# Professional Drivers: Automobile Debt and Financial Support During the COVID-19 Pandemic

Jacob L. Wasserman, Research Project Manager
Fariba Siddiq, Graduate Student Researcher
Samuel Speroni, Graduate Student Researcher
UCLA Institute of Transportation Studies
Evelyn Blumenberg, Professor of Urban Planning, UCLA Luskin School of Public
Affairs and Director, UCLA Lewis Center for Regional Policy Studies

February 2022



#### **Technical Report Documentation Page**

1. Report No.	2. Government Accession No.	3. Recipient's Catalog No.
UC-ITS-2021-15	N/A	N/A
4. Title and Subtitle		5. Report Date
	le Debt and Financial Support during the	February 2022
COVID-19 Pandemic		6. Performing Organization Code
	UCLA ITS	
7. Author(s)		8. Performing Organization Report No.
Jacob L. Wasserman, <a href="https://orcid.org/0000-0002-036">https://orcid.org/0000-0002-036</a> <a href="https://orcid.org/0000-0002-036">0003-4364-6162</a> ; Evelyn Blume	<u>0000-</u>	
9. Performing Organization N	ame and Address	10. Work Unit No.
337 Charles E. Young Drive Ea		N/A
UCLA Institute of Transportatio Public Affairs Building 3320	n Studies	11. Contract or Grant No.
Los Angeles, CA 90095-1656		UC-ITS-2021-15
12. Sponsoring Agency Name	e and Address	13. Type of Report and Period Covered
The University of California Inst	titute of Transportation Studies	Final Report (May 2020 – February 2022)
www.ucits.org	14. Sponsoring Agency Code	
	UC ITS	
15. Supplementary Notes		
DOI:10.17610/T6801X		
16 Abstract		

#### 16. Abstract

This report synthesizes three primary data sources—credit data, unemployment claims data, and small business loan and grant data—to explore the financial conditions of those who drive for a living before and during the COVID-19 pandemic in California. Automobile debt was high among groups likely to contain professional drivers. The occupational categories in which many drivers fall had high absolute and relative levels of automobile debt compared to other workers. After the onset of the pandemic, unemployment rose dramatically in the transportation industry and in transportation occupations, peaking at rates higher than the national average. However, state unemployment claims data, among transportation employee claimants only, show less of a spike. Contractor drivers lived in areas with more Pandemic Unemployment Assistance claims, a special program for self-employed workers like gig drivers. Finally, contractor drivers received unprecedented but uneven federal small business loans and grants. Drivers in many areas, however, did not receive much or any of these funds, though those areas that did tended to have more residents of color. Assessing the full effect of the pandemic on professional drivers' debt and finances will require additional and better data, particularly workforce data from gig economy firms that contract with drivers.

	17. Key Words		18. Distribution Statement			
- :	professional drivers, ride-hail, auto support	mobile debt, COVID-19, financial	no restrictions			
- 0	19. Security Classification (of this report) 20. Security Classification (of this page)		21. No. of Pages	21. Price		
	unclassified unclassified		31	N/A		

#### **About the UC Institute of Transportation Studies**

The University of California Institute of Transportation Studies (UC ITS) is a network of faculty, research and administrative staff, and students dedicated to advancing the state of the art in transportation engineering, planning, and policy for the people of California. Established by the Legislature in 1947, ITS has branches at UC Berkeley, UC Davis, UC Irvine, and UCLA.

#### **Acknowledgments**

This study was made possible through funding received by the University of California Institute of Transportation Studies from the State of California through the Public Transportation Account and the Road Repair and Accountability Act of 2017 (Senate Bill 1). The authors would like to thank the State of California for its support of university-based research and especially for the funding received for this project. The authors would also like to thank Evan White, Charles Davis, Irfan Malik, Gary Gremaux, April Chang, and the rest of the California Policy Lab staff for their immense help and patience in our work with the UC-CCP dataset, Purva Kapshikar for her expertise with SQL, and Andrew Van Dam for help with the EIDL data.

The Institute of Transportation Studies at UCLA acknowledges the Gabrielino/Tongva peoples as the traditional land caretakers of Tovaangar (the Los Angeles basin and So. Channel Islands). As a land grant institution, we pay our respects to the Honuukvetam (Ancestors), 'Ahiihirom (Elders) and 'Eyoohiinkem (our relatives/relations) past, present and emerging.

#### **Disclaimer**

The contents of this report reflect the views of the authors, who are responsible for the facts and the accuracy of the information presented herein. This document is disseminated under the sponsorship of the State of California in the interest of information exchange. The State of California assumes no liability for the contents or use thereof. Nor does the content necessarily reflect the official views or policies of the State of California. This report does not constitute a standard, specification, or regulation.

# Professional Drivers: Automobile Debt and Financial Support During the COVID-19 Pandemic

Jacob L. Wasserman, Research Project Manager
Fariba Siddiq, Graduate Student Researcher
Samuel Speroni, Graduate Student Researcher
UCLA Institute of Transportation Studies
Evelyn Blumenberg, Professor of Urban Planning, UCLA Luskin School of Public
Affairs and Director, UCLA Lewis Center for Regional Policy Studies

February 2022



Report No.: UC-ITS-2021-15 | DOI: 10.17610/T6801X

# Table of Contents

#### **Table of Contents**

Introduction	2
Automobile Debt	5
Pandemic Financial Support: Unemployment	8
Pandemic Financial Support: Federal Loans and Advances	
Conclusion	
References	

#### **List of Tables**

Table 1. Automobile Debt Characteristics in California	6
Table 2 The COVID-19 Economic Injury Disaster Loan Program in California, March 1-November 15, 2021	12

#### **List of Figures**

Figure 1. U.S. Unemployment in Driver-heavy Industries and Occupations	8
Figure 2. Change in Weekly California Unemployment Claims in Driver-heavy Sectors	0

### Contents

#### Introduction

While a majority of Californians drive *to* work, a smaller share drive *for* work. This diverse group includes both those who drive passengers and those who transport freight and both those who drive smaller, personal vehicles and those who drive larger buses and trucks. Taxi drivers and gig economy drivers for app-based ride-hail and delivery firms move passengers, food, and groceries, sometimes as part-time jobs. Chauffeurs, truckers, and shuttle and bus drivers also ply California's roads as integral parts of the state's personal and goods surface transportation system. Across these driving occupations, drivers have varied but often precarious livelihoods, especially those who take on debt to obtain the very vehicle they use for work.

This report synthesizes three primary data sources—credit data, unemployment claims data, and small business loan and grant data—to explore the financial conditions of those who drive for a living before and during the Coronavirus Disease 2019 (COVID-19) pandemic. Specifically, we look at automobile debt among working drivers and at financial support for working drivers since March 2020. In other words, does the particular occupation of driving lead workers to take on debt for their vehicles and how did those workers fare during a period of reduced demand for driving and drivers? Unfortunately, the available data sources we examined leave major holes in our understanding of these questions, especially for occupations as diverse as those that centrally involve driving. Thus, we detail in the sections below both what each dataset reveals and important lacunae left open. For all data sources, except where we note, our analysis is restricted to California.

Overall, we find that automobile debt was high among groups likely to contain professional drivers. While the data do not allow us to isolate drivers, the occupational categories in which many drivers fall had high absolute and relative levels of automobile debt compared to other workers. The effects of the pandemic on vehicle debt in these job categories were mixed. After the onset of the pandemic, unemployment rose dramatically in the transportation industry and in transportation occupations. Counting both employees and independent contractors, unemployment in the sector peaked at rates higher than the national average, but unemployment claims data, among transportation employee claimants only, show less of a spike. Contractor drivers lived in areas with more Pandemic Unemployment Assistance claims, a special program for self-employed workers like gig drivers. Finally, contractor drivers received unprecedented but uneven federal small business loans and grants. Drivers in many areas, however, did not receive much or any of these funds, though those areas that did tended to have more residents of color. Assessing the full effect of the pandemic on professional drivers' debt and finances will require additional, better data, particularly workforce data from gig economy firms that contract with drivers.

#### **Context**

#### **Drivers' Employment Relationships**

Broadly speaking, a driver or other worker can work for a firm under two legal relationships: as an employee or as an independent contractor (also called "gig work," "freelancing," "1099 jobs," etc.). Here, we discuss one-person contractors, such as a single plumber hired by a firm to fix a leak at their office, though in other cases, a contractor can itself be a firm with employees (e.g., a plumbing company). The difference between these classifications is not necessarily in how workers are paid—employees may receive hourly wages or salaries—nor, as is commonly reported, in workers' degree of "flexibility"—many employees work flexible schedules, work a variable number of hours per week, or work multiple employee jobs for different firms. Nor, for drivers, does

classification depend per se on whether the worker or the firm owns the vehicle used for work. Rather, according to California Supreme Court rulings and California law, a worker is presumed to be an employee of a firm unless they A) are free from a firm's control and direction in their work, B) are doing work outside of the firm's usual line of business, and C) do that work regularly as part of their own independent business (the so-called "ABC test") (California LWDA, 2021; Rhinehart et al., 2021).

The difference between these two classifications matters for drivers. As with other occupations, driver employees are covered by or eligible for minimum wages, overtime pay, collective bargaining and unionization, paid sick leave, workers' compensation for injury, unemployment insurance (discussed below), and other safety and anti-discrimination protections. Employers pay into state unemployment insurance and workers compensation programs for their employees and cover half of payroll taxes for Social Security and Medicare. For drivers in particular, employees must have their fuel costs and other driving expenses reimbursed, and "deadheading" time driving between pick-ups counts as hours worked (Rhinehart et al., 2021; California EDD, 2020, 2021a; Shouse, 2021; Hussain and Bhuiyan, 2020).

For some driver occupations, like public transit bus operators, their classification is clear: employees, who drive publicly owned vehicles under clear supervision and direction from their agency. But debate in California is fierce over how many other professional drivers should be classified. During the 2010s, new ride-hail and delivery companies like Uber, Lyft, and DoorDash classified their drivers as independent contractors, asserting that their own firms' primary business was the technology behind ride-matching. But the 2018 *Dynamex* state supreme court case and 2019's Assembly Bill 5 (AB 5) codified that such drivers, along with many other contractors, should instead be classified as employees. Proposition 22, passed in 2020 and backed by ride-hail and delivery firms, exempted app-based drivers from AB 5 and restored them to contractor status, though litigation over the initiative's constitutionality is ongoing. Such battles over worker classification are not new to the state; similar legal and political fights over the employment status of taxi and truck drivers are also long-standing (Rhinehart et al., 2021; Hussain and Bhuiyan, 2020; Myers, Bhuiyan, and Roosevelt, 2019; Mollaneda, 2021; Dubal, 2017). For reference, around 29 percent of workers in the truck transportation sector in the U.S. were classified as contractors in 2016 (Day and Hait, 2019).

While the legal relationship between drivers and transportation firms does not depend on it, some drivers work full-time, while others use driving as supplementary income or as one of many jobs. In the gig economy, estimates vary (Ockenfels-Martinez and Farhang, 2019). In 2015, a national survey found that 38 percent of Uber drivers had no other job (J. Hall and Krueger, 2015), but by 2018, a survey in Los Angeles (Waheed et al., 2018) and another national survey (Helling, 2021) found 47 percent and just over 50 percent, respectively. Measured instead by hours driven, miles driven, or number of trips, high-hour drivers without other work predominate and are therefore the most likely for a passenger to encounter (Parrott and Reich, 2020b). The data sources below capture drivers in both categories, to different degrees.

#### **Drivers' Financial Situations and Indebtedness**

Many professional drivers, especially gig economy drivers, live in financial precarity. While one study funded by Uber found an hourly wage of \$23.25 for their drivers in Seattle (Hyman et al., 2020), other studies that account for a fuller set of driving costs (including vehicle upkeep expenses and depreciation) and incorporate deadheading hours in the calculation (Parrott and Reich, 2020b; S. Smith, 2020; Scheiber, 2020) find net pre-pandemic hourly wages of \$8.55, \$10.00, or \$11.77 per hour nationally (Zoepf, 2018; Mishel, 2018) and \$9.73 per hour in Seattle (Parrott and Reich, 2020a), at or below California's minimum wage at the time (California Department of Industrial Relations, 2021). In Los Angeles, two thirds of ride-hail drivers relied on their driving gigs as their primary source

of income, 57 percent used that income to support at least one family member, and 18 percent drew on public assistance programs (Waheed et al., 2018). Turnover in ride-hail is high, with around half leaving after a year (Waheed et al., 2018; Farrell and Greig, 2016).

Many drivers and truckers purchase vehicles in order to drive and even take on debt to do so. In Los Angeles, 36 percent of ride-hail drivers either purchased (22%) or leased (14%) a car for their work and 35 percent took out loans to meet expenses (Waheed et al., 2018). Full-time drivers were more likely to be in these groups. In Washington, D.C., a third of focus-group ride-hail drivers took out debt to get a vehicle (Wells, Attoh, and Cullen, 2019). Likewise, among truckers, who are often (mis)classified as independent contractors, debt is common. Many truckers lease or sub-lease their trucks from trucking companies, with their net pay often negative after subtracting lease payments. This arrangement is common around the Ports of Los Angeles and Long Beach (Murphy, 2017; Romer and Gonzalez, 2020; Prendergast, 2021). For both sets of drivers, debt can lead to stress and depression, in turn increasing risk of physical ailments, especially a problem for contractors without health insurance (Truckers, for instance, are more likely to lack health insurance than other workers (Day and Hait, 2019).). High-interest vehicle loans can also create "debt traps" that keep people driving, even when it is a poor financial move, to keep up with their loan payments (Ockenfels-Martinez and Farhang, 2019; Waheed et al., 2018; Wells, Attoh, and Cullen, 2019).

For professional drivers and many other vehicle owners, the purchase price and operating costs associated with vehicle ownership are high. While, in general, lower-income households tend to have less total vehicle debt than higher-income households—because the former are less likely to finance their vehicle purchases and, when they do, are more likely to buy older, less expensive vehicles—lower-income households do have high automobile debt *burdens*, on average. This measure, automobile debt as a percentage of household income, is higher in lower-income households in part due to an array of predatory lending practices (AAA, 2021; Pierce et al., 2019; Walks, 2018; Waller, 2005).

From 2013 to 2017, Uber sponsored or coordinated loan and lease programs among its own drivers and prospective drivers. The Uber Vehicle Solutions Program and Uber subsidiary Xchange Leasing each offered drivers more flexible terms than a traditional loan or lease, respectively, but with very high interest rates (Harnett, 2015; Bliss, 2016; Johnson, 2019; L. Smith, 2016; Williams, 2020; Levy, 2016; Sell, 2016; Marx, 2018). News reports profiled drivers trapped into cycles of debt in these programs (Harnett, 2015; Bliss, 2016; Sell, 2016). Uber ended both subprime programs—the former closed after a Federal Trade Commission settlement for misleading terms (Dorman, 2017; Conger, 2017; Williams, 2020) and the latter sold to the lending company Fair, which operated a version of it until 2020 (G. Hall, 2017; Williams, 2020)—but both Uber and Lyft still operate long-term car rental programs (Williams, 2020; Sell, 2016).

#### **Effects of the Pandemic**

The pandemic upended drivers' livelihoods and demand for driving services. While demand for Uber fell by 60 to 70 percent in the first month of the U.S. pandemic (Hawkins, 2020), demand for gig delivery services skyrocketed, with revenues more than doubling in mid-2020 (Sumagaysay, 2020). We discuss below unemployment trends among drivers and federal relief efforts to support them amidst financial shortfalls and health concerns. Ride-hail trips were still down 54 percent in Los Angeles and 60 percent in San Francisco in October 2021, compared to October 2019 (Dotan, 2021), with national demand higher but not recovered to pre-pandemic levels (Edison Trends, 2021). Across the gig economy, firms are facing driver shortages as of writing, with ride and delivery prices rising, competition for drivers high, and many drivers looking for more stable, better-paying, or more pandemic-safe work elsewhere (McCann, 2021; Evans, 2021; Campbell, 2021b).

#### **Automobile Debt**

#### What We Know from the Data

As discussed above, many of those who drive for a living rely on and invest in their personal vehicles. We set out to explore the degree to which drivers take on debt to purchase or lease automobiles for their livelihood. To do so, we analyzed a one-percent random sample from the University of California Consumer Credit Panel (UC-CCP). The full UC-CCP dataset includes every loan and borrower in California, with our sample covering around a quarter of a million active borrowers and 1.6 million open loans, 150,000 of which are vehicle loans and leases, each quarter. We restrict our analysis to the primary borrower for loans with multiple signers, to minimize double-counting. We compare two quarters from the dataset, from the same time of year: 2019 Q1 (January-March), before the pandemic, and 2021 Q1 (January-March), during the pandemic and before vaccinations became fully available in the U.S. (California Policy Lab, 2021).

Unfortunately, while the data include an occupation for some borrowers, this field lacks a category for either drivers broadly or ride-hail drivers, delivery drivers, and other gig drivers in particular. Instead, it includes two categories that cover many drivers: occupationally licensed drivers with a license beyond a standard driver's license (truck drivers, bus drivers, etc.) and a broad class of self-employed workers of any kind (California Policy Lab, 2021). Any conclusions about automobile debt among drivers must come from these categories that unfortunately only obliquely touch on the questions above.

Nonetheless, the difference between these occupations is stark (See **Table 1**). Occupationally licensed drivers had a dramatically higher amount of outstanding automobile debt than those in other occupations, with mean debt almost twice as high. Among only borrowers with any amount of automobile debt, occupationally licensed drivers' mean vehicle debt was just under 50 percent higher than those in other jobs. Indeed, these occupationally licensed drivers with a vehicle loan held an average automobile loan debt of nearly \$30,000, both before and during the pandemic. Self-employed borrowers (who, again, include many more workers than just drivers) had a slightly lower amount of automobile debt than other borrowers with known jobs (California Policy Lab, 2021; BLS, 2021c). In both 2019 and 2021, the differences in automobile debt across the three occupational categories in **Table 1** were statistically significant.<sup>1</sup>

Almost half of occupationally licensed drivers had at least some vehicle debt (See **Table 1**). Meanwhile, by dollar value, both occupational classes that contain drivers had a measurably greater share of their debt in automobile loans and leases than other borrowers. While those with other known occupations had only 12 percent of their debt on average in vehicles (the rest in mortgages, credit cards, and other loan products), both occupationally licensed drivers and self-employed borrowers had around 20 percent of their debt there. Among only those with at least some vehicle debt, occupationally licensed drivers and self-employed borrowers each had around half of their outstanding debt in their vehicles, compared to about a third for those with other occupations (California Policy Lab, 2021). The differences in automobile debt share in **Table 1** were statistically significant across occupational categories in both years.<sup>2</sup>

<sup>1.</sup> As calculated with a Kruskal-Wallis rank sum test, above a 99.9 percent confidence level

<sup>2.</sup> As calculated with a Kruskal-Wallis rank sum test, above a 99.9 percent confidence level

Table 1. Automobile Debt Characteristics in California

Statistic		Occupationally Licensed Drivers		Self-employed		Others with Known Occupations	
			2021	2019	2021	2019	2021
Average automobile debt (in March 2021 \$)		\$14,494	\$13,207	\$6,598	\$6,295	\$7,368	\$6,777
Automobile debt share		22.3%	20.6%	17.2%	18.6%	12.2%	12.2%
Borrowers with any automobile debt		49.5%	44.9%	35.3%	36.4%	36.4%	34.0%
	Average automobile debt (in March 2021 \$)	\$29,110	\$29,428	\$18,708	\$17,296	\$20,249	\$19,936
	Automobile debt share	45.2%	45.8%	48.7%	51.1%	33.5%	35.9%

Data sources: California Policy Lab, 2021; BLS, 2021c

The effects of the pandemic on these groups of borrowers appears mixed (See **Table 1**). For occupationally licensed drivers, between 2019 and 2021, relative and absolute automobile debt fell overall but rose slightly among those with at least some automobile debt. For self-employed borrowers, average vehicle debt dropped under both metrics, but automobile debt share increased. The percentage of occupationally licensed drivers with any vehicle debt fell, while the percentage among the self-employed rose (California Policy Lab, 2021; BLS, 2021c). Perhaps, then, changing economic conditions, stimulus funds, and other pandemic financial relief may have reduced vehicle debt among occupational categories with drivers, but in certain sub-categories that already had automobile debt, borrowers prioritized repaying other debt first.

All in all, occupational categories in which drivers lie tended to borrow more to finance vehicles. Both such sets of occupations had a greater share of their debt borrowed for their vehicle. Occupationally licensed drivers had considerably higher absolute amounts of automobile debt. And while we do not find consistent evidence of drivers assuming additional automobile debt during the pandemic, the data show that borrowers in those categories who were already in debt for their automobiles stayed that way.

#### What We Don't Know from the Data

Despite the suggestive findings above, the UC-CCP cannot reveal how much automobile debt gig economy drivers have. The UC-CCP draws occupational information from occupational licensing and state agencies, supplemented by some self-reported surveys. For this reason, the UC-CCP has categories for relatively small occupational classes that require special licensure, such as surveyors, architects, pharmacists, and chiropractors, but only broad categories for jobs like "sales/marketing," "professional/technical," and "clerical/office" (California Policy Lab, 2021). We received clarification that the professional driver category only includes those with state licensing requirements (above a normal driver's license), thus excluding gig economy drivers with personal passenger vehicles, who, in California at least, do not need such a license (California DMV, 2021). Instead, these drivers likely either fall into the self-employed category, for those who drive as a primary job, or into any other category, for those who drive only as a side job.

The fact that occupationally licensed drivers in particular had much higher automobile debt than others with known occupations (California Policy Lab, 2021) is somewhat puzzling, given that they may be less likely to own and pay for the vehicle they drive for work than gig economy drivers (who, again, are not included in this category). Nevertheless, when these occupationally licensed drivers do finance their own vehicles, their vehicles may be incredibly expensive; for instance, semi-trucks and trailers can cost drivers \$130,000 to over \$200,000 (Prendergast, 2021).

Finally, while the UC-CCP dataset covers every borrower in California, only 11 to 12 percent of primary borrowers in our sample were tagged with an occupation each quarter. Moreover, there is another field, occupation group, that categorizes borrowers in broader groups like "blue collar" and "management," but there are a number of mismatches between seemingly incompatible occupations and occupation groups (perhaps because the latter field includes both actual information from external sources and modeled/inferred data) (California Policy Lab, 2021). We do not know if there is any systemic bias in which borrowers were labeled with an occupation or occupation group and which were left unknown. Moreover, because the occupational categories are unique to this dataset, we were unable to match them to other data sources on wages and other labor characteristics. Thus, while the UC-CCP data certainly hint that those who drive for a living take on more vehicle debt to do so, we cannot draw this conclusion with certainty from this source.

## Pandemic Financial Support: Unemployment

#### What We Know from the Data

In the first months of the COVID-19 pandemic, unemployment spiked as businesses closed or operated at reduced capacity due to public health orders (Handwerker et al., 2020; Falk et al., 2021; Cowan, 2021). This was also true for drivers, with demand for personal and at least some freight transportation down. Nationally, unemployment in the transportation and warehousing sector (North American Industry Classification System (NAICS) codes 48 and 49) rose from 3.4 percent in January 2020 to 15.7 percent in May, as measured by the Bureau of Labor Statistics' (BLS) Current Population Survey (See **Figure 1**). Looking at job type instead of industry type (a distinction we discuss further below), among those working in transportation and material moving occupations, the rise in unemployment was even worse, up from 4.6 percent in January 2020 to 18.3 percent in May. Not only were these peaks higher than in the overall workforce, but job recovery was also slower. Unemployment stayed in the double digits in the sector into fall 2020, remaining higher than the relatively smooth downward trend in total unemployment. Still, employment in the sector was stable during the COVID-19 case spike in fall 2020/winter 2021 (BLS, 2021d, 2021e, 2021f).

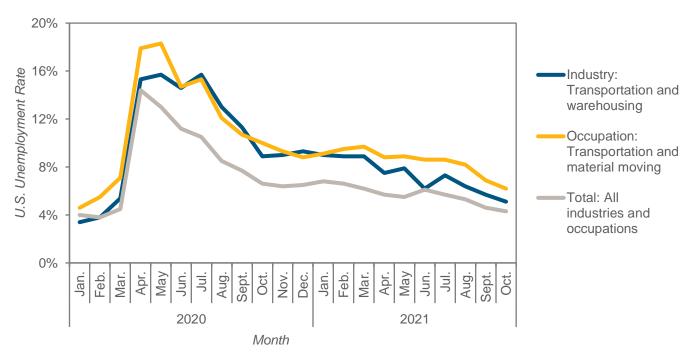


Figure 1. U.S. Unemployment in Driver-heavy Industries and Occupations

Data sources: BLS, 2021d, 2021e, 2021f

A different story emerges from unemployment claims data from the state's Employment Development Department (EDD). EDD classifies claims for unemployment insurance (UI) by industry, and while the state experienced significant delays in getting payments out (lacurci, 2021), the claims are labeled by date received, not distributed. Initial unemployment claims in transportation and warehousing rose to a peak of ten times above their January 2020 weekly average for the week of March 29 to April 4, 2020 (See **Figure 2**). But all other sectors combined had an even higher spike, with weekly claims rising over 21 times their January 2020 average at highest. After these peaks, weekly unemployment claims in transportation and warehousing stabilized between 2.5 and four times their January 2020 average throughout the summer and fall of 2020 and came to track other sectors more closely. Weekly averages in the sector into the fall of 2021 were still 1.5 to two times higher than before the pandemic (California EDD, 2021b).

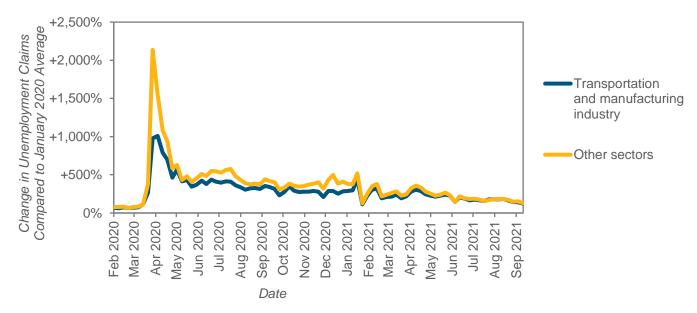


Figure 2. Change in Weekly California Unemployment Claims in Driver-heavy Sectors

Data source: California EDD, 2021b

What might explain the difference between national unemployment data, in which transportation and warehousing employment fared worse than the overall workforce at the start of the pandemic, and state unemployment claim data, in which the sector fared better? Aside from the different geographies, the national data come from a survey that counts both employee jobs and contractor jobs as "employment" for the purpose of calculating the unemployment rate (BLS, 2021b). EDD, however, only can give usual UI payments to those who were traditionally employed.

Together, then, these two data sources indicate that unemployment among *employees* in the transportation and warehousing sector, including employed drivers, was less severe than unemployment in the sector more broadly. But while the traditionally employed transportation workforce fared better than other sectors, unemployment still rose meteorically in the initial months of the pandemic, causing significant economic hardship, and remains higher than before the pandemic as of writing (California EDD, 2021b; BLS, 2021e). Even the increased demand for ecommerce delivery and freight shipping has not put the sector back to where it once was.

The established system of unemployment insurance, though, was not the only government support for out-of-work drivers. During the pandemic, the federal government created and the state administered Pandemic Unemployment Assistance (PUA), a fund for self-employed individuals who lost revenue due to the pandemic or its economic effects. Unlike the traditional UI program, PUA was not funded by employers but by general federal money—thus representing an infusion of taxpayer dollars to help those excluded from UI. In doing so, though, PUA arguably also subsidized gig economy companies that do not pay into the unemployment insurance program. PUA lasted until September 4, 2021 (California EDD, 2021b, 2021c).

As discussed below, the dataset of PUA claims do not differentiate by industry nor occupation. However, we matched PUA claims by county to another dataset, the U.S. Census Bureau's Nonemployer Statistics. This dataset counts federally taxed business establishments with no paid employees, almost all of which, in the transportation sector, are sole proprietorships—i.e., an individual driver contractor. We find a correlation, albeit only a moderate one, across California counties between their total PUA claims per person and their prepandemic nonemployer establishments per person in three key driver-heavy sub-sectors (transit and ground passenger transportation, truck transportation, and couriers and messengers) (r = 0.3964). Likewise, counties' share of nonemployer establishments in driver-heavy subsectors were also moderately correlated with counties' PUA claims per person (r = 0.3959) (California EDD, 2021b; U.S. Census Bureau, 2018, 2021b; Wasserman and Taylor, 2021). In other words, the counties with more contractor drivers (as measured per capita or per contractor) tended to be the ones with more PUA claims. To be sure, this correlation is modest and without controls for other factors in a relatively small sample; different degrees of urbanization, for instance, may be behind both. Nonetheless, we can at least say that areas with more independent drivers drew more on the PUA program.

#### What We Don't Know from the Data

A formerly employed worker filing for unemployment benefits must provide the state information on their former employers, allowing them to classify claims in the dataset by industry. The PUA claims data, however, do not disaggregate claims by industry (California EDD, 2021b). Even if they did categorize claims by the industry of the firm(s) for which contractors worked, the result might not be of that much use in identifying professional driver contractors, as, at least in theory, contractors in California are in a different industry from contracting firms. Thus, researchers cannot look to state unemployment claims for exact statistics on particular kinds of independent contractors, including gig drivers.

More broadly, unlike the automobile debt data, California unemployment claims data are categorized by industry (NAICS code), not occupation per se. An employee for a company in the transportation industry may be a driver, but could also be an accountant, janitor, or manager. The national BLS unemployment data do have separate tables for industries and occupations, but even so, both groups include a wide range of workers beyond just drivers. The transportation industry is grouped with warehousing in publicly available data we analyzed, while driver occupations are grouped with roles like aircraft pilots, car wash workers, railroad yardmasters, and flight attendants (California EDD, 2021b; BLS, 2021a, 2021e, 2021f). Thus, isolating drivers is still challenging and requires piecing together different data sources.

## Pandemic Financial Support: Federal Loans and Advances

#### What We Know from the Data

Along with increases in unemployment benefit amounts and eligibility, the federal government also offered professional drivers loans and grants during the pandemic. After the passage of the Coronavirus Aid, Relief, and Economic Security (CARES) Act in March 2020, the Small Business Administration established, among others, two key financial support programs: COVID-19 Economic Injury Disaster Loans (EIDLs) and COVID-19 Economic Injury Disaster Loan Advances (EIDL Advances). These programs were open to small businesses, including independent contractor drivers that usually count as single-person sole proprietorships. The EIDL program offered low-interest, long-term loans, with deferred initial payments, intended to provide six months' worth of "working capital" (Siddiqui and Van Dam, 2021). The EIDL Advance program provided more numerous, smaller amounts, given as grants, not loans (SBA, 2020a, 2020b, 2021a, 2021b; Siddiqui and Van Dam, 2021; Kabbage, 2021).

Most contractor drivers in California were eligible to apply for these funds during the period for which we analyzed data (March 1-November 15, 2021), though the subsequent stimulus bills that added additional funding to the programs narrowed eligibility for further EIDL Advances to those living in lower-income areas. Contractors did not need to drive full-time to apply and could have other employment or contract gigs. Though the Small Business Administration did not market the program to one-person "businesses" such as contractor drivers per se, websites frequented by drivers, like *The Rideshare Guy* and *Rideshare Dashboard*, created widely read explanatory posts on how to apply. While these programs provided a financial lifeline, many applicants also faced delays in getting funds and received conflicting or confusing guidance throughout the process (SBA, 2021a, 2021b; Siddiqui and Van Dam, 2021; Kwok, 2020a; Cowley, 2020).

Since applicants were each technically their own businesses, they applied under a variety of different names. Common, however, were entities like "John Smith DBA [doing business as] Uber driver." Following a method developed by Siddiqui and Van Dam (2021), we searched for applicants whose entity names contained popular companies for whom contractor drivers work (including common misspellings). These included two ride-hail firms<sup>3</sup> and four restaurant delivery firms<sup>4</sup> that each constituted at least 98 percent of their industry's mid-2021 U.S. sales, as well as four common grocery delivery firms<sup>5</sup> (Perri, 2021a, 2021b, 2021c). We also identified entities that included "ridehail," "rideshare," "professional driver," "delivery driver," "personal shopper," and variations thereon that did not mention a specific firm. This method may accidentally include some recipients who are not drivers and also likely excludes recipients who did not indicate that they were drivers in their entity name.

<sup>3.</sup> Uber (69% of U.S. sales) and Lyft (32% of U.S. sales) (Perri, 2021b)

<sup>4.</sup> DoorDash (57% of U.S. sales, including its subsidiary Caviar), Uber Eats (23% of U.S. sales), Grubhub (16% of U.S. sales, including its subsidiaries Seamless and Eat24), and Postmates (3% of U.S. sales) (Perri, 2021c)

<sup>5.</sup> Instacart (45% of U.S. sales), Shipt (6% of U.S. sales), FreshDirect (1% of U.S. sales), and Peapod (1% of U.S. sales). We did not include Walmart Grocery (48% of U.S. sales), due to difficulty in distinguishing its name from the larger Walmart company (Perri, 2021a).

In total, the Small Business Administration distributed \$35 million in relief loans and advances to around 7,500 California independent contractor driver recipients over 8.5 months. Of these, 88 percent of the recipients, representing 92 percent of the funds, listed one of the big app firms in their entity names. While these data suggest a significant and unprecedented infusion of federal dollars to support contractor drivers, these applicants constitute just two percent of pre-pandemic transportation-industry contractor establishments in California. Moreover, identified contractor drivers only made up 0.5 percent of recipients and 0.1 percent of funds across both programs, with greater shares in the EIDL Advance program (See **Table 2**) (SBA, 2020a, 2020b; U.S. Census Bureau, 2018).

Table 2. The COVID-19 Economic Injury Disaster Loan Program in California, March 1-November 15, 2021

	Recipients			Funds		
Loan/Grant	Contractor Drivers			Contractor Drivers		
Туре	At Named Firms	All Drivers	Total	At Named Firms	All Drivers	Total
EIDLs	1,781	1,877	560,265	\$26.0 mil.	\$27.8 mil.	\$34,204.8 mil.
EIDL Advances	4,829	5,654	809,705	\$5.7 mil.	\$6.7 mil.	\$2,660.0 mil.
Total	6,610	7,531	1,369,970	\$31.8 mil.	\$34.6 mil.	\$36,864.8 mil.

Data sources: SBA, 2020a, 2020b

The median EIDL Advance (97% of advances) to California drivers was \$1,000, largely because of a guideline developed during the initial surge of applications that recipients would receive \$1,000 per worker. Loans from the EIDL program tended to be larger, with a median value of \$10,500 and a mean of just under \$15,000 (SBA, 2020a, 2020b; Kwok, 2020b).

Uber drivers received much of the support. Counting both Uber and Uber Eats, drivers for this one firm received 68 percent of California EIDL funds loaned and granted to contractor drivers (roughly the same as Uber's share of the passenger ride-hail market but more than its share of the overall gig driving market (Perri, 2021a, 2021b, 2021c)). Lyft drivers received 22 percent of funds. There was also significant overlap between these two firms: ten percent of EIDL driver recipients listed both Uber and Lyft in their entity name, 6 and they received ten percent of EIDL driver funds. Indeed, 17 percent of Uber applicants also drove for Lyft and 41 percent of Lyft applicants also drove for Uber (SBA, 2020a, 2020b).

Finally, the geographic areas where EIDL program funds were distributed differ from areas in the rest of the state with few or no EIDL recipients. This analysis is unfortunately imperfect, as many applicants gave the headquarters of the firm for which they drive as their own entity's address, instead of their home address. Downtown San Francisco, home to the offices of many of these firms, is therefore overrepresented, as are driver hubs or branch offices of the major firms elsewhere. To minimize (but not eliminate) this issue, we split the state into two regions of roughly equal population: those ZIP codes with at least five total EIDL recipients and all other

<sup>6.</sup> For comparison, in a survey of readers of *The Rideshare Guy* website, 23 percent of respondents reported working for Uber and Lyft equally, as opposed to one or the other "primarily" (Campbell, 2021a).

ZIP codes. The former areas received 91 percent of EIDL program loans and grants (SBA, 2020a, 2020b; U.S. Census Bureau, 2021a).

By income, the results are somewhat unclear. The distribution of ZIP codes with most EIDL driver recipients skewed higher-income than the distribution of ZIP codes in the rest of the state, as measured pre-pandemic, to a small but statistically significant degree. However, because ZIP codes contain widely different numbers of residents, differences in population between higher- and lower-income ZIP codes influence this result. The results by race are sharper, even noting population deviations between ZIP codes. ZIP codes with most EIDL driver recipients were much less white, with a statistically significant difference in their distribution from the rest of the state. The distribution of poverty rates across ZIP codes did not differ significantly between the two regions (See Table 3) (SBA, 2020a, 2020b; U.S. Census Bureau, 2021a).

Table 3. Characteristics of California Areas where Drivers Received EIDL Loans and Grants

Unweighted Average of ZIP Codes	ZIP Codes with at Least Five EIDL Driver Recipients	Other ZIP Codes <sup>7</sup>		
Median income*	\$79,588	\$75,043		
Share of non-Hispanic white residents*	33.0%	58.5%		
Poverty rate	13.3%	15.1%		

<sup>\*</sup> The unweighted distributions by ZIP code are statistically significantly different at a 99.9 percent confidence level, per a Mann-Whitney U test.

Data sources: SBA, 2020a, 2020b; U.S. Census Bureau, 2021a

Thus, EIDL loans for drivers did go to areas with greater shares of residents of color, though without a neat difference by income or poverty. These findings, though, may be due to the distribution of drivers themselves across the state as much as any facet of the EIDL program itself. Nonetheless, the EIDL data show uneven patterns of distribution. EIDLs and EIDL advances thus became a much-needed source of funds for those thousands of drivers who did get it but also a program that did not help most contract drivers.

#### What We Don't Know from the Data

While the EIDL data offer a unique look at federal support for contractor drivers, they only capture a slice of the state's drivers and a slice of the federal relief efforts on which drivers may have drawn. For one, any driver who did not include a major firm or keyword described above in their entity name would not be counted in our analysis. Beyond EIDL, drivers also may have received other governmental pandemic support, including individual stimulus payments, expanded child tax credits, and unemployment claims from other jobs beyond driving. Other drivers may have been ineligible for these funds, or they may have proven insufficient. Finally, even looking at EIDL alone, we do not know from the EIDL data how drivers used their loans and advances, what share of their lost revenues and financial needs these funds met, and how drivers have fared in the period since EIDL program

<sup>7.</sup> Excludes ZIP codes without population

unds were distributed. Further surveys of drivers are needed to complement the EIDL data and the other data in his report.							

#### **Conclusion**

To varying degrees, professional drivers have assumed debt and incurred financial hardships, especially during the pandemic. The three data sources we analyze above provide different windows into these issues, which combined show both significant precarity in the profession and a broad correlation between employment status/protections and financial security among drivers. Federal assistance during the COVID-19 pandemic offered financial relief to some contractor drivers through the Pandemic Unemployment Assistance program, COVID-19 Economic Injury Disaster Loans, and COVID-19 Economic Injury Disaster Loan Advances. However, the data suggest that many drivers did not receive funds through these programs. While some drivers did not need financial support, it is likely that others slipped through the pandemic safety net and experienced increased hardship.

The gaps identified above represent key questions for future research, but they also show the need for additional and better data, with appropriate privacy protections, from firms that employ and contract with drivers. Aggregated data on driver pay, hours, expenses, demographics, and other characteristics from firms are vital to understanding the state of the sector and to evaluating policies and policy proposals, though firms currently rarely share such data (Ockenfels-Martinez and Farhang, 2019).

The intersection of transportation and labor will become increasingly important as travel and goods movement patterns and workforce characteristics return to pre-pandemic trends, take new directions, or somewhere in between. Looking forward, as automation may upend the transportation workforce, these questions will only increase in importance.

#### References

- AAA (2021). Your Driving Costs 2021: How Much Does It Really Cost to Own a New Car? AAA. Retrieved November 22, 2021, from <a href="https://newsroom.aaa.com/wp-content/uploads/2021/08/2021-YDC-Brochure-Live.pdf">https://newsroom.aaa.com/wp-content/uploads/2021/08/2021-YDC-Brochure-Live.pdf</a>.
- Bliss, L. (2016, June 3). Uber's Subprime Auto Leases Sound Awfully Predatory: Credit-poor Drivers Are Reportedly Becoming Indentured to Their Cars by the Ride-hailing Behemoth. Is It Time for a "Fair-Trade" Alternative? *CityLab*. Retrieved November 17, 2021, from https://www.bloomberg.com/news/articles/2016-06-03/uber-gets-into-the-subprime-auto-lending-game.
- BLS (2021a, September 8). Occupational Outlook Handbook: Transportation and Material Moving Occupations. *U.S. Bureau of Labor Statistics*. Retrieved November 12, 2021, from <a href="https://www.bls.gov/ooh/transportation-and-material-moving/home.htm">https://www.bls.gov/ooh/transportation-and-material-moving/home.htm</a>.
- BLS (2021b, October 21). Labor Force Statistics from the Current Population Survey: Concepts and Definitions. *U.S. Bureau of Labor Statistics*. Retrieved November 12, 2021, from https://www.bls.gov/cps/definitions.htm.
- BLS (2021c, November). CPI for All Urban Consumers (CPI-U). *Bureau of Labor Statistics*. Retrieved December 13, 2021, from <a href="https://data.bls.gov/PDQWeb/cu">https://data.bls.gov/PDQWeb/cu</a>.
- BLS (2021d, November 12). Labor Force Statistics from the Current Population Survey: (Unadj.) Unemployment Rate. *U.S. Bureau of Labor Statistics*. Retrieved November 12, 2021, from https://data.bls.gov/timeseries/LNU04000000.
- BLS (2021e, November 12). Labor Force Statistics from the Current Population Survey: (Unadj.) Unemployment Rate—Nonagricultural Private Wage and Salary Workers, Transportation and Warehousing. *U.S. Bureau of Labor Statistics*. Retrieved November 12, 2021, from https://data.bls.gov/timeseries/LNU04034168.
- BLS (2021f, November 12). Labor Force Statistics from the Current Population Survey: (Unadj.) Unemployment Rate—Transportation and Material Moving Occupations. *U.S. Bureau of Labor Statistics*. Retrieved November 12, 2021, from <a href="https://data.bls.gov/timeseries/LNU04032228">https://data.bls.gov/timeseries/LNU04032228</a>.
- California Department of Industrial Relations (2021). History of California Minimum Wage. Retrieved November 17, 2021, from <a href="https://www.dir.ca.gov/iwc/minimumwagehistory.htm">https://www.dir.ca.gov/iwc/minimumwagehistory.htm</a>.
- California DMV (2021). Commercial Driver Handbook: California Driver License Classes. State of California Department of Motor Vehicles. Retrieved November 15, 2021, from <a href="https://www.dmv.ca.gov/portal/handbook/commercial-driver-handbook/california-driver-license-classes/">https://www.dmv.ca.gov/portal/handbook/commercial-driver-handbook/california-driver-license-classes/</a>.
- California EDD (2020). 2020 Federal and State Payroll Taxes (DE 202 Rev. 9 (2-20)). California EDD. Retrieved November 10, 2021, from <a href="https://www.edd.ca.gov/pdf">https://www.edd.ca.gov/pdf</a> pub <a href="https://www.edd.ca.gov/pdf">ctr/de202.pdf</a>.
- California EDD (2021a). California State Payroll Taxes. *Employment Development Department, State of California*. Retrieved November 10, 2021, from <a href="https://edd.ca.gov/Payroll\_Taxes/What\_Are\_State\_Payroll\_Taxes.htm">https://edd.ca.gov/Payroll\_Taxes/What\_Are\_State\_Payroll\_Taxes.htm</a>.

- California EDD (2021b, September 15). Unemployment Benefits Data. *Employment Development Department, State of California*. Retrieved November 12, 2021, from <a href="https://www.edd.ca.gov/Newsroom/facts-and-stats/dashboard.htm">https://www.edd.ca.gov/Newsroom/facts-and-stats/dashboard.htm</a>.
- California EDD (2021c, November 9). Pandemic Unemployment Assistance. *Employment Development Department, State of California*. Retrieved November 12, 2021, from <a href="https://edd.ca.gov/about\_edd/coronavirus-2019/pandemic-unemployment-assistance.htm">https://edd.ca.gov/about\_edd/coronavirus-2019/pandemic-unemployment-assistance.htm</a>.
- California LWDA (2021). ABC Test. *Labor and Workforce Development Agency*. Retrieved November 10, 2021, from <a href="https://www.labor.ca.gov/employmentstatus/abctest/">https://www.labor.ca.gov/employmentstatus/abctest/</a>.
- California Policy Lab (2021). University of California Consumer Credit Panel (UC-CCP). California Policy Lab.
- Campbell, H. (2021a, February 24). Lyft and Uber Driver Survey 2019: Uber Driver Satisfaction Takes a Big Hit. *Rideshare Guy*. Retrieved November 9, 2021, from https://therideshareguy.com/uber-driver-survey/.
- Campbell, H. (2021b, August 14). Where Have All the Drivers Gone?: The Complex Reasons Behind the Driver Shortage. *Rideshare Guy*. Retrieved November 17, 2021, from <a href="https://therideshareguy.com/uber-driver-shortage/">https://therideshareguy.com/uber-driver-shortage/</a>.
- Conger, K. (2017, January 19). Uber Settles FTC Lawsuit Claiming It Misled Drivers about Pay. Retrieved November 17, 2021, from <a href="https://social.techcrunch.com/2017/01/19/uber-settles-ftc-lawsuit-claiming-it-misled-drivers-about-pay/">https://social.techcrunch.com/2017/01/19/uber-settles-ftc-lawsuit-claiming-it-misled-drivers-about-pay/</a>.
- Cowan, J. (2021, June 15). A Timeline of the Coronavirus in California Tuesday: As California Reopens, Here's a Look Back at What the State Has Endured. *New York Times*. Retrieved November 22, 2021, from <a href="https://www.nytimes.com/2021/06/15/us/coronavirus-california-timeline.html">https://www.nytimes.com/2021/06/15/us/coronavirus-california-timeline.html</a>.
- Cowley, S. (2020, August 3). Small Businesses Got Emergency Loans, but Not What They Expected. *New York Times*. Retrieved November 9, 2021, from <a href="https://www.nytimes.com/2020/08/03/business/small-business-loans-coronavirus.html">https://www.nytimes.com/2020/08/03/business/small-business-loans-coronavirus.html</a>.
- Day, J., and Hait, A. (2019, June 6). Number of Truckers at All-time High. *United States Census Bureau*. Retrieved December 14, 2021, from <a href="https://www.census.gov/library/stories/2019/06/america-keeps-on-trucking.html">https://www.census.gov/library/stories/2019/06/america-keeps-on-trucking.html</a>.
- Dorman, F. (2017, January 19). Uber Agrees to Pay \$20 Million to Settle FTC Charges That It Recruited Prospective Drivers with Exaggerated Earnings Claims. *Federal Trade Commission*. Retrieved November 17, 2021, from <a href="https://www.ftc.gov/news-events/press-releases/2017/01/uber-agrees-pay-20-million-settle-ftc-charges-it-recruited">https://www.ftc.gov/news-events/press-releases/2017/01/uber-agrees-pay-20-million-settle-ftc-charges-it-recruited</a>.
- Dotan, T. (2021, November). Miami's Rideshare Demand Has Nearly Rebounded to Pre-pandemic Levels, but San Francisco Still Lags Behind, New Data Shows. *Insider*. Retrieved November 17, 2021, from <a href="https://www.businessinsider.com/san-francisco-miami-uber-demand-driver-data-recovery-2021-11">https://www.businessinsider.com/san-francisco-miami-uber-demand-driver-data-recovery-2021-11</a>.
- Dubal, V. (2017). Wage Slave or Entrepreneur?: Contesting the Dualism of Legal Worker Identities. *California Law Review*, 105(1), 65–123. Retrieved November 10, 2021, from <a href="https://www.istor.org/stable/24915689">https://www.istor.org/stable/24915689</a>.

- Edison Trends (2021, April 23). March Customer Spend on Uber and Lyft up 317% YoY. *Edison Trends*. Retrieved November 17, 2021, from <a href="https://trends.edison.tech/research/rideshare-spend-march-2021.html">https://trends.edison.tech/research/rideshare-spend-march-2021.html</a>.
- Evans, D. (2021, August 31). Uber and Lyft Rides Are More Expensive than Ever Because of a Driver Shortage. *CNBC*. Retrieved November 17, 2021, from <a href="https://www.cnbc.com/2021/08/31/why-uber-and-lyft-rides-are-more-expensive-than-ever.html">https://www.cnbc.com/2021/08/31/why-uber-and-lyft-rides-are-more-expensive-than-ever.html</a>.
- Falk, G., Romero, P., Nicchitta, I., and Nyhof, E. (2021, August 20). *Unemployment Rates during the COVID-19 Pandemic* (R46554). Congressional Research Service. Retrieved November 22, 2021, from <a href="https://sgp.fas.org/crs/misc/R46554.pdf">https://sgp.fas.org/crs/misc/R46554.pdf</a>.
- Farrell, D., and Greig, F. (2016, November). *The Online Platform Economy: Has Growth Peaked?* JPMorgan Chase Institute. Retrieved November 17, 2021, from <a href="https://www.jpmorganchase.com/content/dam/jpmc/jpmorgan-chase-and-co/institute/pdf/jpmc-institute-online-platform-econ-brief.pdf">https://www.jpmorganchase.com/content/dam/jpmc/jpmorgan-chase-and-co/institute/pdf/jpmc-institute-online-platform-econ-brief.pdf</a>.
- Hall, G. (2017, December 26). LA-area Startup Fair to Buy Uber Xchange Leasing. *L.A. Biz*. Retrieved November 17, 2021, from <a href="https://www.bizjournals.com/losangeles/news/2017/12/26/la-area-startup-fair-to-buy-uber-xchange-leasing.html">https://www.bizjournals.com/losangeles/news/2017/12/26/la-area-startup-fair-to-buy-uber-xchange-leasing.html</a>.
- Hall, J., and Krueger, A. (2015, January 22). *An Analysis of the Labor Market for Uber's Driver-partners in the United States*. Retrieved November 17, 2021, from <a href="https://dataspace.princeton.edu/handle/88435/dsp010z708z67d">https://dataspace.princeton.edu/handle/88435/dsp010z708z67d</a>.
- Handwerker, E., Meyer, P., Piacentini, J., Schultz, M., and Sveikauskas, L. (2020, December). Employment Recovery in the Wake of the COVID-19 Pandemic. *Monthly Labor Review*. https://doi.org/10.21916/mlr.2020.27.
- Harnett, S. (2015, April 24). One Uber Driver's Story: How He Was Trapped by Auto-Loan Program. *KQED*. Retrieved November 17, 2021, from <a href="https://www.kqed.org/news/10499074/one-uber-drivers-story-how-he-was-trapped-by-auto-loan-program">https://www.kqed.org/news/10499074/one-uber-drivers-story-how-he-was-trapped-by-auto-loan-program</a>.
- Hawkins, A. (2020, March 19). Uber Is Doing 70 Percent Fewer Trips in Cities Hit Hard by Coronavirus. *The Verge*. Retrieved November 17, 2021, from <a href="https://www.theverge.com/2020/3/19/21186865/uber-rides-decline-coronavirus-seattle-sf-la-nyc">https://www.theverge.com/2020/3/19/21186865/uber-rides-decline-coronavirus-seattle-sf-la-nyc</a>.
- Helling, B. (2021, May 25). Ridester's 2018 Independent Driver Earnings Survey. *Ridester*. Retrieved November 17, 2021, from <a href="https://www.ridester.com/2018-survey/">https://www.ridester.com/2018-survey/</a>.
- Hussain, S., and Bhuiyan, J. (2020, November 5). Prop. 22 Passed, a Major Win for Uber, Lyft, Doordash. What Happens Next? *Los Angeles Times*. Retrieved November 10, 2021, from <a href="https://www.latimes.com/business/technology/story/2020-11-04/prop-22-passed-what-happens-next">https://www.latimes.com/business/technology/story/2020-11-04/prop-22-passed-what-happens-next</a>.
- Hyman, L., Groshen, E., Litwin, A., Wells, M., Thompson, K., and Chernyshov, K. (2020, July 6). *Platform Driving in Seattle*. Cornell ILR. Retrieved November 17, 2021, from https://ecommons.cornell.edu/handle/1813/74305.

- lacurci, G. (2021, July 30). Delays for Unemployment Benefits Persist, Over a Year into Pandemic. *CNBC*. Retrieved November 12, 2021, from <a href="https://www.cnbc.com/2021/07/30/delays-for-unemployment-benefits-persist-over-a-year-into-pandemic.html">https://www.cnbc.com/2021/07/30/delays-for-unemployment-benefits-persist-over-a-year-into-pandemic.html</a>.
- Johnson, H. (2019, October 29). Uber Financing Was a Bad Idea: Here's What to Do Instead. *The Simple Dollar*. Retrieved November 17, 2021, from <a href="https://www.thesimpledollar.com/loans/auto-loans/uber-financing/">https://www.thesimpledollar.com/loans/auto-loans/uber-financing/</a>.
- Kabbage (2021). EIDL vs PPP loans: How SBA Coronavirus Business Loans Work. *Kabbage Servicing*. Retrieved November 9, 2021, from <a href="https://www.kservicing.com/resources/eidls-vs-ppp-loans-how-sbacoronavirus-business-loans-work/">https://www.kservicing.com/resources/eidls-vs-ppp-loans-how-sbacoronavirus-business-loans-work/</a>.
- Kwok, S. (2020a, April 1). Lyft and Uber Drivers Can Get a Federal \$10000 Emergency Grant. *Rideshare Dashboard*. Retrieved November 9, 2021, from <a href="https://ridesharedashboard.com/2020/04/01/lyft-and-uber-drivers-can-get-a-federal-10000-emergency-grant/">https://ridesharedashboard.com/2020/04/01/lyft-and-uber-drivers-can-get-a-federal-10000-emergency-grant/</a>.
- Kwok, S. (2020b, April 6). Status Update on SBA EIDL Emergency Grant For Independent Contractors. *Rideshare Dashboard.* Retrieved November 9, 2021, from <u>https://ridesharedashboard.com/2020/04/06/status-update-on-sba-eidl-emergency-grant-for-independent-contractors/.</u>
- Levy, A. (2016, June 7). Uber Is Gearing up to Upend the Auto Loan Market. *CNBC*. Retrieved November 17, 2021, from https://www.cnbc.com/2016/06/07/uber-wants-to-disrupt-the-auto-leasing-industry.html.
- Marx, P. (2018, January 8). Uber's Auto-loan Program Is Basically Indentured Servitude. *The Bold Italic*. Retrieved November 17, 2021, from <a href="https://thebolditalic.com/ubers-auto-loan-program-is-basically-indentured-servitude-78011b8ea9b2">https://thebolditalic.com/ubers-auto-loan-program-is-basically-indentured-servitude-78011b8ea9b2</a>.
- McCann, M. (2021, June 1). Despite Demand for Delivery, Gig Companies Are Grappling with Worker Shortages. *Modern Retail*. Retrieved November 17, 2021, from <a href="https://www.modernretail.co/startups/despite-demand-for-delivery-gig-companies-are-grappling-with-worker-shortages/">https://www.modernretail.co/startups/despite-demand-for-delivery-gig-companies-are-grappling-with-worker-shortages/</a>.
- Mishel, L. (2018, May 15). *Uber and the Labor Market: Uber Drivers' Compensation, Wages, and the Scale of Uber and the Gig Economy*. Economic Policy Institute. Retrieved November 17, 2021, from <a href="https://www.epi.org/publication/uber-and-the-labor-market-uber-drivers-compensation-wages-and-the-scale-of-uber-and-the-gig-economy/">https://www.epi.org/publication/uber-and-the-labor-market-uber-drivers-compensation-wages-and-the-scale-of-uber-and-the-gig-economy/</a>.
- Mollaneda, I. (2021, May 5). The Aftermath of California's Proposition 22. *California Law Review, Blog.* Retrieved August 18, 2021, from <a href="https://www.californialawreview.org/the-aftermath-of-californias-proposition-22/">https://www.californialawreview.org/the-aftermath-of-californias-proposition-22/</a>.
- Murphy, B. (2017, June 16). Rigged: Forced into Debt. Worked Past Exhaustion. Left with Nothing. *USA TODAY*. Retrieved November 17, 2021, from <a href="https://www.usatoday.com/pages/interactives/news/rigged-forced-into-debt-worked-past-exhaustion-left-with-nothing/">https://www.usatoday.com/pages/interactives/news/rigged-forced-into-debt-worked-past-exhaustion-left-with-nothing/</a>.
- Myers, J., Bhuiyan, J., and Roosevelt, M. (2019, September 18). Newsom Signs Bill Rewriting California Employment Law, Limiting Use of Independent Contractors. *Los Angeles Times*. Retrieved September 27, 2019, from <a href="https://www.latimes.com/california/story/2019-09-18/gavin-newsom-signs-ab5-employees0independent-contractors-california">https://www.latimes.com/california/story/2019-09-18/gavin-newsom-signs-ab5-employees0independent-contractors-california</a>.

- Ockenfels-Martinez, M., and Farhang, L. (2019, August). *Driving Away Our Health: The Economic Insecurity of Working for Lyft and Uber*. Human Impact Partners and Gig Workers Rising. Retrieved November 17, 2021, from <a href="https://humanimpact.org/wp-content/uploads/2019/08/DrivingAwayHealthReport\_2019.08final-compressed.pdf">https://humanimpact.org/wp-content/uploads/2019/08/DrivingAwayHealthReport\_2019.08final-compressed.pdf</a>.
- Parrott, J., and Reich, M. (2020a, July). *A Minimum Compensation Standard for Seattle TNC Drivers*. New School Center for New York City Affairs and UC Berkeley Center on Wage and Employment Dynamics. Retrieved November 17, 2021, from <a href="https://irle.berkeley.edu/files/2020/07/Parrott-Reich-Seattle-Report\_July-2020.pdf">https://irle.berkeley.edu/files/2020/07/Parrott-Reich-Seattle-Report\_July-2020.pdf</a>.
- Parrott, J., and Reich, M. (2020b, July 6). *Comparison of Two Seattle TNC Driver Studies*. UC Berkeley Institute for Research on Labor and Employment. Retrieved November 17, 2021, from https://irle.berkeley.edu/files/2020/07/Comparison-of-two-Seattle-studies.pdf.
- Perri, J. (2021a, July 20). Instacart and Walmart Lead Grocery Delivery Sales. *Bloomberg Second Measure*. Retrieved November 9, 2021, from <a href="https://secondmeasure.com/datapoints/grocery-delivery-competitors-instacart-walmart-shipt-peapod-freshdirect/">https://secondmeasure.com/datapoints/grocery-delivery-competitors-instacart-walmart-shipt-peapod-freshdirect/</a>.
- Perri, J. (2021b, October 14). Uber vs. Lyft: Who's Tops in the Battle of U.S. Rideshare Companies. *Bloomberg Second Measure*. Retrieved November 9, 2021, from <a href="https://secondmeasure.com/datapoints/rideshare-industry-overview/">https://secondmeasure.com/datapoints/rideshare-industry-overview/</a>.
- Perri, J. (2021c, October 14). Which Company Is Winning the Restaurant Food Delivery War? *Bloomberg Second Measure*. Retrieved November 9, 2021, from <a href="https://secondmeasure.com/datapoints/food-delivery-services-grubhub-uber-eats-doordash-postmates/">https://secondmeasure.com/datapoints/food-delivery-services-grubhub-uber-eats-doordash-postmates/</a>.
- Pierce, G., DeShazo, J., Sheldon, T., McOmber, B., and Blumenberg, E. (2019, March 12). *Designing Light-duty Vehicle Incentives for Low- and Moderate-income Households* (15RD011). UCLA Luskin Center for Innovation. Retrieved June 22, 2021, from https://ww2.arb.ca.gov/sites/default/files/classic//research/apr/past/15rd011.pdf.
- Prendergast, A. (2021, March 2). How Lease Deals Have Truckers Hauling a Load of Debt. *Westword*. Retrieved December 17, 2021, from <a href="https://www.westword.com/news/truckers-lease-deal-pathways-lawsuit-highway-safety-supply-chain-11907958">https://www.westword.com/news/truckers-lease-deal-pathways-lawsuit-highway-safety-supply-chain-11907958</a>.
- Rhinehart, L., McNicholas, C., Poydock, M., and Mangundayao, I. (2021, June 16). Misclassification, the ABC Test, and Employee Status: The California Experience and Its Relevance to Current Policy Debates. *Economic Policy Institute*. Retrieved November 10, 2021, from <a href="https://www.epi.org/publication/misclassification-the-abc-test-and-employee-status-the-california-experience-and-its-relevance-to-current-policy-debates/">https://www.epi.org/publication/misclassification-the-abc-test-and-employee-status-the-california-experience-and-its-relevance-to-current-policy-debates/</a>.
- Romer, K., and Gonzalez, S. (2020, August 14). Big Rigged. In *Planet Money*, B. Urstadt (Ed.). Retrieved November 17, 2021, from <a href="https://www.npr.org/2020/08/10/901110994/big-rigged">https://www.npr.org/2020/08/10/901110994/big-rigged</a>.
- SBA (2020a, December 1). COVID-19 EIDL. *U.S. Small Business Administration (SBA) Open Data*. Retrieved November 9, 2021, from <a href="https://data.sba.gov/en/dataset/covid-19-eidl">https://data.sba.gov/en/dataset/covid-19-eidl</a>.
- SBA (2020b, December 1). COVID-19 EIDL Advance. *U.S. Small Business Administration (SBA) Open Data*. Retrieved November 9, 2021, from <a href="https://data.sba.gov/en/dataset/covid-19-eidl-advance">https://data.sba.gov/en/dataset/covid-19-eidl-advance</a>.

- SBA (2021a). COVID-19 EIDL. *U.S. Small Business Administration*. Retrieved November 9, 2021, from <a href="https://www.sba.gov/funding-programs/loans/covid-19-relief-options/eidl/covid-19-eidl">https://www.sba.gov/funding-programs/loans/covid-19-relief-options/eidl/covid-19-eidl</a>.
- SBA (2021b). Targeted EIDL Advance and Supplemental Targeted Advance. *U.S. Small Business Administration*. Retrieved November 9, 2021, from <a href="https://www.sba.gov/funding-programs/loans/covid-19-relief-options/eidl/targeted-eidl-advance-supplemental-targeted-advance">https://www.sba.gov/funding-programs/loans/covid-19-relief-options/eidl/targeted-eidl-advance-supplemental-targeted-advance</a>.
- Scheiber, N. (2020, July 12). When Scholars Collaborate with Tech Companies, How Reliable Are the Findings?: Uber and Lyft Hailed a Cornell Paper's Conclusion That Their Drivers Make Solid Wages. but Others Have Questioned the Researchers' Approach. *New York Times*. Retrieved November 17, 2021, from <a href="https://www.nytimes.com/2020/07/12/business/economy/uber-lyft-drivers-wages.html">https://www.nytimes.com/2020/07/12/business/economy/uber-lyft-drivers-wages.html</a>.
- Sell, S. (2016, July 23). Uber and Lyft Will Help Drivers Get Cars—For a Price. *Skift*. Retrieved November 17, 2021, from <a href="https://skift.com/2016/07/23/uber-and-lyft-will-help-drivers-get-cars-for-a-price/">https://skift.com/2016/07/23/uber-and-lyft-will-help-drivers-get-cars-for-a-price/</a>.
- Shouse, N. (2021, August 20). California Labor Code 2802—What Expenses Get Reimbursed? *Shouse Labor Law Group*. Retrieved November 10, 2021, from https://www.shouselaw.com/ca/blog/labor-code-2802/.
- Siddiqui, F., and Van Dam, A. (2021, March 16). As Uber Avoided Paying into Unemployment, the Federal Government Helped Thousands of Its Drivers Weather the Pandemic: The Loans Came as Uber and Gig Economy Companies Added Billions to Their Stock Values After Defeating an Effort to Make Drivers Employees. Washington Post. Retrieved November 9, 2021, from <a href="https://www.washingtonpost.com/technology/2021/03/16/uber-lyft-unemployment-benefits/">https://www.washingtonpost.com/technology/2021/03/16/uber-lyft-unemployment-benefits/</a>.
- Smith, L. (2016, June 3). Wall Street Loans Uber \$1 Billion to Offer Subprime Auto Leases. *The Verge*. Retrieved November 17, 2021, from <a href="https://www.theverge.com/2016/6/3/11852940/uber-subprime-auto-loans-drivers-xchange">https://www.theverge.com/2016/6/3/11852940/uber-subprime-auto-loans-drivers-xchange</a>.
- Smith, S. (2020, July 15). So How Much Does a Ride-hail Driver Really Earn, Anyway? *Next City*. Retrieved November 17, 2021, from <a href="https://nextcity.org/urbanist-news/entry/so-how-much-does-a-ride-hail-driver-really-earn-anyway">https://nextcity.org/urbanist-news/entry/so-how-much-does-a-ride-hail-driver-really-earn-anyway</a>.
- Sumagaysay, L. (2020, November 27). The Pandemic Has More Than Doubled Food-delivery Apps' Business. Now What? *MarketWatch*. Retrieved November 17, 2021, from <a href="https://www.marketwatch.com/story/the-pandemic-has-more-than-doubled-americans-use-of-food-delivery-apps-but-that-doesnt-mean-the-companies-are-making-money-11606340169.">https://www.marketwatch.com/story/the-pandemic-has-more-than-doubled-americans-use-of-food-delivery-apps-but-that-doesnt-mean-the-companies-are-making-money-11606340169.</a>
- U.S. Census Bureau (2018). Nonemployer Statistics: 2018. *United States Census Bureau*. Retrieved November 12, 2021, from <a href="https://www.census.gov/data/datasets/2018/econ/nonemployer-statistics/2018-ns.html">https://www.census.gov/data/datasets/2018/econ/nonemployer-statistics/2018-ns.html</a>.
- U.S. Census Bureau (2021a). 2015-2019 American Community Survey. *Data.census.gov*. Retrieved November 9, 2021, from <a href="https://data.census.gov">https://data.census.gov</a>.
- U.S. Census Bureau (2021b, October 8). Nonemployer Statistics (NES). *United States Census Bureau*. Retrieved November 12, 2021, from <a href="https://www.census.gov/programs-surveys/nonemployer-statistics.html">https://www.census.gov/programs-surveys/nonemployer-statistics.html</a>.

- Waheed, S., Herrera, L., Gonzalez-Vasquez, A., Shadduck-Hernández, J., Koonse, T., and Leynov, D. (2018, May 30). *More Than a Gig: A Survey of Ride-hailing Drivers in Los Angeles* (J. Best, Ed.). UCLA Labor Center. Retrieved November 17, 2021, from <a href="https://www.labor.ucla.edu/wp-content/uploads/2018/06/Final-Report.-UCLA-More-than-a-Gig.pdf">https://www.labor.ucla.edu/wp-content/uploads/2018/06/Final-Report.-UCLA-More-than-a-Gig.pdf</a>.
- Walks, A. (2018, July 1). Driving the Poor into Debt?: Automobile Loans, Transport Disadvantage, and Automobile Dependence. *Transport Policy*, 65, 137–149. <a href="https://doi.org/10.1016/j.tranpol.2017.01.001">https://doi.org/10.1016/j.tranpol.2017.01.001</a>.
- Waller, M. (2005, December). *High Cost or High Opportunity Cost?: Transportation and Family Economic Success* (Policy Brief #35). Brookings Institution. Retrieved June 17, 2021, from <a href="https://www.brookings.edu/wp-content/uploads/2016/06/pb35.pdf">https://www.brookings.edu/wp-content/uploads/2016/06/pb35.pdf</a>.
- Wasserman, J., and Taylor, B. (2021, January 20). Sources of and Gaps in Data for Understanding Public Transit Ridership (UC-ITS-2020-33). UCLA ITS. <a href="https://doi.org/10.17610/t66893">https://doi.org/10.17610/t66893</a>.
- Wells, K., Attoh, K., and Cullen, D. (2019, April). *The Uber Workplace in D.C.* Georgetown Kalmanovitz Initiative for Labor and the Working Poor. Retrieved November 17, 2021, from <a href="https://lwp.georgetown.edu/wp-content/uploads/sites/319/uploads/Uber-Workplace.pdf">https://lwp.georgetown.edu/wp-content/uploads/sites/319/uploads/Uber-Workplace.pdf</a>.
- Williams, A. (2020, May 21). Uber Car Financing Has Ended: What to Do Instead (G. Wollenhaupt, Ed.). *LendingTree.* Retrieved November 17, 2021, from <a href="https://www.lendingtree.com/auto/uber-car-financing/">https://www.lendingtree.com/auto/uber-car-financing/</a>.
- Zoepf, S. (2018, March 5). *The Economics of Ride Hailing, Revisited*. MIT Center for Energy and Environmental Policy Research. Retrieved November 17, 2021, from <a href="https://web.archive.org/web/20211016091152/http://ceepr.mit.edu/files/papers/2018-005%20Authors%20Statement.pdf">https://web.archive.org/web/20211016091152/http://ceepr.mit.edu/files/papers/2018-005%20Authors%20Statement.pdf</a>.