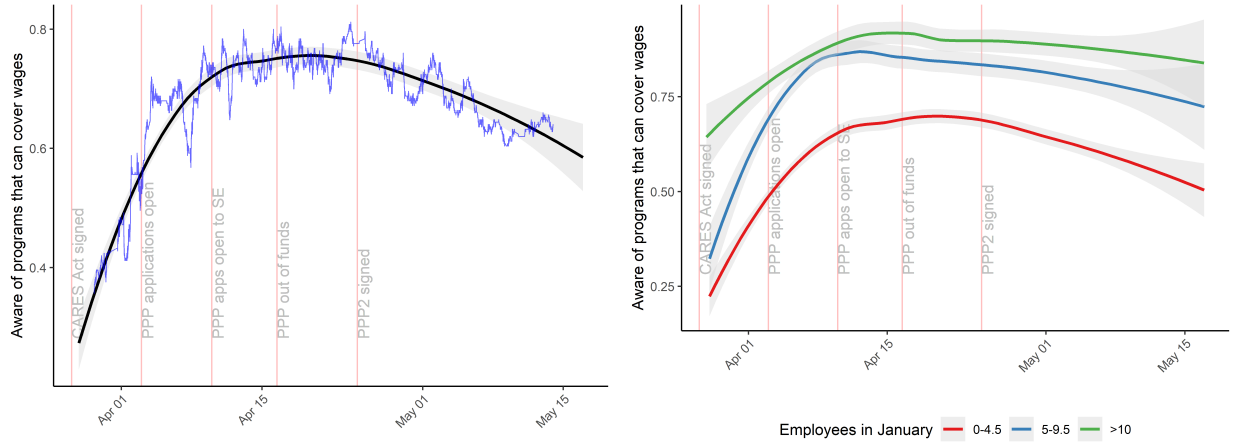
Figure 9: Firm size across days of the survey



Note: The top panel shows the proportion of daily respondents in three size bins based on their FTE employment in January (0-4.5 employees, 5-9.5 employees, 10-50 employees). The bottom panel shows a loess regression by size bin size with 95% confidence intervals shown in grey.

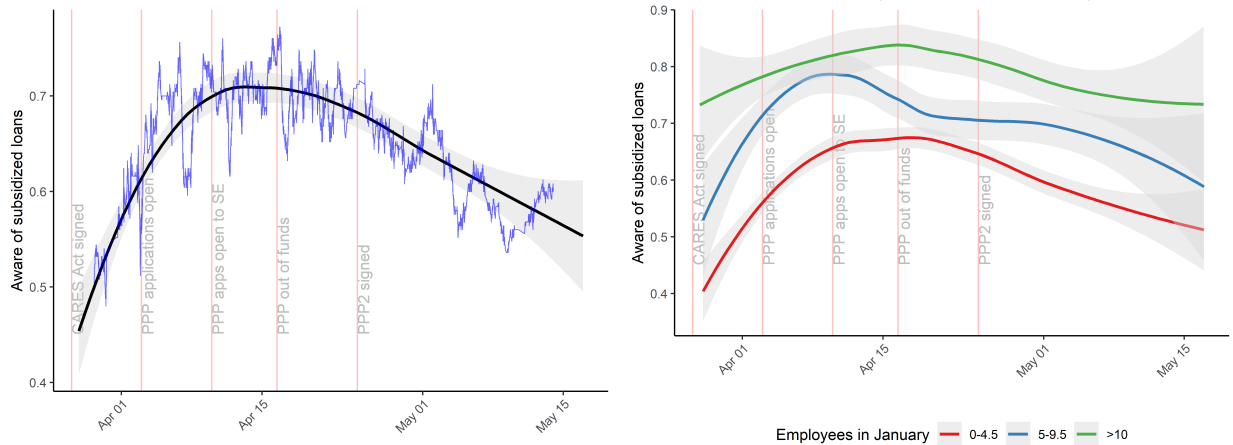
D.1 Trends in awareness of programs over time

Figure 10: Awareness of government programs over time (programs that help cover payroll)



Note: In the left panel, the black line is fit using locally weighted smoothing regression, with the grey region showing the 95% confidence interval. The blue line shows a centered moving average over 250 responses. The right panel shows loess regression lines over time by business size bin.

Figure 11: Awareness of government programs over time (subsidized loans)



Note: In the left panel, the black line is fit using locally weighted smoothing regression, with the grey region showing the 95% confidence interval. The blue line shows a centered moving average over 250 responses. The right panel shows loess regression lines over time by business size bin.

E Appendix: Additional results related to the Paycheck Protection Program

This section provides additional results to supplement the analysis of who applies for a PPP loan and the benefits associated with receiving a loan from the main paper. Tables 7, 8 and 9 supplement Table 1 from the paper. The first repeats the analysis in the main paper with additional controls for the number of cases and deaths in the state at the time of the study, as well as zip-code level demographic characteristics, and measures of distance to SBA approved lenders. The second restricts the sample to those who completed the baseline and follow-up survey and controls for baseline beliefs. The fourth repeats the analysis, but with four size-bins for firms, separating firms with no employees in January from the 0 to 4.5 group.

Tables 10 and 11 provides robustness for Table 2 from the paper. Table 10 extends Table 2 by adding a number of location-based controls, including the number of cases and deaths in the state at the time of the study, as well as zip-code level demographic characteristics, and measures of distance to SBA approved lenders. Table 11 restricts the analysis to the sub-sample who completed the original baseline survey and then completed the follow-up survey and adds additional controls for the baseline responses for the probability of bankruptcy or closure in the next six months, if they expected to recover in the next two years, and if they ever expected to recover.

Table 7: PPP timing by firm characteristics (additional controls)

	Got PPP	Applied to PPP	Got PPP (cond.)	Days to apply	Days to approval
Jan. FTE Emp 0-4.5	-0.264*** (0.020)	-0.220*** (0.020)	-0.270*** (0.025)	1.623*** (0.563)	1.907* (1.050)
Jan. FTE Emp 5-9.5	-0.112*** (0.024)	-0.005 (0.022)	-0.143*** (0.027)	-0.038 (0.589)	0.721 (1.085)
Years of schooling	0.008*** (0.003)	0.014*** (0.003)	0.009** (0.004)	-0.014 (0.112)	0.239 (0.207)
Type: LLC	-0.080*** (0.018)	-0.081*** (0.020)	-0.066*** (0.024)	0.917 (0.604)	2.724** (1.143)
Type: Other	-0.012 (0.055)	-0.138** (0.059)	0.077 (0.077)	3.445* (1.943)	-3.782 (2.883)
Type: Self-employed	-0.187*** (0.022)	-0.268*** (0.038)	-0.224*** (0.049)	1.721 (1.608)	5.224* (2.860)
Type: Sole prop or part	-0.156*** (0.016)	-0.218*** (0.020)	-0.174*** (0.025)	0.954 (0.661)	2.494* (1.281)
Cases per capita	-0.0002 (0.0002)	0.0001 (0.0003)	-0.0005 (0.0004)	0.001 (0.014)	0.039* (0.022)
Deaths per capita	0.003 (0.002)	-0.002 (0.003)	0.008** (0.004)	0.088 (0.133)	-0.194 (0.216)
Median HH income	-0.0002 (0.0004)	0.001 (0.0004)	-0.001 (0.001)	-0.017 (0.015)	-0.001 (0.025)
Suburban	-0.020 (0.016)	0.019 (0.020)	-0.051** (0.025)	-0.543 (0.623)	1.312 (1.189)
Urban	-0.007 (0.020)	0.065*** (0.025)	-0.077** (0.032)	0.092 (0.851)	-0.295 (1.553)
Min distance to SBA lender	0.00002 (0.001)	-0.002 (0.001)	-0.0003 (0.003)	0.033 (0.062)	-0.151 (0.141)
Num of approved lenders within 10km	-0.0001 (0.0001)	0.0001 (0.0001)	-0.0001 (0.0001)	0.001 (0.002)	0.003 (0.004)
Prop. Black	0.107* (0.062)	-0.001 (0.079)	0.239** (0.100)	-1.054 (2.611)	1.970 (4.615)
Prop. Asian	0.115 (0.112)	0.154 (0.145)	0.176 (0.165)	-0.714 (4.724)	10.437 (7.188)
Prop. Hispanic	-0.081 (0.051)	-0.128* (0.067)	-0.096 (0.090)	0.433 (2.316)	0.549 (3.742)
Prop. HS graduates	-0.232 (0.177)	-0.303 (0.235)	-0.135 (0.306)	6.057 (8.686)	-28.126* (15.356)
Prop. 4-year coll grads	0.177** (0.078)	0.184* (0.100)	0.132 (0.135)	-3.776 (3.620)	9.353 (6.260)
Prop. Unemployed	-0.489* (0.252)	-0.352 (0.341)	-0.938* (0.492)	-11.122 (13.138)	-16.868 (24.381)
<i>N</i>	4,927	4,927	2,619	1,321	517
<i>R</i> ²	0.169	0.144	0.221	0.112	0.442

Note: *** Significant at the 1 percent level, ** significant at the 5 percent level, and * significant at the 10 percent level. The first four specifications control for the date the survey was taken. The final regression controls for the day the first PPP loan application was submitted and the week the survey was taken. All regressions also include controls for industry, age groups, and gender, but coefficients were largely not statistically significant nor large and are not displayed as they largely did not predict the outcomes. All regressions additionally control for state of residence. The omitted category for firm type is C-Corps and S-Corps. The omitted category for firm-size bins is firms with 10 to 50 FTE employees. Columns 4 and 5 have fewer observations as many respondents did not provide the dates of their application and approval. Cases and deaths are per 100 thousand in the state by the day of the survey. “Min dist to SBA lender” is the minimum distance from the ZIP code centroid to the closest SBA lender listed on sba.gov in kilometers. Similarly, “Num of approved lenders within 10km” is the number of approved SBA lenders listed on sba.gov within 10 kilometers of the zip code centroid. All other new outcomes are constructed from the 5-year 2018 ACS and are ZIP code level (ZCTA) outcomes. Median household income is in tens of thousands of dollars.

Table 8: PPP timing by firm characteristics (controlling for baseline expectations)

	<i>Got PPP</i>	<i>Applied to PPP</i>	<i>Got PPP (cond.)</i>
Jan. FTE Emp 0-4.5	-0.246*** (0.028)	-0.233*** (0.028)	-0.225*** (0.035)
Jan. FTE Emp 5-9.5	-0.165*** (0.032)	-0.041 (0.031)	-0.180*** (0.039)
Years of schooling	0.009*** (0.003)	0.016*** (0.004)	0.011** (0.005)
Type: LLC	-0.069*** (0.023)	-0.062** (0.025)	-0.064** (0.031)
Type: Other	0.051 (0.085)	-0.163* (0.086)	0.246** (0.114)
Type: Self-employed	-0.192*** (0.029)	-0.313*** (0.056)	-0.215*** (0.075)
Type: Sole prop or part	-0.170*** (0.021)	-0.227*** (0.027)	-0.194*** (0.031)
Baseline prob. of bankruptcy or closure	-0.055* (0.030)	0.032 (0.041)	-0.145*** (0.053)
Baseline recover next two years	0.032* (0.017)	-0.032 (0.024)	0.056** (0.028)
Baseline ever recover	-0.001 (0.022)	0.068** (0.031)	-0.036 (0.038)
<i>N</i>	2,593	2,593	1,374
<i>R</i> ²	0.194	0.176	0.263

Note: *** Significant at the 1 percent level, ** significant at the 5 percent level, and * significant at the 10 percent level. Sample is restricted to those taking both the baseline and follow-up surveys. All specifications control for the date the survey was taken, firm industry, age groups, gender, and state of residence. The omitted category for firm type is C-Corps and S-Corps. The omitted category for firm-size bins is firms with 10 to 50 FTE employees. Columns 4 and 5 have fewer observations as many respondents did not provide the dates of their application and approval. Alternative specifications of these results are included in Appendix E. These include a table replicating these results controlling for additional state and ZIP code level characteristics, results controlling for baseline beliefs of the firms, and results separating firms with zero employees into their own group.

Table 9: PPP outcomes by firm characteristics (4 firm size bins)

	Got PPP	Applied to PPP	Got PPP (cond.)	Days to apply	Days to approval
Jan. FTE Emp 0	-0.320*** (0.024)	-0.387*** (0.035)	-0.331*** (0.057)	4.824** (2.137)	-3.052 (2.984)
Jan. FTE Emp 0.5-4.5	-0.263*** (0.020)	-0.220*** (0.020)	-0.264*** (0.025)	1.735*** (0.556)	1.913* (1.025)
Jan. FTE Emp 5-9.5	-0.117*** (0.024)	-0.012 (0.022)	-0.141*** (0.027)	0.164 (0.572)	0.608 (1.075)
Years of schooling	0.009*** (0.003)	0.017*** (0.003)	0.009** (0.004)	-0.065 (0.108)	0.228 (0.201)
Type: LLC	-0.078*** (0.018)	-0.079*** (0.020)	-0.063*** (0.024)	0.945 (0.600)	2.682** (1.119)
Type: Other	-0.009 (0.055)	-0.138** (0.058)	0.091 (0.078)	3.338* (1.854)	-3.334 (2.686)
Type: Self-employed	-0.190*** (0.022)	-0.280*** (0.038)	-0.210*** (0.050)	1.577 (1.677)	4.629 (2.843)
Type: Sole prop or part	-0.157*** (0.016)	-0.221*** (0.020)	-0.167*** (0.024)	1.122* (0.645)	2.878** (1.234)
<i>N</i>	4,996	4,996	2,662	1,338	525
<i>R</i> ²	0.166	0.135	0.212	0.117	0.409

Note: *** Significant at the 1 percent level, ** significant at the 5 percent level, and * significant at the 10 percent level. The first four specifications control for the date the survey was taken. The final regression controls for the day the first PPP loan application was submitted and the week the survey was taken. All regressions also include controls for industry, age groups, and gender, but coefficients were largely not statistically significant nor large and are not displayed as they largely did not predict the outcomes. All regressions additionally control for state of residence. The omitted category for firm type is C-Corps and S-Corps. The omitted category for firm-size bins is firms with 10 to 50 FTE employees. Columns 4 and 5 have fewer observations as many respondents did not provide the dates of their application and approval.

Table 10: PPP loans and business outcomes (additional controls)

Recover in next 2 years								
	All	0–4.5 FTE		5–9.5 FTE		10-50 FTE		
PPP	0.083*** (0.019)		0.120*** (0.027)		0.080** (0.041)		–0.012 (0.045)	
PPP (cond)		0.122*** (0.022)		0.143*** (0.032)		0.156*** (0.049)	–0.016 (0.059)	
<i>N</i>	4,883	2,619	3,308	1,463	904	652	671	504
Prob of closure or bankruptcy								
	All	0–4.5 FTE		5–9.5 FTE		10-50 FTE		
PPP	–0.082*** (0.009)		–0.083*** (0.014)		–0.087*** (0.020)		–0.079*** (0.021)	
PPP (cond)		–0.107*** (0.011)		–0.103*** (0.016)		–0.115*** (0.024)	–0.103*** (0.027)	
<i>N</i>	4,883	2,619	3,308	1,463	904	652	671	504
Current employment								
	All	0–4.5 FTE		5–9.5 FTE		10-50 FTE		
PPP	0.548*** (0.170)		0.226*** (0.070)		0.783*** (0.224)		0.883 (0.726)	
PPP (cond)		0.528*** (0.185)		0.244*** (0.077)		0.877*** (0.261)	0.884 (0.904)	
<i>N</i>	4,883	2,619	3,308	1,463	904	652	671	504
Past layoffs								
	All	0–4.5 FTE		5–9.5 FTE		10-50 FTE		
PPP	–0.083*** (0.018)		–0.113*** (0.027)		–0.053 (0.039)		–0.073* (0.038)	
PPP (cond)		–0.110*** (0.021)		–0.132*** (0.030)		–0.089** (0.045)	–0.059 (0.048)	
<i>N</i>	4,883	2,619	3,308	1,463	904	652	671	504

Note: *** Significant at the 1 percent level, ** significant at the 5 percent level, and * significant at the 10 percent level. “PPP” is an indicator for if the business received a PPP loan while “PPP (cond)” is the same regression, but restricted to those who applied to the PPP program. The first two columns show results for the full sample, while the remaining columns show results conditional on firm size bins. All regressions control for a third order polynomial in the number of full-time employees in January, a third order polynomial in the number of part-time employees in January, the day of the week the survey was completed, state dummies, years of education dummies, gender, age group dummies, firm type, firm sector, and the date the survey was completed. Compared to Table 2, this table additionally controls for total cases and deaths per capita in the state as of the day of the survey, median household income for the ZIP code, indicators for urban/rural/suburban for the ZIP code, minimum distance to SBA approved lender from ZIP centroid, number of SBA approved lenders within 10 kilometers of the ZIP centroid, proportions of the population in the zip code that is Hispanic, Asian, and Black; the proportion of residents with a high school degree or more, the proportion of residents with a 4-year degree or more, and the unemployment rate in the zip code.

Table 11: PPP loans and business outcomes (controlling for baseline expectations)

Recover in next 2 years								
	All		0–4.5 FTE		5–9.5 FTE		10-50 FTE	
PPP	0.010		0.054*		–0.001		–0.080	
	(0.023)		(0.030)		(0.053)		(0.057)	
PPP (cond)		0.031		0.086**		0.076		–0.167**
		(0.026)		(0.036)		(0.064)		(0.072)
<i>N</i>	2,547	1,374	1,763	790	468	338	316	246
Prob of closure or bankruptcy								
	All		0–4.5 FTE		5–9.5 FTE		10-50 FTE	
PPP	–0.033***		–0.034***		–0.058**		–0.022	
	(0.010)		(0.013)		(0.023)		(0.025)	
PPP (cond)		–0.049***		–0.045***		–0.077***		–0.016
		(0.011)		(0.015)		(0.029)		(0.032)
<i>N</i>	2,547	1,374	1,763	790	468	338	316	246
Current employment								
	All		0–4.5 FTE		5–9.5 FTE		10-50 FTE	
PPP	0.460**		0.082		0.137		1.434	
	(0.225)		(0.085)		(0.314)		(1.172)	
PPP (cond)		0.209		–0.006		0.034		–0.234
		(0.258)		(0.094)		(0.385)		(1.526)
<i>N</i>	2,547	1,374	1,763	790	468	338	316	246
Past layoffs								
	All		0–4.5 FTE		5–9.5 FTE		10-50 FTE	
PPP	–0.014		–0.047		0.062		–0.012	
	(0.027)		(0.036)		(0.065)		(0.069)	
PPP (cond)		–0.025		–0.034		0.035		–0.002
		(0.031)		(0.041)		(0.079)		(0.089)
<i>N</i>	2,547	1,374	1,763	790	468	338	316	246

Note: *** Significant at the 1 percent level, ** significant at the 5 percent level, and * significant at the 10 percent level. Sample is restricted to those who completed both the baseline and follow up survey. “PPP” is an indicator for if the business received a PPP loan while “PPP (cond)” is the same regression, but restricted to those who applied to the PPP program. Compared to Table 2, these results additionally control for the baseline probability of bankruptcy or closure, the baseline belief on if the firm would recover in the next two years, and the baseline belief on if the firm would ever recover. The first two columns show results for the full sample, while the remaining columns show results conditional on firm size bins. All regressions control for a third order polynomial in the number of full-time employees in January, a third order polynomial in the number of part-time employees in January, the day of the week the survey was completed, state dummies, years of education dummies, gender, age group dummies, firm type, firm sector, and the date the survey was completed.