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Nonprofit Organizations' Financial Obligations and the Paycheck Protection Program

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Abstract. We examine nonprofit organizations' involvement in the Paycheck Protection Program (PPP). The PPP provided participants with forgivable loans to pay employee salaries, increasing participants' financial flexibility during the pandemic. We examine the associations between nonprofits' prepandemic financial obligations (e.g., long-term debt and donor-restricted net assets) and PPP participation and participants' loan characteristics. First, we find nonprofit organizations participated at a lower rate than other small business industries and that nonprofits with greater financial obligations were more likely to participate in the program. Second, we find financial obligations were positively associated with the loan amount received as a percentage of total payroll costs. Last, although approximately 11% of nonprofits failed to obtain loan forgiveness, we find nonprofits with restricted net assets were more likely to have their loans forgiven. Our results suggest nonprofits with greater debt and donor obligations used the PPP to increase their financial flexibility.

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1. Introduction

The U.S. federal government created the Paycheck Protection Program ("the program" or "PPP") in response to the economic effects of the COVID-19 pandemic. The program's objective was to provide small business entities¹ with resources to support company payroll costs and maintain employment, and it funded approximately 11.8 million loans worth nearly \$800 billion. These loans were issued at a 1% interest rate but were forgivable and converted into grants if loan proceeds were primarily used for payroll costs and employees were retained.

Our study focuses on the nonprofit sector: an important component of the U.S. economy, representing 5.7% of gross domestic product (GDP), employing 6.4% of the workforce, and contributing \$1.4 trillion to the American economy in the first quarter of 2022 (Independent Sector 2022). Moreover, nonprofits provide valuable services during times of crisis (Maher et al. 2020). Yet, few PPP-related studies and media articles focus on the nonprofit sector. The existing literature generally surveys nonprofits and asks questions related to the pandemic and PPP participation. These accounts noted that the program enabled nonprofits to continue operations (Lyons 2021); however, some found the program's eligibility criteria,

application process, and loan forgiveness provisions lacked clarity (Finchum-Mason et al. 2020). Combined with nonprofits' relative aversion to debt financing (Calabrese 2011, Garcia-Rodriguez et al. 2022), it is thus perhaps not surprising that disproportionately fewer nonprofits participated in the loan program than for-profit entities (Schweitzer and Borawski 2021). Collectively, the evidence points to nonprofits' unique involvement with the PPP.

To help explain nonprofits' engagement with the PPP, we focus on the role of financial obligations, specifically long-term debt obligations and donor-restricted net assets, and examine whether these obligations are associated with program participation and the loan amounts received and ultimately forgiven. Nonprofits provide a unique setting to examine financial obligations. Some nonprofits receive donations restricted for a time and/or purpose (e.g., endowment contributions or donations for specific organization expenses).² These restrictions imply a future obligation imposed by donors, constraining future resource use. Thus, the nonprofit setting allows us to examine resource obligations from both external financing and donor restrictions.

We posit that the forgivable PPP loans provided financial flexibility and reduced the constraints of existing

financial obligations to participants by temporarily funding payroll costs and allowing participants to maintain employment and/or utilize resources intended for payroll on other activities. Furthermore, financial flexibility is a determinant of increased corporate investment (Arslan-Ayaydin et al. 2014); nonprofits with greater financial flexibility, or fewer obligations, have more resources to invest in their programs. We argue those with existing debt and restricted net assets have greater financial obligations than other nonprofits, a higher need for financial flexibility, and, therefore, an increased likelihood to participate in the program, greater loan amount requests, and a higher likelihood of obtaining loan forgiveness.

Our sample contains 103,886 PPP-eligible nonprofits, including 39,055 program participants. We identify eligibility based on their number of employees and payroll expenses, inclusive of compensation, benefits, and retirement costs, from Form 990 disclosures (i.e., less than or equal to 500 employees and positive payroll expenses). Then, we identify PPP-participating nonprofits using the Small Business Administration (SBA) PPP loan data. We use the SBA PPP loan data to obtain information about the participants' loan characteristics, including loan amount received, the intended use of loan proceeds by allowable costs, and the loan amount forgiven. We gather financial statement data from Form 990 and use Part X to identify nonprofits with debt and restricted net assets.

Descriptively, the participation rate of PPP-eligible nonprofits in our sample was approximately 38%, considerably lower than the 70% participation rate of small businesses documented in Schweitzer and Borawski (2021); the average nonprofit participant received loans equal to 22.3% of annual payroll costs and approximately 89% of participants obtained loan forgiveness. We find financial obligations are positively associated with participation. Specifically, nonprofits with long-term debt instruments (secured, unsecured, and/or tax-exempt debt) and restricted net assets were more likely to obtain PPP loans. We find consistent results using an alternative measure of the magnitude of financial obligations.³ We also examine the relationship with participants' loan characteristics and find financial obligations are positively associated with the loan amount as a percentage of total payroll costs and that restricted net assets and the magnitude of financial obligations are positively associated with loan forgiveness.

This study makes several contributions. First, we contribute to the growing PPP literature. Prior research examines the barriers to participation (Beaton et al. 2020, Humphries et al. 2020, Birdthistle and Silver 2021), employment outcomes (Chetty et al. 2023, Humphries et al. 2020, Bartik et al. 2021, Bartlett and Morse 2021, Doniger and Kay 2021, Autor et al. 2022, Cole 2022, Granja et al. 2022), and the role of loan originators (Ballew et al. 2021, Erel and Liebersohn 2022, Griffin et al.

2023). Although prior studies focus on the program's efficacy in maintaining employment levels at for-profit businesses, our study provides evidence of the nonprofit sector's involvement in the PPP by examining the financial characteristics of PPP-eligible nonprofits.

We further contribute through our testing of organizational-level factors. The nascent PPP literature provides anecdotal and survey evidence of program barriers, aggregate data on the socio-economic correlates and economic effects of loan disbursements, analyses of lender data, and theoretical modeling of optimal loan allocations. However, given data constraints on for-profit, private entities, prior literature has struggled to quantitatively examine the organizational-level drivers of program participation, characteristics, and outcomes. Leveraging the nonprofit IRS tax form and its filing requirements allows us to operationalize organizational-level characteristics for, importantly, both participating and nonparticipating PPP-eligible nonprofits.

Additionally, we contribute to the literature by exploring the factors associated with obtaining a new source of funding during periods of considerable economic uncertainty. Previous studies suggest that the appropriateness of a new revenue source is based in part on the types of services provided by the nonprofit (Young 2007). At an aggregate level, studies have found that nonprofits that concentrate on fewer revenue sources generally experience revenue growth (Foster and Fine 2007, Chikoto and Neely 2014). However, this may come at the price of less financial stability (Carroll and Stater 2009). Our study isolates the determinants of obtaining PPP loans, thereby furthering our understanding of the decision to obtain a new, temporary revenue source.

At a practical level, our study contributes to the understanding of government loan programs and the characteristics of participating businesses. The findings are particularly relevant for designing business-focused economic relief programs and maximizing their intended societal benefit during economic downturns. Considering nonprofit organizations' key pandemic role and their relatively low rate of program participation, nonprofits may have been overlooked as a key participant, thus reducing the program's potential impact.

2. PPP

In response to the economic disruption caused by COVID 19, the U.S. federal government enacted the Coronavirus Aid, Relief, and Economic Security (CARES) Act (U.S. Department of the Treasury 2021). The CARES Act includes the creation of the PPP to provide economic relief to businesses through forgivable loans designed to incentivize employee retention during the pandemic (U.S. Small Business Administration 2021). The general purpose of PPP loans was to finance payroll cost, including employee salaries and benefits. Entities with 500 or fewer employees

(including affiliated entity employees) were eligible to apply for loans up to approximately 25%⁴ of eligible annual payroll costs, with annual payroll costs of \$100,000 per employee allowable (U.S. Small Business Administration 2021). Loan proceeds could not exceed \$10 million.

Loans were forgiven if employees were retained and loan proceeds used on allowable costs within 24 weeks of receipt (U.S. Small Business Administration 2021).⁵ The allowable costs for forgiveness included payroll, mortgage interest, utilities, rent, and healthcare costs; however, at least 60% of proceeds had to be spent on payroll to obtain loan forgiveness. Any unforgiven loans incurred an interest rate of one percent annually, with loan payments deferred for 10 months and payable over five years (U.S. Small Business Administration 2021).⁶

3. Data and Methodology

3.1. Sample Description

We obtain PPP loan data from the SBA website as of March 2022, which includes the name, address, business sector, and demographics of the borrower, the loan approval amount and date, the loan originator, and the loan amount forgiven. PPP data also include loan proceed amounts intended for payroll, interest,

utilities, rent, and other allowable costs under the forgiveness provision. We restrict our sample of PPP loans to those approved within 2020 to ensure all observations were initial loan distributions.⁷

We leverage the mandatory nonprofit disclosures in the IRS Form 990 in our analyses. We obtain the electronically filed Form 990s received by the IRS from 2010 to 2021, which are available on the Amazon Web Services and IRS servers. We use a multistage, supervised *fuzzy matching* algorithm (Bai et al. 2018) based on the borrower's name, zip code, and address to link nonprofits in the PPP data set to nonprofits in Form 990 data. In a first stage, we identify nonprofits that match perfectly by name and ZIP code. We then implement the fuzzy matching algorithm to match inexact participants, such as for variations of the same nonprofit name (e.g., "Enterprise Community Partners, Inc.," "Enterprise Community Partners," or "Enterprise Community Partners"). Although extensive manual verification is required to ensure accuracy, supervised fuzzy matching allows us to successfully match such cases and thus obtain a larger and more robust data set (Bai et al. 2018).

Table 1, Panel A, describes our sample selection. First, we retain the most recent filing for each nonprofit

Table 1. Observation Detail

Panel A: Sample	
Observation category	Observation count
Most recent Form 990 filing from each nonprofit prior to the CARES Act enactment but after January 1, 2018	215,119
Omit observations:	
More than 500 employees or zero reported employees	(91,415)
Nonpositive total salary expense, total expenses, investible assets, total assets, long-term debt, and total liabilities	(1,885)
Received PPP loan in 2021	(12,816)
Missing regression variables	(5,117)
Total PPP-eligible nonprofits	103,886
PPP loan recipients	39,055
Non-PPP loan recipients	64,831
Panel B: PPP loan recipient by approval month	
Month in 2020	Number of loans approved
April	31,003
May	6,202
June	1,130
July	437
August	283
Total	39,055
Panel C: PPP loan amount	
Loan amount	Number of loans
(\$0, \$10,000)	1,277
[\$10,000, \$50,000)	10,544
[\$50,000, \$150,000)	10,492
[\$150,000, \$500,000)	8,941
[\$500,000, \$1,000,000)	3,599
[\$1,000,000, \$2,000,000)	2,757
[\$2,000,000, \$10,000,000]	1,445

prior to the CARES Act enactment, but we require filings with fiscal year ends in 2018 or later to have financial data immediately prior to the program start date. We retain filings reporting 500 or fewer employees and positive compensation expense to identify nonprofits eligible to participate. We also limit our sample to nonprofits reporting positive assets and nonnegative interest-bearing debt, salary and total expenses, investible assets, and total liabilities to omit filings with possible Form 990 reporting errors (Bowman et al. 2012), and we omit observations with missing data from our analyses. Our final sample includes 39,055 PPP participants, which collectively received PPP loan approval of approximately \$14.58 billion, and 64,831 nonparticipants. Panel B provides the number of PPP participants by approval month. Most participants in our sample obtained loan approval in April 2020 (81%), the initial month of the PPP loan distributions. Panel C provides the number of loans by loan amount. Most loans in our sample are valued at less than \$150,000, and about 4,200 loans were more than \$1 million.

3.2. Methodology

We use the following logistical regression to estimate the likelihood of PPP participation:

$$\begin{aligned} \text{PPP_LOAN} = & \text{LT_DEBT} + \text{RESTRICTED} \\ & + \text{CONTROLS} \\ & + \text{Industry and State Fixed Effects.} \end{aligned} \quad (1)$$

The dependent variable, *PPP_LOAN*, identifies participating nonprofits and is equal to one if the nonprofit received a PPP loan and zero otherwise. Our variables of interest relate to financial obligations. *LT_DEBT* identifies nonprofits with tax-exempt, secured, or unsecured debt (Form 990, Part X, lines 20, 23, and 24, respectively), and *RESTRICTED* identifies nonprofits reporting restricted net assets resulting from donor-restricted contributions (Part X, line 28). We also modify Equation (1) by replacing these two indicator variables with a single measure of the magnitude of resource obligations, with *OBLIGATIONS* equal to the natural log of one plus the sum of restricted net assets and tax-exempt, secured, and unsecured debt scaled by total assets. In both specifications, we expect nonprofits with greater obligations to be more likely to participate in the program.

We then estimate Equation (2) to examine the loan characteristics of PPP participants:

$$\begin{aligned} \text{LOAN_CHARACTERISTICS} \\ = & \text{LT_DEBT} + \text{RESTRICTED} + \text{CONTROLS} \\ & + \text{Industry and State Fixed Effects.} \end{aligned} \quad (2)$$

We examine two loan characteristics: loan amount and loan forgiveness. The dependent variable *LOAN_AMOUNT*

measures the approved loan amount relative to total payroll costs (including wages, benefits, and retirement costs reported in Part I, Line 15). We expect nonprofits with greater obligations to seek greater loan amounts to increase organizational capital and financial flexibility, and we predict positive coefficients on our variables of interest. *FORGIVEN* identifies participants with fully forgiven loans. On the one hand, nonprofits with long-term debt could use the program to refinance other debt instruments and incur a one percent interest rate, resulting in a negative coefficient on *LT_DEBT* and *OBLIGATIONS*. On the other hand, forgiven loans provide capital and additional financial flexibility that does not require repayment, in which case we expect positive coefficients on our variables of interest.

We control for financial and entity-level characteristics common in the nonprofit accounting literature (Chikoto and Neely 2014, Boland et al. 2020, Duguay et al. 2020), including governance, financial resources, revenue characteristics, age, size, number of employees, location (rural or metropolitan), business structure, political activities (see online appendix for details), and industry⁸ and state fixed effects. Building on prior studies stressing the unique role of fintech institutions in originating PPP loans (Erel and Liebersohn 2022, Griffin et al. 2023), we also include in Equation (2) a measure identifying nonprofits whose loans originate with fintech lenders.

To account for differences in nonprofits in our sample with and without external obligations, we entropy balance the regression covariates using a dichotomous variable equal to one if *LT_DEBT* or *RESTRICTED* is equal to one. The covariates are balanced across groups on all three moments (Hainmueller 2012). We generate entropy balanced weights for each subsample examined.

4. Results

4.1. Summary Statistics

Table 2 contains summary statistics. In Panel A, approximately 37.6% of observations participated in the program, which is less than the participation rate of other small business industries (Schweitzer and Borawski 2021). Additionally, 29.1% of observations report long-term debt, 27.9% report restricted net assets, and the magnitude of obligations equals 14.7% of total assets. Panel B reports loan characteristics summary statistics. On average, participating nonprofits received loans equal to 22.3% of annual salary expense, and approximately 89% received full loan forgiveness. Additionally, we find some variation in *LOAN_AMOUNT*, consistent with Schweitzer and Borawski (2021), with an interquartile range from approximately 19.7 to 24.0. Panel C reports means and proportions tests partitioning our full sample by participation. A greater percentage of PPP participants report long-term debt compared with

Table 2. Summary Statistics

Variable	Mean	Standard deviation	25%	Median	75%
Panel A: Full sample (N = 103,886)					
PPP_LOAN	0.376	0.484	0.000	0.000	1.000
LT_DEBT	0.291	0.454	0.000	0.000	1.000
RESTRICTED	0.279	0.449	0.000	0.000	1.000
OBLIGATIONS	0.147	0.273	0.000	0.000	0.186
Panel B: Loan characteristics sample (N = 39,055)					
LOAN_AMOUNT	22.304	7.338	19.699	21.626	24.035
FORGIVEN	0.889	0.315	1.000	1.000	1.000
Subsample					
PPP_LOAN					
Variable	= 1 (n = 39,055)		= 0 (n = 64,831)		Difference
Panel C: Means and proportions tests					
LT_DEBT	0.336		0.263		0.073***
RESTRICTED	0.348		0.238		0.110***
OBLIGATIONS	0.154		0.143		0.011***

Notes. Variables are defined in the Appendix. Summary statistics for continuous variables are unlogged. For control variables see the online appendix.
***Statistical significance at the 0.01 level.

nonparticipants (33.6% versus 26.3%) and restricted net assets (34.8% versus 23.8%), and the magnitude of obligations, as a percentage of total assets, is greater for participants than nonparticipants (*OBLIGATIONS* equal to 0.154 and 0.143, respectively), providing descriptive evidence that PPP participants have greater financial obligations.

4.2. Multivariate Results

We present Equation (1) estimates in Table 3. In column (1), we find the odds of nonprofits with long-term debt and restricted net assets participating in the program are approximately 21 and 13% greater than other eligible

nonprofits, respectively.⁹ Furthermore, the odds of participating increase by about 2% with a one-standard-deviation increase in *OBLIGATIONS* (column 2).¹⁰ Our results are consistent with our expectations that nonprofits with financial obligations were more likely to participate.

Next, we examine the loan characteristics of participating nonprofits and present the estimates of Equation (2) in Table 4. First, we estimate *LOAN_AMOUNT* in columns (1) and (2). As a percentage of total payroll costs, loan amounts were approximately 0.538% and 0.683% greater for nonprofits with long-term debt and restricted net assets, respectively, than other participants.¹¹ Furthermore, loan values increased by approximately 0.283% of total payroll costs with a one-standard-deviation increase in *OBLIGATIONS*.¹² Although the allowable loan amount is determined by a formula, our results suggest there was variation in the loan amount obtained relative to payroll costs, and those with secured debt and higher borrowing costs obtained loans of greater values.¹³

Our *LOAN_AMOUNT* variable includes total payroll costs, but the program restricts applicable payroll costs to the first \$100,000 per employee. There is therefore a possibility that *LOAN_AMOUNT* could be inappropriately measured for nonprofits with employees earning more than \$100,000 annually. As robustness, we use information from Form 990, Part VII to identify nonprofits with any employee earning more than \$100,000 in the tax year and rerun the regressions in columns (1) and (2) excluding these nonprofits.¹⁴ In these untabulated tests, we find no significant association with long-term debt and loan amount using this sample; however, restricted net assets is positively associated with loan amounts. Furthermore, the magnitude of resource obligations is positively associated with loan amounts, suggesting some association between financial obligations and the loan principal amount.

Table 3. PPP Loan Participation

Variable	Dependent variable = PPP_LOAN	
	(1)	(2)
LT_DEBT	0.189*** (0.000)	
RESTRICTED	0.123*** (0.000)	
OBLIGATIONS		0.111*** (0.007)
Control variables and industry and state fixed effects	Yes	Yes
Constant	−2.006*** (0.000)	−2.030*** (0.000)
Pseudo-R ²	0.047	0.046
Observations	103,886	103,886

Notes. Table 3 estimates the likelihood of participating in the program using an entropy balanced logistic regression. Variables are defined in the Appendix (see online appendix for control variable details). Two-tailed *p* values are in parentheses.
***Statistical significance at the 0.01 level.

Table 4. Loan Characteristics

Variable	Dependent variable = <i>LOAN_AMOUNT</i>		Dependent variable = <i>FORGIVEN</i>	
	(1)	(2)	(3)	(4)
<i>LT_DEBT</i>	0.538*** (0.000)		−0.017 (0.749)	
<i>RESTRICTED</i>	0.683*** (0.000)		0.113** (0.010)	
<i>OBLIGATIONS</i>		1.545*** (0.000)		0.296*** (0.010)
Control variables and industry and state fixed effects	Yes	Yes	Yes	Yes
Constant	26.249*** (0.000)	26.048*** (0.000)	2.194*** (0.000)	2.172*** (0.000)
R^2 /Pseudo- R^2	0.034	0.032	0.029	0.029
Observations	39,055	39,055	39,055	39,055

Notes. Table 4, columns (1) and (2), estimates the PPP participants' loan amount. Columns (3) and (4) estimate the likelihood of PPP participant loan forgiveness. Variables are defined in the appendix (see online appendix for control variable details). Pseudo- R^2 is provided for logistical regressions. Two-tailed p values are in parentheses.

***, **, and *Statistical significance at the 0.01, 0.05, and 0.10 levels, respectively.

In columns (3) and (4), we examine the likelihood of loan forgiveness among participants. We find no association between having long-term debt and loan forgiveness; however, nonprofits with restricted net assets were approximately 12% more likely to obtain loan forgiveness than other nonprofits. Additionally, the magnitude of resource obligations is positively associated with the likelihood of forgiveness.

5. Additional Analyses

5.1. Nonprofits with For-Profit Characteristics

Our focus is on tax-exempt entities with different operating incentives than for-profit businesses (Eldenburg and Krishnan 2008). As a result, our inferences may not extrapolate to the broader population of PPP-eligible

businesses. We explore our findings' generalizability to for-profit entities by identifying a subsample of nonprofits that exhibit "for-profit" characteristics by earning a majority of their revenue from nondonative sources (*MAJORITY_DONATIONS* = 0), such as program service revenue and investment income. We estimate our regressions using this subsample and report results in Table 5. Our results for participation and loan amounts are consistent with our main findings, suggesting some ability to extrapolate our findings to for-profit entities. However, we find no significance in our forgiveness test.

5.2. April 2020 PPP Loans

As shown in Table 1, Panel B, approximately 80% of participants in our sample received their loans in April 2020.

Table 5. Nonprofits with For-Profit Characteristics

Variable	Dependent variable = <i>PPP_LOAN</i>		Dependent variable = <i>LOAN_AMOUNT</i>		Dependent variable = <i>FORGIVEN</i>	
	(1)	(2)	(3)	(4)	(5)	(6)
<i>LT_DEBT</i>	0.211*** (0.000)		0.555*** (0.000)		−0.019 (0.764)	
<i>RESTRICTED</i>	0.139*** (0.000)		0.466*** (0.000)		0.047 (0.377)	
<i>OBLIGATIONS</i>		0.184*** (0.000)		0.989*** (0.003)		0.211 (0.135)
Control variables and industry and state fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Constant	−1.854*** (0.000)	−1.905*** (0.000)	25.249*** (0.000)	25.079*** (0.000)	2.107*** (0.000)	2.094*** (0.000)
R^2 /Pseudo- R^2	0.050	0.048	0.038	0.036	0.030	0.030
Observations	70,403	70,403	26,465	26,465	26,465	26,465

Notes. Table 5 estimates Equations (1) and (2) for observations earning most of their revenue from nondonation sources. Variables are defined in the appendix (see online appendix for control variable details). Pseudo- R^2 is provided for logistical regressions. Two-tailed p values are in parentheses.

***, **, and *Statistical significance at the 0.01, 0.05, and 0.10 levels, respectively.

Table 6. April 2020 Loans

Variable	Dependent variable = <i>PPP_LOAN_APRIL</i>				Dependent variable = <i>LOAN_AMOUNT</i>		Dependent variable = <i>FORGIVEN</i>	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>LT_DEBT</i>	0.277*** (0.000)		0.421*** (0.000)		0.486*** (0.001)		−0.036 (0.532)	
<i>RESTRICTED</i>	0.135*** (0.000)		0.117*** (0.001)		0.650*** (0.000)		0.098* (0.054)	
<i>OBLIGATIONS</i>		0.284*** (0.000)		0.697*** (0.000)		1.518*** (0.000)		0.189 (0.151)
Control variables and industry and state fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Constant	−3.025*** (0.000)	−3.086*** (0.000)	−1.562*** (0.000)	−1.664*** (0.000)	26.353*** (0.000)	26.158*** (0.000)	2.288*** (0.000)	2.280*** (0.000)
R^2 /Pseudo- R^2	0.064	0.062	0.091	0.089	0.036	0.035	0.029	0.029
Observations	103,886	103,886	39,055	39,055	31,003	31,003	31,003	31,003

Notes. Table 6, columns (1) to (4), estimates the likelihood of PPP participation in April 2020 for all PPP-eligible nonprofits, shown in columns (1) and (2), and for all nonprofits obtaining loan approval in 2020, shown in columns (3) and (4). Columns (5) to (8) estimate Equation (2) for observations with April 2020 loan approvals. Variables are defined in the appendix (see online appendix for control variable details). Pseudo- R^2 is provided for logistical regressions. Two-tailed p values are in parentheses.

***, **, and *Statistical significance at the 0.01, 0.05, and 0.10 levels, respectively.

However, as previously stated in Endnote 6, Congress altered the program provisions in June 2020, which included changes to loan forgiveness provision, loan duration, and the covered period to use loan proceeds on allowable costs. Therefore, the factors associated with participation may have changed after the enactment of these modifications. To account for these programmatic changes, we modify Equation (1) to estimate the likelihood of loan approval in April 2020 and estimate Equation (2) using participants with April 2020 loan approval. We report the results in Table 6. Our results are generally consistent with our main findings; however, *OBLIGATIONS* is not associated with loan forgiveness for this subsample.

5.3. Lending Relationships

The SBA used the financial industry to originate loans; therefore, those with pre-existing lending relationships

may have had an advantage in applying for and obtaining loans. We omit nonprofits with long-term debt and re-estimate the likelihood of participation. In these untabulated tests, we find nonprofits with restricted net assets were still more likely to participate in the program and obtained larger loans as a percentage of payroll costs.

5.4. Loan Proceeds for Interest Costs

The program's loan forgiveness provision required participants to allocate at least 60% of proceeds on payroll costs, but it also allowed participants to use proceeds on other costs including mortgage interest costs. In effect, entities could lower their cost of debt by allocating up to 40% of loan proceeds to interest costs and receive loan forgiveness. We examine the intended loan proceeds use toward mortgage interest costs¹⁵ and

Table 7. Intended Proceed Use: Mortgage Interest

Variable	Dependent variable = <i>AMOUNT_INT</i>	
	(1)	(2)
<i>INT_EXP</i>	0.031*** (0.000)	0.020*** (0.000)
<i>LN_SECURED_DEBT</i>		0.101*** (0.000)
Control variables and industry and state fixed effects	Yes	Yes
Constant	−0.782* (0.085)	−0.880* (0.050)
R^2 /Pseudo- R^2	0.035	0.038
Observations	10,565	10,565

Notes. Table 7 estimates PPP participants' intended loan proceed usage on mortgage interest for a sample of nonprofits that have secured debt. Variables are defined in the appendix (see online appendix for control variable details). Two-tailed p values are in parentheses.

***, **, and *Statistical significance at the 0.01, 0.05, and 0.10 levels, respectively.

isolate participating nonprofits with secured debt. We estimate the amount of loan proceeds intended for interest conditional on the amount of interest expense and the value of secured debt and report the results in Table 7. We find interest expense and secured debt are positively associated with the loan proceeds intended for interest, which suggests some nonprofits used the PPP to effectively reduce their cost of debt.

6. Conclusion

This study examines characteristics of nonprofit organizations participating in the PPP and the characteristics of loans they obtained. The PPP issued loans to entities with the intent to incentivize employee retention. These loans were forgivable if the funds were primarily used on payroll costs and borrowers retained their employees,

and participation provided additional capital and financial flexibility to participants. We explore whether existing nonprofit financial obligations are associated with the likelihood of participation, the requested loan amounts, and the likelihood of loan forgiveness.

We leverage the nonprofit setting to obtain mandatory financial and employment disclosures and identify nonprofits eligible to participate in the program. Using a sample of PPP-eligible nonprofit organizations, we find nonprofits with greater resource obligations were more likely to participate and obtain a larger loan as a percentage of total payroll costs. Additionally, we find some evidence that resource obligations are positively associated with the likelihood of loan forgiveness. Collectively, these results provide additional insights on the program and the financial characteristics of participants.

Appendix. Variable Definitions

Variable	Definition
Dependent variables	
PPP_LOAN	Equal to one if the nonprofit received a PPP loan, zero otherwise.
LOAN_AMOUNT	Equal to the approved loan amount scaled by total salary expense, multiplied by 100.
FORGIVEN	Equal to one if the nonprofit's PPP loan was fully forgiven, zero otherwise.
PPP_LOAN_APRIL	Equal to one if the nonprofit received a PPP loan in April 2020, zero otherwise.
AMOUNT_INT	Equal to the natural log of one plus the loan amount intended for mortgage interest.
Variables of interest	
LT_DEBT	Equal to one if the nonprofit reported ending secured mortgages, unsecured notes payable or tax-exempt bonds, zero otherwise.
RESTRICTED	Equal to one if the nonprofit reported ending restricted net assets, zero otherwise.
OBLIGATIONS	Equal to the natural log of one plus the sum of total restricted net assets, secured mortgage, unsecured notes payable and tax-exempt bonds scaled by total assets.
INT_EXP	Equal to the natural log of one plus total interest expense.
LN_SECURED_DEBT	Equal to the natural log of one plus total ending secured debt.

Note. See online appendix for control variable details.

Endnotes

¹ The Small Business Administration (SBA) noted that entities potentially eligible for PPP funds included for-profit businesses and nonprofit organizations (U.S. Small Business Administration 2021).
² Donor-restricted contributions are recorded as increases to restricted net assets (equity). Upon fulfillment of the donor restriction, the net assets are reclassified from restricted net assets to unrestricted net assets.
³ Calculated using the sum of total restricted net assets and secured, unsecured, and tax-exempt debt scaled by total assets.
⁴ Or 2.5 months of the organization's prior-year average monthly payroll costs.
⁵ The number of full-time employees could not decrease and wages must not decrease by more than 25% for any employee making less than \$100,000 in 2019.
⁶ The Paycheck Protection Flexibility Act of 2020, enacted on June 5, 2020, made several modifications to the PPP, including loosening stipulations and requirements for loan eligibility, repayment, and forgiveness. Specific changes included (1) extending the maturity date after the borrower applies for loan forgiveness from two to five years; (2) extending the covered period from 8 to 24 weeks from the loan origination date; (3) extending the date at which employees must be rehired to avoid reduction of loan forgiveness

from June 30, 2020, to December 31, 2020; (4) reducing the amount of the PPP loan that must be spent on payroll to be eligible for forgiveness from at least 75% to at least 60%; and (5) extending the loan deferral period (Congress.Gov 2021).
⁷ The Consolidated Appropriations Act of 2021 allowed for some 2020 participants to obtain a second loan in 2021.
⁸ We use the National Taxonomy of Exempt Entities major groups to identify organization industries.
⁹ The odds are determined by subtracting one from the odds ratio, or $e^{\text{coefficient}} - 1$.
¹⁰ The untabulated standard deviation of *OBLIGATIONS* in logged form for the full sample is 0.194; therefore, the economic magnitude is calculated as $e^{(0.273 \times \text{coefficient})} - 1$.
¹¹ The average annual payroll for participants in our sample is approximately \$1.75 million; therefore, the average organization with secured debt received approximately \$7,900 more than other participants.
¹² One standard deviation of *OBLIGATIONS* for participating nonprofits is 0.183.
¹³ A colleague with first-hand experience applying for a PPP loan noted the terms of forgiveness were not clearly defined at the time they applied for the loan. Furthermore, he noted there was some

discretion regarding the inputs into the model, specifically stating “we were conservative as far as excluding funds paid to owners. We also were conservative with some of the amounts for wages and distributions because we were trying to ensure we didn’t overstate [our payroll costs].”

¹⁴ Part VII requires the disclosure of management compensation and compensation for the five highest-compensated, non-management employees above \$100,000.

¹⁵ The SBA discloses the loan proceeds intended for each allowable cost rather than actual proceed usage. Whereas the intended and actual use may differ, we believe the risk of understatement is low for the interest-related fields. The primary PPP purpose was to support payroll costs, given that nonprofits were required to use a majority of PPP proceeds on payroll costs to obtain loan forgiveness. As a result, participating entities likely overstated their intentions to use funds on payroll and understated their intentions for other allowable costs. This likely understatement of interest-related intended costs biases against our findings.

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