Small Firms and the Pandemic: Evidence From Latin America[*]

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June 15, 2021

Abstract

This paper studies the effects of the COVID-19 pandemic on small businesses using new daily survey data on 35,000 small businesses in eight Latin American countries. The shock had large negative impacts on employment and beliefs regarding the future, which in turn predict meaningful economic outcomes in the medium-term. Despite the unprecedented amount of aid available to small businesses, policy reach has been limited and frictions related to design and implementation screened out small firms and informal firms. These frictions may have lasting consequences, as businesses that received aid reported better outcomes and expectations about the future.

Keywords: *COVID-19, small business, Latin America*

1 Introduction

The Latin American region has been severely impacted by the COVID-19 pandemic, with only 8 percent of the world population but 32 percent of all deaths.[1] Countries in the region implemented emergency public health measures with varying degrees of intensity within and across countries. In an attempt to mitigate the economic shock caused by these policies, governments mobilized an unprecedented amount of aid to businesses, with particular focus on creating programs that provided subsidized loans and covered payroll. Despite the magnitude of these efforts, the region experienced the most severe economic retraction in the world in 2020 (IMF, 2021).

One of the central economic challenges faced by Latin American countries in the COVID-19 crisis—which is common to all developing countries—is the vast predominance of very small firms and informal firms (e.g. McKenzie and Bruhn, 2014; Hsieh and Olken, 2014; Ulyssea, 2018).[2] These firms are likely to be disproportionately impacted by health measures, as they tend to be concentrated in sectors directly affected by social distancing measures and lockdowns implemented to curb the pandemic (e.g., retail and in-person services) (OECD, 2020). In addition, they might be harder to reach by government policies due to lower attachment to formal financial institutions. Finally, they may face substantial challenges in accessing government programs due to financial or resource constraints—or they may simply not qualify for such programs, in the case of informal firms. Despite the magnitude of the crisis and the policy response it entailed, there is limited evidence on its impacts on SMEs, particularly in developing countries.[3]

This paper uses new survey data from almost 35,000 small firms in Latin America to show that frictions related to policy design and implementation ended up screening out small and informal firms from government assistance programs.[4] As small and informal firms constitute the majority of firms in the region, these frictions may have substantially limited the reach of COVID-19 emergency economic assistance programs. To reach these conclusions, the paper

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[1] As of June 14, 2021 according to data from the COVID-19 Data Repository by the Center for Systems Science and Engineering at Johns Hopkins University.

[2] In Latin America, Small and Medium Entrepises (henceforth SMEs) represent more than 95 percent of all firms and 67 percent of employment (IDB, 2020).

[3] The main reason for this gap is lack of data on small businesses' outcomes, especially informal ones. When data are available, they come from administrative records, which by design only cover formal firms, and are rarely contemporaneously available for analysis. Indeed, the existing literature has predominantly focused on high-income countries. See Humphries et al. (2020), Granja et al. (2020), Chetty et al. (2020), Bartik et al. (2020), Cororaton and Rosen (2020), Bennedsen et al. (2009), Buchheim et al. (2020), Core and De Marco (2021), Kozeniauskas et al. (2020), and Cui et al. (2020).

[4] The survey was conducted in eight countries: Argentina, Bolivia, Brazil, Chile, Colombia, Dominican Republic, Mexico, and Peru.

documents three empirical facts: first, firm owners were optimistic about future recovery at the beginning of the pandemic, but expectations deteriorated rapidly during the first several weeks. Second, smaller firms (fewer than five full-time equivalent (FTE) employees) and informal firms were less aware of existing programs, less likely to apply for aid, and less likely to receive aid. Moreover, the gaps in awareness, applications, and receipt of aid grew over the course of the pandemic. Third, firms that received aid also reported higher expectations, higher revenues, lower exit, and higher rates of government approval, suggesting that aid may have helped the firms that received it.

Our data come from daily surveys of small business owners collected from a large baseline intake, conducted between March 29 and May 31, 2020, as well as two smaller follow-up surveys conducted between June 25 and August 16 and November 6 and December 20, 2020, respectively.[5] Participants were recruited via social media advertisements targeted at owners of small businesses across Latin America that had been affected by COVID-19. The surveys collected information on firms' and firm owners' characteristics, including formality status of the firm, layoffs, closure, revenues lost, expectations about the future of their firm, awareness of government relief programs that could help their firm, access to aid, and approval of government actions. While we did not construct the survey to be representative of the population of firms in Latin America, the size distribution in the data is similar to the firm size distribution in each country's administrative records.[6]

Our first set of results show that most firm owners expected their business to recover within two years at the onset of the pandemic (81 percent). However, expectations deteriorated quickly, and this number reached a minimum of 69 percent by mid April. By mid May, after governments had announced billions of dollars of aid to SMEs, expectations of recovering in the next two years had almost reverted back to the initial level. We observe similar patterns in beliefs about ever recovering and probability of bankruptcy. While expectations improved dramatically, past layoffs increased and employment only slightly improved by mid May. Results from the follow-up surveys show that early expectations about recovery and future employment were significantly correlated with concrete business outcomes several months later, and therefore provide a useful measure to quickly understand the health of small businesses during a crisis.

In the second set of results, we show that the smallest firms and informal firms were less aware of programs, less likely to apply for aid, and less likely to receive aid. Moreover, these gaps

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[5]We refer to these surveys as the "April", "July", and "November" surveys as these were the months in which we received the majority of responses.

[6]See Appendix Figure C3.

increased over the course of the pandemic.[7] In April, firms with fewer than five FTE employees were 5 percentage points less likely to apply for aid; this gap widened to 8 and 12 percentage points in July and November, respectively. Similarly, the smallest firms were 7 percentage points less likely to report receiving aid in July, a gap which widened to 19 percentage points in November. These results hold when controlling for a rich set of covariates, including formality status.

In the third set of results, we show that businesses that received aid reported improved expectations, outcomes, and approval of the government in the short- and medium-term. In July, receiving aid was associated with a 0.29 standard deviation (σ) improvement in expectations, a 0.34σ improvement in business outcomes, and a 0.27σ improvement in approval of the government. In November, these associations were weaker and less precise, suggesting that receiving aid may have had a short-term payoff without stabilizing the firm several months later. As we do not have a source of random variation in access to aid, we cannot establish if these associations are causal. Indeed, the association may capture selection, with more capable firms being more informed and more likely to apply for aid. Nonetheless, the relationship holds after controlling for a rich set of characteristics of the firm and the owner, including baseline awareness of relief programs.

Our findings contribute to the literature on the economic impacts of COVID-19 on businesses in middle- and low-income countries and the efficacy of the associated policy response.[8] Related work by Apedo-Amah et al. (2020) and Cirera et al. (2021) use data from the World Bank Business Pulse Survey (BPS) between April and September 2020 to analyze firms in low-, middle- and high-income countries. Consistent with our results, these papers find that small firms were significantly less likely to access support than larger firms. However, our unique survey design—which combines repeated daily cross-sections with a smaller panel of firms— allows us to document: (i) the evolution of awareness of policies, expectations and outcomes; (ii) the role of information in firms' access to aid; and (iii) the association between access to aid and firms' expectations, outcomes, and approval of government policies. Another set of recent papers uses experimental and quasi-experimental methods to study the impacts of social protection programs, such as cash transfers, implemented to mitigate the COVID-19 economic shock (e.g. Londoño-Vélez and Querubín, 2021; Banerjee et al., 2020; Bottan et al.,

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[7]Throughout this paper, we divide firms into two size bins based on the number of full-time equivalent employees: (1) 0-4.5 FTE employees and (2) 5-150 FTE employees. Formality status is determined by making social security contributions.

[8]A larger literature studies the economic impacts of COVID-19 on households (see Bottan et al. (2020b) and Rahman and Matin (2020)).

2020a). These papers do not focus on policies designed to aid firms, such as loan programs or employment retention schemes, but rather focus on policies that provide income transfers to poorer families. Finally, a third strand of literature focuses on a somewhat more conceptual discussion of the optimal structure of economic policy responses to COVID-19 in low- and middle-income countries, emphasizing the unique challenges presented by the high prevalence of informality (Gerard et al., 2020; Busso et al., 2020; Alfaro et al., 2020). Our paper builds on this literature by confirming several of the hypotheses and conjectures. In particular, we show that many small businesses may have missed out on pandemic relief, and that informal business may have been left behind all together.

2   Background and Data

Our analysis focuses on eight Latin American countries: Argentina, Bolivia, Brazil, Chile, Colombia, Dominican Republic, Mexico, and Peru. These countries reported their first cases of COVID-19 between March 2 and March 15, 2020. By March 20, all countries had implemented ambitious containment measures, such as public schools closures, bans on intercity travel, and shutdown of non-essential businesses. Beginning in early April, governments created a variety of new economic policies and expanded existing ones to mitigate the effects of the pandemic. These measures were implemented at the national level by federal or central governments or in a decentralized manner at the sub-national level. We collected and coded information on all major public health and economic policies in these eight countries using official national and sub-national government sources. This amounted to almost 400 policies across these countries.[9] The top panel of Figure 1 shows the evolution of the number of economic and health policies in the region, as well as the number of cases of COVID-19.

There was substantial heterogeneity in the scale and scope of economic spending across countries, as shown in the bottom panel of Figure 1. However, the majority of aid to formal firms consisted of loan programs. These programs provided state-backed guarantees to the banks for the loans granted. For example,the Central Bank of Peru provided $18 billion (equivalent to 8 percent of GDP) of guarantees to private banks to facilitate loans for SMEs through the *Reactiva Perú* program. Some countries, like Colombia and Brazil, directly distributed funds through state-owned banks. Most loan programs were available until funds ran out, usually a few months after the program's announcement.

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[9]See Appendix Section A for a complete list of policy sources, as well as the major policies for SMEs in each country.

Figure 1: Economic aid pledged during the first five months of the pandemic
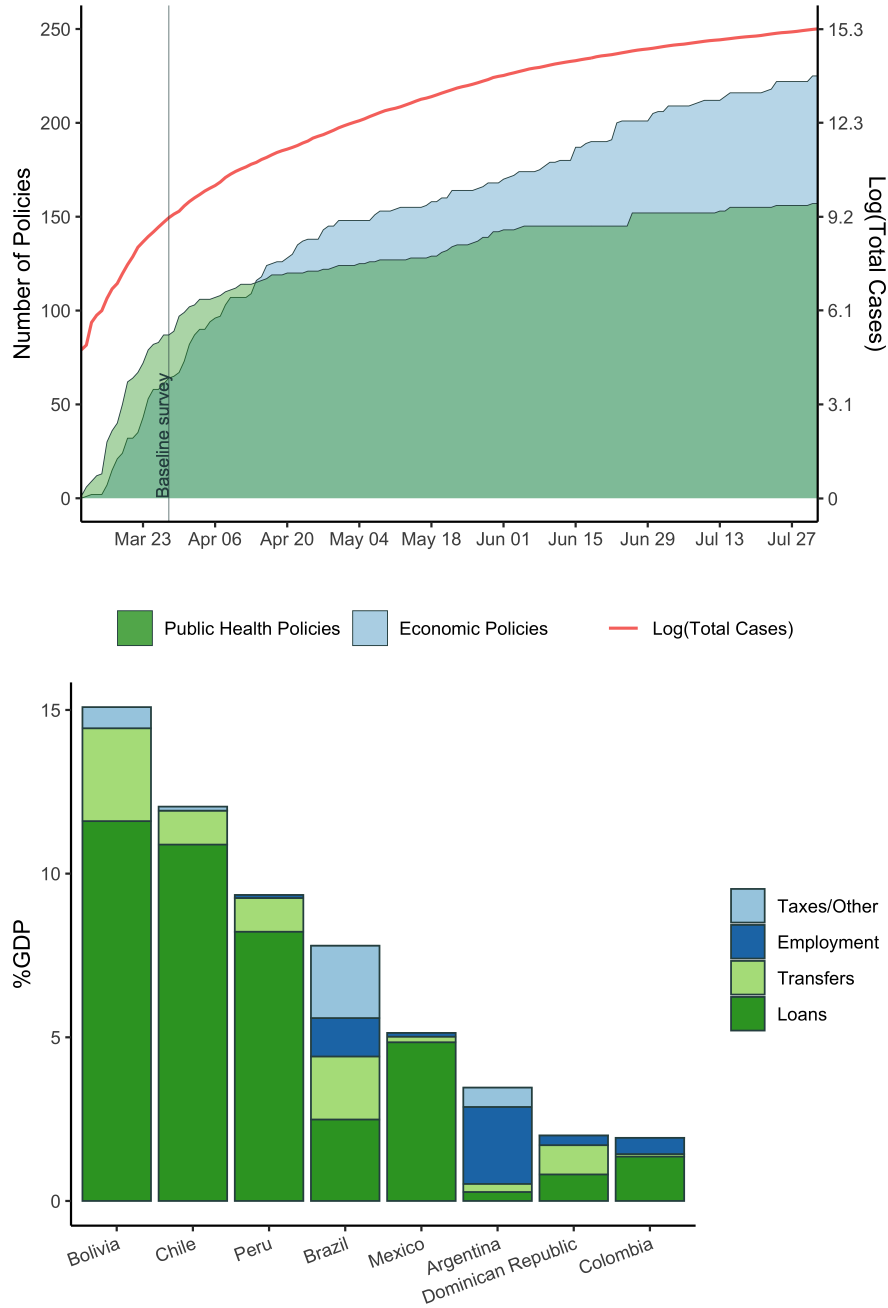
Note: Based on author's calculations using publicly-available data from official government sources. Our data reflect the amount of aid pledged by federal or central governments between March 11 and August 1, 2020; therefore discrepancies may arise with respect to eventual execution. The top panel shows the number of public health policies (in green) and the number of economic policies (in blue) compared to the number of COVID-19 cases (in pink) in the eight surveyed countries. The vertical line shows the launch date of our survey on March 29, 2020. The bottom panel shows the amount of aid pledged as a percent of GDP. The "Tax/Other" category includes policies such as deferral of tax, utility, or debt payments, investment in infrastructure or education, or reductions in pension payments. See Appendix A for a complete list of policy details and sources.

Governments often coupled loan programs with measures to protect employment, such as funds to cover a certain number of months of salary or provisions to allow firm owners to defer taxes or social security contributions. In Argentina, the Emergency Assistance Program for Work and Production (3 percent of GDP) paid 50 percent of the April salaries of private sector workers whose companies had been affected by COVID-19. Like loan programs, the majority of employment programs were only available to firms for four to five months after the onset of the pandemic. See Appendix Table A2 for details on the largest loan and employment programs in each country, including expiration dates.

In addition to providing loan and employment programs to small businesses in the formal sector, governments designed new cash transfer programs for informal workers given that 65% of informal workers are not protected by any social safety net (Basto-Aguirre et al., 2020). See Appendix Table A3 for a complete list of cash transfer programs targeted at informal workers.

2.1   The COVID-19 International Small Business Survey

To understand the impacts of COVID-19 on SMEs and the effectiveness of the government policy responses, we collected new survey data on SMEs' characteristics and outcomes, as well as owners' expectations about their businesses.[10] The data consist of one large intake survey (March 29 to May 31, 2020) and two follow-up surveys (June 25 to August 16, 2020; November 6 to December 20, 2020).

All survey respondents were recruited through social media advertisements targeting small business owners.[11] Respondents completed an online questionnaire in Qualtrics. The baseline survey contained a set of questions about firm characteristics, including firm size (as measured by the number of full- and part-time employees) and the number of employees laid off since January. The survey also asked small business owners to report how many employees they expected to lay off within the next two months, if they believed their businesses would recover in the next two years, if they thought their businesses would ever recover, and the probability that they would shut down or go bankrupt within the next six months. We also measure awareness of existing government programs available to help SMEs cope with the COVID-19 crisis. Specifically, the survey asks "Are you aware of any federal or state programs that could help your business during this crisis?" Thus, it can capture both awareness of the program and comprehension of how the program works and who is eligible.

The overall baseline sample consists of 34,403 adult small business owners in the Latin

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[10]The survey is also available for the U.S., see Humphries et al. (2020).

[11]Appendix Section B provides more details about the survey and contains the survey instruments.

American region who completed the baseline survey by May 31, 2020.[12] Of those, 23,946 responses come from a short baseline survey with a more limited set of questions, while the remaining 10,457 responses come from a longer version of the survey, which included more detailed questions about access to programs. Due to resource constraints, we did not conduct the short baseline survey between April 19 and May 9, 2020 and therefore we do not have new intake during this time interval.[13] Our first follow-up survey ran from June 25 to August 16, 2020 and was completed by 1,968 business owners. The second follow-up survey ran from November 6 to December 20 and was completed by 1,283 firm owners. Both follow-up surveys contacted past respondents with a new Qualtrics survey via email, and then followed-up with a phone-based survey when necessary. Responses were approximately equally split between these sources in both waves.[14]

Appendix Table C2 shows descriptive statistics of the three survey waves. At baseline, respondents had an average of 6.8 FTE employees in January, though the number of employees is right skewed, with a median of 3.5. The vast majority of the sample (92 percent) expected to recover eventually, and 68 percent expected to recover within the next two years. On average, awareness of government programs to help businesses was low (27 percent), and ever lower for programs specifically designed to help business cover wages of their employees (12 percent). Firms in our sample are nine years old on average and concentrated in the services and retail industries (73 percent of businesses). At baseline, 31% of firms were informal.[15] While we did not construct the survey to be representative of the population of firms in Latin America, the size distribution in the data is similar to the size distribution found in administrative records for the majority of countries, as shown in Appendix Figure C3.

3   Empirical Findings

This section outlines three sets of results. First, we document how layoffs and expectations of small businesses evolved from March 29 to May 31, 2020. Second, we provide evidence that the smallest businesses and informal businesses were substantially less informed about available

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[12]We arrive at this number after dropping businesses with more than 150 employees, which correspond to less than 0.6% of our sample. Appendix Section C maps the distribution of responses to each survey by country.

[13]See Appendix Section B for additional details on baseline data collection.

[14]Between May and June, the COVID-19 Small Business Study completed a randomized informational intervention. In this paper, we only report results from the control groups of the follow-up surveys. Including the treatment group, the first follow-up survey was completed by 3,993 small business owners, and the second follow-up survey was completed by 2,561 small business owners.

[15]We define informal as not paying social security contributions for any workers and/or not registered in the tax agency of their country. The proportion of informal firm owners was similar in both of the follow-ups.

government programs, less likely to apply for these programs, and less likely to receive aid. Third, we document that receiving aid was associated with notable improvements in business outcomes, expectations about the future, and overall approval of the government.

3.1 Evolution of Expectations

The baseline survey provides high-frequency, repeated cross-section data that allow us to characterize the evolution of layoffs and expectations from March 29 through May 31, 2020, with a two week gap between April 19 and May 9, 2020 when we did not collect new intake. These data provide insight into how businesses adjusted to the initial shock, and how their expectations about the future evolved.

Figure 2 summarizes changes in expectations and employment over time using daily survey responses. We regress each outcome on dummies for the week in which the baseline survey was taken, and control for country, day of week the survey was taken, and baseline characteristics of the firm and its owner. The top four panels show the trends in expectations, while the bottom two panels show changes in employment. Expectations about the future declined sharply during the first month of the pandemic, reaching a low during the week of April 15, when strict social distancing measures had been announced in all of the study countries.[16] Expectations improved in early May, after the announcement of the majority of economic relief measures.

The bottom left plot shows the evolution of the share of firms that had laid off any workers since January, while the bottom right plot shows the proportion of workers from January still employed at the firm. In the first four weeks, the proportion of small businesses that had laid off employees increased by approximately 20 percentage points. Similarly, the proportion of workers from January still working at the time of the survey declined by more than 20 percentage points from late March through mid April. In the last two weeks of the survey, past layoffs level out and the proportion of workers from January working moderately increases.

Though these expectation variables constitute subjective measures of firm owners' beliefs, results from the follow-up surveys show that they were significantly correlated with concrete firm outcomes several months later. Table 1 shows how early expectations were strongly associated with business closure, percent revenue loss, and past layoffs in July and November. A one percent decrease in expected probability of bankruptcy was associated with 0.09 and 0.1 percent decrease in actual closures in July and November, respectively. Firms that expected future layoffs at baseline were 0.12 percent more likely to report past layoffs in both July and

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[16]See Appendix Section D for a table version of this figure. These trends are consistent with the testimonials we collected from firm owners during this time, some of which are presented in Appendix H.

November. Similarly, better expectations at baseline were associated with significantly less revenue loss in the six months between March and September 2020. These results suggest that contemporary measures of subjective expectations can be useful ex-ante predictors of concrete business outcomes several months later.

Figure 2: Evolution of layoffs and expectations
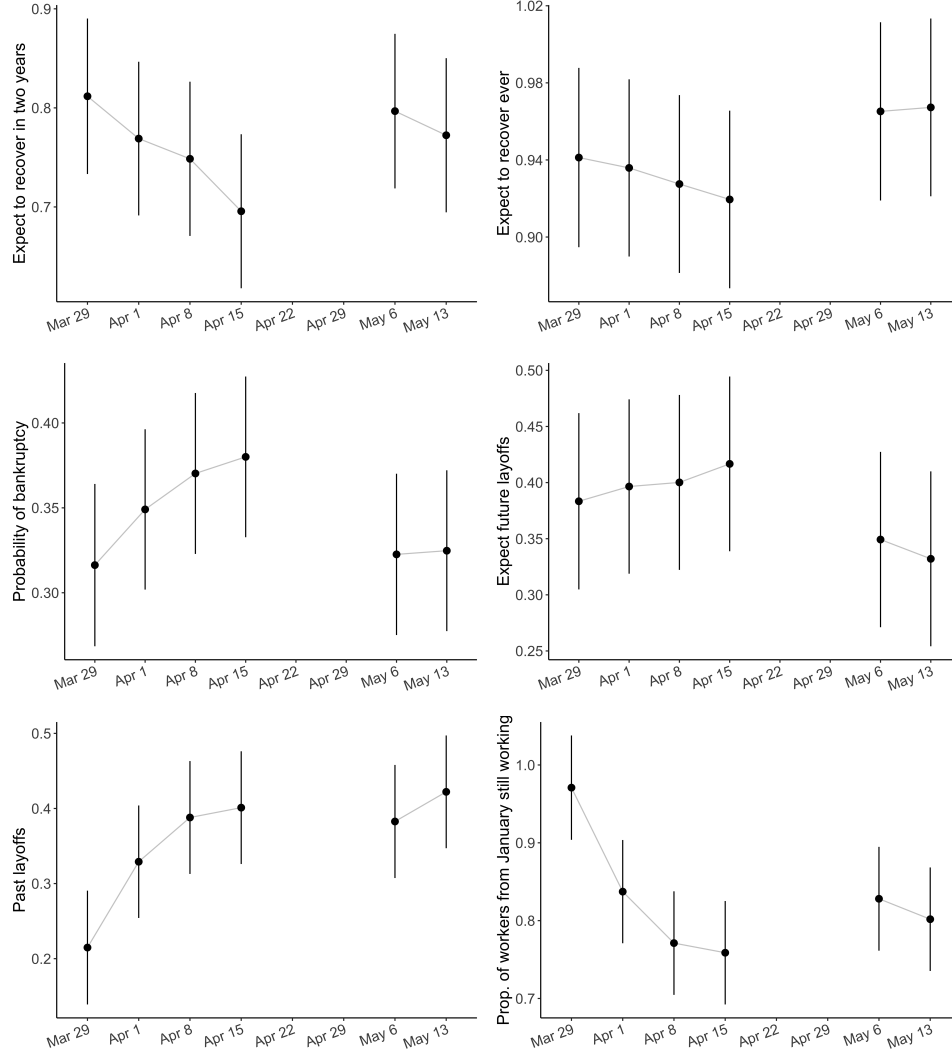
Note: Figure shows results from baseline survey between March 29 and May 19, 2020. There was no data collection during the weeks of April 22 and April 29, 2020. All regressions control for a third order polynomial in the number of full-time equivalent employees in January, country dummies, years of education, gender, age group dummies, firm sector, and firm age. The omitted group for countries is Argentina. The omitted group for firm owner age is 35-39 years old. A table version of this figure can be found in Appendix D.

Table 1: Early expectations and later outcomes

	Business closed							
Beliefs in April	July	Nov.	July	Nov.	July	Nov.	July	Nov.
Recover in two years	−0.032** (0.013)	−0.065*** (0.020)						
Recover ever			−0.062** (0.031)	−0.099** (0.046)				
Prob. bankrupt					0.089*** (0.022)	0.101*** (0.029)		
Expect future layoffs							0.023** (0.010)	0.026* (0.016)
Mean dep. var	0.058	0.071	0.058	0.071	0.058	0.071	0.058	0.071
N	1,745	1,120	1,745	1,119	1,745	1,120	1,691	1,089
	Past layoffs							
Beliefs in April	July	Nov.	July	Nov.	July	Nov.	July	Nov.
Recover in two years	0.008 (0.027)	−0.079** (0.033)						
Recover ever			0.014 (0.052)	−0.131** (0.056)				
Prob. bankrupt					0.149*** (0.046)	0.184*** (0.055)		
Expect future layoffs							0.116*** (0.026)	0.118*** (0.033)
Mean dep. var	0.551	0.668	0.551	0.668	0.551	0.668	0.551	0.668
N	1,741	1,024	1,741	1,024	1,741	1,024	1,687	997
	Percent revenue loss (March - September)							
Beliefs in April	July	Nov.	July	Nov.	July	Nov.	July	Nov.
Recover in two years	−5.002** (2.036)	−4.775*** (1.750)						
Recover ever			−12.775*** (3.461)	−5.815* (2.997)				
Prob. bankrupt					22.766*** (3.552)	22.828*** (2.965)		
Expect future layoffs							4.153** (2.010)	4.844*** (1.764)
Mean dep. var	70.388	71.971	70.388	71.971	70.388	71.971	70.388	71.971
N	825	1,055	825	1,054	825	1,055	789	1,025

Notes: $^{***}p < 0.01$, $^{**}p < 0.05$, $^{*}p < 0.1$. All regressions control for a third order polynomial in the number of full-time equivalent employees in January, the day of the week the survey was completed, awareness of programs at baseline, years of education dummies, gender, age group dummies, firm sector, firm age, country dummies, and the date the survey was completed. Dependent variables show baseline data, which was collected between March 29, 2020 and May 31, 2020. The "July" columns refer to the follow-up survey conducted between June 25, 2020 and August 16, 2020. The "November" columns refer to the follow-up survey conducted between November 6, 2020 and December 20, 2020. Table versions of this figure can be found in Appendix D.

3.2 Access to Aid

In contrast to the declining expectations of respondents over the first four weeks of the survey, small business owners rapidly became aware of programs that could help them. While awareness increased substantially over the first three weeks of the survey, on average, still less than 50% of firm owners were aware of any program that could help their business, and even fewer firm owners were aware of programs that covered wages or offered subsidized loans. Low awareness of programs in Latin America contrasts the levels of awareness in U.S., where over 80% of small business owners reported being aware of programs by April 16, 2020 (Humphries et al., 2020).

Indeed, Table 2 shows that firm size, informality status, owner's schooling (which can proxy firm's sophistication), early awareness, and early expectations were important predictors of

future awareness, applying to, and ultimately accessing aid four and eight months into the crisis. The first panel reports results from regressing an indicator for awareness of programs on firm characteristics. In April, firms with fewer than five FTE employees were 7 percentage points less likely to be aware of programs. In addition, Appendix Figure D1 shows that businesses with more than five employees became aware of programs much more quickly than businesses with fewer than five FTE employees. Although lower levels of awareness could be consistent with smaller firms having less need for assistance and thus remaining less informed, our data does not support this conjecture. At baseline, firms with fewer than five FTE employees were 1 percentage point less likely to report that they expected to ever recover, and 2 percentage points more likely to expect future bankruptcy or permanent closure relative to larger firms. Moreover, as we discuss in the next section, access to aid is significantly associated with better outcomes and expectations even amongst smaller firms.

Even when conditioning on firm size, the strongest predictor of awareness of programs is firms' formality status. Informal firms were 8 percentage points less likely to be aware of programs at baseline, and this gap widened to 9 and 16 percentage points in July and November, respectively. This is intuitive, as informal firms were not eligible for the majority of programs and they have low rates of bancarization, which can limit owners' ability to apply for and receive some types of government assistance. Typically, the only policy available to informal firm owners were cash transfer programs, which target individuals, not firms.

As shown in the second and third panels of Table 2, we find a similar pattern for applications and access to aid: more vulnerable firms were less likely to apply for and receive aid, and the gap between the groups widened over time. The smallest firms were less likely to apply for aid in each point in time, though the gap was largest in November, when the smallest firms were 12 percentage points less likely to apply. In addition, the smallest firms were less likely to receive aid, with a gap of 19 percentage points in November. Informal firms were also significantly less likely to apply for and receive aid, as well as firm owners with less education. Appendix Table F1 breaks out firms with 0 employees (which are more likely to be sole-proprietors or self-employed). We show that firms with 0.5 to 4.5 employees remain substantially less likely to apply for and to receive aid than larger firms.

Table 2: Access to aid and firm characteristics

	Aware of programs			Applied			Received help		
	April	July	Nov	April	July	Nov	April	July	Nov
0-4.5 FTE	−0.066***	−0.080***	−0.095***	−0.054***	−0.080***	−0.120***	−0.009	−0.072***	−0.191***
	(0.011)	(0.030)	(0.031)	(0.009)	(0.025)	(0.040)	(0.008)	(0.020)	(0.039)
Informal	−0.081***	−0.087**	−0.155***	−0.036***	−0.153***	−0.131**	−0.006	−0.083***	−0.092**
	(0.014)	(0.037)	(0.035)	(0.009)	(0.033)	(0.057)	(0.008)	(0.022)	(0.045)
Years of schooling	0.020***	0.019**	0.002	0.006***	0.007	−0.001	0.008***	0.012**	0.009
	(0.003)	(0.007)	(0.008)	(0.002)	(0.007)	(0.011)	(0.002)	(0.005)	(0.010)
Aware of programs (April)		0.320***	0.221***	0.185***	0.159***	0.056	0.077***	0.114***	0.093**
		(0.033)	(0.033)	(0.009)	(0.028)	(0.039)	(0.008)	(0.023)	(0.038)
Recover in two years (April)	0.060***	0.060*	0.022	−0.009	−0.012	0.046	0.007	0.004	−0.005
	(0.011)	(0.032)	(0.033)	(0.009)	(0.026)	(0.043)	(0.008)	(0.021)	(0.041)
Mean	0.349	0.451	0.477	0.156	0.441	0.661	0.045	0.168	0.331
N	8,426	1,027	1,091	7,643	1,567	635	3,184	1,453	648

Notes: ***$p < 0.01$, **$p < 0.05$, *$p < 0.1$. All regressions control for day of week, country dummies, and the date the survey was completed. All regressions also include controls for industry, age dummies, firm age, and gender, but coefficients were largely not statistically significant nor large and are not displayed as they largely did not predict the outcomes. The omitted category for firm size bins is firms with 5-150 FTE employees. The omitted category for category of percent revenue loss is the first quartile. *Aware* and *Recover* refer to measurement in April. Alternative specifications of these results are included in Appendix D. These include a balanced panel and results separating firms with zero employees into their own group.

3.3   Access to Aid and Firms' Outcomes

In this section we assess the relationship between receiving aid and firms' expectations, outcomes, and approval of government actions. While we control for a rich set of firms' and owners' characteristics, this section is only able to highlight the associations between aid and firms' expectations as we do not have random variation in access to aid.

Given the survey has many measures associated with firms' expectations, outcomes, and approval of government programs, we use Principal Component Analysis (PCA) to reduce the dimensionality and facilitate the discussion of results. The "Expectation index" is composed of questions about recovery, future layoffs, and future closure or bankruptcy; the "Outcome index" is composed of questions about revenue loss, past layoffs, and permanent closure; and the "Approval index" is composed of questions about approval of policies for SMEs, workers, and the government's overall response.[17] We regress z-scores of each index on indicators for receiving aid and the same controls used in previous sections: a third order polynomial in the number of FTE employees in January, firm sector dummies, firm age, country dummies, day of the week the survey was completed, owners' awareness of programs at baseline, years of education dummies, gender, and age group dummies.

The first three columns in Table 3 show the results for all firms, while columns four to nine show the results by firm size. Overall, receiving aid was associated with notable improvements in expectations, outcomes, and approval of government programs at each point in time.

In the short-term, receiving aid was associated with a 0.27 standard deviation (σ) improve-

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[17]See Appendix E for details on principal component analysis.

ment in expectations and a 0.49σ improvement in approval of government actions. As Appendix Table F4 shows, improvements in expectations were driven by decreases in expectations of future layoffs and bankruptcy. The magnitude of the association between receiving aid and governmental approval in the short-term was particularly large for the smallest firms.

Four months later, receiving aid was associated with a 0.29σ increase in expectations, a 0.34σ improvement in business outcomes, and a 0.27σ increase in approval. The increase in business outcomes and expectations was driven by firms with more than five FTE employees, who may face fewer barriers in receiving aid. In November, the association between receiving aid and improved expectations and business outcomes was significantly weaker. While we cannot establish a causal relationship, this may have been a related to many programs expiring in late 2020 or early 2021.[18]

In the Appendix Section D, we report the association between receiving aid and the individual outcomes used to create each index. In addition, we show that our results hold when controlling for COVID-19 cases per million people, deaths per million people, and government stringency. We also restrict the analysis to the sub-sample of respondents who completed the baseline and either one of the follow-up surveys. This is a smaller sample and estimates are less precise, but we find similar though smaller coefficients on the association between receiving aid and expectations, outcomes, and approval.

Table 3: Access to aid and expectations, outcomes, and approval of government policies

	All			0-4.5 FTE			5+ FTE		
	April	July	Nov	April	July	Nov	April	July	Nov
Expectation index	0.272***	0.290***	0.176**	0.267*	0.247**	0.032	0.279**	0.349***	0.243*
	(0.093)	(0.069)	(0.086)	(0.142)	(0.096)	(0.120)	(0.125)	(0.101)	(0.134)
Outcome index	0.104	0.338***	0.211**	0.188*	0.152*	0.074	0.037	0.482***	0.201*
	(0.075)	(0.063)	(0.089)	(0.107)	(0.089)	(0.137)	(0.098)	(0.089)	(0.122)
Approval index	0.485***	0.273***	0.375***	0.716***	0.052	0.109	0.305**	0.415***	0.600***
	(0.113)	(0.072)	(0.093)	(0.166)	(0.091)	(0.133)	(0.146)	(0.109)	(0.135)
Number of respondents	3,184	1,607	717	1,825	964	404	1,356	643	313

Notes: $^{***}p < 0.01$, $^{**}p < 0.05$, $^{*}p < 0.1$ The first three columns show results for the full sample, while the remaining columns show results conditional on firm size bins. All regressions control for a third order polynomial in the number of FTE employees in January, awareness of programs at baseline, years of education dummies, gender, age group dummies, firm sector, firm age, country dummies, and the date the survey was completed. The "Expectation index" is composed of questions about recovery, future layoffs, and future closure or bankruptcy; the "Outcome index" is composed of questions about revenue loss, past layoffs, and permanent closure; and the "Approval index" is composed of questions about approval of policies for SMEs, workers, and the government's overall response. See Appendix E for additional details on principal component analysis.

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[18]Appendix Tables A2 and A3 show expiration dates for each program.

4 Conclusion

Though governments in Latin America pledged substantial portions of their GDP to small business aid during the COVID-19 crisis, we show that the majority of small firms report very low awareness of and access to programs to aid their businesses. This is particularly severe among very small (fewer than five FTE) and informal firms, and those operated by less educated owners. Given the vast predominance of small and informal firms in the region (e.g. McKenzie and Bruhn, 2014; Ulyssea, 2018), our results indicate that policies to aid SMEs had limited reach.

In particular, our results indicate that informality was a key limiting factor. Indeed, our review and systematization of almost 400 economic and health policies implemented in the region clearly shows that the vast majority of economic policies *for firms* had formality as a basic eligibility criterion, while employees of informal firm only had access to social protection programs, such as cash transfers. Moreover, informal firms typically have substantially less access to banks and financial institutions, which further limits their ability to access the dominant aid policy available in the region, namely subsidized loans.

Beyond informality, our results also suggest that there were frictions in place that hurt smaller firms. The observed gap in awareness levels between smaller and larger firms—which persists at high levels even after conditioning on formality status—can arise for at least three reasons. First, firm sophistication (measured by years of education of the owner), is positively correlated with firm size, and lower sophistication could imply greater difficulties in accessing and processing details about available assistance. Second, larger firms typically have more and better human resources (e.g. accountants or human resources departments), which also contributes to reducing the cost of acquiring information and applying to programs. Third, there are fixed costs implied by the application process (e.g. finding a bank that will accept the application and acquiring appropriate documentation of payroll), which are more likely to be binding for smaller businesses.

The results also show that missing out on these programs might have negative consequences for firms, small or large. We find a sizable and positive association between having access to aid and firms' expectations about survival and layoffs, as well as concrete outcomes such as exit, revenues lost, and layoffs. Firms that receive aid also report higher approval of government programs. Even though we are not able to establish causality, these associations remain even after controlling for a rich set of owner and firm characteristics as well as baseline expectations and awareness levels.

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A   Appendix: Policy details

This section provides details on policy data collection and policy design and implementation. We collected and coded information on all major public health policies and economic policies in the eight study countries using official government sources. Table A1 links to these government web pages, as well as general databases we used to cross-check data. Our data reflect the amount of aid pledged by governments between March 11 and August 1, 2020; therefore discrepancies may arise with respect to eventual execution.

Table A2 describes major loan and employment programs while Table A3 describes all cash transfer programs targeted at informal workers. These tables show that the majority of aid expired by late 2020 or early 2021.

Table A1: Policy sources

Country	Government web pages
Argentina	https://www.argentina.gob.ar/coronavirus/medidas-gobierno
	https://www.argentina.gob.ar/economia/medidas-economicas-COVID19/ingresofamiliardeemergencia
	https://www.argentina.gob.ar/produccion/medidas-pymes-covid#2
	https://www.boletinoficial.gob.ar/detalleAviso/primera/227113/20200324
Bolivia	https://www.economiayfinanzas.gob.bo
	https://www.economiayfinanzas.gob.bo/
Brazil	https://calendariobolsafamilia2020.net/quem-tem-direito-ao-bolsa-familia-2020/amp/
	https://servicos.mte.gov.br/bem/
	https://www.bndes.gov.br/wps/portal/site/home
	https://www.caixa.gov.br/caixacomsuaempresa/caixa-e-sebrae/Paginas/default.aspx
Colombia	https://id.presidencia.gov.co/especiales/200317-medidas-enfrentar-coronavirus/index.html
	https://coronaviruscolombia.gov.co/Covid19/acciones/acciones-de-economia.html
	https://www.mintrabajo.gov.co/web/guest/inicio
	https://ingresosolidario.dnp.gov.co/
	https://www.bancoldex.com/soluciones-financieras/lineas-de-credito/
	https://www.fng.gov.co/ES/Paginas/Unidos_por_Colombia_FNG.aspx
	https://coronaviruscolombia.gov.co/Covid19/acciones/acciones-31-marzo.html
Chile	https://www.gob.cl/planeconomicoemergencia/inyeccion/
	https://www.tgr.cl/plan-covid-19/
	https://prensa.presidencia.cl/comunicado.aspx?id=151422
Mexico	https://www.nafin.com/portalnf/content/financiamiento/impulso-nafin-estados.html
	https://www.gob.mx/salud
Peru	https://www.gob.pe/busquedas?contenido[]=normasinstitucion[]=mtpereason=sheet

General databases
ACAPS COVID-19 Dataset (https://data.humdata.org/dataset/acaps-covid19-government-measures-dataset)
Americas Society Council of the Americas Where is the Coronavirus in Latin America? (https://www.as-coa.org/articles/where-coronavirus-latin-america)
International Monetary Fund Policy Responses to COVID19 (https://www.imf.org/en/Topics/imf-and-covid19/Policy-Responses-to-COVID-19)

Table A2: Major small business loan and employment programs

Country	Name and description	Loan Programs		Employment Programs			Expiration	% GDP
		Working capital	Debt refinancing	Deferred payments	Salary coverage	Unemployment benefits		
Argentina	**Asistencia al Trabajo y la Producción (ATP)**: reduction/postponement of employer contributions, salary paid by the State for private sector workers, unemployment benefits			✓	✓	✓	2021-01-10 (extended monthly)	.30%
	Fondo de Garantías Argentino (FOGAR): tax exemption for bank loans and debts, financing for SMEs	✓	✓				2021-03-20	.70%
Bolivia	**Programa Especial de Apoyo a La Micro, Pequeña y Mediana Empresa**: five-year loans to safeguard employment	✓					Ongoing	0.50%
	Plan de Emergencia de Apoyo al Empleo y Estabilidad Laboral: credits equivalent to two national minimum wages, per worker, per month, for a maximum of two months			✓		✓	2020-09-16	0.66%
Brazil	**Programa Emergencial de Acesso a Crédito (PEAC)**: guarantee program for SMEs that reduced the risk of default for the credit granting financial institutions	✓	✓				2020-12-31	0.07%
	Programa Emergencial de Manutenção do Emprego e da Renda: employment program supporting works with suspended employment contracts or reduced hours, provides benefit equivalent to what worker would have received as unemployment insurance					✓	2020-12-31	0.71%
	Programa Emergencial de Suporte a Empregos: loans for SMEs to over payroll for up to 4 months	✓					2020-10-31	0.47%
	Credit Lines from SMEs from Caixa Econômica Federal and Sebrae: loans from state-owned banks for SMEs to cover working capital	✓					Ongoing	0.10%
Chile	**Fondo de Garantías para Pequeños Empresarios (FOGAPE)**: credit line which includes working capital credits equivalent to three months of sales	✓	✓				Until funds run out	9.8%
	Ley de Protección al Empleo: series of laws which prevents companies from firing workers due to COVID-19 and provides benefits to unemployed and underemployed workers				✓		2021-12-21	?%
Colombia	**Colombia Responde**: loans for businesses in tourist, air transport and entertainment sectors.	✓	✓				Until funds run out	.02%
	Colombia Responde Para Todos: loans for businesses in all sectors besides agriculture	✓	✓				Until funds run out	.03%
	Unidos por Colombia: special guarantee program for all businesses impacted by COVID-19.	✓	✓				Until funds run out	.98%
Dominican Republic	**Loans from Central Bank**: short term liquidity for SMEs	✓					Until funds run out	.30%
	Fondo de Apoyo Solidario al Empleado I y II: employment protection program for SMEs which includes unemployment benefits and salary contributions				✓	✓	2020-07-01	.30%
Mexico	**Medidas de Protección y Apoyo**: Unemployment insurance for up to three months; deferral of monthly payments, payroll support membership			✓	✓	✓	2020-07-30	0.08%
	Crédito ISSSTE: Loans to support retirees, pensioners, and workers affiliated with ISSSTE	✓					2020-05-05	.14%
	Créditos Solidarios a Palabra: Loans for domestic workers and independent workers		✓				2020-06-15	.02%
	Tandas de Bienestar: Loans for SMES who have been excluded from traditional financial services		✓				Ongoing	.01%
Peru	**Reactiva Perú**: extensive loan program for small, medium, and large businesses across many sectors	✓	✓				2020-11-30	8.11%
	Suspensión Perfecta de Labores: liquidity equivalent to monthly compensation for workers not working or laid off as a result of COVID-19				✓		2021-05-05	0.01%
	Fondo de Apoyo Empresarial para MYPEs (FAE-MYPE): creation of guarantee fund for loans to SMEs	✓	✓				2020-12-31	0.04%

Notes: For loan programs, expiration date is defined as the last day the program accepted applications, rather than the end of the loan forgiveness period, for example. For employment programs, expiration date is defined as the end of the program.

Table A3: Cash transfer programs targeted at informal workers

Country	Name	Description	Automatic?	Expiration	% GDP
Argentina	Ingreso Familiar de Emergencia (IFE)	Transfer for households with a household head between 18 and 65 who works in domestic service, is an informal worker, is a monostributista social (categories A and B), or households receiving AUH or Progresar social programs; household must not have a formal source of labor income or receive any pensions.	Yes	2020-08-31	0.21%
Bolivia	Bono Universal	For adults between ages 18 and 60 who do not receive any other government transfers (for retirement, widowhood, disability or meritorious), nor wages from public or private institutions, nor pensions or rents.	Yes	2020-08-21	0.45%
	Bono Canasta Familiar (BCF)	For current beneficiaries of social assistance programs who are not formal workers.	Yes	2020-08-21	0.16%
Brazil	Auxilio Emergencial	Transfer for households with a single mother as household head, or with individuals whose main source of income comes from being informal workers or self-employed; unemployed; or microentrepeneurs; these households must not be beneficiaries of Bolsa Familia.	No	2021-01-27	1.35%
Chile	Ingreso Familiar de Emergencia	Transfer for households whose source of income is mainly from informal sources. The amount depends on the number of people in the household and decreases according to the percentage of income that is formal; pensioners from Pension Solidaria de la Vejez receive a smaller amount of aid.	No	2021-09-07	0.15%
	Bono de Emergencia COVID-19	Households with individuals receiving Subsidio Familiar (SUF), households in the Sistema de Seguridades y Oportunidades database, households who belong to the 60% most vulnerable according to the Registro Social de Hogares database, and households who do not have a formal income through employment or pension and do not have any SUF beneficiaries. This totals to around 3 million households.	Yes	2020-04-30	0.08%
Colombia	Ingreso Solidario	Households under extreme poverty, poverty, or economic vulnerability that do not receive any social program (Familias en accion, Jovenes en accion, Colombia Mayor) but belong to SISBEN.	Yes	2020-11-15	0.04%
Dominican Republic	Quedáte en Casa	17 billion Dominican pesos in cash transfers to vulnerable households, including informal workers	Yes	2021-05-01	0.34%
	Pa'ti	Pa'ti is introduced to support independent workers, providing RD 5,000 a month to each beneficiary in May and June.	Yes	2020-12-31	0.05%
Peru	Bono YoMeQuedoEnCasa	Cash transfer of 380 PEN (later extended to 760) for poor families	Yes	30 days post-pandemic	0.16%

Notes: We only include policies specifically targeted at informal workers; however several transfer programs also could apply to informal workers and/or their families, such as Colombia's "Familias en Accion" program, or the Dominican Republic's "Comer es Primo" program. Mexico neither expanded existing programs nor introduced new transfers for informal workers.

B   Appendix: Survey details

Participants were recruited via Facebook advertisements targeted at business owners in eight countries in the Latin American region: Argentina, Bolivia, Brazil, Colombia, Dominican Republic, Mexico, and Peru. Figure B1 provides a photo of the advertisements used for recruiting for the survey. Advertisements were targeted at people living aged 25 or older, and targeted people who matched:

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

Figure B1: Facebook advertisement used for recruitment

We used four instruments in the study:

- A short version of the baseline survey, which was used from March 29 to April 19, 2020 in the eight study countries

- A long version of the baseline survey, which was used from April 19 to May 31, 2020

- A first follow-up survey, the "July Follow-Up", which was used from June 25to August 20, 2020

- A second follow-up survey, the "November Follow-Up", which was used from November 5 to December 18, 2020.

There were two versions of the baseline survey. The short baseline survey, distributed through Facebook, was completed by respondents across the eight countries in the study. On April 19, 2020, we emailed respondents who had completed the short baseline survey and requested they complete a longer version of the survey which repeated questions about employment and expectations, and included a broader set of questions with a particular focus on respondents' access to programs. For respondents who answered both versions of the survey, we report respondents' answers to the longer survey.[19] We stopped distributing the short version while we distributed this longer version to second-time respondents, hence the gap in new intake from April 19 to May 9, 2020. On May 9, 2020, we started distributing the longer version on Facebook in six of the eight study countries.

The follow-up surveys repeated questions about employment, expectations, and access to aid, and included a comprehensive set of questions about business outcomes. Our first follow-up was completed by 1,964 business owners and the second follow-up was completed by 1,281 firm owners.

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[19]This also allows us a cover a longer time period.

C   Appendix: Details on survey respondents

This section provides details on the number of survey respondents over time, the geographic distribution of respondents across the Latin American region, distribution of firm size of respondents to our survey compared to administrative data, and summary statistics for key variables.

Table C1: Valid survey responses by week

Week	N
Baseline survey	
2020-03-29 - 2020-03-31	3,730
2020-04-01 - 2020-04-07	13,306
2020-04-08 - 2020-04-14	4,007
2020-04-15 - 2020-04-21	3,051
2020-04-22 - 2020-04-28	2,016
2020-04-29 - 2020-05-05	981
2020-05-06 - 2020-05-12	3,872
2020-05-13 - 2020-05-19	3,117
2020-05-20 - 2020-05-26	272
2020-05-27 - 2020-05-31	51
July follow up	
2020-06-25 - 2020-06-30	534
2020-07-01 - 2020-07-07	673
2020-07-08 - 2020-07-14	743
2020-07-15 - 2020-07-21	523
2020-07-22 - 2020-07-28	1,053
2020-07-29 - 2020-08-04	270
2020-08-05 - 2020-08-10	180
2020-08-12 - 2020-08-16	6
November follow up	
2020-11-05 - 2020-11-10	582
2020-11-11 - 2020-11-17	421
2020-11-18 - 2020-11-24	662
2020-11-25 - 2020-12-01	450
2020-12-02 - 2020-12-07	245
2020-12-09 - 2020-12-14	55
2020-12-16 - 2020-12-18	140

Note: Table shows number of valid survey responses by week.

Figure C1: Distribution of baseline survey across Latin America
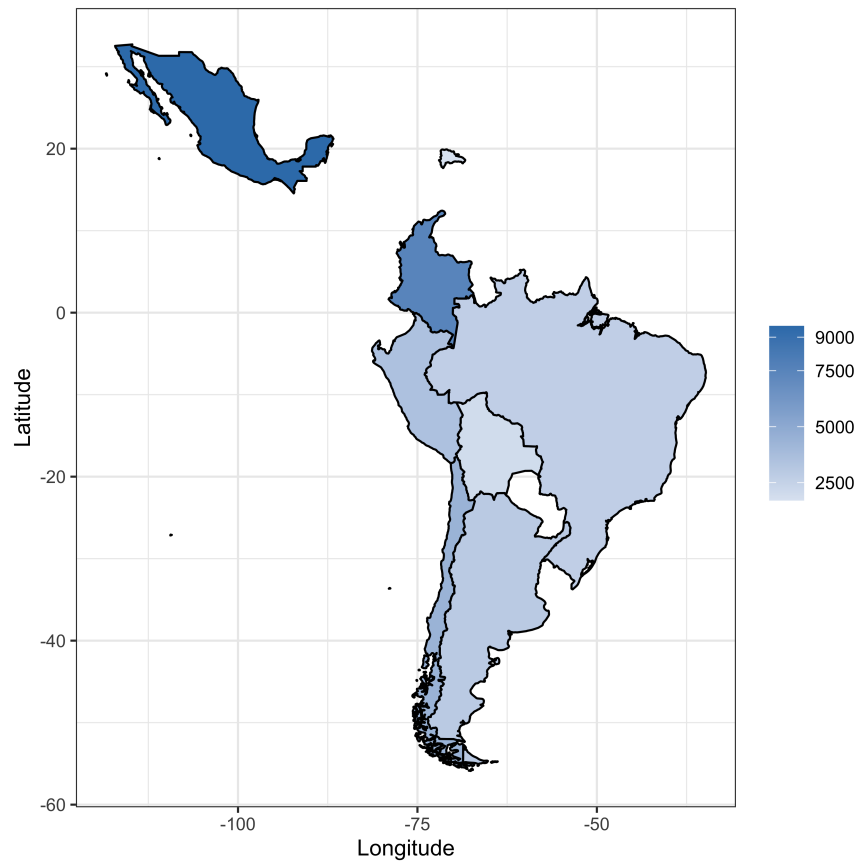
Note: Figure shows number of valid survey responses by country for the baseline survey.

Figure C2: Firm size distribution by week
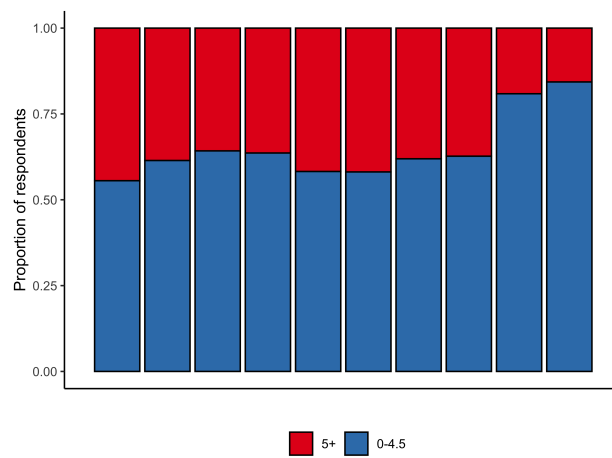
Note: Figure shows the proportion of daily respondents in three size bins based on their FTE employment in January (0-4.5 employees, 5-9.5 employees, 10-50 employees).

Figure C3: Firm size distribution: survey compared to administrative data
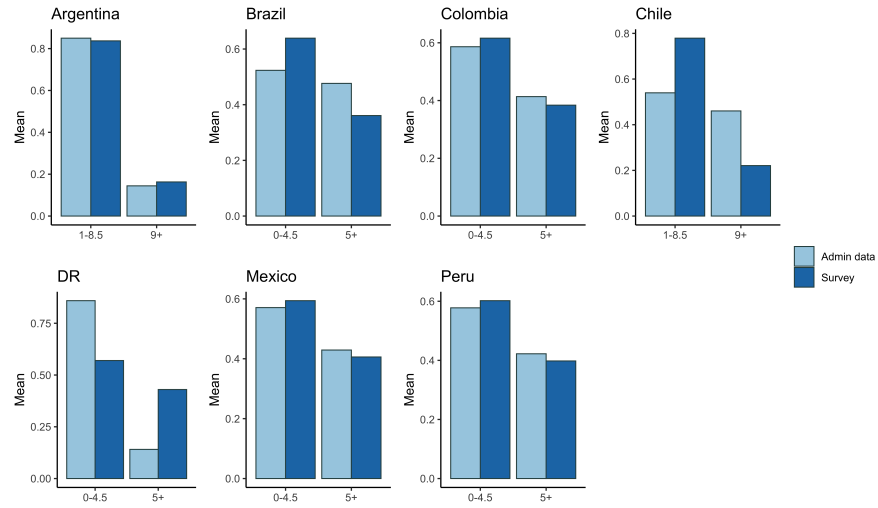
Notes: Figure shows the share of firms with fewer than 150 employees in each employment category in country's administrative data (in light blue) and the survey respondents (in dark blue). Official employment data for Argentina and Chile was only available in the 1-8.5 bin and 9-150 bin. Administrative data on distribution of firm size was not available in Bolivia.

Table C2: Descriptive statistics

	Baseline			July follow up			November follow up		
	Mean	SD	N	Mean	SD	N	Mean	SD	N
Jan. FTE employees	6.83	11.65	34,403	6.21	7.95	1,968	6.04	7.26	1,283
Informal firm	0.31	0.46	8,196	0.27	0.44	1,376	0.29	0.45	1,237
Sector: Manufacturing	0.04	0.19	7,840	0.04	0.20	1,337	0.04	0.19	971
Sector: Construction	0.05	0.22	7,840	0.05	0.22	1,337	0.05	0.23	971
Sector: Retail	0.35	0.48	7,840	0.33	0.47	1,337	0.35	0.48	971
Sector: Services	0.38	0.49	7,840	0.39	0.49	1,337	0.38	0.49	971
Sector: Other	0.18	0.38	7,840	0.19	0.40	1,337	0.18	0.38	971
Firm age	9.15	10.17	7,810	8.40	8.77	1,333	8.19	8.37	964
Years of education	14.63	2.23	7,932	14.81	2.13	1,341	14.86	2.11	972
Female	0.44	0.50	7,424	0.42	0.49	1,274	0.43	0.50	944
Age Group: 18 - 24	0.02	0.14	7,930	0.01	0.12	1,341	0.01	0.11	971
Age Group: 25 - 34	0.25	0.43	7,930	0.21	0.40	1,341	0.21	0.41	971
Age Group: 35 - 49	0.53	0.50	7,930	0.54	0.50	1,341	0.53	0.50	971
Age Group: 50+	0.21	0.40	7,930	0.24	0.43	1,341	0.25	0.43	971
Already laid off workers	0.58	0.49	33,307	0.55	0.50	1,948	0.67	0.47	1,158
Expect to lay off workers	0.62	0.48	30,177	0.55	0.50	915	0.33	0.47	990
Recover two years	0.68	0.47	28,763	0.77	0.42	1,665	0.74	0.44	1,111
Expect to recover ever	0.92	0.27	28,683	0.96	0.21	1,755	0.95	0.21	1,109
Aware of programs	0.27	0.44	28,815	0.45	0.50	1,176	0.48	0.50	1,238
Aware of programs to cover wages	0.12	0.32	26,932	0.34	0.47	981			
Aware of subsidized loans	0.15	0.35	26,932	0.39	0.49	981			
Expected prob. of bankruptcy	0.50	0.28	27,608	0.37	0.30	1,762	0.25	0.30	307
Closed	0.09	0.29	10,359	0.06	0.23	1,953	0.07	0.26	1,273
Applied	0.16	0.36	8,514	0.44	0.50	1,727	0.66	0.47	702
Perc. revenue loss	69.20	24.63	6,780	70.39	25.55	932	71.97	25.04	1,194
Approve of policies for SMEs	0.33	0.47	4,588	0.28	0.45	908	0.27	0.44	1,047
Approve of policies for workers	0.43	0.49	4,588	0.39	0.49	908	0.37	0.48	1,047
Gov. reaction was appropriate	0.43	0.50	4,556	0.31	0.46	906	0.29	0.46	1,036
Received help	0.05	0.21	3,184	0.17	0.37	1,574	0.33	0.47	717

Notes: We restrict the analysis to businesses with fewer than 150 FTE employees, and we only include respondents who complete at least the first question regarding employment in January. The first panel shows firm characteristics, the second panel shows firm owners' characteristics, and the third panel shows outcomes. The questions with lower observations counts were only asked in the extended baseline survey. The questions on awareness about specific aspects of programs were not asked in the November follow-up survey. Not all respondents complete the entire survey.

D   Appendix: Trends over time

This section provides additional results on the evolution of expectations and awareness in the early months of the pandemic. Table D1 is a table version of Figure 2 from the paper. Figure D1 shows the evolution of awareness by type of program and firm size. The top panel shows that less than 50 percent of firm owners were aware of any programs to help their business, while even fewer were aware of programs that covered wages or offered subsidized loans. The bottom panel shows that there were substantial gaps in awareness across firm size bins at the beginning of the pandemic, as well as marked differences in their evolution over the first three weeks. Businesses with more than five employees were substantially more aware of programs from the onset, and learned about programs more quickly than smaller firms. Tables D2 and D3 are a table versions of Figure D1.

Table D1: Trends in expectations in first three months of pandemic

	Recover two years	Recover ever	Prob. bankrupt	Expect future layoffs	Past layoffs	Prop of Jan workers working
Week of March 29	0.812***	0.941***	0.316***	0.383***	0.215***	0.971***
	(0.070)	(0.028)	(0.046)	(0.083)	(0.078)	(0.065)
Week of April 1	0.769***	0.936***	0.349***	0.396***	0.329***	0.837***
	(0.069)	(0.027)	(0.045)	(0.082)	(0.077)	(0.064)
Week of April 8	0.749***	0.928***	0.370***	0.400***	0.388***	0.771***
	(0.069)	(0.027)	(0.045)	(0.082)	(0.078)	(0.064)
Week of April 15	0.696***	0.919***	0.380***	0.417***	0.401***	0.759***
	(0.069)	(0.027)	(0.045)	(0.082)	(0.078)	(0.064)
Week of May 6	0.797***	0.965***	0.323***	0.349***	0.383***	0.828***
	(0.069)	(0.027)	(0.046)	(0.083)	(0.078)	(0.064)
Week of May 13	0.772***	0.967***	0.325***	0.332***	0.422***	0.802***
	(0.069)	(0.027)	(0.045)	(0.082)	(0.078)	(0.064)
N	25,085	25,007	23,971	26,727	29,387	25,830

Notes: $^{***}p < 0.01$, $^{**}p < 0.05$, $^{*}p < 0.1$ Note: Table shows results from baseline survey between March 29th and May 19th. The weeks of May 20th and May 27th are omitted. All regressions control for a third order polynomial in the number of full-time equivalent employees in January, country dummies, years of education dummies, gender, age group dummies, firm sector, and firm age. Decreasing sample size is a result of within-survey attrition.

Figure D1: "Are you aware of any state or federal programs that could help your business?"
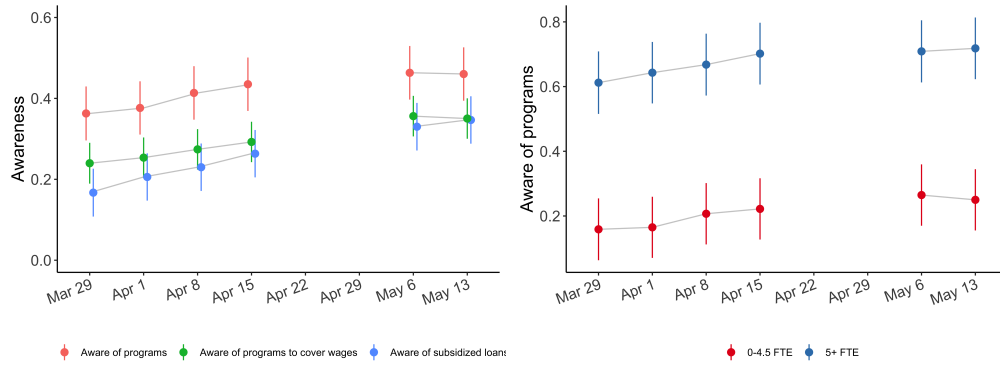
Note: Figure shows results from baseline survey between March 29th and May 19th. The weeks of May 20th and May 27th are omitted. All regressions control for a third order polynomial in the number of full-time equivalent employees in January, the day of the week the survey was completed, awareness of programs at baseline, years of education dummies, gender, age group dummies, firm sector, firm age, country dummies, and the date the survey was completed. The omitted group for country is Argentina. The omitted group for firm owner age group is 35-39 years old. See Table D2 for a table version of this figure.

Table D2: Trends in awareness in first three months of pandemic

	Aware of programs	Aware of subsidized loans	Aware of programs to cover wages
Week of March 29	0.363***	0.167**	0.240***
	(0.077)	(0.070)	(0.067)
Week of April 1	0.376***	0.206***	0.254***
	(0.076)	(0.069)	(0.067)
Week of April 8	0.414***	0.230***	0.274***
	(0.076)	(0.069)	(0.067)
Week of April 15	0.435***	0.263***	0.292***
	(0.076)	(0.069)	(0.067)
Week of May 6	0.463***	0.330***	0.356***
	(0.076)	(0.069)	(0.067)
Week of May 13	0.460***	0.347***	0.350***
	(0.077)	(0.070)	(0.067)
N	24,884	23,336	23,336

Notes: $^{***}p < 0.01$, $^{**}p < 0.05$, $^{*}p < 0.1$ Note: Table shows results from baseline survey between March 29th and May 19th. The weeks of May 20th and May 27th are omitted. All regressions control for a third order polynomial in the number of full-time equivalent employees in January, country dummies, years of education dummies, gender, age group dummies, firm sector, and firm age. Decreasing sample size is a result of within-survey attrition. Estimates are based on the response to the question "Are you aware of any federal or state programs that could help your business during this crisis?" and thus may capture a combination of awareness of the program as well as comprehension of how the program works, who is eligible, and how to apply.

Table D3: Trends in awareness in first three months of pandemic by firm size

	0-4.5 FTE	5+ FTE
Week of March 29	0.159*	0.612***
	(0.094)	(0.112)
Week of April 1	0.165*	0.643***
	(0.093)	(0.110)
Week of April 8	0.207**	0.668***
	(0.093)	(0.111)
Week of April 15	0.222**	0.702***
	(0.093)	(0.111)
Week of May 6	0.265***	0.709***
	(0.093)	(0.111)
Week of May 13	0.250***	0.718***
	(0.093)	(0.110)
N	15,065	9,897

Notes: $^{***}p < 0.01$, $^{**}p < 0.05$, $^{*}p < 0.1$ Note: Table shows results from baseline survey between March 29th and May 19th. The weeks of May 20th and May 27th are omitted. All regressions control for a third order polynomial in the number of full-time equivalent employees in January, country dummies, years of education dummies, gender, age group dummies, firm sector, and firm age. Decreasing sample size is a result of within-survey attrition. Estimates are based on the response to the question "Are you aware of any federal or state programs that could help your business during this crisis?" and thus may capture a combination of awareness of the program as well as comprehension of how the program works, who is eligible, and how to apply.

E   Appendix: Principal Component Analysis

This section provides details on our use of Principal Component Analysis (PCA) for dimension reduction of results. We use reduce ten individual outcomes from the baseline sample to three indexes: expectations, outcomes, and approval. The "Expectation index" is composed of questions about recovery, future layoffs, and future closure or bankruptcy; the "Outcome index" is composed of questions about revenue loss, past layoffs, and permanent closure; and the "Approval index" is composed of questions about approval of policies for SMEs, workers, and the

government's overall response. Table E1 shows the rotation of each variable at baseline. We project the July and November samples onto the baseline PCA.

Table E2 shows the indexes created by averaging z-scores of the individual outcomes rather than by PCA. As expected, we find similar though smaller coefficients on the association between receiving aid and expectations, outcomes, and approval. In addition, we see the same trends emerge: receiving aid was associated with the largest improvements in expectations in the short-term; improvements in outcomes and expectations were driven by firms with more than five employees; and the association between receiving aid and improved outcomes and expectations was weakest in November.

Table E1: Rotation of baseline variables for PCA

	Expectations	Outcomes	Approval
Recover two years	-0.538		
Recover ever	-0.486		
Expect future layoffs	0.423		
Prob. bankruptcy	0.544		
Perc. revenue loss		0.579	
Past layoffs		0.609	
Permanently closed		0.542	
Approve of SME programs			-0.633
Approve of programs for workers			-0.644
Gov. response was appropriate			-0.430

Note: Table shows the rotation of baseline variables within each index.

Table E2: Indexes using with average of standardized outcomes

	All			0-4.5 FTE			5+ FTE		
	April	July	Nov	April	July	Nov	April	July	Nov
Expectation index (avg)	0.186***	0.210***	0.124**	0.184*	0.183***	0.012	0.190**	0.248***	0.186**
	(0.062)	(0.049)	(0.060)	(0.095)	(0.068)	(0.085)	(0.084)	(0.072)	(0.094)
Outcome index (avg)	0.065	0.201***	0.136**	0.117*	0.090*	0.046	0.024	0.287***	0.137*
	(0.047)	(0.037)	(0.056)	(0.067)	(0.053)	(0.086)	(0.061)	(0.053)	(0.077)
Approval index (avg)	0.393***	0.206***	0.282***	0.569***	0.036	0.073	0.255**	0.316***	0.469***
	(0.090)	(0.056)	(0.073)	(0.132)	(0.071)	(0.103)	(0.118)	(0.086)	(0.105)
Number of respondents	3,179	1,572	717	1,823	945	404	1,356	627	313

Notes: $^{***}p < 0.01$, $^{**}p < 0.05$, $^{*}p < 0.1$ The first three columns show results for the full sample, while the remaining columns show results conditional on firm size bins. All regressions control for a third order polynomial in the number of FTE employees in January, awareness of programs at baseline, years of education dummies, gender, age group dummies, firm sector, firm age, country dummies, and the date the survey was completed. The "Expectation index" is composed of questions about recovery, future layoffs, and future closure or bankruptcy; the "Outcome index" is composed of questions about revenue loss, past layoffs, and permanent closure; and the "Approval index" is composed of questions about approval of policies for SMEs, workers, and the government's overall response.

F   Appendix: Additional results related to access to aid

This section provides additional results to supplement the analysis of who applied for aid and the benefits associated with receiving aid. Tables F2, F1, and F3 supplement Table 2 from the paper. The first repeats the analysis in the main paper with additional controls for the number of cases and deaths per million people in the country at the time of the study, as well as government stringency. The second repeats the analysis, but with four size bins for firms, separating firms with no employees in January from the 0 to 4.5 group. The third restricts the sample to respondents who completed at least one of the follow-up surveys.

Tables F4, F5, and F3 show the individual outcomes associated with each index in Table 3, as well as provide robustness. Table F5 extends Table 3 by controlling for the number of cases and deaths per million people in the country at the time of the study, as well as government

stringency. Table F3 restricts the analysis to the sub-sample who completed the original baseline survey and then completed either of the the follow-up surveys.

Table F1: Access to aid and firm characteristics (four employment groups)

	Aware of programs			Applied			Received help		
	April	July	Nov	April	July	Nov	April	July	Nov
0 FTE	−0.079**	−0.008	−0.298***	−0.099***	−0.166**	−0.200	−0.013	−0.146***	−0.121
	(0.033)	(0.087)	(0.097)	(0.025)	(0.067)	(0.135)	(0.026)	(0.054)	(0.111)
0.5-4.5 FTE	−0.086***	−0.101**	−0.168***	−0.074***	−0.118***	−0.165***	−0.028**	−0.133***	−0.274***
	(0.015)	(0.043)	(0.040)	(0.013)	(0.034)	(0.048)	(0.012)	(0.030)	(0.050)
5-9.5 FTE	−0.032*	−0.024	−0.130***	−0.034**	−0.068*	−0.084	−0.031**	−0.103***	−0.136**
	(0.017)	(0.046)	(0.044)	(0.014)	(0.038)	(0.052)	(0.013)	(0.034)	(0.056)
Informal	−0.080***	−0.087**	−0.149***	−0.035***	−0.150***	−0.126**	−0.006	−0.082***	−0.091**
	(0.014)	(0.037)	(0.035)	(0.009)	(0.033)	(0.057)	(0.008)	(0.021)	(0.045)
Years of schooling	0.020***	0.018**	0.001	0.005***	0.006	−0.001	0.007***	0.012**	0.009
	(0.003)	(0.007)	(0.008)	(0.002)	(0.007)	(0.011)	(0.002)	(0.005)	(0.010)
Aware of programs (April)		0.322***	0.219***	0.185***	0.157***	0.054	0.076***	0.113***	0.093**
		(0.033)	(0.033)	(0.009)	(0.028)	(0.039)	(0.008)	(0.023)	(0.038)
Recover in two years (April)	0.060***	0.060*	0.031	−0.008	−0.008	0.051	0.007	0.010	−0.001
	(0.011)	(0.032)	(0.033)	(0.009)	(0.026)	(0.043)	(0.008)	(0.020)	(0.041)
Mean	0.349	0.451	0.477	0.156	0.441	0.661	0.045	0.168	0.331
N	8,426	1,027	1,091	7,643	1,567	635	3,184	1,453	648

Notes: $^{***}p < 0.01$, $^{**}p < 0.05$, $^{*}p < 0.1$. All regressions control for day of week, country dummies, and the date the survey was completed. All regressions also include controls for industry, age dummies, firm age, and gender, but coefficients were largely not statistically significant nor large and are not displayed as they largely did not predict the outcomes. The omitted category for firm-size bins is firms with 10-150 FTE employees.

Table F2: Access to aid and firm characteristics (additional controls)

	Aware of programs			Applied			Received help		
	April	July	Nov	April	July	Nov	April	July	Nov
0-4.5 FTE	−0.064***	−0.080***	−0.095***	−0.054***	−0.079***	−0.120***	−0.009	−0.072***	−0.191***
	(0.011)	(0.030)	(0.031)	(0.009)	(0.025)	(0.040)	(0.008)	(0.020)	(0.039)
Informal	−0.085***	−0.087**	−0.152***	−0.036***	−0.154***	−0.129**	−0.007	−0.083***	−0.091**
	(0.014)	(0.037)	(0.035)	(0.009)	(0.033)	(0.057)	(0.008)	(0.021)	(0.045)
Years of schooling	0.020***	0.019**	0.002	0.006***	0.007	−0.0002	0.008***	0.012**	0.009
	(0.003)	(0.007)	(0.008)	(0.002)	(0.007)	(0.011)	(0.002)	(0.005)	(0.010)
Aware of programs (April)		0.323***	0.225***	0.185***	0.161***	0.053	0.077***	0.114***	0.091**
		(0.034)	(0.033)	(0.009)	(0.028)	(0.040)	(0.008)	(0.023)	(0.039)
Recover in two years (April)	0.061***	0.060*	0.025	−0.008	−0.011	0.045	0.007	0.004	−0.006
	(0.011)	(0.032)	(0.033)	(0.009)	(0.026)	(0.043)	(0.008)	(0.021)	(0.041)
Mean	0.349	0.451	0.477	0.156	0.441	0.661	0.045	0.168	0.331
N	8,426	1,027	1,091	7,643	1,567	635	3,184	1,453	648

Notes: $^{***}p < 0.01$, $^{**}p < 0.05$, $^{*}p < 0.1$. All regressions control for day of week, country dummies, the date the survey was completed, total COVID-19 cases per million people by country, total COVID-19 deaths per million people by country, and government stringency by country. All regressions also include controls for industry, age dummies, firm age, and gender, but coefficients were largely not statistically significant nor large and are not displayed as they largely did not predict the outcomes. The omitted category for firm-size bins is firms with 5-150 FTE employees.

Table F3: Access to aid and firm characteristics (balanced panel)

	Aware of programs			Applied			Received help		
	April	July	Nov	April	July	Nov	April	July	Nov
0-4.5 FTE	−0.067**	−0.080***	−0.095***	−0.058**	−0.080***	−0.120***	0.001	−0.072***	−0.191***
	(0.031)	(0.030)	(0.031)	(0.024)	(0.025)	(0.040)	(0.016)	(0.020)	(0.039)
Informal	−0.092***	−0.087**	−0.155***	−0.031	−0.153***	−0.131**	−0.008	−0.083***	−0.092**
	(0.035)	(0.037)	(0.035)	(0.022)	(0.033)	(0.057)	(0.017)	(0.022)	(0.045)
Years of schooling	0.031***	0.019**	0.002	0.006	0.007	−0.001	0.008**	0.012**	0.009
	(0.007)	(0.007)	(0.008)	(0.006)	(0.007)	(0.011)	(0.004)	(0.005)	(0.010)
Aware of programs (May)		0.320***	0.221***	0.189***	0.159***	0.056	0.065***	0.114***	0.093**
		(0.033)	(0.033)	(0.025)	(0.028)	(0.039)	(0.016)	(0.023)	(0.038)
Recover in two years (May)	0.029	0.060*	0.022	−0.031	−0.012	0.046	−0.008	0.004	−0.005
	(0.033)	(0.032)	(0.033)	(0.025)	(0.026)	(0.043)	(0.018)	(0.021)	(0.041)
Mean	0.322	0.451	0.477	0.171	0.441	0.661	0.048	0.168	0.331
N	1,068	1,027	1,091	1,057	1,567	635	798	1,453	648

Notes: $^{***}p < 0.01$, $^{**}p < 0.05$, $^{*}p < 0.1$. The baseline sample is restricted to respondents who completed either of the follow-up surveys and were in the control group. All regressions control for day of week, country dummies, and the date the survey was completed. All regressions also include controls for industry, age dummies, firm age, and gender, but coefficients were largely not statistically significant nor large and are not displayed as they largely did not predict the outcomes. The omitted category for firm-size bins is firms with 5-150 FTE employees.

Table F4: Access to aid and expectations, outcomes, and approval of government policies (full results)

	All			0-4.5 FTE			5+ FTE		
	April	July	Nov	April	July	Nov	April	July	Nov
Expectation index	0.272***	0.290***	0.176**	0.267*	0.247**	0.032	0.279**	0.349***	0.243*
	(0.093)	(0.069)	(0.086)	(0.142)	(0.096)	(0.120)	(0.125)	(0.101)	(0.134)
Recover in two years	0.046	0.063**	0.027	0.040	0.029	0.006	0.056	0.116***	0.020
	(0.035)	(0.030)	(0.038)	(0.052)	(0.043)	(0.055)	(0.049)	(0.044)	(0.054)
Recover ever	0.001	0.019	0.045**	−0.016	0.030*	0.019	0.011	0.007	0.062**
	(0.019)	(0.013)	(0.019)	(0.032)	(0.015)	(0.028)	(0.023)	(0.022)	(0.029)
Expect future layoffs	−0.141***	−0.152***	−0.040	−0.173**	−0.183***	−0.020	−0.125**	−0.139**	−0.060
	(0.044)	(0.046)	(0.042)	(0.068)	(0.068)	(0.063)	(0.057)	(0.068)	(0.060)
Prob of closure or bankruptcy	−0.076***	−0.089***	0.024	−0.083**	−0.062**	0.110	−0.071**	−0.121***	−0.012
	(0.022)	(0.020)	(0.049)	(0.032)	(0.030)	(0.076)	(0.032)	(0.026)	(0.093)
Outcome index	0.104	0.338***	0.211**	0.188*	0.152*	0.074	0.037	0.482***	0.201*
	(0.075)	(0.063)	(0.089)	(0.107)	(0.089)	(0.137)	(0.098)	(0.089)	(0.122)
Perc. rev loss (Mar-Sep)	−2.707	−11.112***	−4.129*	−3.889	−1.632	−0.857	−2.247	−17.768***	−4.839
	(2.022)	(2.775)	(2.463)	(3.008)	(4.389)	(3.734)	(2.796)	(3.721)	(3.546)
Past layoffs	−0.039	−0.110***	−0.029	−0.082	−0.084*	−0.032	0.006	−0.115**	0.047
	(0.042)	(0.035)	(0.040)	(0.058)	(0.047)	(0.061)	(0.054)	(0.049)	(0.053)
Permanently closed	0.000	−0.017***	−0.050***	0.000	−0.013**	−0.010	0.000	−0.019*	−0.088***
	(0.000)	(0.006)	(0.019)	(0.000)	(0.006)	(0.027)	(0.000)	(0.012)	(0.027)
Approval index	0.485***	0.273***	0.375***	0.716***	0.052	0.109	0.305**	0.415***	0.600***
	(0.113)	(0.072)	(0.093)	(0.166)	(0.091)	(0.133)	(0.146)	(0.109)	(0.135)
Approve of SME policies	0.158***	0.233***	0.199***	0.277***	0.090	0.112*	0.058	0.314***	0.279***
	(0.047)	(0.051)	(0.045)	(0.065)	(0.072)	(0.066)	(0.061)	(0.071)	(0.067)
Approve of policies for workers	0.162***	0.148***	0.127***	0.231***	0.001	0.019	0.107*	0.207***	0.216***
	(0.044)	(0.054)	(0.049)	(0.062)	(0.073)	(0.069)	(0.059)	(0.075)	(0.072)
Gov. reaction was appropriate	0.132***	0.041	0.061	0.159**	−0.047	−0.034	0.101	0.072	0.190***
	(0.046)	(0.048)	(0.046)	(0.065)	(0.066)	(0.062)	(0.063)	(0.071)	(0.066)
Number of respondents	3,184	1,607	717	1,825	964	404	1,356	643	313

Notes: $^{***}p < 0.01$, $^{**}p < 0.05$, $^{*}p < 0.1$ The first three columns show results for the full sample, while the remaining columns show results conditional on firm size bins. All regressions control for a third order polynomial in the number of FTE employees in January, awareness of programs at baseline, years of education dummies, gender, age group dummies, firm sector, firm age, country dummies, and the date the survey was completed. Missing values have been imputed based on data after April 19, 2020, when we began asking firm owners if they had received aid.

Table F5: Access to aid and expectations, outcomes, and approval of government policies (full results with additional controls)

	All			0-4.5 FTE			5+ FTE		
	April	July	Nov	April	July	Nov	April	July	Nov
Expectation index	0.274***	0.289***	0.172**	0.267*	0.245**	0.031	0.283**	0.342***	0.252*
	(0.092)	(0.069)	(0.086)	(0.141)	(0.096)	(0.124)	(0.123)	(0.102)	(0.133)
Recover in two years	0.048	0.062**	0.026	0.040	0.028	0.006	0.058	0.114***	0.022
	(0.036)	(0.030)	(0.038)	(0.052)	(0.044)	(0.057)	(0.049)	(0.044)	(0.053)
Recover ever	0.001	0.019	0.044**	−0.015	0.029*	0.016	0.012	0.004	0.065**
	(0.019)	(0.013)	(0.019)	(0.031)	(0.015)	(0.028)	(0.022)	(0.022)	(0.029)
Expect future layoffs	−0.141***	−0.152***	−0.041	−0.175**	−0.183***	−0.034	−0.125**	−0.143**	−0.062
	(0.044)	(0.047)	(0.042)	(0.068)	(0.069)	(0.063)	(0.057)	(0.068)	(0.061)
Prob of closure or bankruptcy	−0.077***	−0.089***	0.022	−0.082**	−0.062**	0.134*	−0.072**	−0.120***	−0.070
	(0.022)	(0.020)	(0.050)	(0.032)	(0.030)	(0.080)	(0.031)	(0.026)	(0.097)
Outcome index	0.100	0.337***	0.207**	0.179*	0.154*	0.070	0.036	0.467***	0.198
	(0.076)	(0.063)	(0.089)	(0.109)	(0.089)	(0.137)	(0.098)	(0.089)	(0.124)
Perc. rev loss (Mar-Sep)	−2.543	−11.156***	−4.139*	−3.649	−1.798	−1.072	−2.141	−17.206***	−4.934
	(2.029)	(2.765)	(2.471)	(3.046)	(4.402)	(3.825)	(2.802)	(3.680)	(3.585)
Past layoffs	−0.038	−0.110***	−0.027	−0.078	−0.084*	−0.023	0.006	−0.110**	0.050
	(0.042)	(0.035)	(0.040)	(0.057)	(0.047)	(0.060)	(0.054)	(0.049)	(0.054)
Permanently closed	0.000	−0.017***	−0.049***	0.000	−0.013**	−0.009	0.000	−0.018	−0.088***
	(0.000)	(0.006)	(0.019)	(0.000)	(0.006)	(0.027)	(0.000)	(0.012)	(0.027)
Approval index	0.488***	0.270***	0.372***	0.711***	0.047	0.096	0.314**	0.405***	0.612***
	(0.114)	(0.072)	(0.093)	(0.166)	(0.090)	(0.136)	(0.149)	(0.109)	(0.134)
Approve of SME policies	0.160***	0.232***	0.197***	0.279***	0.084	0.098	0.062	0.310***	0.281***
	(0.047)	(0.051)	(0.045)	(0.065)	(0.072)	(0.067)	(0.063)	(0.071)	(0.067)
Approve of policies for workers	0.162***	0.147***	0.125***	0.225***	−0.0002	0.007	0.114*	0.205***	0.218***
	(0.045)	(0.053)	(0.048)	(0.063)	(0.073)	(0.070)	(0.061)	(0.074)	(0.071)
Gov. reaction was appropriate	0.134***	0.038	0.061	0.156**	−0.050	−0.020	0.106*	0.063	0.194***
	(0.046)	(0.048)	(0.046)	(0.065)	(0.067)	(0.062)	(0.063)	(0.070)	(0.065)
Number of respondents	3,184	1,607	717	1,825	964	404	1,356	643	313

Notes: ***$p < 0.01$, **$p < 0.05$, *$p < 0.1$. All regressions control for a third order polynomial in the number of full-time equivalent employees in January, the day of the week the survey was completed, awareness of programs at baseline, years of education dummies, gender, age group dummies, firm sector, firm age, country dummies, and the date the survey was completed. Compared to Table 3, this table additionally controls for total COVID-19 cases per million people by country, total COVID-19 deaths per million people by country, and government stringency by country. Missing values have been imputed based on data after April 19, 2020, when we began asking firm owners if they had received aid.

Table F6: Access to aid and expectations, outcomes, and approval of government policies (balanced panel of full results)

	All			0-4.5 FTE			5+ FTE		
	April	July	Nov	April	July	Nov	April	July	Nov
Expectation index	0.225	0.290***	0.176**	0.558***	0.247**	0.032	−0.192	0.349***	0.243*
	(0.186)	(0.069)	(0.086)	(0.184)	(0.096)	(0.120)	(0.335)	(0.101)	(0.134)
Recover in two years	−0.022	0.063**	0.027	0.094	0.029	0.006	−0.178	0.116***	0.020
	(0.075)	(0.030)	(0.038)	(0.086)	(0.043)	(0.055)	(0.130)	(0.044)	(0.054)
Recover ever	0.036	0.019	0.045**	0.037	0.030*	0.019	0.029	0.007	0.062**
	(0.034)	(0.013)	(0.019)	(0.024)	(0.015)	(0.028)	(0.074)	(0.022)	(0.029)
Expect future layoffs	−0.055	−0.152***	−0.040	−0.209	−0.183***	−0.020	0.040	−0.139**	−0.060
	(0.092)	(0.046)	(0.042)	(0.135)	(0.068)	(0.063)	(0.128)	(0.068)	(0.060)
Prob of closure or bankruptcy	−0.077*	−0.089***	0.024	−0.146***	−0.062**	0.110	0.020	−0.121***	−0.012
	(0.043)	(0.020)	(0.049)	(0.049)	(0.030)	(0.076)	(0.075)	(0.026)	(0.093)
Outcome index	0.200	0.338***	0.211**	0.134	0.152*	0.074	0.238	0.482***	0.201*
	(0.161)	(0.063)	(0.089)	(0.231)	(0.089)	(0.137)	(0.237)	(0.089)	(0.122)
Perc. rev loss (Mar-Sep)	−7.011*	−11.112***	−4.129*	−4.993	−1.632	−0.857	−8.082	−17.768***	−4.839
	(4.231)	(2.775)	(2.463)	(5.692)	(4.389)	(3.734)	(7.260)	(3.721)	(3.546)
Past layoffs	−0.016	−0.110***	−0.029	−0.007	−0.084*	−0.032	−0.022	−0.115**	0.047
	(0.085)	(0.035)	(0.040)	(0.113)	(0.047)	(0.061)	(0.123)	(0.049)	(0.053)
Permanently closed	0.000	−0.017***	−0.050***	0.000	−0.013**	−0.010	0.000	−0.019*	−0.088***
	(0.000)	(0.006)	(0.019)	(0.000)	(0.006)	(0.027)	(0.000)	(0.012)	(0.027)
Approval index	0.615***	0.273***	0.375***	0.744***	0.052	0.109	0.484	0.415***	0.600***
	(0.223)	(0.072)	(0.093)	(0.289)	(0.091)	(0.133)	(0.352)	(0.109)	(0.135)
Approve of SME policies	0.235***	0.233***	0.199***	0.269**	0.090	0.112*	0.191	0.314***	0.279***
	(0.089)	(0.051)	(0.045)	(0.117)	(0.072)	(0.066)	(0.129)	(0.071)	(0.067)
Approve of policies for workers	0.171**	0.148***	0.127***	0.173*	0.001	0.019	0.179	0.207***	0.216***
	(0.079)	(0.054)	(0.049)	(0.102)	(0.073)	(0.069)	(0.125)	(0.075)	(0.072)
Gov. reaction was appropriate	0.114	0.041	0.061	0.168*	−0.047	−0.034	0.034	0.072	0.190***
	(0.080)	(0.048)	(0.046)	(0.100)	(0.066)	(0.062)	(0.130)	(0.071)	(0.066)
Number of respondents	798	1,607	717	486	964	404	312	643	313

Notes: ***$p < 0.01$, **$p < 0.05$, *$p < 0.1$. Compared to Table 3, the baseline sample is restricted to respondents who completed either of the follow-up surveys and were in the control group. All regressions control for a third order polynomial in the number of full-time equivalent employees in January, the day of the week the survey was completed, awareness of programs at baseline, years of education dummies, gender, age group dummies, firm sector, firm age, country dummies, and the date the survey was completed. The omitted category for firm-size bins is firms with 5-150 FTE employees. Missing values have been imputed based on data after April 19, 2020, when we began asking firm owners if they had received aid.

G   Appendix: Applications to specific programs

This section provides details on applications to specific programs. Of the roughly 2,800 respondents of the July follow-up survey, 936 (32 percent) filled out information about applications and outcomes of specific programs.[20] The vast majority (85 percent) of firms that responded to this section of the survey are formal. Overall, 75 percent of firms who report applying or signing up for a relief program do so only for one. About 18 percent applied to two programs. It is rare (<8 percent) that firms apply to three or more programs. Table G2 shows the programs the received the most applications by country. Table G1 breaks down the number of applications by formality status.

There are 205 firms with information about the time to hear back about the programs to which they applied. Figure G1 shows the average time to hear back from programs, conditional on applying. If a respondent applied to more than one program, their wait time was averaged. On average, firms with more than five employees experienced longer wait times. This difference was largely driven by applications to loan programs.

Table G1: Number of applications by formality status

N of programs	Formal	Informal	Total
1	578	121	699
2	154	12	166
3	41	1	42
4	21	1	22
5	3	2	5
6	2	0	2
Total	**799**	**137**	**936**

Note: Table shows number of applications by formality status, where formality status is determined by making social security contributions.

Table G2: Programs that received the most applications by country

Country	Program	N
Argentina	Programa de Asistencia de Emergencia al Trabajo y la Producción	16
Bolivia	Programa Especial de Apoyo a la Micro, Pequeña y Mediana Empresa	10
Brazil	Programa Emergencial de Acesso a Crédito	77
	BNDES Credito Pequenas Empresa	62
	Programa Emergencial de Manutencao do Emprego e da Renda	33
Chile	Ampliación FOGAPE	167
	Suspensión del contrato de trabajo por acto de autoridad	59
	Pacto de suspensión del contrato de trabajo	53
Colombia	Subsidio del gobierno para pagar nominas	109
Dominican Republic	Pa' Ti	21
Mexico	Créditos solidarios a palabra	107
Peru	Reactiva Perú	91
	Fae-MYPE	31

Note: Table shows the programs the received the most applications in each country. For additional details on these programs, see Tables A2 and A3.

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[20]Respondents were shown this part of the survey if they reported submitting an application or trying to submit one.

Figure G1: Number of days to hear back by firm size
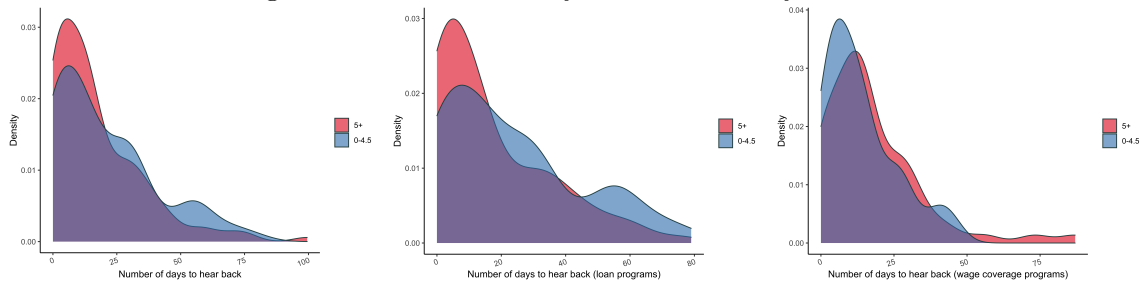
Note: The left plot shows number of days to hear back by firm size. The center and right plots break out trends by program type.

H Appendix: Testimonials

How has COVID-19 affected your business?

"On one hand, our sales were affected because people are more reluctant to spend and, on the other hand, because it's impossible to make shipments due to the mandatory quarantine." (Argentina, April 10, 2020)

"We are a small business supplying goods for the hotel and restaurant industry in Chile. Due to COVID-19 ALL of my clients have closed their doors until July 1, at least. My suppliers in China have increased their prices exorbitantly and there is no transportation to ship the merchandise. Also, the United States is confiscating essential merchandise (masks, etc.) that pass through its ports, which makes it impossible to import them and adapt to what that the market is buying." (Chile, April 11, 2020)

What could the government do to help businesses like yours?

"I think an ideal initiative would be to give out credit to SMEs with 0 percent interest to incentivize production. Or make competitive funds available." (Bolivia, April 3, 2020)

"In my case, I can access loans to obtain more capital; however, there are many prerequisites, the time until disbursement is too long, and the interest is too high." (Bolivia, April 5, 2020)

Please explain in your own words how your was experience looking for or applying for assistance programs.

"There are programs sponsored by SERCOTEC, CORFO, SENCE. I applied to the one by SERCOTEC, along with other 60,000 other firms. I was rejected and the justification was a lie (that I did not enter my tax information). In practice, they gave out less than 3,000 credits and the other 57,000 firms were turned down. It's funny that they do so much advertising encouraging us to participate." (Chile, July 7, 2020)

"A total frustration. We are a small firm, banks give *Reactiva Peru* loans to medium and large firms, because our annual output seems too low to them. Also, other banks required us to have outstanding debt with them or an active account with them. Unfortunately, there is no one we can go to complain or appeal." (Peru, July 1, 2020)