Fordham Society for Small Businesses presents

The COVID PPP Loans
Supporting Small Business,
Avoiding Fraud

April 6, 2022 | 4:10 - 5:10 p.m.
Fordham Law School
via Zoom Webinar

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Speaker Biographies

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Social media was full of gossip about how easy it was to get a $10,000 grant, evidence of widespread fraud. *Animation: Bloomberg, Source: Twitter*

**Business**

An Avalanche of Fraud Buried a Small-Business Relief Program

Scams went viral as SBA gave out $10,000 grants to almost anyone who asked.

By Michelle F Davis, Zachary Mider, and Polly Mosendz
October 29, 2020, 4:00 AM EDT

For a few months this year, a U.S. government aid program meant for struggling small-business owners was handing out $10,000 to just about anyone who asked. All it took was a five-minute online application. You just had to say you owned a business with at least 10 employees, and the grant usually arrived within a few days.

People caught on fast. In some neighborhoods in Chicago and Miami, it seemed like everyone made a bogus application to the Small Business Administration's Covid-19 Economic Injury Disaster Loan program. Professional thieves from Russia to Nigeria cashed in. Low-level employees at the agency watched helplessly as misspent money flew out the door.

Even after the $20 billion in funding for grants dried up in July, the fraud continued, as scammers looted a separate $192 billion pot of money set aside for loans. “I've never seen anything like it,” said an SBA customer-service representative who spoke on the condition of anonymity to protect her job. “I don't think they had any processes in place. They just sent the money out.”

This account of the disaster-aid program is based on interviews with frontline SBA workers and outside fraud investigators, and on a review of thousands of social-media postings. The unprecedented scale and urgency of the pandemic response made some missteps inevitable, and lawmakers explicitly ordered the agency to prioritize speed over thrift. But decisions by agency leaders contributed to the chaos.

The SBA's much-vaunted new computer system, built by an outside contractor for $750 million, proved blind to certain types of fraud and sometimes awarded grants even when it spotted disqualifying features. The agency pressured loan officers with little training to churn through applications quickly, while making it difficult for them to detect or report suspicious ones. When officials eventually tightened fraud controls, the result was often delays and rejections for legitimate applicants.
The amount stolen from the program, if it’s ever tallied, will almost certainly be measured in the billions of dollars. But that’s only part of the cost. Many legitimate applicants were denied grants because scammers got the money first. And identity thieves pocketing loan proceeds left an unknown number of Americans saddled with bogus debts.

“It’s too bad that it got this far,” said Richard Maier, an investigator at a credit union in Florida who documented dozens of cases of disaster-aid fraud involving his customers. “Some of these innocent people are being taken advantage of because someone didn’t do the due diligence on the front side.”

The SBA said in a statement that it “proactively initiated stringent fraud-prevention safeguards that have so far prevented the processing of thousands of invalid applications, balancing the agency’s fiduciary responsibilities against the urgent need to provide the small-business sector” with aid. “These rigorous and comprehensive controls included an end-to-end infrastructure of internal controls comprised of automated tools, scores of system rules to validate borrower identity and business eligibility, and an application review process consisting of multiple checks.” The agency added that it has been referring suspected fraud to its inspector general. It declined to answer detailed questions for this story.

A report released Wednesday by the agency’s inspector general, Hannibal “Mike” Ware, identified tens of billions of dollars in potentially fraudulent transactions, including multiple loans sent to applicants using the same bank account or address. But as the agency pointed out in a rebuttal, many of the loans flagged by Ware were legitimate, and Ware didn’t even hazard a guess as to how much fraud actually took place. He disclosed that $450 million in doubtful payments have already been seized by law enforcement.

As the economic threat of the pandemic became clear in March, Congress hatched a two-pronged bailout for small businesses. The biggest was the Paycheck Protection Program, which grew to $525 billion and used thousands of banks to issue forgivable, SBA-backed loans to cover payroll. The other, the disaster-aid program, is run directly by the SBA and is still approving loans of as much as $150,000. More than 3.6 million loans have been issued in addition to 5.8 million grants that don’t have to be repaid.
To get money out quickly, Congress instructed the agency to relax its normal fraud safeguards, declaring that applicants should be considered eligible if they swore they were.

Designed for regional calamities such as hurricanes and earthquakes, the SBA's disaster-aid program was unprepared for a nationwide pandemic that disrupted millions of small businesses simultaneously. So in March, it asked one of its contractors, Herndon, Virginia-based consulting firm RER Solutions Inc., to build a computer system from scratch. RER, in turn, subcontracted much of the work to Rocket Loans, an arm of billionaire Dan Gilbert's Detroit-based mortgage-lending empire.

The system developed by RER and Rocket was known as “Rapid Decision,” and it lived up to its name. It would take in loan applications submitted to the SBA website and check them against a list of indicators of fraud or ineligibility. Among other things, it was supposed to flag applicants who had already received a loan or submitted a dead person's Social Security number. By late April, Rapid Decision was churning through more than 100,000 applications a day, a rate of more than one per second.

Each application was screened for both a grant and a loan. Grants were meant to provide borrowers with quick cash while they waited for a loan decision. Most went out quickly, with no human intervention, based on Rapid Decision's recommendation. A human sign-off was required for loans, but even then the computer played a crucial role. The results of the program's automated checks would be placed in each loan file. Loan officers were given only a few minutes to process a request.

In a letter defending the program in July, SBA Administrator Jovita Carranza boasted of the “sophisticated technology” behind Rapid Decision, supporting “robust” internal controls. “This is the path forward,” one of her deputies, James Rivera, told Congress that month. “It has increased the productivity. It's helped us provide quicker, faster service.”

Nicholas Croce, a graduate student in Syracuse, New York, was one of thousands of remote workers hired by the SBA to tackle the surge in loan applications. Photographer: Misha Friedman/Bloomberg

Rapid Decision looked very different to loan officers on the front lines.

The computer system was designed to run fraud checks on the person submitting the application, the bank account designated to receive the money, even the Internet address used to submit it. But it had no reliable way of checking to see if a small business
actually existed.

No matter how implausible an applicant’s business profile, as long as the computerized checks were cleared, a grant would be issued. By the time a human loan officer reviewed the file, it was too late.

Loan officers grew accustomed to seeing ridiculous applications easily score grants. There were purported farmers using an address in the middle of a city and multiple small businesses supposedly located in the same single-family home, each claiming to have 10 employees, the minimum to qualify for the full $10,000. One phony business profile showed up again and again: a sole proprietorship with exactly 10 employees and a mere $24,000 in annual revenue.

In July, while top SBA officials were boasting of Rapid Decision's prowess, one loan officer said he was spotting dozens of grants each day that had clearly gone to scammers or ineligible applicants. The officer spoke on the condition of anonymity because he still works at the agency. At the end of each shift, he'd assemble a list of suspect grants and email it to someone in the SBA's legal department. The list typically had more than 100 grants. He never learned if anyone followed up.

Nicholas Croce, a graduate student in Syracuse, New York, worked remotely as a SBA loan officer for about six weeks this summer, one of more than 5,000 workers hired by the agency to tackle the surge in work. He, too, described the frustration of seeing fraudulent applications that already scored grants.

One day in July, Croce said, he spotted a $10,000 grant about to be paid out on an obviously fraudulent application. There was still time to cancel the payment, but when he reached out to a higher-up, he said, the manager refused to stop it and ordered him to focus only on his assigned work.

“You’ll learn soon how things are done around here,” Croce said the manager told him. “People coming to this job, they need to learn what our culture is.” As far as Croce knows, the scammer made off with the cash, just like the others.

To Croce, the episode was emblematic of agency dysfunction. He said he quit a few weeks later. "I was like, I can't be a part of this," Croce said. “I felt dirty about it.”

It’s unclear why the designers of Rapid Decision didn’t give it a way of identifying phony businesses. The Internal Revenue Service assigns a unique ID to every U.S. business that pays employees, but the SBA didn’t require that all businesses claiming to have employees submit ID numbers.

Croce and the loan officer who requested anonymity said they noticed some grants getting approved even after the system flagged obvious disqualifiers, such as an invalid Social Security number or a checked box saying an applicant wasn’t a U.S. citizen. “Everything was getting approved,” the loan officer said. “Every single category was getting the money that SBA prohibited.”

In separate statements, RER and Rocket both noted that they acted at the direction of the agency and that their work was crucial to the delivery of millions of loans and grants. “The SBA weighed numerous options for fraud detection” against time and legal constraints, Rocket said. “Rocket Loans then implemented technology with the fraud detection logic as directed by the SBA.”

For Maier, the fraud investigator at MidFlorida Credit Union in Lakeland, Florida, the alarm rang on July 22. That was when a customer showed up at a drive-thru window, trying to withdraw $10,000 in cash. The man had just received a $32,000 disaster loan in a new account, and his explanation of his purported business made no sense. “It was just a crazy, all-over-the-place story,” Maier said.

Maier started monitoring SBA payments to customers and found suspicious transactions everywhere. Customers with no apparent connection to a small business were getting loans in personal accounts. An 18-year-old who got $49,000 couldn’t produce evidence she owned a hairdressing business. Others freely admitted they didn’t have a business and claimed they hadn’t realized they’d committed a crime. Still others seemed to be receiving the funds on behalf of professional thieves. Overall, Maier determined that about 60% of the deposits that came to his attention were fraudulent. He sent them back to the SBA.

“We had one guy tell us, ‘I’m just here to get my money like everybody else,’” Maier said.

Similar alarms rang at banks across the country. At JPMorgan Chase & Co. and Wells Fargo & Co., two of the country's largest, customer abuse of the program was so rampant that internal probes caught dozens of the banks’ own employees illegally cashing in. One credit union told the inspector general that it examined 60 deposits and concluded that 59 involved fraud. Overall, bank reports of suspicious business-loan activity jumped more than tenfold.
As word got out about the program’s vulnerabilities, the SBA began warning staff to look out for applications from certain places where fraud was the worst: Chicago, Miami, parts of Georgia.

Christian Cutrone, a Chicago record-label entrepreneur, knows so many people who stole SBA money in his neighborhood that he warned his Instagram followers in June about potential jail time. “It just kind of went viral here,” he said in an interview. “One house I know, there’s four people that live there, two on one floor, two on the other—everyone in the building did it.”

“Everybody got that free $10k,” a Chicago woman posted on Twitter in late June. “I wanna do that 10k stuff but I’m scared,” another woman tweeted a few days earlier. “What’s gone happen if I get caught?”

A YouTube talk show based in Houston titled a July episode “$10k SBA Loans & GRANTS Got The STREETS Going CRAZY!” A guest, Nu Money, remarked that people he knew must somehow qualify for business aid because they were suddenly flush with cash. The show’s host, Big Ant, replied, “Or just a lot of people finessin’ it.”

A Bloomberg News analysis of SBA data published in August aligns with the gossip and the internal warnings. It found 52 congressional districts, mostly around Chicago, Atlanta, Miami and Houston, where the number of $10,000 grants exceeded eligible recipients, for a total of 128,000 excess grants worth $1.3 billion. In Illinois’s 2nd Congressional District, payouts exceeded the number of eligible recipients by 12 times.

In YouTube posts and Telegram channels, professional scammers shared step-by-step tutorials describing how to defeat the SBA’s defenses. Compared with other scams—unemployment benefits, credit cards—they described this one as particularly easy to pull off.

“You can learn everything in 10 minutes and start applying,” wrote one fraudster on a Telegram channel in September, offering a tutorial for $30. He added that he also sells stolen Social Security numbers and other personal information used to create phony applications.

Because loans required a human sign-off, there was a chance an employee would spot a fictional business and reject it. But in the program’s early days, officers were encouraged to process applications quickly, and asking for backup documentation such as tax returns was discouraged. The loan officer who still works at the agency said that to prod faster decisions the names of the slowest performers on a team were sometimes circulated over email.
Cybersecurity researchers began noticing criminals in Russia, Nigeria and elsewhere plundering the program. In Nigeria, long a haven to gangs of cybercriminals known as “Yahoo boys,” U.S. small-business aid became such an important revenue opportunity this year that some are calling themselves “SBA boys,” said Crane Hassold, a researcher at Foster City, California-based Agari Data Inc.

For foreign scammers, the biggest challenge wasn’t tricking the SBA into putting money in a bogus company’s bank account. It was getting the money out. Some used “money mules” in the U.S., Hassold said—often lonely Americans recruited through dating apps, who think they’re doing a favor for an online sweetheart. Other times, he said, fraudsters would just open a new account at an online institution like Green Dot Bank or Chime, using the same stolen identity as in the loan application.

Capers like that explain why Jane Dennington, 67, a former Christian missionary who lives near Erie, Pennsylvania, got a letter in the mail in September. It notified her of the first payment date for a $30,500 SBA loan she never applied for, for a farm that doesn’t exist at an address where she no longer lives. “I don’t even have a garden,” Dennington said in an interview.

She called the SBA, which told her the money went to an account at a bank she’d never heard of—“I’m not sure if they said Green Spot or Green Dot.” After several calls to agency hotlines, an employee in Texas told her the debt would be canceled and said, “This is happening like crazy.” Media reports in Iowa, Florida and Kentucky describe similar cases.

“I don’t understand,” Dennington said. “They are rejecting all these businesses that are legit here in Erie, but they issue one to a farm that doesn’t exist.”

The SBA said Wednesday that it has referred more than 80,000 loans for criminal investigation, but so far there’s no sign of a comprehensive push by law enforcement to tackle the fraud. The Department of Justice has announced charges against 23 people, all but one of whom were accused in conjunction with Paycheck Protection Program fraud or other crimes. Agents charged a Brooklyn protester with obtaining a $10,000 grant and a $42,500 loan by pretending he owned a car wash with 10 employees; they say they found evidence of the scam on his phone after he was arrested for cutting a brake line on a police van.

As SBA officials began to comprehend the level of fraud taking place, they issued a blizzard of policy updates, some of them contradictory. At one point, the loan officer still working at the SBA said, the agency told employees to reject any application sent from the same WiFi network as a previous application. Days later, the rule was retracted.

After first discouraging officers from requesting backup documentation such as tax returns, the SBA later allowed it. But it soon became clear that scammers were easily producing fake documents. An Aug. 16 email announced yet another policy: Applicants with no online presence would be given only a few hours to submit supporting documents before being declined.

“We currently have too much fraud as it is, and we are trying not to give applicants additional time to provide fraudulent documentation,” an SBA manager wrote in the email, which was published in September by the Project on Government Oversight, a Washington watchdog group. Of course, the new policy meant plenty of legitimate small business owners would get rejected as well.

After the SBA stopped updating an internal policy manual in July, employees struggled to keep track of which rules were in effect. Some loan officers are now telling applicants that deposits in online-only banks such as Chime and Green Dot are prohibited; others say they’re still allowed.

The pressure for quick decisions, which once worked in fraudsters’ favor, is now hurting legitimate applicants, the SBA workers say. Officers are rapidly declining any loan they can’t be sure about, causing rejected applications to pile up in an appeals process that can drag on for months. The customer-service representative has been telling applicants pursuing appeals not to expect to see any funds until late December at the earliest.

“Applications are still allowed to come in and are further backing up,” said the loan officer. “By the time we get this to businesses, the pandemic will be over.”

— With assistance by William Turton, Kartikay Mehrotra, and William Clowes
Credit, Crises and Infrastructure: The Differing Fates of Large and Small Businesses

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Credit, Crises and Infrastructure: The Differing Fates of Large and Small Businesses

Working Paper N° 633/2022
March 2022

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Abstract

This essay sheds new light on the importance of credit creation infrastructure in determining who actually receives government support during periods of distress, and who continues to benefit after the acute phase of a crisis and the government’s formal support programs come to an end. The pandemic revealed, and the government’s response accentuated, meaningful asymmetries in the capacities of small and large businesses to access needed funding. At first glance, it would seem that small businesses benefited more than large ones from the government’s pandemic-support programs, as more government funds flowed into small businesses. Yet closer inspection of the range of government programs implemented and their longer term impact reveals a very different picture. By primarily providing grants to small businesses, the government helped address their short-term cash flow challenges but did little to encourage ongoing private credit creation for these businesses. The aid provided was real, but finite in nature. By contrast, the nature of the programs used to facilitate financing for the largest businesses provided major support at the moment and created expectations of future support. These interventions enhanced the viability and attractiveness of inherently fragile intermediation structures and set them up to continue to provide cheap and easy financing for the largest businesses long after the acute phase of the crisis had passed. This essay further reveals how numerous seemingly neutral choices were anything but in practice, creating a disconnect between policy makers stated aims and the actual impact of many of their actions. A key takeaway is that the government should do more during times of peace to understand and shape the credit creation infrastructure in ways that facilitate small-business lending in good times and bad.

Keywords: financial crisis, central banking, emergency lending, corporate debt, small business
JEL Classifications: E58, E61, G23, G28, H32

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Electronic copy available at: https://ssrn.com/abstract=4049321
CREDIT, CRises AND INFRASTRUCTURE: THE DIFFERING FATES OF LARGE AND SMALL BUSINESSES

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ABSTRACT

This essay sheds new light on the importance of credit creation infrastructure in determining who actually receives government support during periods of distress, and who continues to benefit after the acute phase of a crisis and the government’s formal support programs come to an end. The pandemic revealed, and the government’s response accentuated, meaningful asymmetries in the capacities of small and large businesses to access needed funding.

At first glance, it would seem that small businesses benefited more than large ones from the government’s pandemic-support programs, as more government funds flowed into small businesses. Yet closer inspection of the range of government programs implemented and their longer term impact reveals a very different picture. By primarily providing grants to small businesses, the government helped address their short-term cash flow challenges but did little to encourage ongoing private credit creation for these businesses. The aid provided was real, but finite in nature. By contrast, the nature of the programs used to facilitate financing for the largest businesses provided major support at the moment and created expectations of future support. These interventions enhanced the viability and attractiveness of inherently fragile intermediation structures and set them up to

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continue to provide cheap and easy financing for the largest businesses long after the acute phase of the crisis had passed.

This essay further reveals how numerous seemingly neutral choices were anything but in practice, creating a disconnect between policy makers stated aims and the actual impact of many of their actions. A key takeaway is that the government should do more during times of peace to understand and shape the credit creation infrastructure in ways that facilitate small-business lending in good times and bad.
INTRODUCTION

This essay affirms and adds critical nuance to existing understandings of the way crisis-era programs inevitably shape—and are shaped by—the existing infrastructure for credit creation. The 2008 financial crisis renewed a longstanding debate about the appropriate role of the government generally, and central banks in particular, in providing liquidity and other forms of support during periods of systemic distress. In the wake of that crisis, two dominant schools of thought emerged. Some focused on the moral hazard that comes from any government intervention. They feared that government interventions distort incentives and encourage risk taking, leading to the conclusion that the government should rarely intervene, even in the face of severe shocks.1 A related set of concerns arose around mission creep, as many saw the Federal Reserve’s (Fed) actions as moving it far beyond the roles it was originally designed to play.2 Others—including key policy makers—took the position that when things get really bad, the government should provide support almost wherever it could be useful to avoid the macroeconomic costs that can arise from the failure of financial intermediaries and the real economy businesses they help support.3

Strikingly, in contrast to the heated debate triggered by the 2008 interventions, the various programs implemented by the Fed and Treasury Department to help financial intermediaries and businesses survive the pandemic have inspired minimal reflection or debate. An array of valuable efforts to assess empirically who participated in these programs—particularly the novel paycheck protection program

1 For an overview of this literature, and efforts to address these challenges, see Fin. Stability Bd., Evaluation of the Effects of Too-Big-to-Fail Reforms (2021), https://www.fsb.org/wp-content/uploads/P010421-1.pdf [https://perma.cc/BR5L-GHTJ] (evaluating effects of too-big-to-fail reforms for systematically important banks); Emmanuel Farhi & Jean Tirole, Collective Moral Hazard, Maturity Mismatch, and Systemic Bailouts, 102 AM. ECON. REV. 60 (2012).


(PPP)—have yet to inspire a broader debate about the significance of the government’s crisis-era interventions.

In seeking to fill that gap, this essay charts a course that falls between the two, more established views of the way crisis-era programs are shaped by, and in turn reshape, financial intermediation infrastructure. We see crisis-era support as sometimes necessary to protect the long-term health of the economy, and something that should be provided broadly when critical to maintaining that health. Yet, we see that as a starting point for discussion, rather than a conclusion that ends the debate. Looking at 2020 through a lens that is informed but not fixed by the events of 2008 reveals new and important lessons.

The first is that seeming neutral choices are often anything but. For example, a primary way that Congress sought to support businesses during the early phase of the pandemic was by having Treasury support credit creation through Federal Reserve facilities created pursuant to the Fed’s established authority to make loans to nonbanks under “unusual and exigent circumstances.”4 On its face, this decision did not favor any particular industry or business type. In practice, this decision greatly facilitated the flow of funds to the largest businesses while doing little for mid-sized and smaller businesses. Similarly, in its first effort to implement an innovative new program to provide support for “small businesses,” the Treasury favored banks over fintechs as the intermediaries through which these funds should flow.5 This too was seemingly neutral decision, but resulted in a disproportionate share of the initial funds going to a subset of small businesses that favored larger, older businesses who had existing lending relationships with banks while disfavoring smaller, younger, and importantly businesses owned by women and minorities.

These insights also bring lessons. One ramification is the way crisis-era interventions can and ought to influence the post-crisis regulatory reform agenda. Second, given that crisis-time support is likely, we

4 Part II, infra.
5 Part III, infra.
argue that policy makers should use “peace time” to make the infrastructure changes needed to ensure the smooth flow of money and credit to those who most need it when crisis strikes.

These insights and implications flow from our analysis of the key decisions made in early 2020, and the ramifications of those decisions. We begin by providing a brief overview of the major programs adopted in 2020 to provide credit or operating support to various types of businesses, with a focus on who benefitted most and the incentives these programs created with respect to ongoing access to credit once the program ceased. Given the exigencies of the pandemic response, our aim here is not to second-guess policy makers who responded remarkably fast in the heat of the moment. The pandemic was a massive, sudden, shock, and broad support was critical to minimizing its economic impact. But, once the acute phases of a crisis wanes, the focus should shift to the lessons both the crisis and the response might hold. These are the questions we tackle here.

Putting the pieces together, the analysis suggests that policy makers should seek to re-balance the scales. Small businesses are a key driver of economic activity. They support the growth and vitality of our neighborhoods, spark innovation, and provide a pathway that can help

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6 Financial assistance came through multiple mechanisms. The two most significant were the Paycheck Protection Program (PPP) and a fund authorizing the Federal Reserve to support the general economy and markets. Both programs utilized the financial system (banks, capital markets, other lenders) as a conduit to provide assistance to businesses with the hopes those businesses would in turn, provide benefits to workers. There are many employers, and hence employees, who work at entities that are not ‘businesses’ in both the legal and economic sense. Many of the definitions of these indirect programs, and some of the programs themselves were targeted for these type of employers. For example, the PPP provided money to select non-profits, including private schools and non-profit lobbying organizations were eventually eligible for PPP assistance. George E. Constantine, Cynthia M. Lewin & Andrew L. Steinberg, SBA Clarifies Lobbying and Economic Need Rules for Nonprofit PPP Borrowers, Venable, LLP. (Mar. 5, 2021), https://www.venable.com/insights/publications/2021/03/sba-clarifies-rules-for-nonprofit-ppp-borrowers[https://perma.cc/XEU2-8ZK3]. For purposes of this paper we will use the term business as more synonymous with employer in line with the legal and regulatory implementation of the emergency assistance, whose purpose was to provide economic support to employers and employees.
people achieve financial success and independence. Lending to small business often entails greater credit risk, greater informational challenges and disproportionately high lender costs relative to loan size. Complicating these challenges, many of the smallest business loans sit in the blurry zone between corporate cash-flow loans and personal loans. Yet these inherent differences are more reason—not less—to be concerned about the way policy interventions may have inadvertently greased the wheels on large business lending while leaving small business lending more exposed to credit shocks.

The analysis also brings to the fore the value of paying greater heed outside of crisis periods to the ways disparate access to credit shape who can open a small business and which small businesses are likely to have access to the liquidity often needed to weather shocks. People of color make up roughly 40% of the U.S. population, but only 20% of the nation’s 5.6 million business owners with employees. Women are 51% of the population but only 33% of business owners with employees. Minority- and women-owned businesses also typically have fewer employees, less revenue, and were less likely to survive the recession that followed the 2008 financial crisis. Although there are many reasons for these disparities, access to credit and cost of credit may well be a significant contributor and could well be worse today than it was pre-pandemic because of the government’s reliance on private infrastructure it did not fully understand.

Particularly as interest rates start to rise and monetary and lending conditions tighten, differential access to funding between large business and small, and among small business could have far reaching effects. From eating away at the remarkable recent growth in new small business formation to contributing to structural inequities and

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8 Id.
accentuating the excessive concentration that already poses a challenge to the long-term health and vibrancy of the economy, credit creation infrastructure is central to the shape of the economy. This essay brings to the fore the importance of understanding how the government has shaped that infrastructure, how it has relied on that infrastructure, why it is likely to do so again, and why this reliance and support is often in tension with other policy aims.

I. THE LATEST CRISIS

The acute phase of the COVID-19 crisis in the spring of 2020 served as a powerful reminder that existing infrastructure shapes, and ultimately limits, the government’s ability to provide aid for people and businesses. This relationship between existing infrastructure and governmental capacity manifested across most financial and market policy interventions, including direct payments to individuals and families, unemployment insurance, small business assistance, and the Federal Reserve’s bond purchase and liquidity facilities.

A return to the early stages of the pandemic response, and a review of the processes through which these programs were adopted, make clear that many of the ramifications of the government’s interventions were unintended consequences of the need for the government to move quickly to achieve its goals, with incomplete information and in reliance on imperfect, existing infrastructure. Although both the speed at which the pandemic hit the economy and the speed of the recovery were more rapid than the 2008 financial crisis or other periods of distress, similar dynamics are common during periods of crisis, and all the more reason to reflect on the structure and adequacy of existing crisis response tools outside periods of distress.

Just as in 2007 and 2008, the Federal Reserve was the first responder in the government’s effort to contain the economic fallout of the pandemic. To provide accommodative monetary conditions and ease

the unexpected and potentially massive dysfunction in the Treasury market, the Fed again adopted a program of quantitative easing (“QE”)—buying up Treasury and mortgage-backed securities—on an unprecedented scale.\textsuperscript{10} QE, a tool the Fed first used during the 2008 global financial crisis, at the time was considered radical but now has been used in the last two recessions.\textsuperscript{11} Yet the Fed’s purchases of Treasury securities and agency mortgage-backed securities this time were not only aimed at easing monetary conditions, they were also used to help ease market dysfunction.\textsuperscript{12} The Fed bought $1.7 trillion worth of Treasury securities between March and June 2020.\textsuperscript{13} To help stem withdrawals from money market mutual funds as COVID-19 began to hit financial markets in March 2020, the Fed created the Money Market Mutual Fund Liquidity Facility to provide liquidity and financial assistance to prevent funds from “breaking the buck” and losing value, building expressly on the same design used in 2008.\textsuperscript{14}

\textsuperscript{10} Lorie K. Logan, Exec. Vice President, Fed. Rsrv. Bank of N.Y., Remarks at SIFMA Webinar: The Federal Reserve’s Market Functioning Purchases: From Supporting to Sustaining (July 15, 2020) (transcript available at https://www.newyorkfed.org/newsevents/speeches/2020/log200715 [https://perma.cc/227W-CYZ7]) (“Another important measure, and the focus of my talk today, is the asset purchases that we have conducted at an unprecedented scale and speed to support the smooth functioning of markets for Treasury and agency mortgage-backed securities (MBS)—both of which play crucial roles in the American financial system and economy.”).


\textsuperscript{12} Logan, supra note 10 (discussing how the Federal Open Market Committee made substantial purchases of Treasury securities and agency mortgaged-backed securities, and directed the Open Market Trading Desk to make purchases “in the amounts needed to support the smooth functioning of markets”).


\textsuperscript{14} Kenechukwu Anadu, Marco Cipriani, Ryan M. Craver & Gabriele La Spada, FED. RSRV. BANK OF N.Y., THE MONEY MARKET MUTUAL FUND LIQUIDITY FACILITY (2021),
And the Fed also re-adopted many of the other programs it had used during the 2008 financial crisis to inject additional liquidity into the market for various financial instruments and to provide liquidity to both banks and nonbanks.

Through these programs, the Fed supported market functioning and signaled its continued willingness to prop up key parts of the financial system if needed, just as it had done in 2008. The similarity in the programs the Fed used was also a reminder that once the Fed intervenes in a particular way—even if the aim is to protect market functioning—market participants will often anticipate similar support in the future. This was the case even in the area of money market mutual funds, where Congress, the Fed, the Securities and Exchange Commission, and the Financial Stability Oversight Council had spent substantial time and energy revamping regulations designed to reduce the need for government assistance in the name of financial stability.15

The Fed was not the only major government actor to move quickly and aggressively. The United States Congress also responded rapidly with a large fiscal stimulus. The first significant legislative action was the Coronavirus Aid, Relief, and Economic Security Act (CARES Act)—a $2.2 trillion fiscal stimulus bill passed by the end of March 2020.16 The CARES Act was designed to provide fiscal firepower, available at https://www.newyorkfed.org/medialibrary/media/research/staff_reports/sr980.pdf [https://perma.cc/CE66-EMJC] (“The Federal Reserve faced the same challenges in 2008, when it set up the AMLF in response to the MMF run triggered by Lehman Brothers’ default. Although the type of shock was different, it was natural to design the 2020 facility based on its 2008 predecessor.”).

See also Press Release, U.S. Dep’t of the Treasury, President’s Working Group on Financial Markets Releases Report on Money Market Funds (Dec. 22, 2020), available at https://home.treasury.gov/news/press-releases/sm1219 [https://perma.cc/2GC2-JF36] (“The PWG agrees that while many of the reforms implemented after the global financial crisis increased market stability, the events of March 2020 show that more work is needed to reduce the risk that remaining structural vulnerabilities in prime and tax-exempt money market funds will lead to or exacerbate stresses in short-term funding markets.”).

quickly and in large amounts, to try to blunt the economic damage of the pandemic. Direct aid included payments to individuals, state and local governments, health care providers, and others. This was a traditional Keynesian economic stimulus largely delivered through existing methods, such as enhanced unemployment insurance benefits, and through revisions to existing federal/state matching grant programs providing general-purpose aid to state governments.

Alongside direct stimulus payments to individuals, expanded unemployment insurance benefits, specific funds for grants and other types of support for particular industries, the bill included multiple modes of support for businesses and their employees. The two provisions of the CARES Act most relevant to the viability of businesses were the Payroll Protection Program and a separate, innovative effort to have the Fed and Treasury work together to provide credit support to businesses. Considering each program in turn, and in context, brings to light the short- and longer-term effects of the support businesses received during this acute phase of the economic shutdown.

Before doing so, it is worth reflecting briefly on how various government efforts illuminated the central importance of existing financial infrastructure in the government’s ability to provide aid quickly to those who needed it. This was true for the provision of direct assistance as well as credit. The federal government authorized expanded unemployment benefits, deeming them critically important to the well-being of qualifying individuals and to the health of the overall economy. But the ability of people who had lost their jobs to actually receive the benefits they were owed varied dramatically, largely depending on the existing apparatus for distributing unemployment payments at the state level. The apparatus failed miserably in many states, with particularly well-documented problems

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in New Jersey and Florida. The reasons were manifold: outdated computer systems, application backlogs caused by staffing shortages, and implementation of new federal rules all contributed. This led observers to compare the unemployment payment and processing system to the classic infrastructure example of “replacing aging water pipes.” According to one estimate, by the end of May 2020, months into the pandemic, only 57% of the 33 million unemployment claims that had been filed were paid, leaving many unemployed workers and their families in search of other avenues to scrape by. This payment


20 Katherine Landergan, America’s Unemployment System Failed When It Was Needed Most. Can It Be Fixed?, POLITICO (May 19, 2021, 4:30 AM), https://www.politico.com/news/2021/05/19/america-unemployment-system-failed-pandemic-483100 [https://perma.cc/Y9A8-Y7RC] (“The not-so-sexy topic of unemployment insurance system reform — the economic equivalent of replacing aging water pipes — has been quietly dominating policy conversations at every level of government and is about to break into the mainstream.”).

bottleneck delayed the stimulative effect on the larger economy and increased hardship on families during their time of need.

Similarly, the stimulus “checks” designed to provide aid broadly arrived far more quickly for those who could receive the funds electronically into their bank accounts via direct deposit, using IRS taxpayer and tax return data, than for the 70 to 100 million people for whom the government either lacked correct bank account information or was otherwise unable to figure out how to properly send them their funds. This explains why 25% of American households needed to wait for a physical check or debit card to be delivered to their home despite the fact that only 5% of U.S. households lack a bank account.

While ensuring that ordinary Americans get the direct and timely support their government has promised to them is not the focus of our analysis, these examples help illustrate the fundamental importance of the existing infrastructure—federal and state, public and private—in shaping the government’s option set and ability to deliver when crisis strikes. With two major crises already this century, one of the

[https://perma.cc/65V6-LN8G] (“Andrew Stettner, a senior fellow at the Century Foundation, estimates that by the end of May 2020, only about 18.8 million out of 33 million claims (57 percent) had been paid nationwide, an improvement from 47 percent of claims at the end of April 2020 and just 14 percent at the end of March 2020.”).


24 The contrast with other countries that deliver all benefits directly through dedicated electronic interfaces, such as India’s e-RUPI, is stark. See John Xavier, Explained! How India’s New Welfare-Focused Digital Payment System Works?, HINDU (Aug. 8, 2021, 4:50 PM), https://www.thehindu.com/sci-tech/technology/e-rupi-how-indias-new-welfare-focused-digital-payment-system-works/article35682640.ece [https://perma.cc/89FZ-BBY7]
overarching lessons is the importance of considering in advance the condition of the existing financial infrastructure and acting in advance to correct deficiencies and inequities that merit attention. Addressing these issues can have positive spillover effects and may also help mitigate distributional challenges when times are good. We now turn to the role that the existing infrastructure played in the government’s effort to aid businesses, big and small.

II. THE FED-TREASURY FACILITIES

The CARES Act program that sought to provide the most, and widest ranging support, for businesses entailed an effort spearheaded by the Fed using support appropriated by Congress to the Treasury Department. The program authorized the Fed to support the broader economy by allocating $454 billion in seed capital, which allowed the Fed—working with the Treasury Department—to theoretically buy over $4 trillions in assets.25 This was to be accomplished via lending facilities the Fed created pursuant to its existing authority under Section 13(3) of the Federal Reserve Act to make loans to nonbanks in “unusual and exigent circumstances.”26 The scale of the authorized interventions far exceeded anything done in response to the 2008 crisis, with the Fed itself lauding its potential to provide trillions in new loans.27 As the context reflects, these funds were designed to

25 Prior to the enactment of the CARES Act, the Department of the Treasury made a $10 billion equity investment from the Exchange Stabilization Fund into the Fed’s Term Asset-Backed Securities Loan Facility to support lending of up to $100 billion. Over $4 trillion in asset purchases or lending could be supported by the $454 billion appropriation assuming approximately similar leverage ratios. See Term Asset-Backed Securities Loan Facility, Fed. Rsrv. Bd. (Mar. 23, 2020), https://www.federalreserve.gov/newsevents/pressreleases/files/monetary20200323b3.pdf [https://perma.cc/G36K-FBK2].


27 Press Release, Fed. Rsrv. Bd., Federal Reserve Takes Additional Actions to Provide up to $2.3 Trillion in Loans to Support the Economy (June 29, 2020, 8:30 AM),
enable the Fed to provide fresh loans to businesses, nonprofits, and municipalities. The gap between the amount appropriated and the hoped-for impact of the related credit facilities reflects the fact that the seed money allocated by Congress was meant to cover only expected losses, enabling the Fed to make loans far in excess of the money allocated without suffering a financial hit itself.

This program positioned the Fed to play a meaningful role in determining who received support. But Congress avoided crossing the Rubicon of having the Fed directly capitalize the facilities with its own funds, by using the Treasury Department to capitalize newly created emergency facilities and by retaining the many limitations on the Fed’s authority already embedded in the Federal Reserve Act, particularly section 13(3) thereof.

Section 13(3) was added to the Federal Reserve Act in 1932 to give the Fed the ability to lend directly to the real economy in a crisis. The Fed, however, made only modest use of this power during the


29 Parinitha Sastry, The Political Origins of Section 13(3) of the Federal Reserve Act, 24 FED. RESERV. BANK OF N.Y.: ECON. POL’Y REV. 2 (2018) (“This article concludes that the framers of the section intended to authorize credit extensions to individuals and nonfinancial businesses unable to get private-sector loans. In other words, Section 13(3) sanctioned direct Federal Reserve lending to the real economy, rather than simply to a weakened financial sector, in emergency circumstances.”). Between 1932 and 1936, the Fed made a total of $1.5 million in section 13(3) loans. Id. at 27 (“The Federal Reserve Board renewed the 13(3) authority every six months until July 1936, at which point the Federal Reserve System had made a cumulative total of 123 loans under the authority, aggregating to $1.5 million.”). Beyond the limited amount, this fiscal stimulus was also distinct from 2008 and 2020 because the lending was restricted to commercial enterprises and did not include nonmember banks or nonbank financial institutions. See id. at 25 (“The Federal Reserve Board took the crucial step of determining that ‘the term “corporations” does not include banks,’ meaning that 13(3) did not allow discounts for nonmember banks.”).
Great Depression and failed to use it at all between 1936 and 2008.\textsuperscript{30} When Section 13(3) was invoked by the Fed in response to the 2008 crisis, it used this authority quite broadly to establish new borrowing entities controlled by the Fed that supported many nonbank financial institutions (and indirectly, their counterparties, including banks), that had played an important role in the financial bubble that caused the crisis.\textsuperscript{31} Many of the new 13(3) facilities the Fed created were designed to provide fresh liquidity into any array of institutions and sectors of the market that, in various ways, were part of a new system of market-based intermediation, often referred to as the shadow banking system. Far more controversially—and in a move that would be prohibited today—the Fed also used this authority to facilitate JP Morgan’s acquisition of Bear Stearns and to help AIG avert bankruptcy.\textsuperscript{32}

The Fed’s only historical experiment making loans to the real economy was providing working capital pursuant to what was then Section 13(b) of the Federal Reserve Act. This program was initially created during the Great Depression and sputtered along until Congress brought it to an end in 1958, with the full support of then-

\textsuperscript{30} David C. Wheelock, Lessons Learned? Comparing the Federal Reserve’s Responses to the Crises of 1929-1933 and 2007-2009, 92 FED. RSRV. BANK ST. LOUIS REV. 92 (2010) (“The Fed made 123 loans totaling a mere $1.5 million in the four years after the section was added to the Federal Reserve Act in 1932. Section 13(3) was not used again until 2008, when it became an important tool in the Fed’s effort to limit the financial crisis.”).

\textsuperscript{31} See Sastry, supra note 29, at 29 (“In the spring of 2008, Sections 10B and 13(3) formed the statutory basis for the Federal Reserve’s lender-of-last-resort powers for member banks, nonmember banks, broker-dealer firms, commercial paper issuers, and money market mutual funds as the Fed moved to bolster a financial system that had arrived at the brink.”).

Fed Chair William McChesney Martin. In short, although direct Fed lending to the real economy was one of many experiments that tried to help the economy recover from the Great Depression, it is not a tool that has ever been widely used or that was particularly successful, and it is not one that today’s far more powerful Fed had ever embraced, until the pandemic response.

In order to understand the impact of the decision to use the Fed to provide fresh liquidity to businesses in particular, it is helpful to have a rudimentary understanding of the lending landscape. Large, established corporations have more options accessing credit than smaller, newer companies. An array of factors makes the debt of large companies—whether in the form of syndicated loans or bonds—easier to fund, originate, and hold than that of smaller companies. Two of the most important challenges are related: smaller businesses generally present risk profiles more expensive to assess, and smaller companies generally pose distinct informational challenges.

Large, public companies, on the other hand, are subject to rigorous, ongoing disclosure requirements, typically have long track records, and benefit from a body of equity holders who are even more motivated than a company’s debt holders to monitor the business and prospects of the companies they invest in. These companies often issue debt securities that they pay to have rated by rating agencies, creating free information regarding the credit quality of that debt for investors to rely on. Accentuating the advantage, the past decade has seen a massive growth in the issuance of collateralized loan obligations (“CLOs”), open-end bond funds, and exchange traded funds (“ETFs”) backed by bonds. These products have helped create


34 Investors who rely exclusively on rating agency opinions may find themselves investing in assets with greater risk than they realize, as evidenced by the mis-rating of many securities in the 2008 financial crisis. We express no opinion on the wisdom or efficacy of this reliance, simply noting that it exists and in the current “originator pays” model, ratings are provided to investors without cost.
ready buyers for newly issued corporate debt and eased the financing process for large corporations.\textsuperscript{35} They also create an intermediation infrastructure that made it easy for the Fed to come up and prop up the functioning of this overall system, and in ways that seem likely to alter expectations of future support.

The credit intermediation structure for small businesses is quite different along many fronts. Even for an established small or mid-sized business, the biggest shareholder is often the entrepreneur or family who runs it. The mechanisms for funneling money from the capital markets into smaller company debt are far less established, much more sensitive to overall economic conditions, and far more expensive. Small business lending is often further complicated in a variety of ways, as lenders typically require multiple years of business history, personal guarantees, collateral and other support to reduce risk. This helps explain why small businesses often have challenges obtaining capital from outside sources. Only four in nine small businesses report having obtained credit from a bank in the last five years, according to the Fed’s 2020 survey.\textsuperscript{36}

That financing is already tilted in favor of large businesses—giving them a meaningful leg up over mid-sized and small businesses—is all the more reason to be concerned about the particular microstructure of


the mechanisms through which credit flows to both types of businesses and the impact of the government’s interventions.

A. Support for the Largest Businesses

During the COVID-19 response, the primary way the Fed supported the ability of large corporations to access credit was through the creation of two corporate credit facilities.37 The Primary Market Corporate Credit Facility was created as “a funding backstop for corporate debt,” and allowed the NY Fed to purchase both qualifying bonds and portions of syndicated loans at issuance.38 The Secondary Market Corporate Credit Facility allowed the Fed to buy portfolios of bonds and ETF shares that were already issued and outstanding.39 Both programs were implemented via the creation of a special purpose vehicle that would hold the bonds and received equity funding from the Treasury Department to reduce the credit risk to which the Fed was exposed.40

The mere announcement of the primary and secondary corporate credit facilities dramatically reduced spreads for investment-grade borrowers.41 The Fed’s subsequent announcement that it would also


40 Id.


buy “fallen angels” (recently downgraded bonds) and ETFs holding below-investment-grade debt similarly reduced spreads for companies in these categories. The Fed purchased corporate debt primarily through the creation of a new index it created to track qualifying bonds. The Fed’s large wallet and assured position as a new entrant into this market drove down the cost of credit for new corporate debt and provided existing holders of corporate debt a willing counterparty to buy, further supporting asset prices. As a result, the Fed ended up holding the bonds of large, robust companies, many of which had not shown need for government support.

Moreover, the biggest beneficiaries of the Fed’s bond buying program may not have been any of the companies whose bonds the Fed acquired, or the investors whose asset values were artificially boosted, but the intermediaries through whom these funds flowed. Recall that the growth of open-end bond funds, CLOs and ETFs holding bonds had been critical to the growth of the corporate bond market in recent years and increased leverage in the corporate sector. In the earliest stages of the pandemic, investors were fleeing

how government responded to corporate bond market crises arising from COVID-19; Falato et al., supra note 35, at 2 (describing the effects of the Fed’s announcement of coverage to some high yield bonds).


44 See id. at 2.


46 Glenn Hubbard, Donald Kohn, Laurie Goodman, Kathryn Judge, Anil Kashyap, Ralph Kohls, Blythe Masters, Sandie O’Connor & Kara Stein, Hutchins Ctr. on Fiscal & Monetary Pol’y at Brookings, Task Force on Financial Stability, 31
from these investments. Economists Antonio Falato, Itay Goldstein, and Ali Hortaçsu document massive and potentially debilitating outflows from corporate bond funds and ETFs backed by bonds in March 2020, and further show that these outflows were only slowed and then stanch by the Fed’s announcement of the corporate credit facilities and its early modifications in the terms of those facilities. According to the Fed, “[e]ven funds specializing in short-term investment-grade bonds experienced outflows in March totaling eight percent of assets, dwarfing the selling pressure they saw during the global financial crises.”

In stanching these outflows, the Fed helped to save these fragile intermediaries—each of which promise daily liquidity despite being backed by very illiquid corporate bonds. This may have prevented investors in these instruments and corporate bonds from fully appreciating the risks embedded in these instruments, in part by increasing expectations of further support if needed. If anything, the Fed’s interventions seem to have led investors to be less concerned than ever about the fragility of open-end bond funds and the potential for serious losses if seeking to liquidate bonds, CLOs, or bond ETFs during a period of distress. This helps to explain why these intermediaries have, and likely will continue, to grow. As Blackrock—the pioneer in ETFs—stated, “[i]n their biggest test to date, flagship fixed income ETFs provided deep liquidity, continuous price transparency and lower transaction costs than were available in individual bonds . . . . As a result, asset owners — including pension


47 See id. at 38-39.

48 Falato et al., supra note 35, at 9-10 (describing potential outflow effects from the Fed’s policy).

49 Sharpe & Zhou, supra note 41 (summarizing the effects of the government’s response).
funds and insurance companies — and asset managers immediately ramped up adoption.\textsuperscript{50}

It is useful in this context to observe the evolution of the bond market and corporate debt in the wake of these government interventions. Even though the amount of outstanding nonfinancial corporate debt was at an all-time high going into the COVID-19 crisis, it has since increased subsequently.\textsuperscript{51} Data from SIFMA shows that “investment grade issuance was strong in March through May 2020 (+178% to 2019 levels on average)” and even though the issuance of high yield debt fell dramatically in March, it too “had recovered well by May (+60% to 2019 levels)” following the inclusion of many high-yield bonds and ETFs in the Secondary Market Credit Facility in early April.\textsuperscript{52} As explained in the November 2021 Financial Stability Report from the Federal Reserve: “Corporate bond issuance remained robust”; “spreads of corporate bond yields over comparable-maturity Treasury yields . . . remained very narrow relative to their historical distributions”; “[t]he excess bond premium, which is a measure that captures the gap between corporate bond spreads and expected credit losses . . . now stands at the bottom decile of its historical distribution, suggesting elevated appetite for risk among investors”; and, “[t]he investor sentiment in the leveraged loan market has remained optimistic.”\textsuperscript{53} Moreover, despite the outflows from bond ETFs


creating meaningful price dislocations in March 2020, the Fed’s prompt interventions resulted in total bond ETFs outstanding crossing the $1 trillion threshold for the first time in the fall of 2020.54 In short, the largest companies are having little trouble accessing credit on very, very favorable terms.

Shifting momentarily to look at small business access to credit over the same period of time reveals a very different picture. According to the 2021 Small Business Credit Survey conducted by the Fed, 23% of small businesses had trouble accessing the debt they needed in the past year, only 37% of applicants received all the financing they sought (down from 51% in the 2019 survey), and 13% saw credit availability as the single most important challenge they expect to face in the next year.55

The implications of these developments are mixed. The good news is that these interventions helped the economy recover at a remarkable clip once the early phases of the pandemic waned, despite ongoing public health uncertainty and related political turmoil.56 Given the uncertainty and the myriad challenges the pandemic posed, these benefits are hard to overstate. Other implications are more mixed. One obvious drawback is that the potential systemic threat posed by open-end bond funds, CLOs and bond ETFs remains unaddressed while the sector is poised for further growth, while investor expectations of liquidity assistance from the government during future crises are likely


to distort market mechanisms and pricing of risk. Moreover, the sharp rise in corporate debt levels could create debt overhang, potentially impeding investment and growth in the years ahead. And, discussed further below, these interventions could place a heavier thumb placed on the financial scale favoring the largest companies relative to their smaller counterparts in good times and bad.

B. Fed-facilitated support for Midsized and Smaller Businesses

We begin to explore this last issue by comparing the easy access and relatively low financing costs the largest companies enjoyed during the crisis with the arguable failure of the Main Street Lending Program and the conspicuous lack of any program using CARES Act funds to

increase credit support for truly small companies (apart from efforts to implement short-term operating assistance through the Paycheck Protection Program (“PPP”)).

The Main Street Lending Program was the Fed’s effort to help companies that are not large enough to readily access public debt markets.58 Under the Fed’s former guidelines (the program terminated in January 2021), companies with up to 15,000 employees or $5 billion in annual revenue (as of 2019) were eligible to participate.59 These are not small businesses in the ‘mom and pop’ version but the definition of small business can be quite expansive and these businesses are equally not part of the biggest ‘big businesses’ under the Fed’s definition. To implement the program, the Federal Reserve Bank of Boston set up a special purpose vehicle to purchase participations in loans originated by banks and their affiliates (nonbanks were not made eligible by the time the program ended).60 The idea behind the structure was not all that different than what the Fed had done with corporate bonds; the Fed did not want to be in the position of directly assessing a company’s creditworthiness, so instead it relied on the existing credit creation infrastructure to do that. In this case, that meant relying on banks rather than credit rating agencies or investment fund managers to pick “winners and losers.”61 The Fed further sought to ensure that banks would identify only companies that had at least a decent chance of paying back the moneys borrowed by requiring the banks that originated the loans to retain some credit


exposure and by imposing other substantive conditions, e.g., limits on the total amount of debt a company could have relative to its income.62 This is a significant structural difference from the corporate credit facilities, as bond ETFs are not required to, and typically do not, hold direct liability to the assets they are creating for their investors.63 The Fed also set the terms of the loans that would be extended under the Main Street facility, using a structure that allowed repayment flexibility in the early years while still requiring full repayment of principal at a meaningful interest rate.64

Importantly, lenders were told to view the eligibility criteria in the term sheets as the minimum requirements and were expected to apply their own underwriting standards in evaluating potential borrowers and conduct an assessment of each potential borrower’s financial condition at the time of the potential borrower’s application.65 This was deemed necessary to control risk to the Fed, despite the money allocated to the Treasury by Congress to absorb losses and allow greater lending and risk taking.66 Along with the risk retention requirement, this criteria and design meant that the Main Street facility did not provide banks meaningful flexibility to make loans that they would not have made otherwise, or to make those loans on terms that were significantly more favorable.

62Id. at 2.

63See id. at 14-15.

64Policy Tools, supra note 60.


66Treasury’s expression of an aversion to actually bearing losses may be one reason why the Fed designed a program that ultimately received little usage and hence had little potential to actually use the funds allocated.
The Main Street Program was announced in late March 2020 alongside the two corporate credit facilities.\textsuperscript{67} In contrast to those facilities, however, there was no immediate favorable impact on the ability of eligible companies to actually access the financing they need to survive.\textsuperscript{68} It was not until July, well after the Fed had started buying ETFs and a broad array of other corporate debt, generally issued by companies showing no sign of needing any further financial support, that the Main Street Lending Facility even became fully operational.\textsuperscript{69} Moreover, the overall impact of the program was far more muted, to say the least.

At announcement, Main Street was projected for up to $600 billion in total loans with $75 billion set aside for potential losses.\textsuperscript{70} It never got close. Mains Street conducted only 1,830 loans with a total lending of $17.5 billion.\textsuperscript{71} And roughly half of the entire volume conducted through Main Street occurred in December 2020, just weeks before the facility was ceasing to accept loans.\textsuperscript{72} At the end of the day, less than 3\% of potential lending credit was advanced and the Treasury set aside money to cover losses in excess of 425\% of the total lending that occurred. Putting this in context, 16\% of the total CARES Act $454


\textsuperscript{69}See id.


\textsuperscript{71}Bräuning & Paligorova, supra note 68.

\textsuperscript{72} Bräuning & Paligorova, supra note 68(describing the timing of the uptake of the lending program).
billion allocated in March was set aside for the Main Street program to cover possible lending of $600 billion to these types of businesses, of which less than $10 billion was actually advanced by Thanksgiving. Even this small amount of support was not well targeted, as according to the Fed’s own definitions, approximately 30% of loans were to industries that were not categorized as ‘COVID-19 impacted.’ An analysis by the non-partisan Congressional Research Service concluded that the Main Street facility may well have been “too small to be effective.”\footnote{Labonte & Weinstock, supra note 70.}

As Bharat Ramamurti, a former member of the Congressional Oversight Commission for the CARES Act and currently a senior member of the Biden Administration National Economic Council, put it, “[b]y any measure, the Main Street program has been a failure.”\footnote{Rachel Siegel, \textit{Months into Recession, Fed’s Main Street Loan Program Is at a Crossroads}, \textit{Wash. Post} (Aug. 7, 2020), https://www.washingtonpost.com/business/2020/08/07/federal-reserve-main-street-program/ (discussing issues with Main Street Loan Program).}

There have been a number of explanations for the relative failure of the Main Street facility. For example, many borrowers generally felt the terms of the facility were too restrictive. As noted in a review of the limited lending: “[f]rom the convoluted eligibility requirements to the prohibition on paying dividends, the benefits provided from the emergency liquidity (namely, deferred principal and interest payments) did not outweigh the costs of the strings attached thereto.”\footnote{Nathan Volz, \textit{How the Main Street Loan Program Failed Main Street}, Wis. L.J. (Mar. 1, 2021 1:25 PM), https://wislawjournal.com/2021/03/01/how-the-main-street-loan-program-failed-main-street/ [https://perma.cc/GMD4-ES7X].} Yet, the core challenge grew out of the existing credit creation infrastructure that the Fed relied on, and in the longer term, the lack of implicit commitments that resulted from the Fed’s interventions. Ultimately, nothing in the Main Street facility offered banks sufficiently great upsides relative to risk to encourage broad lending using this program. This greatly limited the effectiveness of the program. But, even if the program had been better designed and
more effective, its long-term impact may well have been limited. Because the program was seen as limited to its terms, and contingent on continuing support from Congress and the Treasury Department, its existence did nothing to incentivize banks to invest further to improve their origination processes and internal infrastructure for making loans to mid-sized businesses. This stands in stark contrast to the corporate bond markets, where the Fed’s interventions—intentionally or not—seem to have led to expectations of further support in coming crises.

Shifting to smaller businesses, the Fed created a facility that facilitated implementation of the government’s separate PPP initiative, which as discussed below, was designed to provide temporary operating support for small businesses and those they employed. But it made no attempt to create a true emergency lending facility that would have increased access to funding for small enterprises, despite the fact that pandemic-era surveys suggesting that just shy of half such enterprises were concerned about cash flow and the overall health of their businesses.

The Fed could perhaps have promoted more enduring credit creation for small businesses by creating a lifeline for the issuance of asset-backed securities backed by small-business loans. Securitization vehicles allow for the transfer of risk from the loan originator to the holders of securities backed by those loans, and securitization vehicles pool risk between multiple individual loans. The Fed recognizes securitization markets as key to credit creation, and re-deployed a facility in 2020 that it had first used in 2008 to help promote credit creation via the issuance of asset-backed securities (“ABS”). When relaunching the program, known as the term auction loan facility (“TALF”) in 2020, the Fed explained the program was “intended to help meet the credit needs of consumers and businesses by facilitating the issuance of asset-backed securities.” Under the TALF, the Fed agreed to make non-recourse loans secured by ABS backed by a wide

76See Term Asset-Backed Securities Loan Facility, supra note 25 (discussing collateral for recourse loans under Fed loan facility).

77Id.

78Id.
variety of different assets, including auto loans, student loans, credit card receivables (both consumer and corporate), equipment loans and leases, and leveraged loans made to large businesses.79

Yet, when it came to ABS backed by loans to small businesses, the Fed followed its 2008 precedent to the letter (from a time when Fintech and other nonbank origination of small business loans was negligible) and would accept such loans only if “guaranteed by the Small Business Administration.”80 These terms not only did little to change banks’ willingness to extend non-guaranteed small business loans, but they also effectively excluded billions of dollars in nonbank-originated small business ABS and the lenders who originated the underlying loans from market support.81 The Fed’s approach favored some forms of ABS, including CLOs that have become a key mechanism through which funds flow to the largest businesses, but not others such as non-guaranteed small business loans and personal installment loans.82 This likely reduced the credit risk to which the Fed was exposed, an understandable aim much of the time, but one that requires greater scrutiny in light of the funds allocated by the CARES Act. For, as discussed further below in connection with PPP and the small-business-lending-landscape, these limitations significantly reduced support provided to small businesses during the earliest part of the pandemic and had the effect of denying the intermediaries that facilitate funding for small businesses the support akin to that the Fed provided to open-end bond funds and the other nonbank intermediaries supporting loans to large businesses.83

79Id.
80 Id.
81Todd H. Baker, Fed’s New TALF Has a Major Gap, AM. BANKER (Mar. 26, 2020, 12:30 PM), https://www.americanbanker.com/opinion/feds-new-talf-has-a-major-gap (last visited Feb. 20, 2022) (“Unless the TALF is changed to include the investment-grade, ABS based on [consumer] loans, lenders will shut down originations just when they are needed most.”).
83Baker, supra note 81 (concluding that unless TALF reformed, the Fed “will fail in its goal of ensuring that credit flows to millions of vulnerable consumers”).
Relatedly, the Fed also limited the ABS it was willing to accept based on the decisions of credit rating agencies. Specifically, the Fed required ABS to have a credit rating in the highest long-term or, if no long-term rating was available, the highest short-term investment-grade rating category from at least two eligible nationally recognized credit rating agencies, provided that the ABS did not have a credit rating below the highest investment-grade rating category from any such agency. This requirement contrasts with the inclusion of lower rated, non-investment grade corporate loans and ETFs in the secondary corporate credit facility. Holding ABS to a higher credit quality standard than corporate loans or ETFs effectively would have excluded most securitizations of unsecured private small business loans at the time. Again, these types of limitations reduced the credit risk to the Fed, but the fact that Congress had provided the Treasury and Fed, collectively, with substantial loss absorbing capital so that the Fed could extend credit to impacted sectors of the economy in need undermines the sufficiency of this explanation for the decisions made. Given then-current credit market conditions, the Fed’s decisions sharply limited the ability of nonbank lenders to support their customers with credit and did little to incent bank lenders—in

84 Baker & Judge, supra note 82 (noting “ABS issued by nonbank small business lenders typically don’t reach” the credit rating grade required).

85 Id. at 9.

86 Prior to the pandemic, the highest-rated tranches of small business loan securitizations by Fintechs, such as Kabbage, FundingCircle, Credibly, RapidFinance and National Funding, were rated below the highest rating category. See Kroll Bond Rating Agency, 2019 Small Business Lending ABS Year in Review and 2020 Outlook 6 (Feb. 13, 2019) see also KBRA Assigns Preliminary Ratings to Kabbage Asset Securitization LLC, Series 2019-1 Additional Notes, BUS. WIRE (Nov. 12, 2019, 2:49 PM), https://www.businesswire.com/news/home/20191112005999/en/ [https://perma.cc/3BYG-CFAR]. OnDeck, the only Fintech lender whose ABS had a top rating from one rating agency, suspended all non-PPP lending to new and existing customers in April 2020 and was subsequently sold for a small percentage of its historical market capitalization. See Sean Murray, OnDeck Reports Q1 Net Loss of $59M, Suspends Non-PPP Lending Activities, DEBANKED (Apr. 30, 2020), https://debanked.com/2020/04/ondeck-q1-earnings-to-be-released/ [https://perma.cc/D5X4-QM3] (“OnDeck has suspended the funding of its Core loans and lines of credit to new or existing customers (unless the loan agreement has already been executed.”); see also Press Release, Enova Int’l, Enova to Acquire OnDeck to Create a Leading FinTech Company Serving Consumers and Small Businesses (July 28, 2020), https://www.prnewswire.com/news-releases/enova-to-acquire-ondeck-to-create-a-leading-fintech-company-serving-consumers-and-small-businesses-301101550.html [https://perma.cc/ZGZ7-JM8C].
either the immediate or longer term—to develop or maintain the infrastructure needed to make small business loans that lacked a government guarantee.\textsuperscript{87}

The potential economic consequences of the Fed’s decision are significant. In recent years, more than 61 million individuals—almost one-half of the U.S. workforce—worked in a small business, and small businesses collectively produced 43.5% of U.S. GDP.\textsuperscript{88} Even more importantly, small businesses have accounted for 62% of net new job creation since 1995.\textsuperscript{89} The failure to do more for these enterprises cannot be readily explained away as lying outside the Fed’s employment mandate,\textsuperscript{90} nor does it appear that the Fed is unconcerned about these companies. If anything, the opposite seems to be true. Chairman Powell explained: “[t]he pandemic is presenting acute risks to small businesses” and when “a small or medium-sized business becomes insolvent . . . we lose more than just that business.”\textsuperscript{91} “[t]he heart of our economy and . . . the work of generations” is at stake.\textsuperscript{92}

The struggles the Fed confronted in its effort to operationalize both the Main Street Facilities show how hard it can be for the Fed to partner

\textsuperscript{87} Baker & Judge, supra note 82, at 2 (discussing Fed’s mechanisms for extending lines of credit to small business as critical but insufficient).


\textsuperscript{89} Id. (stating 12.7 million net new jobs have been added to economy by small businesses).

\textsuperscript{90} See id.


\textsuperscript{92} Id.
with the lenders who specialize in making these loans, even when big dollars are involved.

C. Why the Fed?

Strikingly, given the effect of delegating so much credit creation to the Fed, there is little sign that Congress had any desire to favor credit creation for large businesses over mid-sized and small ones. Given all that the Fed was already doing to fulfill its core mission of monetary policy while aggressively using emergency authority to stabilize short-term markets, why did Congress lay such a daunting new challenge on the Fed’s shoulders? Although there are an array of reasons, one merits particular attention for purposes of our analysis here: perhaps Congress felt it did not have a better alternative.

As Neil Komesar has illuminated in his work on the importance of “deciding who decides,” institutional choice is always relative. The alternatives facing Congress in passage of the CARES Act were to: (a) come to a bipartisan, bicameral compromise and decide itself; (b) empower the President to decide directly or through a cabinet agency; or (c) empower an alternative institution such as the Fed. The Fed may be ill suited to address many of the challenges it is now being asked to help solve, but it is still better suited to take them on than administrators closer to the President or Congress through a more detailed set of appropriations, at extremis earmarking funds to specific projects. The Fed may be less susceptible to corruption, more competent, more able to make credible commitments, and more able to act quickly when that is what the situation requires, all factors that matter with these types of decisions. Examining Congress, the Presidency, and the Fed in broad strokes and then looking at specific institutional advantages the Fed may possess helps to explain how the central bank became a key part of the line of first defense for providing fiscal support to businesses in a recession.

Nevertheless, the Fed or the U.S. system of governance generally is not necessarily well-served by this allocation. As Komesar also emphasizes, because any effort to pursue a substantive aim will be mediated by the processes and people of the institution charged with implementing that aim, institutional choice is of utmost importance. And the use of the Fed as “quarterback” for relief efforts—given its institutional culture and the way it interacts, or does not, with existing “private” mechanisms for credit creation—highlights just how central infrastructure is in determining who gets help when crisis strikes.

III. OTHER SMALL BUSINESS SUPPORT: PPP

Congress also created other programs to try to help businesses survive the unprecedented shock. The most important program for small businesses in the early stages of the pandemic was the PPP. This program was designed to funnel operating assistance to the employees of small businesses and discourage mass layoffs in addition to helping the owners and operators of those businesses weather the storm. Small businesses were particularly hard hit in the early part of the pandemic, as shutdowns were declared and customer traffic imploded in the country’s business districts. According to one study, by May 2020, 34% of small businesses were still closed compared to January 2020.

94 Id.


96 Id.

The impact on business owners was not consistent demographically. For example, Asian and Black business owners were more highly concentrated in places, and in industries, with larger declines.

The PPP was a unique program unprecedented in U.S. history. With the avowed goal to assist small businesses and small business employees impacted by the COVID-19 shutdown, Congress created the PPP and set aside $349 billion of CARES Act appropriations for PPP purposes. Congress placed the Treasury Department in charge of PPP and directed the Small Business Administration to help small businesses qualify for PPP funding. Congress gave the Treasury Department broad discretion to disburse PPP funding. The PPP was designed to funnel operating assistance to small businesses to discourage mass layoffs in addition to helping the owners and operators of those businesses. As one of its main sponsors, Senator Marco Rubio (R-FL) described the program: “PPP had two main

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98 Ghosh, supra note [104], (listing San Francisco, Boston, and Washington as cities with sharpest decline in small businesses remaining open).


100 Id.


102 See Press Release, supra note .


104 Id.
goals: help workers keep their jobs, and protect small businesses from being forced to permanently close their doors.”

The PPP was ostensibly a “forgivable loan” program run through existing financial intermediaries, primarily banks and, in the later stages, financial technology firms (“Fintechs”) and other nonbank lenders. In practice, it functioned as a grant with easily met conditions. Because, it too relied on existing infrastructure, assistance—particularly in the critical early days of the PPP—was principally available to small businesses with existing relationships with participating lenders.

The PPP was structured to reach businesses using lender financial intermediaries as the disbursement arm, accessed through PPP “loan” applications. The Treasury then funded such “loans” through the lender to the applicant. To achieve the dual goals of the program, the “loans” were forgivable as long as borrowers maintained employee

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106 For this paper we will define Fintechs as companies that provide credit primarily through technological platforms (not in-person or store front) and are not chartered banks, credit unions, or community development financial institutions (CDFIs). We define fintechs this way to make the conceptual arguments regarding bank/credit union/CDFI vs. Fintech cleaner. We realize that in the real world many banks/credit unions/CDFIs use financial technology extensively, that there are nonbank lenders that do not operate as FinTechs, and that some Fintechs are or may be considering becoming banks/credit unions/CDFIs. We also recognize that there are a whole host of financial technology companies that are not lenders but are commonly referred to as FinTechs.

107 Pandemic Oversight, Paycheck Protection Program, PANDEMIC OVERSIGHT, https://www.pandemicoversight.gov/data-interactive-tools/interactive-dashboards/paycheck-protection-program (last visited Feb. 20, 2022) (showing hundreds of billions of dollars forgiven). As of November 24, 2021, $629.2 billion of the total of $792.8 billion in PPP loans (79.4%) had been forgiven. Id.

108 A July Update on the Paycheck Protection Program, supra note 103 (“[T]he forgivable loans were provided through banks and other private financial entities who have collected billions of dollars in fees for their services.”).
compensation levels.109 Originally set at 75% for payroll, that figure was reduced to 60% in later legislation.110 Thus, up to 40% of funds supposedly designed to protect paychecks could be spent on “other eligible expenses.”111 Reflecting the belief at the time that the economic shutdown would be short, businesses were given eight to twenty-four weeks to use the funds for those purposes.112 If these criteria were met, the “loan” was forgiven.113 Thus, the “loan” effectively became a grant.

Economically there is little distinction between a loan that is forgiven if key conditions are met and a grant that must be repaid if certain conditions are not met. Both are contingent gifts that require repayment if certain criteria are not met. Politically there are important distinctions between programs that are marketed as “loans” compared to those marketed as “grants.” Short-term grant programs like the PPP are designed to support the status quo without making too many distinctions and “kick the can” down the road until the situation is clearer or possibly in hopes that a short-term lifeline is all that will be needed for long-term business survival. These grants are expenditures not expected to be recouped by the provider.114 Loans, by contrast, are intended to be repaid over time and availability is dependent upon the lender’s assessment of repayment risk. This was the approach that the Main Street Loan program followed, as noted above. The political sensitivity of this distinction is illustrated by the following counterfactual. Had the PPP grants actually been true loans with an


110 Id.

111 Id. (requiring also that “loan proceeds are spent on payroll costs and other eligible expenses”).

112 Id.

113 Id.

114 Id.
expectation of repayment, then Congress, Treasury, or the Fed would have had to come up with underwriting criteria to control credit risk or delegated underwriting to lenders (as with the MSLP).

Because loan underwriting necessitates some degree of trying to separate expected winners from losers—even when the government is ready to absorb some of the credit risk—using true lending structures to deliver assistance is challenging even in normal cyclical downturns, and is particularly so in a sharp crisis when the future direction of the economy is particularly unclear. During the early phases of COVID-19, for example, there were legitimate questions about whether infections would continue for mere months or many years and thus whether the economic recovery would be V-shaped, a swoosh, a sawtooth, or something else entirely. There were significant questions about how it would differentially impact different industries, outside of the obvious areas of travel and leisure. This uncertainty rendered many of traditional tools of credit analysis, temporarily, far less reliable. It can also help explain why neither the Fed nor the Treasury were anxious to try to take more actions that directly supported small businesses via true credit extensions. Given Congress’s decision to have the Fed play a central role in aiding the flow of funds to businesses under the exigencies of the COVID-19 induced recession, there are still lessons to be learned for the next crisis, whatever its cause.

The Treasury, in the first stage of PPP, worked with the SBA and a multitude of banks and credit unions to disburse PPP funds. The government paid fees to entice banks and nonbanks to originate PPP “loans.” The fees provided to financial intermediaries facilitated distribution of PPP funds, and banks worked hard to get money out the door to their customers. Low-cost funding ultimately provided by the PPP loan fund set up by the Treasury and the Fed coupled with


116 See, e.g., Baker & Judge, supra note 82, at 2 (“Nor can anyone foresee what the economy will look like when people emerge from their shelters.”).

117 See id. (“A severe recession is certain, but questions remain about just how deep it will sear, how long it will last, and how it will reshape the economy that emerges.”).
capital relief provided to banks by regulators provided additional incentives for financial intermediaries to engage.\textsuperscript{118}

Despite the fact that the initial round of funding was expected to be far shy of demand, the Treasury decided to make funds available in a “first come, first served” basis. The result was a rush to seek funding. The entire $350 billion was given out in fourteen days, beginning April 2, 2020 (barely after the CARES Act was signed and again before any automatic stabilizer tied to the unemployment data would have been able to kick in).

The rollout process was chaotic and exposed significant weaknesses in the SBA’s loan application system. It also created frustration for many of the lenders attempting to submit and receive approval for applications and the borrowers seeking funds.\textsuperscript{119} Getting so much funding out so quickly was no small feat.\textsuperscript{120} And, interestingly, in light of the push for digital lenders to be included in the first round, banks succeeded in getting PPP loans for their customers in most cases by “throwing people” at the problem instead of automating processes.\textsuperscript{121}

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\textsuperscript{120} Id. (“Collecting the right information, auditing thousands of quickly thrown together documents, and doing it all under the extreme conditions of the coronavirus pandemic presented several challenges, but the biggest challenge by far, was submitting the paperwork.”).

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The Treasury made several decisions in implementing PPP that had the effect of prioritizing larger companies by incentivizing those with preexisting banking relationships and those asking for larger PPP amounts. “First come, first served” funding of applications incentivized speed. Speed in application processing is a function of relationships—borrowers knew where to go for help and banks could process the requests of existing customers quickly—but equally the result of bank self-interest. The Treasury also decided to require anti-money laundering rules, such as know your customer, to be part of the PPP underwriting process. This burden increased the fixed cost to process PPP applications and increased the time it took to gather information from customers who had not previously been subject to anti-money laundering review. This very likely had the effect of prioritizing PPP access for businesses that had previously obtained a loan over those that just had a transaction account or some other relationship at the bank. Finally, in more of a structural issue than a decision about implementation, the natural economics of bank/business relationships also tilted the scales toward providing PPP assistance to pre-existing customers who already had outstanding loans from the bank. By improving the liquidity and solvency of a loan customer receiving PPP funds, it became less likely that a bank’s outstanding loan would go into default.

These dynamic factors favored large businesses and those who had been in business longer. It also favored wealthier businesses—that for-latest-ppp-round (noting PPP distribution prior to automation was inefficient and cumbersome).

122 Aaron Klein & Staci Warden, Anti-money Laundering Rules: An Emergency Assistance Roadblock, BROOKINGS INST. (Apr. 8, 2020), https://www.brookings.edu/opinions/anti-money-laundering-rules-an-emergency-assistance-roadblock/ [https://perma.cc/XTG4-Y23E] (“When a new small business comes calling, asking for a small two-month loan at a 1% interest rate, the more prudent course from a bank’s risk management perspective, even with a government guarantee, may simply be to not make the loan at all.”).

is, the businesses that were in better financial position to handle the economic disruption even without government aid. These factors help to explain why in the first round of PPP allocations to companies seeking $1 million or more, quite a large sum for what was supposed to cover mainly six to eight weeks of payroll, comprised 44.5% of all PPP funds. By contrast, funds for businesses seeking $150,000 or less made up only 17% of all successfully processed PPP applications.

This approach disfavored the large number of the smaller businesses that relied on Fintechs and other nonbank lenders for credit, and the many very small businesses who were not actively borrowing prior to the crisis. These categories include proportionally more minority and women-owned businesses. Given weaker historical relationships between banks and minority-owned small businesses and microbusinesses (those with ten or fewer employees), this likely contributed to such businesses having more difficulty and less overall access to the first round of PPP funding. Although, to be sure, other


126 Id.


factors also played a role contributing to the disparities in who actually received funding.\textsuperscript{129}

In initially using banks as the primary distribution channel, Treasury seemingly paid little heed how various small businesses access funding, and how the small business credit market has changed since 2008. As two of us noted before those decisions were made: “Banks are no longer the only source of credit for true small businesses, especially the type of very small “Mom & Pop” corner stores, laundromats, beauty salons, and coffee and sandwich shops that line main streets.”\textsuperscript{130} Over the last decade, the smallest enterprises have increasingly turned to online lenders for their credit needs.\textsuperscript{131} The 2019 Federal Reserve Banks’ Small Business Credit Survey indicated that, in 2018, nearly one-third of small businesses that applied for credit sought it from an online lender (the type of lender we describe here as a Fintech).\textsuperscript{132} For less traditionally credit-worthy businesses, the number was closer to one-half.\textsuperscript{133} Despite an average loan size much smaller than that of a typical bank,\textsuperscript{134} online lenders extended more neighborhoods receiv[ed] PPP loans more quickly than small businesses in majority-Black and majority-Latino or Hispanic neighborhoods”.

\textsuperscript{129} Humphries et al, supra note [104].


\textsuperscript{131} Fed Resrv. Banks, supra note 130 (showing upward trend in online applications from 2016 through 2018).

\textsuperscript{132} Id. at iii.

\textsuperscript{133} Id. (“Medium- and high-credit-risk applicants seeking loan or line of credit financing were as likely to apply to an online lender as to a large bank (54% and 50%, respectively), and more likely to apply to an online lender than to a small bank (41%), CDFI (5%), or credit union (12%).”).

\textsuperscript{134} Maddie Shepherd, Average Small Business Loan Amounts, Broken Down and Explained, Fundera (Jan. 27, 2021), https://www.fundera.com/business-
than $20 billion in loans to small businesses in 2019, owing overwhelmingly to very small enterprises.\textsuperscript{135} Combined with the approximately $12-15 billion in aggregate merchant cash advances made to small retail businesses in 2019, nonbank lenders provided somewhere between one-quarter and one-third of all credit to the smallest businesses.

Racial disparities also appear larger in bank small business lending than in Fintech lending.\textsuperscript{136} While large banks approve at least some credit for about 65% of loan applications from White small business owners, this number drops to 45% for Black small business owners.\textsuperscript{137} In contrast, online lenders approved credit for around 85% of White-owned small business borrowers versus 83% for Black-owned borrowers.\textsuperscript{138} As a result, regardless of intent, it was foreseeable that

[loans/guides/average-small-business-loan-amount [https://perma.cc/EL5Z-54SP] (noting U.S. average small business loan is $633,000.).]

\textsuperscript{135}Baker & Judge, supra note 82, at 7.


\textsuperscript{137}Id.

\textsuperscript{138} Mels de Zeeuw & Brett Barkley, Mind the Gap: Minority-Owned Small Businesses’ Financing Experiences in 2018, FED. RESERVE (2019), [https://www.federalreserve.gov/publications/2019-november-consumer-community-context.htm [https://perma.cc/RCA2-55ET] (concluding that “that minority-owned firms—particularly black-owned firms—experience greater challenges obtaining or accessing financing and have potentially large, unmet financing needs”). There is a large disparity in approval rates between White, Black and Hispanic small business loans in general. FED. RESERVE BANK OF ATLANTA, SMALL BUSINESS CREDIT SURVEY: REPORT ON MINORITY OWNED FIRMS, at iii-v (Dec. 2019), https://www.fedsmallbusiness.org/medialibrary/fedsmallbusiness/files/2019/20191211-ced-minority-owned-firms-report.pdf [https://perma.cc/7LQF-9WA7] “On average, Black- and Hispanic-owned firm applicants received approval for smaller shares of the financing they sought compared to White-owned small businesses that applied for financing. Larger shares of Black- and Hispanic-owned firm applicants did not receive any of the financing they applied for—38% and 33%, respectively—compared to 24% of Asian-owned firm applicants and 20% of White-owned business applicants. A larger share of White-owned business applicants received approval for all the financing they applied for: 49%, compared to 39% of Asian-, 35% of Hispanic-, and 31% of Black-owned firm applicants.” Id. Similar issues exist
in disproportionately relying on banks, the Treasury’s particular approach to allocating early PPP funding would also disproportionately go to larger, whiter, small businesses. It was a decision that albeit neutral on its face, was far from neutral in practice.

“First come, first served” also resulted in PPP grants that were often disconnected from the level of COVID-19 infection the business’s home area was experiencing or how tight state-based lock-down regimes were—both presumably proxies for negative business impact. For example, Texas companies received the largest share of any state of initial PPP funding despite a relative lack of the virus at the time and having far fewer state based lock-down restrictions.139 The definition of ‘small business’ in the legislation was quite lenient, allowing relatively large publicly traded companies and professional sports teams to qualify (among the most famous were Shake Shack and the Los Angeles Lakers).140 As firms were eventually named, a slew of media stories began, and many firms decided to return the money. The situation was significant enough that a joint statement by Treasury Secretary Mnuchin and SBA Administrator Carranza noted “the large number of companies that have appropriately reevaluated


their need for PPP loans and promptly repaid loan funds.”

That same release promised greater scrutiny for firms that took more than $2 million in PPP.

After the initial round of PPP funding provided in the CARES Act was quickly exhausted, Congress appropriated another $321 billion in PPP funding in the Paycheck Protection Program and Health Care Enhance Act of April 2020. In an apparent attempt to rectify the problems in reaching low-income and minority communities, $60 billion of that funding was set aside for small banks, credit unions (defined as assets of under $10 billion) and community development financial institutions (“CDFIs”) to allocate. This decision may have reflected Congress’s belief that smaller lenders were more likely to be the conduits to reach these communities. At about the same time, the SBA began authorizing PPP lending by nonbank CDFIs, Fintechs, and other nonbank small business lenders, further improving access to PPP by the small businesses that relied on those intermediaries for credit prior to the crisis.

Unfortunately, systems and operational issues persisted, despite efforts to correct known problems. In addition, according to a paper by three economists at the University of Texas, the inclusion of nonbanks as lenders appears to have increased levels of potential fraud.

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in the program four-fold in the second round, with some estimates as high as $69 billion total in potentially fraudulent PPP loans.\footnote{144}{John M. Griffin, Samuel Kruger & Prateek Mahajan, Did FinTech Lenders Facilitate PPP Fraud, (Dec. 6, 2021), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3906395 [https://perma.cc/56AZ-HMNG] (“Overall, we find more than 1.51 million questionable loans representing over $68.9 billion in capital.”). It would also seem likely that greater PPP familiarity and preparation time for fraudsters was a contributing factor.}

Initial research suggests that reliance on the existing system of financial intermediaries to distribute PPP support resulted in racial bias in allocation of funding, and focusing on bank size to ameliorate the disparity was not an effective solution. Economist Sabrina Howell and co-authors found that Black-owned businesses were less likely to receive PPP funding through a bank, even after controlling for other variables using standard economic techniques.\footnote{145}{Sabrina T. Howell, Theresa Kuchler, David Snitkof, Johannes Stroebel & Jun Wong, Racial Disparities in Access to Small Business Credit: Evidence from the Paycheck Protection Program, (Nat’l Bureau of Econ. Rsch., Working Paper No. 29364, 2021), https://www.nber.org/system/files/working_papers/w29364/w29364.pdf [https://perma.cc/7AFS-EB55] (noting that less than 9% of all loans went to Black-owned businesses).}

Their study also found that “smaller banks were much less likely to lend to Black-owned firms, while the Top-4 banks exhibited little to no disparity after including controls,” indicating that Congress’s solution of prioritizing small banks to rectify racial disparities in the first round of funding was unsuccessful and potentially counterproductive.\footnote{146}{Id.}

The study indicated that Fintech firms were more successful in reaching minority owned firms.\footnote{147}{Id.} However, as noted above, other research suggests that Fintechs had their own issues in processing PPP applications, as they approved significantly more potentially fraudulent loans.\footnote{148}{Id. et al., supra note 144 and accompanying text.}
Using existing lenders in the financial system to allocate funding inevitably leads to favoritism towards specific subsections of the population, and it often means favoring those who already have a leg up. Just as with the decision to empower the Fed and Treasury, Congress could have made different decisions in how to structure PPP, and it could have provided more guidance to the Treasury Department to minimize some of the disparities on display, particularly in the allocation of the first round of PPP funding.\textsuperscript{149} There are inevitable tradeoffs allocating assistance this way, no matter what decisions Congress made, precisely because it was so dependent on existing private infrastructure given the limited public alternatives. In choosing to prioritize speed—an understandable priority under the circumstances—Congress also set the stage for exacerbating existing inequities in access to credit.

Just as with the decision to ask the Fed to play such a central role in facilitating the extension of credit to businesses, the choice was among imperfect alternatives. The scope of the banking system, and the relationships and liquidity it possessed, at least positioned it to serve as a plausible partner in the government’s effort to quickly distribute a lot of fresh cash to small businesses and others that happened to qualify.

A. The Role of Fintechs and Nonbanks

As discussed above, Fintech small business lenders were the main source of credit for a large and highly vulnerable part of the small business ecosystem that banks were not serving effectively.\textsuperscript{150} Unlike banks, Fintech small business lenders were faced with an existential


\textsuperscript{150} Fintech lenders include the new breed of standalone nonbank small business lenders like FundingCircle, OnDeck, Fundation, Kabbage, BlueVine, Can Capital, StreetShares, Lendio, and Biz2Credit, as well as more established tech companies like Square, PayPal, Stripe, Intuit, and Amazon, which include lending as part of their service.
crisis when the COVID-19 pandemic began. Due to their capital markets-dependent business models, many Fintech small business lenders were forced out of the loan market just when the liquidity they provide was needed most.\textsuperscript{151} Many large Fintech lenders curtailed or ceased lending entirely as their ABS were downgraded and funding costs rose precipitously.\textsuperscript{152} In the early stages of the crisis, as a recent

\begin{footnotesize}


\textsuperscript{152} Robert Armstrong, \textit{Online Lender Stops Making Loans to Small US Businesses}, FIN. TIMES (Apr. 1, 2020), https://www.ft.com/content/c31a20cf-cb17-4958-9454-73763302b5dc (“We securitise our receivables and we are on the hook for loan performance, which is suffering because of delinquencies, because our customers have no revenue, because they are closed…”); Kroll Bond Rating Agency, \textit{10 U.S. Small Business ABS Deals on Watch Downgrade Due to COVID-19 Concerns}, (Mar. 30, 2020. 

Electronic copy available at: https://ssrn.com/abstract=4049321
paper by Ben-David, Johnson and Stulz showed, the pandemic “led to a sharp contraction in fintech lending to small businesses around the onset of the crisis. Digital lending in the second quarter of 2020 declined by 75% relative to its $16 billion level in the fourth quarter of 2019,” and “out of 16 small business fintech lenders originating loans before the COVID-19 shock in 2020, only six were still originating loans in the third quarter of 2020.” Strikingly, by contrast, their analysis found “no evidence of an equivalent collapse in bank loans to small businesses during the same period.”

This raises important questions about the implications of the decisions by the Fed and Treasury (in the context of TALF and the first round of the PPP, respectively) to take actions that effectively limited their capacity to provide fresh liquidity to Fintechs that specialized in small business lending. There are some practical explanations, but whether those suffice or how informed policy makers were about the myriad consequences that were likely to flow from those decisions, remains unclear. For example, with respect to PPP, assuming that the decision had already been made to require certification of bank-level anti-money laundering compliance for nonbank lenders included in the PPP, those lenders might not have been prepared to participate directly in the first round in any event. Many of the Fintech small business lenders that survived the early stage of the pandemic did so largely by virtue of helping, directly or indirectly, in the distribution of the PPP funds by banks without acting as approved lenders or otherwise taking on the primary anti-money


153 Itzhak Ben-David, Mark J. Johnson & René M. Stulz, Why Did Small Business Fintech Lending Dry Up During March 2020?, (Fisher Coll. of Bus., Working Paper No. 2021-03-014, 2021), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3910549 [https://perma.cc/B4NN-JVZ5]. The authors showed that “the drying up of the loan supply is most consistent with fintech lenders becoming financially constrained and losing their ability to fund new loans.”

154 Id.
The speed and simplicity of Fintech lenders’ processes were, at least theoretically, an advantage relative to the often more bureaucratic loan origination practices of banks, helping to explain why so many Fintechs found ways to work with banks, by generating leads or providing loan origination and tracking software to allow banks that had previously used manual processes to convert to digital origination and tracking in the PPP, rather than going it alone.

Whatever the reasons, the government’s initial crisis response did little to support these nonbank lenders, creating a risk not only to them but to the many small businesses that relied on them for funding. This

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156 In fact, many banks relied on Fintechs for the software used to process PPP loans. Darren Hecht, How Independent and Community Banks Used Fintech to Tackle PPP, INDEPENDENT BANKER (July 8, 2021), https://independentbanker.org/2021/07/how-independent-and-community-banks-used-fintech-to-tackle-ppp/ (describing how this approach strengthened relationships with clients); Loraine Lawson, Lessons Learned: PPP Spurs New Automations and Fintech Partnerships, BANK AUTOMATION NEWS (June 7, 2021), https://bankautomationnews.com/allposts/lessons-learned-ppp-spurs-new-automations-and-fintech-partnerships/ (last visited Feb. 20, 2022); Press Release, Fintech Companies, Lendsmart and Griffin Technologies, Partner to Improve SBA PPP Loan Process (May 20, 2020), https://lendsmart.ai/fintech-companies-lendsmart-and-griffin-technologies-partner-to-improve-sba-ppp-loan-process/ (explaining how technology helps banks process loans). A significant portion of the PPP loans made by small and mid-sized banks were sourced by FinTechs. According to the House Select Committee on the Coronavirus Crisis, a Fintech called Womply worked with seventeen lenders to process 1.4 million or more PPP loans. Press Release, Select Subcomm. on Coronavirus Crisis, Select Subcommittee Expands Investigation into Role of FinTech Industry in PPP Fraud (Nov. 23, 2021), https://coronavirus.house.gov/news/press-releases/select-subcommittee-expands-investigation-role-fintech-industry-ppp-fraud (summarizing reasons for expansion of investigation into Fintech’s “facilitation of fraud”). While Fintech lenders had the same incentives as banks to facilitate PPP loans to their existing customers as a means of reducing potential defaults, they also had significant financial incentives to make PPP loans to new customers. This is because as monoline lenders become unable to fund traditional loans and lack other revenue sources, they need the revenue from PPP lending to “keep the lights on” in their origination operations until conditions improve.
is a classic quandary when important financial activity moves outside the perimeter of banks and other prudentially regulated institutions. Usually, migration outside this space—whether by Fintechs, money market funds or open-end bond funds—brings lower regulatory costs and other flexibility. This can lead to rapid growth accompanied by reliance on mechanisms that were, by design, not resilient to shocks and not regulated in the way needed to ensure resilience. Providing support can allow the fragility to persist, but can also be key to protect the real economy actors that rely on the fragile intermediaries. Although there are no easy or right answers to these quandries, the numerous places where this type of interplay is at work highlights the need to better understand and address these challenges before crisis strikes.

Ultimately, the Fed and Treasury did provide some short-term assistance to Fintech and other nonbank small business lenders. While they left the TALF unchanged, late in the first round of the PPP, the Treasury, the Fed, and the SBA took action to include Fintechs and other nontraditional lenders like CDFIs with direct access both to the PPP and the related Paycheck Protection Program Liquidity Facility (“PPPLF”). However, Fintech and other nonbank lenders remained subject to various specific application requirements and other conditions (principally related to the Bank Secrecy Act and anti-money laundering compliance) that continued to delay and limit their participation relative to banks.


158 See, e.g., U.S. Small Bus. Admin., supra note 89 (explaining how to apply for loan forgiveness); Press Release, Fed. Rsrv. Bd., Federal Reserve Takes Additional Actions to Provide up to $2.3 Trillion in Loans to Support the Economy (Apr. 9, 2020), https://www.federalreserve.gov/newsevents/pressreleases/monetary20200409a.htm [https://perma.cc/HE3M-HXJ6]. Under the PPPLF, established April 9, 2020, the Fed will extend credit to eligible financial institutions that originate PPP loans, taking the loans as collateral at face value. While banks are included in the PPPLF at commencement, the Fed’s
When Fintechs and other nonbanks were authorized to participate directly in the PPP at the end of the first phase, they began to reap a larger benefit from the program. Research conducted by the Federal Reserve Bank of New York shows that Fintechs made less than 2% of PPP loans by dollar amount and less than 4% by number (reflecting lower average loan sizes) in the first phase of the PPP, with large and small banks making almost all the rest. As Fintechs and nonbanks became eligible PPP lenders, their share of PPP lending by both amount and number quintupled. Nonetheless, the fees provided directly under the PPP and in partnerships with banks may well have been played a critical role helping many Fintechs remain viable until conditions improved.

The researchers at the New York Fed also found that fintechs played a critical role getting PPP funds to Black-owned small businesses:

Applicants who approached Fintech lenders for PPP loans were more likely to lack banking relationships, be minority owned, and have fewer employees. Moreover, a higher share of applications by Black-owned businesses were approved by Fintech lenders as compared to firms with white, Asian, or Hispanic owners. Since Black owners were approved for loans by fintech lenders at a higher rate even before the pandemic, our results suggest that historical factors that prevent Black owners from receiving bank credit continued to operate with the PPP.  

release indicates that it is working to include other lenders originating PPP loans “in the near future.”

159 Jessica Battisto, Nathan Godin, Claire Kramer Mills & Asani Sarkar, Who Received PPP Loans by Fintech Lenders, FED. RSrv. BANK OF N.Y.: LIBERTY ST. ECON. (May 27, 2021),

https://libertystreeteconomics.newyorkfed.org/2021/05/who-received-ppp-loans-by-fintech-lenders/ [https://perma.cc/HD64-2N7H] (breaking down which demographics received loans from fintech companies).

160 Id.
Finally, fintech loans appeared to be correlated more closely than bank loans with areas of particular pandemic need, as measured by death rates. Other research published by the New York Fed corroborates this.\textsuperscript{161} For example, in New York, during the first round of PPP, fintech lenders’ shares of small loans were almost twice as large in the counties with the highest death rates as compared to counties with the lowest death rates. By comparison, bank loan shares were statistically uncorrelated with death rates during the first round of PPP funding. In subsequent rounds of PPP, loans of all lenders had a similar correlation with death rates.\textsuperscript{162}

IV. SOME IMPLICATIONS FOR POLICY

This is a complex story where stated goals did not align with routes taken. Policy makers in Congress, Fed Chair Powell, and senior Administration officials suggest an acute and distinct interest in the health of smaller enterprises. And much money did flow from the federal government into these businesses. Nonetheless, when the different pieces of government support are put together, the overall picture that emerges is one that tilted the scales in the opposite direction, favoring larger businesses.

The decision to rely on lending facilities established by the Fed under its 13(3) authority, while neutral on its face, had the effect of doing far more to facilitate funding for the largest businesses relative to mid-sized and smaller ones. Similarly, the Treasury Department’s decision to favor banks over fintechs in the early stages of PPP implementation resulted in more funds going to larger, more established, and whiter qualifying businesses.

These actions have ramifications both for this recession and when the next shock or severe cyclical recession hits. As a starting point,


\textsuperscript{162} Id.
this highlights the need for ongoing awareness, engagement and discussion around the nature of the public and private credit intermediation infrastructure in place. Although the perceived lack of better alternatives may help explain Congress’s decision to rely so heavily on the Fed in its efforts to support businesses, that decision was far from neutral in its allocational impact. Similar dynamics are at play around the decision by Treasury to rely, initially at least, on banks as the primary conduits for PPP funds.

Another key contribution is to highlight the difference between the funds that flow from the government to businesses and the extent of government support provided for a domain. When interventions change the viability of intermediaries or alter expectations of future support, they can have long-term ramifications far in excess of the amount of actual support provided. This was true in 2008, and was a primary defense for interventions that helped stave off the failure of key financial institutions. This was also a key reason for the many reforms aimed at eliminating too-big-to-fail subsidies. And it was true again—although far less discussed, and in slightly different forms—in 2020.

A lot of money flowed into small businesses, but the nature of the PPP program did little to incent banks or nonbanks to find new and better ways to underwrite loans to small businesses. Nor is there much sign that the Main Street Lending Facility incentivized investments in credit intermediation infrastructure designed to help the mid-sized businesses that qualified for the program.

By contrast, the Fed’s purchases of corporate bonds in ways that stabilized open-end bond funds and ETFs holding bonds and its purchases of collateralized assets in ways that may have aided the functioning of the CLO market are precisely the types of interventions that can fundamentally alter market expectations, adding grease to the already well-oiled machine for extending credit to the country’s largest companies. That so many large companies issued so much new debt in the wake of these interventions, while so many small business owners report ongoing problems accessing credit, is a testament to this disparity.
Having created an expectation of support, the Fed may well feel compelled to support bond markets and investors yet again, rolling out the array of facilities created in 2008 and re-deployed in 2020. Whether this happens with specific congressional authority of the kind provided in the CARES Act or without, as was the case for many of the programs in the 2008 financial crisis and even in 2020 prior to the enactment of the CARES Act, the structures the Fed uses and the financial infrastructure the country is operating with will play key roles in shaping who benefits the most from government intervention.

A. The Persistent and Evolving Challenge of Small Business Financing

This essay also informs, although by no means seeks to resolve, the current debate regarding the appropriate role and regulation of nonbank fintechs in credit creation. Fintechs burst onto the scene in between these 2008 and 2020, and may well continue to play a growing role in the extension of credit to small business. This raises a host of issues. As this essay reflects, a key challenge to policy formulation in this area is the role that Fintech lenders increasingly play in providing credit to small businesses. There are also signs that the role of Fintech lenders may be especially salient to very small minority and women-owned businesses, whose viability may be of particular importance given persistent structural inequities. Despite this, the extent to which growing Fintech lending volumes can be explained by lower regulatory burdens, different business models, historically low interest rates, or other factors has not been adequately examined by policy makers or academics.

Absent meaningful reform, many of today’s Fintechs are poorly situated to weather a severe cyclical downturn. Without the significant and multi-faceted, although inconsistent, government support provided during the pandemic, far more Fintechs may well have failed. As the pandemic revealed, most Fintechs rely on wholesale funding that dries up quickly during periods of distress. This liquidity problem will likely be even more acute in a more traditional, longer lasting
cyclical credit downturn where loan performance and economic activity remained depressed for a lengthy period. This stands in stark contrast to banks that, because of a different business model and far more rigorous regulation, are better (even if far from perfectly) situated to make loans through the business cycle.

Now that the acute phase of the COVID-19 crisis has past, policy makers should seek to understand and address the challenges that arise from allowing fragile, capital-market dependent lenders to play such a significant role in the provision of credit to small businesses.163 There can be little question that allowing a large portion of lending to a critical area of the economy to be provided by companies (a) beyond direct federal regulation and (b) doing business in an inherently fragile and procyclical manner creates structural risks.

Looking ahead, one implication is the desirability of potentially doing more to facilitate ongoing credit creation for small businesses in peacetime, particularly those that have traditionally had a harder time accessing financing. There are a number of possibilities for dealing with this issue, and the best path forward may well include some mix of these approaches. One possibility would be to encourage banks to make further investments in their ability and willingness to lend to small businesses, including those that traditionally have had a harder time accessing credit. If banks build out the infrastructure and develop the relationships needed to make these loans, this could enhance credit access during good times and reduce the likelihood that economic shocks will overly contract credit creation for these businesses. The role banks, credit unions, and CDFIs can play could be assisted by their information advantages, knowing their customers and their communities.164 This type of relationship lending model has

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163 This is just one aspect of a larger problem involving the resiliency of capital markets in the face of major crises. Commercial paper, Fed funds, and mortgage and other markets also struggled to function effectively, requiring intervention from the Fed and Treasury.

164 Congress has already taken some steps in this direction. Legislation signed into law in December 2020 included $12 billion set-aside for CDFIs and Minority Depository Institutions (“MDIs”). Consolidated Appropriations Act, 2021, Pub. L. No. 116-260 (2020). Specifically, the law included a $9 billion Emergency Capital Investment Program, administered by the Treasury, to provide low-cost, long-term capital investments to MDIs and CDFIs that are...
faced structural challenges given the rise of lending commoditization aided by enhancements in capital markets and computing power, which have driven down costs for certain types of loans that ‘fit the standard box,’ while making loans to entities that do not fit the box relatively more expensive for lenders, borrowers, and investors.

How best to facilitate deeper engagement by banks with underserved small businesses depends on understanding the frictions currently inhibiting robust extensions of credit by banks to these businesses. Given the risks and costs of such credit creation, and the positive social benefits of such lending, the government may well have a role to play. Regulation can and does incentivize financial institutions’ lending patterns, including creating hurdles to non-standard or ‘traditional box’ loans. The way the government supports housing finance by supporting the securitization of certain home loans may well serve as a model here too, though it may be appropriate for the government to take on even more risk—in a calculated fashion—than it often does with housing.

A related approach would be for the government to do more to expand the nonbank, non-Fintech mechanisms of getting funding to small businesses. A key public institution right now, is the SBA, which proved vital but also deeply flawed and limited during the pandemic. A key set of institutions are CDFIs, many of which are specifically focused on serving under-served populations, and the unfortunately dwindling number of minority-owned depository institutions. By enhancing these mechanisms alongside enhancing the ability of banks to serve small businesses, the government would be better positioned to credibly warn Fintechs that they are unlikely to be utilized in the same way the next time a crisis strikes, increasing their vulnerability.

Given that a lot of money can be made in good times, particularly when differential regulatory schemes make it cheaper to be a Fintech than a bank engaging in similar activities, another question is whether

depository institutions, with special set-asides for the smallest institutions. Id. In addition, $3 billion was appropriated to provide grants and other financial and technical assistance to CDFIs, including CDFI loan funds that serve consumers, small businesses and nonprofits in their communities. Id.
Fintechs should be regulated in a manner more akin to banks, including some mix of oversight, capital regulation and liquidity regulation. The aim need not be perfect uniformity, but ensuring that any set of lenders that are providing capital to businesses (or households) in sufficient amounts are able to continue to make such loans when conditions soften. As things now stand, even shocks far smaller than March 2020 could lead to meaningful disruptions in credit creation—harming not only the Fintechs who chose to be exposed to such risks but also their clients, who may not be aware of the risks they are indirectly taking in choosing to rely on a nonbank lender. Important but beyond our scope, is the question of whether this is best achieved by compelling Fintechs to become banks, allowing them to do so, or creating an alternative regulatory scheme with some but not all of the features long associated with bank regulation.

Yet another option would be for Congress to institutionalize direct or indirect recession lending (e.g., through SBA/CDFI subsidies) by other lenders like CDFIs focused on the populations heavily served by Fintechs, and leave the Fintechs to their fate. Finally, the government could commit to provide ongoing liquidity support to Fintechs in a recession, to allow them to continue to serve their customers by revising programs like the TALF, to support private small business lending and securitization funding. This would assist credit creation without the concomitant oversight and responsibilities that comprehensive supervision and capital and liquidity rules bring to regulated banking.

Any solution to the Fintech liquidity problem needs to take into account the large populations of small businesses that banks don’t serve today, particularly small minority and women-owned businesses. Comprehensive supervision, “Fair lending”-type anti-discrimination legislation, and programs like the Community Reinvestment Act have—so far at least—failed to sufficiently change this dynamic or extend the reach of banks into those populations. Exempting classes of insured deposit lenders from the Community

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165 This same argument could be made about other areas of financial markets, such as money-market mutual funds, that have repeatedly required government assistance in crises.
Reinvestment Act, such as what was done for credit unions, has arguably made the situation worse. Unless structural changes to assure small business lending liquidity in crises also deal with inadequate peace time access to funding for underserved enterprises, any solution will be incomplete.

B. Fragility, Funding and the Largest Businesses

Shifting to large companies, open-end bond funds may be the most vivid example of an inherently vulnerable product propped up by the Fed’s pandemic interventions. Corporate bonds are not, and have never been, anywhere near as liquid as equity instruments. Yet, corporate bond funds promise investors daily liquidity. Adding to the challenge, the price that investors in open-end bond funds receive for their shares is also determined by a daily net asset value, a pro rata share of the estimated value of the bonds held by the fund on the day of redemption without taking into account the cost of liquidating those bonds. This structure works fine in normal conditions, as investors are often entering as well as exiting, and bond funds often hold sufficient Treasury instruments to cover short-term demands for liquidity. But as March 2020 illustrated vividly, once liquidity becomes strained, this structure encourages investors to run for the exit—regardless of their need for liquidity—by allowing those who exit to impose the cost of liquidation, and corresponding losses, onto the investors who remain.

The classic problem of promising short-term liquidity in long-term less liquid investments is nothing new. Money market mutual funds, corporate bond funds, and bank deposits are all subject to similar runs. After the Great Depression, the government largely solved bank deposit runs through a combination of federal deposit insurance and substantial regulation. After the financial crisis of 2008, structural changes to money market mutual funds were supposed to have solved this problem. As then SEC Chair Mary Jo White stated in 2014: “Today’s reforms . . . will reduce the risk of runs in money market funds and . . . make our markets more resilient and enhance
transparency and fairness of these products for America’s investors.”166 These reforms failed their initial test in the Covid-19 crisis. Whether any such reforms are made to corporate bond funds or bond ETFs remains to be seen, despite the importance of the fragilities revealed. As then Brookings scholar and current Treasury Under Secretary for Domestic Finance Nellie Lang remarked in October 2020,

[T]he success to date of the Fed’s corporate bond program to calm the markets does not suggest that reforms are not needed. Instead, the reforms are even more critical, since the Fed’s actions likely raised expectations of such interventions in the future. It is important that the Fed, through financial reforms or clarifying its own intent for future emergency actions, reduce any perception by private entities that they would not have to bear the costs of their own risk-taking.167

Time will tell whether this wisdom is heeded.

There are an array of tools that could help mitigate these first-mover advantages,168 and it is beyond our purview to evaluate the right mix. But the analysis here does highlight that such interventions could be helpful for a number of related reasons. In addition to addressing a potential threat to stability, such efforts may be particularly warranted to counteract the impact of the Fed’s actions during the pandemic. Even when the Fed should intervene to stop the spread of dysfunction, that it needed to do so is often a flag of a need of further reforms. When these two are decoupled, interventions can perpetuate the expectation


168 Hubbard et al., supra note 46.
of further support and accentuate the fragility already embedded in a market. Moreover, given the ongoing growth of the bond market, addressing the ways ETFs and open-end bond funds create expectations of liquidity in markets where it may not exist could help slow that growth.

CONCLUSION

The breadth and swiftness of the government’s response to the COVID-19 crisis in 2020 is a testament to the capacity of policy makers to act quickly and decisively. The economic recovery from the pandemic has been rapid, particularly when compared with the rest of the world who largely suffered a similar shock. Providing meaningful support to virtually all Americans and increasing the payments made to those who had lost their jobs proved to be not only the right thing to do, but also the wise thing to do. Putting money into the hands of people who needed to spend it promoted economic activity even as people were scared, anxious, and leaving their homes far less frequently. It also played a powerful, even if indirect, role in alleviating strains in the financial system. Putting money in the hands of people and businesses enhanced their ability to pay back existing obligations, reducing the losses that banks and other creditors had to absorb. And the full panoply of government support ensured that the economy was positioned to grow as the acute phase of the pandemic subsided.

Yet alongside reflecting on the many lessons learned from previous periods of systemic distress, the pandemic has its own lessons to teach. Taking a step back to consider not only what worked and how, but also the challenges faced and the collateral consequences of the actions taken, is key to ensuring that policy makers—and the tools available to them—are ready when the next crisis hits. America’s financial infrastructure constrained the rapidity and effectiveness of our policy responses. It led to an uneven set of beneficiaries among individuals, families, and businesses big and small. Times of crisis require rapid response, inherently leaning on existing infrastructure. As our economic response increasingly relies on financial institutions and structures, the constraints of the institutions and structures will shape the options available for response as well as the efficacy of
policies chosen. This is why non-crises times are when greater thought and attention are required to improve our financial infrastructure.
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THE $800 BILLION PAYCHECK PROTECTION PROGRAM: WHERE DID THE MONEY GO AND WHY DID IT GO THERE?

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Working Paper 29669
http://www.nber.org/papers/w29669

NATIONAL BUREAU OF ECONOMIC RESEARCH
1050 Massachusetts Avenue
Cambridge, MA 0213
January 2022

Key data for this paper were provided for research by ADP, LLP. ADP approved this paper’s topic ex-ante and reviewed the paper prior to distribution to ensure it did not reveal confidential information about ADP’s clients or business model. Coauthors Goldar and Yildirmaz were involved in making the data available to several research teams as employees of the ADP Research Institute. At the Federal Reserve Board, we thank Christopher Kurz and Norman Morin for support, Kendra Robbins and Eleanor Warren for excellent research assistance, and Kevin Moore for updating the analysis in Bhutta et al. (2020). We thank Tolga Tuncoglu of ADP for superb assistance with matching the SBA PPP loan data into the ADP data. We thank Michael Dalton, Andrew Goodman-Bacon, Erik Hurst, Katie Lim, Joseph Nichols, Ryan Nunn, Matthew Shapiro, Liyang Sun, and Eric Zwick for helpful discussion. Autor acknowledges financial support from the Smith Richardson Foundation (#20202252), Accenture LLP (#027843-0001), the Andrew Carnegie Fellowship (G-F-19-56882), and the Washington Center for Equitable Growth (APP-01666). The analysis and conclusions set forth here are those of the authors and do not indicate concurrence by other members of the Federal Reserve Board research staff, by the Board of Governors, or by ADP. ADP’s data privacy policy can be found at https://www.adp.com/about-adp/data-privacy.aspx. The views expressed herein are those of the authors and do not necessarily reflect the views of the National Bureau of Economic Research.

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The $800 Billion Paycheck Protection Program: Where Did the Money Go and Why Did it Go There?
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NBER Working Paper No. 29669
January 2022
JEL No. E65,H2,J38

ABSTRACT

The Paycheck Protection Program (PPP) provided small businesses with roughly $800 billion dollars in uncollateralized, low-interest loans during the pandemic, almost all of which will be forgiven. With 93 percent of small businesses ultimately receiving one or more loans, the PPP nearly saturated its market in just two months. We estimate that the program cumulatively preserved between 2 and 3 million job-years of employment over 14 months at a cost of $170K to $257K per job-year retained. These estimates imply that only 23 to 34 percent of PPP dollars went directly to workers who would otherwise have lost jobs; the balance flowed to business owners and shareholders, including creditors and suppliers of PPP-receiving firms. Program incidence was highly regressive, with about three-quarters of PPP funds accruing to the top quintile of households. This compares unfavorably to the other two major pandemic aid programs, enhanced UI benefits and Economic Impact Payments (i.e. stimulus checks). PPP’s breakneck scale-up, its high cost per job saved, and its regressive incidence have a common origin: PPP was essentially untargeted because the United States lacked the administrative infrastructure to do otherwise. The more targeted pandemic business aid programs deployed by other high-income countries exemplify what is feasible with better administrative systems. Building similar capacity in the U.S. would enable greatly improved targeting of either employment subsidies or business liquidity when the next pandemic or other large-scale economic emergency occurs, as it surely will.

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In the early weeks of the COVID-19 pandemic, many small businesses in the United States were in precarious financial condition: revenues had plunged, access to credit was in many cases inadequate or absent, and large-scale layoffs and closures had already occurred (Bartik et al., 2020a,b). The potential consequences of widespread business failure were not confined to business owners. Since approximately 47 percent of US workers were employed by small businesses prior to the pandemic (SBA, 2019), these closures held the potential for vast job loss. Over the longer term, widespread firm closures could slow the subsequent economic recovery by destroying intangible firm capital, liquidating high quality worker-firm matches, and forcing the costly reallocation of physical capital.

To aid these distressed businesses, Congress enacted the Paycheck Protection Program (PPP), which provided uncollateralized, low-interest loans of up to $10 million to firms with fewer than 500 employees—loans that were forgivable on the condition that recipient firms maintained employment and wages at close to pre-crisis levels in the two to six months following loan receipt. The scale of the aid provided was extraordinary. By the time the program concluded in mid-2021, around $800 billion in loans had been extended. Despite facing initial capacity constraints, the Paycheck Protection Program was notably successful in distributing a vast number of loans in short order: the take-up rate among eligible firms was 94 percent. Crucial to this rapid rollout was the decision to enlist the private sector to oversee the origination of all PPP loans, with the Small Business Administration (SBA) serving as the guarantor.

The Paycheck Protection Program was ultimately comparable in size to the two other major federal transfer programs enacted in response to the pandemic: expenditures on household payments—i.e. stimulus checks—were around $800 billion; and expenditures on expanded unemployment benefits totalled roughly $680 billion under the Federal Pandemic Unemployment Compensation program (FPUC), Pandemic Unemployment Assistance program (PUA), and Pandemic Emergency Unemployment Compensation (PEUC) (CRFB, 2021). As another standard of comparison, each of these three programs was roughly comparable in size to the entire American Recovery and Reinvestment Act of 2009 (ARRA), the principal fiscal stimulus enacted in response to the Great Recession of 2007-2009.

This paper explores who ultimately benefited from those $800 billion in Paycheck Protection Program loans: concretely, where did the money go and why did it go there? We provide an answer
in three steps. First, we consider how PPP funds flowed to three proximate sets of actors: workers who otherwise would have been laid off; creditors and suppliers of PPP-receiving businesses (e.g., landlords, utilities, etc.) who would otherwise not have received payments; and windfall transfers to PPP-recipient businesses (owners and shareholders) that would have maintained employment and met other financial obligations absent the PPP. Second, we calculate how these recipients were distributed across the household income distribution. Finally, we compare this allocation of funds to the household incidence of the two other major federal pandemic transfer programs: unemployment assistance and direct household payments. Our analysis combines lessons from existing research, including some of our own, and also presents new analysis using anonymized and aggregated payroll data from the private firm ADP, which processes payrolls for over 26 million individual workers in the United States per month.

PPP had measurable impacts. It meaningfully blunted pandemic job losses, preserving somewhere between 1.98 and 3.0 million job-years of employment during and after the pandemic at a substantial cost of $69K to $258K per job-year saved. PPP also reduced the rate of temporary closures among small firms, though it is less clear whether it reduced permanent closures. The majority of PPP loan dollars issued in 2020—66 to 77 percent—did not go to paychecks, however, but instead accrued to business owners and shareholders. And because business ownership and share-holding are concentrated among high-income households, the incidence of the program across the household income distribution was highly regressive. We estimate that about three-quarters of PPP benefits accrued to the top quintile of household income. By comparison, the incidence of federal pandemic unemployment insurance and household stimulus payments was far more equally distributed.

Ironically, the program feature that arguably made PPP’s meteoric scale-up possible is also the feature that made it potentially the most problematic: the program was essentially untargeted, aside from excluding firms with more than 500 workers (a rule further relaxed for some sectors). Small firms merely needed to attest that they were “substantially affected by COVID-19” to qualify, and almost all did so. Evidence strongly suggests that the program did not ultimately differentiate among firms or geographic areas according to need. This near absence of targeting virtually guaranteed that a large fraction of the first two tranches of $525 billion in PPP loan dollars went to businesses that would have remained viable and retained their employees even absent PPP. Perhaps
recognizing this program limitation, Congress explicitly targeted the final tranche ($285 billion) of
PPP loans in 2021 toward firms that had experienced revenue losses.

The PPP’s meteoric scale-up, its lack of targeting, and its highly regressive incidence reflect
a key tradeoff that policymakers faced in March of 2020 when crafting an emergency pandemic
business loan program under severe time constraints: a lack of existing administrative infrastructure
for overseeing large-scale targeted federal support to US small businesses. Congress accordingly
authorized the Small Business Administration (SBA) to harness the private sector to originate
forgivable PPP loans and stipulated only a few coarse limitations on which firms could receive
loans. These decisions rapidly opened the PPP floodgates to essentially all firms with fewer than
500 employees. Had policymakers instead insisted on better targeting, this would have likely
substantially slowed aid delivery and reduced program efficacy. A key takeaway from the PPP
experience is that building U.S. administrative capacity prior to the next pandemic or other large-
scale economic emergency would enable greatly improved targeting of either employment subsidies
or business liquidity when the need arises again.

The Basics

The Paycheck Protection Program sought to issue forgivable loans to small firms facing financial
distress. Businesses were permitted to draw PPP loans worth up to 10 weeks of payroll costs—
including wage and salary compensation not to exceed $100,000 per worker, as well as paid leave,
health insurance costs, other benefit costs, and state and local taxes—with a maximum loan size
of $10 million dollars. Although the Small Business Administration issued the loan guarantees
and would ultimately determine whether loans would be forgiven, PPP loans were processed and
delivered through the nation’s banking system.

The program received three tranches of funding. The Coronavirus Aid, Relief, and Economic
Security Act of 2020 (CARES) established the Paycheck Protection Program and provided $350
billion in appropriations on March 27, 2020. Subsequently, the Paycheck Protection Program and
Health Care Enhancement Act, which passed on April 24th, 2020, provided an additional $320

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1 The Paycheck Protection Program was one of four large government direct-lending programs introduced
during the pandemic; the other three programs were the Main Street Lending Program, Corporate Credit Facilities,
and Municipal Liquidity Facility. These programs jointly covered a large swath of the US economy (Decker et al.,
2021).
billion in appropriations. A third tranche of $285 billion was signed into law on December 27, 2020, as part of the Consolidated Appropriations Act of 2021. Finally, early on in the pandemic, the Federal Reserve introduced the Paycheck Protection Program Liquidity Facility (PPLF) to bolster the ability of the banking system to provide PPP loans (Anbil et al., 2021).

Loans from the first two tranches were issued in 2020 and available to firms meeting the PPP’s definition of a small business. In most, but not all, industries this required having fewer than 500 employees. The third tranche provided loans to firms in 2021 that had not previously taken out a PPP loan. It also provided ”second draw” loans for firms that had already taken out a PPP loan, had fewer than 300 employees, and had experienced a significant revenue loss in 2020. About 75 percent of the third tranche of funding went to second-draw loans.

While the moniker Paycheck Protection Program suggests that the program was focused solely on employment, the criteria for loan forgiveness reveal another complementary goal: providing firms with liquidity to meet non-compensation obligations to creditors (e.g., suppliers, banks, landlords, etc). Businesses had to do four things to qualify for PPP loan forgiveness: 1) spend at least 60 percent of the loan amount on payroll expenses; 2) spend (at least) the full loan amount on total qualifying expenses, including payroll, utilities, rent, and mortgage payments; 3) maintain average full-time equivalent employment at its pre-crisis level; and 4) maintain employee wages at at least 75 percent of their pre-crisis level. These criteria applied to a “covered period” that started on the date of loan disbursement and ran for 8 to 24 weeks, with the interval at the firm’s discretion.

If these criteria were not met, SBA offered alternative routes to forgiveness. Businesses could exercise a “safe harbor” option to meet the employment and wage criteria by restoring their full-time equivalent employment and wage rates to their pre-COVID level by the end of 2020 (or by the end of the covered period for loans issued in 2021). This safe harbor provision made the employment criteria far less onerous. Moreover, if a firm did not meet all criteria, loan forgiveness could be partial. Finally, policymakers retroactively loosened the rules for forgiveness in June of 2020 (the discussion here pertains to the revised rules). The vast majority of firms were ultimately able to meet these criteria: as of late 2021, 94% of PPP loans issued in 2020 had applied for forgiveness and virtually all such applications had been approved by the SBA (Small Business Administration, 2021).


A Timeliness versus Targeting Tradeoff

Fiscal interventions during economic downturns are often judged based on whether they are targeted, timely, and temporary (Elmendorf and Furman, 2008). The Paycheck Protection Program was clearly temporary. How did it do on the other two T’s?

Timeliness

The program deserves high marks for timeliness. When the pandemic began, no existing federal program had the scale to quickly distribute hundreds of billions of dollars to small businesses. The only other possible mechanism seemed to be state unemployment insurance systems (Bernstein and Rothstein, 2020), but these systems struggled to handle the flood of initial unemployment insurance claims, and struggled further when tasked with distributing the CARES Act’s enhanced unemployment benefits. It seems unlikely that state UI systems could have handled an additional novel burden (Hubbard and Strain, 2020).

Despite these obstacles, the Paycheck Protection Program succeeded in delivering a staggering sum of money over a two-month period in the spring 2020. This can be seen in Table 1. As shown in column (3) of panel A, $505 billion in first draw loans were issued to firms with fewer than 500 employees (column 3) and all but seven percent of these were issued in 2020 (column 6). A very large share of these loans were issued in April and May (not shown). Finally, the memo lines show that non-employer businesses—e.g. the self-employed—received $44 billion in first draw loans and employers with more than 500 employees received a relatively small $18 billion.

One emblem of PPP’s success is its market penetration, which we define as the employment-weighted share of firms that received PPP loans and will refer to as the takeup rate. We make use of loan-level data from the PPP on the size of each firm that received a PPP loan, along with publicly-available employment data from the Census Bureau’s Statistics of U.S. Businesses (SUSB). SUSB data provide total employment for a number of categories of firm size which we use to form the rows of Table 1. For each size category, the takeup rate is the ratio of the total number of employees at PPP-receiving firms from the PPP loan data divided by total employment from SUSB. For example, in the PPP loan data, in the size bin 10-49, there were 1.3 million first-draw loans to firms with a total of 2.14 million employees over 2020 and 2021. In the aggregate, the
SUSB data from 2018 (the latest available) report that there were 2.14 million employees in firms with between 10-49 workers; accounting for the growth of employment between 2018 and before the pandemic, aggregate employment between 10-49 was 2.17 million. Thus, the takeup rate in this group is \( \frac{2.14m}{2.17m} = 99 \) percent, as given in column 5. We note that these estimated takeup rates are constrained by significant data limitations in determining the set of firms eligible for a PPP loan, inaccuracies in the reporting of firm size in PPP loan-receipt data, the possibility of fraudulent loans, and other measurement issues. (See the online appendix for further details on the methodology underlying Table 1, as well as additional information on the subsequent analysis in this paper.)

Overall, we estimate that 94 percent of employers with fewer than 500 employees took up a PPP loan; consistent with this high takeup rate, the distribution of loan dollars is tightly in line with employment shares—compare columns (2) and (4). Indeed, the fact that the second tranche of PPP funding concluded without exhausting all available funds suggests that the program had achieved something close to saturation in its first five months of operation. While near-universal participation in a government program is not altogether surprising since the program in most cases constituted a pure cash transfer, it is nevertheless a substantial administrative accomplishment: merely handing out $500 billion dollars in two months takes many hands. As noted above, this accomplishment would likely have been infeasible had Congress not authorized the Small Business Administration to enlist the private banking sector to issue PPP loans.

The early rollout of the Paycheck Protection Program in April and May 2020 did, however, stumble on two hurdles. First, initial demand for loans significantly exceeded the ability of banks to deliver them. In the face of these capacity constraints, banks appear to have prioritized firms with which they had a pre-existing relationship (Amiram and Rabetti, 2020; Cororaton and Rosen, 2021; Joaquim and Netto, 2021; Granja et al., 2020; Li and Strahan, 2020). Larger firms, which tend to have ongoing banking relationships, accessed PPP funds sooner than smaller firms on average. Moreover, as most small business lending is sourced from local banks (Brevoort et al., 2010), the aptitude and willingness of local banks to process loan applications generated significant geographic heterogeneity in the initial distribution of loans (Bartik et al., 2021; Li and Strahan, 2020).

The second hurdle was the significant uncertainty and confusion among businesses and banks over the specifics of the program, particularly over whether the loans would be forgiven. For exam-
Table 1: PPP Loans by Employer Size

<table>
<thead>
<tr>
<th>Employer size</th>
<th>Employment Share</th>
<th>Loan $ (billions)</th>
<th>Share of $</th>
<th>Takeup rate</th>
<th>% of $ received in 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
</tr>
<tr>
<td>1-4</td>
<td>10%</td>
<td>44</td>
<td>9%</td>
<td>81%</td>
<td>84%</td>
</tr>
<tr>
<td>5-9</td>
<td>11%</td>
<td>54</td>
<td>11%</td>
<td>98%</td>
<td>93%</td>
</tr>
<tr>
<td>10-49</td>
<td>35%</td>
<td>182</td>
<td>36%</td>
<td>99%</td>
<td>96%</td>
</tr>
<tr>
<td>50-149</td>
<td>23%</td>
<td>122</td>
<td>24%</td>
<td>97%</td>
<td>98%</td>
</tr>
<tr>
<td>150-299</td>
<td>13%</td>
<td>64</td>
<td>13%</td>
<td>91%</td>
<td>98%</td>
</tr>
<tr>
<td>300-499</td>
<td>9%</td>
<td>40</td>
<td>8%</td>
<td>87%</td>
<td>97%</td>
</tr>
<tr>
<td>T-499</td>
<td>100%</td>
<td>505</td>
<td>100%</td>
<td>94%</td>
<td>93%</td>
</tr>
</tbody>
</table>

**Memo:**

Non-employers -- 43 -- -- -- 25%
Employers 500+ -- 18 -- -- -- 93%

A. First Draw Loans

<table>
<thead>
<tr>
<th>Employer size</th>
<th>Employment Share</th>
<th>Loan $ (billions)</th>
<th>Share of $</th>
<th>Takeup rate</th>
<th>% of $ received in 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
</tr>
<tr>
<td>1-4</td>
<td>10%</td>
<td>17</td>
<td>9%</td>
<td>30%</td>
<td>--</td>
</tr>
<tr>
<td>5-9</td>
<td>11%</td>
<td>25</td>
<td>13%</td>
<td>43%</td>
<td>--</td>
</tr>
<tr>
<td>10-49</td>
<td>35%</td>
<td>87</td>
<td>46%</td>
<td>45%</td>
<td>--</td>
</tr>
<tr>
<td>50-149</td>
<td>23%</td>
<td>45</td>
<td>24%</td>
<td>34%</td>
<td>--</td>
</tr>
<tr>
<td>150-299</td>
<td>13%</td>
<td>14</td>
<td>8%</td>
<td>29%</td>
<td>--</td>
</tr>
<tr>
<td>300-499</td>
<td>9%</td>
<td>1</td>
<td>0%</td>
<td>3%</td>
<td>--</td>
</tr>
<tr>
<td>T-499</td>
<td>100%</td>
<td>189</td>
<td>100%</td>
<td>34%</td>
<td>--</td>
</tr>
</tbody>
</table>

**Memo:**

Non-employers -- 11 -- -- -- --
Employers 500+ -- 0.2 -- -- -- --

B. Second Draw Loans

**Note.** Panels A and B reflect data on employer businesses. The main panels exclude loans to the self-employed, sole proprietors, independent contractors, and single-member LLCs with only one reported job because non-employers are excluded from the SUSB data used to calculate the denominator of the takeup rates displayed in column (5). The roughly 4.6 million non-employer loans (constituting about 8 percent of total loan dollars) are reported in the first memo lines of each panel. As PPP loan-level data censor firm size at 500, in the main panels of the table we restrict attention to loans to businesses smaller than 500; loans to businesses reported as having 500 employees in the PPP loan-level data are reported in the second memo line of each panel. Loans to businesses in Guam, Puerto Rico, and the Virgin Islands are excluded. Loans to businesses in the following NAICS industries are excluded as they are out of scope for the SUSB data used in columns (2) and (5): 111, 112, 482, 491, 525110, 525120, 525190, 525920, 541120, 814, and 92.


...
their loan tempo, and non-banks stepped in to fill gaps in local loan provision (Granja et al., 2020; Erel and Liebersohn, 2020). By July 2020, virtually all firms that would access a PPP loan in 2020 had done so.

The delay in delivering funds in April and May 2020 had real consequences. Doniger and Kay (2021) and Kurmann et al. (2021) find that loans received even a little earlier had a more pronounced effect on employment than those issued a bit later. Meanwhile, as we show below, the third tranche of loans, which did not go out until 2021, had no discernible effect on employment, perhaps because this tranche was issued when the labor market was already rapidly recovering.

**Targeting**

The rapid, near-universal takeup of Paycheck Protection Program loans in 2020 is inseparable from the reality that the program was essentially untargeted. That takeup was around 94 percent of all small businesses means that loans reached the most and least distressed firms—and all those in between—in nearly equal proportions. This observation helps to explain why there is little geographic correlation between the size of the initial COVID local economic shock, prior to PPP’s passage, and subsequent PPP participation (Granja et al., 2020).

Around $200 billion in so-called second draw loans were issued in 2021—see column (3) of Table 1, Panel B. Unlike the first two tranches of PPP funds, these loans were explicitly targeted at firms that had experienced significant revenue losses over the course of the pandemic (and had already received a first PPP loan). We find a much higher correlation between PPP loan volumes and state-level employment declines for loans issued in 2021 than those issued in 2020 (see online appendix Figure B.1), suggesting that this targeting was more than nominal. Nevertheless these loans do not appear to have boosted employment, as we show below.

**What Did the Paycheck Protection Program Accomplish?**

**Supporting Employment**

A first step in calculating where the PPP money went is to determine what fraction of Paycheck Protection Program funding went to paychecks that would otherwise not have been paid. Because PPP was ultimately taken up by almost all small businesses, we lack an ideal control group for
making experimental comparisons. Nevertheless, a burgeoning literature, our own analysis included, indicates that PPP substantially boosted payroll employment.

The simplest and arguably most credible—though not necessarily most complete—method to assess the employment effects of the Paycheck Protection Plan is to compare the trajectory of employment at firms below the 500-employee initial-eligibility threshold to employment at ineligible firms above this threshold during the course of the pandemic. Figure 1—which is similar to our analysis in Autor et al. (2020)—presents this comparison using ADP payroll data. Employment is indexed to each firm’s average level of employment in February 2020 (immediately before the pandemic) for two employment size classes: 401-500 employees (in blue) and 501-600 employees (in red). Employment declines in parallel for these groups of firms at the start of the crisis. Following the launch of PPP, these trends diverge, with employment at firms that are likely eligible for PPP loans (401-500 employees) falling by substantially less than employment at firms that are likely ineligible (501-600). Approximately a month after the start of the PPP, employment had fallen by approximately 4 percent less at likely-eligible firms than at likely-ineligible firms. In the months thereafter, employment levels relative to baseline at likely-eligible and likely-ineligible firms gradually converged, with the difference falling to less than 2 percent by the start of July 2020. It disappeared altogether by September of 2020.

Our formal econometric analysis of the employment effects of the Paycheck Protection Program in Autor et al. (2020) exploits this comparison of firms above versus below the size eligibility threshold, while additionally controlling for the differential impact of the pandemic across industries and states. After accounting for the fact that not all eligible firms received a loan, particularly in the initial months of the program, we estimate that taking out a PPP loan boosted firm employment by between 4 and 10 percent in mid-May and by 0 to 6 percent by the end of the year. Our best evidence is that about 2.97 million jobs per week were preserved by the Paycheck Protection Program in the second quarter of 2020, and 1.75 million jobs per week were preserved in the fourth quarter. Chetty et al. (2020) and Hubbard and Strain (2020) conduct similar analysis exploiting the eligibility size threshold, using non-ADP data sources, and reach broadly similar conclusions. Assuming that the employment effect declines linearly from its peak in May 2020 to zero by June

\[ \text{Adjusted for incomplete takeup means rescaling our Intent-to-Treat (ITT) estimates by the takeup rate to obtain Treatment-on-the-Treated estimates (TOT).} \]
2021 implies that PPP saved 1.98 million worker years of employment at the very substantial cost of $258,000 per worker-year retained.

These estimates based on eligibility thresholds are subject to an important caveat: because they focus on firms just above and below the 500 employee size-eligibility threshold for PPP loans, they may not capture the effect of such loans on smaller firms. If smaller firms are more liquidity constrained and hence more likely to shrink or shut down during the pandemic (Chodorow-Reich et al., 2021), the threshold-based estimates will likely underestimate the effects of PPP at these firms and, by implication, understate the full effect of PPP.

To develop causal effect estimates that cover a broader set of treated firms, a number of papers exploit an event-study approach that compares employment at firms receiving a loan early in the program period to employment at firms receiving a loan later. This approach potentially captures the effect of PPP loans on small firms that are well below the eligibility threshold, though it comes at a cost of focusing only on the early months of the program, before most firms had taken loans.3

3Papers using the event-study approach obtain a range of employment effect estimates. The first to employ this approach, Granja et al. (2020), finds aggregate employment effects that are comparable to those found by the eligibility threshold papers. Estimates in Li and Strahan (2020) imply a much smaller boost to employment, however, while those in Bartik et al. (2021), Doniger and Kay (2021), Faulkender et al. (2020), and Kurmann et al. (2021) point toward a larger employment effect.
We complement existing event-study estimates using the vast ADP database, which offers substantial precision and a sample frame identical to that used for the size-threshold analysis above. To implement the event-study using timing of loan takeup, we merge PPP loan-level data from the Small Business Administration into our sample of employers from ADP. This provides the precise date of PPP loan approval for each matched firm within a sizeable sample of firms with fewer than 50 employees.

Figure 2 presents our timing-based estimates which trace out the effect of receipt of a Paycheck Protection Program loan on employment at firms with fewer than 50 employees. The employment trend prior to loan approval is roughly flat and about equal to zero, but begins rising on loan approval. Five weeks later, employment is roughly 12 percent higher, where it remains through the close of the outcome window. The relatively flat pre-trend centered around zero, and the sharp upward break after approval, are consistent with the interpretation that we are detecting a causal effect of PPP loans on small firm employment. We emphasize that these results indicate that small firms shrank relatively less after receiving a PPP loan as compared to firms not yet receiving a loan—not that their employment rose during the pandemic. The fact that the estimated effect on small firm employment is roughly twice as large as what we estimate for larger firms supports the view that smaller firms received a bigger employment boost from PPP.

Combining the results from Autor et al. (2020) for larger firms with the smaller firm results in Figure 2, we estimate that PPP loans originated in 2020 preserved about 3.0 million job-years at an average cost of $169.3K per job-year saved. We use this result below when calculating the share of PPP funds that accrued to paychecks.

\[ y_{it} = \alpha + \sum_{c \in T, g = -8}^{11} (\beta_{c,g} \times PPP_{g,it}) \times D_c + \theta_{jt} + \theta_{st} + \epsilon_{it} \]  

where \( y_{it} \) is total employment for firm \( i \) at week \( t \) indexed to equal 1 in February of 2020, \( \theta_{jt} \) is a vector of NAICS 3-digit industry \( j \)-by-week \( t \) fixed effects, \( \theta_{st} \) is a set of state \( s \)-by-week \( t \) fixed effects, and \( PPP_{g,it} \) is a dummy variable equaling one if firm \( i \) at time \( t \) was approved for a PPP loan \( g \) weeks ago; \( g = 0 \) denotes the week of approval and the week prior to approval (\( g = -1 \)) is the omitted category. \( D_c \) is a dummy variable denoting the week of PPP receipt for each cohort in the treatment set \( T \) (the first week through the eleventh week of the program). For additional details of how we implement the equation, see the online appendix.
Figure 2: Event-Study Employment Effects at Firms Sized 1 - 49

Index (February 2020 − 1.0)

Weeks Since Initial PPP Receipt

Note. Estimates from Sun and Abraham (2020) event-study interaction estimator on the sample of loan-matched ADP firms with between 1-49 employees where firm size is defined using the average size in February 2020. The outcome variable—firm-level employment—is indexed to equal 1 in February 2020. The estimates are weighted by each firm’s employment as of February 2020 and include controls for 3-digit industry-by-week and state-by-week fixed effects. Standard errors are clustered at the 3-digit industry. All points to the right of the solid line represent post-treatment periods. Alternatively, accounting for the biweekly pay schedule of most ADP employers, and the back-filling used to establish start dates, all periods to the right of the dashed line can be viewed as post-treatment. See online appendix section D.4 for more details.

Source: Authors’ analysis of SBA and ADP data using Sun and Abraham (2020) “eventstudyinteract” STATA implementation.

While our findings in Figures 1 and 2 capture the employment effects of loans issued in 2020 from the first two tranches of PPP funding, we know of no similar evidence on the consequences of the third major tranche of $278 billion in PPP loans issued in 2021. To complete this picture, we estimate difference-in-difference threshold eligibility results analogous to those in Autor et al. (2020) for the second draw PPP loans which constituted the majority of third tranche loans issued in 2021 (comparing employment at firms above and below the 300 worker eligibility threshold for second draw loans).

Despite seemingly better targeting than the 2020 loans, we find no evidence in Figure 3 that the 2021 second-draw loans boosted employment, perhaps because they were issued too late to be relevant, after the economic recovery was well underway. If this interpretation is correct, it affirms that Congress was wise to prioritize speed over precision in dispatching the initial two tranches of PPP loans.
Preventing Firm Exits

The spike in business closings during the COVID pandemic was historic. The Business Employment Dynamics database collected by the Bureau of Labor Statistics finds that employment at closing firms, which hovered at about 1 million worker per quarter for the last three decades, spiked to 2.1 million workers in the second quarter of 2020. (Evidence in Crane et al. (2020) and Kurmann et al. (2021) corroborates these trends using a number of alternative indicators, including data from ADP.)

A key justification for the Paycheck Protection Program was to prevent a contagion of business closures that would cause longer-term economic damage (Hubbard and Strain, 2020). Business deaths—as distinct from business contractions and temporary closures—may potentially produce lasting economic harm not only by forcing the costly reallocation of physical capital, but also by permanently destroying worker-firm relationships and the associated match-specific capital (Farooq et al., 2020). Indeed, the prevalence of recall hires—as opposed to new hires—when firms rebound
from contractions underscores the importance of match-specific capital to both employers and employees (Fujita and Moscarini, 2017, e.g.).

We can observe the importance of firm closures for employment losses during the pandemic in the ADP data. Figure 4 groups firms into size classes based on their February 2020 (pre-pandemic) employment and reports the share of their original employment that is lost due to firm shutdowns in each week between February and December of 2020. Shutdowns are heavily concentrated among small firms: fully 10 percent of employment at firms that had 1-50 employees in February of 2020 was lost due to shutdowns by early April of 2020. For firms with more than 50 workers, these losses were only one-tenth to one-third as large. (We note that the general upward slope of the series in this figure is expected since some fraction of firms inevitably closes each year.\(^5\))

Figure 4 also offers tantalizing evidence that PPP may have inhibited firm closures or spurred reopenings. Among firms sized 1-50 and 51-100, firm shutdowns peaked shortly after PPP loans began flowing and rapidly reversed course thereafter. By June of 2020, the fraction of employment at small firms lost due to closure was only half as large as in April—meaning that many had reopened.

Following recent work by Dalton (2021), we test whether the receipt of a PPP loan affects the probability that firms with fewer than 50 employees remain open (or reopen after closure). Using event study estimates akin to those above for small-firm employment, we find in Figure 5 that PPP loans reduced employment losses due to small-firm closures by about eight percentage points five weeks after loan receipt. Since our earlier results in Figure 2 found a peak PPP effect on small firm employment of 12 percentage points at week five, we infer that about two-thirds of the employment-preserving effect of PPP loans on very small firm employment was due to PPP keeping the lights on at establishments that would have otherwise shuttered—at least temporarily.\(^6\)

Ultimately, permanent business closure proved less pervasive than many had anticipated at the

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\(^5\)We define a firm as shutdown if it has no paid employment in a given week. Although we cannot definitively determine whether firms that appear to be shutdown in the ADP data have shuttered business or rather stopped utilizing ADP’s payroll services, we expect that the spike in apparent shutdowns during the pandemic primarily reflects firms dropping to zero employment rather than discontinuing ADP’s services.

\(^6\)One anomaly in our results in Figure 5 is that the estimated employment effects of PPP receipt at small firms appear to start a week too early relative to loan receipt. A possible explanation is that a large fraction of ADP paycheck recipients are paid biweekly, and this payment scheme blurs the observable timing of any discrete event over the prior 13 days. Concretely, imagine that a firm’s two-week pay period begins July 17 and ends July 31. After receiving a PPP loan, that firm reopens its doors on July 30th. In our estimation, this firm will show an employment jump on July 17, even though all of its hires occurred 13 days later, when the loan was issued.
pandemic’s onset. The Paycheck Protection Program may be part of the reason. Because our methodology permits examining firm closures only over the short run, we cannot assess whether PPP averted permanent firm exits or mainly temporary closures. Using a related methodology, Dalton (2021) finds that the PPP effect on small-firm closures waned somewhat over the ensuing seven months, indicating that some of the PPP effect on closure was temporary, not permanent, in nature. For larger firms around the 500 employee eligibility threshold, we find no consistent evidence that the PPP influenced shutdowns, either over the short or longer-term (see online appendix figure E.1). Despite bolstering jobs during the pandemic, PPP may not have had a pronounced effect on preserving intangible business capital. More work is needed to definitively assess the effect of the PPP on permanent business closure.⁷

Reducing Commercial Delinquency

Alongside preserving jobs and keeping firms open during the pandemic, PPP may have indirectly benefited creditors of small businesses—landlords, banks, holders of mortgage-backed securities, ⁷Other recent work provides mixed evidence on these outcomes. Granja et al. (2020) find little evidence of a PPP effect on firm shutdown. Bartik et al. (2021) and Kurmann et al. (2021), though, find that PPP mitigated business shutdowns.
suppliers, etc.—by keeping payments flowing. There is limited evidence on the effect of PPP on loan recipients’ ability to pay creditors, but the evidence that exists suggests the impact was positive. Exploiting differences in the tendency of small versus large commercial properties to have PPP-eligible tenants, Agarwal et al. (2021) find that PPP significantly blunted the rise in commercial mortgage delinquency rates during the pandemic, particularly in the retail sector. Using survey data and a variant of the event-study strategy discussed above, Granja et al. (2020) also find that PPP decreased delinquency on mortgages and other payments.

Where Did the Money Go?

The estimates above provide a key input for answering our motivating question, i.e., where did the money go? Using the employment effects estimated above, along with many other data sources, we estimate the incidence of the $510 billion in Paycheck Protection Program loans issued in 2020 across the household income distribution. We further compare this incidence to other pandemic
economic assistance programs. Additional information on these calculations can be found in section F of the online appendix.

**Proximate Recipients: Workers vs. Non-Workers**

PPP funds were paid to businesses. In turn, businesses used these funds to pay three proximate groups of beneficiaries: workers who otherwise would have been laid off; creditors and suppliers who otherwise would not have been paid; and owners and shareholders of PPP-receiving firms as residual claimants in cases where businesses would have met some or all of their payroll and other financial obligations absent PPP (AKA, windfall profits). The distribution of PPP funds among these groups—workers versus non-workers, in particular—matters for our accounting exercise because different groups represent different parts of the household income distribution.

We focus first on payments to workers. As documented above, PPP loans issued in 2020 modestly raised employment at recipient firms. To convert these employment effects into payroll expenditures, we use the main estimates reported above from Autor et al. (2020), who find that PPP boosted employment by about six percent in mid-May 2020, with effects tapering off gradually thereafter. These numbers imply that PPP preserved about 2.97 million jobs per week in the second quarter of 2020 and about 1.75 million jobs per week by the fourth quarter of 2020. Assuming a linear trend decline in this program effect, PPP would have had zero employment effects by June 2021. Converting these weekly job numbers into job-years (that is, one worker for one year), implies that PPP preserved about 1.98 million job-years of employment at a cost of $258K per job-year saved (i.e., $510B/1.98M). We assume that actual employee compensation for each saved job averaged $58,200 since the average weekly wage from the Current Population Survey in February 2020 is $786 (truncating at an annual wage of $100,000 above which the PPP did not provide additional support per worker) and, on average, total compensation is 42% larger than wages according to BLS Employer Costs for Employee Compensation data ($786 \times 52 \times 1.42$). The 1.98 million job-years saved then imply that $115 billion in PPP loans ($58,200 \times 1.98m) accrued to employee paychecks.

We also produce an alternative estimate of the amount of PPP loans accruing to compensation based on our 3.0 million job-years saved estimate which combines the results from Autor et al. (2020) and the larger effects for smaller firms in Figure 2. Continuing to assume that compensation
at retained jobs averaged $58,200 implies that $175 billion in PPP compensation went to paychecks. It is likely that this $175 billion estimate is an upper bound on the share of PPP funds flowing to worker compensation. Some event-study estimates for the entire size distribution of PPP-eligible firms, including small firms, find an overall peak PPP employment effect of approximately six to eight percent (see online Appendix Figure D.1 and those of Dalton (2021)). These estimates are more in line with our smaller $115 billion estimate. Additionally, our assumption of a smooth trend decline in PPP’s impact through June of 2021 is generous.\footnote{In Autor et al. (2020), we detect no statistically significant impact of PPP on employment after July 2020. But because the point estimates remain non-zero through December 2020, we extrapolate the entire series out until it is numerically zero in June of 2021.} Moreover, we are not accounting for loans issued in 2021 where our evidence suggests the PPP failed to boost employment; doing so would further lower the estimated share of PPP loans that flowed to workers relative to non-workers.

These bounds of $115 to $175 billion in PPP funds accruing directly to paychecks imply that between 23\% and 34\% of the first two tranches of PPP dollars totalling $510 billion supported jobs that would otherwise have been lost. By implication, the remaining $335 to $395 billion (66 to 77 percent) accrued to owners of business and corporate stakeholders, including creditors and suppliers, etc.

The Household Distributional Incidence of PPP

To trace the flow of PPP payments from their proximate recipients to their household incidence requires information on the income distributions of both worker and non-worker (i.e., owner) beneficiaries. Starting with the worker beneficiaries, we estimated above that, at the high end, $175 billion in PPP money flowed to workers whose jobs were saved. We assume that the distributional incidence of those funds followed the distribution of job loss in 2020 by household income quintile. To perform this calculation, we first measure employment declines across the weekly wage distribution using the Current Population Survey Outgoing Rotation Group (CPS ORG) files. Pandemic job losses were largest for low-paid workers: total employment fell by 17.8 percent from March 2020 through the end of 2020 among the lowest-paid (1st) quintile of workers; by 10.6 percent in the second quintile; by 6.0 and 2.2 percent in the third and fourth quintiles, respectively; and by a substantial 8.7 percent among the highest quintile of earners. We convert these job loss percentages into average weekly wage losses by multiplying them each by the February 2020 pre-COVID average
weekly wage within quintile. From there, it is straightforward to calculate the share of compensation lost by weekly wage quintile, which we impute to the household income distribution using March CPS data on the joint distribution of weekly wages and household income.9

We make an analogous (but simpler) imputation for the household incidence of the $335 billion in PPP fund payments that flowed to non-worker beneficiaries, i.e. creditors and suppliers who otherwise would not have been paid and owners and shareholders of PPP-receiving firms. Specifically, we use the Congressional Budget Office’s most recent estimates on the distribution of capital incomes by type (CBO, 2020a) to distribute the funds across households. We do not attempt to account for the flow of PPP funds from proximate and subsequent recipients, e.g., a PPP-receiving firm’s supplier pays its workers; a worker at a PPP-receiving firm pays her landlord. Thus, our exercise is in the spirit of the static distributional incidence analyses performed for tax policies by the Joint Committee on Taxation.

Unlike PPP, which went to businesses, transfer payments made by the two other major federal pandemic emergency assistance programs—pandemic unemployment insurance payments and household stimulus payments—went directly to households and workers. The size of these payments rivaled those of PPP, as noted above. To facilitate comparison with PPP, we calculate the distributional incidence of these as well.

For household payments, we use incidence data from Bhutta et al. (2020), who analyzed the effect of stimulus payments on household finances using the Survey of Consumer Finances. For UI, we calculate approximate shares of benefits paid during the pandemic—including regular state programs and the pandemic enhancements to UI—using, as a starting point, our estimates of average wages lost during the pandemic, and applying the methodology above for apportioning the PPP funds to paychecks. We combine these data on wages lost by quintile with simple estimates of the UI replacement rate by quintile, which we estimate using CPS ORG data. This calculation accounts for both pandemic supplements to weekly UI benefits and the portion of Pandemic Unemployment Assistance payments that went to the self-employed, as estimated by Boesch et al. (2021).

9Specifically, we calculate 

\[ S_q = \frac{T \times U_q \times W_q}{\sum_{q=1}^{5} U_q \times W_q}, \]

where \( T \) is total PPP dollars that support employment, \( U_q \) is quintile \( q \)'s share of job losses during the pandemic, and \( W_q \) is quintile \( q \)'s wage in February 2020 prior to the pandemic. We can then map from the weekly wage distribution to the household income distribution using March CPS supplement data on the probability that a worker in a given weekly wage quintile is in each household income quintile.
Panel A of Figure 6 reports the distribution of PPP, UI, and household payments in billions of dollars across household quintiles. The distribution of Paycheck Protection Program loans overwhelmingly accrued to high-income households. Of the $510 billion in PPP loans provided in 2020, we estimate that only $13.2 billion ultimately flowed to households in the bottom fifth of the income distribution, and that $130.8 billion to the second through fourth quintiles. The remaining $365.9 billion (72 percent) flowed to the top-fifth of household income. This skew reflects two features of PPP. First, high-wage earners are found in high-income households. Though the PPP only offered loans to support up to $100,000 in annual earnings, even with this truncation, the top fifth of households account for about 35 percent of wage and salary earnings. Second, the distribution of capital ownership is even more right-skewed than the distribution of wage earnings— with the top fifth of households commanding 86.2 percent of capital income—meaning that subsidies to businesses are ultimately subsidies to high-income households.

In comparison, both household stimulus payments and pandemic unemployment insurance payments were far less regressive than PPP. The incidence of household stimulus checks in dollar terms was close to uniform across the lower four income quintiles. Moreover, due to the income caps that Congress set on household payments, the incidence of these payments was much smaller for the highest quintile of households.
Meanwhile, the incidence of unemployment insurance during the pandemic was weighted towards both the upper and lower tails of the household income distribution. We estimate that 31.5 percent ($175.6 billion) and 20.6 percent ($115.5 billion) in pandemic unemployment insurance payments went to the bottom fifth and second-to-bottom fifth of households, respectively (red diamonds in panel A of Figure 6). Surprisingly, the top fifth of households received a bit more than one-quarter of unemployment insurance benefits. This occurred both because the highest income quintile of wage and salary workers sustained substantial employment losses during the pandemic (as documented above), and because the Pandemic Unemployment Assistance (PUA) program allowed self-employed business owners—who tend to have high incomes—to collect unemployment insurance benefits, with estimates from Boesch et al. (2021) suggesting that self-employed business owners received about 40 percent of Pandemic Unemployment Assistance insurance benefits.

Panel B of Figure 6 recasts these distributional incidence figures into household annual income replacement rates rather than dollar transfers. Both stimulus checks and unemployment insurance payments replaced about 17% of the incomes of the lowest quintile of households, with much lower shares at higher quintiles. Thus, although the combination of these three programs is highly regressive in dollar terms, it is roughly progressive in replacement rate terms due to the highly skewed distribution of U.S. household incomes.

**Macroeconomic Benefits**

An additional benefit of these transfers programs is that they provided stimulus during a time of rapid economic contraction. The short-term macroeconomic boost of a program during a recessionary period is conventionally linked to the marginal propensity to consume (MPC) of those who receive benefits from the program. Cashin et al. (2018) provide estimates of the marginal propensity to consume for different types of fiscal shocks based on characteristics such as: the type of policy change (say, tax versus transfer payment); who is receiving the benefit (say, low-income households versus corporations); and whether the flow of benefits is temporary or permanent. These MPC estimates are informed by a publicly available macroeconomic model, FRB/US, used by the Federal Reserve Board staff (described in Brayton et al. (2014)), and by the relevant empirical literature.

Using these MPC estimates, we offer a back-of-the-envelope comparison of the degree of stimulus provided by the three main programs mentioned above: the Payment Protection Program,
stimulus payments, and pandemic-enhanced unemployment insurance. This calculation relies on the following assumptions:

1. Since unemployment insurance payments are generally made to households that are highly liquidity-constrained, the marginal propensity to consume out of unemployment insurance payments is one (Cashin et al., 2018).

2. Because stimulus payments are made to a broad mixture of households across the income distribution, we use the estimate from Cashin et al. (2018) for the MPC of general, temporary transfers to households of 0.5.

3. The part of the Paycheck Protection Program that flows through to wages is similar to unemployment insurance, and thus has a plausible marginal propensity to consume of one.

4. For the part of PPP that flows to non-workers, we use the estimates in Cashin et al. (2018) for the MPC of temporary corporate tax cuts of 0.2; this relatively low marginal propensity to consume is consistent with these funds flowing disproportionately to the upper quintile of the income distribution.

Weighting these components together, we obtain an overall marginal propensity to consume out of PPP loans of about 0.5, which is comparable to stimulus checks (where we have an imputed MPC of 0.5) and much lower than unemployment insurance payments (where we have imputed an MPC of one).\footnote{We noted in the previous section that a substantial share of PUA recipients were likely high income self-employed business owners who might be expected to have lower MPCs than the one we assume here for UI recipients. Nonetheless, even if we assumed an MPC of zero for self-employed PUA recipients, the overall MPC out of UI would be about 0.7 (since non-PUA benefits were about 70\% of total UI), which is still higher than our estimates of the MPC out of PPP and stimulus checks.} This illustrative calculation thus suggests the PPP loans and stimulus checks were roughly equally effective at boosting spending, and both were much less effective on this margin than pandemic unemployment insurance.

These estimates have the virtue of transparency. They also have shortcomings. The pandemic environment surely generated non-normal household and business behavior. Extraordinarily high replacement rates delivered by enhanced unemployment benefits may have diminished the MPC of recipients. The substantial share of PPP payroll income received by the top quintile also suggests that treating this income as similar to unemployment insurance probably overstates the MPC.
Finally, these estimates quantify only the transfer's initial boost to aggregate demand; they do not capture aggregate supply effects, such as that arising from preventing firm bankruptcies, or subsequent general equilibrium effects. Fortunately, the Congressional Budget Office has also estimated the boost to GDP per dollar for these same pandemic programs, carefully accounting for the pandemic environment and the specifics of each program. CBO also strives to capture the full, general equilibrium effect of each program, including its potential impact on business closure. CBO concludes that the enhanced unemployment and stimulus checks were far more effective at boosting GDP than was PPP (CBO, 2020b). Specifically, the CBO estimates a per dollar boost to GDP of 0.36 for the PPP and 0.60 and 0.67 for stimulus checks and enhanced UI benefits, respectively. Taking account of the highly distributionally-skewed incidence of PPP payments, we concur that PPP was likely the least effective of the three programs in boosting the macroeconomy.

Lessons Learned from the Paycheck Protection Program Experience

The U.S. small business sector appeared at risk of collapse at the outset of the pandemic. To avert this collapse, Congress enacted the Paycheck Protection Program, which successfully distributed vast amounts of aid to the near-universe of eligible small businesses in the space of a few months. Our best evidence to date indicates that PPP’s economic impacts were less than hoped: it preserved only a moderate number of jobs at a high cost per job-year retained and transferred resources overwhelmingly to the highest quintile of households.

These outcomes should not however be viewed first and foremost as programmatic failures. PPP’s regressive distributional incidence and its limited efficacy as economic stimulus stem from the program’s absence of targeting. This absence, in turn, reflected necessity. Given the time constraints and, more profoundly, the lack of existing administrative infrastructure for overseeing targeted federal support to the entire population of US small businesses at the onset of the pandemic, we strongly suspect that Congress could not have better targeted the Paycheck Protection Program without substantially slowing its delivery. We thus concur with Bartik et al. (2021) that policymakers made a defensible trade-off between speed and targeting in the PPP’s design.

If however the PPP was a logical answer to a highly constrained question, a forward-looking les-
son from the PPP experience is that the United States should invest now to relax those constraints. We have emphasized that the PPP had dual goals: preserving jobs and providing liquidity. These goals could be better served with the administrative capacity to address these issues directly and separately, thus enabling better targeting and a more progressive incidence. The primary job retention goal of the Paycheck Protection Program could in the future be better achieved through an expanded program to encourage "work-sharing," which refers to a policy in which employers, when faced with an economic downturn, are encouraged to reduce hours worked more broadly across the workforce rather than laying off a narrower group outright. In effect, the government program ends up paying partial unemployment to many, rather than full unemployment to some.

Currently, 26 US states have a work-sharing program through their unemployment insurance systems, but these were not well-subscribed where available during the COVID recession. A number of proposals over the last decade that advocate for expanded work-sharing suggest that to reach broader coverage, such programs should be simplified and automated (Abraham and Houseman, 2014; Strain, 2020; Dube, 2021). A work-sharing program can target firms of all sizes that are cutting hours or employment, not just small firms. Additionally, with sufficient administrative capacity developed in normal times, the progressivity of the program could be altered as policymakers deem appropriate.

A separate liquidity provision program could then be targeted primarily at small firms, which are more likely to be liquidity-constrained. Moreover, with better information systems operational, liquidity could be provided in proportion to firms’ decline in revenues as well as firms’ actual fixed obligations.

Distinct from the U.S., many other high-income countries responded to the pandemic with a mixture of job retention incentives, including: 1) work-sharing programs that allowed either partial or complete furloughs; 2) newly-introduced wage subsidy programs, similar in many ways to the Paycheck Protection Program, that provided businesses with direct support for at least some fraction of their wage bill (OECD, 2021). Both work-sharing and wage subsidy programs were targeted. Wage subsidy programs were explicitly targeted to firms that had experienced declines in revenue: for example, Canada’s Employer Wage Subsidy was available to firms that experienced a year-over-year revenue drop of 30 percent (reduced to 10 percent later). In some countries, firms were entitled to wage subsidies on a sliding scale in proportion to their declines in revenues. By con-
Contrast, work-sharing programs were not \textit{explicitly} targeted to distressed firms. But the requirement that firms reduce workers' hours to obtain assistance generally makes firm participation unattractive absent a negative shock (see Giupponi et al. (forthcoming) in this symposium). The details of these programs, such as the length of benefits and the extent to which non-payroll expenses are covered, as well as their efficacy, varies across countries, of course.

A key lesson from these cross-national comparisons is that targeted business support systems were feasible and rapidly scalable in other high-income countries because administrative systems for monitoring worker hours and topping up paychecks were already in place, prior to the pandemic. Lacking such systems, the United States chose to administer emergency aid using a fire hose rather than a fire extinguisher, with the predictable consequence that virtually the entire small business sector was doused with money. This approach may have been necessary, but it was desirable only because the U.S. lacked viable alternatives. By building administrative capacity in the years ahead, the United States could more deftly target, calibrate, and deploy its emergency business response systems when most needed.
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Online Appendix

This online appendix provides additional information on the analysis in the published text.

A  Methodology for Take-up Rate and Other Elements of Table 1

We estimate PPP take-up—i.e. the number of employees at PPP recipient firms divided by the number of employees at eligible firms—by comparing data from the SBA on PPP loans by size bins to the total number of employees in firms of comparable sizes using data from the Census Bureau's Statistics of U.S. Businesses (SUSB). We focus on take-up rates among employers with fewer than 500 employees for two reasons (There were 4,729 loans totaling $18.6 billion to these firms and they are reflected in the memo line “Employers 500+” of Table 1). First, in all industries, firms with fewer than 500 employees were eligible for PPP loans, whereas in certain industries firms with more than 500 employees were eligible depending on firm revenue or PPP-specific carve-outs (i.e. in Accommodation and Food Services). Second, the SBA loan-level data censor the size of recipient employers at 500, making it difficult to accurately estimate take-up above the 500 threshold. For estimates of take-up rates among employers larger than 500, see Autor et al. (2020).

We make the following additional adjustments to the SBA loan-level data to remove some loans and to make it comparable to the SUSB data:

- We exclude loans to Puerto Rico, the Virgin Islands, and Guam (77,307 loans totaling $3.3 billion across both 2020 and 2021).

- We exclude loans that are coded as "Active, Un-Disbursed" in the variable “lstat” (464,368 loans totaling $10.3 billion).

- We exclude loans to businesses in the following NAICS industries as these are excluded from the SUSB universe: 111, 112, 482, 491, 525110, 525120, 525190, 541120, 814, 92.

- We exclude non-employers, defined here as loans to businesses of size equal to 1 and business type listed as self-employed, sole proprietors, independent contractors, or single-member LLCs.

  - These loans are listed in the memo line “Non-employers” of Table 1.
These businesses received 4.14 million loans totaling $54.6 billion.

- Note: First-draw loans are defined in the SBA data as “procm = PPP” and second draw loans are “procm = PPS”.

In the text, we calculate the cost per job saved of the first two tranches of loans issued in 2020, totaling $510 billion. Officially, however, the SBA reports that $525 billion were issued in 2020. The discrepancy between these two figures is accounted for by removing 2020 loans to: Puerto Rico, the Virgin Islands, and Guam; Active, Un-Disbursed loans; and non-employers.

The latest release of Census SUSB data provide data for total employment by enterprise (i.e. firm) size as of March 2018. In order to compare the size of eligible employers on the eve of the COVID crisis in early 2020, we inflate employment by firm size using data from the BLS’s Business Employment Dynamics Table F which provides employment by firm size in March of 2018 and March of 2019 and 2020. Because employment had begun to decline in March 2020, we use the growth rate of employment by firm size from March 2018 to March 2019 and assume that same growth rate prevailed for an additional year. Because the firm size bins provided by the SUSB and BED do not correspond exactly, we use the closest comparison. For SUSB employment between 50-149, we use the BED data on employment at firms between 50-99; for SUSB employment between 150-299, we use 100-249 in the BED; for SUSB employment between 300-499, we use the 250-499 in the BED.

B Targeting of the PPP

The first two tranches of PPP funding released in 2020 were essentially untargeted other than for the size requirement (generally 500 or fewer employees). However, the third tranche of the PPP, released in 2021, was explicitly targeted at firms that experienced significant revenue losses over the course of the pandemic. Targeting of this third tranche appears to have been relatively successful in directing loans to areas facing relatively deeper economic shocks, as shown in Figure B.1. There is a pronounced, precise negative relationship between PPP loans issued in 2021—which were mostly second draw loans—and state-level employment changes occurring between February

1About 75% of the $285 billion in third tranche funding went to second-draw loans for firms with under 300 employees that experienced significant revenue losses in 2020.
2020 and June 2021. The R-squared value of this bivariate regression is 0.66.

In contrast, there is little relationship between first and second tranche loans issues in 2020 and state-level employment changes occurring between February 2020 and April 2020. This finding is consistent with the lack of geographic correlation between the size of the initial COVID local economic shock, prior to PPP’s passage, and subsequent PPP participation found in Granja et al. (2020).

Ironically, we find evidence that the poorly-targeted 2020 PPP loans moderately boosted employment. But we find no strong evidence that the relatively-better-targeted loans in 2021 positively affected employment.

Figure B.1: Targeting of PPP Relative to Employment Declines

PPP loans in 2020 vs. Percent change in private sector employment from Feb. - April 2020
Slope coefficient (SE): -$6,527 ($2,375)
R²=0.13

PPP loans in 2021 vs. Percent change in private sector employment from Feb. 2020 - June 2021
Slope coefficient (SE): -$16,303 ($1,670)
R²=0.66

Note. PPP loans per eligible worker at the state level are calculated by summing PPP loan amounts within each state and dividing by employment at firms with fewer than 500 employees. Loans in 2021 are either first or second draw loans. Source: Authors’ analysis of Census Bureau SUSB, BLS CES, and SBA PPP data.
C Autor et. al. (2020) Eligibility Threshold Difference-in-Difference Approach

In the paper we discuss employment results in Autor et al. (2020) based on a dynamic difference-in-difference (DD) model. We also present new employment estimates for second draw loans issued in 2021 which use this same DD model—see Figure 3. This appendix section discusses this research design.

The DD model estimates the effect of the PPP on various outcomes by comparing firms small enough to be eligible for the PPP to firms too large to be eligible. Specifically, the treatment group is comprised of firms in a range below the industry-specific employment size thresholds that define PPP eligibility. In most industries, the threshold is 500 employees. The control group is comprised of firms in a range above the threshold.

Formally, we estimate:

$$y_{ijst} = \alpha + \lambda PPP_i + \theta_{jt} + \theta_{st} + \sum_{t \in T} \beta_t (PPP_i \times \theta_t) + \varepsilon_{ijst}$$

where $y_{ijst}$ is the outcome being examined for firm $i$ at week $t$ indexed to equal 1 in February of 2020, $PPP_i$ is an indicator variable equaling one if firm $i$ is eligible for the PPP program based on the industry-specific size threshold, $\theta_{jt}$ is a vector of NAICS 3-digit industry $j$–by–week $t$ fixed effects, $\theta_{st}$ is a set of state $s$–by–week $t$ fixed effects, and $\theta_t$ is a vector of indicator variables for week $t$.

The $\beta_t$ vector is the parameter of interest – it captures the time-varying treatment effect of PPP eligibility. The industry-by-week and state-by-week fixed effects control for the rapidly changing economic conditions across industries and states during the COVID crisis. The specification is weighted by firm size in February 2020; as a result, the results reflect the effect of the PPP on the average worker, as opposed to at the average firm. The sample is limited to firms within a given range above and below the industry-specific size threshold – e.g. within 250 employees of the threshold. Finally, we cluster standard errors at the NAICS 3-digit industry level.

See Autor et al. (2020) for more detailed information on the eligibility threshold DD approach, including a discussion of the identifying assumption required to interpret the results in a causal
sense and statistics demonstrating the comparability of the treatment and control groups.

D Event-Study Estimates

In the paper we present event-study estimates of the effect of the PPP on employment and firm closure for firms with fewer than 50 employees—see Figures D.1 and D.2, respectively. These estimates rely on first matching SBA PPP loan-level data into the ADP payroll data and then utilizing the methodology of Sun and Abraham (2020). This appendix section provides additional information on the estimates and also presents additional event-study estimates.

D.1 Merging PPP Loans to ADP Payroll Records

This appendix subsection describes the procedure that was adopted in order to identify which companies within our sample of ADP’s clients may have participated in the Paycheck Protection Program (PPP).

First, ADP cleaned each company name from both its client base as well as the database of PPP loan recipients that was disclosed by the Small Business Administration. This process initially entailed the removal of any prefixes, suffixes, stop words, and non-alphanumeric characters from a company name. Then, the remaining stem of each company name was converted into a Soundex code in order to allow for phonetic comparisons across both datasets. Next, for each PPP loan recipient, ADP compared the Soundex codes for every client that was physically located within a 0.1 mile radius of a given address. Specifically, a token set ratio was estimated for the comparison of each PPP borrower to an ADP client, and all approximate string matches with scores of at least 40 (on a scale of 0 to 100) were retained. It is worth noting that this approach explicitly allowed for the possibility of multiple ADP clients being matched to a single PPP recipient. Finally, in order to reduce the likelihood of false positives, these results were further restricted to string matches with a score of at least 80 for which the first characters of the names of each PPP loan recipient and a potential ADP client were also identical.

In order to preserve the confidentiality of ADP’s clients, we are unable to disclose the precise number of firms within our sample of employers that were matched to a PPP loan recipient. However, this string matching exercise suggested that only about half of the companies within our
sample of ADP clients participated in the Paycheck Protection Program. Given that PPP take-up is believed to have been nearly universal among employers with fewer than 500 employees (as shown in Table 1), it seems likely that this approach failed to identify a sizable number of ADP clients that actually received a loan.

D.2 Sun and Abraham (2020) Methodology

A burgeoning recent literature on event studies with differential timing of treatment highlights that the canonical two-way fixed effects regression techniques suffers from the flaw that the composition of the ‘control’ group evolves dynamically as the set of treated firms grows (see Goodman-Bacon, 2021; Callaway and Sant’Anna, 2020; Sun and Abraham, 2020). This can cause bias when the magnitude of the effect of treatment is correlated with the timing of treatment.

To overcome this confound, we rely on the estimator developed by Sun and Abraham (2020) (SA hereafter), which estimates “cohort-specific” average treatment on the treated parameters and then averages those estimates using weights defined by the relative size of the cohorts. SA’s estimator can accommodate treatment effect heterogeneity across cohorts of treatment timing—in the case of the PPP, the week of loan approval—as well as time-varying treatment effects.

Because effectively all small firms are eventually treated over the sixteen weeks of the program in 2020, we obtain identification by contrasting firms that received PPP loans in the first eleven weeks of the program to firms that (subsequently) received loans in the final seven weeks. We are therefore assuming that employment in the control group firms would have evolved similarly to earlier (treatment) recipients in the absence of the PPP. We relegate firms receiving loans in the last seven weeks of PPP to the control group to ensure a sufficient sample size of comparison firms. Using only those firms receiving a PPP loan in the final week of the program as a comparison sample gives qualitatively similar results, however.

We bring the Sun and Abraham (2020) approach to the data with the following specification:

\[
y_{it} = \alpha + \sum_{c \in T_8}^{11} \sum_{g=-8}^{11} (\beta_{c,g} \times PPP_{g,it}) \times D_c + \theta_{jt} + \theta_{st} + \epsilon_{it} \tag{A.2}
\]

where \(y_{it}\) is the outcome for firm \(i\) at week \(t\), \(\theta_{jt}\) is a vector of NAICS 3-digit industry \(j\)--by--week \(t\) fixed effects, \(\theta_{st}\) is a set of state \(s\)--by--week \(t\) fixed effects, and \(PPP_{g,it}\) is a dummy variable equaling
one if firm $i$ at time $t$ was approved for a PPP loan $g$ weeks ago; $g = 0$ denotes the week of approval and the week prior to approval ($g = -1$) is the omitted category. $D_c$ is a dummy variable denoting the week of PPP receipt for each cohort in the treatment set $T$ (the first week through the eleventh week of the program).

We implement SA’s estimator using the authors’ Stata package “eventstudyinteract.” Standard errors are clustered at the NAICS 3-digit industry level. Estimates are weighted by firm size in February 2020 such that the results can be roughly interpreted as the effect of the PPP on the outcome variable for the average worker (rather than for the average firm).

D.3 Additional Event-Study Results

Figure D.1 presents the estimates of the Sun and Abraham event-study estimates including all firms in the ADP sample, as opposed to only firms with 1-49 workers as shown in Figure 2. Similarly, Figure D.2 presents the estimates of the effect of the PPP on firm exit using the event-study design estimated with all firms in the ADP sample, as opposed to only firms with 1-49 workers as shown in Figure 5. Note, though, that there are few larger firms receiving PPP loans late in the sample period that can serve as controls in the Sun and Abraham (2020) methodology. As a result, we have relatively more confidence in the event-study results for smaller firms sized 1-49 as compared to the results presented here for all firms.

The results in Figures D.1 and D.2 for all firms are similar to those displayed on Figures 2 and 5 for firms sized 1-49 employees, but are smaller in magnitude.

D.4 Event-study Timing

In Figures 2, 5, D.1, and D.2, the coefficient estimates for week $t - 2$ is typically non-zero and sometimes significant, in stark contrast to the estimates in earlier pre-treatment periods in each figure. This could indicate that our PPP treatment effects spuriously reflect factors other than the effect of the PPP. Or, the significant treatment effect in period $t - 2$ could reflect an anticipation effect: firms expecting to get PPP loans in the near future might be particularly unlikely to close down in advance of loan approval or may begin reopening.

However, there is an alternative potential explanation for these seemingly anomalous estimates.²

²Note that Dalton (2021), using a similar methodology, finds comparable treatment effects but no evidence of
Figure D.1: Event-Study Employment Effects at All Firms

Index (February 2020 - 1.0)

Note. Estimates from Sun and Abraham (2020) event-study interaction estimator on the sample of loan-matched ADP firms. The outcome variable is firm-level employment indexed to equal 1 in February 2020. The estimates are weighted by each firm’s employment as of February 2020 and include controls for 3-digit industry-by-week and state-by-week fixed effects. Standard errors are clustered at the 3-digit industry.

**All points to the right of the solid line represent post-treatment periods. Alternatively, accounting for the biweekly pay schedule of most ADP employers, and the back-filling used to establish start dates, all periods to the right of the dashed line can be viewed as post-treatment. See Appendix Section D.4 for more details.

Source: Authors’ analysis of SBA and ADP data using Sun and Abraham (2020) “eventstudyinteract” STATA implementation.

We believe they are possibly driven by the timing of hires within bi-weekly pay periods which are used by the vast majority of firms in the ADP data. While we observe the pay period in which a worker earns compensation in the ADP data, we do not observe the specific days on which they worked. The convention we follow is to assume that workers begin employment at the start of pay periods, e.g. if a worker is hired on the last day of the pay period, we assume she worked both weeks of the pay period. Thus, our “back-filling” procedure might artificially inflate employment two weeks prior to what happened in actuality. Indeed, the pre-PPP treatment estimates in the $\beta_t$ vector prior to $t = -2$ are small and bounce around zero. For this reason, we include a dashed vertical line at $t - 3$, two weeks prior to the standard vertical line at $t - 1$, and interpret all points to the right of $t - 3$ as plausibly post-treatment.
E  Firm Closure Estimates for Larger Firms

Figure E.1 presents estimates of the effect of the PPP on firm closure for larger firms than considered in the estimates displayed in Figure 5. The estimates are based on the difference-in-difference approach of Autor et al. (2020)—discussed in appendix section C— which achieves identification by comparing firms below the employee eligibility threshold to firms above the eligibility thresholds. Thus, the sample contains firms somewhat below and somewhat above the employee eligibility threshold—generally 500 workers. The estimating equation is appendix equation (A.1). The dependent variable is an indicator variable for a firm being closed, defined as having no employment in that week. We find no evidence that the PPP averted shutdowns for the larger sized firms considered.
Figure E.1: Effect of PPP Eligibility on Probability of Firm Having No Employment

Note: Each firm’s size is determined using employment in both 2019 and February 2020. Regressions are weighted by firm size as of February 2020 and include controls for state-by-week and industry-by-week effects. Standard errors are clustered at the 3-digit NAICS industry level. Sample reflects firms that were present in the ADP data for all 12 months of 2019.

Source: Authors’ analysis of ADP data.
F  Distributional Incidence Calculations

This appendix section discusses the distributional incidence estimates presented in the paper for the PPP, expanded UI, and stimulus checks. The first subsection discusses the methodology behind these estimates and the second subsection presents alternative estimates based on assumptions which differ from those used in the paper.

F.1  Distributional Incidence Methodology

F.1.1  Method to Impute PPP compensation across the income distribution

1. Imputing PPP dollars that flowed to workers

   • Let $T$ denote our estimate of the PPP funds that flows from recipient businesses to the workers whose jobs were saved by the PPP.

   • This is calculated as $T = CJ$

   • $C$ is compensation per worker whose job was saved by the PPP, calculated as average weekly wages in the CPS ORG microdata multiplied by the ratio of total compensation to total private industry wages and salaries from the BLS ECEC data from 2020Q1, $C = W \times \alpha_{ECEC}$
     - $\alpha_{ECEC} = 1.42$, i.e., total compensation is 42% higher than wages and salaries.
     - $W = 52 \times wk$, where $wk$ is the employment-loss weighted average weekly wage calculated from the February 2020 CPS ORG, following the Center for Economic Policy Research’s methodology (CEPR, 2020). The employment loss weights are discussed below. We truncate the weekly wage at an annual rate of $100,000 since the PPP did not support more than $100,000 in worker compensation. We calculate $wk = $786.
     - $C = 52 \times $786 \times 1.42 = $58,185$

   • $J$ is the estimate of job-years saved by the PPP.
     - We start with the jobs saved estimates from Autor et al. (2020) which end in December 2020. We then extend the estimates through June 2021 (when they hit
zero) by linear extrapolation of the trend from the peak effect in May 2020 through December 2020.

- The estimates in Autor et al. (2020) are based on the analysis of relatively large firms. In the main text of this paper we find that for smaller firms with between 1 to 49 employees the PPP jobs-saved effect is roughly double that estimated in Autor et al. (2020). Accordingly, we assume that the job-saved effect for these small firms is double that calculated immediately above based on the estimates in Autor et al. (2020). Since firms between 1-49 workers comprise about 52% of small business employment according to the BLS’s BED data, our jobs-saved estimate is 2 × β × 0.52 + β × (1 − 0.52) = 1.52 × β, where β are the job-year estimates based on Autor et al. (2020) for each quarter from 2020Q2 through 2021Q2 (using the interpolation described immediately above).

- Autor et al. (2020) estimated that the PPP raised employment by $J_{Autor} = 1.98$ million job years.

- Using the larger effect on small firms, we estimate that the PPP raised employment by $J_{boost} = 3$ million job years.

- $T_{Autor} = CJ_{Autor} = $58,185 × 1.98m = $115 billion.

- $T_{boost} = CJ_{boost} = $58,185 × 3.0m = $175 billion.

2. Imputing PPP compensation to weekly wage quintiles

- **Assumption:** Workers whose jobs were saved by the PPP (and therefore who received PPP compensation) came from the same wage distribution as workers who did ultimately lose their jobs during 2020.

- We use the Current Population Survey ORG data on weekly wages in February 2020 to split workers into quintiles of the weekly wage distribution in that month prior to COVID, again following CEPR (2020).

- For each quintile, we calculate total employment for each month from February 2020 to December 2020. We then calculate the average decline in employment for each quintile-month, taking the log difference relative to February 2020. Let this employment decline
be denoted by \( d_q \) for quintile \( q \).

- For each quintile, we calculate the average loss in weekly wages per month from March through December: \( w_{kq} \times d_q \), where \( w_{kq} \) is the quintile-specific average wage from February 2020.
  - We truncate the weekly wage at an annual rate of $100,000 due to the PPP’s cap on compensation per worker.
  - As an example, for the lowest quintile, \( w_{k1} = $283 \) and \( d_1 = 17.8\% \), so \( w_{k1} \times d_1 = $50.30 \) per week on average over March through December 2020.
  - Now the share of compensation loss due to job loss can be calculated for each quintile:
    \[
    s_q = \frac{w_{kq} d_q}{\sum_w w_{kw} d_w}.
    \]
  - Total PPP compensation for each quintile is simply \( T \times s_q \).

3. Imputing PPP compensation to household income quintile

- We use data from the March 2020 Current Population Survey downloaded from IPUMS (Flood et al., 2021) to map from the weekly wage distribution to the household income distribution.
- Using total household income for calendar year 2019 from the March 2020 CPS, we can compare the weekly wage distribution to the household income distribution. We do this as follows:
  - Define weekly wages as total wage and salary income divided by weeks worked.
  - Winsorize at the 1st and 99th percentiles.
  - Truncate at $100,000 in wages and salaries.
  - Split individuals into their weekly wage quintiles.
  - Also split individuals into their household income quintiles.
  - Define the 5-by-5 probability matrix \( P \) where each entry is \( p_{wh} \), the probability that an individual with weekly wages in the \( w \)th quintile is in a household in the \( h \) household income quintile.
- We can then map from weekly wage PPP compensation shares, defined above as \( s_q \) as follows.
– Define the 1-by-5 vector $S = [s_1, ..., s_5]$.
– Then $S \times P$ gives a vector of the imputed shares of compensation lost by household income.
– Note that if $P$ was the identity matrix, it would amount to assuming that the weekly wage distribution map directly to the household income distribution.

F.1.2 Method to Impute PPP capital income across the income distribution

• Total PPP funds that flowed to non-workers, or capital, is $510$ billion minus the PPP funds that flowed to compensation, described in the previous section.

• The PPP went to both business owners and shareholders of businesses, and the BEA estimates a split between the PPP subsidies to corporations (64.6%) and to sole proprietors and partnerships (35.4%).

• PPP funds that flowed to corporations are a one-time windfall profit and so the incidence is assumed to fall entirely on capital. We follow the Congressional Budget Office assumption that the distribution of capital income follows that of the distribution of income from capital gains, interest, rent, and dividends.

• PPP funds that flowed to sole proprietors and partnerships are assumed to follow the distribution of business income in the CBO distributional tables.

F.1.3 Method to Impute Unemployment Insurance across the income distribution

• We impute shares of UI benefits using the same data on job loss and weekly wages as we described in section F.1.1. Recall that we denote the percent change in employment by quintile $d_q$ and the weekly wage in February 2020 $w_{k_d}$, and define their product, $l_q$, to be the average weekly wage lost by quintile.

• Unemployment insurance benefits are progressive in normal times in the sense that they replace a lower share of wages the higher the wages are. This is mediated through UI benefit schedules, which vary by state and replace wages subject to minimum and maximum weekly benefits, and imply a replacement rate $rr_q$ which varies with wage quintile.
- We calculate \( r_{q} \) using the same CPR ORG data as we describe above. The replacement rate is estimated using a simplified formula: 
\[
    r_q = E \left[ \min\left( UT_s, \max\left( \frac{UI_s}{w_k}, 0.5 \times w_k \right) \right) \right],
\]
where \( UT_s \) and \( UI_s \) are the state-specific minimum and maximum UI benefits reported in Chapter, Table 3-5 in the Department of Labor’s 2019 Comparison of State Unemployment Laws.

- We assume that this normal benefit formula applied in March and then October through December after the supplements to weekly benefits lapsed. From April through July, the CARES Act provided $600 per week for each beneficiary and in August and September the Lost Wage Assistance program provided an additional $300 per week.

  - We can augment the estimated replacement rates in those months in a straightforward way: 
\[
    r_q = E \left[ \min\left( UT_s, \max\left( \frac{UI_s}{w_k}, 0.5 \times w_k \right) \right) + s \right],
\]
where \( s \) is the weekly supplement.

- Finally, we take the simple average from March through December of the replacement rates by quintile, \( \overline{r}_q \).

- We can now apply the replacement rate to the wage loss by quintile to estimate the share of UI benefits that flow to each wage quintile: 
\[
    s_{UI}^q = \overline{r}_q \times l_q \sum_q \overline{r}_q \times l_q \cdot 3
\]

- Multiplying the share of UI benefits by quintile by the total amount of UI paid in 2020 (above what would have been paid if the 2019Q4 amount continued into 2020), $557 billion (BEA), gives our estimate of UI benefits by quintile.

**F.1.4 Method to Calculate Annual Household Income by Quintile**

- The right-hand panel of Figures 6 and F.1 utilizes annual household income by quintile. To calculate this we take CBO data from 2017 (the last year available) on average after-tax and transfer household income by quintile and multiply by the number of households.

- To inflate these figures to pre-COVID levels, we use Census average household income growth by quintile from 2017-2019.

\[^3\text{We map these to the household income distribution using the method in section F.1.1.}\]
### F.2 Alternative Distributional Incidence

Figure 6 in the published text displays our incidence calculations based on relative generous assumptions for the magnitude by which the PPP supported employee compensation; specifically, the estimates in Figure 6 use the assumption that $175B of employee compensation was supported by the PPP. Figure F.1 offers the same distributional breakdown of PPP funds as shown in Figure 6, but under the alternative, smaller assumption that the PPP supported $115B of compensation. Appendix subsection F.1.1 discusses the calculation of the $175B and $115B PPP-supported compensation estimates.

**Figure F.1: Alternative Distributional Analysis of PPP**

<table>
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<th>Quintile 1</th>
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<th>Quintile 4</th>
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Note. See online appendix text for details of calculations.
Source: Authors’ analysis of CBO, Census Bureau, BEA, BLS ECEC, Current Population Survey microdata, and estimates from Autor et al. (2020), Bhutta et al. (2020), and Boesch et al. (2021).
Inspection of SBA’s Implementation of the Paycheck Protection Program

REPORT NUMBER 21-07 | January 14, 2021
What OIG Reviewed

The President signed the Coronavirus Aid, Relief, and Economic Security (CARES) Act into law on March 27, 2020. Section 1102 of the Act provided $349 billion for the creation the Paycheck Protection Program (PPP) under Section 7(a) of the Small Business Act.

This program provides fully guaranteed SBA loans for certain eligible small businesses, individuals and nonprofit organizations that can be forgiven if loan proceeds were used as required by the law. Eligible expenses include payroll, rent, utility payments, and other limited uses.

Our objective for this inspection was to assess SBA's implementation of the PPP, including the timing of implementation, lender participation, guidance provided to lenders and staff, timeliness of loan approval and disbursement, and systems used to process lender loan approvals.

What OIG Found

SBA's initial response to implement the PPP quickly made billions of dollars of capital available to millions of borrowers affected by the COVID-19 pandemic. SBA quickly released loan origination program guidance for the majority of the program's aspects and approved approximately 3,800 financial institutions for participation in the program. However, SBA's efforts to hurry capital to businesses were at the expense of controls that could have reduced the likelihood of ineligible or fraudulent business obtaining a PPP loan. As a result, there is limited assurance that loans went to only eligible recipients.

Additionally, we found aspects of SBA's implementation of the PPP could prevent Congress and SBA management from having the information needed to determine if program objectives were fully met. We found SBA's PPP publicly reported and loan-level data was inaccurate and incomplete, and SBA guidance was not sufficient to ensure PPP lenders prioritized underserved markets during the initial round of funding.

Finally, while we determined some aspects of SBA's initial implementation of the PPP were not executed efficiently, SBA later made several corrections so the program would operate more effectively.

OIG Recommendations

We made six recommendations to improve SBA's program and reduce the risk of financial loss from PPP loans being made to ineligible or fraudulent borrowers and improve SBA's ability to obtain information necessary for critical program decisions.

Agency Response

SBA fully agreed with five of the six recommendations. Specifically, the agency agreed with recommendations 1, 2, 4, 5, and 6. Management disagreed with recommendation 3 but provided an alternative solution that satisfied the intent of the recommendation.

To address all recommendations, management plans to review the loans identified in the report as potentially ineligible and implement or strengthen internal controls to ensure loans were not made to ineligible or potentially fraudulent borrowers.

Additionally, management plans to update PPP program forms to

- reduce the risk of financial loss from potentially ineligible loans,
- ensure accurate and complete program reporting, and
- ensure sufficient information is gathered to assess program objectives.
DATE: January 14, 2021

TO: Jovita Carranza, Administrator

FROM: Hannibal "Mike" Ware /S/
      Inspector General

SUBJECT: Inspection of SBA’s Implementation of the Paycheck Protection Program

This report presents the results of our inspection, Inspection of SBA’s Implementation of the Paycheck Protection Program. We considered management’s comments on the draft when preparing the final report. Management agreed with five of our six recommendations and disagreed with one.

We appreciate the cooperation and courtesies provided by your staff. If you have any questions or need additional information, please contact Teresa Gray, Director of Credit Programs, or Andrea Deadwyler, Assistant Inspector General for Audits, at (202) 205-6586.

cc: William Manger, Associate Administrator, Office of Capital Access and Chief of Staff
    Christopher Gray, Deputy Chief of Staff
    Stephen Kong, Acting Chief Operating Officer
    Brittany Biles, General Counsel, OGC
    John Miller, Deputy Associate Administrator, OCA
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    Martin Conrey, Attorney Advisor, OGC
    Tami Perriello, Chief Financial Officer
    Tonia Butler, Director, Office of Internal Controls
    Rafaela Monchek, Director, Office of Continuous Operations and Risk Management
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Introduction

This report presents the results of our inspection of SBA’s implementation of the Paycheck Protection Program (PPP). The President signed the Coronavirus Aid, Relief, and Economic Security (CARES) Act into law on March 27, 2020, to provide economic relief from the impact of Coronavirus Disease 2019 (COVID-19).

One of the Act’s most significant provisions, Section 1102, provided $349 billion for the PPP under section 7(a) of the Small Business Act. The PPP provides fully guaranteed SBA loans for certain eligible small businesses, individuals, and nonprofit organizations that can be forgiven if loan proceeds were used as required by the Act. Eligible expenses include payroll, rent, utility payments, and other limited uses.

On April 24, 2020, the President signed the Paycheck Protection Program and Health Care Enhancement Act to provide an additional $310 billion to the PPP. SBA initiated this round of additional funding on April 27. As of June 30, PPP lenders had approved a total of 4,885,388 loans totaling more than $521.4 billion. The deadline for PPP borrowers to apply for a loan was originally June 30, 2020. However, Congress passed legislation that extended the program until August 8, 2020.

Initial PPP Loan Approval Volume

SBA was tasked with expediting the implementation of this unprecedented program to mitigate the economic impact of social distancing and other negative effects of the COVID-19 outbreak. SBA launched the program on April 3, 2020, only 1 week after the Act was passed. Demand for the program was extraordinary. By April 16, just 14 days after SBA launched the program, PPP lenders approved more than 1,661,000 loans totaling nearly $342.3 billion (See Table 1).

<table>
<thead>
<tr>
<th>Loan Count</th>
<th>Net Approved Dollars</th>
<th>Lender Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,661,367</td>
<td>$342,277,999,103</td>
<td>4,975</td>
</tr>
</tbody>
</table>

Source: SBA PPP website
Note: Data as of 12 p.m., Thursday, April 16, 2020

Program Roles and Responsibilities

Under the CARES Act, SBA administers the PPP with guidance from the Secretary of the Treasury.¹ The U.S. Department of the Treasury, in consultation with SBA, was required to establish participation criteria for insured depository institutions, insured credit unions, institutions of the Farm Credit System, and other lenders that were not already participating in other SBA lending programs.²

SBA’s Office of Capital Access was the primary SBA program office tasked with the implementation of the program. Several other departments within that office played roles in the program’s implementation, as follows:

¹ Division A Section 1109 (h) of CARES Act.
² Division A Section 1109 (b) of CARES Act.
• The Office of Financial Assistance developed policies for the program.
• The Office of Credit Risk Management, in consultation with Treasury, reviewed and made decisions on applications for additional financial institutions’ participation in the PPP.
• The Office of Performance and Systems Management was responsible for the information systems and data for the PPP.
• The Office of Financial Program Operations was responsible for developing policies for center staff and reviewers of PPP loans for eligibility and forgiveness.

Statutory Authority

The PPP provides guaranteed loans to assist eligible businesses, individuals, and organizations to keep American workers paid and employed. On April 24, 2020, the Enhancement Act added funding to the PPP and required the SBA Administrator to set aside $30 billion for lending by insured depository institutions and credit unions with consolidated assets of $10 billion to $50 billion. The Enhancement Act also required the Administrator to set aside an additional $30 billion for lending by community financial institutions, insured depository institutions with consolidated assets of less than $10 billion, and credit unions with consolidated assets of less than $10 billion.

The PPP Flexibility Act enacted on June 5, 2020, amended the Small Business Act and the CARES Act to change provisions related to the forgiveness of loans under the PPP. The PPP Flexibility Act provided PPP borrowers with additional relief, including reducing the percentage of eligible expenses used for payroll costs, extending the covered period for PPP loans, and extending the maturity on PPP loans.

Formal Guidance

SBA complied with the statutory timeframe for the issuance of regulations for the PPP, issuing (in coordination with Treasury) an initial Interim Final Rule on April 2, 2020, only 6 days after the enactment of the CARES Act. SBA was required to issue regulations for the program not later than 15 days from the date of the enactment of the CARES Act.

The interim guidance allowed lenders to begin approving loans on April 3, 2020, 1 week after the enactment. The initial interim rule included primary guidance for originating loans under the program. Later versions of interim final rules included specific topics to clarify issues with the previously announced policies. As of June 30, 2020 SBA, had issued 22 interim final rules for the new program.

Other Guidance

SBA has also published additional guidance for the PPP in its Frequently Asked Questions (FAQs) document and specific loan program forms. As of June 30, 2020, SBA had published 49 FAQs and responses about aspects of the program, primarily eligibility, loan size calculations, and loan sales on the secondary market. SBA also released program forms such as lender participation applications, loan applications, and forgiveness applications, as well as informational notices to help lenders begin the PPP.

Approval of Financial Institutions for the PPP

SBA, in consultation with Treasury, approved financial institutions to participate in the program. Under the Act, 7(a) lenders were already allowed to participate in the program. Additional financial institutions to be approved included banking institutions such as commercial banks, credit unions, and savings and loan associations.
The CARES Act authorized the Secretary of the Treasury in consultation with the SBA Administrator to include additional financial institutions for participation. SBA approved nonbanking institutions such as SBA certified development companies, Community Development Financial Institutions, farm credit lenders, SBA microlenders, state-regulated Lenders, and business and industrial development corporations.

SBA’s Office of Credit Risk Management, in coordination with Treasury, was responsible for approving the additional financial institutions. That office required potential lenders to complete the agency’s application for lender participation to confirm eligibility.³

As of June 30, 2020, 5,466 lenders were participating in the PPP. Some 3,755, or 69 percent, of the participating PPP lenders, were new to SBA lending or had not made 7(a) or 504 loans since October 1, 2017. The remaining 1,711 participating PPP lenders made 7(a) loans in Fiscal Year (FY) 2019. These active SBA 7(a) lenders were also allowed to make loans under the PPP.

**Borrower Eligibility**

Participating lenders provide loans to borrowers suffering from the financial impact of the pandemic. The CARES Act defines eligible borrowers as small business concerns, nonprofit organizations, veterans organizations, or tribal business concerns that employ not more than the greater of 500 employees or, if applicable, the size standard in number of employees established by SBA for the industry in which the business concern operates.

The CARES Act also provided that any business concern that employs not more than 500 employees per physical location of the business concern and which is assigned a North American Industry Classification System code beginning with 72 at the time of disbursement would be eligible to receive a covered loan. Additionally, individuals who operated as a sole proprietorship or as an independent contractor and eligible self-employed individuals could receive PPP loans.

**PPP Loan Requirements and Terms**

The CARES Act and subsequent Interim Final Rules defined PPP requirements. Borrowers were allowed to use PPP loans for the following:

- Payroll costs
- Costs related to the continuation of group healthcare benefits during periods of paid sick, medical, or family leave, and insurance premiums
- Employee salaries, commissions, or similar compensations
- Payments of interest on any mortgage obligation (not to include prepayments or principal)
- Rent and utilities
- Interest on any other debt obligations incurred before the covered period⁴

Borrowers were also required to make multiple certifications, which included certifying in good faith that the loan was necessary to support the ongoing operations of the eligible recipient because of the uncertainty of current economic conditions.

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³ SBA Form 3506 for Banking Institutions and SBA Form 3507 for Nonbanking Institutions.

⁴ The CARES Act defined the covered period as beginning on February 15, 2020, and ending on June 30, 2020.
PPP loan term maximums included in the CARES Act provided for the calculation of the loan amount, loan interest rate, and maturity. The CARES Act stated the maximum loan amount would be the lesser of a calculation involving average monthly payroll costs (annualized based on when business was in operation) times 2.5, plus any outstanding amounts of Economic Injury Disaster Loans made beginning January 31, 2020, or $10 million.\(^5\)

In consultation with Treasury, SBA set a 1 percent fixed interest rate for all PPP loans. Additionally, SBA set the maturity for PPP loans at 2 years. However, Congress enacted the PPP Flexibility Act of 2020 which extended the maximum maturity for PPP loans to be 5 years for loans approved after June 5, 2020. The CARES Act also granted a minimum of 6-month payment deferments for affected borrowers that were in operation on February 15, 2020, and which had an approved or pending PPP application.\(^6\)

Previous Work

**Small Business Administration’s Implementation of the Paycheck Protection Program Requirement (Report 20-14, May 8, 2020).** As part of our ongoing work for this inspection, we issued a Flash Report to respond to queries by Sen. Charles E. Schumer of New York, Sen. Ben Cardin of Maryland, and Sen. Sherrod Brown of Ohio. We analyzed key provisions of Section 1102 of the CARES Act, and SBA’s Interim Final Rules and public guidance on the PPP.

We found that SBA’s Interim Final Rules for implementing the PPP and SBA’s FAQs mostly aligned with the CARES Act. We identified four areas that did not fully align with the CARES Act’s provisions: 1) prioritizing underserved and rural markets, 2) loan proceeds eligible for forgiveness, 3) guidance on loan deferments, and 4) registration of loans.

To better align PPP requirements with the provisions of the CARES Act, we suggested that SBA:

1. Issue guidance to lenders requiring the lenders to prioritize borrowers in underserved markets and revise the borrower application to include collection of optional demographic information for the principals for the remaining available lending authority and any future lending under the program.
2. Include optional demographic information on forms used to request loan forgiveness for loans that are already disbursed. Evaluate the potential negative impact to borrowers regarding the specified percentage of loan proceeds eligible for forgiveness and update the requirements, as deemed necessary.
3. Issue guidance to lenders on the deferment process for PPP loans.
4. Register PPP loans by Taxpayer Identification Number.

On May 15, 2020, SBA issued the first version of the PPP loan forgiveness application, which included an optional page for borrower demographic information. The PPP Flexibility Act of 2020 changed the minimum allowable use of proceeds for payroll costs from 75 percent to 60 percent.

In response to our May 8 Flash Report, SBA officials said they register the identification number when the SBA loan number is issued by the electronic loan processing platform.

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\(^5\) 15 USC 636(a)(36)(E) titled "Maximum Loan Amount"

\(^6\) 15 USC 636(a)(36)(M)(ii)(II)
Objective

Our objective was to assess SBA’s implementation of the Paycheck Protection Program, including the timing of implementation, lender participation, guidance provided to lenders and staff, timeliness of loan approval and disbursement, and systems used to process lender loan approvals.

Results

SBA quickly made billions of dollars of capital available to millions of businesses affected by the COVID-19 pandemic. SBA quickly released loan origination program guidance for most aspects of the program and approved approximately 3,800 financial institutions for participation in the program.

However, although SBA made efforts to expedite capital to businesses as intended by the Act, SBA lacks assurance that loans went to only eligible recipients. Loans given to ineligible borrowers placed taxpayer funds at risk of financial loss and delayed the amount of available critical capital needed for eligible businesses to withstand the effects of the pandemic during the first round of PPP funding.

We also found aspects of SBA’s implementation of the PPP will result in Congress and SBA management not having the information needed to determine if program objectives were fully met.

Specifically, we found:

- SBA’s publicly reported and loan-level PPP data was inaccurate and incomplete.
- Guidance was not sufficient to ensure PPP lenders prioritized underserved markets during the initial round of funding.

Finally, we determined that aspects of SBA’s initial implementation of the PPP were not executed efficiently. However, SBA later made corrections to clarify program guidance and improved the electronic loan processing platform to allow the program to operate more effectively.
Finding 1: Ineligible Businesses Received Paycheck Protection Program Loans

We analyzed PPP loan data and identified three unique scenarios that indicate PPP loans were approved for potentially ineligible and, in some cases, fraudulent recipients. We found businesses that

- obtained a Taxpayer Identification Number (TIN) after February 15, 2020;
- exceeded maximum loan amounts based on the number of employees; and
- exceeded maximum size standards.

We found nearly 55,000 loans for approximately $7 billion to potentially ineligible businesses, which placed taxpayer funds at risk of financial loss and delayed the amount of critical program capital available for eligible businesses to withstand the economic effects of the pandemic during the first round of PPP funding.

Businesses with Taxpayer Identification Numbers Registered After February 15, 2020

We found lenders approved PPP loans to businesses with TINs registered after the date that businesses were required to have been in operation, potentially making them ineligible for the PPP. The CARES Act required that businesses must have been in operation on or before February 15, 2020, to be eligible for a PPP loan. SBA required the borrower to provide the TIN and certify that the business was in operation before February 15, 2020, on the loan application to verify eligibility.

We cross-referenced a database of TINs to PPP loan data. We excluded all sole proprietorships from our analysis, because those businesses could have been in operation for some time and be eligible for a PPP loan even though the TIN was registered after February 15, 2020.

The data showed lenders approved more than $402 million in PPP loans to approximately 5,000 potentially ineligible businesses. These businesses likely did not meet the CARES Act eligibility requirement of being in operation on or before February 15, 2020, and they would have been ineligible for PPP loans.

We found more than 2,400 (valued at $229 million) of the 5,000 approved loan recipients had registered the TINs after the enactment of the CARES Act, which may indicate the businesses were created to fraudulently gain access to program funds. We note that multiple borrowers of the 5,000 identified loans have already been arrested, and others are under active investigation.

Our analysis also showed that approximately 2,900 of these businesses obtained TINs more than a month after the February 15, 2020, required date (See Table 2).

7 15 USC 636(a)(36)(F)(ii)(II)(aa)
### Table 2: Summary of Potentially Ineligible Loans by Registration Date

<table>
<thead>
<tr>
<th>Date TIN Registered in 2020</th>
<th>No. of TINs Registered</th>
<th>SBA Loan Totals ($)</th>
<th>Avg. Loan Amount ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>February 15 to February 29</td>
<td>1,262</td>
<td>$79,804,327</td>
<td>$63,236</td>
</tr>
<tr>
<td>March 1 to March 15</td>
<td>817</td>
<td>57,600,184</td>
<td>70,502</td>
</tr>
<tr>
<td>March 16 to March 31</td>
<td>629</td>
<td>44,767,831</td>
<td>71,173</td>
</tr>
<tr>
<td>April 1 to April 15</td>
<td>751</td>
<td>39,326,960</td>
<td>52,366</td>
</tr>
<tr>
<td>April 16 to April 30</td>
<td>544</td>
<td>66,399,463</td>
<td>122,058</td>
</tr>
<tr>
<td>May 1 to May 15</td>
<td>437</td>
<td>46,012,491</td>
<td>105,292</td>
</tr>
<tr>
<td>May 16 to May 31</td>
<td>293</td>
<td>36,407,398</td>
<td>124,257</td>
</tr>
<tr>
<td>June 1 to June 15</td>
<td>257</td>
<td>32,636,654</td>
<td>126,991</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>4,990</strong></td>
<td><strong>$402,955,308</strong></td>
<td><strong>$80,753</strong></td>
</tr>
</tbody>
</table>

*Source: OIG analysis of SBA’s mainframe loan accounting system and Treasury Employer Identification Number data*

### Businesses that Exceeded Estimated Maximum Loan Amounts Based on Number of Employees

Using SBA loan data as of June 30, 2020, we identified more than 43,000 PPP loans totaling $11.7 billion for which the loan amount, net of any portions of the loans cancelled by the lender, exceeded the per-employee maximum loan amount by approximately $3.7 billion. Our analysis showed more than 6,000 additional loans initially exceeded the maximum loan amount per employee. Lenders reduced, or cancelled, approximately $1.7 billion of these loans because of potentially erroneous initial approval amounts.

The Cares Act states that the maximum loan amount is obtained by multiplying the average total monthly payments by the applicant for payroll costs incurred during the 1-year period before the date on which the loan is made times 2.5, plus any outstanding amounts of Economic Injury Disaster Loans made beginning January 31, 2020. The law also says payroll cost does not include the compensation of an individual employee in excess of an annual salary of $100,000.8

We analyzed SBA loan data to determine if lenders approved loans in excess of allowed amounts. Using the thresholds established in the CARES Act, we conservatively used $29,999 as the maximum loan amount per employee. The value of $29,999 was calculated based on dividing a $100,000 salary by 12 months and multiplying it by 2.5, resulting in an amount of $20,833. The definition of payroll costs includes other costs such as health care and retirement benefits, so we also allowed for an additional $9,166, or 44 percent.

A significant number of eligible PPP applicants were shut out during the first round of program funding because program funds were exhausted. These potentially ineligible and cancelled loan

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8 15 USC 636(a)(36)(A)(viii)(I)(aa)
amounts could have gone to applicants who were shut out and did not receive timely economic assistance during the first round of funding.

**Businesses that Exceeded Maximum Size Standards**

We found 355 businesses that obtained PPP loans totaling approximately $856 million dollars that may have been erroneously approved. Under the CARES Act, an eligible business cannot exceed the greater of 500 employees or the SBA size standard for number of employees in the industry, if applicable.

SBA also allows for another method of determining size known as the “alternative size standard.” On April 6, 2020, SBA published an FAQ that stated, “A business could qualify for the Paycheck Protection Program as a small business concern if it passed both tests in SBA’s alternative size standard as of March 27, 2020. First, maximum tangible net worth of the business could not be more than $15 million; second, the average net income after federal income taxes (excluding any carry-over losses) of the business for the 2 full fiscal years before the date of the application could not be more than $5 million.”

These 355 businesses we found exceeded both 500 employees and the applicable employee-based size standard for the business industry. They could potentially have met the alternative size standard. SBA’s ability to assess whether the applicant met the alternative size standard is limited because SBA did not require the borrower to indicate which size standard they had used when applying to self-certify eligibility.

For example, one of the 355 loans was made to a business in the drilling oil and gas industry, with an industry code of 213111, which has an employee-based size standard of 1,000 employees. However, the SBA loan-level data for this loan indicates more than 3,000 employees, exceeding both the CARES Act and SBA employee-based industry size standards. SBA generally establishes either an employee-based size standard or a size standard based on annual average receipts for use in determining eligibility. We identified 4,097 loans totaling approximately $8.9 billion made to businesses that exceeded the CARES Act threshold of 500 employees, but which are in industries where the SBA size standards on average annual receipts. The allowable annual receipts for these range from $1 million to $41.5 million depending on industry.

We identified 123 loans totaling approximately $156 million made to borrowers that reported 5,000 employees or more, 10 times the CARES Act threshold. If a business with the maximum allowable annual receipts had 5,000 employees, the average annual receipts per employee would be only $8,300 per employee. A business with more than 5,000 employees likely exceeded $41.5 million in revenue and would be ineligible for a PPP loan unless they met the alternative size standard, as previously noted (See Table 3).

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9 Our analyses excluded PPP loans made to businesses in the North American Industry Classification System, sector 72, Accommodation and Food Services, because the CARES Act allowed for up to 500 employees per location in that industry.
Table 3: PPP Loans to Businesses with More than 5,000 Employees

<table>
<thead>
<tr>
<th>Number of Employees</th>
<th>Total Number of Borrowers</th>
<th>Total Amount of Loans</th>
</tr>
</thead>
<tbody>
<tr>
<td>5,000 to 5,999</td>
<td>38</td>
<td>$63,754,574</td>
</tr>
<tr>
<td>6,000 to 6,999</td>
<td>34</td>
<td>55,359,069</td>
</tr>
<tr>
<td>7,000 to 7,999</td>
<td>16</td>
<td>17,528,402</td>
</tr>
<tr>
<td>8,000 to 8,999</td>
<td>16</td>
<td>11,145,942</td>
</tr>
<tr>
<td>9,000 or more</td>
<td>19</td>
<td>8,069,215</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>123</strong></td>
<td><strong>$155,857,202</strong></td>
</tr>
</tbody>
</table>

*Source: OIG analysis of SBA’s Mainframe Loan Accounting System*

**Recommendations**

We recommend the Administrator direct the Associate Administrator of the Office of Capital Access to:

1. Review the loans identified as potentially ineligible to determine if the businesses met eligibility requirements. If not, take appropriate action related to loan guaranty and forgiveness.

2. For future rounds of PPP lending, assess vulnerabilities in internal controls and strengthen or implement necessary internal controls to address ineligible loans and potential fraud.
Finding 2: Aspects of SBA’s Implementation of the PPP Could Result in Unreliable Information to Evaluate Program Objectives

We found SBA’s PPP publicly reported and loan-level data was inaccurate and incomplete. We also found SBA’s guidance was not sufficient to ensure PPP lenders prioritized underserved markets during the initial round of funding. Consequently, aspects of SBA’s implementation of the PPP could lead to insufficient information for Congress and SBA management to determine if program objectives were fully met.

PPP Publicly Reported and Loan-Level Data was Inaccurate and Incomplete

We determined that SBA’s publicly reported and loan-level PPP data was inaccurate and incomplete. Job statistics were inaccurate and incomplete, industry classification codes were incomplete, and underserved market data was incomplete. Without accurate and complete data, SBA cannot reliably and accurately inform SBA management and Congress about program effectiveness and measures needed to inform program decisions.

Inaccurate and Incomplete Jobs Statistics

We found that SBA’s loan-level data for job statistics was inaccurate and incomplete. In our review of data extracted from SBA’s mainframe loan accounting system as of June 30, 2020, we found that

- 191,003 loans totaling approximately $11 billion did not include employment information in the required job field for the number of current employees
- 148,019 loans totaling approximately $6.7 billion had no employment information for the number of current employees and the number of jobs retained
- 845,778 loans did not contain data in the jobs retained field

SBA’s system has only one required job field, “number of current employees,” which is also on the PPP loan application. However, a “jobs retained” field, which SBA used for public reporting on PPP loans, was not included on the borrower application for PPP loans. SBA officials told us that only fields on the borrower application were mandatory data entry fields to obtain a PPP loan number.

SBA officials said because of a backlog of loan applications before the beginning of the second round of PPP funding, lenders were allowed to submit loan applications in bulk. The officials said they turned off system controls to allow faster approval times.

Of the 191,003 applications that did not have data for the number of current employees, 83,374 were approved during the first week of the second round of funding. Because SBA removed the control to check data in the number of current employees field, these loans totaling approximately $4 billion were not validated before approving and issuing loan numbers to PPP lenders.

SBA did not require borrowers to provide data on jobs retained and did not require lenders to input data for jobs retained at the time of loan application. As a result, SBA officials and national leaders do not have enough information to make informed decisions or determine to what extent the PPP met national program objectives. Additionally, SBA cannot accurately report jobs retained by PPP borrowers, which was a statistic used in public reporting on PPP loans.

Incomplete North American Industry Classification System Data

SBA’s loan-level data on PPP North American Industry Classification System codes was incomplete. SBA did not require the borrower to provide the industry classification code on the application, so lenders did not have the information to put in the loan processing platform. As of June 30, 2020,
222,096 loans totaling approximately $9.9 billion were identified as “Unclassified Establishments” because there was no industry classification data on the application.

SBA has historically used the North American Industry Classification System code along with other identifying information for lenders to make a determination about business eligibility. However, SBA did not require lenders to collect the industry classification information on the loan application. The SBA officials we spoke to said they wanted to streamline the application and had decided against including this field at the beginning of the program.

The CARES Act requires the business to have less than 500 employees or meet SBA’s established industry size standards to be eligible for a PPP loan. Because SBA does not collect this information on the loan application, lenders cannot accurately determine whether PPP borrowers are eligible for the program nor can SBA accurately report to Congress which industries have obtained PPP loans.

Incomplete Underserved Market Data

As we reported in our Flash Report, we found SBA’s demographic information for underserved markets for PPP borrowers was incomplete. SBA’s borrower application for PPP did not include standard SBA fields to request optional demographic information. On May 15, 2020, a week after our Flash Report, SBA issued the initial PPP loan forgiveness application, which included an optional page for borrower demographic information.

As of June 30, 2020, PPP lenders had approved approximately 4.7 million loans. SBA data showed that approximately 3.5 million, or 75 percent, of those 4.7 million PPP loans had an undetermined ethnic code. SBA was able to capture whether the borrowers were located in a HUBZone, low-to-moderate-income area, or rural county. But our analysis revealed a significant gap in the agency’s data on underserved markets, such as ethnic code, veteran status, and women-owned businesses.

SBA included the optional demographic information form on the forgiveness application, but there is the potential that sufficient data may not be collected. Some borrowers may not apply for loan forgiveness and others may choose not to complete an optional separate page of the forgiveness application with the information.

Although ethnic demographic information is optional for SBA’s traditional loan programs and the PPP, SBA generally requests the demographic information as a section on a mandatory form. Borrowers have the option to decline to provide the information.

Without complete data on underserved markets SBA’s efforts to reach those markets may never be fully known. As a result, SBA will not be able to accurately and completely report to Congress whether it met the intent of the CARES Act in prioritizing and reaching underserved markets.

SBA’s Guidance Was Not Sufficient to Ensure PPP Lenders Prioritized Underserved Markets During the Initial Round of Funding

SBA’s formal guidance for underserved and rural markets was not sufficient to ensure that PPP lenders were prioritizing underserved markets as intended by the Act, during the initial round of funding. Without clear and timely guidance to prompt lenders to prioritize these borrowers, underserved borrowers may not have obtained critical capital needed to withstand the pandemic.

Section 1102 of the CARES Act included a “Sense of the Senate” statement that said the SBA Administrator should issue guidance to lenders and agents to ensure the processing and disbursement of covered loans prioritized small business concerns and entities in underserved and rural markets, including veterans and members of the military community, small business concerns

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owned and controlled by socially and economically disadvantaged individuals (as defined in section 15 U.S.C. 637(d)(3)(c)), women, and businesses in operation for less than 2 years.\textsuperscript{10}

As discussed in our May Flash Report, we did not find evidence that SBA issued any guidance to ensure lenders prioritized helping borrowers from underserved markets. Since we issued our Flash Report, SBA has issued guidance to lenders to assist eligible borrowers in underserved markets.

However, the guidance was not released quickly enough to ensure underserved and rural markets were prioritized in the beginning round of the PPP program. Consequently, underserved borrowers may not have received loans, and the intent of the “Sense of Senate” for underserved and rural markets may not have been realized.

In the April 2, 2020, Interim Final Rule, SBA stated the PPP was “first come, first served.” That language specifically contradicted the Sense of the Senate statement about prioritizing underserved markets.

To determine whether lenders processed PPP applications on a “first-come, first served” basis, we attempted to analyze the timing between the borrower’s application date and approval. However, SBA’s data gathering made that impossible. SBA recorded the application date as the date the lender submitted the loan to SBA for a loan number, not when the borrower applied to the lender. Consequently, the application date and approval date are recorded as the same date.

We sent surveys to 5,265 PPP lenders asking for their perspectives on the effectiveness of SBA’s implementation of the program. Our survey asked lenders if their institution prioritized PPP loans to existing customers or used another method. Approximately 57 percent of lenders who responded said they did not process PPP loans on a “first come, first served” basis, as required by SBA.

Instead, our analysis of PPP loan data from round one showed the top 15 lenders prioritized larger loans in the first week of the program (See Figure 1).\textsuperscript{11}

\textsuperscript{10} 15 USC 636(a)(36)(P)(iv)
\textsuperscript{11} Round one included loans approved from April 3 to April 16, 2020.
The top 15 lenders in round one approved an average loan amount of $526,576 in the first 7 days of the program. By comparison, all the other PPP lenders approved an average of $238,083 in the same period. From days 8 to 14 in round one, the top 15 lenders approved an average loan amount of $243,589, an amount more in line with the 14-day overall average loan amount of $208,043 for round 1 of funding (See Table 4).

### Table 4. Average Loan Amount Comparison – PPP Round 1

<table>
<thead>
<tr>
<th>Lenders</th>
<th>Average Days 1-7</th>
<th>Average Days 8-14</th>
<th>14-day Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top 15 Lenders</td>
<td>$526,576</td>
<td>$243,589</td>
<td>$281,340</td>
</tr>
<tr>
<td>All Other PPP Lenders</td>
<td>$238,083</td>
<td>$158,740</td>
<td>$190,206</td>
</tr>
<tr>
<td>Total Average</td>
<td>$259,912</td>
<td>$180,715</td>
<td>$208,043</td>
</tr>
</tbody>
</table>

In response to our Flash Report, on May 14, 2020, SBA officials stated they had done several things to reach underserved markets, including contacting Community Development Financial Institutions, minority depository institutions, farm credits, and certified development companies to encourage lenders to participate in the PPP. SBA also ensured that lenders could access the $60 billion designated by the Enhancement Act for insured depository institutions, credit unions, and community financial institutions to make PPP loans. We recognize that SBA did make efforts to increase the participation of underserved markets, as defined in the CARES Act.

On June 15, 2020, the Administrator issued guidance instructing lenders to “redouble” their efforts to assist eligible borrowers in underserved and disadvantaged communities during the 15 days remaining in the program at the time. On June 19, 2020, SBA announced the launch of a dedicated online tool for small businesses to be matched with community and minority institutions to help them connect with PPP lenders.
SBA also launched a temporary program with current SBA community advantage lenders to be called the Community Advantage Recovery Loan program. SBA stated that this program would provide standard SBA 7(a) loans to PPP borrowers.

**Recommendations**

We recommend the Administrator to direct the Associate Administrator of the Office of Capital Access to:

3. For future rounds of PPP lending, revise the borrower application to include the critical “jobs retained” field to ensure SBA reports accurate and complete job numbers.

4. For future rounds of PPP lending, revise the application to include the demographic information of borrowers.

5. For future rounds of PPP lending, update the PPP borrower application to include a field for the North American Industry Classification System code of the business and the business description to enable SBA to prevent potentially ineligible loan approvals.

6. Update the PPP forgiveness application to include North American Industry Classification System code to ensure that previously recorded information is accurate.
Other Matters

SBA Implemented Improvements to Overcome Challenges Faced During the Initial PPP Implementation

We determined that aspects of SBA’s initial implementation of the PPP were not executed efficiently. However, SBA later made corrections to clarify program guidance and improved the electronic loan processing platform to allow the program to operate more effectively.

Initial Guidance Resulted in Confusion Amongst Lenders

SBA released the first Interim Final Rule about the PPP for lenders on April 2, 2020. This interim rule outlined the key provisions required by Sections 1102 and 1106 of the Act. The interim rule covered borrower requirements, including program eligibility and allowable uses of loan proceeds, as well as loan terms, forgiveness, and compliance. The April 2 interim rule also covered eligibility for lender participation and underwriting standards including statements the lender could rely on for loan decisions.

Between April 3 and June 25, 2020, SBA issued 19 additional interim final rules on issues related to borrower eligibility, loan terms, and forgiveness. During that period, SBA answered 28 FAQs specifically related to affiliation, borrower certifications, eligibility, and payroll costs. Between the interim final rules and FAQs, SBA issued a total of 47 guidance documents to clarify previously issued guidance on topics related to borrowers.

Our survey of PPP lenders asked if SBA provided clear and timely guidance for PPP requirements. Approximately 75 percent of the respondents said SBA’s initial program guidance was not clear or timely. However, approximately 71 percent added the clarifying guidance improved the lenders’ ability to make loans under the program.

SBA Did Not Issue Guidance and Regulations to Fully Implement Loan Forgiveness by the Deadline

SBA was required to issue guidance and regulations to implement PPP loan forgiveness within 30 days of the date of enactment of the CARES Act. However, SBA issued the initial PPP forgiveness application after 49 days on May 15, 2020, and the first Interim Final Rule specifically for loan forgiveness after 56 days on May 22, 2020.

SBA’s April 2 Interim Final Rule answered specific questions related to loan forgiveness. Questions included:

- Can my PPP loan be forgiven in whole or in part?
- Do independent contractors count as employees for purposes of PPP loan forgiveness, and
- Can lenders rely on borrower documentation for loan forgiveness?

Additionally, SBA responded to two FAQs within 30 days of the CARES Act, related to aspects of loan forgiveness. However, the questions and answers gave only limited guidance and the regulations did not fully implement section 1106 of the CARES Act.

A May 16, 2020, SBA press release stated, “SBA will also soon issue regulations and guidance to further assist borrowers as they complete their applications and to provide lenders with guidance

12 Division A Section 1106 (k) of CARES Act
on their responsibilities.” SBA was still in the process of issuing guidance and regulations on loan forgiveness 48 days after the enactment of the CARES Act. Section 1106 clearly had not entirely been implemented as required within 30 days.

In our survey, we asked the lenders if they understood their responsibilities in loan forgiveness. Approximately 41 percent of the lenders stated they did not understand their responsibilities in the forgiveness process based on the guidance and applications issued by SBA. However, on July 23, 2020, while our survey was out for response, SBA issued a procedural notice announcing procedures for lender submission of PPP forgiveness decisions.13 We also note that numerous lenders said on the survey that the uncertainty surrounding forgiveness was the reason their borrowers returned PPP funds.

The delay in PPP guidance and regulations caused uncertainty for lenders and borrowers about forgiveness requirements on eligible amounts. Lenders may not have been adequately prepared to process and review forgiveness applications, including determining limits on loan forgiveness amounts. Also, borrowers may have been fearful about applying for or spending loan funds when they were uncertain how and when they should use the funds for the loan to be forgiven.

SBA’s Electronic Loan Processing Platform Did Not Operate Effectively at the Beginning of the Program

SBA’s Electronic Loan Processing Platform (E-Tran) did not operate effectively at the beginning of the PPP. PPP lenders were unable to access the loan processing platform for varying periods of time and experienced slow loan application processing times. Because PPP lenders were unable to access or experienced slow processing times, borrowers who submitted loans most likely experienced delays in receiving their loan funds. We asked about the lender’s experience with E-Tran in our lender survey, and approximately 26 percent said the system was not always available when needed or crashed while they were using it. However, approximately 53 percent of the lenders indicated that although they initially had problems with the system, it is currently working as expected (See Figure 2).

**Figure 2. Survey Results of Lender Experience with SBA’s E-Tran for PPP Loans**

![Survey Results of Lender Experience with SBA’s E-Tran for PPP Loans](image)

*Source: OIG PPP Lender Survey*

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13 SBA Procedural Notice Control Number: 5000-20038
SBA officials told us the system problems were caused by increased numbers of users, multiple users in the same institutions accessing the system, as well as lenders using new robotic or other automatic methods of submission that had not been tested with E-Tran. The increase in the numbers of system users burdened the processing platform. To correct the problems, SBA added additional memory capacity. Additionally, on April 28, 2020 SBA banned robotic processing automation from accessing the platform. SBA also began managing the network usage by user to reduce the effects of user load on the system and introduced a bulk processing submission to help reduce backlogged applications when the second round of PPP funding began.
Analysis of Agency Response

The Administrator provided the response to our draft report (See Appendix II). As indicated in the Administrator’s response, SBA also provided a memorandum and technical comments that addressed the report’s findings and recommendations. We considered SBA’s comments when preparing this final report. SBA management provided recommendation action sheets for each recommendation indicating they fully agreed with 5 of the 6 recommendations. Specifically, they agreed with recommendations 1, 2, 4, 5, and 6. Management disagreed with recommendation 3, but provided an alternative solution that satisfied the intent of the recommendation.

OIG Analysis of Agency’s Response

The Administrator stated in her response that the report recommendations 1 and 2, which in part recommended SBA (1) review the loans identified as potentially ineligible and take appropriate action related to loan guaranty and forgiveness, and (2) assess vulnerabilities and strengthen internal controls for future rounds of PPP were well-taken, but not necessary. The Administrator stated that SBA was already undertaking a robust loan review process of existing PPP loans and implementing enhanced internal controls for the next round of PPP lending. The Administrator further stated the loan review process is detailed in the PPP Master Review Plan (MRP), which is being provided to the OIG. Per the Administrator, SBA screens loans for the very risk factors that OIG expressed concern about in the Draft Report, including loan amount, business size, and the date a business began operation. The response also states that the loan review process includes automated screenings and manual reviews of selected loans to test for compliance with general program requirements and to evaluate the accuracy of the borrowers’ self-certifications and material representations.

The response details that loans determined through the loan review process to have been made to ineligible borrowers will not be forgiven. SBA also will pursue all available legal remedies, including repayment and civil and criminal penalties, against borrowers engaged in activity that resulted in their obtaining ineligible loans. Further, if the lender did not comply with its responsibilities under the program rules, the loan guaranty may be at risk.

Lastly, the Administrator stated that pursuant to the Economic Aid to Hard-Hit Small Businesses, Nonprofits, and Venues Act and consistent with the OIG recommendation to strengthen internal controls for new PPP lending, SBA is examining borrower eligibility upfront when the lenders submit the loans to SBA for processing for new PPP lending. SBA will search every new PPP loan application against the Treasury Department’s Do Not Pay list and public record identity verification systems. The administrator stated these efforts, which align fully with the recommendations in the Draft Report, reflect SBA’s ongoing commitment to protecting taxpayer dollars and ensuring that PPP benefits only eligible borrowers.

The OIG appreciates the Administrator’s acknowledgement of the necessity of sufficient internal controls to reduce the risk of financial loss from PPP loans being made to ineligible or fraudulent borrowers. However, we must note that unfortunately, SBA officials did not provide most of the information presented in their response until after our inspection process was completed and the draft report was issued to the agency. During our inspection, SBA officials indicated that the review plan was still being finalized. It is further noted that the provided Master Review Plan is still in a pre-decisional draft format. The scope period of our inspection was through June 30, 2020. SBA did not provide the pre-decisional draft Master Review Plan (dated October 2, 2020) to our office until January 4, 2021.
Notwithstanding any existing controls that SBA stated it already had in place during the course of inspection, we found that SBA’s efforts to hurry capital to businesses were at the expense of controls that could have reduced the likelihood of ineligible or fraudulent business obtaining a PPP loan and aspects of SBA’s implementation of the PPP could prevent Congress and SBA management from having the information needed to determine if program objectives were fully met. Therefore, it is critical that SBA fully implements or develops sufficient alternatives to the six recommendations provided in this report to ensure that PPP funding is provided to eligible businesses only and that SBA and Congress has sufficient information to assess the outcome of program objectives. Our office plans to conduct future projects related to SBA’s loan review process to determine the effectiveness of the process. We will also require SBA to provide sufficient evidence to substantiate their stated corrective actions implemented to address the recommendations provided in this report.

**Summary of Actions Necessary to Close the Recommendations**

The following details the status of our recommendations and the actions necessary to close them.

**Recommendation 1**

Review the loans identified as potentially ineligible to determine if the businesses met eligibility requirements. If not, take appropriate action related to loan guaranty and forgiveness.

**Status: Resolved**

SBA management agreed with this recommendation, stating it implemented a robust loan review process for reviewing potentially ineligible loans prior to forgiveness decisions and is currently undertaking loan reviews. SBA stated it did this in accordance with its Master Review Plan. SBA management also stated that for PPP loans approved under the Economic Aid Act, SBA would implement comprehensive loan review processes on borrower applications to prevent ineligible loans from being approved or funded. Management states that its final action date for completion was January 4, 2021. This recommendation can be closed when management provides evidence that it reviewed the loans OIG identified for compliance with PPP eligibility requirements.

**Recommendation 2**

For future rounds of PPP lending, assess vulnerabilities in internal controls and strengthen or implement necessary internal controls to address ineligible loans and potential fraud.

**Status: Resolved**

SBA management agreed with this recommendation, stating it had already assessed vulnerabilities in internal controls and strengthened or implemented the necessary internal controls to address ineligible loans and potential fraud in accordance with its Master Review Plan. SBA management also stated that for PPP loans approved under the Economic Aid Act, SBA will implement these comprehensive internal controls on borrower applications to prevent fraud and to prevent ineligible loans from being approved or funded. Additionally, SBA management stated that for new PPP loans SBA is examining borrower eligibility upfront when the lender submits the loan to SBA. SBA states every new PPP loan application submitted to SBA will be searched against the Treasury Department’s Do Not Pay list and public record identity verification systems. Management states that its final action date for completion was January 4, 2021. This recommendation can be closed when SBA provides evidence of the internal controls that were established to reduce the risk of approval of ineligible loans and the potential for fraud.
Recommendation 3

For future rounds of PPP lending, revise the borrower application to include the critical “jobs retained” field to ensure SBA reports accurate and complete job numbers.

Status: Resolved

SBA management disagreed with this recommendation, stating it determined that given the current economic circumstances, jobs retained cannot be accurately captured at the loan application stage. However, management stated that it captures jobs retained in the loan forgiveness application. Management states that its final action date for completion was January 4, 2021. Management’s action satisfies the intent of the recommendation. This recommendation can be closed when management provides evidence that it no longer uses jobs retained in its public reporting and provides evidence that SBA captures the job retained figures in the loan forgiveness process to ensure the accuracy of SBA’s public reporting on PPP loans.

Recommendation 4

For future rounds of PPP lending, revise the application to include the demographic information of borrowers.

Status: Resolved

SBA management agreed with this recommendation, stating for future rounds of PPP, SBA revised the borrower application and SBA forms to include voluntary disclosure for borrower demographic information. Management also stated that it will take action as soon as they have finalized regulations to draft program application forms. Management states that its final action date for completion was January 4, 2021. This recommendation can be closed when SBA provides evidence that the borrower application for PPP loans was revised to include the demographic information for borrowers.

Recommendation 5

For future rounds of PPP lending, update the PPP borrower application to include a field for the North American Industry Classification System code of the business and the business description to enable SBA to prevent potentially ineligible loan approvals.

Status: Resolved

SBA management agreed with this recommendation, stating for future rounds of PPP SBA has revised the borrower application to mandate North American Industry Classification System code information before an application can be submitted to SBA for processing. Management also stated it has revised the borrower application to include a field for the North American Industry Classification System code, which provides a business description. Management states that its final action date for completion was January 4, 2021. This recommendation can be closed when SBA provides evidence that the borrower application for PPP loans includes a field for the North American Industry Classification System code and provides evidence that the loan processing platform includes a validation for lenders to input the North American Industry Classification System code prior to the system providing a loan number to the lender to enable SBA to prevent potentially ineligible loan approvals.
**Recommendation 6**

Update the PPP forgiveness application to include North American Industry Classification System code to ensure that previously recorded information is accurate.

**Status: Resolved**

SBA management agreed with this recommendation, stating SBA would update the PPP forgiveness applications to include a field for the North American Industry Classification System code, which provides a business description. SBA management also stated that it, in consultation with Treasury, is updating the PPP forgiveness applications to include a field for the North American Industry Classification System code, which provides a business description. Management states that its final action date for completion was January 4, 2021. This recommendation can be closed when SBA provides evidence that it updated the PPP forgiveness applications to include a field for the North American Industry Classification System code and provides evidence that the existing North American Industry Classification System code data has been validated or corrected based on the forgiveness application submissions.
Appendix I: Objective, Scope, and Methodology

Our objective was to assess SBA’s implementation of the Paycheck Protection Program, including the timing of implementation, lender participation, guidance provided to lenders and staff, timeliness of loan approval and disbursement, and systems used to process lender loan approvals.

To meet our objective, we reviewed background information for SBA’s related activities and interviewed key personnel responsible for the implementation of the Paycheck Protection Program. We interviewed officials from the Office of Capital Access, Office of Credit Risk Management, and the Office of Performance and Systems Management about their roles and responsibilities for the PPP, implementation of PPP, and their interpretation of critical sections of the CARES Act.

We reviewed all pertinent federal, departmental, and SBA specific regulations, policies, procedures and guidance, including the CARES Act, Paycheck Protection Program and Health Care Enhancement Act, Paycheck Protection Program Flexibility Act of 2020, Interim Final Rules, Frequently Asked Questions, Information Notices, and program forms for the PPP.

We created and distributed a survey to 5,265 PPP lenders to learn their perspectives on SBA’s implementation of the program and to determine if SBA faced any challenges implementing the program. We received 1,207 lender survey responses.

We conducted this inspection in accordance with the Council of the Inspectors General on Integrity and Efficiency’s Quality Standards for Inspection and Evaluation. Those standards require that we adequately plan and perform the evaluation to obtain sufficient and appropriate evidence to provide a reasonable basis for our findings and conclusions based on our objective. We believe that the evidence provides a reasonable basis for our conclusions based on our objective.

Use of Computer-Processed Data

We relied on information from SBA’s Mainframe Loan Accounting System, E-Tran, and data from the Office of Performance and Systems Management to conduct our analyses. We also obtained lender data from the Office of Capital Access and the Office of Credit Risk Management to determine the number of financial institutions approved for participation in the PPP. Our scope of work covered March through June 2020. We conducted numerous analyses of PPP data to determine if SBA’s reported data was reliable and whether lenders disbursed loans in a timely manner.

We determined that certain elements of SBA’s PPP data were not reliable because they were inaccurate, incomplete, or both. Specifically, we found that job statistics were inaccurate and incomplete; underserved market data was incomplete; and the North American Industry Classification System code data was incomplete. We note the data SBA provided to show PPP approvals through June 30, 2020, only included approvals through June 24, 2020. We provided SBA recommendations in this report to address the identified data reliability issues. However, we believe the data is sufficiently reliable to support our report conclusions.
Appendix II: Management Comments

SBA RESPONSE TO INSPECTION REPORT
January 4, 2021

The Honorable Hannibal “Mike” Ware
Inspector General
U.S. Small Business Administration
409 3rd Street, SW
Washington, DC 20416

Dear Inspector General Ware:

I value and respect the important role that the Office of Inspector General (“OIG”) plays in combating fraud and abuse at the Small Business Administration (“SBA”). Your office is a critical resource for the Agency in our efforts to achieve economy, efficiency, and effectiveness in our programs and operations, which have supported millions of small businesses, nonprofit organizations, independent contractors, and sole proprietors impacted by the COVID-19 pandemic.

I write regarding OIG’s December 10, 2020 Draft Report, titled “Inspection of SBA’s Implementation of the Paycheck Protection Program” (“Draft Report”). The Office of Capital Access (“OCA”) is providing a detailed memorandum and technical comments in response to the Draft Report as a part of SBA’s efforts to work with OIG to ensure the accuracy and comprehensiveness of its audits. But I am writing separately to address the recommendations in the Draft Report, which include a recommendation that SBA review potentially ineligible loans and take action with respect to loan guaranties and forgiveness, as appropriate, and a recommendation to strengthen internal controls for future Paycheck Protection Program (“PPP”) lending. I appreciate your office providing these recommendations. They are well-taken, but fortunately unnecessary, as SBA already is undertaking a robust loan review process of existing PPP loans and implementing enhanced internal controls for the next round of PPP lending.

The loan review process is detailed in the Paycheck Protection Program Master Review Plan (“MRP”), which is being provided to OIG. Among other things, SBA screens loans for the very risk factors that OIG expressed concern about in the Draft Report, including loan amount, business size, and the date a business began operation.

As detailed in the MRP, loan reviews are conducted under SBA-developed protocols, by SBA staff and contractors—all operating under the supervision of OCA. The loan review process includes automated screenings and manual reviews of selected loans to test for compliance with general
program requirements and to evaluate the accuracy of the borrowers’ self-certifications and material representations. Loans determined through the loan review process to have been made to ineligible borrowers will not be forgiven. SBA also will pursue all available legal remedies, including repayment and civil and criminal penalties, against borrowers engaged in activity that resulted in their obtaining ineligible loans. Further, if the lender did not comply with its responsibilities under the program rules, the loan guaranty made be at risk.

As you undoubtedly are aware, SBA is embarking on a new round of PPP lending, pursuant to the Economic Aid to Hard-Hit Small Businesses, Nonprofits, and Venues Act. Consistent with your recommendation to strengthen internal controls for new PPP lending, for these new PPP loans, SBA is examining borrower eligibility upfront when the lenders submit the loans to SBA for processing. For example, every new PPP loan application submitted to SBA for processing by a lender will be searched against the Treasury Department’s Do Not Pay list and public record identity verification systems.

These efforts, which align fully with the recommendations in the Draft Report, reflect SBA’s ongoing commitment to protecting taxpayer dollars and ensuring that PPP benefits only eligible borrowers. We are happy to discuss with you the loan review process and the new front-end controls.

Sincerely,

Jovita Carranza
Administrator
SBA’S PAYCHECK PROTECTION PROGRAM LOAN REVIEW PROCESSES

REPORT NUMBER 22-09 | FEBRUARY 28, 2022
What OIG Reviewed

We conducted this evaluation to assess the U.S. Small Business Administration’s (SBA) processes for reviewing Paycheck Protection Program (PPP) loans for eligibility and forgiveness.

To receive loan forgiveness, a borrower must submit the loan forgiveness application to their lender. The lender then has 60 days to render a forgiveness decision to SBA. The agency is required to remit the appropriate forgiveness amount to the lender within 90 days.

To conduct our evaluation, we reviewed applicable laws, regulations, and requirements governing PPP loan eligibility and forgiveness in addition to guidance in SBA’s PPP Interim Final Rules, PPP Frequently Asked Questions, and internal policies and procedures for performing loan reviews. We also analyzed PPP loan data and interviewed staff responsible for performing loan reviews.

What OIG Found

SBA’s online loan forgiveness platform used by lenders to submit forgiveness requests is adequate to support SBA’s loan review process. However, we found that for loans totaling $66.4 billion SBA did not meet the 90-day statutory requirement to remit forgiveness payments to lenders.

This issue included not meeting the 90-day requirement for 98.2 percent of loans over $2 million. Not completing reviews of loans and remitting payment promptly creates uncertainty for borrowers and PPP lenders who are unsure if SBA will forgive their loans.

We also identified other matters that SBA should address, as follows:

In June 2021, SBA changed its process to review loans prioritized by risk rather than order the forgiveness application was submitted. SBA also made changes to allow certain loans to be retroactively reviewed for fraud and eligibility after they have been forgiven.

We have concerns about the impact these changes will have on SBA’s ability to recover funds for forgiven loans later determined to be ineligible.

Outstanding loan forgiveness applications are a potential indicator of fraud. Borrowers who fraudulently obtained a PPP loan are unlikely to apply for loan forgiveness.

We identified 1.9 million loans totaling $177.3 billion with no forgiveness application as of May 2021.

Changes to program requirements for Schedule C borrowers may increase the risk of fraudulent loans. Many of the loans made to Schedule C borrowers were made by lenders, including financial technology (fintech) lenders, who rely exclusively on third-party loan processing or software platform vendors they hire to complete loan processes. Such lenders do not have a relationship with SBA.

OIG Recommendation

We recommend that SBA develop a plan to ensure remaining forgiveness reviews and remittances are completed within 90 days as required by the Coronavirus Aid, Relief, and Economic Security (CARES) Act.

Agency Response

SBA management agreed with the report finding and recommendation, stating it implemented process improvements and policies to reduce manual review processing times. Management stated that 85 percent of reviews completed in 2021 were done within the 90-day requirement. The remaining 15 percent took longer due to eligibility and compliance issues.
This report presents the results of our evaluation of the U.S. Small Business Administration's Paycheck Protection Program Loan Review Processes. We considered management's comments on the draft of this report when preparing the final report. Management agreed with the recommendation.

We appreciate the cooperation and courtesies provided by your staff. If you have any questions, contact me or Andrea Deadwyler, Assistant Inspector General for Audits, at (202) 205-6586.

cc: Patrick Kelley, Associate Administrator, Office of Capital Access
   Antwaun Griffin, Chief of Staff
   Arthur Plews, Deputy Chief of Staff
   Peggy Delinois Hamilton, General Counsel, Office of General Counsel
   John Miller, Deputy Associate Administrator, Office of Capital Access
   Michael Simmons, Attorney Advisor, Office of General Counsel
   Joshua Barnes, Acting Director, Office of Continuous Operations and Risk Management
   Jason Bossie, Chief Financial Officer
   Tonia Butler, Director, Office of Internal Controls
Introduction

This report presents the results of our evaluation of U.S. Small Business Administration’s (SBA) processes for reviewing Paycheck Protection Program (PPP) loans for eligibility and forgiveness. This report is the first in a series of reviews that will include an in-depth analysis of PPP loans to assess the effectiveness of SBA’s PPP loan reviews.

The President signed the Coronavirus Aid, Relief, and Economic Security (CARES) Act into law on March 27, 2020 to provide economic relief from the effects of the Coronavirus Disease 2019 (COVID-19) pandemic. One of the Act’s most significant provisions, Section 1102, provided $349 billion for the PPP under section 7(a) of the Small Business Act.

The PPP provides fully guaranteed SBA loans for certain eligible small businesses, individuals, and nonprofit organizations that can be forgiven if loan proceeds were used as required by the CARES Act. Eligible expenses include payroll, rent, utilities, and other limited uses. On April 24, 2020, the President signed the Paycheck Protection Program Health Care Enhancement Act to provide an additional $310 billion to PPP.

On June 5, 2020, the President signed the Paycheck Protection Program Flexibility Act to provide borrowers additional relief, including reducing the percentage of eligible expenses used for payroll costs and extending the maturity period for loans. On July 4, 2020, Congress passed legislation that extended the program until August 8, 2020. As of August 8, 2020, 5,460 PPP lenders approved approximately 5.2 million PPP loans totaling $525 billion.

On December 27, 2020, the President signed the Economic Aid to Hard-Hit Small Businesses, Nonprofits, and Venues Act, which included an additional $284 billion of funding for a second round of forgivable loans through the PPP.

As of May 12, 2021, lenders had submitted 3.2 million loan forgiveness applications to SBA on loans totaling $343 billion. SBA has remitted payments for 3.1 million applications with loan forgiveness totaling $263 billion, not including interest.

SBA’s Loan Review Process

Forgiveness Requirements

To receive loan forgiveness, a borrower must complete and submit the loan forgiveness application to their lender. The lender has 60 days to review the application, decide on loan forgiveness, and issue a forgiveness decision to SBA. The agency must remit the appropriate forgiveness amount to a lender within 90 days of receiving the lender’s forgiveness decision.¹

¹ CARES Act Section 1106 (c)(3), 15 USC §9005.
Initial Loan Review Process (Initiated October 2020)

Government contractors and SBA federal and contract staff, under the supervision of SBA’s Office of Capital Access, conduct the loan review process. The process implemented in October 2020 consists of

- an automated review of all loans at an individual and aggregate level,
- preliminary manual reviews performed by government contractors to resolve loans identified for follow-up during automated screenings, and
- manual reviews performed by SBA, as deemed necessary, based on loan dollar amount, random statistical sampling, and loans unresolved after automated and preliminary manual reviews.

As initially implemented, reviews were conducted on loans with a submitted forgiveness application and were prioritized based on the date received. However, SBA has the authority to review a PPP loan of any size at any time and, when warranted, direct borrowers to repay funds used for unauthorized purposes.2

SBA screened all 5.2 million PPP loans disbursed in 2020 through an automated tool to identify issues of potential noncompliance with program requirements. The automated review resulted in about 1.96 million loans being flagged with a hold code that triggered the need to be considered for a manual review.

To resolve these loans, SBA used data analytics based on completed manual reviews to identify groups of loans with characteristics that indicated minimal noncompliance that could be resolved and reclassified as not needing a manual review. For example, loans of $150,000 or less that do not have an excessive number of hold codes, or hold codes related to fraud.

Based on the results of 20,000 completed manual reviews, SBA’s contractor then used machine learning (a type of programmed artificial intelligence) to identify additional loans that could be resolved without conducting a manual review. Subsequently, SBA resolved about 1.7 million of the 1.96 million loans without performing a manual review, speeding up the forgiveness process for these loans.

Loans with unresolved hold codes, such as a borrower’s criminal record or business affiliation issues, are manually reviewed by government contractors. The objective of the contractor manual review is to identify and resolve hold codes through the review of loan data, research, and requests for documentation.

The contractor’s manual review results in a recommendation of either “no further action” or “requires further action.” Loans dispositioned as “no further action” were forgiven for the recommended amount without SBA manual review unless they met other review criteria.

2 85 Federal Register 33010 (III)(1)(c) and 85 FR 20811 (III)(2)(S).
For loans dispositioned as requiring further action, the contractor prepares a report detailing why further action is required. SBA conducts an additional manual review on all loans requiring further action.

SBA manually reviewed loans of $2 million or greater, a statistically valid sample of loans, and loans with unresolved hold codes. SBA uses an online loan forgiveness platform to complete the reviews.

The platform contains resources for reviewers, including a questionnaire specific to the level of review. SBA has three levels of manual reviews it performs to determine eligibility and forgiveness:

1. **R1** (sampled loans less than $150,000)
   - An R1 review is the least extensive manual review performed. The review focuses on the eligibility of the loan.

2. **R2** (sampled loans greater than $150,000 but less than $2 million)
   - An R2 review includes reviewing documentation and calculations to support the responses for questions related to the eligibility, calculation, and forgiveness of the loan.

3. **R3** (all loans greater than $2 million and loans with hold codes)
   - An R3 review is the most extensive manual review performed on the largest loans and loans flagged for possible noncompliance. In addition to all the areas covered by an R2, the R3 also assesses the borrower's need for the PPP loan based on the required certification and supporting documentation.

As of May 12, 2021, more than 99 percent of forgiven loans were based on an automated review (see Table 1).

**Table 1: Completed Forgiveness Reviews by Review Type**

<table>
<thead>
<tr>
<th>Review Type</th>
<th>Completed Reviews</th>
<th>Completed Reviews (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automated</td>
<td>3,101,063</td>
<td>99.08</td>
</tr>
<tr>
<td>R1</td>
<td>22,663</td>
<td>0.72</td>
</tr>
<tr>
<td>R2</td>
<td>4,866</td>
<td>0.16</td>
</tr>
<tr>
<td>R3</td>
<td>1,198</td>
<td>0.04</td>
</tr>
<tr>
<td>Total</td>
<td>3,129,790</td>
<td>--</td>
</tr>
</tbody>
</table>

*Source: SBA Forgiveness Platform data*

On August 10, 2020, SBA launched its online loan forgiveness platform for lenders to submit forgiveness decisions and requests. However, SBA did not begin manually reviewing forgiveness decisions necessitating a review until finalization of its Master Loan Review Plan on October 2, 2020.

The agency did not begin performing manual reviews of loans $2 million or greater until January 20, 2021. In June 2021, SBA made significant changes to its loan forgiveness and loan review processes. See the Other Matters section in this report for additional details.
Previous Work

“Key Recommendations Based on Lessons Learned from Prior COVID-19 Economic Injury Disaster and Paycheck Protection Program Loan Programs,” December 23, 2020
Provided SBA key recommendations to strengthen internal controls to prevent fraud and ensure only eligible businesses receive funds. Find this memorandum on our OIG Reports site.

*Inspection of SBA’s Implementation of the Paycheck Protection Program, Report 21-07, January 14, 2021*
SBA loosened controls in an effort to expedite economic assistance during the COVID-19 pandemic, increasing the likelihood of fraudulent loans. We also found aspects of SBA’s implementation of the PPP that could prevent Congress and SBA management from having the information needed to determine if program objectives were fully met. Find this inspection report on our OIG Reports site.

*Duplicate Loans Made Under the Paycheck Protection Program, Report 21-09, March 15, 2021*
We determined SBA did not always have sufficient controls in place to detect and prevent duplicate PPP loans. As a result, lenders made more than one PPP loan disbursement to 4,260 borrowers with the same tax identification number and borrowers with the same business name and address. Find this report on our OIG Reports site.

*The Small Business Administration’s Implementation of Recommended Controls and the Economic Aid Act, Report 21-19, August 12, 2021*
We found SBA has either implemented or begun acting on all of the OIG recommendations to strengthen internal controls related to the PPP, as outlined in the OIG Key Recommendations memorandum. Find this report on our OIG Reports site.

Objective

Our objective was to assess SBA’s processes for reviewing PPP loans for eligibility and forgiveness.

Results

Based on our assessment, SBA’s online loan forgiveness platform used by lenders to submit forgiveness requests is adequate to support SBA’s loan review process. Specifically, the platform appears to support the assignment of loans to reviewers, contains key information, resources, and checklists for staff to complete reviews, and appears to be user friendly.

We reviewed the checklists used by SBA staff to complete forgiveness reviews and found that the checklists included all significant program requirements and appeared to be designed to provide a detailed review of loans.

We found that SBA has processed over 3.1 million loan forgiveness applications but did not always meet the statutory 90-day requirement for remitting payments to lenders. Of note, SBA did not meet this requirement for nearly all (98.2 percent) of PPP loans $2 million or greater.
We also identified the following other matters SBA should address moving forward:

- Continue to monitor the impact of significant changes made to its loan review process that allows for remitted forgiveness payment and retroactive review of certain loans, to mitigate risk associated with a pay and chase environment and ensure program objectives are met.

- Continue to closely monitor loans for which forgiveness applications have not yet been submitted. We believe that a portion of these loans were obtained by fraudulent applicants who are less likely to submit a forgiveness application because they have already obtained the funds with no intentions to use them appropriately or repay the loan.

- Assess how recent changes to requirements for Schedule C borrowers has affected fraud risk. Many of the Schedule C loans were made by lenders that made few PPP loans in 2020. These lenders also rely exclusively on third-party loan processing or software platform vendors they hire to complete loan processes.
Finding: SBA Did Not Always Meet the 90-Day Statutory Requirement to Remit Loan Forgiveness Payments

The CARES Act requires SBA to remit the appropriate forgiveness amount to a lender within 90 days. As of May 12, 2021, SBA exceeded the 90-day requirement to remit forgiveness payment for 98.2 percent of loans $2 million or greater with a processed loan payment.

The Government Accountability Office (GAO) reported that on average SBA completed its determination and remitted loan forgiveness payments for loans over $2 million in 181 days. Overall, SBA exceeded the 90-day requirement for 107,168 loans, totaling $66.4 billion.

Table 2: Remitted Forgiveness Payments Exceeding 90 Days

<table>
<thead>
<tr>
<th>Loan Value (dollars)</th>
<th>Loans with Remitted Forgiveness Payment</th>
<th>Remittance Not Completed in 90 Days (percent)</th>
<th>Value of Loans Unremitted in 90 Days (dollars)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - 50,000</td>
<td>2,086,066</td>
<td>27,247 (1.3 percent)</td>
<td>444,660,576</td>
</tr>
<tr>
<td>50,001 - 149,999</td>
<td>657,876</td>
<td>7,584 (1.2 percent)</td>
<td>664,221,492</td>
</tr>
<tr>
<td>150,000 - 999,999</td>
<td>353,255</td>
<td>22,045 (6.2 percent)</td>
<td>7,948,843,052</td>
</tr>
<tr>
<td>1,000,000 - 1,999,999</td>
<td>31,780</td>
<td>3,228 (10.1 percent)</td>
<td>4,766,798,882</td>
</tr>
<tr>
<td>2,000,000 - 10,000,000</td>
<td>813</td>
<td>799 (98.2 percent)</td>
<td>2,682,667,163</td>
</tr>
<tr>
<td>Total</td>
<td><strong>3,129,790</strong></td>
<td><strong>60,903 (1.9 percent)</strong></td>
<td><strong>16,507,191,165</strong></td>
</tr>
</tbody>
</table>

Source: SBA Forgiveness Platform and Mainframe Loan Accounting System Data

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3 Public Law 116-136 Section 1106 (c)(3), 15 USC § 9005.
4 GAO-21-577, Paycheck Protection Program (July 2021).
Table 3: In Process Forgiveness Payments Exceeding 90 Days

<table>
<thead>
<tr>
<th>Loan Value (dollars)</th>
<th>Loans in Forgiveness Process</th>
<th>Remittance Not Completed in 90 Days (percent)</th>
<th>Value of Loans Unremitted in 90 Days (dollars)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - 50,000</td>
<td>47,126</td>
<td>13,533 (28.7 percent)</td>
<td>257,345,543</td>
</tr>
<tr>
<td>50,001 - 149,999</td>
<td>15,261</td>
<td>3,178 (20.8 percent)</td>
<td>287,074,650</td>
</tr>
<tr>
<td>150,000 - 999,999</td>
<td>26,218</td>
<td>15,451 (58.9 percent)</td>
<td>6,293,853,135</td>
</tr>
<tr>
<td>1,000,000 - 1,999,999</td>
<td>5,591</td>
<td>3,450 (61.7 percent)</td>
<td>4,950,042,754</td>
</tr>
<tr>
<td>2,000,000 - 10,000,000</td>
<td>16,839</td>
<td>10,653 (63.3 percent)</td>
<td>38,136,077,480</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>111,035</strong></td>
<td><strong>46,265 (41.7 percent)</strong></td>
<td><strong>49,924,393,562</strong></td>
</tr>
</tbody>
</table>

*Source: SBA Forgiveness Platform and Mainframe Loan Accounting System Data*

SBA management stated several factors contributed to the delay in manual reviews, including the completion of the Master Loan Review Plan in October 2020. SBA and the Department of the Treasury did not finalize the eligibility and forgiveness review checklist for loans of $2 million or greater until January 2021, after the issuance of the loan necessity questionnaire in December 2020. SBA also cited the need to redirect resources to competing priorities. The agency also had delays in budget and funding approvals for the contractor tasked with completing initial reviews. Management acknowledged that not meeting the requirement causes uncertainty for borrowers awaiting a forgiveness decision. They may be unsure if SBA will determine their loan will be fully forgiven.

The uncertainty borrowers and lenders face could potentially impact business and lending decisions they make. While the overall percentage of loans exceeding the 90-day requirement may be low, over 107,000 borrowers were affected and waited more than 3 months for remitted forgiveness.

SBA’s initial review process required all loans of $2 million or greater to be manually reviewed by the agency. In June 2021, SBA revised its loan review process and stopped reviewing all loans of $2 million or greater and, in certain instances, will retroactively manually review loans for fraud and ineligibility after they have been forgiven. SBA management stated that the changes were made in part because the agency was not meeting the 90-day statutory requirement to remit forgiveness payments.

While changes to the loan forgiveness process may mitigate the problem of not meeting the 90-day requirement going forward, SBA should take immediate action to complete reviews currently in process that are close to or over 90 days. It should also examine the primary and systemic issues for not meeting the requirement and apply the lessons learned to the remaining forgiveness reviews to ensure eligible borrowers loans are forgiven in a timely manner and to proactively address potentially ineligible or fraudulent loans.

We have concerns regarding how the new process could affect SBA’s ability to recover funds from ineligible and fraudulent borrowers. When the PPP launched in 2020, SBA’s fraud risk management approach for PPP loans was intentionally developed with more fraud and eligibility controls in the loan forgiveness phase rather than the initial application stage.
SBA’s changes to this process, including forgiving and remitting loans prior to an eligibility or forgiveness review, could diminish SBA’s ability to recover funds, create a pay and chase environment, and result in the government expending additional resources. For example, loans determined to be fraudulent after payment has been remitted will require the government to spend time retrieving the original loan amount from the fraudulent borrower and the remittance amount from the lender.
Recommendations

We recommend the Administrator direct the Associate Administrator for the Office of Capital Access to

1. Develop a plan to ensure remaining forgiveness reviews and remittances are completed within 90 days as required by the CARES Act.
Other Matters

Significant Changes to the Loan Review Process

In June 2021, SBA made significant changes to its loan forgiveness and loan review processes. Below is a summary of those significant changes. We reviewed documentation provided by SBA showing its justification for the changes. We also reviewed SBA’s revised loan review procedures.

Prioritizing Loan Reviews Based on Risk

SBA’s new process for loan reviews prioritizes reviews based on fraud risk rather than forgiveness status. The change will allow SBA to review loans with a high risk of fraud that have not yet filed for forgiveness.

The change also means that a certain number of loans will be retroactively manually reviewed after they have been forgiven. SBA can review and recover funds used for unauthorized purposes at any time.

However, the Office of Management and Budget established that for Executive Offices to be effective, they should prioritize efforts toward preventing improper payments from occurring to avoid operating in a pay and chase environment.

Review of Loans $2 million and Greater

SBA’s initial review process required all loans of $2 million or greater to be manually reviewed by SBA, as established by the former SBA Administrator and former Treasury Secretary in April 2020. GAO reported that according to Treasury officials, it was prudent for SBA to take additional time to review the largest loans given the additional risk associated with these loans.5

However, in June 2021, SBA decided it will no longer perform manual reviews of all loans $2 million or greater. Instead, SBA will review all loans of $2 million and greater with unresolved hold codes and a statistically valid sample of loans $2 million and greater. SBA is also eliminating the use of loan necessity questionnaires, which collect additional information on borrowers of $2 million or greater and will no longer perform an assessment of loan necessity for loans of $2 million or greater.6

SBA stated completed loan necessity reviews found most borrowers met the good faith requirement and the reviews contributed to SBA exceeding the 90-day statutory requirement to remit forgiveness payments to lenders.

SBA management said the changes help the agency meet the 90-day statutory requirement to remit forgiveness payments to lenders and cited three benefits of the new approach: 1) better ability to target fraud; 2) better use of government resources; and 3) alleviation of borrower uncertainty.

5 GAO-21-577, Paycheck Protection Program (July 2021).
6 SBA forms 3509 and 3510.
SBA management also stated the new approach, which includes in some cases forgiving loans prior to performing manual review, does not increase SBA’s financial exposure due to the 100 percent guaranty on PPP loans and the lender hold harmless provisions, introduced by the CARES Act and strengthened by the Economic Aid Act\(^7\). As a result, SBA will then have to pursue the borrower to repay funds, which could prove more challenging and result in taxpayer funds being spent on ineligible loans.

SBA should continue to monitor the impact of significant changes made to the loan review process to ensure loans continue to be adequately reviewed for program requirements and that SBA can recover funds for loans not meeting requirements.

**SBA Needs to Monitor Loans with Outstanding Loan Forgiveness Applications**

Changes made by SBA to review high risk loans that have not yet filed for forgiveness could address an area of concern we identified. As of May 12, 2021, 1.9 million loans, totaling $177.3 billion, did not have a lender-submitted forgiveness application (see Table 4).

The large number of borrowers who have not applied for forgiveness could be a strong indicator of fraud because borrowers who fraudulently obtained a PPP loan are unlikely to apply for loan forgiveness because they have already obtained the funds with no intention to use the funds appropriately or repay the loan.

**Table 4: Outstanding 2020 PPP Loan Forgiveness**

<table>
<thead>
<tr>
<th>Loan Amount (dollars)</th>
<th>Number of Loans Not Yet Submitted for Loan Forgiveness (percent of total outstanding)</th>
<th>Value of Loans</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - 50,000</td>
<td>1,377,946 (72.5 percent)</td>
<td>22,668,263,472</td>
</tr>
<tr>
<td>50,001 - 149,999</td>
<td>298,298 (15.7 percent)</td>
<td>25,407,902,118</td>
</tr>
<tr>
<td>150,000 - 999,999</td>
<td>198,122 (10.4 percent)</td>
<td>65,269,935,262</td>
</tr>
<tr>
<td>1,000,000 - 1,999,999</td>
<td>15,852 (0.8 percent)</td>
<td>22,021,392,930</td>
</tr>
<tr>
<td>2,000,000 - 10,000,000</td>
<td>11,332 (0.6 percent)</td>
<td>41,904,667,226</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,901,550 (100 percent)</strong></td>
<td><strong>177,272,161,008</strong></td>
</tr>
</tbody>
</table>

*Source: SBA Forgiveness Platform and Mainframe Loan Accounting System Data*

SBA has taken action to reduce the number of outstanding forgiveness applications. On August 4, 2021, SBA launched the PPP Direct Forgiveness Portal, a streamlined loan forgiveness site for borrowers with loans of $150,000 or less. For the PPP loans made in 2020, this represented 87 percent of the PPP loans totaling $147 billion.

This online portal allows borrowers to apply for loan forgiveness directly with SBA if their lender is participating. For those who are eligible, the portal should make it easier and quicker for borrowers to receive loan forgiveness. As of October 31, 2021, loans that did not have a lender submitted forgiveness application decreased to approximately 402,000.

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\(^7\) The hold harmless provision is when the lender doesn’t have financial responsibility to repay the loan due to a borrower’s failure to comply with program criteria.
While SBA has taken action to reduce the number of outstanding forgiveness applications, it should continue to closely monitor loans with outstanding forgiveness applications. As established by the PPP Flexibility Act, a covered period for borrowers ends the earlier of 24 weeks after the date of loan origination or December 31, 2020. Loan recipients then have up to 10 months from the last day of their covered period to file for loan forgiveness or begin making payments on their loan.⁸

A borrower may apply for forgiveness at any time up to the maturity date of their loan. For example, a borrower whose covered period ended on December 31, 2020 had until October 31, 2021 to apply for forgiveness before loan repayment begins. After the 10-month deferral period, if a borrower has not applied for loan forgiveness, they must begin making principal and interest payments.

As SBA has simplified the loan forgiveness process and most borrowers are receiving full forgiveness, forgiveness submission without having to begin making loan payments is generally expected. Most 2020 borrowers were likely to apply for forgiveness by October 31, 2021 to avoid making loan payments, and lenders have 60 days to review a forgiveness application. SBA can expect that approximately 402,000 loan forgiveness applications will be submitted by lenders to SBA by December 30, 2021.

**SBA Should Assess How Changes in Program Requirements Affect the Loan Eligibility and Forgiveness Review Process**

OIG oversight has revealed strong indicators of widespread potential abuse and fraud in the PPP. Since the program began, we have investigated reports of suspected fraud received from OIG Hotline complaints, financial institutions, and other law enforcement agencies.

Additional concerning trends emerged in 2021 after SBA made changes to expand access to the program for borrowers who file a 1040, Schedule C. Multiple third-party financial institutions contacted OIG expressing concerns regarding PPP deposits in personal accounts for individuals who they did not believe owned businesses.

In March 2021, SBA issued an interim final rule that allowed those who file an IRS Form 1040, Schedule C to calculate their maximum loan amount using gross income rather than net income.⁹ The change reduced barriers to accessing the PPP for sole proprietors, independent contractors, and self-employed individuals. The maximum loan amount for a Schedule C business with no employees remained $20,833.

Based on our analysis of the PPP loan data, many of the Schedule C loans were made by lenders that rely exclusively on third-party loan processing or software platform vendors they hire to complete loan processes. These vendors do not often have a relationship with SBA.

Seven of the top 15 lenders, based on 2021 PPP volume, made over 2.4 million loans, or more than 18,000 loans a day, between January 2021 and May 2021. These lenders made

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⁸ Public Law 116-142 Sec. 3 (c)(1).
⁹ 86 FR 13149.
fewer than 22,000 PPP loans combined in 2020. These seven lenders included financial technology (fintech) lenders, Community Development Financial Institutions, and Small Business Lending Companies.

We believe that these lenders and their reliance on third-party vendors will present SBA with several challenges moving forward. Within the context of the PPP eligibility and forgiveness process, we believe it is important for SBA to focus targeted efforts on these types of loans and review appropriate documentation to ensure these smaller loans were made to eligible businesses and minimize the losses associated with forgiveness of fraudulent loans.
Analysis of Agency Response

SBA management provided formal comments to the draft report, which are included in their entirety in Appendix II. Management agreed with the finding and recommendation, and the information provided will resolve the recommendation. We considered management's comments when preparing this final report.

Summary of Actions Necessary to Close the Recommendation

The following section details the status of our recommendation and the actions necessary to close it.

Recommendation 1

Develop a plan to ensure remaining forgiveness reviews and remittances are completed within 90 days as required by the CARES Act.

Status: Resolved

SBA management agreed with the recommendation, stating it implemented process improvements and policy changes that streamlined the loan review process. SBA management stated that 85 percent of manual forgiveness reviews completed in 2021 were processed in 90 days or less. The remaining 15 percent took longer than 90 days because of compliance or eligibility issues. SBA will continue to be cautious and deliberate when reviewing higher-risk loans and loans where the loan documentation or any other information indicates that the borrower may be ineligible for a PPP loan, loan amount, or loan forgiveness. This recommendation is resolved and can be closed when SBA provides evidence that the stated process improvements and policy changes have been implemented. SBA must also provide evidence that those changes have been effective in ensuring reviews and remittances are completed within 90 days, as required by the CARES Act, to the greatest extent possible. In subsequent correspondence, SBA agreed to May 31, 2022 as the final action date for this recommendation.
Appendix I: Objectives, Scope, and Methodology

Objectives

Our objective was to assess SBA’s processes for reviewing Paycheck Protection Program loans for eligibility and forgiveness. To answer our objective, we reviewed laws, regulations, and requirements governing PPP loan eligibility and forgiveness; reviewed SBA’s processes and procedures for PPP loan eligibility and forgiveness reviews; and interviewed key personnel responsible for overseeing the loan review process.

Our scope of work covered March 2020 through May 2021.

We interviewed officials from the Office of Capital Access and conducted walkthroughs with SBA staff who perform manual loan reviews. We obtained and reviewed all pertinent federal, departmental, and SBA specific regulations, policies, procedures and guidance, including the CARES Act, Paycheck Protection Program and Health Care Enhancement Act, Paycheck Protection Program Flexibility Act of 2020, Economic Aid Act, IFRs, FAQs, Procedural Notices, program forms, and policies and procedures for conducting loan reviews that pertained to the PPP.

We conducted this evaluation in accordance with the Council of the Inspectors General on Integrity and Efficiency’s *Quality Standards for Inspection and Evaluation*. Those standards require that we adequately plan and perform the evaluation to obtain sufficient and appropriate evidence to provide a reasonable basis for our findings and conclusions based on our objective. We believe that the evidence we obtained provides a reasonable basis for our conclusions based on our objective.

Use of Computer-Processed Data

We relied on information from SBA’s Mainframe Loan Accounting System, E-Tran, Forgiveness Platform, and data from the Office of Performance and Systems Management to conduct our analyses. We conducted numerous analyses of PPP data to determine if SBA’s reported data was reliable.

Prior OIG reports determined that certain elements of SBA’s PPP data were not reliable because they were inaccurate, incomplete, or both. Specifically, we found that job statistics were inaccurate and incomplete; underserved market data was incomplete; and the North American Industry Classification System code data was incomplete.

We previously provided SBA recommendations in the relevant reports to address the identified data reliability issues. We believe the data elements used in this report are sufficiently reliable to support our report conclusion.
Appendix II: Management Comments

SBA RESPONSE TO EVALUATION REPORT

OIG Recommendation:

We recommend that SBA develop a plan to ensure remaining forgiveness reviews and remittances are completed within 90 days as required by the CARES Act.

SBA Response:

SBA agrees with the recommendation. SBA designed a loan review process to maximize program integrity and optimize use of SBA’s loan review resources, considering the challenges posed by the volume of PPP loans and the statutory timeframe for reviews. As OIG detailed in its audit report, SBA experienced delays during 2020 in beginning manual reviews that negatively impacted SBA’s compliance with the 90 day deadline for completing forgiveness reviews. Since the time that OIG’s field work for this audit report was completed, SBA has implemented process improvements and policy changes that have streamlined the loan review process and led to improved forgiveness processing times and SBA compliance with the 90 day statutory deadline.

In fact, 85% of manual forgiveness reviews completed in 2021 were processed in 90 days or less. An analysis of manual review data will demonstrate that SBA forgiveness processing times continue to improve as older inventory is completed. The remaining 15% took longer than 90 days because of a potential compliance or eligibility issue that needed to be researched and resolved before SBA could finalize a review. While SBA strives to complete manual forgiveness reviews as quickly as possible, SBA will continue to be cautious and deliberate when reviewing higher-risk loans and loans where the loan documentation or any other information indicates that the borrower may be ineligible for a PPP loan, or may be ineligible to receive the loan amount or loan forgiveness amount claimed by the borrower.
Renewed Focus on Race Triggers Surge of Interest in Community-Based Lenders

Questions remain if influx of money to financial institutions that help disadvantaged communities will last

Sunyatta Amen, right, was pleased with how quickly a Black-owned community lender in Columbia, S.C., processed a $52,000 PPP loan for her Washington-based stores.

PHOTO: CALABASH TEA & TONIC

By Amara Omeokwe
Updated Aug. 18, 2020 10:55 am ET

The coronavirus pandemic and the heightened attention on race have thrown new light on a longstanding source of economic inequality: Black communities have less access to credit than white ones.

To address that gap, Washington and Wall Street are turning to a small network of lenders set up precisely to address that disparity. Community development financial institutions, or CDFIs, are community-based banks, credit unions and investment funds that lend to home buyers, small businesses and others in rural, impoverished and minority communities.
Earlier this year, Congress and the Trump administration earmarked billions of dollars for CDFIs to issue Paycheck Protection Program loans to small businesses. Meanwhile, CDFIs have received multimillion-dollar investments from traditional lenders such as Goldman Sachs Group Inc. GS 0.15%▲ and Bank of America Corp. BAC -0.06%▼, and new corporate supporters such as Netflix Inc. NFLX -3.11%▼ and Google Inc.

HOPE, based in Jackson, Miss., runs two CDFIs, a credit union and nonprofit loan fund, that focus on communities of color in the deep South. At the end of June, it received a $10 million investment from Netflix in the form of a two-year certificate of deposit. HOPE says it will support roughly 2,500 entrepreneurs, home buyers and consumers of color.

There has been more discussion of CDFIs and economic opportunity for people of color in the last four months than the previous 40 years, said HOPE’s chief executive, Bill Bynum: “It’s been a dramatic turn.” The attention Netflix’s deposit drew “was more valuable than the deposit itself,” he added, helping draw millions of dollars more in commitments.

Google joined with the Opportunity Finance Network, a membership group for CDFIs, to launch a $125 million fund for the industry. Goldman, Bank of America, Morgan Stanley, Citigroup Inc. and Wells Fargo & Co., all of which had existing relationships with CDFIs, have in recent months announced investments—in the form of grants or capital to fund PPP and other loans—ranging from $5 million to $750 million.

There are about 1,100 CDFIs nationwide. Under a program created in 1994, the Treasury Department’s CDFI Fund certifies CDFIs and provides them with grants, low-cost credit and operational support. Demand for CDFI Fund grants and support typically far exceeds Congress’s yearly appropriations.

Fourteen percent of Black adults didn’t have a bank account in 2019, according to the Federal Reserve, compared with 6% of adults overall. Just 23% of Black-owned small businesses with employees used bank funding in the last five years, compared with 46% of white-owned firms, a Fed report showed.

This helps explain why Black-owned firms likely had relatively limited access to the federal, $670 billion Paycheck Protection Program, which offered forgivable loans to small businesses to weather the pandemic. Several commercial lenders issuing the loans initially prioritized customers with existing relationships.
CDFIs are meant to redress such disparities. For example, the Opportunity Finance Network, based on a 2018 survey, estimates 58% of the clients served by its roughly 300 members are people of color, 85% are low-income and 48% are women.

“CDFIs are having a moment because I think there is a greater recognition of what we do,” as institutions “on the ground who are working hand-in-hand with communities, including communities of color and folks who may not have that access to affordable credit,” said Donna Gambrell, chief executive of Appalachian Community Capital, a CDFI.

When PPP opened in early April, Sunyatta Amen, who is Black, sought a loan for her Washington, D.C.-based tea and wellness stores, Calabash Tea & Tonic. She found her main bank, Wells Fargo, was initially accepting only statements of interest, not applications. PPP exhausted its first round of funding on April 16, a day after Wells Fargo invited Ms. Amen to apply, which she did.

Ms. Amen was less satisfied with the results of her efforts to get a PPP loan from her main bank, Wells Fargo, for her tea and wellness stores.

PHOTO: CALABASH TEA & TONIC

Dismayed by the initial delays and what she felt was an unsatisfying level of communication, Ms. Amen said she followed a family friend’s recommendation to look into Optus Bank, a Black-owned CDFI based in Columbia, S.C.

After Congress replenished PPP, Ms. Amen applied to Optus, which processed her $52,000 PPP loan within days.
“With Optus, it was awesome. It was painless and I really salute them. I’m proud that Black-owned bank came through for us,” Ms. Amen said.

Wells Fargo later got back to Ms. Amen, informing her that the Small Business Administration wouldn’t guarantee the first PPP loan she applied for because she had already proceeded with Optus.

“We wish we could have helped every single small business seeking a PPP loan, and we devoted thousands of employees to this effort,” a Wells Fargo spokesman said.

As of Aug. 8, CDFIs accounted for $7.5 billion of PPP’s overall $525 billion in approved loans, according to the SBA.

Questions remain how sustained the CDFI industry’s momentum will be. Mr. Bynum said CDFIs had spurts of attention after previous crises, such as Hurricane Katrina in 2005, that laid bare geographic and racial disparities, just as the pandemic and the killing of George Floyd in police custody have done.

“We don’t have a great track record of sustaining action to address systemic racism in this country,” Mr. Bynum said, adding he hopes the current interest will endure.

Dominik Mjartan, Optus’ chief executive, said short-lived support could do more harm than good for CDFIs like his that are seeing an influx of deposits and planning to make loans with them.

If ultimately “the money leaves, even if it’s just deposits, it could leave you illiquid,” Mr. Mjartan said.

CDFIs’ $222.3 billion in assets are a tiny slice of the financial system; each of the largest consumer banks alone have trillions of dollars in assets. “It’s still a small industry and it needs more technological capacity to grow. It needs more financial capital. It needs more public support,” said Margaret Anadu, head of the Urban Investment Group at Goldman Sachs.

Sens. Marco Rubio (R., Fla.) and Susan Collins (R., Maine) have introduced a measure that would restart PPP, including another batch of set-aside funding for CDFIs. The proposal—currently stalled amid disagreements about further federal coronavirus relief—has bipartisan support.
Industry groups are also supporting other proposals, including one from Sen. Mark Warner (D., Va.) to allocate $2.9 billion more to the CDFI Fund.

Ms. Gambrell said she hopes those taking new interest in CDFIs are prepared for long-term relationships.

“Community and economic development doesn’t happen overnight and if you’re going to really be a partner, then you’re going to have to be a partner for the long haul.”

Write to Amara Omeokwe at amara.omeokwe@wsj.com

Appeared in the August 19, 2020, print edition as ‘.’