



Independent Contracting in California:

An Analysis of Trends and Characteristics Using Tax Data

By Annette Bernhardt, Sarah Thomason, Chris Campos,
Allen Prohofsky, Aparna Ramesh, and Jesse Rothstein

March 2022

UC BERKELEY
LABOR
CENTER



Contents

- Executive Summary 3
- 1. Introduction..... 7
- 2. Definitions and Data 9
- 3. The Prevalence of Independent Contracting..... 11
- 4. The Characteristics of Workers Engaged in Independent Contracting..... 15
- 5. The Earnings of Independent Contracting..... 19
- 6. Independent Contracting Among Older Workers 24
- 7. Types of Independent Contracting..... 28
- 8. The Firms Using 1099 Independent Contractors..... 36
- 9. Questions for Future Research 39
- Acknowledgments..... 40
- Technical Appendix 41
- Bibliography..... 45
- Endnotes..... 48



Executive Summary

In the many discussions about the future of work in California, the topic of independent contracting holds a prominent and much debated position. The growth of on-demand labor platforms such as Uber and TaskRabbit has fueled concern that “gig” work could replace traditional jobs and result in chronic economic instability, especially in communities of color. Worker advocates have also long been concerned about the misclassification of workers as independent contractors, leading to the passage of AB5 in 2019. More recently, the exclusion of independent contractors from key workplace protections was put into sharp relief during the COVID-19 pandemic.

As the economy recovers, good data on independent contracting will be vital to responding to trends in the 21st Century labor market, as well as to the ongoing task of measuring the underreporting of independent contractor income by tax authorities. In this report, we leverage recent innovations in analyzing tax data to shed new light on the prevalence and characteristics of independent contracting in California. Our research stems from a unique partnership between the California Tax Franchise Board, the California Policy Lab at UC Berkeley, and the UC Berkeley Labor Center. This partnership enabled us to access (fully anonymized) individual tax filing data for California residents for the years 2014 to 2016. The analyses in this report focus on the population of California residents, aged 18-80, who e-filed their taxes and had positive earned income. (See the full report for details on data and methods, and other research generated by this partnership).

The Prevalence of Independent Contracting

- We found that traditional W2 work is still by far the most common way that workers earn a living in California. In 2016, the large majority of workers (81.7 percent) only held a traditional W2 job. Independent contracting was the sole source of income for 8.6 percent of workers during that year, and another 9.7 percent combined independent contracting and traditional W2 work.
- For many workers, there was significant stability in their work activity from one year to the next. But we found much less stability among workers who mixed W2 work and independent contracting. More than a third (35.4 percent) of those who mixed work activity in 2015 had transitioned to only holding a W2 job a year later, in 2016. And a smaller share (7.8 percent) had transitioned to only independent contracting in 2016. The mixing of W2 work and independent contracting, whether concurrently or sequentially, is often a temporary state.
- In line with other research, we found that the proportion of workers with any independent contracting income in California showed minimal change between 2014 and 2016.

The Characteristics of Workers Engaged in Independent Contracting

- Workers who engage in independent contracting in California are a diverse group in terms of their demographics, household income, and the kind of work they do. However, we also found several distinct patterns. For example, in 2016, workers who only relied on independent contracting for their income were more likely to be older, married, and living in lower-income households, compared to other workers.
- Independent contracting is found across California's economy in a wide range of industries. Relative to W2 work, independent contracting in 2016 in California was overrepresented in construction; transportation and warehousing; real estate; professional services; arts, entertainment, and recreation; repair and maintenance personal services; child day care services; janitorial and landscaping services; and direct selling establishments in retail.
- The industry distribution of independent contracting did not change significantly between 2014 and 2016, with several exceptions. As one example, the share of independent contracting work in transportation nearly doubled during this time (not surprisingly given the growth of rideshare platforms).

The Earnings of Independent Contracting

- We found strong differences in the earnings associated with independent contracting and W2 work. Compared to other workers, low earnings were more prevalent among those who relied exclusively on independent contracting in 2016 (although the size of this difference is unclear due to measurement issues).
- By comparison, workers who supplemented their W2 jobs with independent contracting had higher earnings. For these mixed-income workers, the median share of earnings from independent contracting was only 4.2 percent, indicating that their W2 job was typically still their main source of income. That said, this supplemental income was especially important for low-wage workers.
- The industry profile of independent contracting varied across the earnings distribution. Independent contractors with low earnings were more likely to work in industries such as personal services, janitorial services, and landscaping. Independent contractors with higher earnings were more likely to work in industries such as professional services, transportation, construction, and real estate.

Independent Contracting Among Older Workers

- Not surprisingly, we find that many people in California stop working as they get older and retire. However, while the prevalence of W2 work declines steeply during this time, many older and retired tax filers continue to use independent contracting as a source of earned income, long after they stop working at their W2 job. As late as age 75, fully 9.8 percent of tax filers were engaged in some amount of independent contracting in 2016.

- Lower-income older workers were less likely to be working and more likely to rely on just Social Security. But when they did work, they were more likely to rely exclusively on independent contracting (and less likely to work at a W2 job).
- Lower-income and higher-income older workers differ in the industry profile of their independent contracting, largely mirroring differences among their younger counterparts.

Types of Independent Contracting

- We identified three distinct types of independent contracting. In 2016, 12.1 percent of California workers reported earnings from non-1099 independent contracting (for example, massage therapists who were not hired by a firm but instead provided services directly to consumers, and therefore did not receive a 1099 form). Another 4.8 percent reported earnings from what we term “traditional” 1099 work (like graphic design freelancers who received a 1099 form from the company that hired them). Only 1.4 percent of workers reported earnings from on-demand labor platforms (like Uber). The fact that platform workers made up only a very small share of the workforce in 2016 may be surprising, but other research using accurate measures has arrived at very similar estimates, including the most recent study analyzing 2021 data.
- Compared to other workers engaged in independent contracting, platform workers were younger, largely working in the transportation industry, and distinct in their high rate of mixing independent contracting with W2 jobs (only 20.7 percent relied solely on platform work for their income).
- Non-1099 independent contractors were unique in that the majority engaged solely in independent contracting work; they were also more likely to report working in janitorial and landscaping services, construction, and repair and maintenance.

The Firms Using 1099 Independent Contractors

- We found that firms in California continue to rely primarily on a traditional employment model, with only about one in five (18.6 percent) reporting that they paid 1099 compensation in 2016.
- Overall, \$574 billion in W2 compensation and \$17.6 billion in 1099 compensation was paid by California firms to California resident tax filers in 2016. That means that only a small share of total compensation in the state (3.0 percent) was issued to 1099 independent contractors.
- Two industries stand out as having a much higher proportion of firm compensation going to 1099 independent contractors than the other industries: transportation and warehousing (20.7 percent) and real estate and rental and leasing (20.0 percent).
- Other industries with above-average proportions of 1099 compensation include specific subsectors such as advertising, securities brokerages, and insurance carriers; childcare, youth services, and ambulatory health care centers; and consumer-focused services such as house remodeling, beauty salons, and direct selling.

Going forward, tax data should continue to be used by the State of California to measure trends in independent contracting. Due to limitations in data availability, we were only able to analyze data through 2016. However, the world has changed since then – including the introduction of new laws and the COVID-19 pandemic. Further research using tax data can help shed light on how independent contracting, and work for on-demand platforms in particular, may have changed since 2016, especially during the course of the pandemic.



1. Introduction

In the many discussions about the future of work in California, the topic of independent contracting holds a prominent and much debated position. The growth of on-demand labor platforms such as Uber and TaskRabbit have fueled the concern that “gig” work could replace traditional jobs and result in lower wages and chronic economic instability, especially in communities of color. Worker advocates have also long been concerned about the misclassification of workers as independent contractors. The debates around the passage of AB5 by the state legislature in 2019 (establishing a strict standard for determining if a worker can legally be classified as an independent contractor) put a further spotlight on the issue.

But independent contracting is not just about on-demand labor platforms or misclassified workers. A wide range of workers currently engage in independent contracting work in California—everything from car repair and childcare workers to hair stylists and artists to real estate agents and accountants. And while their wages and working conditions vary, they all share the fact that independent contractors, unlike traditional employees, are not covered by critical legal protections and safety net programs, including the minimum wage, overtime, unemployment insurance, and workers’ compensation. This exclusion was put into sharp relief during the COVID-19 pandemic. Independent contractors who lost work during the pandemic were initially left without a safety net, and only temporarily gained access to unemployment insurance via a federal program that expired in September 2021. We are only beginning to assess the impacts, which have likely been stronger in communities of color; for example, black self-employed workers, especially women, experienced larger employment losses during the pandemic than other self-employed workers.¹

As the economy recovers, the focus on independent contracting will continue. For example, numerous media outlets this year reported on unemployed workers setting up small businesses and investing in freelancing skills, but it is unclear whether this is a permanent shift or a temporary way of generating income.² Others speculated that uncertainty about the recurring waves of COVID infections might lead businesses to hire independent contractors rather than permanent workers as the economy opens up again. The future size of on-demand platforms is also unclear, with some seeing steep drops in demand during the pandemic while others such as grocery delivery grew rapidly.³ There are also questions about how to ensure that independent contractors pay appropriate taxes, since a significant share of independent contracting activity goes unreported due to incomplete employer reporting to tax authorities. And in the policy realm, urgent questions have been raised about the limitations of an employment-based and therefore exclusionary model of access to unemployment insurance and other traditional workplace benefits (even with the temporary extension of access to independent contractors during the pandemic). Finally, policymakers will also want to understand the impact of AB5 on employment classification in California, as well as the impact of Proposition 22, which was passed in 2020 exempting transportation platforms.

The research challenge

Now more than ever, good data on independent contracting will be vital to understanding and responding to trends in the California labor market. However, due to the limitations of existing datasets and different definitions of independent contracting, there has been little consensus as to what the actual trends are. Many government surveys of workers do not adequately capture different types of independent contracting work and how it is combined by workers with regular jobs.⁴ As a result, researchers have had to triangulate between multiple data sources of varying quality and representativeness.⁵ Confounding the data problem has been widespread confusion in terminology and definitions, with “gig work” in particular being used to denote several very different types of work. The result has been a chronic lack of clarity about independent contracting, affecting policymakers as well as tax authorities and their ability to accurately measure tax compliance.

In this report, we leverage recent innovations in analyzing tax data to shed new light on the prevalence and characteristics of independent contracting in California. Specifically, we analyze individual tax filings from 2014 to 2016 to examine a series of questions. We begin by estimating the proportion of the workforce that engages in independent contracting work (including for on-demand labor platforms), and how many workers combine it with traditional W2 work. We then analyze the characteristics of workers who use independent contracting to generate income (either as a supplement or as their sole job), the industries they work in, and how much they earn. We examine what role independent contracting plays over the life course, especially for older and retired tax filers. And finally, we analyze the characteristics of firms that use independent contractors.

As we will see, while tax data have limitations, they allow us to significantly advance our understanding of the role of independent contracting in the California economy. Going forward, tax data offer an important source of information to guide policymakers as they continue to respond to the evolving 21st Century labor market.



2. Definitions and Data

Defining independent contracting

A key challenge for researchers who study independent contractors is the lack of agreement on who these workers actually are. Researchers, journalists, advocates, and policymakers often have different definitions in mind when they refer to a group of workers as “independent contractors,” “self-employed workers,” or “gig workers.”⁶ This definitional morass, combined with a lack of solid data sources, has led to very different conclusions about how common independent contracting is, the characteristics of the workers engaged in this work, and what policies may be appropriate for addressing these workers’ needs.⁷

In this report, we follow recent innovations in the use of tax data to develop a more accurate measure of independent contracting than has been available in government household surveys.⁸ Individual tax filing data feature several advantages over worker survey data:

- *Tax data offer a clear and consistent delineation between work conducted as an employee and work conducted as an independent contractor.* This is important, because workers often struggle to correctly identify the type of work they are doing (understandably, given the complexity of employment classification), and will classify themselves differently depending on question wording.⁹
- *Tax data can capture multiple and secondary sources of income that workers often do not report on household surveys.* In particular, workers with traditional W2 jobs often neglect to report secondary income from independent contracting work, which is of significant interest in this report.¹⁰
- *Tax data allow the accurate identification of work for on-demand labor platforms.* This is important because attempts by standard government worker surveys to accurately identify platform work have to date not been successful.¹¹

Specifically, we define independent contracting as work that generates a 1099 form, is declared by the presence of self-employment income on a Schedule C form, or both.¹²

Measured this way, independent contracting is clearly distinguished from traditional work as an employee, which we define by the presence of a W2 form. Importantly, tax records can show both types of work for a given worker in a given year, which will turn out to be a critical feature that significantly improves our understanding of independent contracting.

That said, tax data have their own shortcomings. Most important, they do not allow the identification of misclassified independent contractors—that is, employees who have been erroneously classified as independent contractors by their employers. What we are measuring with tax data, then, is how the employer or contracting business has defined a given worker. In general, misclassification is very difficult to identify in most datasets without a case-by-case legal analysis, and as a result, we currently lack a national economy-wide estimate of its prevalence. However, there is stronger evidence for particular industries. The trucking industry (especially port trucking) has disproportionately large numbers of citations for misclassification-related wage theft. In the janitorial industry, the commonly-used franchise model has been found to illegally misclassify workers in a number of high-profile lawsuits. And a number of studies have also documented widespread misclassification in the construction industry.¹³

Another shortcoming of tax data is that workers do not always declare all income-generating work in their tax filings. This is especially the case with self-employment work that does not generate a 1099 form, where there are strong incentives to underreport income, overreport expenses, or not report income at all.¹⁴ In addition, about one in eight 1099 recipients do not file taxes, and is thus missed in analyses of tax filers only.

Nevertheless, as we will see, tax data do significantly improve our understanding of the prevalence and characteristics of independent contracting.

The data

The research presented in this report stems from a partnership between the California Tax Franchise Board, the California Policy Lab at UC Berkeley, and the UC Berkeley Labor Center. This partnership enabled us to analyze (fully anonymized) individual tax filing data for California residents for the years 2014 to 2016.¹⁵ The analyses in this report focus on the population of California residents, aged 18-80, who e-filed taxes in a given year and had positive earned income (about 14.8 million workers in 2016). Please see the Technical Appendix for more detail.

3. The Prevalence of Independent Contracting

In this section, we take up two fundamental questions relevant to the public policy debate: What proportion of workers is engaged in independent contracting in California, and has this proportion changed in recent years? In the process, we introduce an important consideration to help clarify the significant confusion in this research area: namely, whether workers mix independent contracting with traditional W2 work, or whether they only work as independent contractors.¹⁶

This distinction is critical. First, it helps to explain the conflicting, wide range of estimates of the prevalence of independent contracting, because some studies count any amount of independent contracting work, however small, whereas others only count independent contracting when it is the worker's main job. Second, this distinction is important for worker advocates and policy makers as they identify what kinds of public policies are needed to support these workers. Tax data allow us to accurately measure both ways that workers use independent contracting to support themselves and their families in California.

Overall, the picture that emerges is a labor market where traditional W2 work is still by far the most common way that workers earn a living. In 2016, about one in eleven workers engaged solely in independent contracting work. A similar share (about one in ten workers) used independent contracting to supplement their W2 earnings. Moreover, we found that the mixing of W2 work and independent contracting is often temporary or transitional in nature. Similar to other research, we do not find evidence of strong increases in the prevalence of independent contracting between 2014 and 2016, with the exception of growth in a few sectors such as transportation (not surprisingly given the advent of rideshare platforms).

Prevalence

To estimate the proportion of workers that is engaged in independent contracting in California, we divide workers into three groups based on the type of income they report in their tax filings:

1. **W2-only workers:** Workers who had earnings only from traditional employment in a given year (i.e., they were issued one or more W2 forms).
2. **Independent contracting-only workers:** Workers whose tax records show only independent contracting work in a given year (i.e., they were issued one or more 1099 forms and/or reported self-employment revenues on a Schedule C form).
3. **Mixed-income workers:** Workers whose tax records in a given year show earnings from both traditional employment and independent contracting work (i.e., they were issued one or more W2 forms, and were issued one or more 1099 forms and/or reported self-employment revenues on a Schedule C form).

Table 1 shows the proportion of workers that fell into each of these three categories in 2016. The large majority of workers in California (81.7 percent) held only a traditional W2 job. Independent contracting was the sole source of income for 8.6 percent of workers in that year, and another 9.7 percent combined independent contracting and traditional W2 work. Overall, about one in five workers (18.3 percent) engaged in some amount of independent contracting in 2016.¹⁷ Table 1 also shows the number of e-filers in each group.¹⁸

TABLE 1

Prevalence of W2 work and independent contracting among California workers, 2016

Type of work	Percent of workers	Number of e-filers
W2-only workers	81.7	12,120,000
Mixed-income workers	9.7	1,440,000
Independent contracting-only workers	8.6	1,280,000
All workers	100.0	14,840,000

Note: Includes individuals who electronically filed their taxes in 2016, were residents of California, were age 18-80, and had positive gross earned income. See Technical Appendix for more detail.

Source: Authors' analysis of data from the Franchise Tax Board, 2016

The dynamics of work mixing

We next take a closer look at the significant number of workers that combined independent contracting and W2 work in California, since this group has been understudied to date. Of particular interest is whether this mixing of the two types of work is a long-term strategy or whether it is episodic.

Because we only have annual tax data, we are not able to identify exactly when and how mixers combine W2 work and independent contracting during the year: specifically, are they engaged in these two forms of work simultaneously or sequentially? Those are two very different scenarios. In the simultaneous scenario, a worker might be using independent contracting to make up for insufficient earnings in their W2 job. In the sequential scenario, a worker might be transitioning between the two types of work or temporarily making up for the loss of a W2 job with independent contracting while they search for another W2 job.

Although we are not able to identify these two scenarios directly, we can gain indirect information by analyzing how workers change their reliance on different types of work from one year to the next. In Table 2, we have linked each individual worker's tax data across 2015 and 2016. For many workers, there was significant stability from one year to the next. For example, the large majority of workers (95.1 percent) who engaged only in W2 work in 2015 had the same status in 2016. Similarly, 86.7 percent of workers who engaged only in independent contracting in 2015 stayed in that same status the following year.

TABLE 2

Transition between types of work from 2015 to 2016 by California workers

2015 type of work	2016 type of work			
	W2-only workers	Mixed-income workers	Independent contracting-only workers	All workers
W2-only workers	95.1	4.4	0.5	100.0
Mixed-income workers	35.4	56.8	7.8	100.0
Independent contracting-only workers	4.4	8.9	86.7	100.0

Note: Includes individuals who electronically filed their taxes in both 2015 and 2016, were residents of California, were age 18-80, and had positive gross earned income. Percentaging is across rows and highlighted cells indicate workers whose type of work was the same in both years. See Technical Appendix for more detail.

Source: Authors' analysis of data from the Franchise Tax Board, 2015 and 2016

However, we find much less stability among workers who mixed W2 work and independent contracting in 2015. More than a third of those mixers (35.4 percent) had transitioned to holding only a W2 job a year later, in 2016. And a smaller share (7.8 percent) had transitioned to only independent contracting in 2016. These results suggest that the mixing of W2 work and independent contracting, whether concurrently or sequentially, is often a temporary state. Gaining a better understanding of when and how workers mix different types of work over time is a rich area for future research.¹⁹

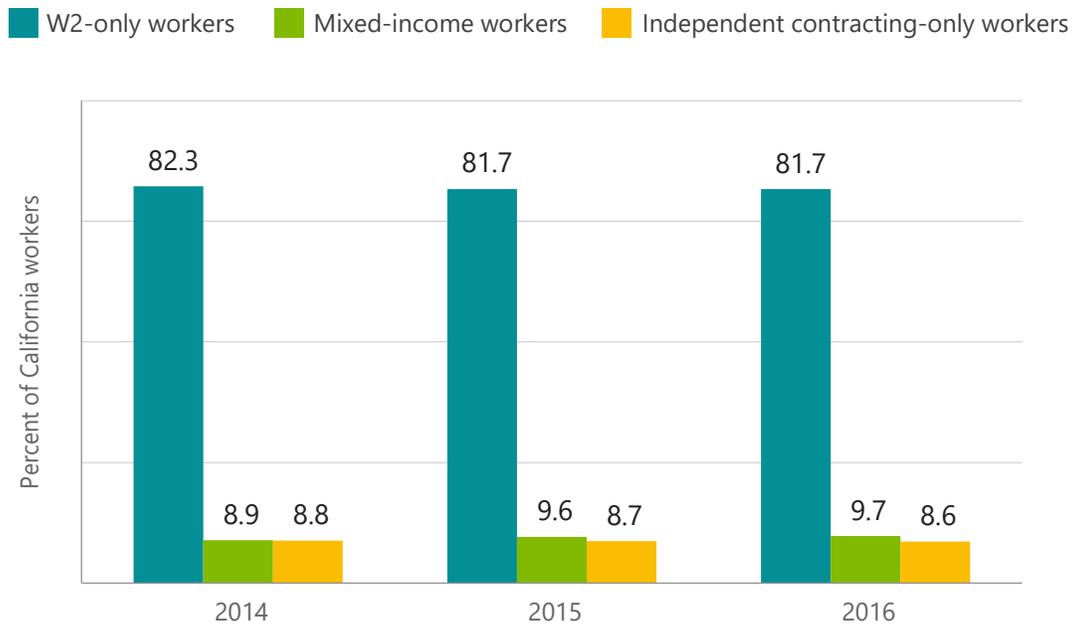
Recent trends

Finally, we examine recent trends in the prevalence of independent contracting in California. In our data we are only able to view a short time window, from 2014 to 2016. However, other studies of tax data with longer time series have generally found significantly less change over time in the prevalence of independent contracting than is often portrayed in proclamations about the end of the traditional job. Nationally, the share of workers engaged in independent contracting work increased by only 1.9 percentage points between 2000 and 2016.²⁰ And in California, the share of workers reporting independent contracting earnings on a Schedule C form rose only slightly from 12.4 percent in 2012 to 12.9 percent in 2017.²¹

Figure 1 echoes these findings, showing few significant changes in the types of work that Californians engaged in between 2014 and 2016. The total proportion of workers with any independent contracting income rose only slightly during this time, from 17.7 percent to 18.3 percent. This minimal growth resulted solely from an increase in the proportion of workers who were mixing W2 work with independent contracting, increasing from 8.9 to 9.7 percent.

FIGURE 1.

Prevalence of W2 work and independent contracting among California workers, 2014–2016



Note: Includes individuals who electronically filed their taxes at least once in 2014-2016, were residents of California, were age 18-80, and had positive gross earned income. See Technical Appendix for more detail.

Source: Authors' analysis of data from the Franchise Tax Board, 2014-2016

4. The Characteristics of Workers Engaged in Independent Contracting

In this section, we examine the characteristics of workers who engage in independent contracting. What are their demographic characteristics and what industries do they work in? And do these patterns differ from workers employed in traditional jobs?

Overall, we find that workers who engage in independent contracting in California are a diverse group in terms of their demographics, household income, and the kind of work that they do. However, we also find several distinct patterns. In 2016, workers that relied only on independent contracting for their income were more likely to be older, married, and living in lower-income households compared to other workers. Independent contracting is found across the economy in a wide range of industries, spanning professional and technical jobs to front-line service jobs.

Worker characteristics

In Table 3, we compare the characteristics of W2-only workers, mixed-income workers, and workers who are engaged only in independent contracting in 2016. In general, we find that mixed-income workers are often similar to W2-only workers (as we will see, this makes sense because W2 jobs are generally still the main source of income for these mixers).

It is the workers whose sole source of income was independent contracting that stand out. On average, they were older than other workers, with a significant share in the 65-80 age category, and were also more likely to be married. Most striking, they were significantly more likely to live in lower income households; half lived in households with an adjusted gross income in the lowest quartile, about double the rate of the other two groups.

One limitation of our tax data is the lack of information about other key demographic characteristics of tax filers—most importantly race, ethnicity, and gender. Here we can draw on other recent research. Nationally, men are more likely to be engaged in independent contracting than women, especially in mid-career and moving into retirement.²² In California, workers whose main job was independent contracting in 2014-2016 were more likely to be White and less likely to be Black, Latino/a, or Asian, compared to those whose main job was W2 work.²³ That said, a Pew Research Center survey found that Black and Latino/a workers are more likely to have worked for an online platform.²⁴

TABLE 3

Demographics of California workers, by types of work, 2016

	W2-only workers	Mixed-income workers	Independent contracting-only workers	All workers
Age				
18–25	17.7	12.6	5.0	16.1
26–40	34.8	37.8	25.7	34.3
41–55	29.9	31.9	34.4	30.5
56–64	13.1	12.8	19.4	13.6
65–80	4.5	4.9	15.5	5.5
Tax filing status				
Single	52.2	51.3	41.4	51.2
Married	47.8	48.7	58.6	48.8
Region				
Los Angeles Metro Area	40.9	47.2	48.3	42.2
San Francisco Metro Area	14.9	16.0	13.9	14.9
San Diego Metro Area	8.7	8.5	8.1	8.6
Rest of CA	35.5	28.3	29.7	34.3
Adjusted household income (scaled to household size)				
1st quartile (lowest)	22.1	25.9	51.0	25.0
2nd quartile	25.9	23.6	18.5	25.0
3rd quartile	26.1	24.6	15.1	25.0
4th quartile (highest)	25.9	26.0	15.4	25.0

Note: Includes individuals who electronically filed their taxes in 2016, were residents of California, were age 18-80, and had positive gross earned income. Percentages sum to 100 percent within each demographic variable. See Technical Appendix for more detail.

Source: Authors' analysis of data from the Franchise Tax Board, 2016

Industries

In Table 4 we compare the industries of workers engaged in independent contracting (whether as a supplement or only source of income) and W2-only workers in 2016. Here, we identify industry based on what independent contractors self-reported on their tax forms.²⁵ Therefore, this is a measure of how workers themselves characterize their independent contracting work; in a later section, we will describe the firms and industries that use independent contractors, which is a different analysis. For example, an independent contractor may classify their industry as “legal services,” but the company hiring them may be a retail chain.

Like W2 work, independent contracting is found across the economy in a wide range of industries. However, there are significant differences in the industries that dominate. Relative to W2 work, we found that independent contracting was overrepresented in:

- Construction—especially residential construction
- Transportation and warehousing—especially taxis, trucking, and other ground transportation such as shuttle services
- Real estate and rental and leasing—primarily real estate agents and brokers
- Professional services—including consulting, legal, inspection, and other services
- Arts, entertainment, and recreation—primarily independent artists, writers, and performers
- Other services—especially repair and maintenance, and personal services such as beauty salons

By contrast, independent contracting compared to W2 work was less prevalent in manufacturing, retail, education, health care, social assistance, hotels, restaurants, and government.

However, these are broad industry categories that can hide important pockets of independent contracting. A good example is child day care services; while a relatively small industry, it accounts for a disproportionate share of independent contracting. That's because a key segment of childcare providers (known as family childcare) is classified as independent contractors. Similarly, janitorial and landscaping services are over-represented in independent contracting work, reflecting high rates of this classification in some segments of these industries. Another example is direct selling establishments in the retail industry; these are typically independent sales representatives, either working for retailers or selling directly to customers.

Overall, the industry distribution of independent contracting remained stable and did not change significantly between 2014 and 2016, with the exception of a small number of industries (table not shown). Most pronounced was that the share of independent contracting work in transportation nearly doubled between 2014 and 2016 in California. In a clear sign of the impact of on-demand platforms, this growth was driven by taxi services, couriers and messengers, and other ground passenger transport such as shuttle services. Other industries that saw growth in independent contracting between 2014 and 2016 include motion picture and video industries, educational services, and real estate property managers. Child day care services was the only sizable industry that saw a decline in the number of independent contracting workers during this time, decreasing by 13 percent between 2014 and 2016. This trend has been documented elsewhere, and has likely been driven by the high cost of operating family childcare services and low earnings.²⁶

TABLE 4

Industry of California workers, by types of work, 2016

	Percent of workers engaged in:	
	Any independent contracting work	Any W2 work
Agriculture	0.5	2.5
Mining, oil, and gas	0.1	0.1
Utilities	0.0	0.6
Construction	5.4	4.7
Residential building construction	1.6	0.6
Manufacturing	1.1	7.7
Wholesale trade	1.3	4.3
Retail trade	6.1	10.0
Other direct selling establishments	2.4	0.0
Transportation and warehousing	8.3	3.7
Taxi and limousine service	3.4	0.1
Truck transportation	2.3	0.7
Other transit and ground passenger transportation	1.4	0.1
Information	1.5	3.2
Finance and insurance	2.0	3.3
Real estate and rental and leasing	5.0	1.7
Offices of real estate agents and brokers	2.9	0.3
Professional services	13.7	7.3
Other professional, scientific, and technical services	4.0	0.4
Management, scientific, and technical consulting services	2.1	1.2
Legal services	1.2	0.8
Specialized design services	1.1	0.1
Management	0.0	1.3
Administrative services	6.3	6.5
Janitorial services	2.3	0.7
Landscaping services	1.3	0.5
Educational services	2.0	8.4
Health care and social assistance	6.8	14.2
Child day care services	2.0	0.4
Arts, entertainment, and recreation	5.6	2.1
Independent artists, writers, and performers	4.2	0.1
Accommodation and food services	1.2	9.6
Other services	14.1	3.1
Beauty salons, barber shops, and nail salons	3.6	0.3
Repair and maintenance	2.7	0.9
Public administration	0.0	4.9
Other/unclassified	18.9	n/a

Note: The “independent contracting work” category includes individuals who filed a Schedule C form, electronically filed their taxes in 2016, were residents of California, and were age 18-80. The industry classification of independent contractors is based on what workers self-reported on the Schedule C tax form. The “W2 work” category is based on QCEW data. Only select detailed industries are shown. See Technical Appendix for more detail.

Source: Authors’ analysis of data from the Franchise Tax Board, 2016, and BLS Quarterly Census of Employment and Wages (QCEW), 2016



5. The Earnings of Independent Contracting

In this section, we examine the earnings of workers in California who engage in independent contracting, whether for supplemental income or for their main job, and compare them to the earnings of W2 workers.

We find striking differences. Compared to other workers, low earnings were more prevalent for those whose sole work was independent contracting (although the size of this difference is unclear due to measurement issues). By comparison, workers who supplemented their W2 jobs with independent contracting had higher earnings than those who worked only as independent contractors. The importance of this supplemental income was especially marked among low-wage workers, although it is still the case that the W2 job was typically the main source of income for mixers. Finally, while there was significant overlap in the industries that workers reported, we do find several distinct industry profiles in different parts of the earnings distribution.

The distribution of earnings

We begin by comparing the earnings of W2-only workers, mixed-income workers, and workers who only rely on independent contracting for their income. Table 5 shows the proportion of each group of workers that fell into different parts of California's earnings distribution, from the lowest to the highest tenth, or decile, in 2016. These deciles are calculated for total annual income across all workers; they therefore represent the earnings distribution for the entire labor market.²⁷ Not surprisingly, W2-only workers are relatively evenly represented across this distribution; they constitute the large majority of workers in the state and their earnings therefore mirror the overall distribution.

The striking finding is that workers who were only engaged in independent contracting reported substantially lower earnings than either W2-only workers or mixed-income workers. The majority of independent contracting-only workers fell into the bottom two earnings deciles in 2016, with far fewer in most of the higher income deciles.

However, we are very likely overstating the extent of low earnings among independent contracting-only workers, for several reasons. First, we measure independent contracting income with net income—that is, income net of work expenses for which the worker is not reimbursed (examples are expenses for equipment, insurance, business supplies, repair, advertising, and gas). IRS audits have documented a significant amount of over-reporting of expenses by independent contractors in order to lessen their tax liability. Second, unlike W2 income, independent contracting income is known to be under-reported on tax returns; this is especially the case for independent

contractors who do not receive 1099 forms and are declaring their own income on their tax forms.²⁸ It is difficult to pinpoint the impact on our estimates of over-reporting of expenses and under-reporting of gross income; based on IRS studies, it is very likely that the differences in Table 5 would not be as pronounced if all independent contractor income had been reported and expenses accurately declared in our tax filing data.

Caution in interpreting the results in Table 5 is also warranted because we do not have information on the number of hours worked per year by the tax filers in our data. The lower earnings for independent contracting-only workers in Table 5 could partly stem from fewer hours worked per year, compared to W2 workers.²⁹ We have an indirect indicator that this could be a contributing factor. As we documented above, older and retired tax filers make up an important share of those whose only source of earned income is independent contracting; they are likely only working part time or part year as a way to supplement their retirement income. In particular, of independent contracting-only workers in the bottom decile, 44 percent were age 55 and over.

Another important finding from Table 5 is that workers who supplemented their W2 job with independent contracting had higher earnings than workers who solely relied on independent contracting. However, the importance of that supplemental income is very different across the

TABLE 5
Distribution of annual earnings for California workers, by type of work, 2016

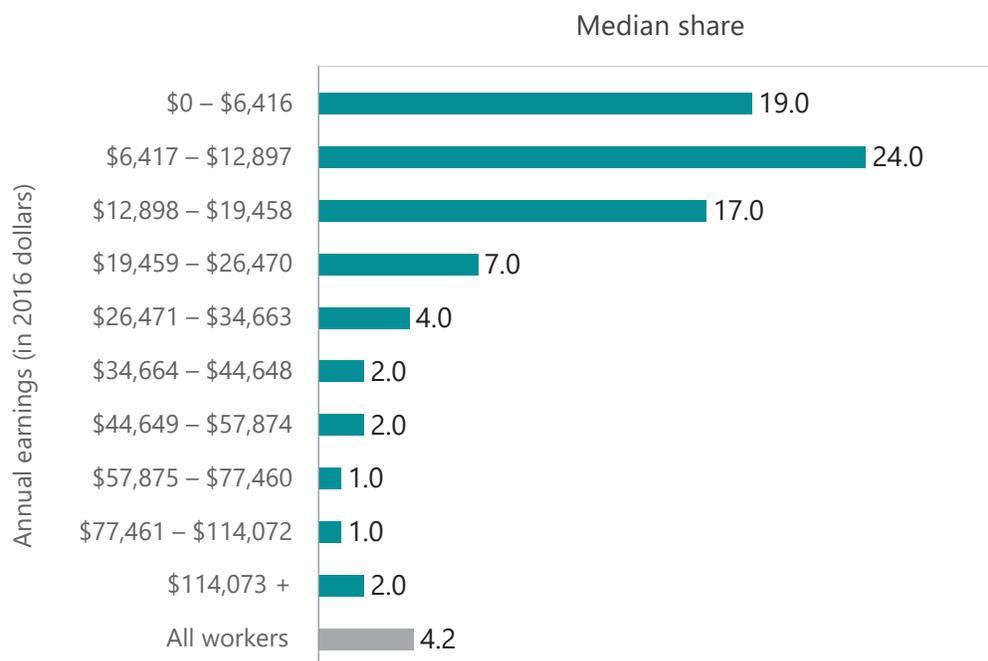
Annual earnings (in 2016 dollars)	W2-only workers	Mixed-income workers	Independent contracting-only workers
\$0 – \$6,416	7.3	6.7	39.4
\$6,417 – \$12,897	9.0	10.9	18.8
\$12,898 – \$19,458	9.4	11.1	14.1
\$19,459 – \$26,470	10.3	9.5	7.9
\$26,471 – \$34,663	10.5	9.5	5.5
\$34,664 – \$44,648	10.7	9.7	3.9
\$44,649 – \$57,874	10.8	9.9	3.0
\$57,875 – \$77,460	10.8	10.2	2.4
\$77,461 – \$114,072	10.8	10.6	2.2
\$114,073 +	10.5	12.0	2.8
All workers	100.0	100.0	100.0

Note: Includes individuals who electronically filed their taxes in 2016, were residents of California, were age 18-80, and had positive gross earned income. The annual earnings variable includes wages, salaries, and independent contracting income (measured by net income). See Technical Appendix for more detail.

Source: Authors' analysis of data from the Franchise Tax Board, 2016

earnings distribution. Figure 2 shows, for mixed-income workers, the share of their total income that stems from independent contracting. Clearly independent contracting is a much more important supplement for lower-wage workers. For example, in the bottom three deciles, independent contracting constitutes an important share of the total earnings of mixed-income workers, in contrast to those in the top decile, where it constitutes only 2.0 percent of total earnings. Overall, for all mixed-income workers, the median share of earnings from independent contracting was 4.2 percent, indicating that their W2 job was typically still their main source of income.

FIGURE 2.
Median share of annual earnings from independent contracting for mixed-income workers, California, 2016



Note: Includes individuals who had both W2 earnings and independent contracting earnings in 2016, electronically filed their taxes, were residents of California, were age 18-80, and had positive gross earned income. The annual earnings variable includes wages, salaries, and independent contracting income (measured by net income). See Technical Appendix for more detail.

Source: Authors' analysis of data from the Franchise Tax Board, 2016

Industries

Industries: In Table 6, we list the most common industries of workers engaged in independent contracting in California, within three earnings groups, in 2016. While there is considerable overlap in the major industries, we do find important differences between the earnings groups.³⁰

Independent contractors in *low earnings deciles (deciles 1-3)* have the highest percent of workers in traditionally lower wage industries such as personal services (beauty salons, barber shops, and nail salons) and administrative services (janitorial services and landscaping). But they also work in subsectors of sectors such as professional services and the performing arts. In these deciles, the only marked difference between mixed-income workers and those solely working as independent contractors is that mixers are more likely to work in the transportation industry (likely for on-demand platforms).

Independent contractors in the *middle earnings deciles (4-7)* have the highest percent of workers in the transportation industry, which again is largely driven by mixed-income workers. Other industries that stand out are professional services and personal services (beauty salons, barber shops, and nail salons). Real estate is also a major sector, mainly for those who are solely engaged in independent contracting. For mixed-income workers, nonstore retail is a major industry (recall that these are primarily other direct selling establishments), as is the performing arts sector.

Independent contractors in the *higher earnings deciles (8-10)* have the highest percent of workers in the professional services industry (such as legal services, accounting, and graphic design). Other key sectors are ambulatory health care services (including doctor's offices) and personal services. However, in these higher earnings deciles, there is considerable differentiation by whether workers are engaging in independent contracting as their main job or for supplemental income. Real estate, trucking, and construction industries figure prominently for workers whose sole work is independent contracting, but much less so for mixed-income workers, for whom the performing arts sector again shows up as a key sector.

Time trends: Between 2014 and 2016, there were only minor shifts in the distribution of the three groups of workers across earnings deciles; the overall picture is one of stability, albeit over a relatively short time frame.

TABLE 6

Most common industries of workers engaged in independent contracting in California, within three earnings groups, 2016

Low earnings group		Middle earnings group		High earnings group	
Industry	Column percentage	Industry	Column percentage	Industry	Column percentage
Other (industry not classified)	19.1	Other (industry not classified)	19.4	Other (industry not classified)	18.6
Personal and laundry services	14.6	Professional, scientific, and technical services	12.6	Professional, scientific, and technical services	15.5
Professional, scientific, and technical services	9.7	Personal and laundry services	9.4	Personal and laundry services	10.1
Administrative and support services	8.0	Transit and ground passenger transportation	6.6	Administrative and support services	5.8
Transit and ground passenger transportation	4.9	Administrative and support services	5.8	Performing arts, spectator sports, and related industries	5.4
Performing arts, spectator sports, and related industries	4.7	Performing arts, spectator sports, and related industries	5.1	Real estate	5.1
Social assistance	4.1	Real estate	4.8	Transit and ground passenger transportation	4.5
Real estate	3.9	Truck transportation	4.1	Ambulatory health care services	4.2
Specialty trade contractors	3.5	Specialty trade contractors	4.0	Specialty trade contractors	3.2
Repair and maintenance	3.2	Ambulatory health care services	3.4	Nonstore retailers	3.0
Nonstore retailers	2.9	Repair and maintenance	2.8	Social assistance	2.5
Ambulatory health care services	2.7	Nonstore retailers	2.8	Repair and maintenance	2.5
Construction of buildings	2.0	Construction of buildings	2.0	Educational services	2.1
		Educational services	2.0	Truck transportation	2.0

Note: Includes individuals who had positive gross independent contracting earnings in 2016, electronically filed their taxes, were residents of California, and were age 18-80. Earnings groups are constructed using the deciles reported in Table 5 (low group is deciles 1-3, middle group is deciles 4-7, and high group is deciles 8-10). Percentaging is within columns. Only industries with two percent or more workers are shown. See Technical Appendix for more detail.

Source: Authors' analysis of data from the Franchise Tax Board, 2016



6. Independent Contracting Among Older Workers

In this section, we focus on the role that independent contracting plays for older and retired tax filers, with special attention to differences between lower-income and higher-income workers. Not enough is known about the different strategies that older and retired tax filers use to generate earned income, even as they are a growing and increasingly important segment of the workforce.³¹

Overall, and not surprisingly, we find that many people in California stop working as they get older and retire. However, while the prevalence of W2 work declines steeply during this time, many older and retired tax filers continue to use independent contracting as a source of earned income, long after they stop working at their W2 job. Lower-income older workers in 2016 were less likely to be working and more likely to rely on just Social Security—but when they did work, they were more likely to rely exclusively on independent contracting.

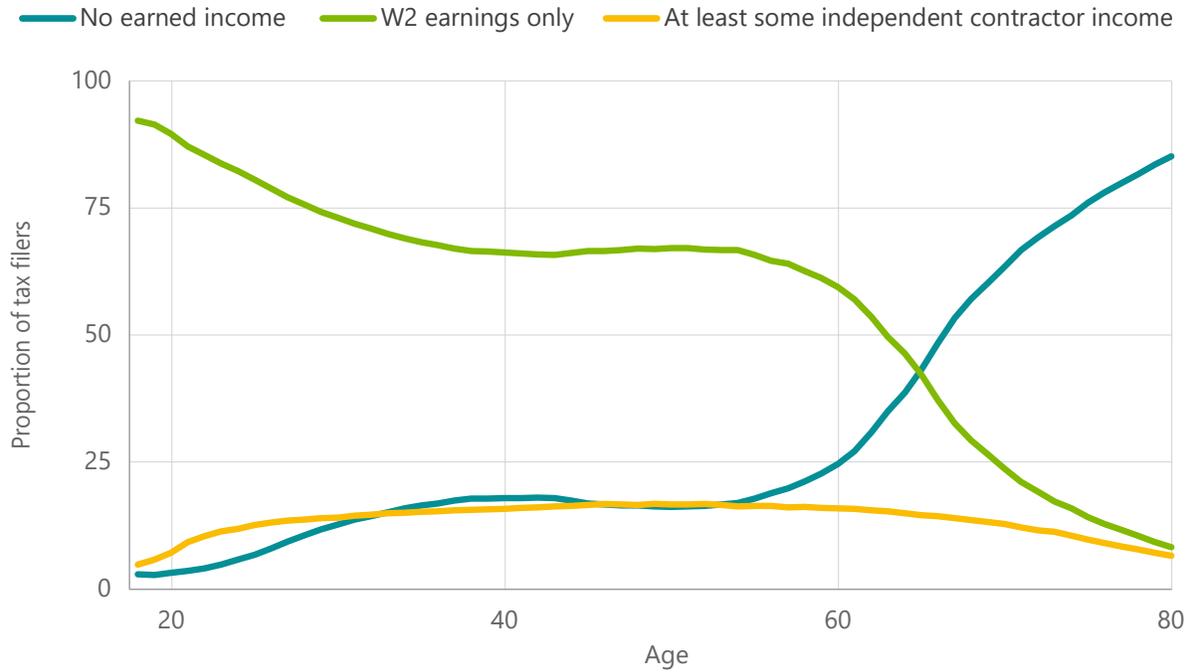
Earned income over the life course

We begin by taking a bird's eye view of the change in earned income over the life course in the California labor market. Figure 3 shows the proportion of tax filers in 2016 that were ages 18 to 80 in three categories: those that only had a W2 job, those that engaged in any amount of independent contracting (either for supplemental income or as their only job), and those that had no earned income. Not surprisingly, the main story is that as workers get older and make the transition into retirement, many stop working altogether and have no earned income, relying instead on Social Security and other sources of retirement income. Correspondingly, the share of workers with W2 jobs declines over time, especially during the retirement years.

However, Figure 3 tells a different story about independent contracting work. The proportion of tax filers engaged in any amount of independent contracting grows slowly with age, reaching a peak among workers in their late 40s (16.8 percent). It then begins to decline, but in contrast to W2 work, declines at a much slower pace. Tax filers are more likely to continue independent contracting work as they age, past retirement and in their 70s. As late as age 75, 9.8 percent of tax filers are engaged in some amount of independent contracting.

To highlight this difference, Figure 4 focuses only on workers who had earned income in 2016, and for each age group, shows the proportion who were W2-only workers, mixed-income workers, and independent contracting-only workers. The share of W2-only workers declines with age, as does the share of mixed-income workers. But the share of workers engaging solely in independent contracting increases with age as W2 workers gradually retire, especially after the early 60s and peaking among 80-year olds.

FIGURE 3.
Tax filers' income sources, by age, California, 2016



Note: Includes individuals who electronically filed their taxes in 2016, were residents of California, and were age 18-80. See Technical Appendix for more detail.

Source: Authors' analysis of data from the Franchise Tax Board, 2016

FIGURE 4.
Prevalence of W2 work and independent contracting among California workers, by age, 2016



Note: Includes individuals who electronically filed their taxes in 2016, were residents of California, were age 18-80, and had positive gross earned income. See Technical Appendix for more detail.

Source: Authors' analysis of data from the Franchise Tax Board, 2016

The income sources of older tax filers

We now turn our focus to a closer analysis of the income sources of older and retired tax filers—defined here as those aged 65 and older. Table 7 describes the earned income and retirement income of older tax filers in California in 2016, by income quartiles.³²

Overall, we find that the majority of older tax filers (64.6 percent) only reported household retirement income in 2016, reflecting again the steep decline in work activity among older and retired tax filers. About a third (31.9 percent) reported both earned income and household retirement income. And only a small proportion (3.5 percent) relied solely on earned income.

TABLE 7

Earned and retirement income sources for older tax filers (age 65–80), California, 2016

Household income	Percentage of older tax filers with:		
	Earned income & retirement income	Earned income only	Retirement income only
1st quartile (lowest)	24.0	6.9	69.1
2nd quartile	26.0	1.9	72.0
3rd quartile	31.5	2.1	66.4
4th quartile (highest)	45.3	3.6	51.1
All older tax filers	31.9	3.5	64.6

Note: Includes individuals who electronically filed their taxes in 2016, were residents of California, were age 65–80, and had either earned or retirement income or both. Household income is the sum of retirement income and earned income. Independent contracting income is measured by net income. Retirement income is measured at household level. Percentaging is within rows. See Technical Appendix for more detail.

Source: Authors' analysis of data from the Franchise Tax Board, 2016

However, Table 7 shows significant differences in this pattern by income quartiles. Lower-income older tax filers were less likely to report a mix of earned income and household retirement income; they were more likely to rely solely on either earned income or household retirement income (which largely came from Social Security). In contrast, close to half of the highest income older tax filers reported a mix of both earned income and retirement income (which largely came from pensions and annuities).

Independent contracting by older workers

We now focus on older tax filers in California who were working in 2016—that is, they had earned income. Table 8 describes the work activity of these older workers in 2016, by income quartiles.

Nearly two-thirds of older workers only held W2 jobs (66.3 percent). One in eleven were mixed-income workers and one in four relied solely on independent contracting. However, lower-income older workers were significantly more likely to rely on independent contracting for their sole source of earned income, and less likely to work a W2 job. This outsized reliance of older workers on independent contracting—along with low earnings—is evident in the analyses throughout this report, and is a topic that deserves additional research going forward.

TABLE 8

Types of work for older workers (age 65–80), by household income, California, 2016

Household income	W2-only workers	Mixed-income workers	Independent contracting-only workers
1st quartile (lowest)	59.8	5.0	35.2
2nd quartile	65.3	7.0	27.7
3rd quartile	67.7	8.4	23.9
4th quartile (highest)	69.6	12.5	17.9
All older tax filers	66.3	8.9	24.8

Note: Includes individuals who electronically filed their taxes in 2016, were residents of California, were age 65–80, and had positive gross earned income. Household income is the sum of retirement income and earned income. Independent contracting income is measured by net income. Retirement income is measured at household level. Percentaging is within rows. See Technical Appendix for more detail.

Source: Authors' analysis of data from the Franchise Tax Board, 2016

Lower-income older workers were also different in terms of the type of independent contracting work they engaged in, compared to higher-income older workers (table not shown). In fact, their industry profile was more similar to their younger counterparts than to their higher-income contemporaries. Common industries included personal services (such as barber shops and beauty salons), retail (especially direct sales), janitorial and landscaping services, independent artists, and child day care (as well as a catchall category of other professional services).

By contrast, older independent contractors with higher income were much more likely to work in professional services (such as management consulting and legal services) and health care and social assistance, including doctors' offices. They were also more likely to work as real estate agents and independent artists. In short, their industry profile was also more similar to their younger counterparts.



7. Types of Independent Contracting

In the previous sections, we analyzed the entire California workforce and compared workers who held only W2 jobs to those who engaged in some amount of independent contracting. In this section, we limit our analysis to just those workers who engage in independent contracting. Are there distinct types of independent contracting, identifiable in tax data, that differ in their worker characteristics and potentially have consequences for important outcomes such as earnings? This is a research area that is under-developed but that is increasingly gaining attention, given the need by policymakers to better understand sources of differentiation *within* the independent contractor workforce.³³

In this analysis, we identify and compare three different types of workers who engage in independent contracting (whether for supplemental income or as their main job):³⁴

- **Traditional 1099 workers:** Workers who provided services to non-platform businesses and were issued one or more 1099 forms reporting their earnings as non-employee compensation in a given year. An example is a graphic designer who provides services to a business as a freelancer and was issued a 1099-MISC form.
- **Platform 1099 workers:** Workers who were issued one or more 1099 forms by on-demand labor platforms in a given year. An example is an Uber driver who was issued a 1099-K or 1099-MISC form by the platform company documenting the amount they were paid during the year.
- **Non-1099 independent contractors:** Workers who provided services directly to consumers, or sold goods to businesses or consumers, in a given year. These workers were not issued 1099 forms but declared self-employment income on their Schedule C form. An example is a massage therapist who was directly paid by clients.

Overall, we find that platform 1099 workers constitute a small share of workers who engage in independent contracting, and a very small share of California's overall workforce. Platform 1099 workers differ from other workers engaged in independent contracting. Platform workers were younger, largely working in the transportation industry, and distinct in terms of their earnings and in their high rate of mixing independent contracting with W2 jobs. In particular, we find significant variation in the role that platform 1099 work plays for low-income workers compared to high-income workers. Although there were also several important differences between non-1099 independent contractors and traditional 1099 workers, they both worked in a diverse range of industries and had similar earnings distributions. Non-1099 independent contractors were unique in that the majority engaged solely in independent contracting work—this is clearly a distinct group deserving of further study.

Prevalence

Table 9 shows our estimates of the prevalence of the three types of independent contracting workers in California. While there is a common tendency to equate independent contracting with 1099 forms, in fact, a significant number of independent contractors are not issued any 1099 forms. In 2016, 12.1 percent of California workers reported earnings from non-1099 independent contracting, 4.8 percent reported earnings from traditional 1099 work, and 1.4 percent reported earnings from platform 1099 work. That means that two-thirds (66.0 percent) of workers who reported some kind of independent contracting work in 2016 were non-1099 independent contractors.

TABLE 9
Types of independent contracting, California, 2016

	Types of independent contracting			
	W2-only workers	Non-1099 independent contractors	Traditional 1099 workers	Platform 1099 workers
Percent of all workers	81.7	12.1	4.8	1.4
Percent of workers engaged in independent contracting	–	66.0	26.3	7.7

Note: Includes individuals who electronically filed their taxes in 2016, were residents of California, were age 18-80, and had positive gross earned income. Percentaging is within rows. See Technical Appendix for more detail.

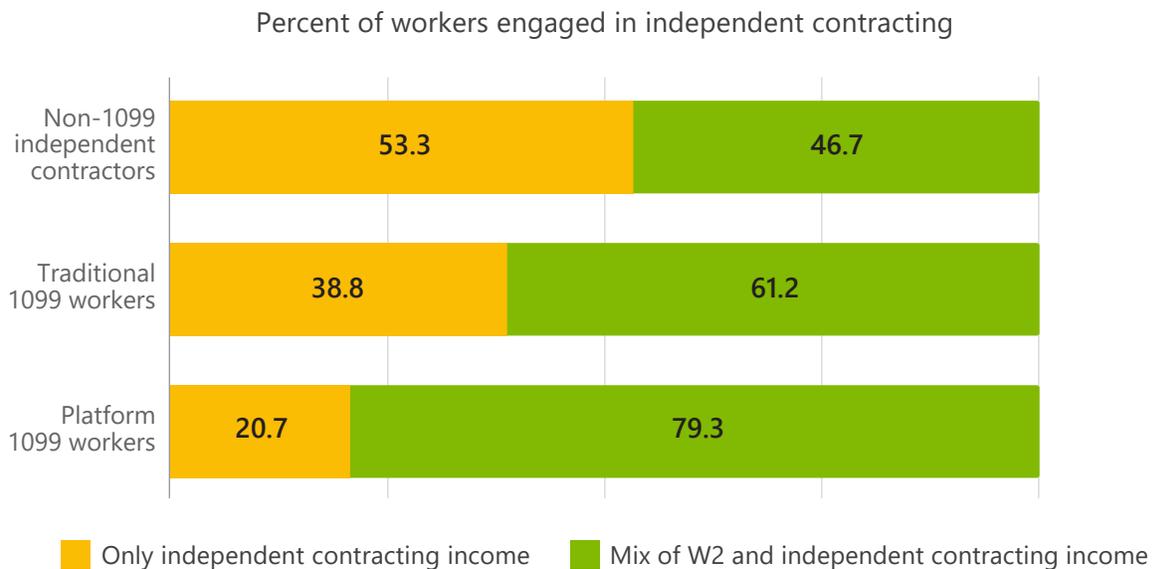
Source: Authors’ analysis of data from the Franchise Tax Board, 2016

The fact that platform 1099 workers made up only a very small share (1.4 percent) of the California workforce in 2016 may be surprising, given how much attention “gig” work has gotten. But other research has arrived at similar estimates.³⁵ During the pandemic, the proportion of workers earning income via on-demand labor platforms fell significantly, driven by a steep decline in transportation platforms. Much of this loss has been recovered, and as of June 2021, the proportion of workers using on-demand labor platforms nationally stood at 1.5 percent.³⁶

An important difference between the three types of independent contracting workers is the degree to which they rely on independent contracting income. As shown in Figure 5, independent contracting was the sole source of income for over half of non-1099 independent contractors. By contrast, the other two groups were more likely to mix independent contracting and W2 work. This was especially pronounced for platform 1099 workers; fully 79.3 percent reported mixing their incomes, with only 20.7 relying solely on platform work for their income.

FIGURE 5.

Types of independent contracting and sources of earned income, California, 2016



Note: Includes individuals with positive gross independent contracting earnings in 2016, who electronically filed their taxes, were residents of California, and were age 18-80. See Technical Appendix for more detail.

Source: Authors' analysis of data from the Franchise Tax Board, 2016

Worker characteristics

As shown in Table 10, we find significant differences in the characteristics of workers across the three types of independent contracting in 2016. For example, platform 1099 workers were significantly younger than the other two groups of independent contractors. Platform 1099 workers were also more likely to be single than the other two groups, and less likely to work outside the three major metro areas in the state.

Table 10 also shows clear differences in the earnings of the three groups of workers in 2016. In this table, we are again using the earnings deciles of the entire California workforce. As we already discussed above, independent contractors as a whole were concentrated in the bottom deciles of the earnings distribution (last column). While there were some mild differences between the three groups of workers in the dominance of low earnings (which was most pronounced for non-1099 independent contractors), the overall picture holds. We reiterate here again the caution from Section 5, that we are very likely overestimating the extent of low earnings among independent contractors.

TABLE 10

Characteristics of workers engaged in different types of independent contracting, California, 2016

	Non-1099 independent contractors	Traditional 1099 workers	Platform 1099 workers	All workers engaged in independent contracting
Age				
18–25	6.8	11.3	20.7	9.0
26–40	29.8	33.9	45.8	32.1
41–55	34.7	31.4	24.6	33.1
56–64	17.6	14.4	6.8	15.9
65–80	11.2	9.0	2.2	9.9
Filing status				
Single	45.1	45.7	62.6	46.6
Married	54.8	54.2	37.4	53.3
Region				
Los Angeles Metro Area	48.1	46.0	49.8	47.7
Rest of CA	30.0	28.7	20.5	29.0
San Diego Metro Area	8.0	8.7	9.8	8.3
San Francisco Metro Area	13.8	16.6	19.9	15.0
Annual earnings (in 2016 dollars)				
\$0 – \$6,416	23.5	20.0	17.1	22.1
\$6,417 – \$12,897	15.8	12.0	13.5	14.6
\$12,898 – \$19,458	13.2	10.5	13.6	12.5
\$19,459 – \$26,470	8.3	8.8	12.4	8.8
\$26,471 – \$34,663	7.0	7.9	12.1	7.6
\$34,664 – \$44,648	6.4	7.4	10.8	7.0
\$44,649 – \$57,874	6.1	7.3	8.8	6.6
\$57,875 – \$77,460	6.2	7.5	6.2	6.5
\$77,461 – \$114,072	6.4	8.0	3.7	6.6
\$114,073 +	7.1	10.7	1.7	7.7

Note: Includes individuals with positive gross independent contracting earnings in 2016, who electronically filed their taxes, were residents of California, and were age 18–80. The annual earnings variable includes wages, salaries, and independent contracting income (measured by net income). Percentages sum to 100 percent within each demographic variable. See Technical Appendix for more detail.

Source: Authors' analysis of data from the Franchise Tax Board, 2016

Industries

In Table 11 we describe the most common industries of workers of the three types of independent contracting, as self-reported by workers on their Schedule C tax form. Both non-1099 independent contractors and traditional 1099 workers are spread across a wide range of industries. After the “other” category, professional services and personal services were the next most commonly reported industries for both groups, which also share in common work in the performing arts and ambulatory health care. But there were also several important differences between the two groups:

- Traditional 1099 workers were more likely to report working in real estate, insurance, nonstore retail (again, mainly direct selling establishments), and transportation industries.
- Non-1099 independent contractors were more likely to report working in administrative services (primarily janitorial and landscaping services), specialty trade construction contracting, and repair and maintenance.

By contrast, platform 1099 workers stand out as very different from the other two groups of independent contractors. The majority of platform workers reported their industry as transportation or the related couriers and messengers industry (and we suspect that many of the Other category were also in these industries). This high concentration of platform work in transportation has been well documented and stems from the dominance of ride-share services, and increasingly delivery services, in the platform industry; by one estimate, about 94 percent of employment in on-demand platforms was transportation in 2018.³⁷

A closer look at platform 1099 workers

In the sections above, we found that platform 1099 workers differ from other independent contracting workers in several important ways, including the distribution of their earnings and their high rates of combining on-demand platform work with W2 work. We now take a closer look at variation *within* the platform 1099 workforce.

Earlier, we reported that overall, 1.4 percent of all workers had participated in some amount of on-demand platform work in 2016 in California. But when we look at workers in different parts of the earnings distribution, we find significant differences in the prevalence of platform work. Table 12 shows the proportion of workers within each earned income decile that engaged in any amount of on-demand platform work in 2016. Workers with lower total earnings were more likely to engage in on-demand platform work than those with higher earnings. In particular, platform work was most common among workers in the bottom earnings decile (at 2.4 percent) and least common in the highest decile (0.2 percent).

In Figure 5 above we also documented that among platform 1099 workers, four out of five were mixers – they used that income to supplement a W2 job. But again, when we look at workers in different parts of the income distribution, we find significant differences in the extent of this income mixing. Table 13 shows that in 2016, workers with lower total earnings were more likely to solely rely on on-demand platform work than higher-income workers, especially in the lowest decile.

TABLE 11

Most common industries of workers engaged in different types of independent contracting, California, 2016

Non-1099 independent contractors		Traditional 1099 workers		Platform 1099 workers	
Industry	Column percent	Industry	Column percent	Industry	Column percent
Other (industry not classified)	18.2	Other (industry not classified)	20.6	Transit and ground passenger transportation	59.3
Professional, scientific, and technical services	14.4	Professional, scientific, and technical services	14.7	Other (industry not classified)	21.9
Personal and laundry services	11.7	Personal and laundry services	10.0	Personal and laundry services	5.4
Administrative and support services	7.5	Real estate	6.8	Couriers and messengers	2.6
Performing arts, spectator sports, and related industries	5.5	Performing arts, spectator sports, and related industries	5.3		
Real estate	4.5	Nonstore retailers	4.3		
Specialty trade contractors	4.2	Administrative and support services	3.7		
Ambulatory health care services	4.0	Ambulatory health care services	3.6		
Repair and maintenance	3.2	Insurance carriers and related activities	3.4		
Social assistance	3.0	Transit and ground passenger transportation	3.0		
Nonstore retailers	2.8	Educational services	2.8		
Truck transportation	2.3	Truck transportation	2.5		
Construction of buildings	2.3	Social assistance	2.5		

Note: Includes individuals with positive gross independent contracting earnings in 2016, who electronically filed their taxes, filed a Schedule C form, were residents of California, and were age 18-80. The industry classification of independent contractors is based on what workers self-reported on the Schedule C tax form. See Technical Appendix for more detail.

Source: Authors' analysis of data from the Franchise Tax Board, 2016

TABLE 12

Proportion of workers with on-demand labor platform income, by annual earnings decile, California, 2016

Annual earnings (in 2016 dollars)	Proportion of workers in decile with platform 1099 income
\$0 – \$6,416	2.4
\$6,417 – \$12,897	1.9
\$12,898 – \$19,458	1.9
\$19,459 – \$26,470	1.7
\$26,471 – \$34,663	1.7
\$34,664 – \$44,648	1.5
\$44,649 – \$57,874	1.2
\$57,875 – \$77,460	0.9
\$77,461 – \$114,072	0.5
\$114,073 +	0.2
All workers	1.4

Note: Includes individuals who electronically filed their taxes in 2016, were residents of California, were age 18-80, and had positive gross earned income. The annual earnings variable includes wages, salaries, and independent contracting income (measured by net income). See Technical Appendix for more detail.

Source: Authors' analysis of data from the Franchise Tax Board, 2016

TABLE 13

Types of work for platform 1099 workers, by annual earnings deciles, California, 2016

Annual earnings (in 2016 dollars)	Platform 1099 workers	
	Independent contracting- only workers	Mixed-income workers
\$0 – \$6,416	65.7	34.3
\$6,417 – \$12,897	28.2	71.8
\$12,898 – \$19,458	19.3	80.7
\$19,459 – \$26,470	10.8	89.2
\$26,471 – \$34,663	6.8	93.2
\$34,664 – \$44,648	4.0	96.0
\$44,649 – \$57,874	2.8	97.2
\$57,875 – \$77,460	1.8	98.2
\$77,461 – \$114,072	1.6	98.4
\$114,073 +	2.2	97.8
All platform 1099 workers	20.7	79.3

Note: Includes individuals with positive gross platform 1099 earnings in 2016, who electronically filed their taxes, were residents of California, and were age 18-80. The annual earnings variable includes wages, salaries, and independent contracting income (measured by net income). See Technical Appendix for more detail.

Source: Authors' analysis of data from the Franchise Tax Board, 2016

Although only about one in five platform workers relied solely on platform work for their income in 2016, we estimate that sole independent contractors accounted for 53.2 percent of all on-demand labor platform earnings that year. Other research has similarly found that most of the driving hours on transportation platforms are done by a small percentage of drivers who do this work for their sole or main source of income.³⁸

Finally, another common question about on-demand platform work is how frequently workers earn income through multiple platforms. As shown in Table 14, fully 70.8 percent of on-demand platform workers received 1099 forms from only one platform company in 2016.³⁹ Other research has shown that the workers who generate income through more than one platform are also more likely to work more hours for on-demand platforms.⁴⁰

TABLE 14
Number of on-demand labor platforms issuing tax forms to platform 1099 workers, California, 2016

Number of tax forms issued by different platform companies	Percent of platform 1099 workers
1	70.8
2	22.3
3	6.7
4+	0.2
Total	100.0

Note: Includes individuals with positive gross platform 1099 earnings in 2016, who electronically filed their taxes, were residents of California, and were age 18-80. See Technical Appendix for more detail.

Source: Authors' analysis of data from the Franchise Tax Board, 2016

8. The Firms Using 1099 Independent Contractors

Up to this point, we have approached our analysis from the perspective of workers. However, often the discussion of independent contracting in California centers on the extent to which businesses rely on independent contracting for their workforce. In this section, we turn our attention to firms and explore how their use of independent contracting differs across industry.

Our tax data allow us to estimate how much compensation each firm in California paid to W2 employees and to 1099 independent contractors.⁴¹ Looking across all firms, it is clear that businesses in the state continue to rely primarily on a traditional employment model.

- Only about one in five California firms used 1099 independent contractors in 2016. Specifically, 81.4 percent issued only W2 forms, 8.3 percent issued only 1099 forms, and 10.3 percent issued both W2 and 1099 forms.⁴²
- Overall, \$574 billion in W2 compensation and \$17.6 billion in 1099 compensation was paid by California firms to California resident tax filers in 2016. That means that only a small share of total compensation in the state (3.0 percent) was issued to 1099 independent contractors.⁴³

However, we find significant variation in the use of 1099 independent contractors across California businesses.

Use of 1099 independent contractors by industry

We first examine the extent to which industries vary in their use of independent contracting. Unlike in previous sections, in these analyses we use the industry classification of the firm that issued the 1099 form, rather than that of the worker's own business. For example, an independent contractor may classify their industry as "legal services," but the firm hiring them may be a retail chain.

Table 15 shows the proportion of total compensation within each industry that was paid to 1099 independent contractors in 2016. It is important to underscore that in this analysis, we are describing the compensation structure of an industry's firms; we are not estimating the net income of workers hired as 1099 independent contractors by those firms.

Two industries stand out as having a much higher proportion of firm compensation going to 1099 independent contractors than the other industries: transportation and warehousing (20.7 percent) and real estate and rental and leasing (20.0 percent). Within transportation, the share of compensation going to 1099 independent contractors was particularly high for taxi services (99.8 percent), local messengers and delivery (30.7 percent), and freight trucking (20.3 percent). Within real

estate, the share of compensation going to 1099 independent contractors was particularly high for offices of real estate agents and brokers (48.1 percent).

However, the large industry groupings in Table 15 can obscure additional and diverse pockets of significant reliance on 1099 independent contractors. In fact, as shown in the table, there are a number of detailed industries with above-average proportions of firm compensation going to 1099 independent contractors. Many are variations on professional or financial services, including marketing consulting, advertising, securities brokerages, and insurance carriers. Others provide individual and family services, such as childcare, youth services, and ambulatory health care centers. And some are consumer-focused services, such as house remodeling, beauty salons, and direct selling. Better understanding the specific business models driving employment arrangements in these and other detailed industries is an important topic for future research.

TABLE 15
Share of firms' total compensation that is 1099 compensation, by industry, California, 2016

Industry of firm	Proportion of total firm compensation that is 1099 compensation, within industry
Agriculture	1.3
Mining, oil, and gas	1.1
Utilities	0.4
Construction	1.8
Residential remodelers	5.0
Manufacturing	0.9
Wholesale trade	1.8
Retail trade	1.1
Other direct selling establishments	18.6
Transportation and warehousing	20.7
Freight transportation arrangement	6.4
Freight trucking	20.3
Local messengers and local delivery	30.7
Taxi and limousine service	99.8
Information	2.6
Finance and insurance	5.5
Consumer lending	5.5
Direct health and medical insurance carriers	6.2
Financial transactions processing, reserve, and clearinghouse activities	29.2
Mortgage and nonmortgage loan brokers	9.2
Other financial vehicles	32.7
Securities brokerage	26.0

TABLE 15 CONTINUED

TABLE 15 CONTINUED

Share of firms' total compensation that is 1099 compensation, by industry, California, 2016

Industry of firm	Proportion of total firm compensation that is 1099 compensation, within industry
Real estate and rental and leasing	20.0
Offices of real estate agents and brokers	48.1
Offices of real estate appraisers	21.5
Other activities related to real estate	16.5
Professional services	2.3
Advertising agencies	7.6
All other professional, scientific, and technical services	9.1
Marketing consulting services	5.2
Other management consulting services	7.2
Process, physical distribution, and logistics consulting services	8.5
Management	3.3
Offices of other holding companies	10.2
Administrative services	1.7
Court reporting and stenotype services	33.0
Educational services	1.0
Health care and social assistance	1.6
Child day care services	7.4
Child and youth services	6.5
Freestanding ambulatory surgical and emergency centers	11.4
Other individual and family services	7.8
Services for the elderly and persons with disabilities	7.5
Arts, recreation, and entertainment	2.5
Accommodation and food services	0.9
Other services	2.3
Beauty salons	6.2
Grantmaking foundations	5.0
Public administration	0.7
American Indian and Alaska Native Tribal Governments	11.1
All industries	3.0

Note: Total firm compensation includes compensation reported on W2 and 1099 forms issued by California firms in 2016, to California residents who electronically filed their taxes and were age 18-80. Industry is based on the firm issuing the 1099 or W2 form. See Technical Appendix for more detail.

Source: Authors' analysis of data from the Franchise Tax Board, 2016



9. Questions for Future Research

In this report, we have analyzed individual tax filing data from 2014 to 2016 to gain a better understanding of the prevalence and characteristics of independent contracting in California. These analyses were made possible by a unique partnership between the California Tax Franchise Board, the California Policy Lab at UC Berkeley, and the UC Berkeley Labor Center; the result has been the creation of a new and invaluable resource to both tax authorities and policymakers as they continue to respond to the evolving 21st Century labor market.

Future research should leverage tax data in combination with other data sources to dive deeper into a number of policy-relevant questions raised by our findings. Tracking independent contracting (including platform work) as the California economy continues to emerge from the Covid pandemic will be especially important, both in terms of the workers who engage in independent contracting and in terms of firms' use of this work.

There is much we still need to understand about the dynamic nature of how workers move between and combine traditional W2 jobs and independent contracting over time—especially if these patterns could be changing as a result of the pandemic. Similarly, we have only scratched the surface of analyzing how firms use 1099 independent contractors and how that use varies over the business cycle. Here too it will be important to examine recent trends for signs that businesses might be shifting their business models in response to continued economic uncertainty.

Another critical area requiring rigorous research has long been, and continues to be, independent contractor misclassification and its prevalence in a range of industries. In particular, policymakers will want to understand the impact of AB5 on employment classification practices in California, as well as the impact of Proposition 22 and its exemption of transportation platforms from AB5.

More generally, the type of close analysis of tax filer data presented in this report will continue to be an important resource to tax agencies in their goal of measuring tax compliance and the size of the overall tax gap. For example, better understanding the workers that engage in independent contracting (and the firms that rely on them) can help to inform tax administration and outreach in the future. Tax agencies will also want to understand the impact of recent and forthcoming changes in 1099 reporting requirements on the size of the state's tax gap.

Our analysis also opened up a new vein of research into identifying different *types* of independent contracting. While on-demand platform work has received the most attention in recent years, the largest group of independent contractors in California do not receive a 1099 form, and we only have a very faint understanding of their earnings, career profiles, and demographics. Other topics that deserve additional research include the outsized reliance of older workers on independent contracting that made itself felt in the analyses throughout this report. Older and retired tax filers have become an important segment of the workforce, and it is important that policymakers understand their income generating strategies.

Acknowledgments

The authors are grateful to Charles Davis, Samantha Fu, Nick Gebbia, John Iselin, Patrick Kennedy, Robbie Linden, Eve Perry, and Dario Tortarolo for their research contributions to this project. We are also grateful to Julie Moreno, Sean McDaniel, Chad Angaretis, Xudong Chen, Bud Flynn, and Jeff McTygue for helping us understand California’s tax data. We thank Ken Jacobs for his invaluable feedback and comments, and Dmitri Koustas for help on several technical questions. We are very grateful to our ongoing partnership with the California Franchise Tax Board and for their commitment to informing policy through rigorous research. This project was funded in part by the United States Department of Labor Scholars Program (under contract DOL-OPS-15-C-0060), the Alfred P. Sloan Foundation, and the Ewing Marion Kauffman Foundation. Additional support was provided by Arnold Ventures, the University of California Office of the President Multicampus Research Programs and Initiatives, MRP-19-600774 and M21PR3278, The James Irvine Foundation, and the Bylo Chacon Foundation. Nothing in this paper is an official position of the Franchise Tax Board. The contents of this publication and views expressed are solely the responsibility of the authors and should not be attributed to the Franchise Tax Board, the United States Department of Labor, or other funders, nor does mention of trade names, commercial products, or organizations imply endorsement of same by the Franchise Tax Board or any funders of the work.

Technical Appendix

Data source

Our dataset consists of anonymized individual tax filing data from the California Franchise Tax Board (FTB). Our access to these data was made possible through a partnership between the FTB, the California Policy Lab at UC Berkeley (CPL), and the UC Berkeley Labor Center. FTB made available anonymized individual-level tax filing data for analysis, including a select group of tax forms relevant to our focus on independent contracting, for tax years 2014 to 2016. We merged data for individuals across those forms to create one complete dataset with information about individual tax filers. We used the following forms to measure individual workers' earnings, types of work, and other characteristics: California tax form 540, Federal tax form 1040, Schedule C form, and forms W2, 1099-MISC, and 1099-K. In particular, we are able to identify independent contracting work for on-demand platforms, which in these years primarily appeared on 1099-K forms, but sometimes also appeared on 1099-MISC forms.

Definition of study population

The study population of our analysis consists of individuals who were residents of California in a given tax year, were age 18-80, and filed their taxes electronically. For the majority of our analysis, our universe is also limited to individuals with positive earned income (either W2 income, independent contracting revenues, or both). The exception is Section 6 on older workers, which in several analyses also includes individuals with no earned income. The overall size of our study population was 13.7 million for 2014, 14.3 million for 2015, and 14.8 million for 2016. We do not include individuals that filed paper tax returns in our study because we were only able to access e-filer data for several key forms that contain data critical for our analysis, including Schedule C forms. In 2016, 700,000 individuals filed paper tax returns. We tested for differences between e-filers and paper-filers on a number of characteristics; while the two groups did differ on a number of dimensions, these differences were not substantial enough to affect our prevalence estimates of independent contracting work. Bernhardt et al. (2021) provide more detailed documentation.

Measuring independent contracting

In our analysis, we identify workers engaged in independent contracting work by the presence of one or more types of positive independent contracting revenues: (1) independent contracting revenues self-reported on a Schedule C form, which is used to report profits and losses from sole proprietor businesses; (2) revenues reported on 1099-MISC non-employee compensation forms, which are issued by employers of independent contractors who earn more than \$600 per year; and (3) revenues reported on 1099-K forms issued by on-demand labor platform companies (1099-K forms are used to report certain third-party payment transactions). We do not include individuals who reported

deductions for wages paid or contract labor expenses on their Schedule C form, since these likely signal that the individual is a small business owner.

Over the past decade, changes in 1099 reporting requirements and increased enforcement have meant that a larger proportion of independent contracting work is documented and identifiable through tax forms. Even with these improvements, however, not all independent contracting work is visible in tax data. First, not all individuals who are issued a 1099 form file taxes. We are unable in our dataset to estimate the number of individuals that fall into this category; however Collins et al. (2019) found that in 2016, 12.4 percent of 1099 form recipients in California did not file taxes. Second, even among 1099 form recipients that file their taxes, not everyone declares that income. In our dataset, we estimate that 24.4 percent of 1099 recipients that filed taxes did not report these earnings on a Schedule C form in 2016 (Collins et al. (2019) report a similar proportion). Finally, some independent contractors do not receive 1099 forms. For these workers, we are only able to identify those who self-reported independent contracting earnings on a Schedule C form.

Our prevalence estimates are comparable to those of other studies using taxpayer data to analyze independent contracting. For example, Collins et al. (2019) estimate that 20.5 percent of California tax filer workers had some amount of independent contracting earnings in 2016. For a detailed comparison, see Bernhardt et al. (2021).

Measuring independent contracting earnings

Measuring independent contracting earnings is more complicated than measuring the earnings of W2 workers. W2 workers are typically paid a set hourly wage or an annual salary. Independent contractors, however, are typically paid a lump sum for their work and typically have to cover expenses related to that work, such as supplies, transportation, or office space, which means that their net income is less than the total amount of revenue, or gross income, they bring in.

For independent contractors filing taxes, there is a strong incentive to underreport revenues and overreport expenses in order to reduce their overall tax liability. Based on the results of audits, the IRS (2019) estimates that the total amount of self-employment earnings reported by tax filers represents only 56 percent of what those tax filers actually earned. Underreporting of revenues is less extensive when workers are issued 1099 forms, but overreporting of expenses is still a problem. For workers who do not receive 1099 forms and self-declare their revenues and expenses as sole proprietors on Schedule C forms, both underreporting of revenues and overreporting of expenses is a problem; in addition, some portion of these workers do not file taxes at all. See Johnson and Rose (2019) for more documentation.

Since our definition of independent contracting includes workers who have self-reported self-employment earnings on a Schedule C form and/or those who were issued a 1099 form, we use both of these forms when estimating a worker's independent contracting income. When a worker has only filed a Schedule C form and does not have a 1099 form, we use Schedule C net profits as our income measure. When a worker has both filed a Schedule C form and has been issued one or more 1099 forms, we construct net profits using total gross receipts from either the Schedule C or their 1099 form(s), whichever is greater, and then subtract expenses reported

on the Schedule C. When a worker has a 1099 form but does not declare that income on a Schedule C form, we use the total revenue documented on the 1099 form because it is the only data available. When we use the net profits measure, we recode negative profits to zero. (For a subset of our sample, those age 18-64, 18 percent of tax filers with independent contracting earnings reported zero or negative net profit.)

Measuring retirement income

We measure retirement income using information on Social Security and other retirement income from US form 1040. However, we are only able to identify retirement income at the level of the tax filing unit (essentially, households), which does not represent an issue for those who are filing as individuals. To estimate individual workers' retirement income for married individuals that filed jointly, we scale their household retirement income to the number of individuals in the household. In 2016, 63.3 percent of tax filers age 65 or older filed married jointly.

Identifying types of independent contractors

In Section 7, we identify three different types of workers who engage in independent contracting (whether for supplemental income or as their main job): (1) traditional 1099 workers, (2) platform 1099 workers, and (3) non-1099 independent contractors. A small number of workers reported multiple types of independent contracting work. We included workers in the platform 1099 category if they received at least one 1099 from a platform company (because for the majority of them, platform earnings constituted the majority of their 1099 earnings). We included workers in the non-1099 independent contractor category if their 1099 earnings represented less than half of the gross receipts they reported on their Schedule C form.

Identifying on-demand labor platform work

To identify platform workers in our tax data, we first compiled a list of 84 on-demand labor platform companies that we verified paid workers as independent contractors. We excluded capital platforms such as Airbnb, platforms for selling products such as Etsy, platforms that were primarily business facing, and those that hired workers as employees. We then submitted this list to analysts at the FTB, who identified as many of the platform companies as possible in their data and created a variable indicating which firms in our dataset were platform companies (without identifying the companies themselves). We then identified platform workers as any tax filers that were issued either a 1099-K or 1099-MISC from a firm identified as a platform company. Of the 84 platforms in our list, 55 appeared in our 2014-2016 dataset. Note that during this time, there was not yet clear guidance to platform companies about when to file 1099-K forms. We analyzed the distribution of 1099 earnings issued by large platform companies, as well as public documentation on their practices, to confirm that in 2016, 1099-K forms were issued to workers for amounts of \$600 and higher.

Measuring industries

For our analysis of the industries of individual independent contractors, we use the industry code that workers self-report as their principal business or professional activity on a Schedule C form. This measure is imprecise for several reasons. First, 36 percent of traditional 1099 independent contractors and 39 percent of platform 1099 independent contractors did not file a schedule C in 2016, and are therefore missing information on the worker's self-identified industry. Second, even among those workers that did file a Schedule C, a large proportion (31 percent) entered the code for "other," entered an invalid code that does not correspond to an actual industry, or did not enter a business code.

For our analysis of firms' use of independent contracting, we assign an industry to individual firms using NAICS code data provided by the California Franchise Tax Board. We were unable to identify the industry for all of the firms that issued W2 and 1099 forms to California tax filers; in 2016, 22.4 percent of 1099 compensation and 12.4 percent of W2 compensation was issued by firms without an identifiable industry.

Bibliography

- Abraham, Katharine, John Haltiwanger, Kristin Sandusky, and James Spletzer. 2018. "Measuring the Gig Economy: Current Knowledge and Open Issues." NBER Working Paper 24950. Cambridge, MA: National Bureau of Economic Research. <https://doi.org/10.3386/w24950>.
- Abraham, Katharine, and Susan Houseman. 2019. "Making Ends Meet: The Role of Informal Work in Supplementing Americans' Income." *RSF: The Russell Sage Foundation Journal of the Social Sciences* 5 (5): 110–31.
- Bernhardt, Annette D., Chris Campos, Allenn Prohofsky, Aparna Ramesh, and Jesse Rothstein. 2021. "The 'Gig Economy' and Independent Contracting: Evidence from California Tax Data." California Policy Lab. <https://www.capolicylab.org/the-gig-economy-and-independent-contracting-evidence-from-california-tax-data/>.
- Bernhardt, Annette, and Sarah Thomason. 2017. "What Do We Know About Gig Work in California? An Analysis of Independent Contracting." Center for Labor Research and Education, University of California, Berkeley. <http://laborcenter.berkeley.edu/what-do-we-know-about-gig-work-in-california/>.
- Board of Governors of the Federal Reserve System. 2018. "Report on the Economic Well-Being of U.S. Households in 2017." Board of Governors of the Federal Reserve System. <https://www.federalreserve.gov/publications/files/2017-report-economic-well-being-us-households-201805.pdf>.
- Bureau of Labor Statistics. 2018. "Contingent and Alternative Employment Arrangements, May 2017." News Release. US Department of Labor, Bureau of Labor Statistics. <https://www.bls.gov/news.release/conemp.toc.htm>.
- Collins, Brett, Andrew Garin, Emilie Jackson, Dmitri Koustas, and Mark Payne. 2019. "Is Gig Work Replacing Traditional Employment? Evidence from Two Decades of Tax Returns." IRS SOI Joint Statistical Research Program.
- Emmons, William R. 2021. "Older Workers Accounted for All Net Employment Growth in Past 20 Years." *Federal Reserve Bank of St Louis* (blog). January 31, 2021. <https://www.stlouisfed.org/on-the-economy/2021/february/older-workers-accounted-all-net-employment-growth>.
- Fairlie, Robert W., and Sameeksha Desai. 2021. "National Report on Early-Stage Entrepreneurship in the United States: 2020." Kauffman Indicators of Entrepreneurship. Ewing Marion Kauffman Foundation. <https://www.ssrn.com/abstract=3810193>.
- Farrell, Diana, Fiona Greig, and Amar Hamoudi. 2018. "The Online Platform Economy in 2018." JPMorgan Chase Institute. <https://www.institute.jpmorganchase.com/institute/research/labor-markets/report-ope-2018>.
- Freelancers Union, Upwork, and Edelman Intelligence. 2019. "Freelancing in America: 2019." Freelancers Union, Upwork, and Edelman Intelligence. <https://www.slideshare.net/upwork/freelancing-in-america-2019/1>.
- Gallup, and Intuit. 2020. "Gig Economy and Self-Employment Report 2019." Gallup and Intuit. <https://quickbooks.intuit.com/content/dam/intuit/quickbooks/Gig-Economy-Self-Employment-Report-2019.pdf>.

- Garin, Andrew, Emilie Jackson, Dmitri K Koustas, and Carl McPherson. 2020. "Is New Platform Work Different than Other Freelancing?" *AEA Papers and Proceedings* 110 (May): 157–61.
- Garin, Andrew, and Dmitri Koustas. 2021. "The Distribution of Independent Contractor Activity in the United States: Evidence from Tax Filings." Joint Statistical Research Program of the Statistics of Income Division of the IRS.
- Greig, Fiona, and Daniel M Sullivan. 2021. "The Online Platform Economy through the Pandemic." JP Morgan Chase & Co Institute. <https://www.jpmorganchase.com/institute/research/labor-markets/online-platform-economy-through-the-pandemic>.
- Hathaway, Ian, and Mark Muro. 2016. "Tracking the Gig Economy: New Numbers." Brookings Institution. <https://www.brookings.edu/research/tracking-the-gig-economy-new-numbers/>.
- Jackson, Emilie, Adam Looney, and Shanthi Ramnath. 2017. "The Rise of Alternative Work Arrangements: Evidence and Implications for Tax Filing and Benefit Coverage." Working Paper 114. Department of the Treasury, Office of Tax Analysis.
- Johnson, Barry W, and Peter J Rose. 2019. "Federal Tax Compliance Research: Tax Gap Estimates for Tax Years 2011–2013." Publication 1415 (Rev. 9-2019). Washington, D.C.: Internal Revenue Service, Research, Applied Analytics & Statistics. <https://www.irs.gov/pub/irs-pdf/p1415.pdf>.
- Juravich, Tom, Russell Ormiston, and Dale Belman. 2021. "The Social and Economic Costs of Illegal Misclassification, Wage Theft and Tax Fraud in Residential Construction in Massachusetts." UMASS Amherst Labor Center and Institute for Construction Economic Research.
- Katz, Lawrence F., and Alan B. Krueger. 2016. "The Rise and Nature of Alternative Work Arrangements in the United States, 1995–2015." NBER Working Paper No. 22667. National Bureau of Economic Research. <http://www.nber.org/papers/w22667>.
- Kochhar, Rakesh. 2021. "The Self-Employed Are Back at Work in Pre-COVID-19 Numbers, but Their Businesses Have Smaller Payrolls." Pew Research Center. <https://www.pewresearch.org/fact-tank/2021/11/03/the-self-employed-are-back-at-work-in-pre-covid-19-numbers-but-their-businesses-have-smaller-payrolls/>.
- Manyika, James, Susan Lund, Jacques Bughin, Kelsey Robinson, Jan Mischke, and Deepa Mahajan. 2016. "Independent Work: Choice, Necessity, and the Gig Economy." McKinsey Global Institute. <http://www.mckinsey.com/global-themes/employment-and-growth/independent-work-choice-necessity-and-the-gig-economy>.
- MBO Partners. 2016. "America's Independents, A Rising Economic Force: 2016 State of Independence in America Report." https://www.mbopartners.com/wp-content/uploads/2019/02/2016_MBO_Partners_State_of_Independence_Report.pdf.
- Mishel, Lawrence. 2015. "Uber Is Not the Future of Work." *The Atlantic*, November 16, 2015.
- . 2018. "Uber and the Labor Market: Uber Drivers' Compensation, Wages, and the Scale of Uber and the Gig Economy." Economic Policy Institute. <https://www.epi.org/publication/uber-and-the-labor-market-uber-drivers-compensation-wages-and-the-scale-of-uber-and-the-gig-economy/>.
- Monthly Labor Review. 2018. "Electronically Mediated Work: New Questions in the Contingent Worker Supplement." *US Bureau of Labor Statistics Monthly Labor Review*, September. <https://www.bls.gov/opub/mlr/2018/article/electronically-mediated-work-new-questions-in-the-contingent-worker-supplement.htm>.
- National Academies of Sciences, Engineering, and Medicine. 2020. *Measuring Alternative Work Arrangements for Research and Policy*. Washington, D.C.: The National Academies Press. <https://doi.org/10.17226/25822>.

- National Employment Law Project. 2020. "Independent Contractor Misclassification Imposes Huge Costs on Workers and Federal and State Treasuries." National Employment Law Project. <https://www.nelp.org/publication/independent-contractor-misclassification-imposes-huge-costs-workers-federal-state-treasuries-update-october-2020/>.
- Ormiston, Russell, Dale Belman, and Mark Erlich. 2020. "An Empirical Methodology to Estimate the Incidence and Costs of Payroll Fraud in the Construction Industry."
- Parrott, James A, and Michael Reich. 2020. "A Minimum Compensation Standard for Seattle TNC Drivers." Center on Wage and Employment Dynamics and The New School Center for New York City Affairs. https://irle.berkeley.edu/files/2020/07/Parrott-Reich-Seattle-Report_July-2020.pdf.
- Powell, Anna, Sarah Thomason, and Ken Jacobs. 2019. "Investing in Early Care and Education: The Economic Benefits for California." Center for Labor Research and Education, University of California, Berkeley. <http://laborcenter.berkeley.edu/investing-early-care-education-economic-benefits-california>.
- Prisinzano, Richard, Jason DeBacker, John Kitchen, Matthew Knittel, Susan Nelson, and James Pearce. 2018. "Methodology to Identify Small Businesses." Technical Paper 4 (Update). US Department of the Treasury, Office of Tax Analysis. <https://home.treasury.gov/system/files/131/TP4-Update.pdf>.
- Reich, Michael. 2020. "Pay, Passengers and Profits Effects of Employee Status for California TNC Drivers." IRLE Working Paper No. 107-20. Institute for Research on Labor and Employment, University of California, Berkeley. <https://irle.berkeley.edu/pay-passengers-and-profits-effects-of-employee-status-for-california-tnc-drivers/>.
- Robles, Barbara, and Marysol McGee. 2016. "Exploring Online and Offline Informal Work: Findings from the Enterprising and Informal Work Activities (EIWA) Survey." Finance and Economics Discussion Series 2016-089. Board of Governors of the Federal Reserve System. <http://www.federalreserve.gov/econresdata/feds/2016/files/2016089pap.pdf>.
- Smith, Aaron. 2016. "Gig Work, Online Selling and Home Sharing." Pew Research Center. <http://www.pewinternet.org/2016/11/17/gig-work-online-selling-and-home-sharing/>.
- Smith, Rebecca, Paul Alexander Marvy, and Jon Zerolnick. 2014. "The Big Rig Overhaul: Restoring Middle-Class Jobs at America's Ports Through Labor Law Enforcement." National Employment Law Project, Change to Win Strategic Organizing Center, and Los Angeles Alliance for a New Economy. <https://nelp.org/wp-content/uploads/2015/03/Big-Rig-Overhaul-Misclassification-Port-Truck-Drivers-Labor-Law-Enforcement.pdf>.
- US Census Bureau. 2021. "Business Formation Statistics, October 2021." October 2021. https://www.census.gov/econ/bfs/pdf/bfs_current.pdf.
- US Government Accountability Office. 2015. "Contingent Workforce: Size, Characteristics, Earnings, and Benefits." Report to the Committee on Health, Education, Labor, and Pensions, US Senate Report #GAO-15-168R. <http://www.gao.gov/assets/670/669766.pdf>.
- Wilmoth, Daniel. 2020. "Small Business Facts: Black Business Owners Hit Hard by Pandemic." US Small Business Administration Office of Advocacy. <https://cdn.advocacy.sba.gov/wp-content/uploads/2020/08/31083212/Black-Business-Owners-Hit-Hard-By-Pandemic.pdf>.
- Zabin, Carol, and Sam Appel. 2019. "Truck Driver Misclassification: Climate, Labor, and Environmental Justice Impacts." Center for Labor Research and Education, University of California, Berkeley. <https://laborcenter.berkeley.edu/truck-driver-misclassification/>.

Endnotes

- 1 See Wilmoth (2020) for an analysis of the employment impacts of the pandemic on self-employed workers by race and ethnicity.
- 2 A study by the Kauffman Foundation found that one in three individuals that started new businesses in 2020 were unemployed, about twice as many as in 2019 (Fairlie and Desai 2021). Census Bureau data show that monthly business applications increased significantly in 2020 and continued to increase in 2021 (US Census Bureau 2021). However, a recent analysis by the Pew Research Center found that self-employment had returned to, but not surpassed, its pre-pandemic level as of the second quarter of 2021 (Kochhar 2021). This last sentence doesn't follow logically, to me. Seems like it should say "has returned to, but not gone below, its pre-pandemic level" or something like that.
- 3 See JP Morgan Chase Institute's recent report on platform work during the pandemic (Greig and Sullivan 2021).
- 4 Abraham et al. (2018) find significant differences in the reporting of independent contracting earnings when comparing household surveys and government administrative data.
- 5 See National Academies of Sciences, Engineering, and Medicine (2020) for a detailed comparison and assessment of data used to measure independent contracting work.
- 6 Further confounding clarity is the related use of terms such as "contingent work," "precarious work," and "alternative work arrangements," which often include low-wage workers in traditional employment relationships. See Bernhardt and Thomason (2017) and Abraham et al. (2018) for a thorough treatment of the various types of work arrangements being referenced in these discussions.
- 7 For a sample of key studies, see Farrell and Greig (2018); Grieg and Sullivan (2021); Katz and Krueger (2016); Freelancers Union et al. (2019); Abraham and Houseman (2019); Manyika et al. (2016); Smith (2016); Robles and McGee (2016); Gallup and Intuit (2020); Mishel (2015; 2018); MBO Partners (2016); Hathaway and Muro (2016); US Government Accountability Office (2015); Bureau of Labor Statistics (2018); Board of Governors of the Federal Reserve System (2018); and Collins et al. (2019).
- 8 Additional studies that use tax data to measure independent contracting work include Bernhardt et al. (2021), Collins et al. (2019), Jackson et al. (2017), and Garin and Koustas (2021).
- 9 See National Academies of Sciences, Engineering, and Medicine (2020) for further discussion of the challenges of accurately identifying independent contractors in household surveys.
- 10 Abraham et al. (2018) find differences in reporting of independent contracting earnings when comparing data from household surveys and administrative tax records.
- 11 Monthly Labor Review (2018) describes the shortcomings of new questions on electronically mediated work added to the Contingent Worker Supplement of the Current Population Survey in 2017.
- 12 See the Technical Appendix, "Measuring Independent Contracting," for details on these forms. We do not include a small percentage of filers who report expenses related to hiring W2 or contract labor.
- 13 For an overview of misclassification studies, see National Employment Law Project (2020). For estimates of misclassification in the construction industry, see Ormiston et al. (2020) and Juravich et al. (2021). For estimates of misclassification in the trucking industry, see Zabin and Appel (2019) and Smith et al. (2014).

- 14 See Johnson and Rose (2019) for the most recent audit report.
- 15 See Bernhardt et al. (2021) for more documentation. Bernhardt et al. (2021) and this report are both based on the same dataset and conduct similar analyses, but differ somewhat in the focus population. Specifically, Bernhardt et al. (2021) limit the age range to 18- to 64-year-olds (while this report focuses on tax filers age 18 to 80) and use net income (rather than the gross income used in this report) for the purpose of classifying workers' income sources. See endnote 17 for more detail.
- 16 See National Academies of Sciences, Engineering, and Medicine (2020) for an extended discussion of the need to distinguish between respondents' main and secondary jobs, and the challenges in current government surveys of capturing both.
- 17 These prevalence estimates differ slightly from those reported in Bernhardt et al. (2021). That report categorizes independent contractors on the basis of their net income, after subtracting expenses reported on Schedule Cs; workers with zero or negative net independent contracting income were not counted as independent contractors. Because the goal of our report is to document the prevalence of independent contracting *work*, we count all workers with positive gross (pre-expenses) independent contracting income; therefore, our prevalence estimates for independent contracting are slightly higher.
- 18 In 2016, e-filers constituted 96.2 percent of all tax filers aged 18-80 with earned income; we were not able to include paper filers in our analyses because of insufficient data. See the Technical Appendix for more detail.
- 19 Both Farrell et al. (2018) and Garin and Koustas (2021) find that it is common for workers to engage in independent contracting for short periods of time, often coinciding with temporary decreases in other income sources.
- 20 See Collins et al. (2019).
- 21 See Bernhardt et al. (2021).
- 22 See Garin and Koustas (2021).
- 23 See Bernhardt and Thomason (2017).
- 24 See Smith (2016).
- 25 Only individuals who filed a Schedule C form identify their industry; individuals who received a 1099 form but did not file a Schedule C are therefore not included in this table. See the Technical Appendix for more detail.
- 26 Powell et al. (2019) found that the number of licensed in-home family child care providers in California, who are classified as independent contractors, declined by 30 percent between 2008 and 2016.
- 27 In calculating workers' total earned income, we sum W2 income and independent contractor income, using net income for independent contractor earnings. See the Technical Appendix for more detail.
- 28 See Johnson and Rose (2019) for the most recent IRS audit.
- 29 Bernhardt and Thomason (2017) find that workers whose main job was independent contracting were more likely to work part time compared to those who were W2 workers at their main job.
- 30 Again, this table is showing the industry that the workers themselves identified as characterizing their independent contracting work; later in the report we analyze the industries of the firms hiring independent contractors. Workers who selected "Other" for their industry, entered an invalid business code for their industry, or did not enter a business code, are grouped in the "Other (industry not classified)" category.

31 An analysis by the Federal Reserve Bank of St. Louis found that the increased employment of individuals 60 years and older accounted for all of the net employment growth between 2000 and 2021 (Emmons 2021).

32 The total earnings quartiles in Tables 7 and 8 were constructed at the individual level for tax filers 65 and older, who themselves had earned income and/or who were in a household that had retirement income. We are not able to measure retirement income at the individual level. See the Technical Appendix for more detail.

33 For example, one study by researchers at the US Department of the Treasury attempted to distinguish independent contractors from small businesses owners using a number of criteria, including amount of revenues reported and expense deductions (Prisinzano et al. 2018).

34 A small number of workers reported multiple types of independent contracting work. We included workers in the “platform 1099 workers” category if they received at least one 1099 from a platform company (because, for the majority of these workers, platform earnings constituted the majority of their 1099 earnings). We included workers in the “non-1099 independent contractor” category if their 1099 earnings represented less than half of the gross receipts they reported on their Schedule C form. See the Technical Appendix for details.

35 In 2017, estimates of the share of the workforce using on-demand labor platforms in Los Angeles and San Francisco were about 1.6 to 2.0 percent, respectively (Farrell et al. 2018). See also Collins et al. (2019) and Garin et al. (2020).

36 See Grieg and Sullivan (2021).

37 See Farrell et al. (2018).

38 See Reich (2020) for a review of several studies on platform driver hours.

39 Annual platform earnings below \$600 are not captured in our dataset; see the Technical Appendix for more detail.

40 Parrott and Reich (2020) compare the hours of drivers that use a single platform with those that use multiple platforms. They find that drivers with the least hours worked were less likely to use multiple platforms.

41 Because we are measuring a firm’s hiring of independent contractors via the submission of a 1099 form, we do not count the compensation of non-1099 independent contractors, since that work is not linked to a specific firm via a tax form.

42 Our universe of California firms includes only those that issued either at least one W2 or 1099 to a California tax filing resident.

43 While this proportion may seem small, only 7.5 percent of workers in our study population received a 1099 form, and as we showed above, those earnings were significantly lower than for workers who only or mainly received their income from a W2 job.



laborcenter.berkeley.edu

UC Berkeley Labor Center

The Center for Labor Research and Education (Labor Center) is a public service project of the UC Berkeley Institute for Research on Labor and Employment that links academic resources with working people. Since 1964, the Labor Center has produced research, trainings, and curricula that deepen understanding of employment conditions and develop diverse new generations of leaders.



www.capolicylab.org

California Policy Lab

The California Policy Lab is a non-partisan research institute based at the University of California. Our mission is to improve the lives of Californians by generating evidence that transforms public policy. We do this by forming lasting partnerships between government and California's flagship public universities to harness the power of research and administrative data.

Suggested Citation

Bernhardt, Annette, Sarah Thomason, Chris Campos, Allen Prohofsky, Aparna Ramesh, and Jesse Rothstein. *Independent Contracting in California: An Analysis of Trends and Characteristics Using Tax Data*. UC Berkeley Labor Center and California Policy Lab. March 2022. <https://laborcenter.berkeley.edu/independent-contracting-in-california/>