To: Public Utility Commission of Oregon
Re: Comments by Small Business Utility Advocates (SBUA) re UM 2114 COVID-19
Date: November 5, 2021

Greetings Chair Decker, Commissioners Tawney and Thompson:

SBUA acknowledges and greatly appreciates the Commission's attentiveness to this unusual and time intensive task of dealing with the impact of the COVID-19 pandemic's impact on utility and utility customers. Supported by the letter of Danny Kermode, attached herein as Exhibit A, SBUA offers these comments to assist the Commission and Staff in dealing with small commercial customers, more generally, the small business community, in this matter. Danny Kermode ("Kermode") is a CPA with over 30 years of utility experience including as a former director of Washington Utilities and Transportation Commission ("WUTC").

Approximately one year after the Commission approved in Order 20-401 the UM 2114 Stipulated Agreement on Effects of COVID-19 Pandemic ("Stipulation") on Energy Utility Customers the pandemic continues and impacts are yet undetermined. Related stressors for small business are four-fold: the ongoing focus on doing enough business to pay bills[1], paying down and off any arrearages, the future impact on small commercial rates of the small businesses that are having difficulty paying their arrearages (e.g. the 60+ and 90+ day arrearages), AND, in Oregon, the amount small business will be asked to bear for the COVID-19 impacts on residential customers, including costs associated with arrearage management plans. As SBUA has expressed from its initial filing abstaining from joining the Stipulation, we appreciate the Commission's focus and the very real needs of the residential customers including those minority and environmental justice communities that are severely impacted by the pandemic. But small business requires a closer look given its important role in Oregon communities and that it shares many same characteristics with residential ratepayers.[2]

Monthly reporting per the Stipulation has now provided some data to quantify these stressors identified above. SBUA suggests that the Kermode letter, along with the California Public Utility Commission information, attached as Exhibit B, and a Bartik Report, attached as Exhibit C may assist the Commission in its data-based review of small commercial customers. Though more and different data is needed, SBUA observes the following:

<u>1. Characterizing "lost revenue"</u>

Care must be taken when allowing recovery of lost revenue without a clear understanding of any changes in COVID-19 related expenses associated with the so called "lost revenue." If late fees and reconnections are not cost-based then there are no additional expenses incurred.

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[1] Not to mention thrive and grow the business.

[2] Indeed, it is noted elsewhere that COVID-19 renders small business a more fragile ratepayer class where these businesses may disappear and have less of a societal safety net in place. Bartik study.

As discussed by Kermode, if late fees are merely punitive in nature, then there are certainly no increased costs when late fees are discontinued. If there are no increased costs, then no additional revenue is required through any proposed "lost revenue" mechanism. Kermode explains that late fees and disconnections tariffs are commonly based on both an allocation of labor costs and an additional punitive amount that effectively subsidizes the system's other customers while also being regressive.

Recognizing that with the discontinuance of these services, it is highly unlikely that costs associated with these charges increased, and may in fact have decreased, then the maximum amount small commercial customers should be charged is the amount that is already embedded in the rates. Lost revenue is not the same as increased expenses. Without any increase in actual costs due to the cessation of charging late fees and performing disconnects, any rate recovery of the suggested imputed revenue above the amount embedded in rates would clearly result in a shareholder windfall.

Intuitively, the cessation of these services should not create any additional costs, if anything the companies should support that they have not experienced cost reductions. To review this issue sufficiently, the companies should be required to provide 18 months of cost data supporting the requested additional "lost revenue" due to cessation of disconnects, reconnects, and late fees. Further, the utilities should provide cost data used in its most recent rate filing supporting its disconnection and late fee charges, and support for increased cost for late fees.

2. Bad debt:

Though arrearages are decreasing there is some stagnation of or lack of eliminating arrearages especially in the 90+ days in arrears and there is strong indication that such arrearages, not to mention the 60+ days arrearages, would fall into the category of bad debt. Small business should not subsidize residential bad debt. mall business is an important part of the state's many communities and it is important that the Commission limit any deferral and recovery of additional COVID-19 related bad debt expense from small business to be no greater than the percent of the bad debt that is attributable to small commercial customers. As Kermode expresses, it is unwise policy to have the small commercial subsidize the residential bad debt.

To review this issue sufficiently, SBUA needs 18 months of historical data of bad debt by company by the two customer classes of residential and the small nonresidential/general service/small commercial, and the total bad debt of all customers. Also helpful would be to receive the arrearages information in spreadsheet format for sorting.

As SBUA has noted before, based on expert input, since small business customers share many characteristics with the residential such as little-to-no cash reserves with survival depending on the next tenuous cash infusion, we strongly urge the Commission to allow the state's small business community to be included in the same extended thresholds provided to the residential population. SBUA provides the 2021 California PUC decision on this point. Exhibit D to provide ideas.

3. Prudence review principles in one docket:

It would be best if prudence review principles for small commercial customers and COVID-19 could be consolidated into one docket, perhaps UM 2114.

The principles of the deferral prudence review of the COVID-19 pandemic as it relates to small commercial customers should be worked out in the UM 2114 docket, that is determining which expenses are valid, and then applied across the board. If the Commission does not deal with this in the UM 2114 docket then it effectively forces the small commercial and other ratepayer groups to deal with it in the separate prudence reviews even though many of the deferred costs are not due to small commercial customers participating in the arrearage management plans.

4. Minimizing disconnects of small business customers:

Rather than focusing just on a "minimal" number or percentage of disconnections of small commercial customers, the utilities should provide cost data supporting disconnection and late fee charges. The COVID-19 Stipulation includes the numbers of customers either disconnected for facing disconnection, but not the late fees assessed. Companies should provide the late fees collected from small commercial customers. The California PUC noted that "disconnecting Small Business customers has severe repercussions on business operations, giving these customers maximum incentive to resolve their debt."[3]

5. Areas where data needs clarification:

There are areas where the data needs clarification, for example, consecutive months with large changes in arrearage amounts.[4]

6. The PUC should convene a workshop focusing on small business.

The Commission should direct Staff to convene a workshop regarding the above issues of small commercial utility customers and COVID-19 to review the impact of these proceedings in light of above comments. Perhaps such workshop would include other COVID-19 related topics. In any case, SBUA is prepared to offer input on the agenda for such a workshop.

Thank you for considering these comments. Please contact Diane Henkels, SBUA counsel, diane@utilityadvocates.org 541.270.6001 with any questions or comments.

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[3] R.21-02-014 CPUC, p48.

[4] To review for example the variables at play resulting in the drop of almost $3,000,000 from 12/2020 to 1/2021 in Pacific Power small commercial 91+ days arrearages, among other examples.

November 4, 2021

Public Utility Commission of Oregon
550 Capitol St. N.E. Suite 215
Salem, OR 97301-2551

Re: UM 2114 Investigation into the Effects of the COVID-19 Pandemic on Utility Customers
Comments of Danny Kermode CPA for the small business utility advocates (SBUA) regarding the impact of certain revenue deferrals and disconnection policy on small commercial customers

Chairperson Decker and Commissioners Tawney and Thompson,

I am submitting the following comments in preparation for the Public Meeting the Commission will hold on November 17, 2021, in Docket No. UM 2114 I would first like to recognize the work done by both the Commission Staff and the utilities to help customers maintain utility service and to keep the State of Oregon's utility systems financially sound.

In its November 5, 2020, Order 20-401, the commission approved a stipulated agreement expressly allowing deferral of four categories of costs and revenues. These were broadly classified as (1) increased direct costs (e.g., PPE cleaning supplies and services), (2) late payments fees, (3) bad debt, and (4) forgone reconnection fees. [Appendix A of Attachment A Stipulated Agreement on Effects of COVID-19 Pandemic on Energy Utility Customers ("Stipulation") pgs. 19-20]

Small Business Cross- Subsidizing Residential Customers
There is no question that the commission should allow the deferral of those reasonable and prudently incurred costs reflected in the stipulation. However, my concern focuses on the possibility that small businesses will be saddled with costs created by the residential class. Specifically, deferred late payment fees, bad debt expenses, and the forgone reconnection fees.

Small businesses, though sometimes equated to the residential class because of similar load demands, is financially different. I would recommend that any deferrals of late payment fees, bad debt, and reconnection fees be clearly segregated between residential and small commercial. While I recognize the severe impact COVID has put on residential customers, it's important we all recognize that the financial viability of the state's local small business continues to be precarious.

Though buried in the combine data, it appears that the bad debt burden associated with the residential class is substantially greater than the bad debt burden associated with the small business community. This disparity is not limited to only bad debt, but is the same for deferred late fees and reconnection revenue. It is important that any of the revenue deferrals and bad debt be clearly divided to recognize the differences in class. In this way the commission can prevent added financial burden on small business of the cross-subsidization of small business of residential customers.

EXHIBIT A

Extended Shutoff and Late Fee Protections Along with Extended Arrearage Payments
Although most would recognize that small businesses should not be equated to the large commercial, the commission's policy on service disconnections and late fees does just that. Equally, small business should also not be blindly equated to the residential class, instead it is best to recognize that small businesses are a unique class of their own. Shutoff and late fee protections along with extended arrearage payments options should be applied by understanding the needs of the small business community not by reference to another utility service class.

Small business needs longer shutoff protections than currently allowed and extended time for the payback of arrearages to stay financially viable.

It is important that, through regulatory policy, local small business be given every opportunity to continue business in the communities they live and serve until the impact of the pandemic is past us. This is not just for the well-being of those businesses, but also the health of the communities where they are located. A current study of small business found that it is not uncommon for small businesses to have little-to-no cash reserves with their survival depending on the next problematic cash infusion.[1] I strongly urge the commission to allow the state's small business community to have, at the minimum, the same extended protections provided to the residential population.

Lost Revenue - Creation
Care must be taken when allowing recovery of lost revenue without a clear understanding of the changes in the related expenses. The commission should recognize by their very nature, the deferral of revenues are not the same as a deferral of an expense. An expense, a debit, is simply moved from the income statement, deferring recognition to a later period, to a regulatory asset account, which is also a debit.

On the other hand, the recognition of "Lost revenue," a credit, requires the creation of a transaction through a journal entry which produces an imputed revenue amount that is deferred as a regulatory asset (a debit). Since no actual transaction exists in the financials, an offsetting credit must also be created. This offsetting credit is as important to understand as the creation of the regulatory asset.

The record is not clear as to the journal entries companies will use to create the deferred lost revenue into a regulatory asset. I would ask the commission staff to clarify the accounting used by the companies for full transparency.

Lost Revenue – Gross-up
Is the use of deferred revenue merely a shortcut method for capturing the impact of COVID on the costs the lost revenue is designed to recover? Why not instead identify and defer the actual

[1] In a recent study on the fragility of small business due to COVID found that the median firm with greater than $10,000 in monthly expenses had less than fifteen days of available cash on hand. See Bartik, Alexander, et al. "The Impact of COVID-19 on Small Business Outcomes and Expectations." Proceedings of the National Academy of Sciences 117, no. 30 (July 28, 2020).

costs that are not being recovered by the loss of revenue and recover those costs later like the other costs cited in 25(a) of the stipulation?

The reason the actual expenses are not deferred is that these unique tariff charges are commonly based on two factors, an allocation of labor costs and, importantly, an additional punitive amount to provide a disincentive of late payment.[2] Late fees and reconnection charges are not wholly cost based because they are traditionally designed to act as a disincentive (punishment) for not paying on time. These lost revenue items are creations of rate design not cost of service and are commonly used to generate additional revenue for revenue requirement purposes, not cost recovery per se.

Since late fees and reconnection charges lack a solid cost-basis and logically, no related additional expenses have been incurred by the companies during the moratorium, revenue is the only measure that is available to make the company whole.

The distinction is that these deferrals are revenue, not an expense. When revenues are embedded in rates they are "grossed-up." Which means they include the tax impact of the costs that are being recovered. Therefore, any deferral of revenues in this docket should be "grossed-down" (reduced) to avoid the double collection of taxes when those amounts are amortized into the rate case income statement for recovery. This is distinct from those deferred expenses which are based on specific identifiable costs and are not grossed-up, that is, they do not include any embedded tax impact. As a minimum, carrying costs should be calculated solely on the deferred revenue less taxes.

Late Fee Deferral Cap

The maximum accrual of deferred late fees (deferral cap), set out in paragraph 25(b) of the stipulation, states that the accrual cannot exceed the amount of late payment fees included in the utility's last general rate case. However, the deferral cap should also be reduced by the tax gross-up factor to prevent double collection of income taxes when the regulatory asset is amortized into the income statement.

I would also ask that the historical late fees used in the deferral cap be bifurcated between residential and small commercial to prevent any cross-subsidization by small business of the residential class.

Thank you for the opportunity to comment and allowing me to voice my concerns regarding the COVID-19 related deferrals and their impact on the Oregon's small business community.

[2] Traditionally late fees have been used by the general business community to provide a disincentive, i.e., financial punishment, for not paying on time. Late fees and reconnections charges, which have lower costs than the resulting revenues, effectively subsidizes the system's other customers. Regulators are beginning to question their continued use because of their regressive nature (meaning lower-income people are affected more and can end up paying more than those with higher income). *see KY PSC 2020-00085 (Sept 9, 2020)*

ALJ/KWZ/avs **Date of Issuance 6/30/2021**

Decision 21-06-036 June 24, 2021

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to Address Energy Utility Customer Bill Debt Accumulated During the COVID-19 Pandemic.	Rulemaking 21-02-014

DECISION ADDRESSING ENERGY UTILITY CUSTOMER BILL DEBT VIA AUTOMATIC ENROLLMENT IN LONG TERM PAYMENT PLANS

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DECISION ADDRESSING ENERGY UTILITY CUSTOMER BILL DEBT VIA AUTOMATIC ENROLLMENT IN LONG-TERM PAYMENT PLANS

Summary

Today's decision suspends disconnections for three more months, giving energy utilities enough time to enroll and notify residential customers that, should they need it, they have two years over which to pay off energy bill debt. We allow the Small and Multi-Jurisdictional electric utilities to choose a shorter amortization term of twelve months, and Southwest Gas to continue the automatic payment plans they already implemented, with eight-month terms.

This decision requires similar provisional relief for Small Business customers, suspending disconnections until Small Business customers with energy bill debt are default enrolled into payment plans tailored to the Small Business customer's amount of debt and ability to recover from the COVID-19 crisis. We direct all energy utilities, large or small, to automatically enroll their Small Business customers in plans with payoff terms long enough so that the debt payments add no more than 10 percent to their typical bill, or for Small Business customers located in disadvantaged communities, no more than 5 percent to their typical bill.

Today's disconnection suspension coupled with mandatory, automatic amortizations of debt will relieve customers of the threat of disconnection and put them on a path toward solvency. The next phase of this proceeding will track by how much state funding for utility bill relief shrinks the debt covered in the payment plans, and for whom. To address the mixed record of payment plan success, we pair payment plans with intensive follow-up efforts by Community Based Organizations (CBOs) to residential customers, and intensive follow-up efforts by utilities to Small Business customers deepest in debt. As a first step

toward this enhancement, we order the energy utilities to begin documenting their partnerships with CBOs as a means of helping the hardest-to-reach customers navigate these important relief programs.

This proceeding remains open.

1. Background

On February 11, 2021, the California Public Utilities Commission (Commission or CPUC) adopted this *Order Instituting Rulemaking* (OIR) *to Address Energy Utility Customer Bill Debt Accumulated During the COVID-19 Pandemic.* The OIR included two examples of relief mechanisms to spark discussion. Straw Proposal A was a combination of one-time financial relief ($200) for all customers in arrears, with additional ongoing assistance to address any remaining debt not covered by the one-time financial relief. Straw Proposal B was similar to the relief we order today, allowing customers two years over which to pay their accumulated bill debt.

As documented in the OIR, California, the Commission, and Commission-regulated energy utilities continue to respond and support utility customers in dealing with the consequences of the COVID-19 pandemic on their utility services and bills. In particular, we highlight the Commission's Resolution M-4842, initiating the disconnection moratorium and Resolution M-4849, extending the disconnection moratorium until June 30, 2021.[1] Pursuant to Resolution M-4849, all CPUC-jurisdictional electric and gas investor-owned utilities filed Transition Plans on April 1, 2021 in which they propose timelines for the resumption of credit and collections activity after June 30, 2021.

[1] The protections in Resolutions M-4842 and M-4849 stem from the current Emergency Disaster Rulemaking (R.) 18-03-011.

The same CPUC-jurisdictional electric and gas investor-owned utilities are respondents in this proceeding: Pacific Gas and Electric Company (PG&E), San Diego Gas & Electric Company (SDG&E), Southern California Edison Company (SCE), and Southern California Gas Company (SoCalGas) (Large Investor Owned Utilities or IOUs), PacifiCorp, Liberty Utilities (CalPeco Electric) LLC, Bear Valley Electric Company, Inc. (Bear Valley), Southwest Gas Corporation (Southwest Gas), Alpine Natural Gas, Inc (Alpine),[2] West Coast Gas Company, Inc. (West Coast Gas)[3] (Small and Multi-Jurisdictional Utilities or SMJUs).

On March 3, 2021, respondents and the following parties filed comments on the OIR: PG&E, SDG&E, SCE, SoCalGas, Southwest Gas, joint comments by PacifiCorp, CalPeco Electric, and Bear Valley as the California Association of Small and Multi-jurisdictional Utilities (CASMU), The Utility Reform Network (TURN), Utility Consumers Action Network (UCAN), California Community Choice Association (CalCCA), joint comments by Leadership Counsel for Justice and Accountability and The Greenlining Institute, Small Business Utility Advocates (SBUA), joint comments by the National Consumer Law Center (NCLC) and the Center for Accessible Technology (CforAT), and the Public Advocates Office at the CPUC (Cal Advocates).

On March 8, 2021 a prehearing conference (PHC) was held to discuss the issues of law and fact, determine the need for hearing, set the schedule for resolving the matter, and address other matters as necessary. At the PHC, the

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[2] Alpine Natural Gas, Inc. has not participated in R.21-02-014 but did file its Transition Plan pursuant to Resolution M-4849.

[3] West Coast Gas Company has not participated in R.21-02-014 but did file its Transition Plan pursuant to Resolution M-4849.

assigned Administrative Law Judge (ALJ) granted the motions of the California Water Association (CWA) and the California Environmental Justice Alliance (CEJA) for party status. East Bay Community Energy was granted party status on March 15, 2021.

Assigned Commissioner Guzman Aceves' Scoping Memo and Ruling (Scoping Memo) was issued March 15, 2021, setting forth a schedule that included comments on the Scoping Memo, a workshop, post-workshop comments, and opening and reply briefs. The Scoping Memo expanded the array of potential relief options beyond the OIR's Straw Proposals, categorizing parties' proposals into five groups: 1) one-time financial assistance, 2) ongoing financial assistance, 3) ongoing, non-financial assistance (payment plans) 4) leveraging and/or matching existing activities, and 5) Small Business relief. The Scoping Memo also established a webpage for this proceeding[4] to collect and present relevant information publicly. CalCCA, jointly NCLC and CforAT, SoCalGas, jointly LCJA and CEJA, TURN and SBUA commented on the Scoping Memo.

An ALJ Ruling on March 18, 2021 directed utilities to file and serve additional and updated data on arrearages, uncollectibles, and describe how unpaid utility bills relate to uncollectible expenses. On March 25 - 26, 2021, twenty parties and many stakeholders participated in a workshop developing *Proposals to Address COVID-19 Related Arrearages of Residential and Small Business Customers.* At the workshop, representatives from the Los Angeles Department of Water and Power, Sacramento Municipal Utility District, East Bay Community Energy and the National Regulatory Research Institute shared experience with

[4] The CPUC webpage for R.21-02-014 is at https://www.cpuc.ca.gov/General.aspx?id=6442468180.

COVID-19 relief efforts in their jurisdictions and nationwide. Parties actively deliberated and discussed five proposal areas. Panelist presentations, party proposals and supporting documentation, recordings of workshop sessions 1, 2 and 4, and the transcript of workshop session 5 are available on this proceeding's webpage.

An ALJ Ruling Inviting Responses to Post- Workshop Questions And Extending Filing Dates Of Briefs was issued April 2, 2021, to which responses were filed on April 12, 2021 by Cal Advocates, jointly NCLC and CforAT, jointly Greenlining, LCJA, and CEJA, SBUA, PG&E, CASMU, TURN, SCE, SoCalGas, Southwest Gas, SD&GE, CalCCA, and UCAN. An ALJ Ruling Directing Utility Action to Leverage Federal Funding Available for Utility Arrearages was issued April 5, 2021, requiring energy utilities to report weekly to Energy Division on the status of customer applications to the federally-funded and state and locally-administered Emergency Rental Assistance Program (ERAP).

The following parties filed opening and reply briefs on schedule:[5] CASMU, CalCCA, PG&E, SCE, SDG&E, SoCalGas, TURN, Cal Advocates, UCAN, jointly LCJA, CEJA and Greenlining, jointly NCLC and CforAT. Southwest Gas filed an Opening Brief only. SBUA was granted permission to late-file their opening brief by the ALJ on April 26, 2021. The SBUA opening brief included a study on Small Business customers' arrearages analyzing arrearage data submitted by the utilities.

An ALJ Ruling Setting Hearing to Discuss Utility Progress Leveraging Federal Funding Available for Utility Arrearages was issued May 11, 2021. The hearing

[5] The Scoping Memo's dates for filing Opening and Reply Briefs were extended twice; first in the ALJ Ruling issued April 2, 2021 and again by ALJ Ruling of April 8, 2021 granting the procedural motion of PG&E for an extension of time to file and serve Opening and Reply Briefs.

occurred on May 27, 2021 at 10:00 a.m. and identified that 5,414 customers of SCE, SoCalGas and SDG&E had received $2.8 million relief from ERAP . The small electric utilities, PG&E and Southwest Gas had not received any relief from ERAP at the time.

1.1. Federal and State Funding for COVID-19 Arrearage Relief

In the three months in which this proceeding has been open, external resources have begun to become available from the federal and state government to help address utility bill arrearages associated with the COVID-19 pandemic. We take notice of the potential funding sources below.

1.1.1. California's 2022 Pending Budget

On June 14, 2021, California enacted legislation earmarking $1 billion, in the upcoming 2022 state budget, to help Californians pay their overdue energy utility bills.[6] Details will not be finalized until the Governor approves the budget.

1.1.2. Emergency Rental Assistance Program

On December 27, 2020, the federal Consolidated Appropriations Act, 2021 was signed into law, establishing the federal Emergency Rental Assistance Program (ERAP) and authorizing allocations of funds to states, local governments, tribal communities, and territories to assist renters with unpaid rent and utility bills accrued between April 1, 2020, and March 31, 2021. California Senate Bill (SB) 91 (2021) established California's program for administering and distributing rental assistance funds, authorizing the California Department of Housing and Community Development (HCD) to administer the funds in accordance with state and federal law, and providing a framework for

[6] California Senate Bill 112 (21R) and California Assembly Bill 128 (21R), 4181-Energy Programs.

cities, counties, and tribes that received a direct allocation of funds from the U.S. Treasury to implement ERAP funding in partnership with HCD. On April 15, 2021, the Commission 's Executive Director issued a letter authorizing the energy utilities to "validate utility customer information of applicants for ERAP, upon HCD's request or upon request of a partner city, county, or tribe, for the purpose of administering relief."

California has already received and is distributing $2.6 billion, and will receive at least $152 million more[7] through the federal American Rescue Plan Act. While the bulk of ERAP is likely to be applied toward rent, any qualifying renter may also apply to this fund for utility bill relief.[8]

1.1.3. Housing Assistance Fund

California was allocated $1.055 billion through the American Rescue Plan Act to assist homeowners with housing as well as utility debt.

1.1.4. Low-Income Home Energy Assistance Program (LIHEAP)

At the April 25, 2021 workshop, California's Department of Community Services and Development (CSD) presented federal funding allocations administered by their agency. In 2020, the Low-Income Home Energy Assistance Program (LIHEAP) allocation available for utility arrearages was approximately $85.8 million.[9] The CARES Act, 2020 allocation was approximately $24.9

[7] SoCalGas Opening Brief at 14.

[8] NCLC/CforAt Opening Brief at 10.

[9] $205.3 million, of which 5% is for administrative purposes and 95% for services. Of the 95% for services, 44% is for utility bill assistance, with the remainder for weatherization and energy services.

million.[10] In 2021, the LIHEAP allocation available for utility arrearages was approximately $83.2 million.[11] California's allocation from the American Rescue Plan Act, 2021 is still unknown, with estimates presented from $100 million[12] to $250 million.[13]

1.2. Status Update on Unpaid Utility Bills

Arrearages remain a problem. In the OIR, we identified over $1 billion in arrearages from IOUs' residential customers at the end of 2020. In the first quarter of 2021, IOU residential arrearages have grown to over $1.3 billion, as displayed below.

IOU Residential Arrearages, By Low-Income and Non-Low Income

	PG&E	SCE	SDG&E	SoCalGas	Total
$ in Arrears, CARE/FERA Customers	$295,071,341	$153,717,802	$73,260,047	$84,538,012	$606,587,202
Number of CARE/FERA Customers in Arrears	487,041	311,813	141,097	536,803	1,476,754
Percent of CARE/FERA Customers in Arrears	30.95%	21.28%	41.08%	29.88%	28.51%
$ in Arrears, non-CARE/FERA Customers	$338,963,776	$193,798,751	$94,267,428	$101,194,928	$728,224,884
Number of non-	563,168	307,142	343,979	613,058	1,827,347

[10] $49.5 million, of which 5% is for administrative purposes and 95% for services. Of the 95% for services, 53% is for utility bill assistance, with the remainder for weatherization and energy services.

[11] California Department of Community Services and Development presentation at the R.21-02-014 Workshop on April 25, 2021, slides 4-6.

[12] NCLC/CforAT Opening Brief at 7.

[13] California Department of Community Services and Development presentation at the R.21-02-014 Workshop on April 25, 2021, slide 4.

CARE/FERA Customers in Arrears					
Percent of non-CARE/FERA Customers in Arrears	14.28%	9.86%	34.92%	15.87%	15.34%

Source: Monthly Disconnection Reports filed in R.18-07-005 on April 20th, 2021 for data through March 31, 2021.

As shown in the table below, the proportion of SMJU residential customers in arrears is roughly half of the proportion of IOU residential customers in arrears. While 29 percent of IOU customers in the CARE/FERA program are in arrears, 16 percent of SMJU customers in the CARE program are in arrears. For other residential customers, IOUs show 15 percent in arrears compared to the SMJU's less than 1 percent in arrears.

SMJU Residential Arrearages[14]

	Liberty/ CalPeco	**Bear Valley Electric Service**[15]	**PacifiCorp**[16]	**Southwest Gas**[17]	**West Coast Gas**	**Alpine Natural Gas**	**Total (exclusive of Bear Valley)**
$ in Arrears, All Residential Customers	$978,204	not available	$2,677,704	$2,636,063	$4,972	N/A	$ 6,898,046

[14] Alpine Natural Gas Company did not provide data in response to the March 18, 2021 ALJ Ruling Directing Utilities to Provide Data.

[15] Bear Valley's arrearage data is excluded until Bear Valley resolves discrepancies in the number of customers in arrears in the following reports: Bear Valley Response dated March 30, 2021 to ALJ Ruling dated March 18, 2021 Directing Utilities to Provide Data, Bear Valley Advice Letter (AL) 417-EA dated April 15, 2021 containing *BVES Transition Plan for discontinuance of COVID-19 Customer Protections after June 30, 2021 – Resolution M-4849*, and Bear Valley Opening Comments dated June 14, 2021 on Proposed Decision.

[16] In PacifiCorp AL 646-EA dated April 1, 2021PacifiCorp provides conflicting, and higher, arrearage data for the same month February 2021.

[17] Southwest Gas reported it is unable to provide arrearage information related to specific time periods in its response to Administrative Law Judge's Ruling Directing Utilities to Provide Data, filed in R.21-02-014. Information reported in this table is current as of February 28, 2021,

Footnote continued on next page.

Number of CARE Customers in Arrears	462	not available	2,546	8,797	1	5	11,811
Percent of CARE Customers in Arrears	13.87%	not available	21.07%	15.05%	1.85%	3.25%	15.94%
Number of non-CARE Customers in Arrears	2,247	not available	3,093	10,806	8	32	16,186
Percent of non-CARE Customers in Arrears	8.46%	not available	13.38%	8.13%	0.66%	2.12%	0.95%

Source: Responses to Administrative Law Judge's Ruling Directing Utilities to Provide Data, filed in R.21-02-014 on March 30th, 2021. Data is as of February 28, 2021.

As shown in the tables below, the proportion of SMJU Small Business customers in arrears (25 percent) is more than double the IOU Small Business customers in arrears (11 percent).

IOU Small Business Arrearages

	PG&E	SCE	SDG&E	SoCalGas	Total
$ in Arrears, Small Business Customers	$64,872,084	$32,149,526	$17,569,417	$11,265,459	$125,856,486
Number of Small Business Customers in Arrears	65,963	37,856	N/A[18]	30,018	133,837
Percent of Small Business	13.57%	10.85%	N/A	16.24%	11.47%

but it includes arrearages incurred outside of the requested March 2020 to February 2021 timeframe.

[18] In response to the ALJ Ruling of March 18, 2021 Directing Utilities to Provide Data, SDG&E reported that it does not track the number of Small Business customers in arrears.

Customers in Arrears					

Source: Responses to Administrative Law Judge's Ruling Directing Utilities to Provide Data, filed in R.21-02-014 on March 30, 2021. Data is as of February 28, 2021.

SMJU Small Business Arrearages

	Liberty/ CalPeco	Bear Valley Electric Service	PacifiCorp	Southwest Gas	West Coast Gas	Alpine Natural Gas	Total
$ in Arrears, Small Business Customers	$242,176	$89,355	$202,462	$788,868	N/A	N/A	1,322,861
Number of Small Business Customers in Arrears	383	170	3,294	949	0	0	1,505
Percent of Small Business Customers in Arrears	10.04%	12.3%	65.80%	10.08%	0%	0%	24.72%

Source: Responses to Administrative Law Judge's Ruling Directing Utilities to Provide Data, filed in R.21-02-014 on March 30, 2021. Bear Valley data corrected in comments dated June 14, 2021. Data is as of February 28, 2021.

2. Issues Before the Commission

Today's decision partially addresses scoped items 1 – 5, 8 and items 10 - 11 listed below. The actions ordered in the instant decision are intended to integrate with additional state and federally funded utility arrearage relief, anticipated to be forthcoming for residential customers in the next few months.

Once the parameters of state and federally funded utility bill arrearage relief are established, we will revisit scoped issues five and six, relating to whether and how debt forgiveness should supplement today's relief.

1. What is the extent and scale of necessary arrearage relief for customers and utilities?
    a. What amount of uncollected revenue should be considered for relief?

b. Identify revenue sources potentially applicable for arrearage relief.

c. How does the amount of uncollected revenue to be considered for relief relate to the sources of revenue ultimately identified as applicable?

2. What mechanism(s) should be used to provide the necessary relief presented in Question 1?

3. To what extent will relief mechanism(s) advance Goals 1, 4, 5, or 7 of the Commission's Environmental and Social Justice Action Plan?

   Goal 1: *Consistently integrate equity and access considerations throughout CPUC proceedings and other efforts;*

   Goal 4: *Increase climate resiliency in ESJ communities;*

   Goal 5: *Enhance outreach and public participation opportunities for ESJ communities to meaningfully participate in the CPUC's decision-making process and benefit from CPUC programs;*

   Goal 7: *Promote economic and workforce development opportunities in ESJ communities.*

4. How should we define the COVID-19 pandemic period for purposes of determining the appropriate arrearage relief period ordered in this proceeding?

   a. When should arrearage relief begin?
   b. Should arrearage relief sunset?
   c. How should the arrearage relief be timed relative to the disconnection moratorium?

5. Which customer classes and within customer classes which customer segments, are most in need of relief, in light of the existing programs and policies currently available to energy utility customers, and on what basis? Should different customer classes receive different amounts or types of relief? What data support this?

   a. How should customers be identified for arrearage relief?

b. Should arrearage relief be conditional upon customer payment behavior, either past or future?
c. Is there a reason to target arrearage relief to customers making timely payments? If so, how might such customers be identified?
d. Consider and recommend how arrearage relief could be tailored to residential customers so vulnerable and burdened that they are unlikely to be able to meet the terms of the Arrearage Management Program (AMP).

6. Please identify models of funding structures that would be applicable to funding arrearage relief, and provide a basis for such applicability.

a. If at all, how would existing funding mechanisms in place for energy utilities related to the COVID-19 period or other cost recovery mechanisms be applicable to arrearage relief?

b. Do the impacts to utilities differ when customer debt is booked as uncollectible after a customer has been disconnected for non-payment, and when a customer's debt is forgiven through participation in an AMP?

c. How do utilities avoid double booking customer debt in light of this combination of uncollectible balances and forgiveness programs?

d. How should utilities determine and track the costs of arrearage relief?

e. Are funding structures that anticipate private capital, including those structures being utilized in other states and referenced in Section 2.6 of the OIR, suitable for arrearage relief? If so, how might such structures be utilized and implemented by the Commission?

<u>Third-Party Energy Service Providers</u>

7. Should arrearage relief be applied to Core Transport Agent (CTA), Energy Service Provider (ESP), and Community Choice Aggregator (CCA) customers? If so, how?

a. Should Resolution E-5114 determinations to include or exclude CTA, Direct Access, or Net Energy Metering customers in AMPs be followed in this proceeding?

b. To the extent that customers are not at risk of disconnection for failure to pay their CCA charges, does this change the need for arrearage relief of CCA charges?

c. To what extent does Public Utilities Code Section 779.2 require utilities to allocate partial payments first to disconnectable charges?

SMJUs

8. What are the concerns and considerations, if any, unique to the small and multi-jurisdictional utilities (SMJUs) and their customers? If necessary, identify variations or alternatives to the straw proposals that would be applicable to the SMJUs.

Integration and Coordination

9. How should parties address the end date of the disconnection moratorium? Through/in R.18-03-011?

10. How can arrearage relief integrate with the recently adopted orders in D.20-06-003? Are any adjustments needed?

11. Should arrearage relief be coordinated with the utility transition plans ordered by the Commission in Resolution M-4849, including customer outreach?

12. What lessons, if any, should the Commission leverage from other relevant Commission proceedings addressing disconnections and bill affordability, and why?

3. "COVID-19 Relief Payment Plans" for Residential Customers

Payment plans were considered extensively throughout the proceeding, first in Straw Proposal B in the OIR, and next at the workshop, by Workshop

Team #3[19] discussing proposals categorized as *Ongoing Non-Financial Assistance*. Finally, the ALJ Ruling of April 2, 2021 asked a series of questions about parameters of payment plans to which parties responded on April 12, 2021.

While the concept of payments plans was widely supported, the appropriate terms were vigorously debated, including:

- Enrollment method: Automatic or upon request?
- Start and end period.
- Should thresholds be applied to qualify:
  - Dollars in debt
  - Age of arrears
  - In good standing on prior payment plans
  - Not participating in other relief programs.
- Number of times a customer may fail to make payments before being removed from the payment plan.
- Variations for SMJUs.

The "COVID-19 Relief Payment Plans" we adopt add only the element of time, rather than money, to assist customers. By adding a portion of the debt to each monthly bill, payment plans depend upon customers' ability to pay an amount larger than their current bill. While this proposition is likely untenable for households with the lowest incomes and highest arrearages, we expect debt enrolled in the "COVID-19 Relief Payment Plans" to shrink or be eliminated for many of these customers. In addition to anticipated state relief, IOU customers enrolled in CARE/FERA have access to a different program, the Arrearage Management Program, to defray their arrearage without adding to their current

[19] Workshop Team #3 included representatives of Cal Advocates, CWA, CleanPowerSF, PG&E, SCE, Southwest Gas, and TURN.

bill. At the very least, the parameters we mandate of automatic enrollment, coupled with a two-year term and two waivers for customers who miss payments, provide a de facto five months of time before any customer faces disconnection. Between today and September 30, 2021, utilities will have three months to plan, notify, educate and enroll customers. We agree with SCE and SoCalGas that three months are adequate and necessary. Next, the flexible terms of the plans granting missed payments add an additional two months.

In the next phase of this proceeding, we will be tracking customer access to one of the many promising programs offering significant forgiveness.

3.1. Party Positions

Party positions on payment plans were refined at the workshop, with the Workshop Team #3[20] coming to consensus around: offering payment plans to all customers; having customers take the initiative to participate and opt-in; and keeping the program in effect for 12 months once disconnections resume. Workshop Team #3 diverged in their recommendations on payment plans terms-- among flat 24-month terms, 12, 18, or 24 month terms, or terms calculated relative to the amount or age of arrears. Subsequently, other parties, including Cal Advocates, CEJA, LCJA, Greenlining, NCLC and CforAT argued that automatic enrollment is appropriate because it removes a barrier to participation.[21] Southwest Gas also recommends their current automatic payment plan be approved and adopted for all SMJUs. Southwest Gas, speaking from experience with automatic enrollment into its own payment plans, states

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[20] Work Team #3 included representatives of Cal Advocates, CWA, CleanPowerSF, PG&E, SCE, Southwest Gas and TURN.

[21] NCLC/CforAT Opening Brief at 20, LCJA/CEJA/Greenlining Reply Brief at 7, Cal Advocates Opening Brief at 7, TURN Opening Brief at 7.

that deferred payment arrangements would tend to preserve affordability. SoCalGas sees a payment plan duration over 15 months as beneficial because it "would give customers some discretion to prioritize their utility bills with their other obligations, better match their cashflow situation, including allowing customers to not add to the peak season utility bills."[22]

CASMU, PG&E, SDG&E and SCE oppose automatic enrollment of customers in relief programs, whether payment plans, AMP, or forgiveness, primarily on the basis of removing customer choice and decreasing customer buy-in. SCE also bases its objection to longer payment plans on the impact to cash flow, pointing out that cost of debt may eventually impact all customer rates. CalCCA and UCAN oppose automatic enrollment of customers into AMP specifically because AMP offers an incentive for timely payments and AMP will not function as intended unless customers are affirmatively made aware of the unique opportunity for debt forgiveness that accompanies each payment.

With the exception of Southwest Gas, SMJUs oppose automatic enrollment in payment plans, also contending that "automatic enrollment negates a customer's ability to work with the utility to develop an appropriate payment plan."[23] Bear Valley is the only SMJU to assert its arrearages since March 4, 2020 are no higher than in 2019.

3.2. IOU Residential Customers

Automatic enrollment of residential customers in arrears[24] into standardized payment plans is the simplest, most direct, and likely the most

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[22] SoCalGas Opening Brief at 28-29.

[23] CASMU Opening Brief at 9.

[24] Residential customers in arrears enrolled in a different payment plan, Arrearage Management Program, levelized billing or on a Net Energy Metering tariff will not be automatically enrolled

Footnote continued on next page.

effective approach to assisting customers while waiting for external arrearage relief programs to ramp up. While there is a potential impact to cash flow, as noted by SCE, payment plans are among the least cost options being considered. Removing the transaction costs associated with the opt-in process also keeps costs down, as does a flat and uniform term of 24 months. Additionally, Resolutions M-4842 and M-4849 direct utilities to track expenses associated with the COVID-19 pandemic in memorandum accounts.

We suspend disconnections during a three-month implementation period to allow utilities to notify, enroll and educate customers on the terms of the plans, including that it is within the customer's control to shorten or end the plan by increasing their payment. By September 30, 2021, all eligible residential customers must be automatically enrolled in "COVID-19 Relief Payment Plans," even if they are likely to receive relief later.[25] The rules of the payment plans de facto defer disconnection at least two more months, until December 1, 2021, which gives even more time for the external funding to arrive.

The Commission's intent of providing a smooth transition, rather than a snap cut back to credit and collections policies (including disconnection), is achieved by moving arrearages onto payment plans. The utilities' Transition Plans filed in response to Resolution M-4849 did not offer meaningful gradual steps for customers to begin to address accumulated debt, with two notable exceptions. Southwest Gas unilaterally moved their customers to payment

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unless and until their participation in any of the aforementioned programs concludes prior to September 2022.

[25] We do not approve IOU proposals to indefinitely suspend disconnections of CARE customers until the anticipated state relief arrives because this will cause a secondary arrearage problem.

plans[26] as described in Section 3.3 below. Southwest Gas' transition also provides customers impacted by COVID-19 an "opt-in" method of extending their disconnection moratorium. This is the meaning of transition. Additionally, SCE identifies a gradual ramp-up of disconnections in their Transition Plan. Rather than disconnect levels immediately returning to the maximum allowed under the new monthly cap, SCE plans to disconnect fewer customers than permitted by the monthly cap, gradually increasing over a period of months until reaching their monthly disconnection cap. The other energy utilities do not propose much phasing in their transition plans, instead relying on extra and more frequent notification to customers as their primary means of returning to typical credit and collection timelines. Automatic payment plans provide customers a gradual and potentially more manageable path to address arrearages.

"COVID-19 Relief Payment Plans" are a temporary program and do not conflict or interfere with or supersede any other assistance program or payment plan customers have already chosen or want to choose. Specifically, customers may enroll in the AMP program according to the AMP rules, a different payment plan or payment schedule, or onto a Net Energy Metering (NEM) tariff, before, in lieu of, or after their "COVID-19 Relief Payment Plan." Customers already enrolled in existing programs or plans will not be automatically transferred from their chosen program into "COVID-19 Relief Payment Plans."[27] As long as

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[26] Southwest Gas Advice Letter 1170-G, April 1, 2021 at 4. Southwest Gas refers to its automatic amortization initiative as a Deferred Payment Arrangement.

[27] "COVID-19 Relief Payment Plans" are temporary and transitional to allow customers with accumulated debt a gradual repayment path. The period for which "COVID-19 Relief Payment Plans" will be offered is July 2021 through September 2022 to during which eligible customers will be automatically enrolled only once in a "COVID-19 Relief Payment Plan." Complete terms and rules are found in the Appendices to this decision.

customers have already made choices that fit their needs and address their debt, there is no reason to interfere with their arrangements.

However, customers enrolled in other programs or plans likely made their decision when amortization terms of 24 months were not widely on offer. Several parties requested that automatic enrollment into "COVID-19 Relief Payment Plan" be a one time-event. In the spirit of fairness, we clarify that "COVID-19 Relief Payment Plans" are available only once per customer between July 2021 and September 2022. Should customers enrolled in other programs conclude or be removed from other programs and still have arrearages 60 days or older, they will be automatically enrolled in a "COVID-19 Relief Payment Plan" once.

Other customer assistance and relief programs, such as CARE/FERA, LIHEAP,ERAP, and the disconnection protections[28] that will become effective only when the disconnection moratorium is over, can and should work concurrently with "COVID-19 Relief Payment Plans" for greater customer benefit. Specifically, the new requirement for IOUs to offer customer a 12-month payment plan as an alternative to disconnection will occur after a customer is removed from a "COVID-19 Relief Payment Plan," to the benefit of the customer.

In considering the value of automatic enrollment rather than an opt-in model, we took into account other opt-in programs designed to help customers address their arrearages. While AMP only began on February 1, 2020, it appears

[28] During the pandemic, in June 2020, the Phase I Disconnections proceeding decision (Decision 20-06-003 in Rulemaking 18-07-005) adopted new rules limiting disconnections of PG&E, SCE, SoCalGas and SDG&E customers to 220,971; 320,629; 113,255; and 39,855 customers annually (as calculated today), no matter the size or number of bills outstanding. D.20-06-003 additional limits disconnections in areas with high disconnection rates, requires IOUs to accept 20 percent of debt owed to forestall disconnection or resume service after disconnection of gas service (Ordering Paragraph 49), requires IOUs, prior to disconnection, to notify customers of all applicable benefit programs and give them an opportunity to enroll in a 12-month payment plan (Ordering Paragraph 1).

to have gotten off to a slow start. If AMP, which includes a forgiveness element,[29] has slow uptake under an opt-in enrollment rule, it is reasonable to expect payment plan enrollment to be even slower. Making payment plan participation contingent upon customer request is likely to leave a significant number of customers out for a significant period of time. In addition, customers may have to make call to adjust or renegotiate terms beyond just initiating a payment plan.[30] Based on the experience with ERAP,[31] customers should dedicate their time towards the extra steps they are likely to be asked to take to qualify for external relief programs.

We do not share party concerns that customers will lose flexibility, choice and buy-in if they are automatically enrolled. Being required to pay 1/24 of debt rather than all outstanding debt to maintain energy service does not remove basic customer choice, just as a disconnection moratorium does not remove customer choice. The implementation period allows three months before any automatic enrollment must occur, which provides time for utilities to work to overcome any confusion they believe the "COVID-19 Relief Payment Plans" will cause. Regarding certain utility arguments that automatic enrollment removes customer agency, we point to the disconnection moratorium as evidence to the contrary. The overwhelming majority of customers during COVID-19 are not in arrears, despite having been offered a "free pass" to defer utility bill payments. Even during a disconnection moratorium, the majority of customers exercised

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[29] AMP is a payment plan with a forgiveness element. Such a forgiveness element should provide more incentive to participate than payment plans without forgiveness.

[30] SDG&E states that it allows customers to call to renegotiate the terms of a payment plan as the preferred alternative for customers instead of missing (or breaking) the terms of a payment plan.

[31] Entirety of Reporter's Transcript (RT) of May 27, 2021 evidentiary hearing.

their flexibility and choice to pay their utility bills on time and in full. We are convinced that customers required to pay 1/24 of their debt, rather than the full amount, will similarly be able to decide whether it is in their interest to accelerate payments. Automatic enrollment gives a customer more, not less, agency to decide at what pace they can best manage the debt.

Parties objecting to automatic enrollment assert that they want to maintain their ability to customize payment plan terms based on conversations with their customers. From the utility's perspective, this may be a reasonable approach, but it is unclear that this approach is reasonable for customers. Customized payment plans have been the default approach prior to COVID-19. The low "keep" rates of payment plans in the years prior to COVID-19 are not compelling arguments that customized payment plans result in better outcomes.[32] Other parties suggest that "working with the utility" to pay off debt may create barriers for ESJ communities, and it is better to err on the side of reducing barriers. Low-income and vulnerable communities may have experience with debt management other than utility debt, perhaps credit card debt or home loan debt.

From the customer perspective, it is reasonable to expect some aversion to initiating the call to the entity to whom debt is owed. Recovery from COVID-19 is not the time to require a customer to take the initiative. Even if it were, as emphasized by TURN, the sheer number of customers in arrears makes individual conversations with customers infeasible.[33] While it is unlikely that Customer Service Representatives will be able to devote much time to

[32] The IOUs also noted several technological and design challenges that would affect their ability to create flexibility in payment plans (March 26, 2021 Reporter's Transcript of Status Conference at 49:17-28).

[33] TURN Response of April 12, 2021 to Post-Workshop Questions at 10.

customizing arrangements for each caller at the outset, automatically enrolling customers should reduce the number of customers calling utility representatives. Rather, utility representative can spend time with customers when customers call to ask questions or renegotiate plans.

Automatic enrollment meets the goal of reaching all those eligible for relief, with a priority on ESJ or DAC or hard-to-reach or non-English speaking or medical baseline customers. LCJA/CEJA/Greenlining argued that reaching the hardest-to-reach necessitates inclusive criteria. We agree that casting a wider net, especially for a relief program that is the lowest cost of many of the options, is the best choice. While automatic enrollment surmounts the barrier of initiation, it may not surmount the barrier of understanding the new arrangement, and that disconnection is again a consequence of nonpayment within just a few bill cycles. In Section 5, we mandate additional outreach with the intention of assisting communities that may need guidance and support with payment plans even once automatically enrolled.

Setting the eligibility threshold by age of arrears is appropriate because it allows the program to scale to each utility's rates and each customer's consumption and bills. Any customer with arrearages 60 days or older meets the threshold for enrollment in a "COVID-19 Relief Payment Plan."[34] An age threshold better reflects differences among utility rates and fuels than does a dollar threshold. Sixty days is the appropriate cutoff as it captures most arrearages. Including arrearages less than 60 days past due may capture unpaid amounts due to customers' payment lag.

[34] 60 days of arrearages is the only threshold. See Appendices for eligibility terms.

The 60 day or older threshold is for eligibility purposes, but all arrearages[35] of the eligible customer shall be amortized. Arrearages that existed prior to March 4, 2020, the beginning of COVID-19, shall also be included in "COVID-19 Relief Payment Plans." For the same reasons we adopt a standard and inclusive approach to payment plans, including arrearages that existed prior to COVID-19 is appropriate. We minimize the number of variations and rules in this relief mechanism. Customers behind on their bills prior to COVID-19 may be able to benefit the most from the extended time frame, if their prior arrearages were compounded by COVID-19 and the disconnection moratorium.

We agree with TURN's recommendation that payment behavior on prior payment plans should not be a criterion for "COVID-19 Relief Payment Plan." We also agree with CASMU that participation in some other arrearage relief programs should not necessarily disqualify customers from participation in a "COVID-19 Relief Payment Plan." As discussed previously in this section, as long as other program rules do not conflict with participation in a payment plan, customers should be encouraged to maximize available relief and participate concurrently.[36]

Regarding the number of times a customer may fail to make payments before being removed from the payment plan, we permit two waivers for missing payments before the customer is removed from the payment plan. Permitting two waivers is consistent with the AMP program rules. For simplicity's sake we do not import additional AMP parameters, such as

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[35] Billed amounts in arrears are outstanding amounts past the due-date.

[36] As noted above, the rules of AMP would require a customer to shift from a "COVID-19 Relief Payment Plan" in order to enroll in AMP. CARE, FERA, LIHEAP and ERAP are examples of programs that accommodate concurrent enrollment in a payment plan.

customers' missed payments cannot be consecutive and that customers must make up the missed amount in the following month. For simplicity's sake we also import each utility's rules for when a payment plan is missed, since the concept of payment plans is not new. Since the "COVID-19 Relief Payment Plan" is automatic, it must remain as simple and consistent with existing utility rules as possible.

3.3. Small Electric Residential Customers

As detailed below, SMJU customers have significant arrearages and merit the relief that automatic enrollment in payment plans provide. To give SMJUs flexibility on the terms that are best suited for their customers, they may choose to amortize their residential customer arrearages over a 12-month term or adhere to the IOU model we direct in Section 3.2.

Without the relief ordered today, SMJU electric customers would be exposed to balloon payments and disconnection on June 30, 2021. Small electric utilities offer fewer assistance programs, have low numbers of customers in payment plans, and would issue disconnection notices within days of June 30, 2021.[37] There is no AMP for customers of SMJUs.[38] Small electric utilities failed to facilitate external bill relief through ERAP, the first of several anticipated COVID-19 utility bill relief programs. Two months after Commission direction to facilitate the receipt of ERAP funds, the small electric utilities had yet to do so, and ignored Commission direction to report ERAP progress. By their own

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[37] Notwithstanding Bear Valley's reporting difficulties, Bear Valley reports 11 customers enrolled in payment plans out of 682 unique customers in arrears. (Bear Valley AL 417-EA dated April 15, 2021, at 5 and Attachment C at 9-10). CalPeco Electric reports 20 customers enrolled in payment plans over six months in length (CalPeco Electric AL 169-EA at 7-8). PacifiCorp reports 2.29 percent customers enrolled in payment plans (PacifiCorp AL 646-EA Attachment A).

[38] CASMU Opening Brief at 3.

admission, Bear Valley's approach to ERAP was sluggish,[39] and PacifiCorp[40] and CalPeco Electric[41] were similarly unprepared even after successive direction from the Commission,[42] which heightens the need to automatically place SMJU customers in arrears in "COVID-19 Relief Payment Plans."

Small electric utilities assert they lack the resources to perform automatic enrollment of customers into "COVID-19 Relief Payment Plans," and lack resources to field inquiries and requests from customers prompted by the automatic enrollment. Such assertions are irreconcilable with the small electric utilities' descriptions of resources already devoted to helping customers impacted during the pandemic. "The CASMU members also strive to provide customers assistance and reduce and avoid disconnections by actively engaging in significant outreach to customers facing financial hardship, customers in arrears, and customers who have missed payment plan payments."[43] Bear Valley proposes "reaching out to customers with arrearages past 90 days to inquire if they would like to enroll in a payment plan,"[44] and PacifiCorp "will individually reach out to each customer that has a delinquent bill as of the Disconnection Policy Resumption Date and will offer an opportunity to participate in extended payment plan arrangements."[45]

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[39] RT of May 27, 2021 evidentiary hearing at 11:24, 13:15-20.

[40] RT of May 27, 2021 evidentiary hearing at 23:8-13, 27:11-28, 28:1-4, 30:5-8.

[41] RT of May 27, 2021 evidentiary hearing at 36:4-6, 38:1-10.

[42] ALJ Ruling of April 2, 2021 Inviting Post-Workshop comments, and ALJ Ruling of April 5, 2021 Directing Leveraging of Federal Funds for Relief.

[43] CASMU Opening Comments on Proposed Decision at 3.

[44] CASMU Response dated April 12, 2021 to ALJ Ruling Inviting Post-Workshop Comments at 5-6.

[45] PacifiCorp AL 646-EA at 2.

We have no reason to doubt the CASMU assertion that automatic enrollment of customers with COVID-19 arrearages will be incredibly burdensome for the utilities. However, between the data showing a handful of customers in payment plans currently, and their poor demonstration of connecting customers with relief through ERAP, we doubt CASMU's argument that automatic enrollment "is unlikely to meaningfully assist customers and could increase burdens for customers, by increasing payments under payment plans and requiring additional unnecessary coordination with utilities."[46] We find an automatic offering to customers a superior strategy than the uneven customer outreach demonstrated by the small electric utilities. The need for a broad-based, long amortization period outweighs the burden to the small electric utilities to implement this offering.

Based on the small electric utilities' preference to offer a 12-month amortization term, instead of the 8-month term utilized by Southwest Gas, we authorize small electric utilities to choose a 12 or 24-month term plan in which to default enroll eligible customers. It is reasonable to allow the small electric utilities to choose a shorter amortization timeframe for arrearages, as their average arrearages per customers are lower than IOU average arrearages per customer.

Though we adopt the small electric utilities' preference for a 12-month amortization term, we do so because it is less effort for the customer to begin with a longer term and shorten the term at their discretion. While the small electric utilities assert typical term lengths are twelve months, the small electric utilities' Transition Plans, in which Bear Valley intends to offer customers "up to

[46] CASMU Opening Comments on Proposed Decision at 3.

12 months" for payment plans, and CalPeco Electric identifies eighteen customers total on payment plans of 6 months or longer, do not support such assertions.[47]

The same requirements to suspend disconnections through September 30, 2021, allowing for three months to implement and enroll customers in "COVID-19 Relief Payment Plans" apply to small electric utilities as well as IOUs. Three months will afford small electric utilities time to shift resources as necessary to perform the automatic enrollments and notify customers of their associated options. Furthermore, the same requirements for eligibility, that a customer have arrearages 60 days old and not be enrolled in any other alternative payment structure or plan apply to small electric utilities.

Because "COVID-19 Relief Payment Plans" are essentially a contingency for customers who have not already made their own arrangements, the small electric utilities' concerns that automatic enrollment interferes with, or compromises their existing offers are not applicable. The small electric utilities specified aggressive outreach efforts were to occur before the resumption of disconnection protocols, which would have begun July 1, 2021 absent this decision. To the extent they have already engaged customers in payment arrangements, these customers will remain in their chosen payment arrangement and will not be defaulted into a "COVID-19 Relief Payment Plan." Automatic enrollment should only occur for customers who did not take advantage of other offers to-date. And also consistent with the IOU rules for eligibility for "COVID-19 Relief Payment Plans," the small electric utilities' automatic enrollment shall be performed only once per eligible customer between July 2021 and September

[47] CASMU Opening Comments on Proposed Decision at 5-6.

2022. This means, should customers exit their other payment arrangements with unresolved debt, they will still benefit from today's ordered relief.

3.4. Southwest Gas Residential Customers

Southwest Gas has convincingly presented a model for automatic payment plans[48] that is comprehensive and includes nearly all customers in arrears. Southwest Gas took the initiative to place their customers in this plan on February 12, 2021.

Southwest Gas
Comparison of Arrearages to Arrears Enrolled in Payment Plan[49]

	Arrearages as of February 2021[50]	Arrearages Automatically Enrolled in Payment Plans as of March 31 2021
Dollars	$2,636,063	n/a[51]
Customers	19,603 (all residential)	19,660[52]

In the table below, we compare the parameters of the Southwest Gas plan to the IOU "COVID-19 Residential Relief Payment Plan" we adopt.

[48] In their Transition Plan filing of April 1, 2021, we note Southwest Gas' use of the term "Deferred Payment Arrangement" to describe its automatic 8-month residential payment plan.

[49] In Southwest Gas AL 1170-GA dated April 16, 2021, Southwest Gas reported 0.28% of residential customers in arrears were not enrolled in payment plans as of February 28, 2021.

[50] Responses to Administrative Law Judge's Ruling Directing Utilities to Provide Data, filed in R.21-02-014 on March 30th, 2021.

[51] Southwest Gas Opening Brief at 3 provided an amount of arrears automatically enrolled in payment plans, $20.7 million. Since this proceeding covers only residential and Small Business customers, we are awaiting amounts specific to these customer classes. However, other Southwest Gas reporting indicates nearly all residential arrearages are currently in payment plans.

[52] Southwest Gas Opening Brief at 8.

Comparison of "COVID-19 Residential Relief Payment Plan" to Southwest Gas model

Payment Plan Feature	COVID-19 Residential Relief Payment Plans	Southwest Gas model	Different or same?
Enrollment method	Automatic	Automatic	Same
Starting point	Immediately	Immediately	Same
Ending point	12 months after disconnection moratorium lifts	12 months after disconnection moratorium lifts	Same
Minimum dollar amount	N/A	$20	Different
Minimum age of arrearage	60 days past due	60 days past due	Same
"Good standing" requirement	None	None	Same
Non-participation in other relief programs	Not required	Not required	Same
Number of missed payments allowed before removal	2	Not specified	Unknown

The main difference between the Southwest Gas and IOU models is the length of time over which arrearages are amortized, and the thresholds set for amortization. It is reasonable for Southwest Gas to maintain their shorter amortization timeframe for arrearages and the $20 minimum arrearage amount. Southwest Gas average arrearage per customer is lower than IOU average arrearage per customer. ThoughSouthwest Gas takes a slightly different approach to customers who miss payments on their automatic payment plan,[53] we require Southwest Gas to conform their payment plan to allow customers to miss two payments without being removed from the plan.

[53] Southwest Gas comments dated April 12, 2021 in response to ALJ Ruling Inviting Post-Workshop Comments.

While the term of the Southwest Gas automatic payment plan will expire shortly after the IOU and small electric utility automatic payment plans begin, we believe Southwest Gas' additional protections are adequate for their customers. Specifically, Southwest Gas will waive late fees and deposit requirements for CARE customers upon request, and also suspend disconnections for CARE customers upon request through December 31, 2021.

3.5. Partial Payment Allocations Between Arrearages and Current Bills and Between Community Choice Aggregators and Utilities

Several parties identify complications that may occur in the event customers enrolled in "COVID-19 Relief Payment Plans" pay less than required by the due date. CalCCA argues their members will face disproportionate financial risk if payments towards arrearages are credited to CCAs only after the IOUs arrearages have been fully satisfied. SoCalGas expresses concern that customers paying only a portion of the total due each month face risk of disconnection unless the payments are credited to arrearages before current bills.

Because we are suspending disconnections of all customers for three months, we find it is appropriate to require PG&E, SCE and SDG&E to continue allocating partial payment s on a pro rata basis through September 30, 2021, as they have done throughout the Commission's disconnection moratorium. A permanent determination requires further consideration. We slate allocation after September 30, 2021 for consideration in the immediate next phase of this proceeding. Between the three additional months and the anticipated debt relief from the California state budget, we do not believe CCAs will face a different level of financial risk than IOUs in the near term.

SoCalGas is correct to highlight the importance of crediting any customer payment first to the arrearage before crediting payment to the current bill. Partial payments are a demonstration of good faith on the customer's part and should not be used as an excuse to remove the customer from the payment plan. This approach also alleviates party concerns about how and when utilities classify payments as missed, by preventing a payment less than complete from jeopardizing good standing in a "COVID-19 Relief Payment Plan."

4. "COVID-19 Relief Payment Plans" for Small Business Customers

As noted supra, Small Business customers have been protected from disconnection by the Commission's actions in response to the pandemic. In this proceeding, we have gathered information on the degree of payment difficulty Small Business customers have experienced during the COVID-19 crisis. We have also explored the patterns of Small Business credit and collections prior to and during the pandemic, asking the following questions.[54]

1. Are all Small Business customers currently eligible for payment plans, regardless of age of customer account (including current accounts)? If all residential customers are not currently eligible, should they be?
2. Team 5 at the workshop came to consensus on the following for Small Business payment plans, does your party join this consensus?
    a. Utilities should offer all Small Business customers with arrears payment plans of no more than 24 months.
    b. Utilities should have no specific minimum length for Small Business payment plans, but should provide Small Business customers with up to 24 months to repay their arrears and should work with each customer to determine the best plan for the customer.

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[54] The enumeration of questions was 6.e, 12.a, 12.b, 13.a, 13.b, 14, 15, 16, respectively in the ALJ Ruling of April 2, 2021.

3. Team 5 at the workshop identified a need for utilities to increase outreach to Small Business customers, both to individual customers and community-based organizations that work with Small Businesses, to personalize assistance for Small Business and help these customers receive assistance for which they are eligible.

   a. For utilities: please comment on your plans to conduct outreach to Small Business customers with arrears, including plans to target community-based organizations that have relationships with these customers, streamline relevant application processes, and/or identify individual customers to assist these customers with their arrears.

   b. For all parties: please provide any comments on how utilities should conduct Marketing, Education, and Outreach activities to target Small Business customers with arrears, including any comments on how to specifically target Small Business customers that serve or are located in ESJ communities.

4. Is a utility's recourse to collect on unpaid arrearages from a Small Business customer who "walks away" different from the utility's recourse for residential customers? How so?

5. How much risk is there to a utility that a Small Business customer who is disconnected for nonpayment will not reconnect service?[55]

6. What is your utility's success rate in collecting utility arrearages from Small Business customers after the Small Business does not reconnect service?

4.1. Party Positions

SDG&E and SoCalGas support the concept of reasonable payment plans as a solution to arrearages amassed by Small Business customers during the

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[55] Question 15 in the ALJ Ruling of April 2, 2021 mistakenly read as "How much risk is there to a utility that a Small Business customer who is disconnected for nonpayment and does not reconnect service?

pandemic.[56] Their definition of reasonable differs from the SBUA definition of reasonable, primarily over automatic enrollment and reasonable amortization periods. SBUA argues for an automatic, customized payment extension for all Small Business customers with an included element of debt forgiveness. They also propose capping the payments of arrearages to 10 percent of the customer's current bill for Small Businesses generally, and to 5 percent of the customer's current bill for customers in disadvantaged communities.[57]

A part of Workshop Team #5, SBUA was initially proposing non-financial assistance for Small Business customers. In post-workshop comments and briefs, SBUA has presented more extensive analysis on the conditions faced by Small Business customers, and recommends financial relief as well as automatic enrollment in payment plans. Furthermore, SBUA points out that Small Business customers are not monolithic, and especially Small Businesses in ESJ communities may merit special consideration.

SBUA points out consensus in their working group for affirmative outreach to Small Business customers for the purposes of counseling customers on bill reductions strategies, such as Time of Use adjustments, and generation investments/incentives. [58] SBUA consistently recommended counseling by trained utility representatives throughout this proceeding.[59]

PG&E disagrees with the SBUA recommendations for auto-enrollment into a payment plan, citing their adherence to the Workshop Team #5's consensus

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[56] SDG&E Opening Brief at 3, SoCalGas Opening Brief at 29.

[57] SBUA Opening Brief at 13-14.

[58] SBUA Opening Brief at 16-17.

[59] SBUA Comments of March 22, 2021 on Scoping Memo at 3 and Response of April 12, 2021 to Post-Workshop Questions at 9-10.

proposal at the workshop, which recommended against automatic enrollment. In contrast, SDG&E believes the Commission's characterization of the Workshop Team #5's presentation as consensus is inaccurate.[60]

SoCalGas also suggests relief for Small Business, whether existing or new through this proceeding, indirectly impacts workforce development. We agree Small Business relief furthers Goal 7 of promoting economic and workforce development opportunities in ESJ communities.[61]

4.2. Discussion

We utilize the Workshop Team #5 recommendations as a framework for relief, ordering two prongs of relief: payment plans plus aggressive utility outreach to counsel Small Businesses on how to best reduce their existing bills. Six months into the pandemic, the Energy Division showed Small Business arrearages of three months or longer had nearly tripled from the prior year September 2019.[62] Six months later, arrearages in the three months or longer category had more than tripled from the prior year March 2020.

However, we make adjustments primarily to the payment plan terms for Small Business customers. The Workshop Team #5 recommended a combination of payment plans, with no outright forgiveness, together with aggressive counseling to help Small Business customers reduce their current bills through existing available programs. As noted by SDG&E, Workshop Team #5's recommendations were not binding and according to some team members, not necessarily consensus. Today's order does not adopt the payment plan terms

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[60] SDG&E Response of April 12, 2021 to Post-Workshop Questions at 9.

[61] SoCalGas Comments on OIR at 15.

[62] Energy Division presentation at the November 12, 2020 Workshop on COVID-19 Impacts in the Energy Sector, Slide 31.

recommended by Workshop Team #5 and instead orders energy utilities to set the amortization terms relative to the Small Business customer's average bill, with the average based on bills over the past 24 months.

While SBUA recommended a similar outcome of capping debt payments relative to each customer's bill, their recommendation contained more steps and resulted in more variation. The calculated approach for "Small Business COVID-19 Relief Payment Plans" is appropriate as an interim step because it 1) scales relative to the consumption and rate of the Small Business, 2) gives Small Business customers an ability to gradually pay their debt, and 3) embodies the same principles of simplicity and customer agency that we found essential in ordering the "COVID-19 Residential Payment Plans." Most parties warn that the 10/5 percent structure of calculating debt payments will saddle those Small Business customers deepest in debt with interminable plan lengths. If today's decision were to be the last word on Small Business relief, parties would be correct. But it is not. We acknowledge the SBUA position that an immediate shift to full payment is not realistic; it is better for now to keep Small Business debt payments as minimal as possible so that Small Business customers can begin to turn the corner while stabilizing their business operations.[63]

Unlike the external funding for residential arrearage relief on the horizon, we are unaware of new programs to reduce utility arrearages of Small Business customers.[64] We are convinced by the SBUA position that energy utilities must treat debt accumulated during the COVID-19 pandemic differently. Today's requirement to tailor payment plan amounts so that Small Business customers

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[63] See SBUA Opening Brief at 5-6 describing how pre-pandemic, customers with debt would slowly chip away at it while prioritizing current bill payments.

[64] SDG&E Opening Brief at 10 references the federal Paycheck Protection Program.

pay just fractionally more than their typical bill nearly accomplishes the SBUA objective of keeping customers connected to service. We are further convinced by party responses to the Post-Workshop questions that disconnecting Small Business customers has severe repercussions on business operations, giving these customers maximum incentive to resolve their debt.

We believe automatic enrollment for Small Business customers into these payment plans will simultaneously increase the likelihood of Small Business customers reaching out their utility to make the necessary connections to begin the counseling supported by all parties. At the same time, utilities must be prepared with meaningful and actionable information for Small Business customers. We expect utilities to develop a dedicated team prepared to streamline interactions with Small Business customers and jointly evaluate for each Small Business customer in debt which rates, programs and incentives apply. Should this not occur, we further increase the likelihood of the customer reaching out to the utility, or the utility reaching out to the Small Business customer, through an adjunct outreach mandate, discussed in Section 5.3 below.

5. Payment Plan Support Via More Robust Community Based Organization Outreach

Payment plans are not a one-time occurrence. Rather, payment plans are ongoing, as described in the Workshop Proposals and by workshop participants. Enrollment is the first step, which we have automated. We cannot automate the next important steps-- making payments until the debt is resolved--but we can give customers tools to increase their chances of success. By pairing the "COVID-19 Relief Payment Plans" with support from CBOs, customers should know how and when to make contact with their utility should they need additional help.

Hard-to-reach communities may not fully utilize utility resources without intervention. SBUA identifies a gap in resources to help Small Business utility customers with their bills and describes the detriment to ESJ communities when Small Businesses go out of business. The Commission has engaged, or directed utilities to engage, CBOs to bring specialized or niche communities to the utility programs. CBOs play different roles depending on their mandates and contracts, but the end goal is the same: helping customers manage and pay for utility service. For one example, the utilities utilize CBOs to market and deliver their CARE/FERA and ESA programs.[65] For a second example, a different set of CBOs, contracted through the Commission rather than the utilities,[66] includes complaint resolution as well as education and outreach to non-English and limited English populations. Tribal and Small Business networks have been established through the Commission's Business and Community Outreach program, as well as through energy utility networks.[67]

We must take this same approach with COVID-19 relief, as California's COVID impacts are documented to be exacerbating existing equity gaps. The problem is tracking the reach and impact of CBOs. The utilities' Transition Plans were not specific in describing how CBOs would connect customers to the new COVID-19 relief we are ordering. While automatic enrollment may overcome

[65] CARE/FERA and ESA Annual Reports posted to this proceeding's webpage list CBOs on Table 5 (ESA) and Tables 7 and 11 (CARE/FERA).

[66] Commission Decision 15-12-047 approved the Community Help and Awareness of Natural Gas and Electricity Services (CHANGES) program which provides outreach, education, and bill issue assistance on natural gas and electricity bills and services to limited English proficient (LEP) consumers through a statewide network of CBOs.

[67] In its Response of April 12, 2021 to Post-Workshop Questions at 11, SDG&E identifies CBOs as part of its Energy Solutions Partner Networks, as well as Chambers of Commerce and business trade associations.

the barrier of enrollment, ongoing customer contact is a necessary ingredient to making payment plans manageable and successful.

5.1. Party Positions

Workshop Team # 4[68] *Leveraging/Matching Existing Activities*, compared three options for pursuing relief through leveraging. The highest scoring proposal was: Utilities Partner With CBOs To Help Reach Hardest-To-Reach Customers. Panelist commenters on the Workshop Team #4 presentation echoed this assessment. From NCLC, Charlie Harak explained how Massachusetts stakeholder groups focus on removing barriers for collaboration among agencies and programs. He encouraged the utilities to think about how to work with and incentivize CBOs. From the Sacramento Municipal Utility District, Kim Rikalo agreed that working with CBOs is critical to program success.

Cal Advocates recommends energy utilities continue coordinating with CBOs that target disadvantaged communities to ensure that residential and Small Business customers in those areas receive information detailing the assistance programs that will result from this proceeding.[69] PG&E intends to expand work with CBO networks to target harder-to-reach customers.[70] NCLC and CforAT recommend CBOs provide wrap-around resources for vulnerable customers and neighborhoods by contracting with CBOs, especially for IOUs who point out case management is not their strong suit.[71] NCLC and CforAT review the IOU strategies regarding CBOs to assist customers at the end of the

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[68] Work Team #4 included representatives of Cal Advocates, CWA, Greenlining, SCE, SDG&E and SoCalGas.

[69] Cal Advocates Opening Brief at 10.

[70] PG&E Reply Brief at 18.

[71] NCLC/CforAT Reply Brief at 8, 13-14.

disconnection moratorium, notably citing the SCE Transition Plan at 11 indicating payments to 30-50 CBOs while relying upon 1,600 CBOs.[72]

SBUA supports it argument that there is unmet potential for Small Business customers to realize bill saving by accessing different rates, programs and incentives. In 2020, SCE analyzed 400,000 non-residential accounts showing potential for five percent annual bill savings, and documented commercial customers with smaller loads on a rate known as TOU-GS1 saving 10 percent of their annual bill in 2020.[73] PG&E responded to SBUA's request stating "SMBs [Small-Medium Businesses] are generally not aware of PG&E support programs and resources."[74]

5.2. Residential Outreach Improvements

Utility partnerships with CBOs are an important tool in providing community-based assistance to customers in need of arrearage relief.

Similar to NCLC and CforAT's assessment, the Low-Income Oversight Board (LIOB) also pronounced the energy utilities' Transition Plans lacking with regard to CBO utilization.[75] As California moves toward recovery from the impacts of the COVID-19 pandemic, we must understand working relationships between energy utilities and CBOs and ensure these networks are more robust than ever before.

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[72] NCLC/CforAT Opening Brief at 5.

[73] SBUA Opening Brief at 15-16.

[74] SBUA Opening Brief at 15.

[75] Letter to CPUC on March 19, 2021 regarding LIOB Recommendations Pursuant to Resolution M-4849 and Related Matters. See: https://liob.cpuc.ca.gov/wp-content/uploads/sites/14/2021/04/2021-03-19-LIOB-Rec.-Letter-to-Commission-on-Utility-Transition-Plans-FINAL-1.pdf

We take immediate action so that the Commission will be able to systematically assess the constellation of CBO relationships. Working together with IOUs, Energy Division staff will create a map of CBOs in each energy utility service area. The map will display the geographic reach of each CBO, and identify the functions that each CBO currently performs, and the communities to whom they offer service. This map will provide a structure to identify gaps to fill or barriers to overcome.

Energy utilities should jointly develop a template of the map displaying their current CBO networks. Either on the map or in a companion report there should be listings of the functions each CBO performs, the communities with which they engage, and the compensation structure, if any. At a minimum, communities should be labeled as DACs, ESJs, hard-to-reach, Small Business, tribes, or access and functional needs.[76] More specific labels for types of communities are preferred. Energy utilities shall submit their template to the Energy Division via a Tier 2 Advice Letter filing within 60 days of the issuance of this decision.

After the IOUs make their filing, the Commission's Energy Division will work cooperatively with the energy utilities to finalize the template, populate the map and companion report, and present it to the LIOB at a future LIOB meeting for additional refinement.

[76] Only the CBOs must be geographically identified, not necessarily types of communities. Types of communities may instead be listed alongside the CBO(s) that specialize in outreach to the particular community.

5.3. Small Business Outreach Improvements

Utility consultation with Small Business customers can help Small Business customers navigate existing programs available to lower and better manage their bills.

We order utilities to work with interested stakeholders to propose a pilot with Small Business customers in disadvantaged communities. While this pilot is necessitated by the deep debt accumulated during the pandemic, this pilot should serve customers and utility programs during times of economic stabilization as well. Energy utilities shall jointly develop outreach and evaluation protocols, timelines, a budget, and evaluation plan for a pilot to verbally counsel Small Business customers over a series of months and identify impacts on bills over several years. IOUs shall submit their pilot proposal to the Energy Division via a Tier 2 Advice Letter filing within 120 days of the issuance of this decision.

6. Comments on Proposed Decision

The proposed decision of ALJ Watts-Zagha in this matter was mailed to the parties in accordance with Pub. Util. Code section 311 and comments were allowed under Rule 14.3 of the Commission's Rules of Practice and Procedure. Comments were filed on June 14, 2021 by PG&E, SCE, SDG&E, SoCalGas, Southwest Gas, CASMU, CalCCA, Cal Advocates, TURN, NCLC/CforAT, UCAN, LCJA/CEJA/Greenlining, and SBUA, and reply comments were filed on June 21, 2021 by PG&E, SCE, SDG&E, SoCalGas, Southwest Gas, CASMU, CalCCA, TURN, NCLC/CforAT, UCAN, LCJA/CEJA/Greenlining, and SBUA . Party comments are incorporated and addressed throughout the decision. Clarifications to the terms and mechanics of the "COVID-19 Relief Payment Plan rules" are included in the decision and the Appendices.

7. Assignment of Proceeding

Martha Guzman Aceves is the assigned Commissioner and Camille Watts-Zagha is the assigned ALJ in this proceeding.

Findings of Fact

1. The number of customers behind on their energy utility bills has increased throughout the COVID-19 pandemic period.

2. The dollar amount of utility bill arrearages has increased throughout the COVID-19 pandemic period.

3. Retaining access to electricity and gas service remains critical to public health.

4. Without intervention, residential IOU customers with energy utility bill arrearages persisting longer than 60 days will be at risk of disconnection when the disconnection moratorium ends on June 30, 2021.

5. Without intervention, residential SMJU customers with energy utility bill arrearages persisting longer than 60 days will be at risk of disconnection when the disconnection moratorium ends on June 30, 2021.

6. Significant state and federally funding sources for utility bill relief have become available recently or are in the implementation stage and expected to become available within approximately six months.

7. Maximizing external funding sources for utility bill relief is the best approach to assisting customers in need.

8. For residential customers of IOUs, automatic enrollment in 24-month payment plans is a reasonable approach to bridge the gap between the end of the disconnection moratorium and the availability of significant arrearage relief on the horizon.

9. For residential customers of Small Electric Utilities, automatic enrollment in payment plans with amortization terms of either 12 or 24 months is a reasonable approach to bridge the gap between the end of the disconnection moratorium and the availability of significant arrearage relief on the horizon.

10. For Small Business customers of IOUs and SMJUs in disadvantaged communities, automatic enrollment in payment plans that add no more than five percent to the customer's average bill is an effective strategy to allow Small Businesses to gradually pay down accumulated utility bill debt.

11. For Small Business customers of IOUs and SMJUs in communities elsewhere in California, automatic enrollment in payment plans that add no more than 10 percent to the customer's average bill is an effective strategy to allow Small Businesses to gradually pay down accumulated utility bill debt.

12. Automatic enrollment with an opt-out provision is the simplest and most direct strategy to reach all customers in need of assistance addressing utility bill arrearages.

13. Nothing prevents customers enrolled in payment plans from accelerating payments or paying off entirely their utility arrearage to better fit their own circumstances.

14. Customers automatically enrolled in payment plans retain agency to pay off their arrearages more quickly than required by the standard terms.

15. Nothing prevents customers enrolled in payment plans from accessing additional or alternative programs to address their utility arrearages.

16. The number of contacts with customers to enroll all customers in need in payment plans would be overwhelming if enrollment occurred on a case-by-case basis.

17. Payment plan terms specific to the COVID-19 pandemic and at this point in the disconnection moratorium should be simple and standardized.

18. Customers should be permitted to opt-out of the automatic payment plan, either explicitly upon request, or informally, by accelerating payments toward their arrearage, making payments in excess of the required amount, or upon receipt of arrearage forgiveness from existing or new programs offering forgiveness.

19. As long as program rules do not conflict with "COVID-19 Relief Payment Plan" terms, residential and Small Business customers shall be encouraged to enroll concurrently in a "COVID-19 Relief Payment Plan" and other customer assistance and arrearage relief programs.

20. Customers who conclude participation in or are removed from payment plans, AMP, levelized billing programs or Net Energy Metering tariffs and have arrearages over 60 days old should have access to one COVID-19 Relief Payment Plan.

21. Automatic enrollment of all customers with arrearages over 60 days old is consistent with Goal 5 of the Commission's Environmental and Social Justice Action Plan.

22. Southwest Gas automatically enrolled all residential customers with arrears over 60 days and with arrearage amounts over $20 in 8-month payment plans.

23. Southwest Gas should permit customers automatically enrolled in 8-month payment plans to miss two payments before being removed from the plan.

24. Disconnection of energy service may threaten the viability of a Small Business.

25. Nonoperational Small Businesses are less likely than operational Small Businesses to pay energy utility bill debt.

26. Disconnecting Small Business customers who regularly and consistently make partial payments on energy utility bills may be counter-productive to revenue collection.

27. Small Business customers in arrears will be relieved by amortizing their debt so that their payments toward debt do not add more than 10 percent of their average bill based on the prior 24 months to their current bill payment.

28. Small Business customers in arrears located in disadvantaged communities will be relieved by amortizing their debt so that their payments toward debt do not add more than five percent of their average bill based on the prior 24 months to their current bill payment.

29. Utilities shall offer renegotiation of payment plan terms if a customer contacts the utility in advance of missing a payment.

30. CBOs can assist customers with meeting the terms of payments plans or renegotiating plans as necessary.

31. CBOs can be an important resource to reaching and assisting Disadvantaged Communities, Environmental and Social Justice Communities, and other hard-to-reach populations and helping them navigate the array of arrearage relief programs in California.

32. The energy utilities' relationships with CBOs are difficult to understand and assess as presented in energy utility Transition Plans filed pursuant to Resolution M-4849.

33. Expanding and growing CBO networks can facilitate arrearage relief for utility customers in Disadvantaged Communities, Environmental and Social

Justice Communities, other hard-to-reach populations, and in the Small Business community.

34. Resolution M-4849 extended Resolution M-4842's suspension of the application of partial payment balances to the energy utility in advance of the CCA, and instead allowed a pro-rata allocation of the partial payments between the energy utility and the CCA until July 1, 2021.

Conclusions of Law

1. It is reasonable for energy utilities to defer disconnections until all eligible customers as defined in Appendices A - D are automatically enrolled in "COVID-19 relief payment plans."

2. It is reasonable to require PG&E, SDG&E, SCE, and SoCalGas to automatically enroll all residential customers with arrearages more than 60 days past due in "COVID-19 relief payment plans" according to the terms in Appendix A by September 30, 2021.

3. It is reasonable to require PacifiCorp, Liberty Utilities (CalPeco Electric) LLC, Bear Valley Electric Company, Inc., Alpine Natural Gas, Inc., and West Coast Gas Company, Inc. to automatically enroll all residential customers in arrears in "COVID-19 relief payment plans" according to the terms in either Appendix A or Appendix D by September 30, 2021.

4. It is reasonable to direct Southwest Gas to permit residential customers automatically enrolled in 8-month payment plans to miss two payments before being removed from the plan.

5. It is reasonable to require PG&E, SDG&E, SCE, SoCalGas, PacifiCorp, Liberty Utilities (CalPeco Electric) LLC, Bear Valley Electric Company, Inc. , Southwest Gas Corporation, Alpine Natural Gas, Inc., and West Coast Gas Company, Inc. to automatically enroll eligible Small Business customers with

arrearages more than 60 days past due in payment plans with payoff terms long enough so that the debt payments are no more than 10 percent over the customer's average bill based on the past 24 months, or for Small Business customers located in disadvantaged communities, no more than 5 percent over the customer's average bill based on the past 24 months, only once between July 2021 and September 2022, according to the terms in Appendix C.

6. Resolutions M-4842 and M-4849 direct energy utilities to record expenses associated with the COVID-19 pandemic in COVID-19 Pandemic Protection Memorandum Accounts.

7. Costs associated with activities to implement today's orders, including securing access to state and federally funded COVID-19 arrearage relief programs on behalf of their customers, are included among the types of costs that energy utilities may track in COVID-19 Pandemic Protection Memorandum Accounts authorized by Commission Resolution M-4842.

8. It is reasonable to require PG&E, SDG&E, SCE, and SoCalGas to jointly file via Tier 2 Advice Letter a reporting template that displays their current CBO networks, their structures for compensating CBOs, and reveals each CBO's links and benefit delivered to Disadvantaged Communities, Environmental and Social Justice Communities, Small Business customers, tribes, access and functional needs communities, and other hard-to-reach populations within 60 days of this decision.

9. It is reasonable to require PG&E, SDG&E, SCE, and SoCalGas to jointly file via Tier 2 Advice Letter a pilot plan proposal for outreach and verbal counseling to Small Business customers in DACs on appropriate programs, incentives and rates available to lower their bills, within 120 days of this decision.

10. The pro-rata allocation of payments between energy utilities and CCAs approved in Resolution M-4849 through the end of the disconnection moratorium should continue to apply while disconnections are suspended through September 30, 2021.

11. This decision should be effective immediately.

12. Application 21-02-014 should remain open.

O R D E R

IT IS ORDERED that:

1. Pacific Gas and Electric Company, San Diego Gas & Electric Company, Southern California Edison Company, Southern California Gas Company PacifiCorp, Liberty Utilities (CalPeco Electric) LLC, Bear Valley Electric Company, Inc., Alpine Natural Gas, Inc., and West Coast Gas Company shall not resume disconnections for nonpayment until September 30, 2021.

2. By September 30, 2021, Pacific Gas and Electric Company, San Diego Gas & Electric Company, Southern California Edison Company, Southern California Gas Company PacifiCorp, Liberty Utilities (CalPeco Electric) LLC, Bear Valley Electric Company, Inc., Alpine Natural Gas, Inc., and West Coast Gas Company shall automatically enroll any eligible residential and small business customers in "COVID-19 relief payment plans" according to the terms in Appendices A – D.

3. Between July 2021 and September 2022, Pacific Gas and Electric Company, San Diego Gas & Electric Company, Southern California Edison Company, and Southern California Gas Company shall automatically enroll any eligible residential customer at least and only once in "COVID-19 relief payment plans" according to the terms in Appendix A.

4. Between July 2021 and September 2022, PacifiCorp, Liberty Utilities (CalPeco Electric) LLC, Bear Valley Electric Company, Inc., Alpine Natural Gas,

Inc., and West Coast Gas Company, Inc. shall automatically enroll any eligible residential customer at least once and only once in "COVID-19 relief payment plans" according to the terms in either Appendix D.

5. Southwest Gas Corporation's automatic 8-month payment plan is adopted with the clarification that enrolled customers are permitted to miss two payments before being removed from the plan.

6. Between July 2021 and September 2022, Pacific Gas and Electric Company, San Diego Gas & Electric Company, Southern California Edison Company, Southern California Gas Company, PacifiCorp, Liberty Utilities (CalPeco Electric) LLC, Bear Valley Electric Company, Inc., Southwest Gas Corporation, Alpine Natural Gas, Inc., and West Coast Gas Company, Inc. shall automatically enroll Small Business customers with arrearages more than 60 days past due in payment plans with payoff terms long enough so that the debt payments are no more than 10 percent over the customer's average bill based on the past 24 months, or for Small Business customers located in disadvantaged communities, no more than 5 percent over the customer's average bill based on the past 24 months, as specified in Appendix C.

7. To the extent that the energy utilities require additional budgets to implement today's orders, they may track costs in their existing COVID-19 Pandemic Protection Memorandum Accounts authorized by Commission Resolution M-4842, which will be subject to Commission review applicable to such memorandum accounts in accordance with Commission Resolution E-3238 and Section 454.9 of the California Public Utilities Code.

8. Within 60 days of the issuance of this decision, Pacific Gas and Electric Company, San Diego Gas & Electric Company, Southern California Edison Company, and Southern California Gas Company shall jointly file via Tier 2

Advice Letter a reporting template that displays their current Community Based Organizations (CBO) networks, their structures for compensating CBOs, and that reveals each CBO's links and benefit delivered to disadvantaged communities, Environmental and Social Justice Communities, Small Business customers, tribes, access and functional needs communities, and other hard-to-reach populations.

9. Within 120 days of the issuance of this decision, Pacific Gas and Electric Company, San Diego Gas & Electric Company, Southern California Edison Company, and Southern California Gas Company shall jointly file via Tier 2 Advice Letter a pilot plan proposal for outreach and verbal counseling to Small Business customers in disadvantaged communities on appropriate programs, incentives and rates available to lower their bills,

10. Pacific Gas and Electric Company, Southern California Edison Company, and San Diego Gas & Electric Company shall continue the pro-rata allocation of payments between energy utilities and CCAs approved in Resolution M-4849 through time disconnections are suspended until September 30, 2021.

11. Rulemaking 21-02-014 remains open.

This order is effective today.

Dated June 24, 2021, at San Francisco, California.

MARYBEL BATJER
President
MARTHA GUZMAN ACEVES
CLIFFORD RECHTSCHAFFEN
GENEVIEVE SHIROMA
DARCIE HOUCK
Commissioners

APPENDIX A

TERMS OF "COVID-19 Residential Relief Payment Plans"

1. Default enrollment to the "COVID-19 Residential Relief Payment Plan" will occur only once per eligible customer between July 2021 and September 2022 and at the earliest date the customer becomes eligible, as defined below.

2. Customers are eligible for COVID-19 Residential Relief Payment Plans if they meet the following criteria:

a) The customer is a residential customer of a large IOU or small electric utility.

b) The customer has unpaid bills at least 60 days past due.

c) The customer has never been enrolled in a COVID-19 Residential Relief Payment Plan before.

d) The customer is not enrolled in an Arrearage Management Plan.

e) The customer is not enrolled in a payment plan.

f) The customer is not enrolled in or participating in a program known as levelized billing or budget billing or automatic billing.

g) The customer is not on a Net Energy Metering tariff.

3. When a customer becomes eligible for a COVID-19 Residential Relief Payment Plan between August 2021 and July 2022, the IOU or small electric utility shall automatically enroll the customer in a payment plan amortizing the customer's arrearage over 24 months of payments.

4. The COVID-19 Residential Relief Payment Plan shall amortize 100% of the amount in arrears at the time of default enrollment.

5. A customer who misses more than two payments required by a COVID-19 Residential Relief Payment Plan may be removed from the plan. The utility shall provide written notice to the customer of removal and of the outstanding

amount past due. The utility's existing practice of defining a payment as missing may be applied to the COVID-19 Residential Relief Payment Plan.

6. Partial payments shall be credited first to the arrearage and secondly to the current bill.

7. When a customer misses a required payment under a COVID-19 Residential Relief Payment Plan, all payments are delayed an additional month, and the customer is not required to make up the missed payment in the subsequent month, unless the subsequent month is the final month of the plan.

8. A customer enrolled in a COVID-19 Residential Relief Payment Plan is not eligible for disconnection.

(END OF APPENDIX A)

APPENDIX B:

TERMS OF "Southwest Gas COVID-19 Residential Relief Payment Plans"

1. Default enrollment to the Southwest Gas COVID-19 Residential Relief Payment Plan will occur only between February 2021 and September 2022 and only once per customer. Eligible customers shall be enrolled in a COVID-19 Residential Payment Plan upon becoming eligible according to the terms itemized in 2 below.

2. Customers are eligible for Southwest Gas COVID-19 Residential Relief Payment Plans if they meet the following criteria:

   a) The customer is a residential customer of Southwest Gas.

   b) The customer has unpaid bills at least 60 days past due.

   c) The customer's cumulative arrearage is at least $20.

   d) The customer has never been enrolled in a "COVID-19 Residential Relief Payment Plan" before.

   e) The customer is not enrolled in a payment plan.

   f) The customer is not enrolled in or participating in a program known as levelized billing or budget billing or automatic billing.

   g) The customer is not on a Net Energy Metering tariff.

3. When a customer becomes eligible for a Southwest Gas COVID-19 Residential Relief Payment Plan between February 2021 and July 2022, Southwest Gas shall automatically enroll the customer in a payment plan amortizing the customer's arrearage over at least 8 months of payments.

4. The COVID-19 Residential Relief Payment Plan shall amortize 100% of the amount in arrears at the time of default enrollment.

5. A customer who misses more than two payments required by a Southwest Gas COVID-19 Residential Relief Payment Plan may be removed from the plan. The

utility shall provide written notice to the customer of removal and of the outstanding amount past due. The utility's existing practice of defining a payment as missing may be applied to the COVID-19 Residential Relief Payment Plan.

6. When a customer misses a required payment under a Southwest Gas COVID-19 Residential Relief Payment Plan, all payments are delayed an additional month, and the customer is not required to make up the missed payment in the subsequent month, unless the subsequent month is the final month of the plan.

7. A customer enrolled in a COVID-19 Residential Relief Payment Plan is not eligible for disconnection.

(END OF APPENDIX B)

APPENDIX C:

TERMS OF "COVID-19 Small Business Relief Payment Plans"

1. Customers are eligible for COVID-19 Small Business Relief Payment Plans if they meet the following criteria:

a) The customer is a Small Business customer of a large IOU or SMJU.

b) The customer has unpaid bills at least 60 days past due.

c) The customer has never been enrolled in a COVID-19 Residential Relief Payment Plan before.

d) The customer is not enrolled in an Arrearage Management Plan.

e) The customer is not enrolled in a payment plan.

f) The customer is not enrolled in or participating in a program known as levelized billing or budget billing or automatic billing.

g) The customer is not on a Net Energy Metering tariff.2. When a customer is eligible for a COVID-19 Small Business Relief Payment Plan, the utility shall automatically enroll the eligible customer in a "COVID-19 Small Business Relief Payment Plan" .

3. Utilities shall customize the length of the "COVID-19 Small Business Relief Payment Plan" term so that the customer's monthly payment on a portion of the outstanding debt is no more than 10 percent, or 5 percent for customers located within a disadvantaged community, of the customer's average monthly bill for the previous 24 months.

4. A customer who misses more than one payment a year required by a "COVID-19 Small Business Relief Payment Plan" may be removed from the plan. The utility shall provide written notice to the customer of any missed payments, and the utility shall notify the customer upon removal from the payment plan and of the outstanding amount past due. The utility's existing practice of defining a

payment as missing may be applied to the COVID-19 Residential Relief Payment Plan.

5. Partial payments shall be credited first to the arrearage and secondly to the current bill.

6. A customer enrolled in a "COVID-19 Small Business Relief Payment Plan" is not eligible for disconnection.

(END OF APPENDIX C)

APPENDIX D:

TERMS OF "Small Electric Utility COVID-19 Residential Relief Payment Plans"

1. Default enrollment to the "Small Electric Utility COVID-19 Residential Relief Payment Plan" will occur only between July 2021 and September 2022 and only once per customer. Eligible customers shall be enrolled in a COVID-19 Residential Payment Plan upon becoming eligible according to the terms itemized in 2 below.

2. Customers are eligible for Southwest Gas COVID-19 Residential Relief Payment Plans if they meet the following criteria:

   a) The customer is a residential customer of an SMJU that has chosen to implement the Southwest Gas COVID-19 Residential Relief Payment Plans.

   b) The customer has unpaid bills at least 60 days past due.

   c) The customer has never been enrolled in a "COVID-19 Residential Relief Payment Plan" before.

   d) The customer is not enrolled in a payment plan.

   e) The customer is not enrolled in or participating in a program known as levelized billing or budget billing or automatic billing.

   f) The customer is not on a Net Energy Metering tariff.

3. When a customer becomes eligible for a Small Electric Utility COVID-19 Residential Relief Payment Plan between August 2021 and July 2022, the Small Electric shall automatically enroll the customer in a payment plan amortizing the customer's arrearage over 12 months of payments.

4. The COVID-19 Residential Relief Payment Plan shall amortize 100% of the amount in arrears at the time of default enrollment.

5. A customer who misses more than two payments required by a Small Electric Utility COVID-19 Residential Relief Payment Plan may be removed from the plan. The utility shall provide written notice to the customer of removal and of the outstanding amount past due. The utility's existing practice of defining a payment as missing may be applied to the COVID-19 Residential Relief Payment Plan.
6. Partial payments shall be credited first to the arrearage and secondly to the current bill.
7. When a customer misses a required payment under a Small Electric Utility COVID-19 Residential Relief Payment Plan, all payments are delayed an additional month, and the customer is not required to make up the missed payment in the subsequent month, unless the subsequent month is the final month of the plan.
8. A customer enrolled in a COVID-19 Residential Relief Payment Plan is not eligible for disconnection.

(END OF APPENDIX D)

The impact of COVID-19 on small business outcomes and expectations

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To explore the impact of coronavirus disease 2019 (COVID-19) on small businesses, we conducted a survey of more than 5,800 small businesses between March 28 and April 4, 2020. Several themes emerged. First, mass layoffs and closures had already occurred—just a few weeks into the crisis. Second, the risk of closure was negatively associated with the expected length of the crisis. Moreover, businesses had widely varying beliefs about the likely duration of COVID-related disruptions. Third, many small businesses are financially fragile: The median business with more than $10,000 in monthly expenses had only about 2 wk of cash on hand at the time of the survey. Fourth, the majority of businesses planned to seek funding through the Coronavirus Aid, Relief, and Economic Security (CARES) Act. However, many anticipated problems with accessing the program, such as bureaucratic hassles and difficulties establishing eligibility. Using experimental variation, we also assess take-up rates and business resilience effects for loans relative to grants-based programs.

COVID-19 | small businesses | CARES Act

In addition to its impact on public health, coronavirus disease 2019 (COVID-19) has caused a major economic shock. In this paper, we explore the impact of COVID-19 on the small business landscape in the United States, focusing on three questions. First, how did small businesses adjust to the economic disruptions resulting from COVID-19? Second, how long did businesses expect the crisis to last, and how do expectations affect their decisions? Third, how might alternative policy proposals impact business and employment resilience?

To explore, we surveyed more than 5,800 small businesses that are members of Alignable, a network of 4.6 million small businesses. The survey was conducted between March 28 and April 4, 2020. The timing of the survey allows us to understand expectations of business owners at a critical point in time when both the progression of COVID-19 and the government's response were quite uncertain.

The results suggest that the pandemic had already caused massive dislocation among small businesses just several weeks after its onset and prior to the availability of government aid through the Coronavirus Aid, Relief, and Economic Security (CARES) Act. Across the full sample, 43% of businesses had temporarily closed, and nearly all of these closures were due to COVID-19. Respondents that had temporarily closed largely pointed to reductions in demand and employee health concerns as the reasons for closure, with disruptions in the supply chain being less of a factor. On average, the businesses reported having reduced their active employment by 39% since January. The decline was particularly sharp in the Mid-Atlantic region (which includes New York City), where 54% of firms were closed and employment was down by 47%. Impacts also varied across industries, with retail, arts and entertainment, personal services, food services, and hospitality businesses all reporting employment declines exceeding 50%; in contrast, finance, professional services, and real estate-related businesses experienced less disruption, as these industries were better able to move to remote production.

Our results also highlight the financial fragility of many businesses. The median firm with monthly expenses over $10,000 had only enough cash on hand to last roughly 2 wk. Three-quarters of respondents only had enough cash on hand to last 2 mo or less.* Not surprisingly, firms with more cash on hand were more optimistic that they would remain open by the end of the year.

Our survey also elicited businesses' beliefs about the evolution of the crisis, allowing us to study the role of beliefs and expectations in decisions. The median business owner expected the dislocation to last well into midsummer, as 50% of respondents believed that the crisis would last at least until the middle of June. However, beliefs about the likely duration of the crisis varied widely. This raises the possibility that some firms were making mistakes in their forecasts of how long the crisis will last.†

The crisis duration plays a central role in the total potential impact. For a crisis lasting 4 mo instead of 1 mo, only 47% of businesses expected to be open in December compared to 72% under the shorter duration. There is also considerable heterogeneity in how sensitive businesses are to the crisis. In-person industries like personal services or retail reported worse prospects for riding out the pandemic than professional services or other sectors with minimal need for face-to-face contact.

Lastly, our analysis explores variants of stimulus packages that were being discussed at the time of the survey. The results show that over 70% of respondents anticipated taking advantage of aid when asked about a program that resembles the Paycheck Protection Program (PPP) that is part of the CARES Act. Moreover, they expected this funding to influence other business decisions—including layoff decisions and staying in business

Significance

Drawing on a survey of more than 5,800 small businesses, this paper provides insight into the economic impact of coronavirus 2019 (COVID-19) on small businesses. The results shed light on both the financial fragility of many small businesses, and the significant impact COVID-19 had on these businesses in the weeks after the COVID-19–related disruptions began. The results also provide evidence on businesses' expectations about the longer-term impact of COVID-19, as well as their perceptions of relief programs offered by the government.

Author contributions: A.W.B., M.B., Z.C., E.L.G., M.L., and C.S. designed research, performed research, analyzed data, and wrote the paper.

The authors declare no competing interest.

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First published July 10, 2020.

*See refs. 1 and 2 for discussions of cash holdings of small businesses.

†See refs. 3–5 for related literature on the behavioral economics of firm decisions.

EXHIBIT C

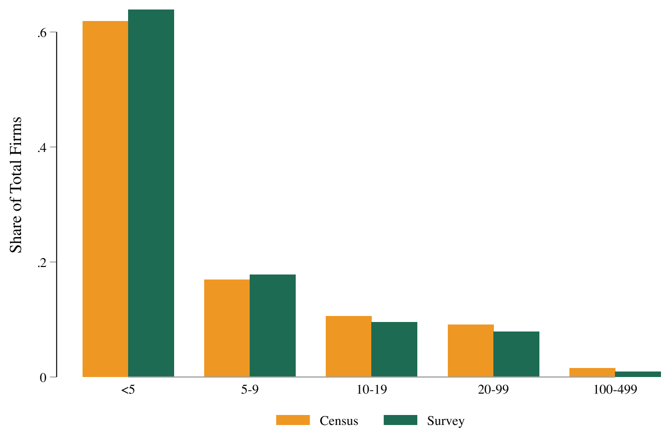

Fig. 1. Firm size in the survey and Census. This figure plots the share of firms in each employment category for the 2017 Census of US Businesses and the survey respondents. The sample size for the survey is 4,873 responses, omitting 959 responses with missing employment data.

altogether. At the same time, many businesses were reluctant to apply for funding through the CARES Act because of concerns about administrative complexity and eligibility. A large number of respondents also anticipated problems with accessing the aid, citing potential issues such as bureaucratic hassles and difficulties establishing eligibility.

Our survey was constructed to allow for a counterfactual evaluation of a straight loan policy, which is a stylized representation of traditional Small Business Administration disaster relief programs. While the more generous PPP program does improve take-up and business outcomes, traditional loans with speedy delivery and sufficient liquidity are also found to meaningfully shift business owners' expectations about survival. When compared to a straight loan without forgiveness provisions, the CARES Act had modestly greater take-up, but at much higher cost to the government. Because the majority of business owners would have taken up aid in the form of less generous loans, our results suggest that liquidity provision was paramount for these owners.

Overall, our paper contributes to our understanding of the economic impact of COVID-19 on the small business ecosystem. The fate of the 48% of American workers who work in small businesses is closely tied to the resilience of the small business ecosystem to the massive economic disruption caused by the pandemic. Our survey was conducted during a period of substantial policy uncertainty and before any federal response had been enacted. Our results provide a unique snapshot into business decisions and expectations at that time, while offering insight for policy designed to aid the recovery. Our results highlight the role the length of the crisis will play in determining its ultimate impact, which policy makers should consider as they contemplate the scale of the required interventions. We estimate that closures alone might lead to 32.7 million job losses if the crisis lasts for 4 mo and 35.1 million job losses if the crisis lasts for 6 mo. While some of these workers will surely find new jobs, these projections suggest that the scale of job dislocation could be larger than anything America has experienced since the Great Depression and larger than the impact of the 1918 influenza epidemic (6–8). Another important take-away of our work is that, during liquidity crunches with significant cash flow disruptions, the form of cash injection (e.g., grant vs. loan) may be less important than making sure that funding is rapidly available with little administrative complexity.[‡]

[‡]This echoes a growing literature that suggests that reducing, simplifying, or providing assistance in the process of signing up for programs can increase take-up. For examples, see refs. 9 and 10.

The rest of the paper proceeds as follows. *Survey Design and Details* discusses the survey design. *Firm Characteristics and Representativeness* discusses the characteristics of the firms that responded to the survey and their representativeness. In *Responses to the COVID-19 Pandemic and Lockdown*, we explore the current and expected impacts of COVID-19 on these businesses. In *Anticipated Response to CARES Act Programs*, we present results from a module of the survey that experimentally varies policy proposals, allowing us to explore responses to policies such as the recently passed CARES Act as well as alternative policies. *Industry Differences in Response to Crisis Duration* considers survival rate differences across industries, and how survival depends on the duration of the crisis. We conclude in *Conclusion*.

Survey Design and Details

Our survey was sent out in partnership with Alignable, a network-based platform focused on the small business ecosystem. Alignable enables businesses to share knowledge and interact with one another, and currently has a network of 4.6 million small businesses across North America. Much of the network growth has been organic, with little outside marketing.

Alignable also regularly sends out polls (which they call "pulse surveys") to users. At the end of a regular pulse poll, participants who took that poll received an email inviting them to participate in a more comprehensive survey being conducted by researchers at Harvard Business School. Participants were shown a disclosure statement and consent protocol. No payments were offered; participation was completely voluntary. The survey was approved by the Harvard University Institutional Review Board.

We received 7,511 responses between March 27 and April 4; 5,843 of these can be traced back to US-based businesses, which is the relevant sample for understanding policy. While the 7,511 responses represent a small fraction (0.017%) of Alignable's total membership, they represent a much larger share of Alignable's membership that has engaged with their weekly pulse surveys on COVID-19. Alignable estimates that 50,000 to 70,000 members are taking these pulse surveys weekly, which suggests a 10 to 15% conversion rate of these more active respondents.

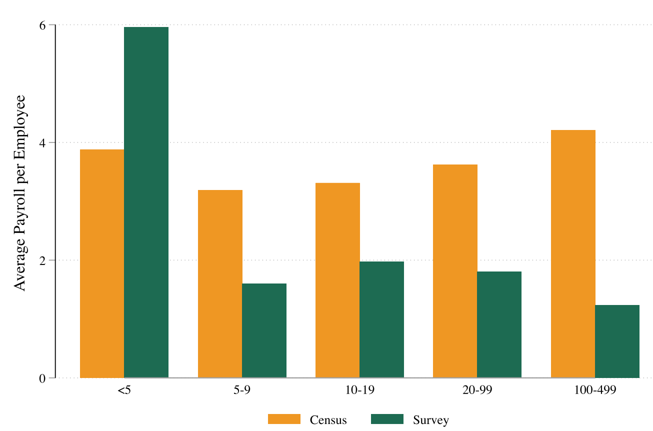

Fig. 2. Average per capita payroll ($1,000s) in the survey and Census. This figure plots per-employee payroll in thousands of dollars by firm size for the 2017 Census of US Businesses aggregates and the survey respondents. The Census data only report annual payroll for W2 workers and the number of firms in an employment size category. To calculate payroll for the survey firms, we take the midpoint of categorical answers for monthly expenses, multiply by the fraction of expenses going toward payroll, and divide by total employees (we cannot distinguish between W2 employees and contractors).

ECONOMIC SCIENCES

Table 1. Summary measures across regions

	Closed at time		Expected to close by December		Weeks COVID will last		Current/January employment	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
E. North Central	0.45	0.50	0.35	0.48	14.7	10.2	0.68	0.38
E. South Central	0.41	0.49	0.36	0.48	16.3	11.5	0.57	0.49
Mid Atlantic	0.54	0.50	0.37	0.48	14.5	10.0	0.53	0.45
Mountain	0.39	0.49	0.35	0.48	16.0	11.3	0.68	0.38
New England	0.47	0.50	0.33	0.47	16.6	10.2	0.55	0.49
Pacific	0.46	0.50	0.37	0.48	15.4	10.7	0.55	0.48
South Atlantic	0.41	0.49	0.38	0.48	15.5	10.3	0.63	0.45
W. North Central	0.43	0.50	0.35	0.48	15.7	10.8	0.66	0.41
W. South Central	0.40	0.49	0.39	0.49	15.2	11.1	0.68	0.43
Total	0.45	0.50	0.37	0.48	15.4	10.6	0.61	0.45
n	4,976	.	4,059	.	4,162	.	4,365	.

This table reports breakdowns by regions. Totals include 12 observations with unknown region. Note that the Closed at time column includes both temporary and permanent closures. The measure Expected to close by December comes from a question asking about the likelihood of being open in December, where answers were given on a five-point scale. Closure is coded as a binary indicator for those marking "Extremely Unlikely," "Somewhat Unlikely," or "Somewhat Likely" to be open in December. The ratios of current employment versus January employment are weighted by January employment.

Our sample, therefore, is selected in three ways: 1) They are firms that have chosen to join Alignable, 2) they are Alignable firms that have chosen to stay actively engaged taking surveys, and 3) they are the set of firms that are active within Alignable that chose to answer our survey. Consequently, there are many reasons to be cautious when extrapolating to the entire universe of America's small businesses. We will discuss their representativeness based on observable attributes in the next section of this report.

The survey included a total of 43 questions, with basic information about firm characteristics (including firm size and industry), questions about the current response to the COVID-19 crisis, and beliefs about the future course of the crisis. Some questions were only displayed based on skip logic, so most participants responded to fewer questions. The survey also includes an experimental module that randomized scenarios between respondents to understand how different federal policies might impact these firms' behavior and survival as the crisis unfolds. Specifically, we experimentally varied some of the descriptions of potential policies across the sample to shed light on the potential impact of policy initiatives that, at the time, were very uncertain. We will discuss that module more thoroughly in *Anticipated Response to CARES Act Programs*. A further experimental module included between-respondent randomization which explored decisions under different hypothetical durations of the crisis.

Firm Characteristics and Representativeness

The survey contains three baseline questions which enable us to assess the representativeness of the sample along observable dimensions: number of employees, typical expenses (as of January 31, 2020), and share of expenses that go toward payroll. We are also able to get rough information about geolocation to assess representativeness by state.

We compare our data with data on businesses from the 2017 Census of US Businesses, using the publicly available statistics published by the US Census Bureau. The underlying data are drawn from the County Business Patterns sampling frame and cover establishments with paid employees, including sole proprietorships if the owner receives a W2. The Census

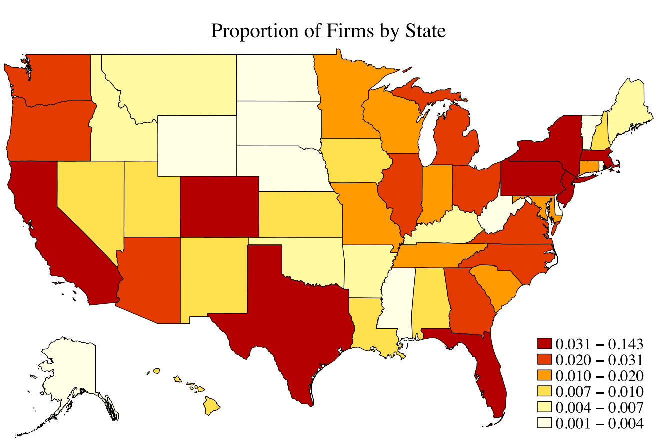

Fig. 3. Coverage by state. This figure plots shares of survey responses across different states.

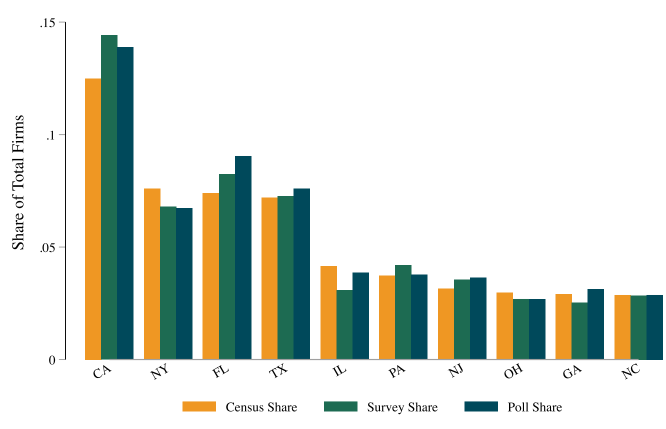

Fig. 4. Firm locations in the Census, downstream survey, and upstream presurvey Alignable poll. This figure plots the share of firms in each state for the 2017 Census of US Businesses, the survey respondents, and the respondents who took the upstream Alignable poll. Users who took the survey did so after taking the Alignable poll. They were then redirected to the Harvard Business School Qualtrics web link. Note that the upstream poll did not ask questions about firm size or payroll, so prior figures cannot check compositional differences based on firm size or pay.

Table 2. Summary measures by firm size

Number of	Closed at time		Expected to close by December		Weeks COVID will last		Current/January employment	
Employees	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Under 5	0.46	0.50	0.36	0.48	15.8	10.9	0.66	0.49
5 to 9	0.47	0.50	0.39	0.49	14.7	10.2	0.52	0.44
10 to 19	0.41	0.49	0.42	0.49	14.7	10.1	0.55	0.47
20 to 99	0.36	0.48	0.30	0.46	14.1	9.5	0.58	0.42
100 to 499	0.26	0.44	0.22	0.42	16.2	10.8	0.72	0.44
Unknown	0.41	0.49	0.49	0.50	16.7	10.5	.	.
Total	0.45	0.50	0.37	0.48	15.4	10.6	0.61	0.45
n	4,976	.	4,059	.	4,162	.	4,365	.

This table reports breakdowns by firm size. There are 103 firms in this sample with unknown employment as of January. All measures are coded according to Table 1 legend.

data capture large and small businesses alike, but, for our comparisons, we will look only at businesses with fewer than 500 employees.

The Alignable network allows users to share customer leads, which could potentially skew our sample toward retail and service businesses that interact directly with consumers. Since retail businesses are particularly vulnerable to COVID-19 disruptions, our sample could overstate the aggregate dislocation created by the crisis. Naturally, industries dominated by large firms, such as manufacturing, are underrepresented. However, as we discuss later, our data on the industry mix of responses suggest that the sample represents a wide swath of America's smaller businesses.

Fig. 1 shows the size distribution of our sample and the size distribution of businesses with fewer than 500 employees in the Economic Census. The match of employment sizes is reassuring. About 64% of the businesses in our sample have fewer than five employees, while about 60% of the firms in the Economic Census are that small. About 18% of businesses in both

Table 3. Summary measures by industry

	Closed at time		Expected to close by December		Weeks COVID will last		Current/January employment	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Raw data								
Retailers, except grocery	0.53	0.50	0.45	0.50	14.1	9.5	0.49	0.42
Arts and entertainment	0.70	0.46	0.42	0.49	17.5	11.3	0.40	0.46
Banking/finance	0.19	0.39	0.25	0.43	16.1	10.9	0.81	0.33
Construction	0.32	0.47	0.38	0.49	14.3	10.3	0.66	0.40
Health care	0.45	0.50	0.29	0.45	15.1	10.4	0.69	0.37
Other	0.39	0.49	0.35	0.48	16.6	11.2	0.70	0.41
Personal services	0.86	0.34	0.39	0.49	11.8	8.3	0.35	0.40
Professional services	0.21	0.41	0.29	0.45	15.7	10.6	0.80	0.41
Real estate	0.37	0.48	0.30	0.46	15.8	11.4	0.70	0.41
Restaurant/bar/catering	0.56	0.50	0.52	0.50	13.1	8.7	0.24	0.37
Tourism/lodging	0.61	0.49	0.45	0.50	16.2	10.0	0.30	0.35
Total	0.45	0.50	0.37	0.48	15.5	10.6	0.58	0.44
n	4413	.	3953	.	4000	.	3935	.
Reweighted to census by size and region								
Retailers, except grocery	0.53	0.50	0.44	0.50	14.3	9.8	0.51	0.42
Arts and entertainment	0.70	0.46	0.41	0.49	17.1	11.4	0.43	0.47
Banking/finance	0.20	0.40	0.25	0.43	16.3	11.1	0.84	0.30
Construction	0.33	0.47	0.38	0.49	14.4	10.3	0.71	0.38
Health care	0.43	0.50	0.28	0.45	14.5	10.1	0.72	0.35
Other	0.39	0.49	0.34	0.47	16.4	11.2	0.74	0.38
Personal services	0.86	0.34	0.39	0.49	11.9	8.4	0.37	0.40
Professional services	0.21	0.41	0.30	0.46	15.6	10.7	0.80	0.41
Real estate	0.37	0.48	0.31	0.47	15.6	11.0	0.74	0.39
Restaurant/bar/catering	0.58	0.49	0.49	0.50	13.4	9.0	0.23	0.36
Tourism/lodging	0.60	0.49	0.43	0.50	16.1	9.9	0.31	0.35
Total	0.45	0.50	0.36	0.48	15.4	10.6	0.61	0.43
n	4,326	.	3,877	.	3,921	.	3,935	.

This table reports breakdowns by industry. The top section contains raw data, and the bottom section contains data reweighted to match the Census share of firms by size and region bucket. Missing industry information explains differences in observations between raw data and prior analysis. Differences in observations between raw data and reweighted data arise from firms with unknown January employment or region. All measures are coded according to Table 1 legend.

Table 4. Breakdown of issues affecting businesses

	n (total)	*n* (answering)	Supply chain	Employee health	Demand/orders
Raw data					
Currently open	2,759	2,196	30.2	49.8	66.2
Temporarily closed	2,116	1,774	35.5	59.7	83.4
Permanently closed	100	85	37.9	60.8	86.1
Total	4,975	4,055	34.6	56.8	78.6
Reweighted to Census by size and region					
Currently open	2,698	2,149	30.4	50.4	65.9
Temporarily closed	2,080	1,744	35.7	60.2	83.7
Permanently closed	94	80	39.2	63.6	85.8
Total	4,872	3,973	35.1	58.1	78.5

This table reports respondents' reactions to the importance of issues affecting their business, broken down by the status of the business at the time of taking the survey.

samples have between five and nine employees. The survey becomes less precisely matched to the Census among the larger employment groupings, and we believe that our survey will capture the experience of larger employers with less accuracy.

While our survey does not allow for a direct comparison of payroll expenses with Census data, we constructed a rough comparison by approximating payroll expenses for the Alignable firms from categorical questions about monthly expenses and the share of these expenses going toward payroll. The Census provides annual payroll expenses for W2 employees. To get a sense of the match, we compared our estimated monthly payroll expenses in our sample with one-twelfth of annual expenses in the US Census. To facilitate comparison, we divide by an estimate of total employment.[§] Fig. 2 shows the size distribution of monthly estimated payroll expenses in our sample and a comparable breakdown for the Census using a per capita adjustment. The match is imperfect, especially for larger firms. The discrepancy might reflect the underrepresentation of manufacturing or professional services firms in our sample, which are among the highest paying of all two-digit North American Industry Classification System sectors in the Census data. *SI Appendix*, Table S1 provides further detail on the industry match to the Census.

Fig. 3 shows the geographic scope of our sample. The Alignable sample draws particularly from California, the New York region, Florida, and Texas. The sample is sparse in America's western heartland, which matches the location distribution of smaller businesses in the Economic Census.

Fig. 4 shows the share of our sample coming from the 10 most populous states. The figure also includes the share of small businesses in the Economic Census that are within each state. For example, California has 14.4% of our Alignable survey sample, 12.5% of small businesses in the Census data, and 11.52% of total US population. Our sample does overrepresent the coasts and underrepresents Illinois. Alignable shared the geographic distribution of their weekly pulse survey takers, and the final set of columns within each grouping allows us to assess selection differences between respondents to the shorter pulse poll and our downstream survey. There are some minor sampling differences across states, but the Alignable pulse poll sample and those taking our broader survey have quite good geographic coverage.

To shed further light on our sample, we conducted a follow-up phone screen of 400 businesses—a randomly selected set of 200 businesses that responded to our survey and 200 businesses from the broader active Alignable membership (i.e., that filled out their previous pulse poll), but who did not respond to our survey. During the phone screen, we asked each business whether they were still open for business. For businesses that did not answer the phone on a first attempt, we made a second attempt to call. Out of the businesses who responded to our survey, roughly 42% reported being open when we called them. Out of the businesses that are active on Alignable but did not respond to our survey, roughly 56% reported being open.

Overall, while the sample captured by the survey may be an imperfect snapshot for certain pockets of America's small businesses, it also allows for important insight into the overall small business ecosystem. The sample is large and includes firms from most major industry groups, states, and firm size categories.

Responses to the COVID-19 Pandemic and Lockdown

We now turn to our main results, which we group into three categories. First, we describe the impact of COVID-19 on business operations and employment toward the beginning of the crisis. Second, we report our results on the financial fragility of those businesses, as captured by their cash on hand and ongoing expenses. Third, we turn to their expectations about the

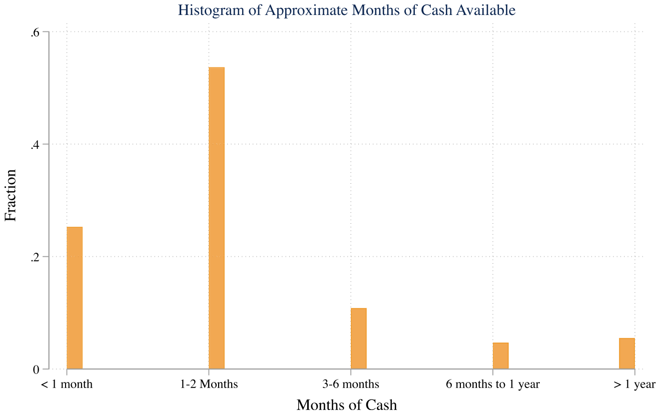

Fig. 5. Months of cash. This figure plots firms' months of cash available as a multiple of January 2020 expenses. We compute this measure by taking the midpoint of categorical responses for the amount of cash on hand and dividing by the midpoint of the categorical response for typical monthly expenses prior to the crisis. The sample size is 4,176.

[§]This comparison is very likely to include a different definition of "headcount" as we do not disambiguate between W2 and 1099 employment in the survey whereas the Census data only include W2 employees, who are more likely to be full-year, full-time employees. Although we cannot disambiguate part-time W2 employees who would show up in the Census versus contractors who would not, 32% of the January employment captured in the survey falls into the category. According to Current Population Survey data for 2019, about 17% of the broader labor force was part-time; recent figures on the number of contract workers suggests they made up about 12% of the labor force in 2016, but they would not have been captured in the Census (11).

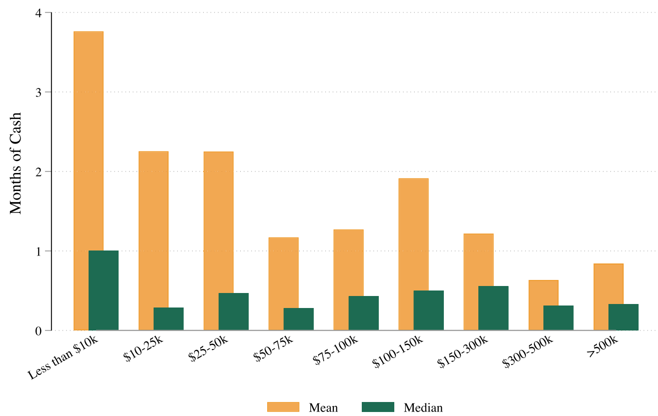

Fig. 6. Mean and median months of cash split by monthly expenses ($1,000s). This figure plots means and medians of the months of cash available measure across the distribution of typical monthly expenses.

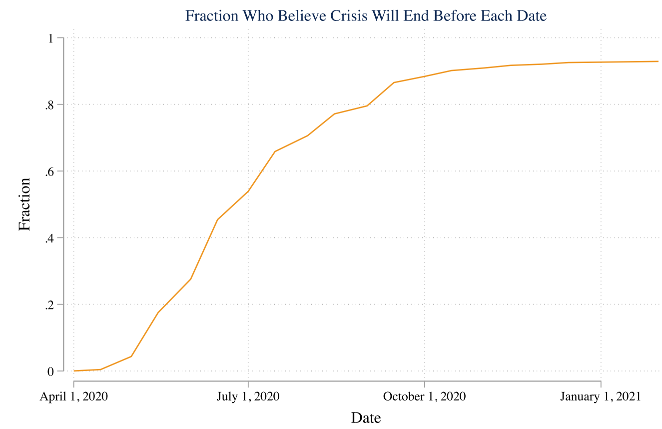

Fig. 7. Cumulative distribution function of expected COVID end date. This figure plots the distribution function across respondents for the expected end date of COVID-related disruptions. The *y* axis represents the share of respondents who believe that COVID disruptions will end on or before the date given on the *x* axis.

duration of the crisis and their own economic survival, as measured at a particularly sensitive point for understanding the impact of future policies.

Temporary Closings and Employment. The initial survey question asked owners, "is this business currently operational?" We allowed owners to respond that the business was operational, temporarily closed, or permanently closed. We also allowed them to report whether the business was closed because of COVID-19 or another reason.[¶]

Across the sample, 41.3% of businesses reported that they were temporarily closed because of COVID-19. A far smaller number—1.8%—reported that they were permanently closed because of the pandemic. By contrast, only 1.3% reported that they were temporarily closed for other reasons; 55.5% reported that they were still operational.

We also asked the business owners to fill in a matrix that contained the number of full-time and part-time employees that were employed by the firm "now," as of the survey date, and on January 31, 2020. Over the entire sample, the number of full-time employees had fallen by 32% between January 31 and late March 2020. The number of part-time employees was 57% lower than at the end of January. Overall employment declined significantly, totaling a 39% reduction from January headcount. These results include businesses that had temporarily closed. If we look only at businesses that were still operating, we find that the number of total full-time employees had fallen by 17.3%. The number of part-time employees declined by 34%. These estimates can also be compared to other emerging data points. The Atlanta Fed conducted a similar survey (14), drawn from Dun & Bradstreet listings, and found smaller employment effects (roughly 10% decrease in employment). Whereas their survey includes larger firms as well, our focus is on smaller businesses. Further, their survey undersamples newer firms, which may have larger employment changes. We can also compare our results to publicly released aggregated payroll data from Automatic Data Processing, Inc. (ADP), a provider of human resources management software (which may have different issues of representativeness). In those data, paid employment at firms with less than 500 employees declined by about 18% between January and April.[‖] These data, however, treat anyone receiving pay in April as employed even if they were laid off during or before the interval. Looking at higher-frequency data on paychecks in the ADP microdata, concurrent but independent work by Cajner et al. (15) finds that employment declined, on average, 27% for firms with less than 500 employees and about 28% for firms with less than 50 employees between mid-February and mid-April.[**] These numbers are somewhat smaller than the 39% decline in employment for small businesses that we find but higher than the estimates of the Atlanta Fed survey.

We then expand to look at geographic variation of the effects. Table 1 shows our results across the 11 Census divisions and displays the share of businesses that had temporarily closed because of COVID-19 and the reduction in total employment between January 31 and the survey date. The results are not meaningfully different if we separate out full-time or part-time employees. While there is regional heterogeneity, the disruptions are severe almost everywhere.

The Mid-Atlantic division had the sharpest decreases in employment and the largest share of firms that had temporarily suspended operations. Fifty-four percent of firms in that region were closed in late March/early April, and employment had fallen by an average of 47%. The Mountain region was the least affected, but, even there, 39% of firms had temporarily closed, and employment had declined by 32%.

Tables 2 and 3 display the same breakdown by firm size and industry. Smaller firms with fewer than 20 employees in January were more likely to be closed. Firms with between 66 and 19

¶We did not attempt to assess the quality of firm management, as in ref. 12. We hope that future surveys will test when quality of management helps protect firms against closure during this crisis. This crisis also presents an opportunity for understanding managerial decision-making under stress, as discussed by ref. 13.

‖Data were accessed from https://adpemploymentreport.com/2020/April/SBR/SBR-April-2020.aspx on May 21, 2020. We aggregate the estimates across firm size bins to estimate job losses for firms with 1 to 499 employees using firm weights. The corresponding estimates using employment weights are also 18%. The weights come from the Bureau of Labor Statistics' Business Employment Dynamics figures of the distribution of private sector employment (table F) and firm size (table G) for the first-quarter of 2019 (not seasonally adjusted). Data were accessed from https://www.bls.gov/bdm/bdmfirmsize.htm on May 22, 2020.

**These figures were computed using the estimates in figure 10 from the May 6, 2020 version of ref. 15. We aggregate the estimates across firm size bins to estimate job losses using firm weights. The corresponding estimates using employment weights are 23% job losses for firms with 1 to 499 employees and 27% job losses for firms with 1 to 49 employees. The weights come from the Bureau of Labor Statistics' Business Employment Dynamics figures of the distribution of private sector employment (table F) and firm size (table G) for the first quarter of 2019 (not seasonally adjusted). Data were accessed from https://www.bls.gov/bdm/bdmfirmsize.htm on May 22, 2020.

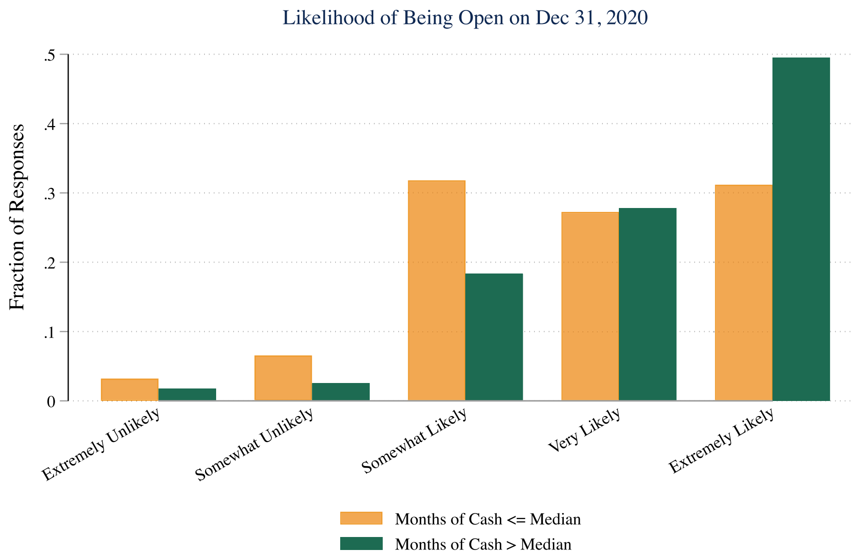

Fig. 8. Likelihood of remaining open or reopening by December. This figure displays the frequency of answers to a question about the likelihood of being open in December 2020. Responses are plotted based on whether the firm has more than the median number of months of cash on hand given their pre-COVID expenses.

employees in January had the largest employment reductions. Across industries, in-person retail and service businesses had declined precipitously. Although hard hit, the impact was not as extreme for professional services firms—banking and finance, real estate, or construction. Table 3 also allows a comparison of how our results might change if we reweight to the region and firm size cells in the Census data and then cut by industry (a dimension that is not targeted in the reweighting). The results change little across industries in the reweighted data compared to the raw data.

Table 4 shows the problems that firms reported facing, split by their operational status at the time of the survey. We asked owners to rate, on a 1 to 100 scale, the problems they were experiencing with employee illness, supply chains, and customer demand. The scale had numerical values and also a text label that went from "Not a concern" at one end to "Extremely disruptive" at the other end. We differentiate between firms that are open, temporarily closed, and permanently closed, and we show the share of firms in each category that indicate significant difficulties in each of these areas.

On average, firms rated the disruptions resulting from supply chain challenges to be 35 on the 100-point scale (which is in the "slightly disruptive" part of the scale). Concerns about employee health were more prominent, with firms rating it as 57 out of 100 (which maps to "somewhat disruptive"). Reductions in demand were even more disruptive, with firms rating the importance of this to be 79 out of 100 (extremely disruptive). While closed firms noted worse disruptions due to demand, the basic ranking of the different disruptions was consistent across different types of firms. These findings suggest, thus far, that supply chain problems have been less pronounced, relative to disruptions resulting from demand shocks and concerns about employee health.

Altogether, these results suggest that a vast number of enterprises had temporarily shut down and laid off workers over the first several weeks of the crisis. The impact on business disruptions in the coming months will depend both on the length of the crisis and on the financially fragility of firms. The central role of the demand shock highlights the challenges in adjusting to the financial shock caused by COVID-19–related disruptions. We now directly explore financial fragility, and the extent to which firms' resources might allow them to weather the crisis.

Financial Fragility. To measure financial fragility, we asked the respondents "roughly how much cash (e.g. in savings, checking) do you have access to without seeking further loans or money from family or friends to pay for your business?" We then divided this amount by their January 31 monthly expenses to understand how long they could maintain operations without seeking extra credit or outside assistance.[††]

Fig. 5 shows a histogram of cash available as a multiple of January 31, 2020 monthly expenses. Approximately one-fourth of firms had cash on hand totaling less than 1 mo of expenses. About one-half of firms had enough cash on hand to cover between 1 mo and 2 mo of expenses.

Fig. 6 sorts firms by January 31, 2020 monthly expenses and then tabulates the mean and median cash on hand relative to precrisis expenses. The median firm with under $10,000 in monthly expenses had 1 mo of cash on hand. For all firms with greater than $10,000 in monthly expenses, the median firm typically had less than 15 d of cash on hand, based on their precrisis expense levels. These firms did not have cash on hand to meet their regular expenses.

These limited levels of cash on hand help to shed light on why layoffs and shutdowns were so prevalent. Absent these actions, it is hard to understand how these firms could have met payroll.

Predicting the Path of the Crisis. Finally, we ask the firms to predict how long the COVID-19 crisis will last and whether they believe they will be open again at the end of 2020. To predict the end of the crisis, we asked the survey respondents "the most likely date" when the crisis would be over. We also asked them their confidence about this belief on a 1 to 10 scale.

Fig. 7 shows the distribution of expected end dates. The figure shows that roughly 20% of respondents believed that the crisis would be over by the end of May. Thirty percent of respondents believed that the crisis would end between the end of May and the start of July. Just over one half of the firms answered that they thought that the crisis would still be going at the start of July.

[††]We did not collect information about access to lines of credit or outside borrowing, but, given the severity of the contraction in demand, those credit facilities may be unlikely to remain accessible without a government guarantee.

However, the firms were not particularly confident about their answers. Fifty percent of respondents reported their confidence level as 5 or less on the 1 to 10 scale. Sixteen percent gave their confidence a 2 or less. Their uncertainty highlights the broader uncertainty that was present throughout the world at the time.

Fig. 8 shows the histogram of responses about whether firms will be open on December 31, 2020. Overall, more than 90% thought it is at least somewhat likely that they would be open. More than 63% reported that it is very or extremely likely that they would be open—which we later use as a measure of the probability of being open. A growing literature has found entrepreneurs to be overoptimistic about their prospects (see, for example, ref. 13). This suggests that true survival rates may be even lower than predicted by businesses.

The firms with more cash on hand were more confident about their future, as evidenced by the split based on whether the firm had more or less cash on hand (relative to usual monthly expenses) than the median in our sample. Fifty percent of those firms with more than the median cash on hand thought it was extremely likely that they would be open at the end of the year. Thirty-one percent of firms with less cash on hand, relative to the median, thought that they would be open at the end of the year. One interpretation of these findings is that liquidity generated confidence in the ability to survive this crisis. Among firms with at least 20 employees, 71% expressed that they were either very likely or extremely likely to survive, which may indicate greater access to outside resources despite having a higher expense base.

Fig. 9 shows that the share of firms that think that they are "very likely" or "extremely likely" to be open varies based on their belief about the duration of the crisis. The firms that thought that the crisis will be short also believed that they are more likely to survive. Those who believed in a longer crisis were more pessimistic.

Anticipated Responses to CARES Act Programs

In this section, we discuss the survey's questions about take-up of the CARES Act PPP loans and their expected impact on employment. One important aspect of the CARES program is that "loans will be fully forgiven when used for payroll costs, interest on mortgages, rent, and utilities," as long as 75% of the forgiven amount is spent on payroll and the employer either maintains or quickly rehires workers and maintains salary levels (https://home.treasury.gov/system/files/136/PPP%20–%20Overview.pdf). Consequently, a significant portion of the "loans" can be seen as a grant rather than traditional debt.

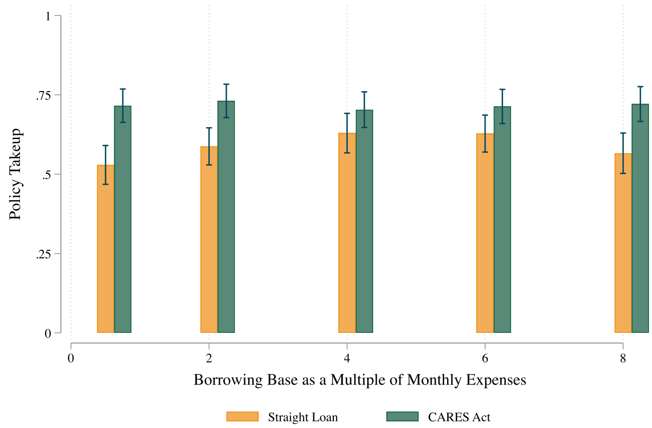

Fig. 10. Differences in policy take-up across loans versus CARES Act PPP split by hypothetical limits on borrowing amount. This figure displays policy take-up rates for loans versus the stylized PPP policy using a between-subjects design. The borrowing base was also randomized between subjects as a multiple of typical monthly expenses prior to the crisis. The text displayed for the PPP program was, "Imagine a policy where the government allows you to borrow up to [borrowing base] times your typical monthly expenses without posting any collateral. You could use this money to cover any of your business expenses. The loan will be forgiven by the amount spent on payroll, lease, rent, mortgage, and utility payments in the 8 weeks after origination (you can consider this amount to be a grant). The remainder of the loan (that is not spent on these items) will have deferred payments for 1 year. After that, the loan would have an annual interest rate of 4% (deferred for 1 year) and you would have up to 10 years to repay the loan. For example, if you borrow $50,000 and you have no qualifying expenses to offset the loan, the required monthly payment starting 1 year from today would be $506 per month for 10 years. If you borrow $50,000 and spend $40,000 to pay your employees during the first 8 weeks, you will have 10 years to pay the remaining $10,000 with monthly payments of $102." Subjects in the loan condition saw the text, "Imagine the government offers a loan allowing you to borrow up to [borrowing base] times your typical monthly expenses without posting any collateral. You could use this money to cover any of your business expenses. The loan would have an annual interest rate equivalent of 4% and principal and interest payments would be deferred for 1 year. You would have up to 10 years to repay the loan. For example, if you borrow $50,000, the required monthly payment starting 1 year from today would be $506 per month for 10 years." Pooled means for the loan and CARES Act responses are 0.59 and 0.72, respectively. The sample size is 2,610, and the pooled t-statistic on the difference between policies is 6.97.

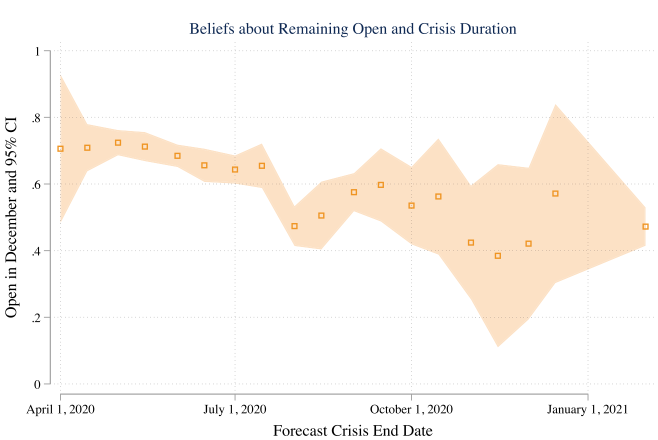

Fig. 9. Likelihood of remaining open or reopening by December 2020 as a function of beliefs about COVID end date. This figure plots the likelihood of being open in December, 2020 as a function of respondents' expected COVID end date. Averages are plotted, and the shaded region is the CI. The opening likelihood is computed as the share of respondents who answered "Extremely likely" or "Very likely."

The high level of loan forgiveness means that this represents a large potential transfer to small businesses. We assess the importance of the grant component of the CARES loans relative to a pure (and far less expensive) loan program. One-third of the survey respondents were randomly asked about their interest in a CARES-like program, which was describe as a loan program which "will be forgiven by the amount spent on payroll, lease, rent, mortgage, and utility payments in the 8 weeks after origination." One-third of the respondents were randomly asked about their interest in a loan program that was otherwise identical, but without prompting any possibility of forgiveness.[‡‡] As part of the display, the amount of liquidity was varied, with the caveat to respondents that these policies may not be the actual policies currently available to them. This was designed to measure

[‡‡]Because there was significant policy uncertainty at the time of the survey, one-third of respondents were also asked about a potential policy that focused on aid that could only be used for payroll. This policy became less relevant after the details of the CARES Act emerged.

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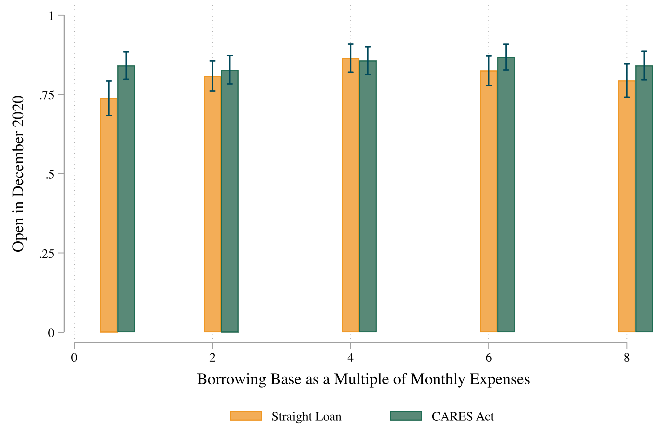

Fig. 11. Differences in policy effects on the propensity to remain open in December of 2020, split by hypothetical limits on borrowing amount. This figure plots differences in the propensity to remain open under different policies. The measure is computed using a follow-up question after policy information displayed, using the fraction that chose "Very likely" or "Extremely likely" to be open in December of 2020. See Fig. 10 legend for additional detail about the policy display. Pooled means for the loan and CARES Act are 0.805 and 0.848, respectively. The sample size is 2,550, and the pooled t-statistic on the difference between policies is 2.76.

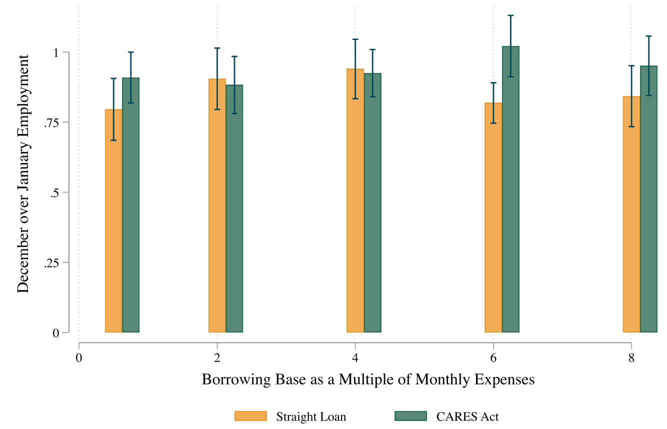

Fig. 12. Differences in policy effects on relative employment between December and January. This figure plots differences in the ratio of relative employment between December 2020 and January 2020 under different policies. The December 2020 employment measure is computed using a follow-up question after policy information displayed. See Fig. 10 legend for additional detail about the policy display. Pooled means for the loan and CARES act responses are 0.86 and 0.94, respectively. The sample size is 2,341, and the pooled t-statistic on the difference between policies is 2.42.

how program generosity affects take-up and perceived business resilience.[§§]

Fig. 10 shows the expected take-up of the two programs (the exact details of the question wording is contained in the figure legend). Seventy-two percent of respondents who were told about the loans with forgiveness said that they would like to take them up. Fifty-nine percent of respondents were interested in taking up the loan program without forgiveness. While there was substantial interest in a pure-loan program, there was significantly more interest in the loan program with forgiveness.

A primary reason to forgive loans is that such a subsidy might do more to maintain employment and keep businesses open in the long term.[¶¶] We therefore reasked businesses to project their likelihood of being open and their expectations about employment after we told them about the loan programs. Figs. 11 and 12 show the expected probability of being open and the expected employment (relative to January 2020 employment) for the two groups of respondents.

Before they were told about the policies, both groups had experienced similar employment declines since January, and both groups expected their employment in December 2020 to be about 40% less relative to January 2020 (that is, assignment was balanced). After the respondents were told about the CARES-like loans, they projected their employment would decline by only 6% by December 2020. The respondents who were told about loans without forgiveness predicted their employment levels would fall by 14%. (Because we randomize the policy and the generosity, this analysis is equally weighted across firms.) We are unable to distinguish precisely whether it is the conditional nature of the PPP program or the more favorable credit terms that drive these differences.

When asked about their expectation of remaining in business in December 2020, businesses responded similarly. Before being told about the loans, the businesses thought that they had a 62 to 63% chance of being open in December 2020. The probability rose to 81% among those who were told about the standard loans. The projected chance of survival increased to 85% for the businesses who were informed about the PPP loans that came with forgiveness. Again, the flow of credit seems important, but forgiveness did have a statistically significant impact on the expectation of staying in business.

Why would businesses not take the aid that comes with such generous forgiveness terms? Fig. 13 asks the 28% of firms that said that they would not take a CARES-like loan why they would turn down such a generous offer. The most common response, given by 35% of refusers, was that they did not need the cash, which suggests that one-tenth of our sample truly feels confident with their financial security.[***]

A significant number of those who said that they wouldn't take the CARES assistance cited other concerns. Thirty percent of these respondents said that they didn't think that they would qualify. Nearly 20% said that they didn't trust the government to forgive the debt. Over one-tenth thought that it would be too much of a hassle. These results suggest that clarity about the program and a streamlined process are important policy considerations to ensure a high take-up rate.

We also randomly informed survey recipients about the changes in unemployment insurance under the CARES act. We found that informing employers about the increased generosity of unemployment insurance was associated with lower employment projection in December 2020, among those businesses that were told about the CARES-like loans. Information about unemployment insurance had no impact on the expected probability of remaining open. More work is needed to understand how interactions between programs may influence economic outcomes.

[§§]A few program features differed between what was displayed to respondents and the actual program. The most relevant is that the interest rate displayed was 4%, which was higher than the interest rate under the program for the nonforgiven portions of the PPP loans. This reflected the maximum interest rate in the legislative text of the CARES Act. The actual implemented interest rates ended up below this maximum.

[¶¶]An exact welfare analysis is beyond the scope of this paper. Hamilton (16) suggests that the median person in self-employment might be realizing nonpecuniary benefits because earnings differences may not justify the risk of running a business, but those who persist in self-employment over the long run likely have a comparative advantage in running their own business relative to their other options (17).

[***]Those who report their intention not to take up the program due to having sufficient cash have a median of 3.5 mo of cash on hand. Those who express other reasons for lack of take-up have a median of 1 mo of cash.

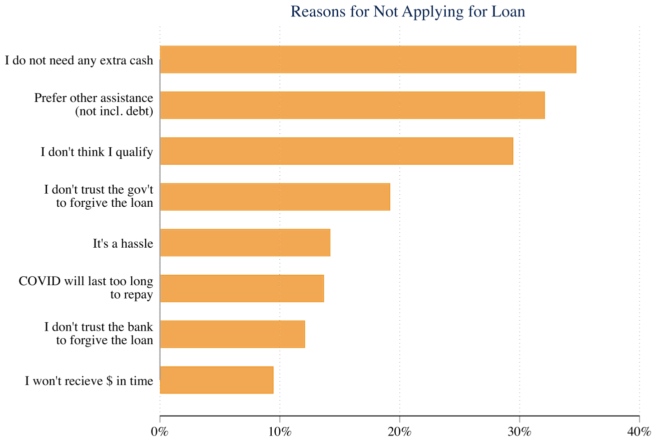

Fig. 13. Reasons for not using the resources in the CARES Act. This figure contains the frequency of responses for reasons that respondents would not take up aid under the CARES Act policy condition; 383 respondents indicated they would not use the policy, and 382 answered this question. Respondents could select more than one option, so percentages need not sum to 100. Fifty percent of respondents selected an additional reason not displayed or filled in the free text entry for other.

Industry Differences in Response to Crisis Duration

COVID-19 disruptions do not affect all businesses equally. Some are deemed essential and remained open, while others were required to close. Some businesses could shift employees to remote work, while others were ill equipped for the transition. In this section, we explore the cross-industry variation in its effects.

Our results suggest that disparities will be larger if the pandemic ends up lasting for several months. Specifically, we asked businesses the following: "We want to understand how the duration of the COVID-19 disruptions might change your answers. Suppose that most COVID-19 disruptions continue for X months, what is the likelihood of your business remaining operational by Dec. 31, 2020? Please provide your best guess." We randomize the duration (X) to be 1 mo, 4 mo, or 6 mo, and offer respondents a five-point scale ranging from extremely unlikely to extremely likely. As before, we transform this answer into a binary outcome of likely or unlikely to remain open for ease of exposition.

Table 5 displays the responses to this question by industry. When firms are told to expect a 1-mo crisis, the expectation of remaining open by the end of the 2020 hovers above 68% across all industries, with the exception of arts and entertainment, personal services, and tourism and lodging. In those industries, the expectation of remaining open drops to 66%, 57%, and 63%, respectively. When firms are told to expect a 6-mo crisis, the average expectation of remaining open falls to 39%, and there is significant heterogeneity between sectors. The expected survival probability for firms in Arts and Entertainment drops precipitously to 45% under a 4-mo crisis, and 35% if the crisis lasts 6 mo. The expected probability of being open for Personal Services firms falls to 19% if the crisis lasts 6 mo.

The restaurant industry also seems particularly vulnerable to a long crisis. Restaurateurs believed that they had a 74% chance of survival if the crisis lasts 1 mo, but if the crisis lasts 4 mo, they gave themselves a 29% chance of survival. Under a 6-mo crisis, they expected to survive with only a 19% probability. Likewise, the chance of survival for firms in tourism and lodging drops to 25% by the 6-mo mark. Meanwhile, banking and finance, real estate, and professional services reported they will be able to weather extended disruptions far better than these more exposed sectors.

In Table 6, using the results in Table 5 around closure probabilities as a function of crisis duration, we examine how employment separations might evolve due to firm closure. Building on our estimates of the impact of crisis duration on job loss, Table 6 estimates the impact of COVID-19 on aggregate job loss from small business closures and how businesses expected this to vary with crisis duration. Specifically, we begin with the number of workers who are projected to lose their jobs from small firm closures. We then multiply the initial employment level (based on the 2017 Economic Census), at the employment size level, by the survey-based estimate of the share of firms that will be closed in December depending on the length of the crisis. The first row shows that there were 5.9 million workers in firms with fewer than five employees in 2017. In our survey, 43% of those smaller firms expected to be closed in December even if the crisis lasted for only 1 mo. Next, we multiplied 0.43 times 5.9 million workers to project 1.6 million separations due to firm closings (in the absence of additional aid beyond what was expected at the time of the survey). These smaller firms are extremely fragile, but, since they represent a relatively small share of employment, their closures add only modestly to overall job losses. Firms with over 50 employees are more optimistic about their survival, even if the crisis lasts for several months. Yet, even among these firms, 54% expected to be closed in December if the crisis lasts at least 4 mo. Those closures would create 14.6 million separations. This figure may be an overestimate, because this firm size category is large, and the closure rates may be lower for larger firms.

Taken altogether, the closures are projected to create 32.7 million job losses if the crisis lasts for 4 mo and 35.1 million job losses if the crisis lasts for 6 mo. Moreover, these job losses look only at business closures and do not account for the reduction in the number of workers by firms that remain open or job losses among workers who are employed by larger firms.

Table 5. Reported likelihood of remaining open by industry and hypothetical crisis duration

Industry	*n*	1 mo	4 mo	6 mo
Raw data				
Retailers, except grocery	490	0.68	0.35	0.34
Arts and entertainment	281	0.66	0.45	0.35
Banking/finance	148	0.78	0.61	0.60
Construction	383	0.72	0.43	0.45
Health care	395	0.78	0.47	0.35
Other	1,384	0.76	0.48	0.38
Personal services	168	0.57	0.40	0.19
Professional services	201	0.79	0.64	0.55
Real estate	93	0.74	0.57	0.58
Restaurant/bar/catering	163	0.74	0.29	0.19
Tourism/lodging	145	0.63	0.50	0.25
Total	3,851	0.72	0.47	0.39
Reweighted to Census by size and region				
Retailers, except grocery	485	0.69	0.35	0.34
Arts and entertainment	271	0.66	0.45	0.36
Banking/finance	144	0.78	0.64	0.62
Construction	372	0.72	0.42	0.46
Health care	386	0.77	0.47	0.37
Other	1,361	0.76	0.48	0.39
Personal services	167	0.56	0.37	0.19
Professional services	197	0.79	0.62	0.56
Real estate	93	0.72	0.55	0.59
Restaurant/bar/catering	160	0.75	0.35	0.19
Tourism/lodging	143	0.65	0.52	0.23
Total	3,779	0.71	0.47	0.39

This table reports results of expectations about remaining open in December under different hypothetical durations of the COVID crisis. This question was asked at the end of the survey, after policy questions were conducted. The randomization is between subjects.

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Table 6. Extensive margin separations arising from firm closures over different hypothetical crisis durations (all numbers in millions)

	2017 Census		End-of-2020 separations if crisis lasts		
January employees	Firms	Employees	1 mo	4 mo	6 mo
Under 5	3.7	5.9	1.6	3.1	3.6
6 to 24	1.8	18.1	4.8	10.5	12.1
25 to 49	0.3	9.5	1.6	4.4	6.9
50+	0.3	26.8	5.8	14.6	12.5
Total	6.1	60.4	13.7	32.7	35.1

This table reports results of end-of-2020 employment separations based on extensive margin business closures using the between-subjects survey design that asked about the ability to remain open under different crisis durations in Table 5. We take the fraction of businesses closing by December 2020 as the complement of the numbers in Table 5 and then multiply by the number of 2017 employees (in millions) from the Census, yielding the implied level of employment separations in each cell.

These results suggest that the damage to our economy and its network of small businesses will be far larger if the crisis lasts for many months. This suggests large potential economic benefits for policies that can safely lead to reopening the economy quickly.

Conclusion

Small businesses employ almost 50% of American workers. Yet, our results underscore the financial fragility of many small businesses, and how deeply affected they are by the current crisis. In our sample, which is skewed toward the retail sector, we found that 43% of businesses were temporarily closed and that employment had fallen by 40%. This represents a shock to America's small firms that has little parallel since the Great Depression of the 1930s. Our results suggest that many of these firms had little cash on hand toward the beginning of the pandemic, which means that they will either have to dramatically cut expenses, take on additional debt, or declare bankruptcy. This highlights the ways in which the immediacy of new funding might impact medium term outcomes.

Small businesses' responses to our survey suggest that many are likely to fail absent financial assistance. As of the last week of March 2020, 38% of businesses viewed it as unlikely or only somewhat likely that they would be open as of the end of 2020. While optimism increased when they were informed about the CARES loan program, it is unclear whether the CARES act will enable most of America's small businesses to survive—or whether beliefs about its impact are overly optimistic.

The results also highlight the importance of well-designed and sustained economic and public health policy measures. Three policy-relevant results of our survey stand out. First, more than 13% of respondents say that they do not expect to take out CARES Act PPP loans because of the application hassle, distrust that the federal government will forgive the loans, or worry about complicated eligibility rules. Therefore, streamlining the application process and clarifying the eligibility criterion and loan forgiveness rules might increase the take-up rate for loans. Second, firms in particularly exposed industries—such as restaurants, tourism, and personal services—project that they will find it extremely difficult to stay in business if the crisis lasts for longer than 4 mo. These findings suggest large economic benefits from any policies that can safely shorten the economic shutdown (e.g., through stronger short-term containment policies). Third, if we extrapolate the 72% of businesses who indicate they would take up the CARES PPP loans to all US small businesses, the total volume of loans would be approximately $410 billion. (This assumes that all businesses take out the maximum loan size [2.5 mo of expenses].) When we allow for different take-up rates by employer size and multiply by the 2017 Census payroll amounts in each firm size category, we estimate total loan demand of $436 billion, in excess of the $349 billion allocated in the first tranche of the CARES act.[†††] Total demand for such aid may ultimately be even higher under an extended crisis.

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[†††]Monthly payroll in the 2017 Census data for businesses under 500 employees totaled 226 billion dollars. Our estimates do not account for increases in total payroll in this sector since 2017. Our estimates also do not account for the fact that the PPP guidelines allowed some firms with more than 500 employees to access aid.

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