

U.S. Department of Education

# Where Do Borrowers Who Benefit from Public Service Loan Forgiveness Work?



Office of the Chief Economist

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## OCE Working Paper – OCE2024-008

Established by Congress in 2007, the Public Service Loan Forgiveness program was designed with a straightforward premise: those who dedicated themselves to public service—in this case 10 years of full-time work for a qualifying employer—while staying on-track with their student loan payments would have their remaining student loan balance forgiven. Since public sector workers often face lower wages than their similarly trained colleagues in private sector jobs, PSLF could provide an incentive to enter or continue in public service careers.

In this report, we explore which public sectors are most commonly represented among individuals who have benefitted, or are on track to benefit, from the PSLF program. Specifically, we present new data detailing which sectors borrowers have most commonly worked in to be eligible for PSLF. We show that the most common sector among those who have received forgiveness through PSLF is education, representing 43% of all employers associated with the program. The majority of these employers in the education sector are K-12 education systems, representing 28% of all employer occurrences in the data. Other common employer subsectors among borrowers who have received PSLF are state and local governments and healthcare organizations. Among the most frequent individual employers are those related to military service including the Department of Defense, Department of Veterans Affairs, and the branches of the U.S. military.

### Program Details

The PSLF program requires borrowers to make 120 qualifying monthly payments on their Direct federal student loans while working full-time for an eligible employer. Eligible employers can include government organizations, 501(c)(3) nonprofits, and certain other nonprofit organizations that provide qualifying public services.<sup>1</sup> To pursue PSLF, the borrower must go through an employment verification process. Borrowers are encouraged but not required to submit the PSLF Employment Certification Form annually, which requires both the borrower's information and certification on the part of the employer. Importantly, employment need not be continuous to be counted toward PSLF eligibility; borrowers can move between qualifying employers or take breaks in employment.<sup>2</sup>

Significant changes have streamlined these requirements and processes. Through a one-time Limited PSLF waiver<sup>3</sup> and subsequent permanent adjustments ([Department of Education, 2022](#)), borrowers received credit for past payments that would not have previously counted toward their eligibility, including payments made under non-IDR plans. Documentation requirements are also simpler, with a single combined form for both employment certification and forgiveness application replacing the separate forms previously required.<sup>4</sup> Recently, data-sharing agreements have also been proposed across

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<sup>1</sup> To meet eligibility requirements, borrowers must work at least 30 hours per week and make payments under an income-driven repayment plan, a 10-year Standard Repayment Plan, or the equivalent of a 10-year Standard Repayment Plan. Only Direct Loans are eligible for PSLF; other federally held loans such as FFEL or Perkins must first be consolidated into a Direct Consolidated Loan to be eligible.

<sup>2</sup> The Department encourages borrowers to submit this form annually, or at least whenever changing employers to maintain current records. Payments made during non-qualifying employment periods will not count towards the required 120 payments.

<sup>3</sup> The PSLF limited waiver allowed borrowers to receive credit towards PSLF for past periods of repayment that wouldn't normally qualify, including payments made on non-Direct federal loans, payments made under any repayment plan, and payments made on loans before consolidation (among others) (see [Department of Education, 2021](#)).

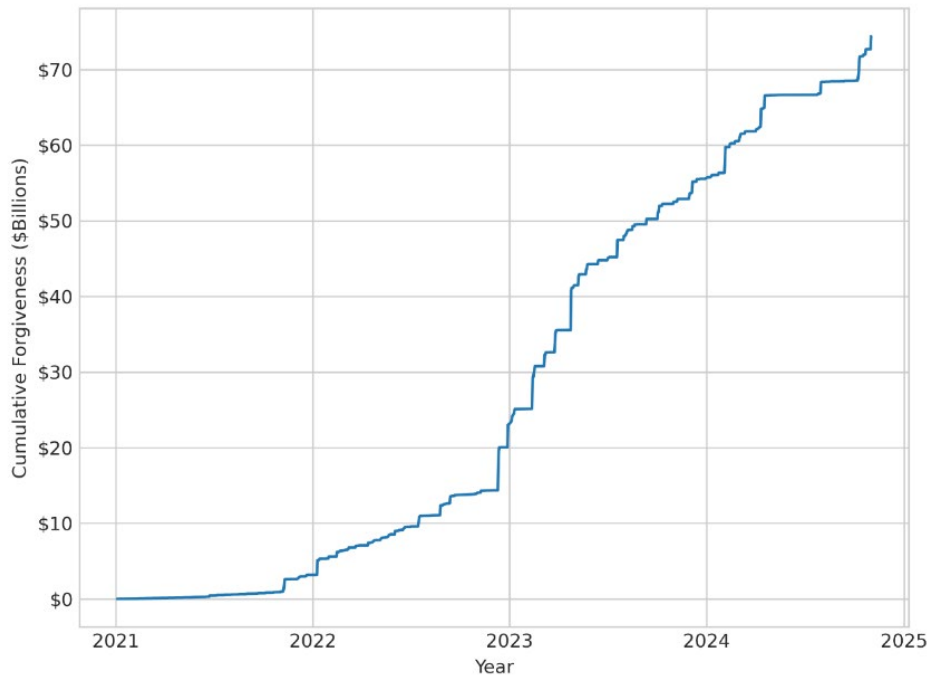
<sup>4</sup> The combined form was released in November 2020.

the Federal government to automatically identify qualifying federal employees and military service members, reducing the burden of documentation for many.<sup>5</sup>

The program faced initial challenges, however, with low approval rates that persisted until recently. Key obstacles included borrower confusion around qualifying employers and eligible payment plans and loan types, and complex paperwork requirements that led to high rates of technical rejection. Since 2021, several administrative fixes to the PSLF program have substantially increased the number of borrowers who had met eligibility requirements to receive forgiveness, many of whom have had long careers in public service that span well beyond the 10-year requirement for PSLF.

In Figure 1, we show the cumulative PSLF forgiveness since 2021. Prior to January 2021, roughly 7,000 borrowers had received PSLF forgiveness. In November of 2024, the Department of Education granted PSLF forgiveness to its millionth borrower.

**Figure 1. Cumulative Public Service Loan Forgiveness**



**Notes:** Figure shows cumulative public service loan forgiveness posted between January 1, 2021, and November 1, 2024. Total forgiveness is given in billions of dollars. Data come from Federal Student Aid.

### Employment Sectors of PSLF-Eligible Borrowers

The PSLF program aims to support individuals working in public service careers, including in federal, state, and local governments as well as nonprofit organizations serving their communities. Below we present data on the types of industries in which PSLF-eligible employees have worked and reported to the Department.

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<sup>5</sup> Examples include agreements with the Department of Defense as well as the Office of Personnel Management. See Federal Register, Vol 87, No 73 ([DoD](#)) and Federal Register, Vol 88, No. 158 ([OPM](#)).

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Our data capture all eligible employers listed on an employer certification form or otherwise verified as eligible for PSLF forgiveness since 2018.<sup>6</sup> As individual borrowers can list multiple employers toward PSLF eligibility *and* are encouraged to re-certify the same employer annually, we report results for what we term “employer occurrences.” Specifically, we adjust the data such that each borrower can be associated with multiple employers, but that each employer only appears once in an individual borrower’s record.<sup>7</sup>

In what follows, we present results for two groups of borrowers: those who have already received forgiveness as of November 1, 2024, and those who have certified their employment at least once but have not received forgiveness by November 1, 2024. The latter group includes those who could eventually qualify for PSLF based on record of an existing spell of eligible employment.<sup>8</sup>

We first group employers into three broad sectors: education, government, and nonprofits, and then within those subsectors we classify employers into subsectors. There is no data element that cleanly identifies the sector and subsector of employers. Therefore, for the purposes of this analysis, we categorize employers primarily through a taxonomy of keyword searches based on the employers’ recorded organization name. We built this taxonomy based on commonly observed naming practices in the data. In addition, we used data from a small share of employers who self-identify as a government organization; these cases are always counted in the government sector, and we then use keyword searches to identify subsectors. Not all government employers self-identify, so for those who do not, we identify them using keyword searches for employer names such as “City of X” or “State of Y”, which are commonly reported state and local government organization names. We rely solely on keywords to identify Education sector employers. For example, employer strings that contain “University” or “School District” are categorized in the education sector. The education sector includes public education systems (for example, school districts) and nonprofits (for example, non-profit, private universities) where they could be identified.<sup>9</sup> All other employers that are not government employers and do not include education-related strings are categorized as nonprofits. Where possible, we then further categorize into specific subsectors: K-12 and higher education within the education sector, healthcare within the nonprofit sector, and local, state, federal, and military within the government sector. We again rely on employer strings to make these distinctions.<sup>10</sup> See Appendix Table 1 for an example of employer names and their categorization processes.

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<sup>6</sup> 2018 marks the implementation of the Department of Education’s employer database. Before this year, borrowers and employers were able to certify employment through a servicer-specific process.

<sup>7</sup> To demonstrate our use of the borrower occurrences measure, take the following example: A borrower spends 3 years working in Cincinnati Public Schools, then moves to spend 2 years working in Dayton Public Schools before returning to Cincinnati Public Schools for 5 more years. We code this borrower as having two Education-related employer occurrences—with Cincinnati Public Schools and Dayton Public Schools—despite working for Cincinnati Public Schools for two different periods. The average borrower who has received forgiveness in our sample is associated with 1.8 employers. We are missing employer data for about 190,000 of those forgiven under the PSLF waiver.

<sup>8</sup> These are most often individuals who—at some point in their career—have submitted an employment verification for a qualifying employer and thus appear in our data. It is likely that many of these borrowers will not perform public service work for the required amount of time to receive PSLF.

<sup>9</sup> While the names of the organizations may indicate the sector, the Department of Education does not collect data on borrower’s roles or capacities. Education sector employment can encompass roles beyond teachers.

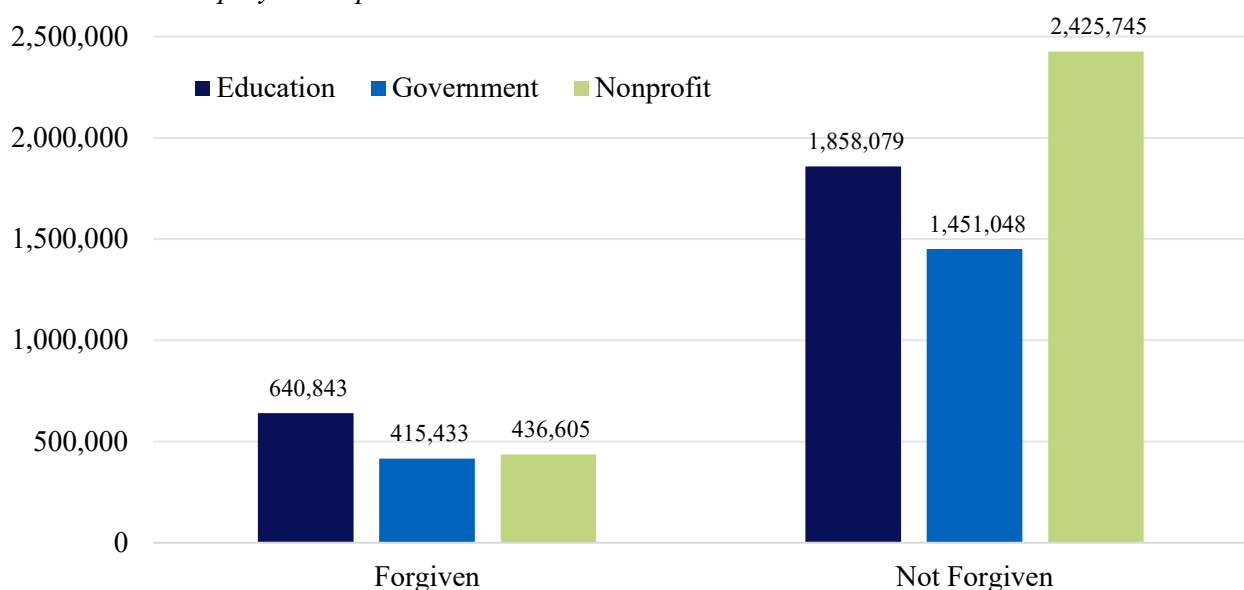
<sup>10</sup> Note that employers that have conflicting subsector categorizations after an initial keyword search are considered individually or moved to the “not classified” subsector. We implemented multiple rounds of keyword searching, drawing and testing keywords from the remaining uncategorized group and spot-checking for reasonable categorization after each iteration.

In Figure 2, we show employer occurrences broken into our three major sectors: Education, Government, and Nonprofits. Education is the most common sector among borrowers who have received forgiveness, representing with over 600,000 Education-related employer occurrences or 43% of the sample.<sup>11</sup> It is likely this number is an underestimate and an even larger share of borrowers work in education given inconsistencies in the way that employers are categorized across locations. For example, in New York City, public school teachers are reported as working for “the City of New York” instead of New York City Public Schools. Additionally, education-related nonprofits that do not directly reference education in the name of the employer, such as City Year or the YMCA, are categorized under non-profits.

We also find that among those borrowers who have not received forgiveness, non-profits are the most common sector: over 2.5 million employer occurrences are associated with a non-profit employer which represents 42% of the sample.

**Figure 2. PSLF Employment Types by Forgiveness Status**

*Total PSLF employment spells*



**Notes:** Plot represents the number of times a type of employer appears in PSLF employment verification data. Each employer appears only once per individual. Data are from the Department of Education as of Dec 1, 2024.

We next present data on more specific employer subsectors within the three major employer sectors borrowers who have already received forgiveness in Figure 3. We find that K-12 schools are the most common subsector, comprising 28% of all employer occurrences. Institutions of higher education and healthcare nonprofits represent the second and third most common subsectors at 15% and 12%, respectively.

<sup>11</sup> Note that this report does not take into account forgiveness received through the Teacher Loan Forgiveness (TLF) program, which offers up to \$17,500 in student loan forgiveness to eligible teachers who work full-time for five consecutive years at a qualifying school or educational service agency. Borrowers cannot receive credit toward TLF and PSLF for the same period of service. In FY2020, approximately 32,700 teachers received forgiveness with an average balance discharged of nearly \$10,000 ([Department of Education, 2022](#)).

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The nonprofits group is the most difficult to identify subsectors within, as many of these organizations have non-descriptive names. We can identify, however, that 12% of borrowers receiving PSLF forgiveness report having worked in a healthcare-related non-profit. Common examples of healthcare nonprofits include hospitals and not-for-profit elder-care facilities as well as community health clinics.<sup>12</sup> Similarly, the breakdown of the “government” group shows that state and local government employers make up the majority (nearly 70%) of employer occurrences in the government sector. Non-military federal government employers make up less than 1% of employer occurrences, although recent actions to streamline PSLF eligibility across the Federal government has the potential to smooth the path to forgiveness for this group.

One type of employer whose employees commonly benefit from PSLF are U.S. military branches.<sup>13</sup> Employers such as the U.S. Army, Navy, Air Force, and Marines occur nearly 3 times as often as other federal employers in our data, and the U.S. Army and Air Force employers are among the largest single employers for those borrowers who have received forgiveness through PSLF. Although any single employer makes up only a small share of total employer occurrences, the largest single employers tend to be federal agencies such as the Department of Veterans Affairs and the Department of Defense, which together are associated with roughly 23,000 borrowers who received PSLF forgiveness.<sup>14</sup>

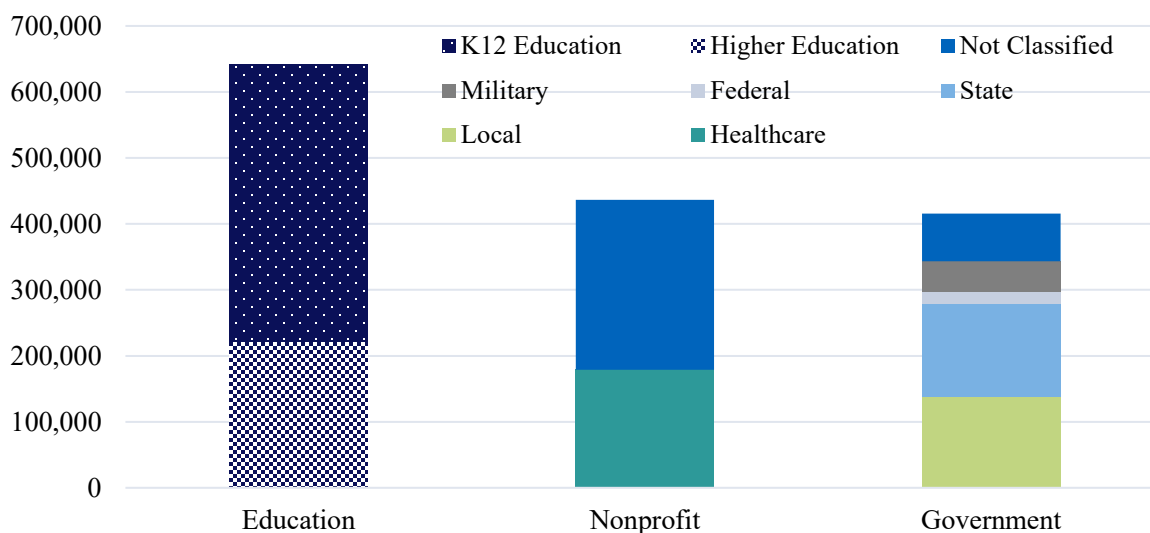
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<sup>12</sup> Healthcare-related nonprofits and other specific categories listed in Figure 3 were identified using the same keyword search method as described above. In the case of overlapping categories such as a Veteran’s Affairs Hospital that could count as both Federal and Healthcare, we aimed to let the more descriptive subsector dominate (i.e., Veterans Affairs Hospital would be counted in the healthcare category.) Beyond common cases such as this one, conflicting categorizations are moved to the “not classified” subsector.

<sup>13</sup> In Figure 3 below, we also include state-based national guard employment occurrences in the military category. Military service can include civilian service, active military service, and reserve military service.

<sup>14</sup> Some of this commonality of federal employers can be attributed to common naming practices. Employer certification is more likely to be uniform across federal agencies and sources than at the state or local level. States and cities that have common naming practices, such as the City and State of New York, appear in the top employer list, and even though we do some data cleaning to standardize names, it’s possible that we systematically undercount employers who more commonly exhibit slight variation in naming practices (for example, City of Chicago Public Schools versus CPS may be counted separately). Note however that given the size of the military employers, they are likely to represent several of the largest single employers regardless of data cleaning.

**Figure 3. Total PSLF Employment Types Among PSLF Forgiveness Recipients**



**Notes:** Plot represents the number of times a type of employer appears in PSLF employment verification data for borrowers who have received PSLF forgiveness. Each employer appears only once per individual, but each individual can have multiple employers associated with their forgiveness record (if, for example, the individual worked in more than one public service position.) Data are from the Department of Education as of December 1, 2024.

**Table 1. Share of Employer Occurrences by Subsector**

	Occurrences (1)	Share (2)
K12 Education	418,650	28%
Higher Education	222,194	15%
Healthcare	179,105	12%
Local Government	137,907	9%
State Government	141,018	9%
Military	46,809	3%
Federal Government	17,776	1%
Nonprofit (Not Classified)	257,561	17%
Government (Not Classified)	71,943	5%

**Notes:** Table shows the number of times a subsector appears in PSLF employment verification data for borrowers who have received PSLF forgiveness. Each employer appears only once per individual, but each individual can have multiple employers associated with their forgiveness record. Data are from the Department of Education as of December 1, 2024.

In Figure 3, we show that roughly 43% of the employer occurrences among borrowers who have received forgiveness are associated with the Education sector; accordingly, 41% of borrowers who have received forgiveness have at some point been employed in the education sector.

## Case Study - Texas

Because of differences in naming conventions across states, we narrow-in on borrowers in a single state to better understand the composition of employers whose employees benefit from PSLF. We use Texas in this example because the naming of government entities at the state and local levels are relative consistent for this state. The same keyword identification strategy is used to categorize employers in this example. Texas provides a large, relatively representative sample of forgiven borrowers. It should not be used to generalize to the national population, but instead seen as a case study for the given exercise. In Table 1, we report the occurrences across subsectors for borrowers who lived in Texas at the time of their forgiveness. The majority of PSLF recipients in Texas have, at some point, worked in education (55% of total employer occurrences are in Education). As we saw above, there are a large share of employers who are “uncategorized” or “general,” either because they are a general local, state, or federal government employer (i.e., the City of San Antonio), or because they are a non-profit whose function is not immediately obvious from the employer’s name (i.e., Safe Haven).<sup>15</sup> Table 1 presents examples of each category to better understand the subsectors included.

Other industries like Philanthropy and the Arts or Law Enforcement and Fire and Rescue account are also represented. Having more transparent and accessible ways of identifying employers that could be PSLF qualifying is one potential way to improve take up of PSLF.

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<sup>15</sup> One potential way to improve this process in the future would be to match employer names or identification numbers with data that identify the associated industry (NAICS code). This type of data is collected in tax records and survey data such as the Quarterly Census of Employment and Wages (QCEW) but is not currently publicly available.



**Table 1. Employer Subsectors Among Forgiven Borrowers Living in Texas at Time of Forgiveness**

	Employer Spells (1)	Share of Total (2)
K-12 Education <i>Roanoke City Public Schools, Plano Independent School District</i>	28,266	38.9%
Higher Education <i>Amarillo Community College, University of Texas at El Paso</i>	11,724	16.1%
Uncategorized Government <i>City of San Antonio, Texas Workforce Commission, Atascosa County</i>	9,815	13.5%
Healthcare <i>Memorial Hermann Health System, East Texas Medical Center</i>	7,508	10.3%
Uncategorized Nonprofits <i>LifeSteps Texas, Mas Cultura, Safe Haven</i>	5,074	7.0%
Social Services <i>Galveston Children's Museum, Frisco Family Services Center, Benbrook Library</i>	2,619	3.6%
Law Enforcement, Fire and Rescue, and Legal <i>Houston Police Department, Texas Department of Public Safety, Dallas Fire and Rescue</i>	2,508	3.5%
Military <i>U.S. Army, U.S. Navy, U.S. Air Force</i>	2,340	3.2%
Religious Non-Profits <i>Archdiocese of San Antonio, Lakewood Church, Shalom Austin</i>	968	1.3%
Housing, Utilities, and Infrastructure <i>Dallas Area Rapid Transit, Corpus Christi Housing Authority, San Antonio Water System</i>	713	1.0%
Research and Science <i>Texas Cardiac Arrhythmia Research Foundation, National Science Foundation</i>	562	0.8%
Philanthropy and the Arts <i>Dallas Museum of Art, Greater Austin Performing Arts Center, Texas Trees Foundation</i>	598	0.8%
<b>Total</b>	<b>72,695</b>	

**Notes:** Table shows employer subsectors using broad classifications for borrowers from Texas. Employer occurrence counts capture any employment verification with a given employer subsector. Employers are counted only once per borrower. Borrowers can be associated with multiple employers. Examples represent illustrative cases from each category.

## Conclusion

Bringing data to questions of what types of borrowers are receiving forgiveness is an important and still largely unexplored task. PSLF especially serves a unique subset of borrowers who have dedicated 10 years or more to public service. This report highlights the success of PSLF thus far in awarding forgiveness to a broad range of public service workers, especially those who serve their communities through education. The prevalence of K-12 employers among PSLF forgiveness recipients highlights that PSLF is supporting borrowers who face high education requirements and less-competitive wages than their private-sector peers. Beyond education, these borrowers also serve in local, state, and federal

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government roles, as health care workers, as first responders, and in smaller sectors such as social services and the arts. PSLF operates to ensure that the decision to serve others through public-sector work is not overshadowed by the burden of loans.

While this report advances new information about PSLF, the coarse groupings used to describe the borrowers in this report still mask significant heterogeneity in the roles of PSLF-eligible employers and the roles of their employees. Future work from the Department hopes to further clean and categorize the function of these employers in service of understanding the important work of PSLF recipients as well as encouraging equal take-up and access to the program across sectors, industries, and geographies.

Efforts to automatically identify PSLF-eligible borrowers using tax return and other administrative data are promising in their ability to encourage take-up of the program and accelerate borrowers' path to forgiveness by ensuring borrowers are meeting administrative requirements. State and local governments can model the administrative data matching efforts proposed across federal government agencies and work with local nonprofits using business-level administrative data to identify eligible 501(c)3 or other eligible employers.

*Acknowledgements: We are grateful to Matthew Kraft, Council of Economic Advisors, who made important contributions to this work.*

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**Appendix Table 1. Keyword Categorization Examples**

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Employer Example	Self-Identified Government?	Keyword Found	Sector : Subsector
State of California	Yes	"State of"	Government : State Government
City of Caddo Valley	Yes	"City of"	Government : Local Government
Town of Stockton Springs	No	"Town of"	Government : Local Government
Houston County Health Department	Yes	"Health"	Government : Healthcare
Ephrata Community Hospital	No	"Hospital"	Non-Profit : Healthcare
Shasta College	No	"College"	Education : Higher Education
Attala County School District	Yes	"Schools"	Education : K-12 Education
U.S. Army	Yes	"U.S. Army"	Government : Military
U.S. Department of Agriculture	No	"U.S. Department of"	Government : Federal Government
Panhandle Support	No	--	Nonprofit : Not Classified
Burke Center	No	--	Nonprofit : Not Classified

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**Notes:** Table gives examples of the categorization process in the order in which it occurs. We first sort on the self-identified government variable. We then use a keyword search to identify sector and subsector. Conflicting or otherwise complicated cases are considered on an individual basis or categorized as "not classified."