

What Do We Know About Gig Work in California?

An Analysis of Independent Contracting



By Annette Bernhardt and Sarah Thomason

Acknowledgments

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Executive Summary

Over the past two years, Uber has taken center stage in public debates about the future of work, driven by our collective anxiety about technology and growing economic insecurity. The concern is that workers increasingly do not have employers anymore and are facing lower wages, no access to health and pension benefits, exclusion from safety-net programs, and chronic instability in their incomes and work lives. At the same time, the singular focus on Uber is impeding our ability to get an accurate understanding of what has (and has not) changed in the workplace – and the policy solutions that are needed. While the prevailing narrative is that there has been substantial growth in “gig” work, it’s been surprisingly difficult to confirm the trend, partly because of the lack of good data. Exacerbating the problem is very different definitions of gig work.

In this paper we (1) provide a clear framework to help define gig work and understand how it relates to other forms of work being discussed and (2) draw on current research to identify what we know (and don’t know) about the prevalence of gig work, the demographics of the workforce, and job quality outcomes, using data on California where possible.

Defining Gig Work: Independent Contracting

We identify the following three dimensions to help analyze work in the new economy (the conflation of these dimensions is the source of much of the conflicting evidence on gig work):

- *Distinguish between the two main categories of employment in the U.S., employees and independent contractors, each of which has distinct subtypes.*
- *Distinguish between work as a main job and work for supplemental income: Most workers in the U.S. are employees only; others rely solely on independent contracting; and some combine the two forms of work.*
- *Distinguish between job quality and type of job: Bad jobs and good jobs exist in all parts of the economy and in all employment types.*

In this report we define gig work as all forms of independent contracting – i.e., workers who are in business for themselves. From the standpoint of public policy, this is the most relevant definition given the very different treatment of independent contractors by employment and labor laws and by social insurance programs. Our definition encompasses – but is broader than – the on-demand platform work that is often the focus of gig economy debates. Expanding beyond that narrow focus yields a much more diverse picture of gig work in California.

The Prevalence of Independent Contracting

To date, a plethora of studies have used different definitions and methods of varying quality to estimate prevalence; the result is a wide range of estimates of how common gig work is nationally. We provide estimates drawing on the best data currently available:

- *Independent contracting as the main job: We estimate that the rate of independent contracting as the worker’s main job was 8.5 percent of the workforce in California in 2016, higher than for the US as a whole.*

A larger group of workers uses independent contracting for supplemental income; unfortunately, we are not able to estimate this share for California because we lack reliable data. In general, the research literature consistently finds that independent contracting is roughly split between workers relying on it as their main job, for their main source of income, and those relying on it for supplemental earnings:

- *Independent contracting across all jobs:* A recent study by the U.S. Treasury found that in 2014, individuals who earned only self-employment income (as sole proprietors) constituted 7.2 percent of the national workforce, while an additional 6.1 percent had *both* wage income and self-employment earnings.

While an explosion of gig work is routinely cited in the press, researchers have had a hard time finding clear and unambiguous evidence of an increase over time. In particular, we are not able to give a definitive answer as to whether the rate of independent contracting has grown in California. One possible interpretation of currently available data is that the percentage of workers relying on independent contracting for their main job has been relatively stable over time and remains in the single digits as a percentage of the workforce, while supplementary self-employment work appears to be increasing. If this interpretation is borne out by future research, some part of the increase is very likely due to ongoing wage stagnation and the need for workers and families to supplement their income to make ends meet.

Finally, we are not able to estimate the rate of independent contractor misclassification – employers incorrectly classifying workers as independent contractors, even though based on legal tests the workers should be classified as employees. Industry studies suggest that misclassification appears to be more common in particular industries, such as home care, janitorial services, construction, trucking, hospitality, and restaurants.

Characteristics of Independent Contracting in California

Independent contractors constitute a diverse and varied segment of California's workforce, even as they differ from employees on a number of dimensions:

- Compared to employees, independent contractors are more likely to be older men and White (though about half are workers of color). And they are somewhat more likely to be foreign-born, reflecting growing rates of self-employment among immigrants over the past three decades. Independent contractors have comparable rates of higher education (college and above) to employees, but higher rates of workers without high school degrees.
- Compared to employees, independent contractors are more likely to be working part time, and in particular, have a higher rate of involuntary part-time work. They have lower rates of employer-provided health insurance, which are offset by much higher rates of private health insurance, as well as higher rates of public health coverage and lack of health insurance altogether.
- Independent contractors work in all parts of the economy at all income levels, ranging from low-wage service jobs such as janitors, child care workers, home care workers, and car wash workers, to mid-wage jobs such as construction workers, hair stylists, taxi drivers, artists, entertainers, and accounting clerks, to high-wage occupations such as accountants, doctors, lawyers, and architects. As is true for the W-2 workforce, independent contractors' employment in these industries and occupations is markedly stratified by race, ethnicity, gender, and immigration status. The motivations for doing independent contractor work are also likely more complex than the prevailing narrative of individuals actively choosing self-employment for flexibility or self-fulfillment.

On-demand Platform Work

While on-demand platform jobs (such as Uber and TaskRabbit) have received the lion's share of attention in the public debate about gig work, they constitute a very small share of the workforce overall (about 0.5 percent) and of independent contractors as well – an important empirical point for the policy debate going forward. Moreover, this small group includes anyone who earned any income from on-demand platforms, and therefore

combines full-time workers with those using platforms for supplemental income in short bursts and for limited amounts of time. One study found that several California cities have somewhat higher rates of on-demand labor platform use compared to the U.S., though the percentages remain about 1 percent of the workforce. This study also found that platform growth rates have slowed with the decline in unemployment, especially in cities (such as San Francisco) that were early adopters of on-demand platforms.

Discussion

A coherent policy response to gig work in California must start with a clear definition of the problem being addressed. But for a group of workers that is seen as the archetype of the 21st century economy, what we don't know about independent contractors far exceeds what we do know. In this report, we have identified several areas where more research is needed. First, we need better data to understand how workers in California are using independent contracting – as a main job or in combination with regular W-2 jobs – and especially the trends over time in each. Second, we need better data to measure the earnings of independent contractors; the household data on which we relied in this report do not allow a clear analysis of those earnings and how they compare to the earnings of W-2 workers. Finally, we need more research to understand the significant variation in job quality outcomes (beyond wages) across the wide range of industries and occupations in which independent contractors work, including the extent of misclassification.

1. Introduction: The Confusion About Gig Work

Over the past two years, Uber has taken center stage in public debates about the future of work, driven by our collective anxiety about technology on the one hand and growing economic insecurity on the other. It's a welcome debate for researchers who have long tried to focus national attention on the economic restructuring that is reshaping the U.S. labor market and the lives of working families. The concern is that workers increasingly do not have employers anymore and as a result are facing lower wages, no access to health and pension benefits, exclusion from safety-net programs such as unemployment insurance, and chronic instability in their incomes and work lives.

At the same time, the singular focus on Uber is impeding our ability to get an accurate understanding of what has (and has not) changed in the workplace. The prevailing narrative is that there has been substantial growth in "gig" work and that it has contributed to growing inequality. But it's been surprisingly difficult to confirm the trend, partly because of lack of good data. Exacerbating the problem is considerable confusion about labels such as gig work, sharing economy, contingent work, freelancing, precarious work, independent work, contract-ed work, temp work, and so forth. The result is widely varying estimates about how common this type of work is – anywhere between 600,000 and 55 million workers – and equally contrasting predictions about where we're headed.¹

The discussion is especially important in California, as the incubator of new business models such as on-demand platforms. And while we are only beginning to understand this rapidly shifting landscape, taking stock of what we know matters. In the active public policy conversations about how to respond,² we need to have a shared and accurate understanding of what gig work is, which workers are doing it, how it is being used to generate income, and its impact on job quality outcomes.

To that end, this report has two goals. First, we provide a clear framework to help define gig work and understand how it relates to other forms of work being discussed. Second, we draw on current research to identify what we know (and don't know) about the prevalence of gig work, the demographics of the workforce, and job quality outcomes, using data on California where possible.

2. Defining Gig Work: Independent Contracting

There is currently no consensus definition of the term "gig work." Some use the term specifically just for on-demand platforms such as Uber and TaskRabbit, while others use the term broadly to denote any type of work that is precarious or contingent – with many definitions in between. The desire to speak broadly about growing economic insecurity in the U.S. is understandable, but for the purposes of developing public policy responses, it is important to have a clear and shared definition of the type of work being discussed.

In Figure 1, we provide a framework that identifies three dimensions to help analyze work in today's economy. As we will see, the conflation of these dimensions is the source of much of the conflicting research on the prevalence and characteristics of gig work.³

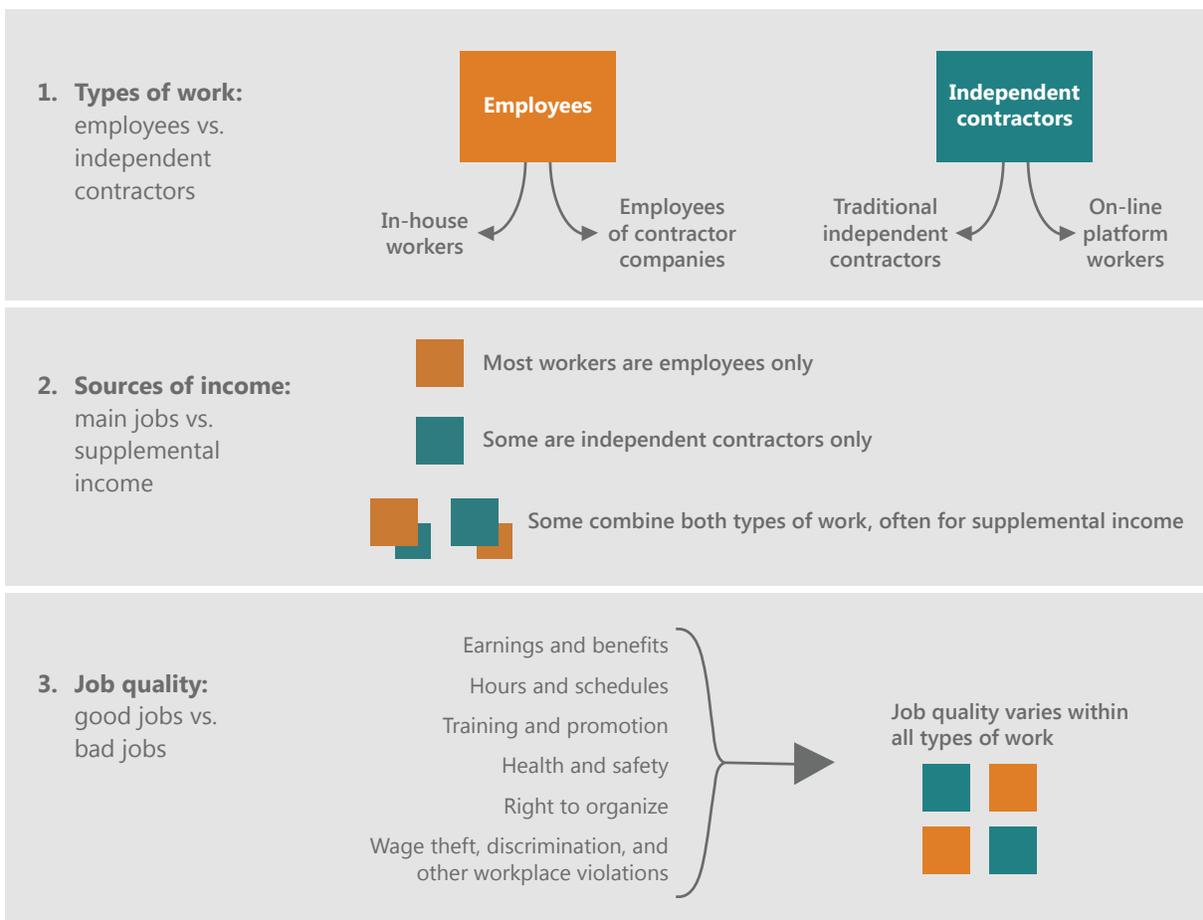
Employees vs. independent contractors

The first step is to distinguish between the two main types of employment in the U.S.: employees and independent contractors. This is a fundamental distinction that undergirds the U.S. legal system and social insurance programs, and that determines access to a wide range of rights and benefits for workers. (We set aside for the moment the important issue of independent contractor misclassification, which we discuss in greater detail below.)

Figure 1 also provides subtypes under each category to help readers locate various forms of work that have been discussed in the gig economy debates:

- The category of independent contractors includes both online platform work (such as driving for Uber or finding jobs through TaskRabbit) as well as traditional independent contractor work (such as architects, construction workers, real estate brokers, and hair stylists).
- The category of employees (W-2 workers) includes both traditional “in-house” employees, as well as employees of contractor firms such as temp agencies or sub contractors providing goods or services to other firms (for example, janitorial services firms). This last point is important: employees of contractor firms are sometimes included in definitions of gig work, but most are in fact employees and have an employer.

FIGURE 1. Three dimensions to analyzing work in the new economy



Main jobs vs. supplementary income

The second step is to distinguish between workers and jobs as the unit of analysis. The large majority of workers in the U.S. are employees only; other workers rely solely on independent contracting; and some combine the two forms of work.

In particular, the distinction between primary jobs and jobs that provide supplemental income becomes critical here. In the popular press as well as some gig economy studies, the two are often conflated, counting anyone who does any amount of independent contracting as a gig worker, no matter how few the hours worked or how

small the amount of income received. But there is a big difference between someone driving for Uber for ten hours a week for a few months on top of their main job, and someone who drives full time.

Why is this difference important? Because counting jobs is different than counting workers. If we count a W-2 worker who earns \$1,500 a year in 1099 income as a gig worker, then she will be falsely counted as part of the gig workforce that doesn't have an employer and doesn't have access to workplace benefits or the safety net – even though she in fact is fully covered by her main job. For policymakers who want to know if there has been a decline in the number of W-2 jobs, this accounting matters.

Good jobs vs. bad jobs

The third and final step is to distinguish between job quality and type of job. In the gig economy debates, these two dimensions are often conflated to the point that gig jobs are equated with bad jobs and non-gig jobs are equated with good jobs. But bad jobs and good jobs exist in all parts of the economy and in all employment types – for example, there are plenty of well-paid independent contractors with stable careers, such as management consultants, accountants, and lawyers. In fact, the majority of bad jobs (low-wage, unstable, no benefits) are regular jobs with a standard employment relationship.⁴ The better approach is therefore to analyze and understand the variation in job quality outcomes across all types of employment – earnings and benefits, hours and schedules, access to training and promotion, health and safety on the job, right to organize, and violations of employment and labor laws such as wage theft.

A definition of gig work

Based on the above framework, in this report we define gig work as all forms of independent contracting – i.e., workers who are in business for themselves. This definition captures the popular intuition about what is different about gig work. From the standpoint of public policy, this is also the most relevant definition given the very different treatment of independent contractors by employment and labor laws and by social insurance programs. Specifically, independent contractors are excluded from:

- Employment and labor laws, such as wage and hour, occupational health and safety, anti-discrimination, right to organize, and family and medical leave laws.
- Benefits and social insurance programs accessed via employee status, such as employer-provided health insurance and pensions, unemployment insurance, disability insurance, and workers' compensation.

As a result, public policy responses to problems faced by the independent contractor workforce will often require unique measures (for example, in the discussion about how best to design portable benefits policies).

Our definition encompasses – but is broader than – the on-demand platform work that is often the focus of gig economy debates. As we will see, expanding beyond that narrow focus yields a much more diverse picture of gig work in California, including jobs where workers have long been independent contractors, such as construction.

On the other hand, our definition does not include workers who are employed by subcontractors or temp agencies. While analysis of these forms of work is very important to understanding and responding to changes in the US labor market and the growth in inequality (Weil 2014; Bernhardt et al. 2016; Appelbaum 2017), they are located in a different legal and regulatory framework than independent contractors. Without a doubt, policymakers,

unions, and other worker organizations should take a broad approach to developing solutions, but the analysis of what has changed must be assembled from a rigorous analysis of different types of work.

3. The Prevalence of Independent Contracting

It is important to achieve a ballpark consensus about the prevalence of gig work, given the active public policy discussion about how to respond. To date, a plethora of studies have used different definitions and methods of varying quality to estimate prevalence. The result is a wide range of estimates of how common gig work is – anywhere from less than 1 percent to 35 percent of the workforce (Katz and Krueger 2016; Freelancers Union, Upwork, and Edelman Intelligence 2016). In this section we analyze government data from the U.S. Bureau of Labor Statistics and the U.S. Census and combine it with findings from several rigorous studies to arrive at a set of estimates.⁵

Independent contracting as the main job

We begin by estimating the percentage of the state’s workers whose main job is independent contracting. One challenge is that independent contracting is not easy to define, beyond the fact that the workers are self-employed. Substantively, the common-sense definition of independent contractors is individuals who are self-employed but who are not running a small business such as a restaurant or grocery store; they typically don’t have employees and have not invested a significant amount of long-term capital. In practice, however, that distinction can get blurred (for example, freelance designers may hire a team for a given project) and precise measurement with available data is difficult. Further complicating the task is that workers’ self-reports of their employment status and sources of income do not always match information from their tax data (Abraham et al. 2017). Our assessment is that ultimately tax data will be the best source of information on the prevalence of gig work; however, detailed California tax data are currently not available for analysis.

For many of the estimates in this report, we measure independent contractors using the worker-reported category of “unincorporated self-employed.”⁶ This is an imperfect measure (see Habans 2016), but has the advantage of being a core question that has been consistently asked in government household surveys over time and is designed to differ from small business owners (who are categorized as “incorporated self-employed” and who put themselves on payroll as an employee) and regular employees (who are categorized as “wage and salary” workers).

Table 1 provides 2016 estimates of these three categories at the worker’s main job the previous week. First, note that the large majority of workers were regular employees. The rate of independent contracting as the worker’s main job was 8.5 percent in California, higher than the estimate of 6.3 percent for the US as a whole. The remaining small portion of workers were small business owners.

These estimates of independent contracting may come as a surprise to readers who have seen much larger numbers for gig work, but again, the focus in this table is on independent contracting as the worker’s *main job*. A larger group of workers uses independent contracting for supplemental income, to which we now turn.

TABLE 1. Workers’ status at main job last week, California and the U.S., 2016

	Regular employees: Percent of workers who were wage and salary workers	Independent contractors: Percent of workers who were unincorporated self-employed	Small businesses: Percent of workers who were incorporated self-employed
California	87.9	8.5	3.7
United States	89.9	6.3	3.7

Source: Authors’ analysis of Current Population Survey, Basic Monthly Files

Independent contracting across all jobs

How workers combine different types of jobs is an under-researched topic, in part because of lack of good data and workers’ under-reporting of supplemental work activity (Abraham et al. 2017). However, researchers have recently been able to analyze national tax data and are starting to generate greater insight.

Table 2 shows the results of a study by the U.S. Treasury (Jackson, Looney, and Ramnath 2017). The authors analyzed all sources of workers’ earnings in 2014 in the U.S., comprising both wages and salaries (W-2 earnings) and business income for the unincorporated self-employed (measured as sole proprietors filing tax schedules C and/or SE).⁷

The researchers divided the US workforce into three main groups. The largest group was workers who only earned wages, at 86.7 percent. Individuals who only earned self-employment income as sole proprietors constituted 7.2 percent of the workforce. The third group consisted of workers (6.1 percent) who had both wage income and self-employment earnings. We estimate that the majority of these workers had a main W-2 job; for example, 65.2 percent relied on self-employment for less than a third of their total income.

TABLE 2. Mix of sources of annual income across all jobs, U.S., 2014

	Percent of workers
Earned wages only	86.7
Earned self-employment income only	7.2
Earned both wages and self-employment income	6.1
Percent for whom self-employment income constitutes less than 35 percent of total income*	65.2

Source: Jackson, Looney and Ramnath (2017), Table 1 and Figure 1

* Estimated by authors based on Figure 1

Note: Self-employment income is for sole proprietors only; incorporated small business owners who put themselves on payroll will be counted as wage earners.

Unfortunately we do not have similar tax data for California. But the national tax data confirm recent studies suggesting that independent contracting is roughly split between workers relying on it for their main source of income and those relying on it for supplemental earnings (Manyika et al. 2016; Farrell and Greig 2016a). There is a rich research agenda here to better understand how, when, and why workers combine different types of employment. How should a worker’s “main job” be defined – by the majority of income, or by hours worked, or by the worker’s own subjective assessment? What are the reasons for supplemental work? In their 2016 study of what they term “independent workers,” Manyika et al. (2016) find that about three-quarters of workers earning supplemental income report doing so by choice, while a quarter are doing so because they are financially strapped. Which demographic groups are more likely to use supplemental independent contracting out of need? And how much income-generating work is informal and off-the-books and therefore not captured in any of our datasets (Robles and McGee 2016)?

Trends over time

Beyond the question of prevalence is the question of whether and by how much the rate of independent contracting has increased over time. While an explosion of gig work is routinely cited in the press, researchers have had a harder time finding clear and unambiguous evidence of an increase.

Here again the distinction between independent contracting as a main job or as supplemental income becomes important. Nationally, studies analyzing the government’s core measure of unincorporated self-employment find little increase or even small declines over time in the percentage of workers for whom it is the main job (Hipple

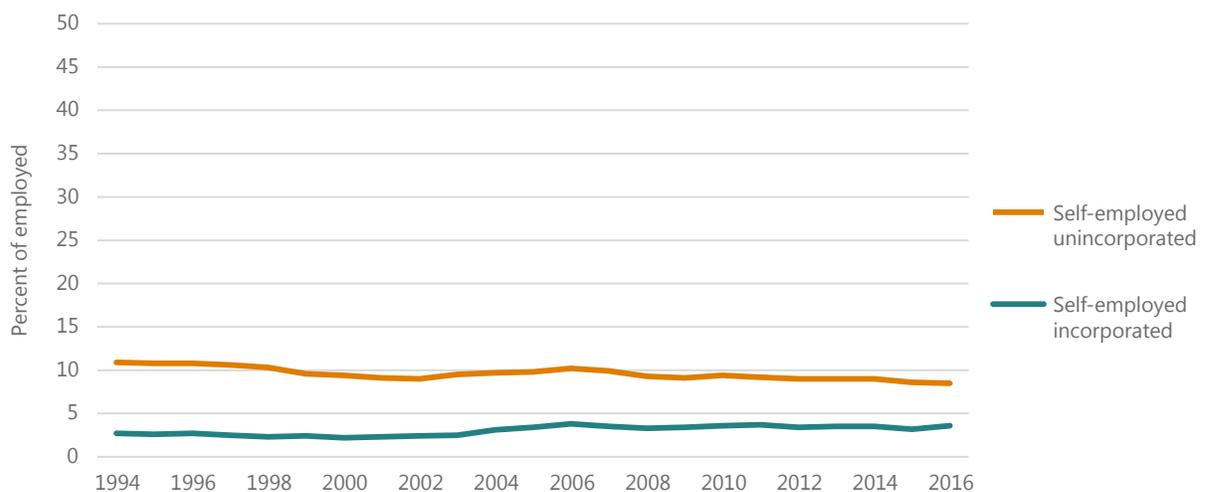
2010; Mishel 2015).⁸ That said, Katz and Krueger (2016) recently fielded a private worker survey to mirror the government’s Current Population Survey Contingent Worker Supplement and estimated the share of workers who identify as an independent contractor, independent consultant, or freelancer as their main job. They found an increase from the government’s estimate of 6.9 percent in 2005 to their own estimate of 8.4 percent in 2015. However, some of this difference may be due to differences in the survey sample (Abraham et al. 2017); the 2017 refielding of the Contingent Worker Supplement will allow a more accurate assessment of changes over time.

By contrast, national tax data appear to show an increase in unincorporated self-employment since the early 2000s when measured by the number of 1099 forms or Schedule C filings (Abraham et al. 2017; Katz and Krueger 2016). However, one key to understanding the difference is that tax data capture any level of self-employment activity, not just as a main job. Based on the comparison of tax data and worker surveys, therefore, one hypothesis is that perhaps what has been increasing over time is independent contracting for supplemental income.⁹ A definitive assessment will require more research in this young field, given the complexity of measures across multiple datasets.¹⁰

Our ability to dissect trends over time in self-employment in California is more limited, but a similar story emerges. As shown in Figure 2, the percentage of workers who reported unincorporated self-employment as their main job shows a mild decline since the mid-1990s; as was true nationally, this was offset by a modest growth in incorporated self-employment.

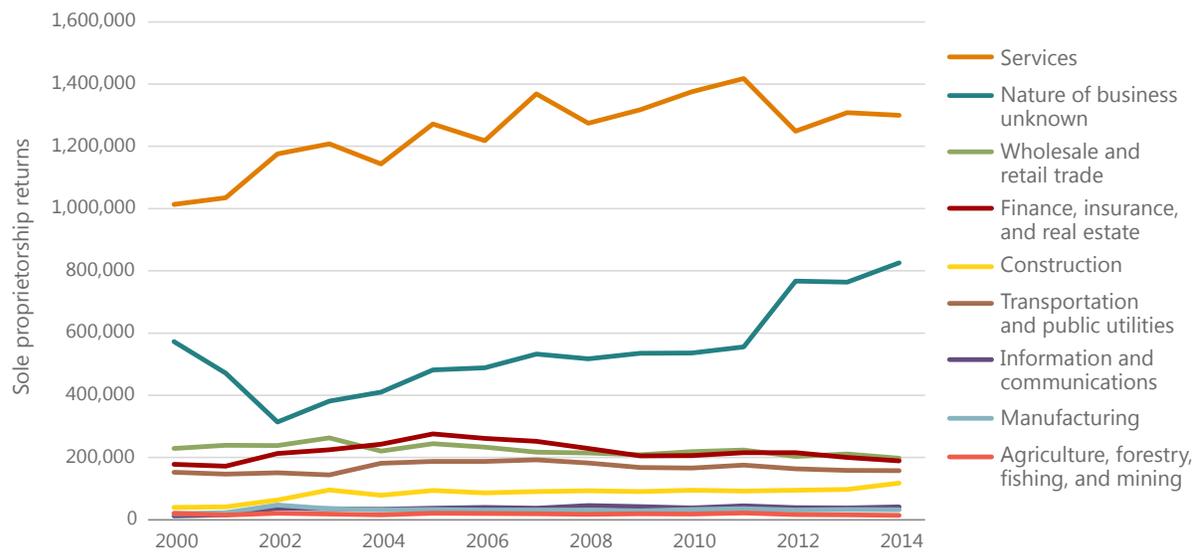
Figure 3 instead looks at trends in the number of sole proprietor tax filings in California.¹¹ Importantly, anyone who reported any amount of self-employment income, no matter how small, is counted in this measure. We do not know how many of these sole proprietors have a regular W-2 job and therefore cannot estimate the size of the gig economy workforce from these data. Most industries have only seen minor changes over time, but two have seen increases: the services sector, and a group of tax filings where the industry is “unknown.” Future research should explore whether these increases represent supplemental income or an actual shift from W-2 employment to self-employment. Another question is whether these increases have been driven by the growth in on-demand platform work; in particular, the “unknown” group might consist of individuals who are new to independent contracting and may not know how to identify their industry.

FIGURE 2. Percent self-employed incorporated and unincorporated at main job last week, California 1994-2016



Source: Authors’ analysis of Current Population Survey, Basic Monthly Files

FIGURE 3. Number of sole proprietorship returns by industry, California, 2000-2014



Source: California Franchise Tax Board, B-5 Sole Proprietorships by Major Industry

To summarize, we are not able to give a definitive answer as to whether the rate of independent contracting has grown in California. One possible (but not proven) interpretation of currently available data is that the percentage of the workforce relying on independent contracting as their main job has been relatively stable over time and remains in the single digits, while supplementary self-employment work appears to be increasing. We don't have a good sense of how sizable this supplementary income has become, or, importantly, whether it is new or just now being recorded. Some of it could, for example, represent the moonlighting of old, now recorded because of the availability of on-line transaction platforms. At the same time, some part of the increase is very likely due to ongoing wage stagnation and the need for workers and families to supplement their income to make ends meet (thereby flagging inadequacy of the public safety net to make up for lack of wage growth). This is a vital area for future research in California.

Misclassification

In all of the above prevalence estimates, we were not able to account for independent contractor misclassification (because of lack of data).¹² Misclassification occurs when an employer incorrectly classifies a worker as an independent contractor, even though based on legal tests the worker should be classified as an employee. This practice can save the employer up to 30 percent in payroll and related taxes and workers' compensation premiums, and allows employers to circumvent basic worker protections, such as minimum wage and overtime laws, which do not cover independent contractors (National Employment Law Project 2015).

Unfortunately, few representative data are available to estimate how many workers are misclassified as independent contractors (Rebitzer and Weil 2014). A best guess is that perhaps 1 to 2 percent of the workforce is misclassified nationally (Bernhardt 2014).¹³ Audits conducted in 2013 by the state of California documented about 100,000 misclassified workers at the audited companies (National Employment Law Project 2015); however, the actual number of misclassified workers is very likely larger as states only audit a small percentage of employers each year. Research suggests that misclassification appears to be more common in particular industries, such as home care, janitorial services, construction, trucking, hospitality, and restaurants (National Employment Law Project 2015). For example, a 2014 report by the Economic Roundtable found that one in six construction workers in California, or just over 100,000 workers, is misclassified as an independent contractor (Flaming and Yen Liu 2014). Currently there are active debates about whether or not on-demand platform workers such as Uber drivers are misclassified.

4. Characteristics of Independent Contracting in California

Worker characteristics

We next give a profile of independent contractors in California. Because of the data limitations discussed above, we are only able to reliably identify those workers whose main job is independent contracting, and therefore are not able to profile those workers who use independent contracting for supplemental income.¹⁴

Table 3 shows key demographic characteristics of independent contractors. Compared to employees, independent contractors are more likely to be older men, particularly in the 50 to 64 age range. This is a common finding (for example, see Hipple 2010), although Lofstrom (2009) documents growing rates of self-employment among women since the 1980s. Compared to employees, independent contractors are also more likely to be White, although about half are workers of color. They are somewhat more likely to be foreign-born; moreover, Lofstrom (2009) documents growing rates of self-employment among immigrants over the past three decades. Finally, independent contractors have comparable rates of higher education (college and above) to employees, but higher rates of workers without high school degrees.

TABLE 3. Demographic characteristics of workers by employment status at main job last week, California, 2014-2016

	Employment status at main job last week	
	Percent of employees (wage & salary workers)	Percent of independent contractors (unincorporated self-employed)
Gender		
Female	46.3	38.0
Male	53.7	62.0
Age		
18-24	13.9	3.1
25-34	25.2	16.0
35-49	34.3	38.7
50-64	26.6	42.1
Race/ethnicity		
Black non-Latino	5.8	4.0
Latino	37.8	32.8
Asian non-Latino	17.0	12.7
White non-Latino	38.6	49.9
All other non-Latino	0.8	0.6
Foreign born	32.5	38.3
Education		
Less than high school	9.7	14.0
High school graduate/GED	24.8	23.5
Some college or Associate's	29.8	26.0
Bachelor's	23.6	23.4
Graduate degree	12.7	13.1

Note: Percentaging is within employment status at main job, within each demographic category.

Source: Authors' analysis of Current Population Survey, Outgoing Rotation Files

Job quality outcomes

Next, Table 4 provides key measures of job quality for independent contractors in California. Compared to employees, independent contractors work somewhat fewer hours a week at their main job, and are more likely to be working part time (24.7 percent compared to 16.1 percent). They also have a higher rate of involuntary part-time work (10.6 percent compared to 5.9 percent for wage and salary workers). On average, they work similar numbers of weeks a year (across all jobs) to employees. Not surprisingly, they have lower rates of employer-provided health insurance, which are offset by much higher rates of private health insurance, as well as higher rates of public health coverage and lack of health insurance altogether.

TABLE 4. Job characteristics by employment status at main job, California, 2014-2016

	Employment status at main job last week	
	Employees (wage & salary workers)	Independent contractors (unincorporated self-employed)
Average weekly hours at main job*	38.1	37.1
Percent part-time at main job (less than 35 hours a week)*	16.1	24.7
Percent involuntary part-time last week*	5.9	10.6
Average weeks worked last year at all jobs**	47.5	46.5
Sources of health insurance coverage last year**		
Employer provides health insurance (could be worker or family member's employer)	69.4	32.0
Private health insurance purchased directly	9.2	30.5
Public health coverage (includes Medicare, Medicaid, and VA)	14.1	20.7
Uninsured	10.5	19.5
Earnings last year**		
Median annual wage earnings from all jobs, before taxes	\$35,000	
Median annual business income, before taxes, net of expenses***		\$24,000–\$66,667

* Source: Authors' analysis of Current Population Survey, Outgoing Rotation Groups, 2014-2016

**Source: Authors' analysis of 2015 American Community Survey. Health insurance coverage categories are not mutually exclusive.

*** Estimated range; see text for explanation.

Measuring the earnings of independent contractors is quite difficult. Household surveys ask unincorporated self-employed respondents to report their annual business income, net of expenses. Even assuming that the workers are accurately reporting on surveys what they reported to the IRS,¹⁵ the bigger issue is that there is substantial evidence of under-reporting of self-employment income to the IRS (by contrast, almost all of wage and salary income is reported on tax returns). The IRS's (2016) most recent estimate is that nonfarm sole proprietor income is under-reported by 64 percent. This is an average across all sole proprietor tax returns; we were not able to identify studies that provided more detailed estimates of the extent of under-reporting (for example, by amount of business income).

In Table 4, we therefore report earnings for independent contractors using a rough range of estimates. The lower bound consists of self-reported net business income from the American Community Survey; the median in 2015 was \$24,000. The upper bound is constructed by applying the above IRS under-reporting rate to the self-reported median, yielding an estimate of \$66,667.

Clearly this is not a precise analysis; for example, the IRS average rate of under-reporting may not be representative of the median rate of under-reporting.¹⁶ The main point here is to emphasize that researchers are currently not able to accurately measure the earnings of independent contractors. In particular, we are unable to establish whether the median annual earnings of independent contractors in California are lower or higher than those of regular employees. In all likelihood, independent contractors span the full range of the earnings distribution, from low-income to high-income; we next attempt to shed light on this question by analyzing the industries and occupations of independent contractors.

Industry and occupation

A consistent finding in the research literature is that workers whose main job is independent contracting are quite diverse in the work they do (Habans 2016; Hipple 2010; Manyika et al. 2016; Katz and Krueger 2016). As shown in Table 5, California is no exception; independent contractors work in all sectors of the state’s economy. That said, compared to employees, higher proportions are employed in construction; real estate; professional, scientific and technical services (such as accounting, legal, and design services); administrative and support and waste management services (such as janitorial and landscaping services); arts, entertainment and recreation (such as performing arts and related industries); and other services (such as beauty salons, automotive repair, and private households). The industry composition for independent contractors has seen mild shifts since 2000. For example, retail trade continued its long-term decline among independent contractors (because of the

TABLE 5. Industry by employment status at main job, California, 2000 and 2015

	Employment status at main job			
	Percent of employees (wage & salary workers)		Percent of independent contractors (unincorporated self-employed)	
	2000	2015	2000	2015
Agriculture, forestry, fishing, and hunting	2.0	2.6	1.5	1.5
Construction	5.6	5.5	12.2	14.1
Manufacturing	14.5	10.3	3.9	2.6
Wholesale trade	4.3	3.0	2.2	1.6
Retail trade	11.3	11.4	9.8	6.5
Transportation and warehousing and utilities	5.2	5.0	2.6	4.6
Information	4.3	3.1	2.1	2.5
Finance and insurance	4.7	3.9	4.8	2.1
Real estate and rental and leasing	2.0	1.9	4.2	4.3
Professional, scientific, and technical services and management of companies	6.4	7.5	13.2	13.5
Administrative and support and waste management services	3.9	4.5	8.5	9.9
Educational services	8.3	8.9	2.4	2.6
Health care and social assistance	9.3	12.7	10.2	8.1
Arts, entertainment, and recreation	1.9	2.3	5.1	5.5
Accommodation and food services	6.6	8.4	3.0	3.2
Other services	4.8	4.1	14.4	17.3
Public administration	5.3	5.0	0.0	0.0

Source: Authors’ analysis of American Community Survey

TABLE 6. Occupation by employment status at main job, California, 2015

	Employment status at main job	
	Percent of employees (wage & salary workers)	Percent of independent contractors (unincorporated self-employed)
Management, business, science, and arts occupations	9.8	10.6
Business operations specialists	2.7	2.8
Financial specialists	2.2	1.8
Computer and mathematical operations	3.7	1.4
Architecture and engineering occupations	2.2	0.8
Life, physical, and social science organizations	1.0	1.0
Community and social services occupations	1.7	0.5
Legal occupations	1.0	2.1
Education, training and library occupations	5.5	2.1
Arts, design, entertainment, sports, and media occupations	2.1	10.4
Healthcare practitioners and technical occupations	5.0	2.3
Healthcare support occupations	2.1	1.2
Protective service occupations	2.3	0.1
Food preparation and serving occupations	6.4	1.5
Building and grounds cleaning and maintenance occupations	3.6	12.2
Personal care and service occupations	4.0	12.1
Sales and related occupations	10.2	11.9
Office and administrative support occupations	13.6	3.1
Farming, fishing and forestry occupations	1.9	0.2
Construction and extraction occupations	4.5	10.8
Installation, maintenance, and repair workers	2.7	3.4
Production occupations	5.5	2.4
Transportation and material moving occupations	6.3	5.2

Source: Authors' analysis of American Community Survey

decline in independent sales workers). Industries that saw a growing share of independent contracting include construction, transportation, and other services – such as beauty salons, nail salons, and private household workers (see also Habans 2016 for similar findings).

Table 6 gives an overview of major occupations held by workers whose main job is independent contracting. Again, independent contractors work in all of the major occupation groups in California’s economy. However, compared to employees, higher proportions are employed in arts, design and entertainment; legal occupations; building and grounds cleaning and maintenance; personal care and service occupations; and construction occupations.

Because we do not have an accurate measure of the earnings of independent contractors, we are unable to reliably identify which of their occupations have high or low earnings. In Table 7 we therefore present an approximation, showing common detailed occupations for independent contractors, loosely grouped by typical wages for those jobs in the state.¹⁷ However, these groupings are based on the earnings of employees, not independent contractors, and so should be viewed only as a very rough guide.

TABLE 7. Common occupations held by independent contractors at main job, California, 2013-2015

Typically low-wage occupations
Janitors, maids and housekeepers
Personal care aides, home health aides, childcare workers
Grounds maintenance workers
Retail sales workers
Material moving workers (for example, in car washes and waste management services)
Cooks
Dry cleaning and laundry workers, tailors, sewing machine operators
Animal care workers
Typically low- to mid-wage occupations
Construction trades workers
Beauty salon, barber shop and nail salon workers
Truck and taxi drivers
Car repair mechanics
Customer service representatives
Couriers and messengers, stock clerks, and dispatchers
Typically mid-wage occupations
Managers (for example, in construction, farming, and food services)
Supervisors of sales workers (for example, in auto repair, retail, and grocery stores)
Real estate brokers and sales agents
Art and design workers
Entertainers and performers
Media and communication workers (for example, in performing arts, motion pictures and advertising)
Sales representatives (for example, in insurance, financial services, wholesale, manufacturing)
Teachers (other than K-12 or post-secondary)
Installation, maintenance and repair occupations (for example, in services to buildings and dwellings)
Supervisors of building and grounds workers
Bookkeeping and accounting clerks
Massage therapists
Office clerks, administrative assistants, and other office support workers
Supervisors of construction workers
Legal support workers
Typically mid- to higher-wage occupations
Business operations specialists (for example, in management, scientific, and technical consulting services)
Financial specialists (for example, in accounting and tax preparation)
Operations specialties managers (for example, in financial institutions)
Counselors and social workers
Advertising, marketing, public relations, and sales managers
Typically higher-wage occupations
Doctors, nurses and other health practitioners
Lawyers and judges
Computer occupations
Top executives (for example, in construction, real estate, and management consulting)
Psychologists
Architects and surveyors
Engineers

Note: Wage groupings based on earnings of wage & salary workers, not independent contractors; see endnote 17 for details.
 Source: Authors' analysis of American Community Survey

The picture that emerges is of very different worlds of work for independent contractors in California. At the low end of the wage distribution it is cleaning and personal service jobs that dominate: janitors, home care workers, child care workers, and grounds maintenance and car wash workers. Somewhat higher up the wage distribution are occupations which may be low- or mid-wage, such as construction workers, beauty salon workers, truck and taxi drivers, and customer service reps. Typical mid-wage occupations cover a wide range, including managers, real estate brokers, art and design workers, entertainers and performers, media and communication workers, accounting clerks, various supervisors, and legal support workers. Finally, moving toward the upper end of the wage distribution are professional occupations, such as advertising managers, counselors and social workers, accountants, doctors, lawyers, computer occupations, and architects and engineers.

Across this wide range of occupations, job quality outcomes beyond wages – such as control over hours, or workplace health and safety – are likely to vary for independent contractors. Similarly, the motivations for doing independent contractor work are likely varied and more complex than the prevailing narrative of individuals actively choosing self-employment for flexibility or self-fulfillment.¹⁸ In low-wage occupations in particular, workers such as janitors employed by subcontractors may be forced to accept independent contractor status, even though they are clearly employees.

Finally, the demographics of the independent contractor workforce differ markedly across the occupational spectrum. We find that women, immigrants, and Latinos are disproportionately employed in what are typically low-wage occupations, while White independent contractors are disproportionately employed in what are typically higher-wage occupations. Clearly, more research is needed to understand the variation in independent contractor work in California, with a particular focus on identifying those occupations at risk of economic insecurity and especially misclassification.

5. On-demand Platform Work

So far we have focused our analysis on independent contractors as a whole; we now turn to the subset of independent contractors who use on-demand platforms such as Uber, TaskRabbit, Instacart, and so forth.¹⁹ A key distinction is between *labor platforms* such as Uber, where workers use the platform to connect to customers to sell their services, and *capital platforms* such as Airbnb and Etsy, where individuals use the platform to sell goods or lease assets. For this report, we focus on workers who use labor platforms, since they are more likely to be called independent contractors, compared to capital platform users, who are better analyzed as small businesses.²⁰

Until recently, attempts to measure the size of the workforce using on-demand labor platforms were stymied by lack of data. But several recent studies have made significant progress and there is now surprising consensus on prevalence. In Table 8 we present estimates from an innovative study by Farrell and Greig at the JP Morgan Chase Institute (2016b); similar estimates have been found by Katz and Krueger (2016), and Jackson, Looney, and Ramnath (2017). Specifically, Farrell and Greig (2016b) estimated that in the U.S., the percentage of workers using an on-demand labor platform at a given point in time – in this case June 2016 – is quite small, at 0.5 percent. Moreover, this small group includes anyone who earned any income from on-demand platforms and therefore combines full-time workers with those working on platforms for a few hours for supplemental income. The Farrell and Greig study also provided prevalence estimates for several California cities (though not the state as a whole). San Francisco, San Jose, Los Angeles, and to some extent San Diego have somewhat higher rates of on-demand labor platform use compared to the U.S., though the percentages remain about 1 percent. Thus on-demand platform work constitutes a very small share of California's workforce as a whole and of its independent contractor workforce as well.

Another key finding from Farrell and Greig (2016b) is that turnover in the on-demand economy is high. Workers typically use platforms in short bursts and for limited amounts of time: more than half (52 percent) of labor platform participants exit within 12 months (40 percent within the first 6 months). As a result, if we take a longer lens

TABLE 8. Percent of workers using online labor platforms, U.S. and select California cities

	Percent of workers who earned income from online labor platforms:	
	In June 2016	Any time between October 2012 and June 2016
United States	0.5	1.5
San Francisco	1.2	
San Jose	1.0	
Los Angeles	1.0	
San Diego	0.7	

Source: Farrell and Greig (2016b), Figures 2 and 4

the prevalence rate rises: the study found that a cumulative 1.5 percent of the US workforce had earned income from an on-demand labor platform at some point between October 2012 and June 2016.

Finally, Farrell and Greig (2016b) found that the growth rate of on-demand labor platforms has been slowing; in 2014 the national year-over-year growth rate exceeded 400 percent; by June 2016 it had slowed to 100 percent. Growth rates slowed the most in cities (such as San Francisco) that were early adopters of on-demand platforms, possibly indicating a maturation of the industry in those markets. The Farrell and Greig study (2016b) concludes that nationally, the declining unemployment rate may be slowing the growth of the on-demand industry, as better job opportunities or additional hours at workers' main jobs become available.

Beyond the question of prevalence, recent research has begun to study other characteristics of on-demand platform workers. In what follows, we give a brief review of the literature.

Demographics

Recent surveys suggest that compared to wage and salary workers, labor platform workers are more educated, lower income, disproportionately male, and younger. A survey by Intuit and Emergent Research (2016) found that 53 percent of platform workers have a college degree or higher; Hall and Krueger (2016) similarly found that 48 percent of Uber drivers have a college degree or higher. At the same time, a survey by the Pew Research Center found that adults from low-income households are twice as likely to be platform workers as high-income households (Smith 2016). Intuit and Emergent Research's (2016) survey found that only 34 percent of platform workers are women; Hall and Krueger (2016) estimated that only 14 percent of Uber drivers are women. Estimates of the median age of labor platform users range from 32 (Smith 2016) to 38 years (Intuit and Emergent Research 2016). Finally, studies conflict on whether platform workers differ from wage and salary workers by race and ethnicity. Intuit and Emergent Research's (2016) survey found that labor platform workers are disproportionately White, but the Pew Research Center survey found that Black and Latino workers are more likely to have worked for an online platform (Smith 2016).

Earnings

Estimates of the earnings of on-demand workers vary widely. Intuit and Emergent Research (2016) estimated that labor platform workers earn \$28.00 per hour, while the Pew Research Center (Hitlin 2016) estimated that Mechanical Turk workers earn only \$5.55 per hour. Requests for Startups (2015) estimated an hourly wage of \$19.00 for delivery workers, \$15.00 for manual labor such as cleaning, and \$25.00 for rideshare workers; however, the net hourly earnings of rideshare drivers have been difficult to estimate because of the significant operational expenses they incur. Farrell and Greig (2016b) found that average monthly earnings from labor platforms decreased by 6 percent nationwide between June 2014 and June 2016, but continued to grow in California. Between June 2015 and June 2016, average monthly earnings grew by 28 percent in San Francisco (to \$1,610), 18 percent in San Jose (to \$1,332), 14 percent in Los Angeles (to \$960), and 9 percent in San Diego (to \$782).

Primary job vs. supplemental income

Studies consistently find that many labor platform workers use their platform work as a supplement to another job. Intuit and Emergent Research's (2016) survey found that 43 percent of platform workers also have a traditional job; Farrell and Greig (2016a) found that 62 percent held a traditional job while actively working through a labor platform. Hall and Krueger (2016) found that only 10 percent of Uber drivers were unemployed prior to starting with Uber. Farrell and Greig (2016a) found that labor platform work constitutes a majority of income for only 33 percent of active participants. There is evidence that many workers use labor platforms to fill temporary dips in non-platform income or periods of unemployment (Farrell and Greig 2016a). For example, in the Pew Research Center's survey, 37 percent of respondents reported using platforms to fill gaps or fluctuations in their income (Smith 2016).

Hours worked

The majority of labor platform workers engage in platform work on a part-time basis. Intuit and Emergent Research (2016) found that platform workers average 40.4 hours per week across all jobs (including W-2 jobs if they have one), but average only 12 hours per week for the primary platform they participate in. Hall and Krueger (2016) found that 55 percent of Uber drivers work 15 hours or less a week, and 84 percent work less than 35 hours a week. A survey of labor platform workers by SherpaShare (2016) found that hours vary significantly from week to week, and Hall and Krueger (2016) found that only 17 percent of Uber drivers work within 10 percent of their previous week's hours.

6. Discussion

In this paper we have argued that a coherent policy response to gig work in California must start with a clear definition of the problem being addressed. We define gig work to include all forms of independent contracting – including but not limited to on-demand platforms – given the very different legal and regulatory frameworks that govern employees and independent contractors. Even with this definition in hand, however, we are limited by inadequate data in our ability to draw a full picture of independent contracting in California and how it has changed over time. For a group of workers that is seen as the archetype of the 21st century economy, what we don't know about independent contractors far exceeds what we do know. In this report, we have identified several areas where more research is needed.

First, we need better data to understand how workers in California are using independent contracting – as a main job or in combination with regular W-2 jobs – and especially the trends over time in each. Gaining clarity on whether or not W-2 jobs are being replaced with independent contractor jobs is a critical question for policymakers. Analysis of individual tax returns for the state (masked to protect identities) would be invaluable here, allowing replication of recent innovations in research at the federal level (Abraham et al. 2017; Jackson et al. 2017). Another key task will be to analyze the role of independent contracting for supplemental income: is this work incidental or part of families' survival strategies, and for which demographic groups? Answering this second set of questions will likely require original data collection via surveys and qualitative research to supplement tax data.

Second, we need better data to measure the earnings of independent contractors: the household data on which we relied in this report do not allow a clear analysis of those earnings and how they compare to the earnings of W-2 workers. Access to tax data will help somewhat, but given the significant under-reporting of self-employment income to the IRS, additional sources of information will need to be generated. Original data collection in the form of industry- or occupation-specific surveys (or research partnerships with private-sector companies) will be invaluable, allowing more accurate identification of sources of income and operating expenses, as well as stability in earnings throughout the year.

Finally, we need more research to document the significant variation in job quality outcomes (beyond wages) across the wide range of industries and occupations in which independent contractors work. Given current data limitations, this may also require new data collection via surveys that are then linked with administrative data. But one topic could be addressed by state agencies directly: fully identifying the extent of misclassification, focused on low- and mid-wage industries and occupations in particular. Until policymakers have an accurate understanding of the scale and scope of misclassification (and its cost to workers and the state), it will be difficult to devise effective policy and enforcement solutions.

Bibliography

- Abernathy, Nell, and Rebecca Smith. 2017. "Work Benefits: Ensuring Economic Security in the 21st Century." National Employment Law Project and Roosevelt Institute. <http://rooseveltinstitute.org/work-benefits-ensuring-economic-security-21st-century/>.
- Abraham, Katherine G., John C. Haltiwanger, Kristin Sandusky, and James R. Spletzer. 2017. "Measuring the Gig Economy: Current Knowledge and Open Issues." Presented at *Measuring and Accounting for Innovation in the 21st Century*, National Bureau of Economic Research Conference, March 10-11, Washington DC. https://nber15.nber.org/confer/2017/CRIWs17/Abraham_Haltiwanger_Sandusky_Spletzer.pdf
- Appelbaum, Eileen. 2017. "Domestic Outsourcing, Rent Seeking, and Increasing Inequality." Working Paper. Center for Economic and Policy Research. <http://cepr.net/images/stories/reports/domestic-outsourcing-2017-01.pdf>.
- Bernhardt, Annette. 2014. "Labor Standards and the Reorganization of Work: Gaps in Data and Research." IRLE Working Paper 100–14. University of California Berkeley: Institute for Research on Labor and Employment.
- . 2016. "It's Not All About Uber." *Perspectives on Work*. Vol. 20.
- Bernhardt, Annette, Eileen Appelbaum, Susan Houseman, and Rosemary Batt. 2016. "Domestic Outsourcing in the United States: A Research Agenda to Assess Trends and Effects on Job Quality." IRLE Working Paper #102-16. University of California Berkeley: Institute for Research on Labor and Employment. <http://irle.berkeley.edu/domestic-outsourcing-in-the-u-s-a-research-agenda-to-assess-trends-and-effects-on-job-quality/>.
- Bureau of Labor Statistics. 2005. "Contingent and Alternative Employment Arrangements, February 2005." Press release, July 27. <https://www.bls.gov/news.release/pdf/conemp.pdf>.
- Burson-Marsteller, and The Aspen Institute. 2016. "Forty-Five Million Americans Say They Have Worked in the On-Demand Economy, While 86.5 Million Have Used It, According to New Survey." Press release, January 6. <http://www.burson-marsteller.com/press-release/forty-five-million-americans-say-they-have-worked-in-the-on-demand-economy-while-86-5-million-have-used-it-according-to-new-survey/>.
- Cappelli, P., and J. Keller. 2013. "Classifying Work in the New Economy." *Academy of Management Review* 38 (4): 575–96.
- Coder, John, and Lydia Scoon-Rogers. 1996. "Evaluating the Quality of Income Data Collected in the Annual Supplement to the March Current Population Survey and the Survey of Income and Program Participation." Bureau of the Census, Department of Commerce.
- Farrell, Diana, and Fiona Greig. 2016a. "Paychecks, Paydays, and the Online Platform Economy: Big Data on Income Volatility." JP Morgan Chase & Co Institute. <https://www.jpmorganchase.com/corporate/institute/document/jpmc-institute-volatility-2-report.pdf>.
- . 2016b. "The Online Platform Economy: Why Growth Has Peaked." JP Morgan Chase & Co Institute. <https://www.jpmorganchase.com/corporate/institute/document/jpmc-institute-online-platform-econ-brief.pdf>.
- Flaming, Daniel, and Yvonne Yen Liu. 2014. "Sinking Underground: The Growing Informal Economy in California Construction." The Economic Roundtable. <https://economicrt.org/publication/sinking-underground/>.
- Freelancers Union, Upwork, and Edelman Intelligence. 2016. "Freelancing in America: 2016." <https://www.slide-share.net/upwork/freelancing-in-america-2016/1>.
- Habans, Robert. 2016. "Is California's Gig Economy Growing? Exploring Trends in Independent Contracting." UCLA Institute for Research on Labor and Employment. http://www.irle.ucla.edu/publications/documents/Habans_IndependentContractor.pdf.

- Hall, Jonathan V., and Alan B. Krueger. 2016. "An Analysis of the Labor Market for Uber's Driver-Partners in the United States." Working Paper 22843. National Bureau of Economic Research. <http://www.nber.org/papers/w22843>.
- Hanauer, Nick, and David Rolf. 2017. "Portable Benefits for an Insecure Workforce." *The American Prospect*. February 23. <http://prospect.org/article/portable-benefits-insecure-workforce>.
- Harris, Seth D., and Alan B. Krueger. 2015. "A Proposal for Modernizing Labor Laws for Twenty-First Century Work: The 'Independent Worker.'" The Hamilton Project. http://www.hamiltonproject.org/papers/modernizing_labor_laws_for_twenty_first_century_work_independent_worker.
- Hathaway, Ian, and Mark Muro. 2016. "Tracking the Gig Economy: New Numbers | Brookings Institution." Brookings Institution. <https://www.brookings.edu/research/tracking-the-gig-economy-new-numbers/>.
- Hipple, Steven F. 2010. "Self-Employment in the United States." *Monthly Labor Review* 133 (9): 17–32.
- Hitlin, Paul. 2016. "Research in the Crowdsourcing Age, a Case Study." Pew Research Center. <http://www.pewinternet.org/2016/07/11/research-in-the-crowdsourcing-age-a-case-study/>.
- Internal Revenue Service. 2016. "Federal Tax Compliance Research: Tax Gap Estimates for Tax Years 2008-2010." IRS Publication 1415 (Rev. 5-2016). <https://www.irs.gov/pub/irs-soi/p1415.pdf>.
- Intuit, and Emergent Research. 2016. "Dispatches From The New Economy: The On-Demand Economy And The Future of Work." <http://www.slideshare.net/IntuitInc/dispatches-from-the-new-economy-the-on-demand-workforce-57613212>.
- 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.
- Kalleberg, Arne L. 2011. *Good Jobs, Bad Jobs: The Rise of Polarized and Precarious Employment Systems in the United States, 1970s to 2000s*. American Sociological Association's Rose Series in Sociology. New York: Russell Sage Foundation.
- 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>.
- Lofstrom, Magnus. 2009. "Does Self-Employment Increase the Economic Well-Being of Low-Skilled Workers?" Discussion Paper Series No. 4539. IZA. <https://ideas.repec.org/p/iza/izadps/dp4539.html>.
- 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/uploads/files/state-of-independence-reports/2016_MBO_Partners_State_of_Independence_Report.pdf.
- Mishel, Lawrence. 2015. "Uber Is Not the Future of Work." *The Atlantic*, November 16.
- Morse, Susan C., Stewart Karlinsky, and Joseph Bankman. 2009. "Cash Businesses and Tax Evasion." *Stanford Law & Policy Review* 20 (1). https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1265282.
- National Employment Law Project. 2015. "Independent Contractor Misclassification Imposes Huge Costs on Workers and Federal and State Treasuries." <http://www.nelp.org/content/uploads/Independent-Contractor-Costs.pdf>.

- Planmatics, Inc. 2000. "Independent Contractors: Prevalence and Implications for Unemployment Insurance Programs." Prepared for the US Department of Labor, Employment and Training Administration. <https://wdr.doleta.gov/owsdrr/00-5/00-5.pdf>.
- Rebitzer, James B., and David Weil. 2014. "Technical Advisory Board Report: Findings and Implications of the RSI Report to the Joint Task Force on Employee Misclassification and the Underground Economy: Contractor Use, Analysis, and Impact Results." Commonwealth of Massachusetts, Governor's Joint Task Force on the Underground Economy and Employee Misclassification. <http://archives.lib.state.ma.us/handle/2452/365958>.
- Reder, Libby, Natalie Foster, and Greg Nelson. 2016. "Portable Benefits Resource Guide." The Aspen Institute Future of Work Initiative. <https://www.aspeninstitute.org/publications/portable-benefits-resource-guide/>.
- Requests for Startups. 2015. "The 1099 Economy Workforce Survey." <https://www.slideshare.net/Requests-ForStartups/the-2015-1099-economy-workforce-report-preview>.
- 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>.
- SherpaShare. 2016. "The Top Demographic Trends of the On-Demand Workforce – Appendix." 2016. <https://www.sherpashare.com/share/the-top-demographic-trends-of-the-on-demand-workforce-appendix/>.
- 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/>.
- Strom, Shayna, and Mark Schmitt. 2016. "Protecting Workers in a Patchwork Economy." The Century Foundation. <https://tcf.org/content/report/protecting-workers-patchwork-economy/>.
- UC Berkeley Labor Center. 2014. "Low-Wage Work in California: 2014 California Chartbook." <http://laborcenter.berkeley.edu/lowwageca/>.
- U.S. Government Accountability Office. 2006. "Employment Arrangements: Improved Outreach Could Help Ensure Proper Worker Classification." Report to the Ranking Minority Member, Committee on Health, Education, Labor, and Pensions, U.S. Senate. Report #GAO-06-656. <http://www.gao.gov/products/GAO-06-656>.
- U.S. Government Accountability Office. 2015. "Contingent Workforce: Size, Characteristics, Earnings, and Benefits." Report to the Committee on Health, education, Labor, and Pensions, U.S. Senate. Report #GAO-15-168R. <http://www.gao.gov/assets/670/669766.pdf>.
- Weil, David. 2014. *The Fissured Workplace*. Cambridge: Harvard University Press.

Endnotes

¹ For recent studies, see Farrell and Greig (2016b); Katz and Krueger (2016); Freelancers Union, Upwork, and Edelman Intelligence (2016); Burson-Marsteller and The Aspen Institute (2016); Manyika et al. (2016); Smith (2016); Robles and McGee (2016); Intuit and Emergent Research (2016); Mishel (2015); MBO Partners (2016); Hathaway and Muro (2016); US Government Accountability Office (2015); and Bureau of Labor Statistics (2005).

² For example, see Abernathy and Smith (2017); Harris and Krueger (2015); Hanauer and Rolf (2017); Reder, Foster, and Nelson (2016); and Strom and Schmitt (2016).

³ The goal of the framework presented in this report is to help clarify the public policy discussion, but there are other useful ways of classifying forms of work; see, for example, Cappelli and Keller (2013) and Kalleberg (2011).

⁴ As we will discuss below, measuring the earnings of independent contractors is quite difficult. However, given that the large majority of workers in California are W-2 workers, it is mathematically the case that the majority of low-wage workers will also be W-2 workers.

⁵ For the purposes of prevalence estimation, we do not draw on studies using surveys or datasets where sample representativeness is not clear, or studies using definitions of gig work that are unclear or broader than independent contractors.

⁶ The other common measure of independent contracting comes from the Current Population Survey Contingent Worker Supplement (CWS), where workers were asked to self-identify as “independent contractors, independent consultants, or freelance workers,” regardless of whether they were self-employed or wage and salary workers (Bureau of Labor Statistics 2005). The CWS has typically yielded prevalence estimates of independent contracting that are similar to the official BLS measure of unincorporated self-employed, although the CWS estimates are usually a bit higher (likely because they include some wage and salary workers). The CWS was last fielded in 2005, and small sample sizes do not allow for estimation at the state level.

⁷ Individuals who file taxes as sole proprietors are largely unincorporated self-employed workers. Incorporated self-employed individuals, by contrast, will typically be paid with W-2 earnings from their company; they will therefore be counted as wage earners in Table 2.

⁸ Other household surveys such as the General Social Survey also find little increase in the rate of independent contracting as a main job over time.

⁹ See Abraham et al. (2017) for preliminary evidence along these lines.

¹⁰ For example, Jackson, Looney and Ramnath (2017) provide suggestive though incomplete evidence that independent contracting as the main job has shown some increase since 2000.

¹¹ Another potential source of information is the “Nonemployer Statistics” dataset, counting businesses that have no paid employees (Habans 2016). However, this dataset does not provide a good proxy of independent contractors as it includes partnerships and corporations.

¹² It is difficult to predict how misclassification biases our estimates of the rate of independent contracting. Misclassified workers may report to surveyors that they are independent contractors (in which case our prevalence estimates are too high), or they may report that they are employees even though their employer is (falsely) treating them as independent contractors (in which case our estimates are more accurate).

¹³ In 1984, the IRS made its last national misclassification estimate, finding that 15 percent of employers misclassified about 3.4 million workers as independent contractors (U.S. Government Accountability Office 2006). Since then, a number of states have conducted their own audits, of varying quality; Planmatics (2000) extrapolated a national range of 1 to 2 percent of the workforce being misclassified based on these. More recently, Abraham et al. (2017) analyzed mismatches between workers' self-reports of their employment status and tax data on their sources of income; with further analysis this may turn out to be a promising avenue to estimate the rate of independent contractor misclassification.

¹⁴ Abraham et al. (2017) have documented significant non-reporting of supplemental self-employment income by W-2 workers on the Current Population Survey.

¹⁵ We were not able to identify studies that compared net business income reported on household surveys to net business income reported to the IRS. A reasonable assumption is that respondents would simply report to surveyors the net income listed on their 1040 form. However, estimates of business income vary across different household surveys: Coder and Scoon-Rogers (1996) found that Current Population Survey (CPS) estimates of total business income were 85 percent of Survey of Income and Program Participation (SIPP) estimates, likely because of differences in question wording. It therefore is possible that a survey-IRS reporting gap exists in business income, depending on the survey in question.

¹⁶ It is difficult to predict how the extent of under-reporting will vary across the distribution of business income. Two main mechanisms for under-reporting are over-deduction for business expenses or failure to report some portion of cash income (Morse et al. 2009). Higher-income independent contractors might be more likely to have business expenses that can be manipulated in tax reporting, but lower-income independent contractors might be more likely to have cash earnings that can be hidden from tax authorities. While the stylized view of independent contractors is that they typically receive 1099 tax reporting forms, a significant portion of the income of sole proprietors is cash and therefore does not trigger reporting forms (Abraham et al. 2017).

¹⁷ Specifically, we first identified major occupations for independent contractors in California (roughly, those employing more than 10,000 independent contractors) and then allocated them to the broader wage groupings shown in the table. That allocation was based on a method developed by the UC Berkeley Labor Center (2014), but modified to include multiple dimensions, including the median wage of the occupation and the amount of variation in wages within the occupation.

¹⁸ In surveys of the self-employed, the majority typically report being satisfied with their work arrangement and have actively chosen it; at the same time, a sizable minority would prefer a traditional job and are self-employed out of necessity (Manyika et al. 2016; MBO Partners 2016).

¹⁹ On-demand platform work is typically defined as economic activity created by digital marketplaces that fulfill consumer (and increasingly, business) demand via the immediate provision of goods and services (Bernhardt 2016).

²⁰ A survey by the Pew Research Center (Smith 2016) found that capital platform participants are on average higher-income, more educated, and more likely to be White. Farrell and Greig (2016a) found that median monthly income is higher for capital labor participants (\$3,218) than for labor platform participants (\$2,514), even though capital platform participants are only active 32 percent of the time compared to 56 percent of the time for labor platform participants. Although capital platform participants earn more on average, the authors found that platform income represents a larger proportion of total income for labor platform participants. In a follow-up study, Farrell and Greig (2016b) found that in June 2016 a slightly larger proportion of adults in the US participated in labor platforms (0.5 percent) than capital platforms (0.4 percent) and that turnover was slightly higher for capital platform participants (56 percent stop participating within 12 months compared to 52 percent of labor platform workers).

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